










Product Range  
International  
2011

Actuated Valves  
Control Products





# PVC-U metric

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# PVC-U metric

## Ball valves electric

### Ball valve type 107 PVC-U 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50

#### Model:

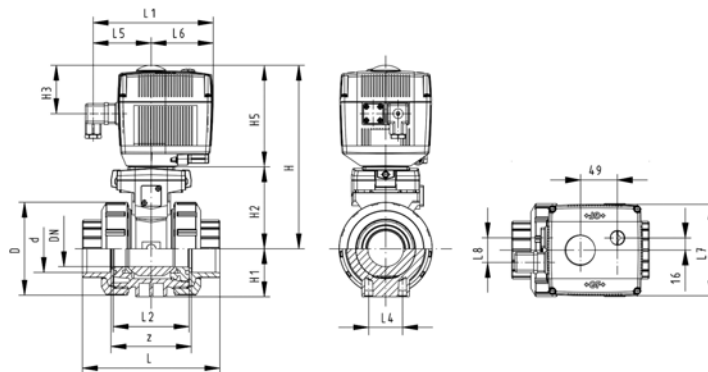
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 002	199 107 012
20	15	10	185	199 107 003	199 107 013
25	20	10	350	199 107 004	199 107 014
32	25	10	700	199 107 005	199 107 015
40	32	10	1000	199 107 006	199 107 016
50	40	10	1600	199 107 007	199 107 017
63	50	10	3100	199 107 008	199 107 018

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-U metric

## Ball valve type 107 PVC-U 100-230V With manual emergency override With solvent cement spigots metric



DN10/15 - 50

### Model:

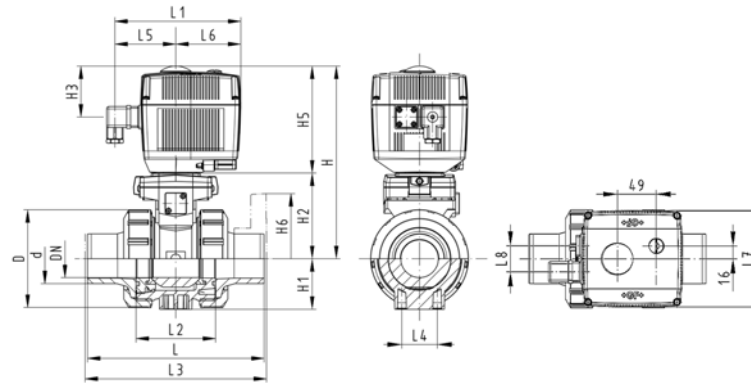
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 022	199 107 032
20	15	10	185	199 107 023	199 107 033
25	20	10	350	199 107 024	199 107 034
32	25	10	700	199 107 025	199 107 035
40	32	10	1000	199 107 026	199 107 036
50	40	10	1600	199 107 027	199 107 037
63	50	10	3100	199 107 028	199 107 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	124	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	144	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	154	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	174	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	194	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	224	161	101	230	45	77	83	122	33



# PVC-U metric

## Ball valve type 107 PVC-U 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

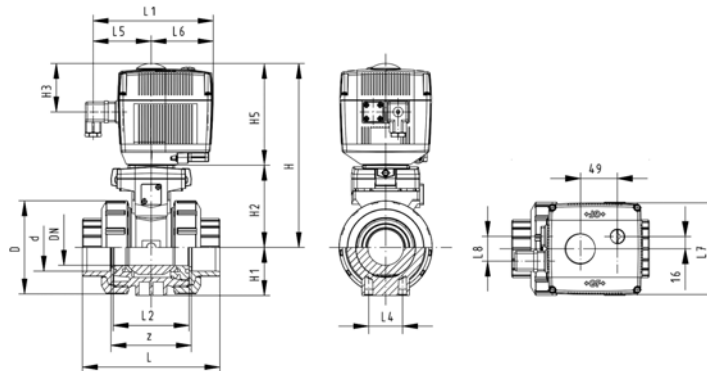
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 107 622</b>	<b>199 107 632</b>
1/2	15	10	185	<b>199 107 623</b>	<b>199 107 633</b>
3/4	20	10	350	<b>199 107 624</b>	<b>199 107 634</b>
1	25	10	700	<b>199 107 625</b>	<b>199 107 635</b>
1 1/4	32	10	1000	<b>199 107 626</b>	<b>199 107 636</b>
1 1/2	40	10	1600	<b>199 107 627</b>	<b>199 107 637</b>
2	50	10	3100	<b>199 107 628</b>	<b>199 107 638</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-U metric

## Ball valve type 107 PVC-U 100-230V With manual emergency override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

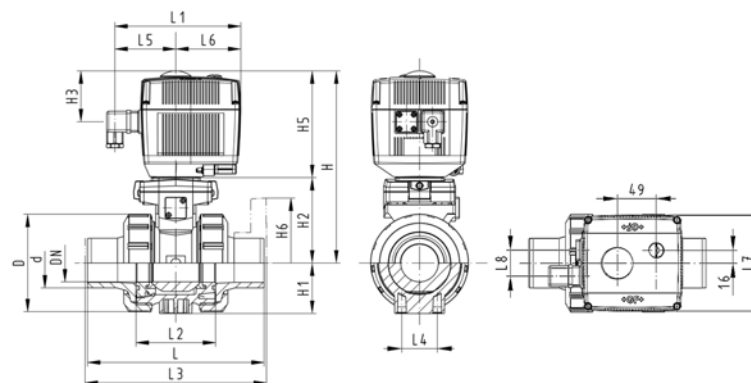
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	199 107 603	199 107 613
25	20	¾	10	350	199 107 604	199 107 614
32	25	1	10	700	199 107 605	199 107 615
40	32	1 ¼	10	1000	199 107 606	199 107 616
50	40	1 ½	10	1600	199 107 607	199 107 617
63	50	2	10	3100	199 107 608	199 107 618

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# PVC-U metric

## Ball valve type 107 PVC-U 24V With manual emergency override With solvent cement sockets metric



DN10/15 - 50

### Model:

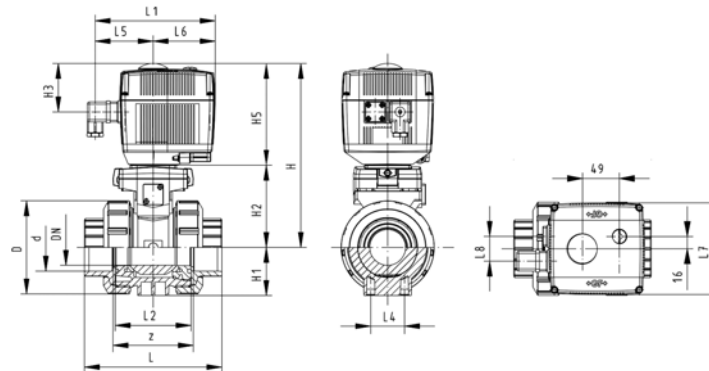
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 042</b>	<b>199 107 052</b>
20	15	10	185	<b>199 107 043</b>	<b>199 107 053</b>
25	20	10	350	<b>199 107 044</b>	<b>199 107 054</b>
32	25	10	700	<b>199 107 045</b>	<b>199 107 055</b>
40	32	10	1000	<b>199 107 046</b>	<b>199 107 056</b>
50	40	10	1600	<b>199 107 047</b>	<b>199 107 057</b>
63	50	10	3100	<b>199 107 048</b>	<b>199 107 058</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107





# PVC-U metric

## Ball valve type 107 PVC-U 24V With manual emergency override With solvent cement spigots metric



DN10/15 - 50

### Model:

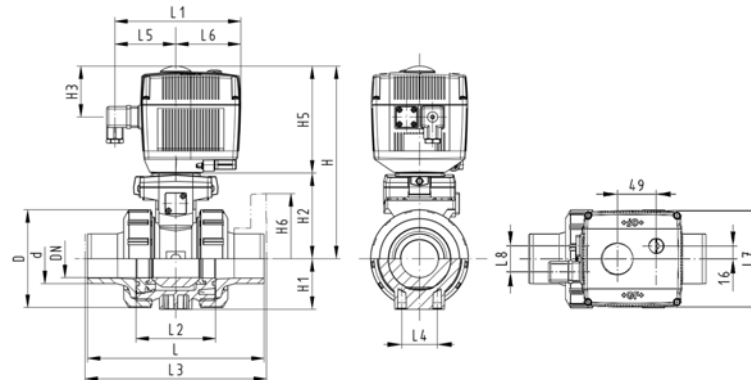
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 062	199 107 072
20	15	10	185	199 107 063	199 107 073
25	20	10	350	199 107 064	199 107 074
32	25	10	700	199 107 065	199 107 075
40	32	10	1000	199 107 066	199 107 076
50	40	10	1600	199 107 067	199 107 077
63	50	10	3100	199 107 068	199 107 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	124	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	144	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	154	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	174	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	194	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	224	161	101	230	45	77	83	122	33



# PVC-U metric

## Ball valve type 107 PVC-U 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

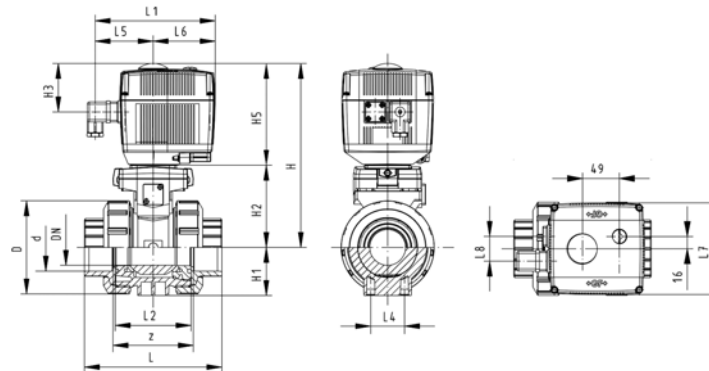
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 107 662</b>	<b>199 107 672</b>
1/2	15	10	185	<b>199 107 663</b>	<b>199 107 673</b>
3/4	20	10	350	<b>199 107 664</b>	<b>199 107 674</b>
1	25	10	700	<b>199 107 665</b>	<b>199 107 675</b>
1 1/4	32	10	1000	<b>199 107 666</b>	<b>199 107 676</b>
1 1/2	40	10	1600	<b>199 107 667</b>	<b>199 107 677</b>
2	50	10	3100	<b>199 107 668</b>	<b>199 107 678</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-U metric

## Ball valve type 107 PVC-U 24V With manual emergency override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

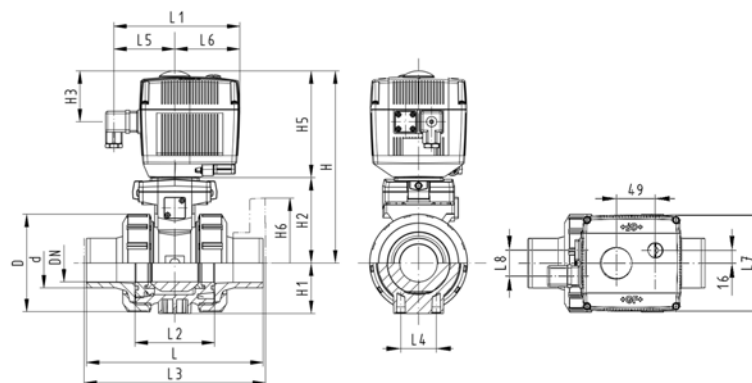
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	199 107 643	199 107 653
25	20	¾	10	350	199 107 644	199 107 654
32	25	1	10	700	199 107 645	199 107 655
40	32	1 ¼	10	1000	199 107 646	199 107 656
50	40	1 ½	10	1600	199 107 647	199 107 657
63	50	2	10	3100	199 107 648	199 107 658

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# PVC-U metric

## Ball valve type 130 PVC-U 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

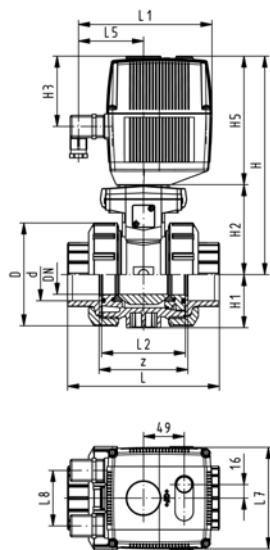
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

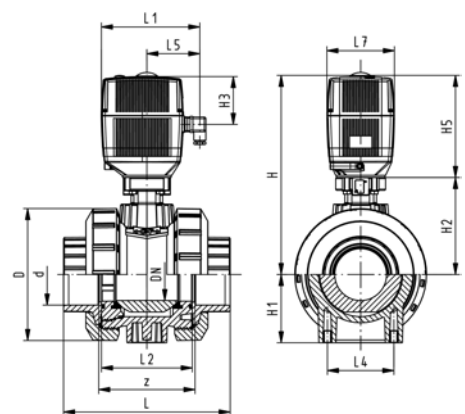
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 002	199 130 012
20	15	10	185	199 130 003	199 130 013
25	20	10	350	199 130 004	199 130 014
32	25	10	700	199 130 005	199 130 015
40	32	10	1000	199 130 006	199 130 016
50	40	10	1600	199 130 007	199 130 017
63	50	10	3100	199 130 008	199 130 018
75	65	10	5000	199 130 009	199 130 019
90	80	10	7000	199 130 010	199 130 020
110	100	10	11000	199 130 011	199 130 021

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-U metric

## Ball valve type 130 PVC-U 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50



### Model:

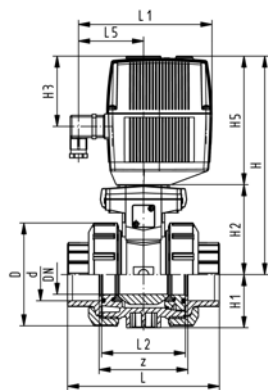
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

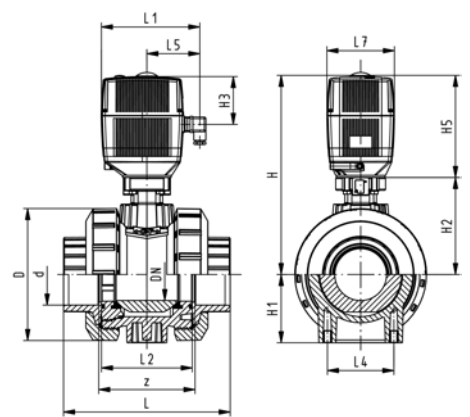
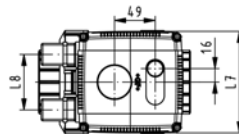
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 130 122</b>	<b>199 130 132</b>
1/2	15	10	185	<b>199 130 123</b>	<b>199 130 133</b>
3/4	20	10	350	<b>199 130 124</b>	<b>199 130 134</b>
1	25	10	700	<b>199 130 125</b>	<b>199 130 135</b>
1 1/4	32	10	1000	<b>199 130 126</b>	<b>199 130 136</b>
1 1/2	40	10	1600	<b>199 130 127</b>	<b>199 130 137</b>
2	50	10	3100	<b>199 130 128</b>	<b>199 130 138</b>
2 1/2	65	10	5000	<b>199 130 129</b>	<b>199 130 139</b>
3	80	10	7000	<b>199 130 130</b>	<b>199 130 140</b>
4	100	10	11000	<b>199 130 131</b>	<b>199 130 141</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	122	72
1	68	240	36	73	94	167	123	180	71	25	97	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	95
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-U metric

## Ball valve type 130 PVC-U 100-230V With manual emergency override With solvent cement spigots metric



DN10/15 - 50



### Model:

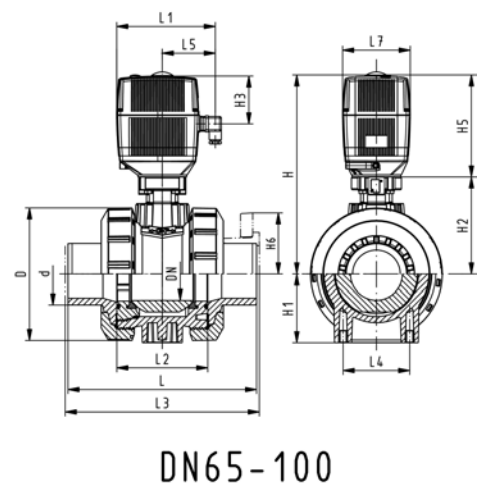
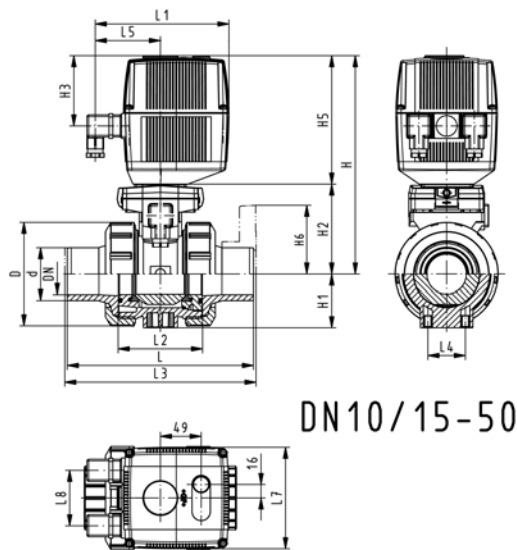
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 022	199 130 032
20	15	10	185	199 130 023	199 130 033
25	20	10	350	199 130 024	199 130 034
32	25	10	700	199 130 025	199 130 035
40	32	10	1000	199 130 026	199 130 036
50	40	10	1600	199 130 027	199 130 037
63	50	10	3100	199 130 028	199 130 038
75	65	10	5000	199 130 029	199 130 039
90	80	10	7000	199 130 030	199 130 040
110	100	10	11000	199 130 031	199 130 041

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	114	180	56	130	25	97	122
20	50	231	27	64	94	167	124	180	56	130	25	97	122
25	58	240	30	73	94	167	144	180	65	150	25	97	122
32	68	240	36	73	94	167	154	180	71	160	25	97	122
40	84	251	44	84	94	167	174	180	85	180	45	97	122
50	97	251	51	84	94	167	194	180	89	200	45	97	122
63	124	273	64	106	94	167	224	180	101	230	45	97	122
75	166	346	85	156	94	190	284	180	136	290	70	98	122
90	200	358	105	168	94	190	300	180	141	310	70	98	122
110	238	365	123	175	94	190	340	180	164	350	120	98	122



# PVC-U metric

## Ball valve type 130 PVC-U 100-230V With manual emergency override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

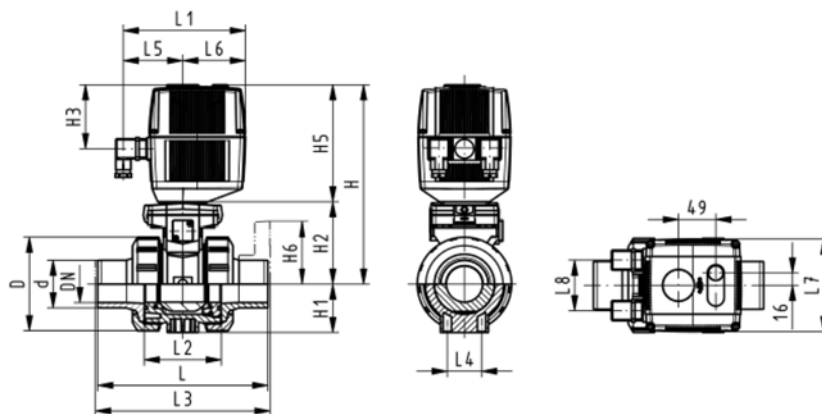
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 130 103</b>	<b>199 130 113</b>
25	20	¾	10	350	<b>199 130 104</b>	<b>199 130 114</b>
32	25	1	10	700	<b>199 130 105</b>	<b>199 130 115</b>
40	32	1 ¼	10	1000	<b>199 130 106</b>	<b>199 130 116</b>
50	40	1 ½	10	1600	<b>199 130 107</b>	<b>199 130 117</b>
63	50	2	10	3100	<b>199 130 108</b>	<b>199 130 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	124	180	56	130	25	98	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	98	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66



# PVC-U metric

## Ball valve type 130 PVC-U 100-230V With manual emergency override With backing flanges PP-st metric



### Model:

- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

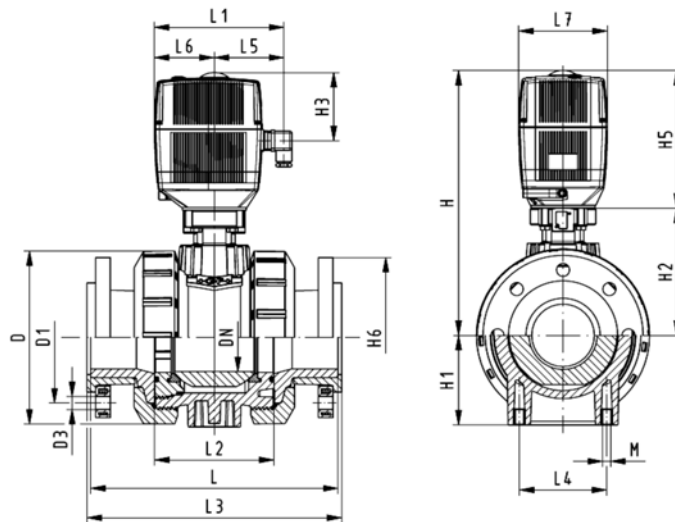
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 134 349</b>	<b>199 134 359</b>
90	80	10	7000	<b>199 134 350</b>	<b>199 134 360</b>
110	100	10	11000	<b>199 134 351</b>	<b>199 134 361</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66





# PVC-U metric

## Ball valve type 130 PVC-U 24V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

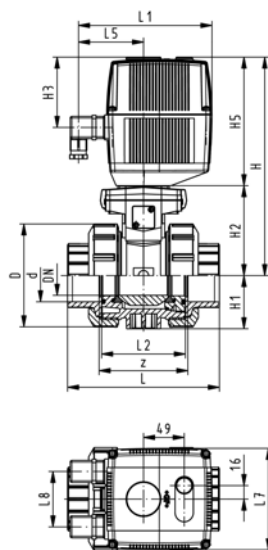
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

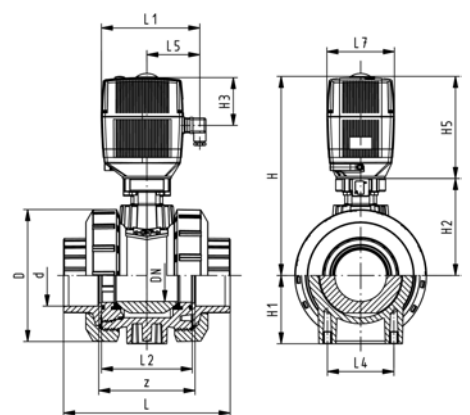
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 042	199 130 052
20	15	10	185	199 130 043	199 130 053
25	20	10	350	199 130 044	199 130 054
32	25	10	700	199 130 045	199 130 055
40	32	10	1000	199 130 046	199 130 056
50	40	10	1600	199 130 047	199 130 057
63	50	10	3100	199 130 048	199 130 058
75	65	10	5000	199 130 049	199 130 059
90	80	10	7000	199 130 050	199 130 060
110	100	10	11000	199 130 051	199 130 061

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	347	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-U metric

## Ball valve type 130 PVC-U 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50



### Model:

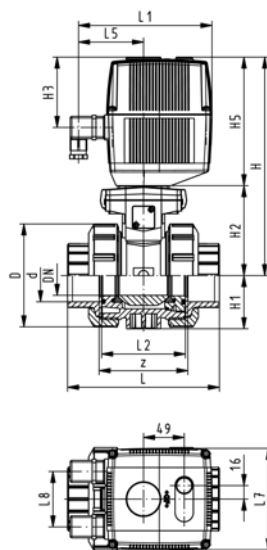
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

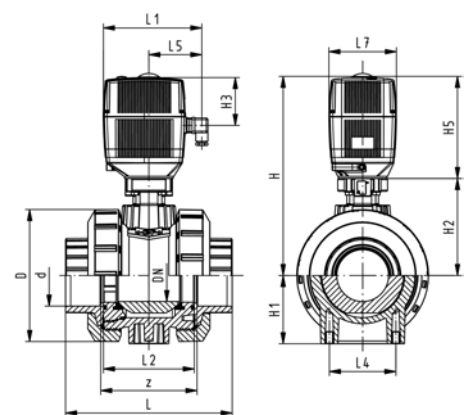
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 130 162	199 130 172
1/2	15	10	185	199 130 163	199 130 173
3/4	20	10	350	199 130 164	199 130 174
1	25	10	700	199 130 165	199 130 175
1 1/4	32	10	1000	199 130 166	199 130 176
1 1/2	40	10	1600	199 130 167	199 130 177
2	50	10	3100	199 130 168	199 130 178
2 1/2	65	10	5000	199 130 169	199 130 179
3	80	10	7000	199 130 170	199 130 180
4	100	10	11000	199 130 171	199 130 181

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	122	72
1	68	240	36	73	94	167	123	180	71	25	97	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	95
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-U metric

## Ball valve type 130 PVC-U 24V With manual emergency override With solvent cement spigots metric



DN10/15 - 50



### Model:

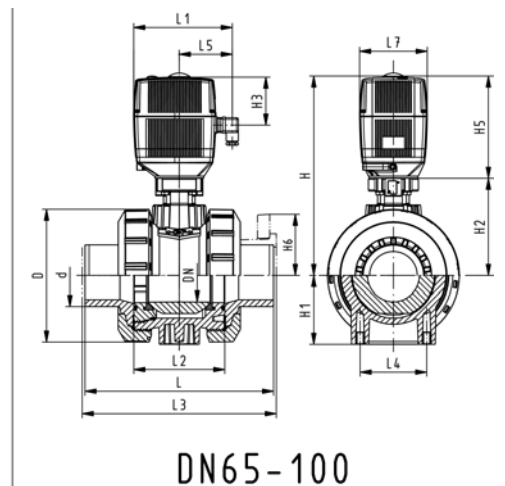
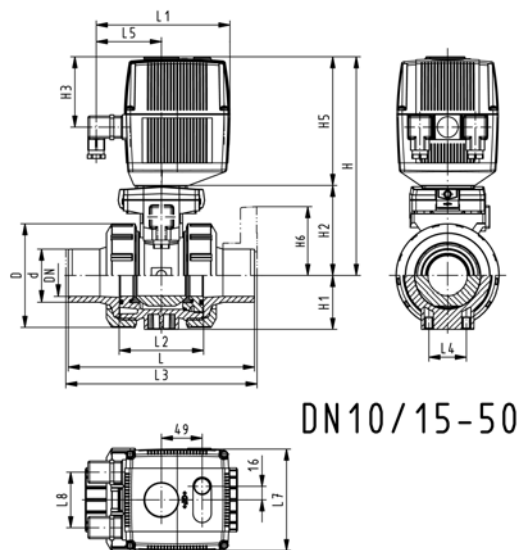
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 062	199 130 072
20	15	10	185	199 130 063	199 130 073
25	20	10	350	199 130 064	199 130 074
32	25	10	700	199 130 065	199 130 075
40	32	10	1000	199 130 066	199 130 076
50	40	10	1600	199 130 067	199 130 077
63	50	10	3100	199 130 068	199 130 078
75	65	10	5000	199 130 069	199 130 079
90	80	10	7000	199 130 070	199 130 080
110	100	10	11000	199 130 071	199 130 081

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	114	180	56	130	25	97	122
20	50	231	27	64	94	167	124	180	56	130	25	97	122
25	58	240	30	73	94	167	144	180	65	150	25	97	122
32	68	240	36	73	94	167	154	180	71	160	25	97	122
40	84	251	44	84	94	167	174	180	85	180	45	97	122
50	97	251	51	84	94	167	194	180	89	200	45	97	122
63	124	273	64	106	94	167	224	180	101	230	45	97	122
75	166	346	85	156	94	190	284	180	136	290	70	98	122
90	200	358	105	168	94	190	300	180	141	310	70	98	122
110	238	365	123	175	94	190	340	180	164	350	120	98	122



# PVC-U metric

## Ball valve type 130 PVC-U 24V With manual emergency override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

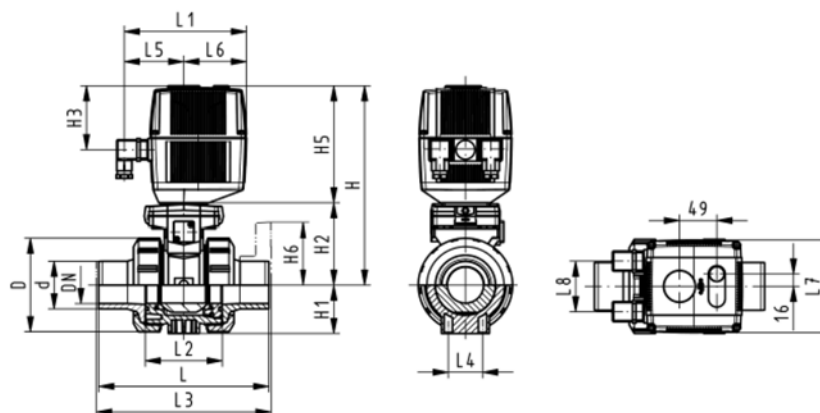
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 130 143</b>	<b>199 130 153</b>
25	20	¾	10	350	<b>199 130 144</b>	<b>199 130 154</b>
32	25	1	10	700	<b>199 130 145</b>	<b>199 130 155</b>
40	32	1 ¼	10	1000	<b>199 130 146</b>	<b>199 130 156</b>
50	40	1 ½	10	1600	<b>199 130 147</b>	<b>199 130 157</b>
63	50	2	10	3100	<b>199 130 148</b>	<b>199 130 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	124	180	56	130	25	97	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	97	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66



# PVC-U metric

## Ball valve type 130 PVC-U 24V With manual emergency override With backing flanges PP-st metric



### Model:

- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

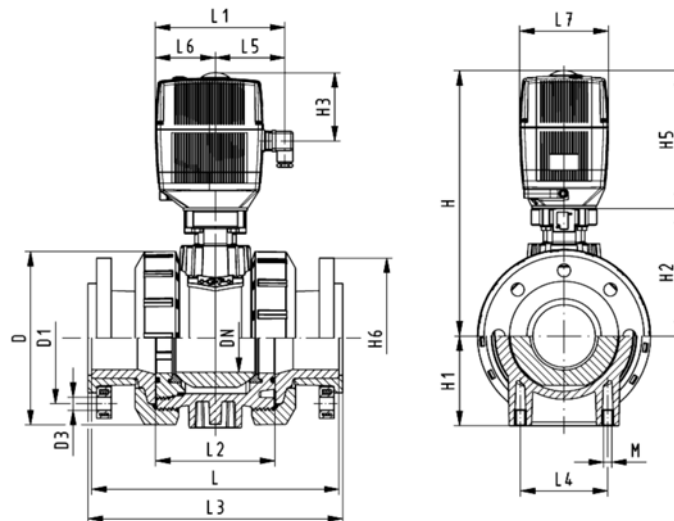
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	199 134 369	199 134 379
90	80	10	7000	199 134 370	199 134 380
110	100	10	11000	199 134 371	199 134 381

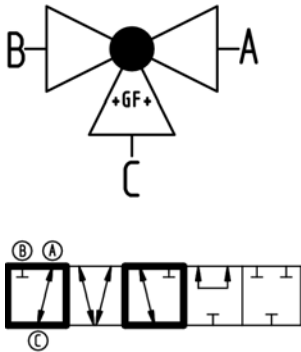
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets metric



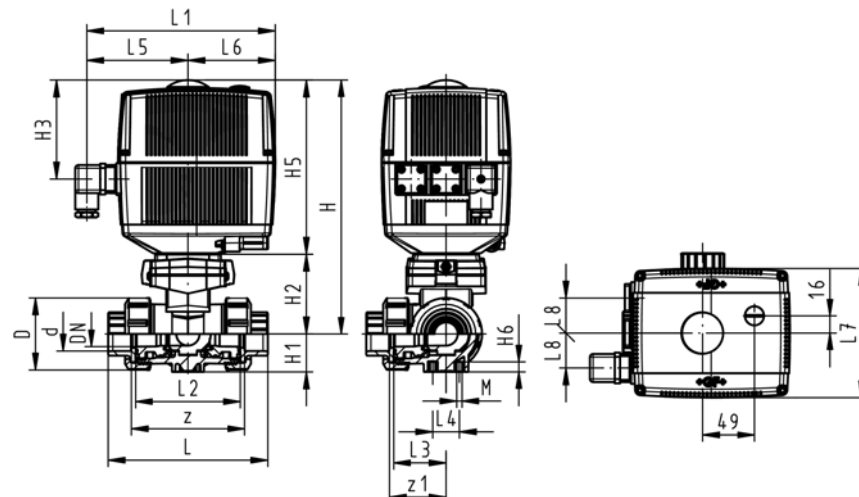
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 022	199 185 032
20	15	10	75	199 185 023	199 185 033
25	20	10	150	199 185 024	199 185 034
32	25	10	280	199 185 025	199 185 035
40	32	10	480	199 185 026	199 185 036
50	40	10	620	199 185 027	199 185 037
63	50	10	1230	199 185 028	199 185 038

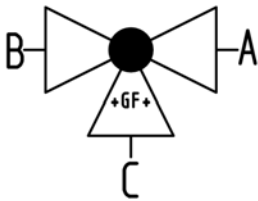
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement spigots metric



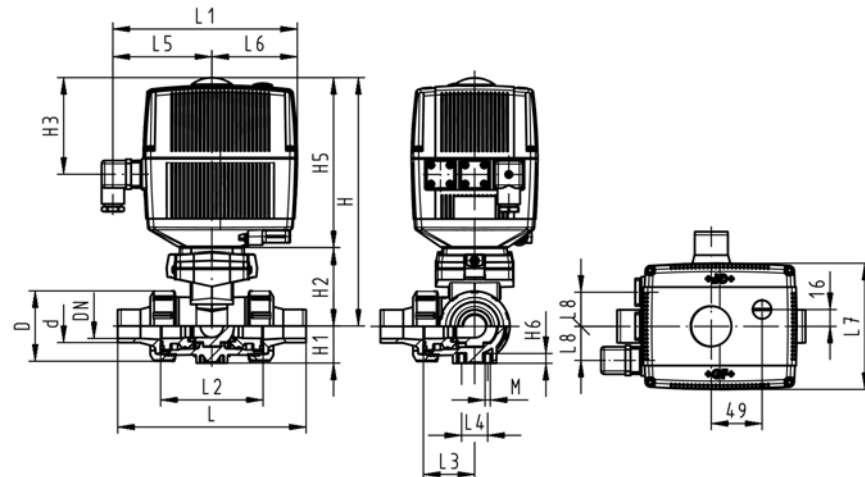
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 002	199 185 012
20	15	10	75	199 185 003	199 185 013
25	20	10	150	199 185 004	199 185 014
32	25	10	280	199 185 005	199 185 015
40	32	10	480	199 185 006	199 185 016
50	40	10	620	199 185 007	199 185 017
63	50	10	1230	199 185 008	199 185 018

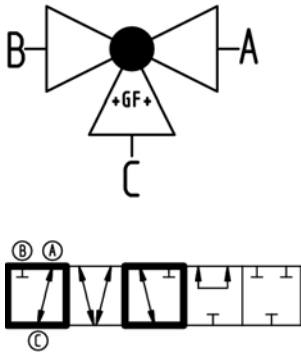
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	194	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	194	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	194	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	194	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	194	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	194	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	194	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement sockets metric



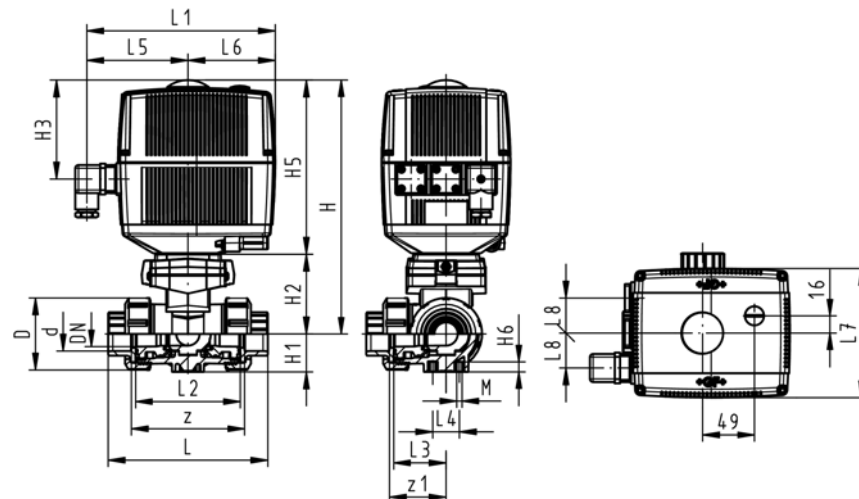
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 202	199 185 212
20	15	10	75	199 185 203	199 185 213
25	20	10	150	199 185 204	199 185 214
32	25	10	280	199 185 205	199 185 215
40	32	10	480	199 185 206	199 185 216
50	40	10	620	199 185 207	199 185 217
63	50	10	1230	199 185 208	199 185 218

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

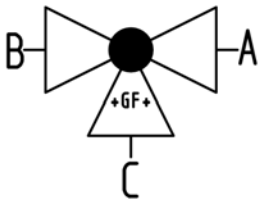
d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92





# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement spigots metric



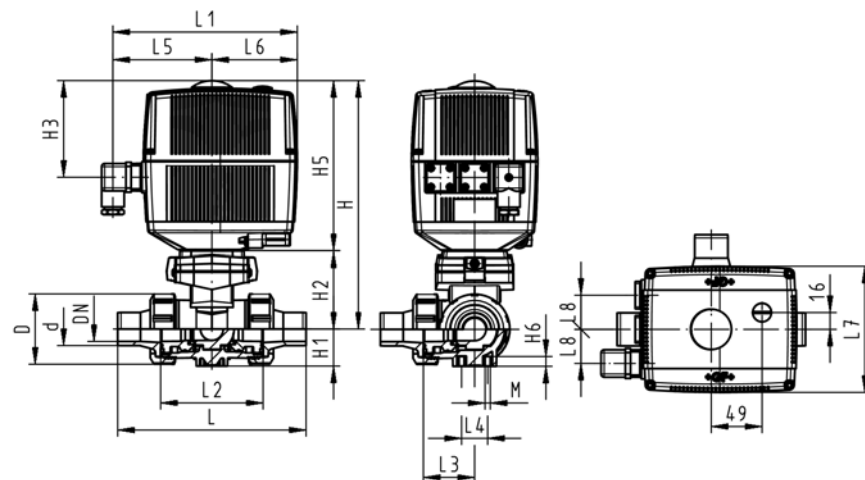
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 182	199 185 192
20	15	10	75	199 185 183	199 185 193
25	20	10	150	199 185 184	199 185 194
32	25	10	280	199 185 185	199 185 195
40	32	10	480	199 185 186	199 185 196
50	40	10	620	199 185 187	199 185 197
63	50	10	1230	199 185 188	199 185 198

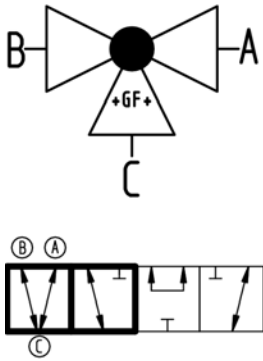
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets metric



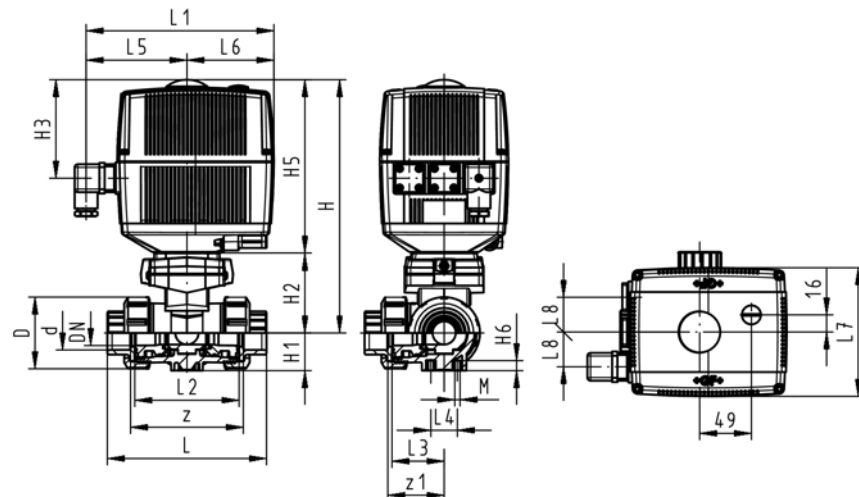
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 185 062	199 185 072
20	15	10	200	199 185 063	199 185 073
25	20	10	470	199 185 064	199 185 074
32	25	10	793	199 185 065	199 185 075
40	32	10	1290	199 185 066	199 185 076
50	40	10	1910	199 185 067	199 185 077
63	50	10	3100	199 185 068	199 185 078

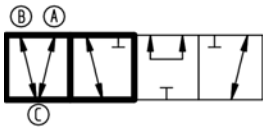
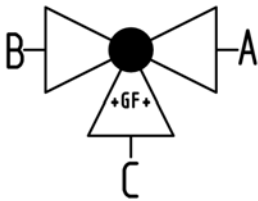
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement spigots metric



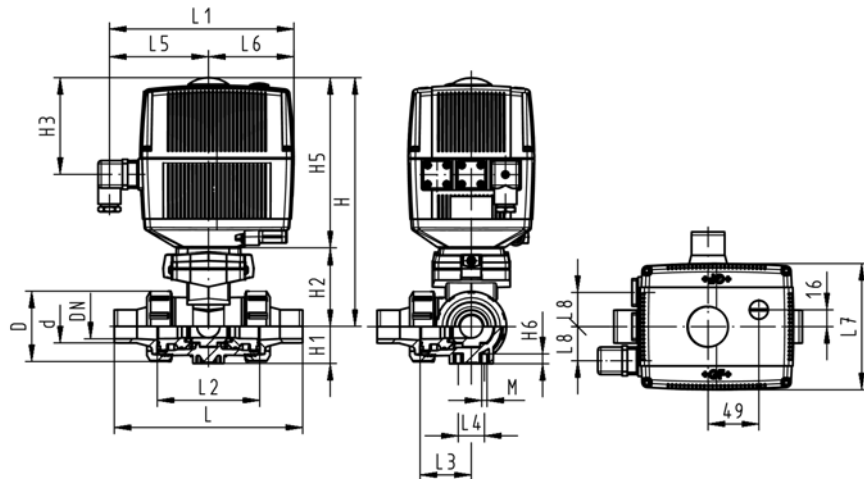
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 185 042	199 185 052
20	15	10	200	199 185 043	199 185 053
25	20	10	470	199 185 044	199 185 054
32	25	10	793	199 185 045	199 185 055
40	32	10	1290	199 185 046	199 185 056
50	40	10	1910	199 185 047	199 185 057
63	50	10	3100	199 185 048	199 185 058

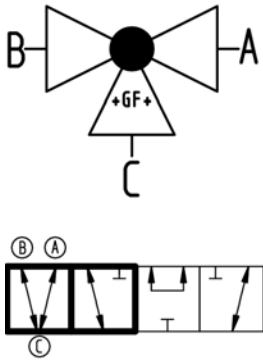
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-U metric

## 3-Way ball valve bar type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement sockets metric



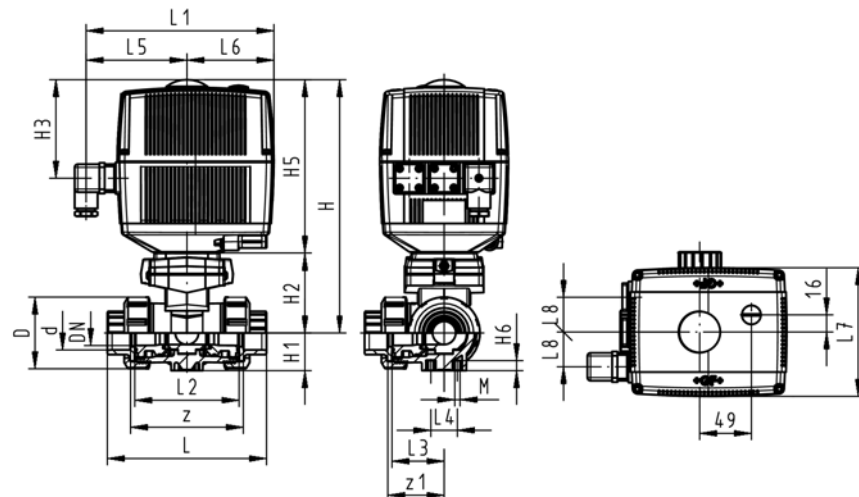
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 185 242</b>	<b>199 185 252</b>
20	15	10	200	<b>199 185 243</b>	<b>199 185 253</b>
25	20	10	470	<b>199 185 244</b>	<b>199 185 254</b>
32	25	10	793	<b>199 185 245</b>	<b>199 185 255</b>
40	32	10	1290	<b>199 185 246</b>	<b>199 185 256</b>
50	40	10	1910	<b>199 185 247</b>	<b>199 185 257</b>
63	50	10	3100	<b>199 185 248</b>	<b>199 185 258</b>

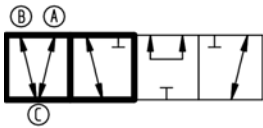
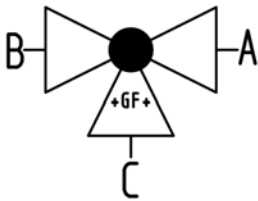
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# PVC-U metric

## 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement spigots metric



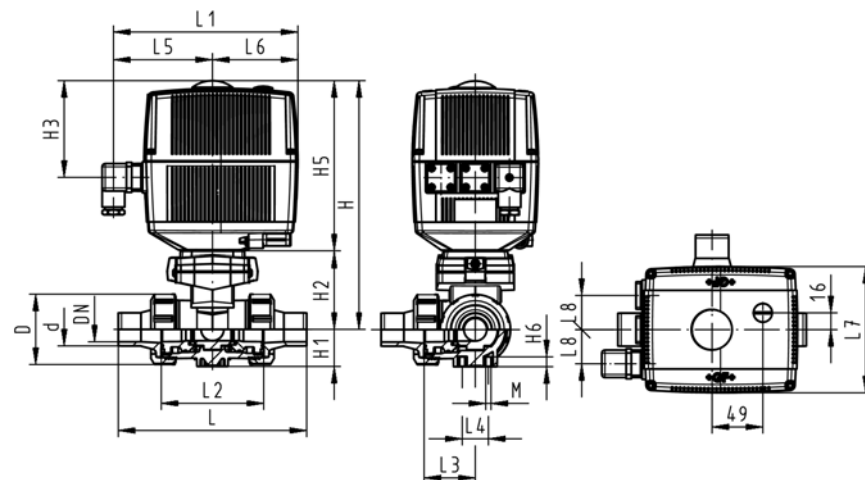
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 185 222	199 185 232
20	15	10	200	199 185 223	199 185 233
25	20	10	470	199 185 224	199 185 234
32	25	10	793	199 185 225	199 185 235
40	32	10	1290	199 185 226	199 185 236
50	40	10	1910	199 185 227	199 185 237
63	50	10	3100	199 185 228	199 185 238

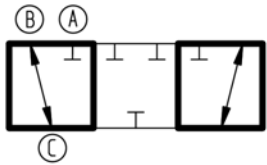
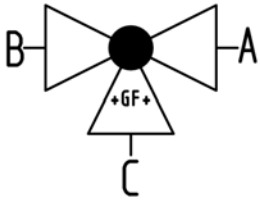
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-U metric

## 3-Way ball valve type 188 PVC-U Vertical/L-port 100-230V With manual emergency override With solvent cement sockets metric

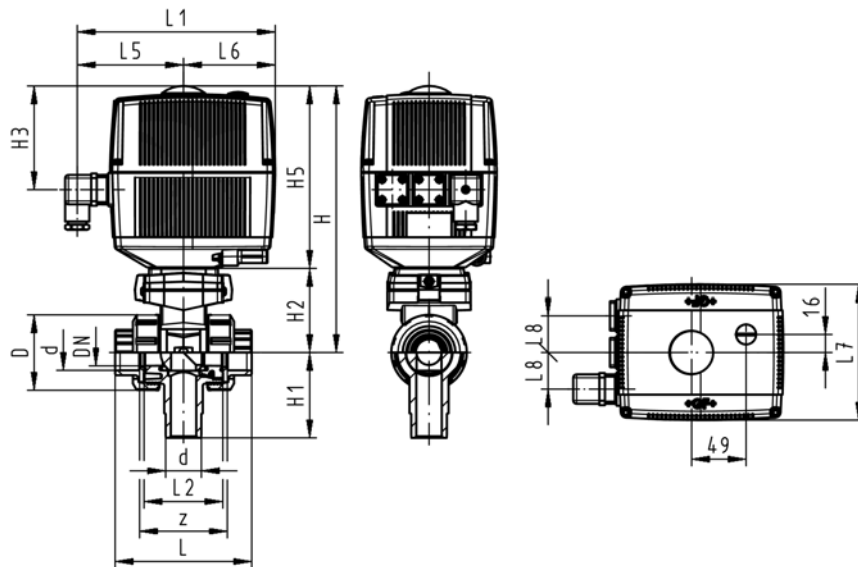


### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet

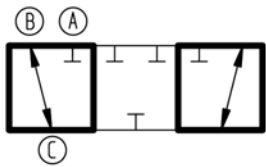
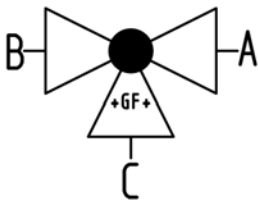
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	49	<b>199 188 242</b>	<b>199 188 252</b>
20	15	10	77	<b>199 188 243</b>	<b>199 188 253</b>
25	20	10	146	<b>199 188 244</b>	<b>199 188 254</b>
32	25	10	260	<b>199 188 245</b>	<b>199 188 255</b>
40	32	10	437	<b>199 188 246</b>	<b>199 188 256</b>
50	40	10	667	<b>199 188 247</b>	<b>199 188 257</b>
63	50	10	1293	<b>199 188 248</b>	<b>199 188 258</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107



# PVC-U metric

## 3-Way ball valve type 188 PVC-U Vertical/L-port 100-230V With manual emergency override With solvent cement spigots metric

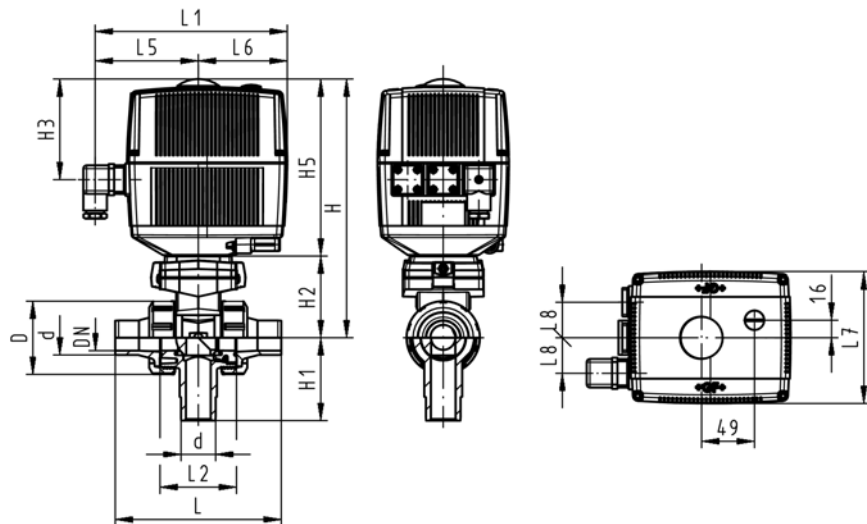


### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	49	199 188 062	199 188 072
20	15	10	77	199 188 063	199 188 073
25	20	10	146	199 188 064	199 188 074
32	25	10	260	199 188 065	199 188 075
40	32	10	437	199 188 066	199 188 076
50	40	10	667	199 188 067	199 188 077
63	50	10	1293	199 188 068	199 188 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	231	62	64	94	167	114	180	56	97	83	122	33
20	50	231	62	64	94	167	124	180	56	97	83	122	33
25	58	240	72	73	94	167	144	180	66	97	83	122	33
32	68	240	77	73	94	167	154	180	71	97	83	122	33
40	84	251	87	84	94	167	174	180	85	97	83	122	33
50	97	251	97	84	94	167	194	180	89	97	83	122	33
63	124	273	112	106	94	167	224	180	101	97	83	122	33



# PVC-U metric

## 3-Way ball valve type 188 PVC-U

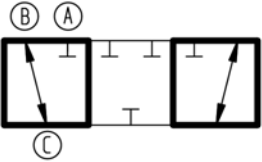
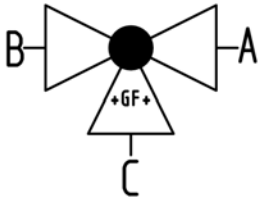
### Vertical/L-port 24V

### With manual emergency override

### With solvent cement sockets metric

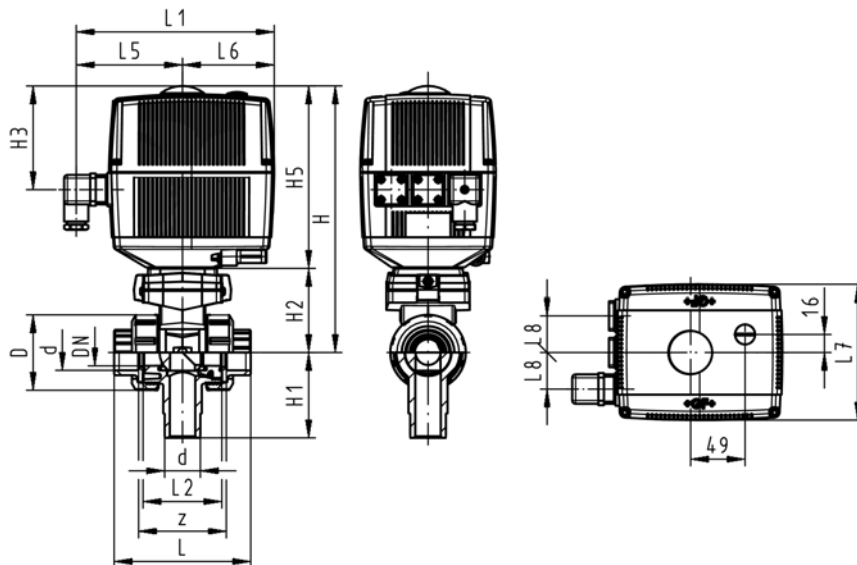
#### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	49	<b>199 188 262</b>	<b>199 188 272</b>
20	15	10	77	<b>199 188 263</b>	<b>199 188 273</b>
25	20	10	146	<b>199 188 264</b>	<b>199 188 274</b>
32	25	10	260	<b>199 188 265</b>	<b>199 188 275</b>
40	32	10	437	<b>199 188 266</b>	<b>199 188 276</b>
50	40	10	667	<b>199 188 267</b>	<b>199 188 277</b>
63	50	10	1293	<b>199 188 268</b>	<b>199 188 278</b>

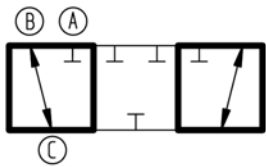
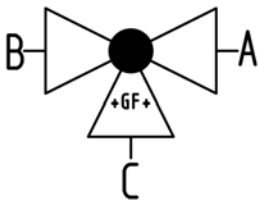
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107





# PVC-U metric

## 3-Way ball valve type 188 PVC-U Vertical/L-port 24V With manual emergency override With solvent cement spigots metric

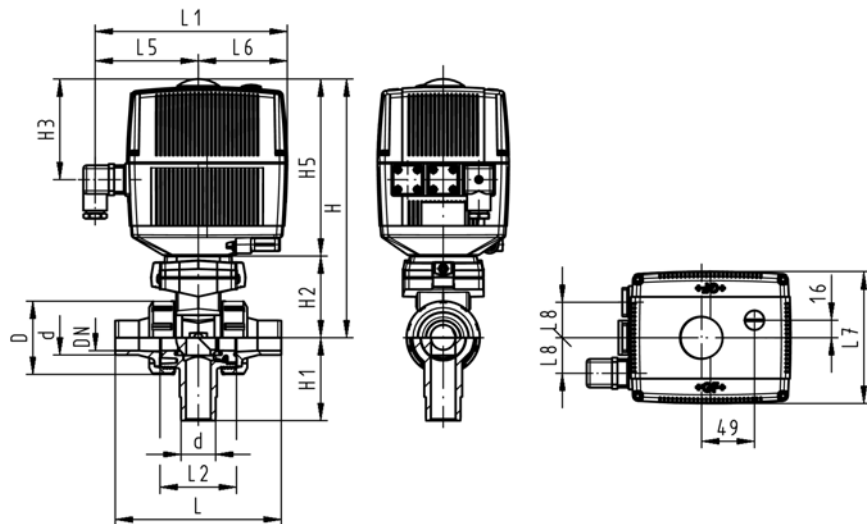


### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	49	199 188 102	199 188 112
20	15	10	77	199 188 103	199 188 113
25	20	10	146	199 188 104	199 188 114
32	25	10	260	199 188 105	199 188 115
40	32	10	437	199 188 106	199 188 116
50	40	10	667	199 188 107	199 188 117
63	50	10	1293	199 188 108	199 188 118

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	231	62	64	94	167	114	180	56	97	83	122	33
20	50	231	62	64	94	167	124	180	56	97	83	122	33
25	58	240	72	73	94	167	144	180	66	97	83	122	33
32	68	240	77	73	94	167	154	180	71	97	83	122	33
40	84	251	87	84	94	167	174	180	85	97	83	122	33
50	97	251	97	84	94	167	194	180	89	97	83	122	33
63	124	273	112	106	94	167	224	180	101	97	83	122	33



# PVC-U metric

## Ball valves pneumatic

### Ball valve type 230 PVC-U FC (Fail safe to close)

#### With manual override

#### With solvent cement sockets metric



DN10/15 - 50

#### Model:

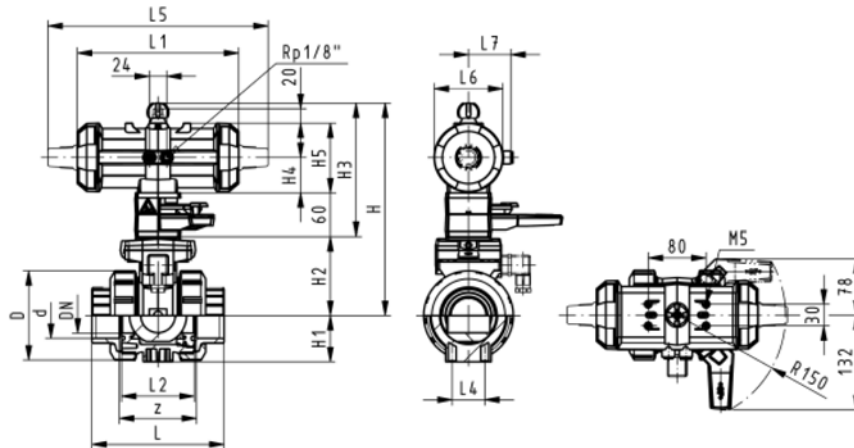
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 002	199 230 012
20	15	10	185	199 230 003	199 230 013
25	20	10	350	199 230 004	199 230 014
32	25	10	700	199 230 005	199 230 015
40	32	10	1000	199 230 006	199 230 016
50	40	10	1600	199 230 007	199 230 017
63	50	10	3100	199 230 008	199 230 018

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With solvent cement spigots metric



DN10/15 - 50

### Model:

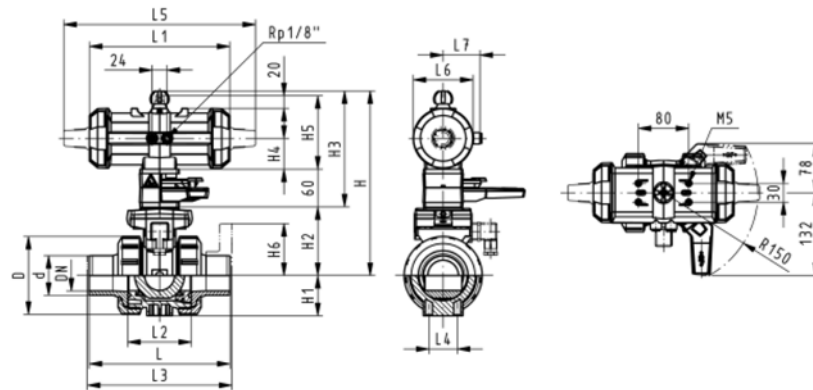
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 022	199 230 032
20	15	10	185	199 230 023	199 230 033
25	20	10	350	199 230 024	199 230 034
32	25	10	700	199 230 025	199 230 035
40	32	10	1000	199 230 026	199 230 036
50	40	10	1600	199 230 027	199 230 037
63	50	10	3100	199 230 028	199 230 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

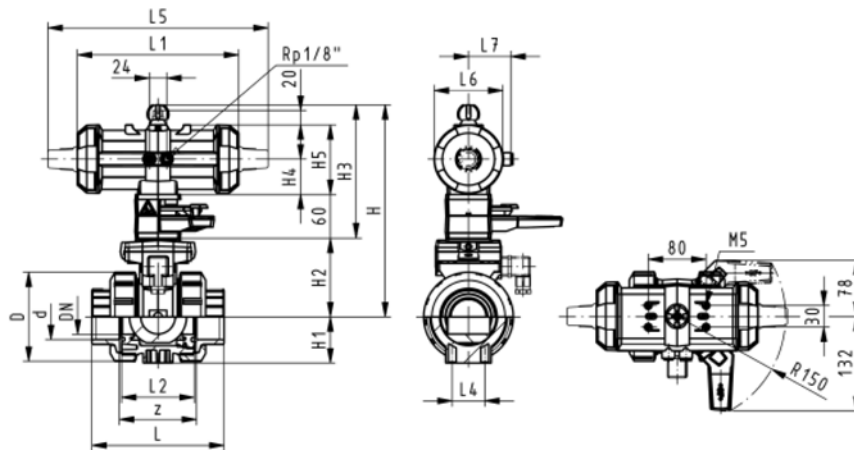
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 230 362</b>	<b>199 230 372</b>
1/2	15	10	185	<b>199 230 363</b>	<b>199 230 373</b>
3/4	20	10	350	<b>199 230 364</b>	<b>199 230 374</b>
1	25	10	700	<b>199 230 365</b>	<b>199 230 375</b>
1 1/4	32	10	1000	<b>199 230 366</b>	<b>199 230 376</b>
1 1/2	40	10	1600	<b>199 230 367</b>	<b>199 230 377</b>
2	50	10	3100	<b>199 230 368</b>	<b>199 230 378</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

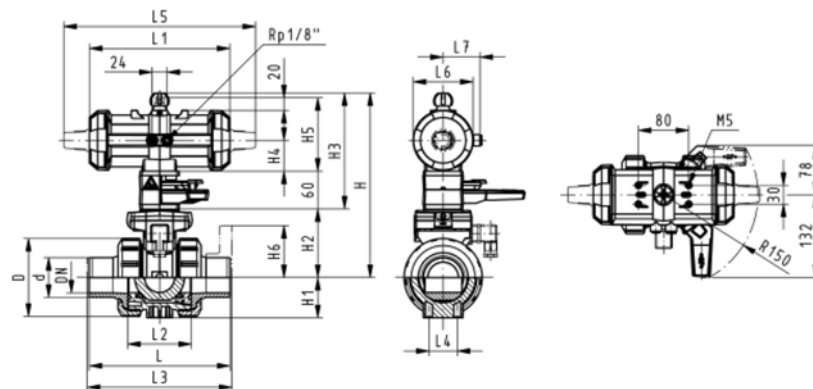
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 230 243</b>	<b>199 230 253</b>
25	20	¾	10	350	<b>199 230 244</b>	<b>199 230 254</b>
32	25	1	10	700	<b>199 230 245</b>	<b>199 230 255</b>
40	32	1 ¼	10	1000	<b>199 230 246</b>	<b>199 230 256</b>
50	40	1 ½	10	1600	<b>199 230 247</b>	<b>199 230 257</b>
63	50	2	10	3100	<b>199 230 248</b>	<b>199 230 258</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) With manual override With solvent cement sockets metric



DN10/15 - 50

### Model:

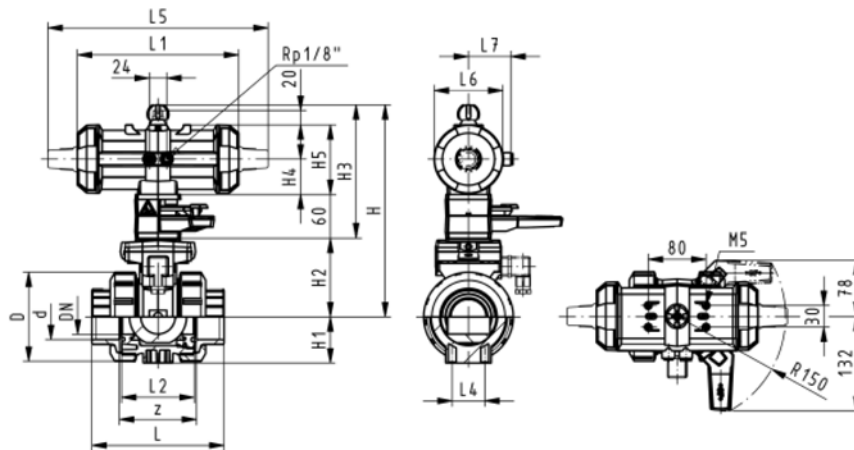
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 042	199 230 052
20	15	10	185	199 230 043	199 230 053
25	20	10	350	199 230 044	199 230 054
32	25	10	700	199 230 045	199 230 055
40	32	10	1000	199 230 046	199 230 056
50	40	10	1600	199 230 047	199 230 057
63	50	10	3100	199 230 048	199 230 058

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) With manual override With solvent cement spigots metric



DN10/15 - 50

### Model:

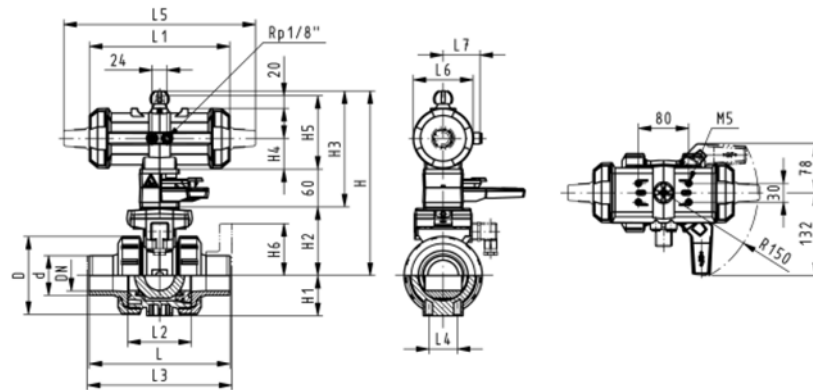
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 062	199 230 072
20	15	10	185	199 230 063	199 230 073
25	20	10	350	199 230 064	199 230 074
32	25	10	700	199 230 065	199 230 075
40	32	10	1000	199 230 066	199 230 076
50	40	10	1600	199 230 067	199 230 077
63	50	10	3100	199 230 068	199 230 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

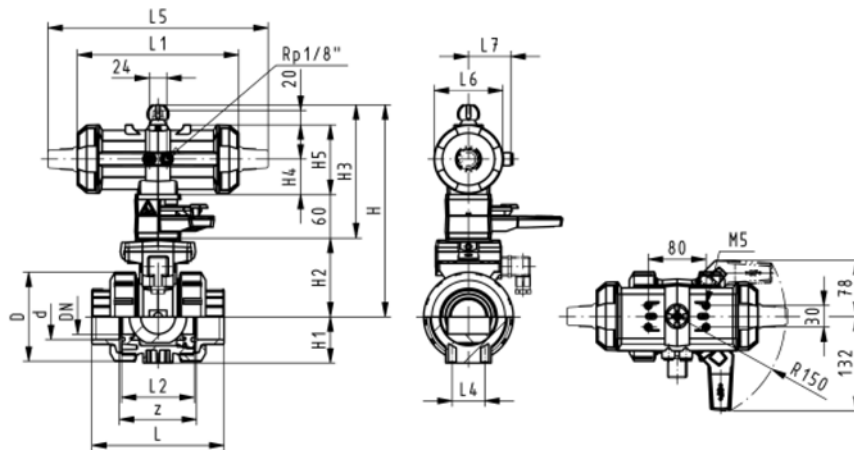
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 382	199 230 392
1/2	15	10	185	199 230 383	199 230 393
3/4	20	10	350	199 230 384	199 230 394
1	25	10	700	199 230 385	199 230 395
1 1/4	32	10	1000	199 230 386	199 230 396
1 1/2	40	10	1600	199 230 387	199 230 397
2	50	10	3100	199 230 388	199 230 398

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107





# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) With manual override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

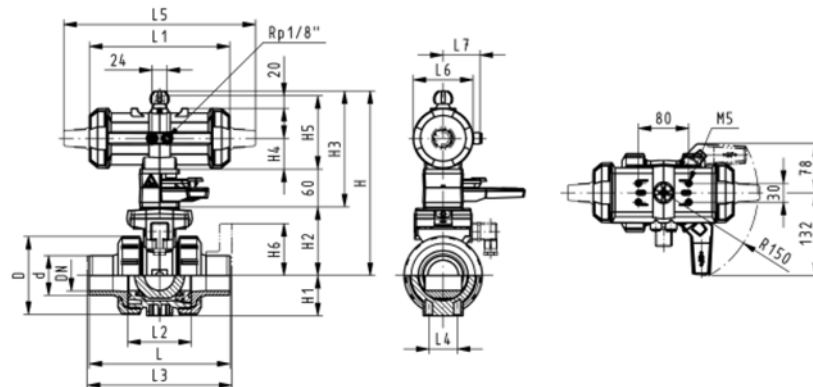
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 230 263</b>	<b>199 230 273</b>
25	20	¾	10	350	<b>199 230 264</b>	<b>199 230 274</b>
32	25	1	10	700	<b>199 230 265</b>	<b>199 230 275</b>
40	32	1 ¼	10	1000	<b>199 230 266</b>	<b>199 230 276</b>
50	40	1 ½	10	1600	<b>199 230 267</b>	<b>199 230 277</b>
63	50	2	10	3100	<b>199 230 268</b>	<b>199 230 278</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting)

### With manual override

### With solvent cement sockets metric

#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

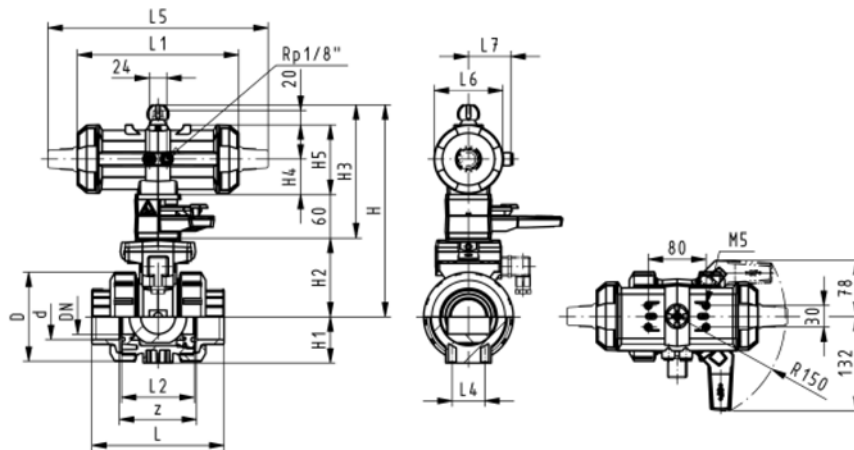
- Individual configuration of the valve (see diagram)



DN10/15 - 50

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 082	199 230 092
20	15	10	185	199 230 083	199 230 093
25	20	10	350	199 230 084	199 230 094
32	25	10	700	199 230 085	199 230 095
40	32	10	1000	199 230 086	199 230 096
50	40	10	1600	199 230 087	199 230 097
63	50	10	3100	199 230 088	199 230 098

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



## PVC-U metric

### Ball valve type 230 PVC-U DA (Double acting)

#### With manual override

#### With solvent cement spigots metric



DN10/15 - 50

#### Model:

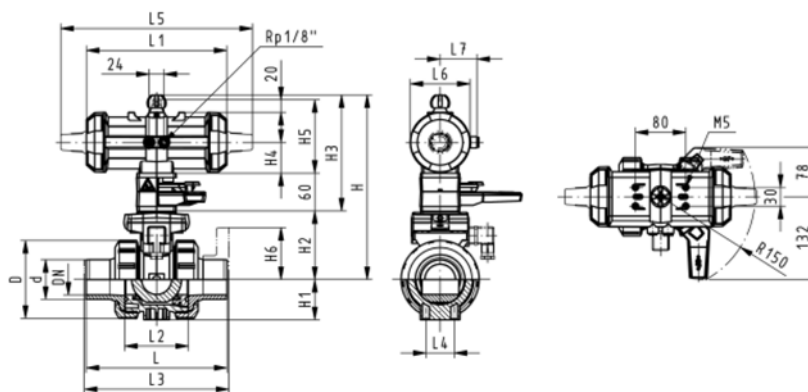
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 102	199 230 112
20	15	10	185	199 230 103	199 230 113
25	20	10	350	199 230 104	199 230 114
32	25	10	700	199 230 105	199 230 115
40	32	10	1000	199 230 106	199 230 116
50	40	10	1600	199 230 107	199 230 117
63	50	10	3100	199 230 108	199 230 118

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

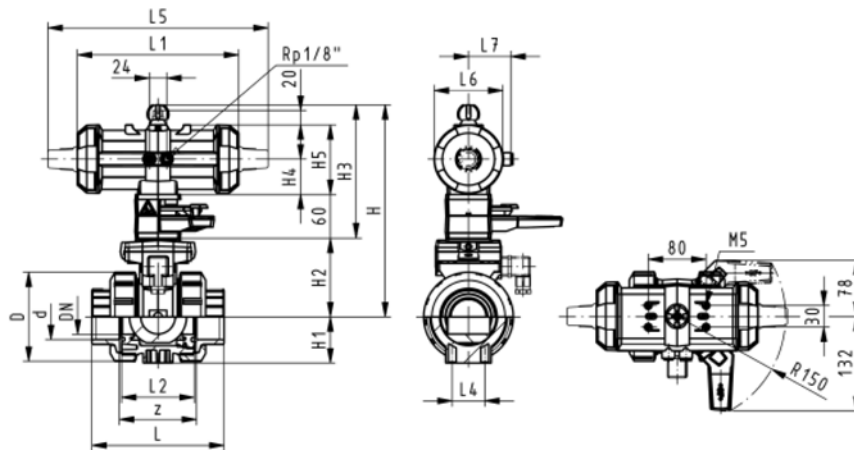
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 230 642</b>	<b>199 230 652</b>
1/2	15	10	185	<b>199 230 643</b>	<b>199 230 653</b>
3/4	20	10	350	<b>199 230 644</b>	<b>199 230 654</b>
1	25	10	700	<b>199 230 645</b>	<b>199 230 655</b>
1 1/4	32	10	1000	<b>199 230 646</b>	<b>199 230 656</b>
1 1/2	40	10	1600	<b>199 230 647</b>	<b>199 230 657</b>
2	50	10	3100	<b>199 230 648</b>	<b>199 230 658</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) With manual override With fixed flanges serrated metric



DN10/15 - 50

### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

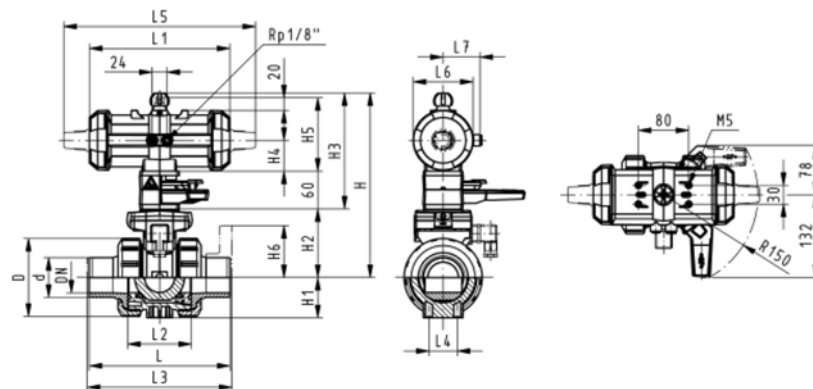
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 230 283</b>	<b>199 230 293</b>
25	20	¾	10	350	<b>199 230 284</b>	<b>199 230 294</b>
32	25	1	10	700	<b>199 230 285</b>	<b>199 230 295</b>
40	32	1 ¼	10	1000	<b>199 230 286</b>	<b>199 230 296</b>
50	40	1 ½	10	1600	<b>199 230 287</b>	<b>199 230 297</b>
63	50	2	10	3100	<b>199 230 288</b>	<b>199 230 298</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

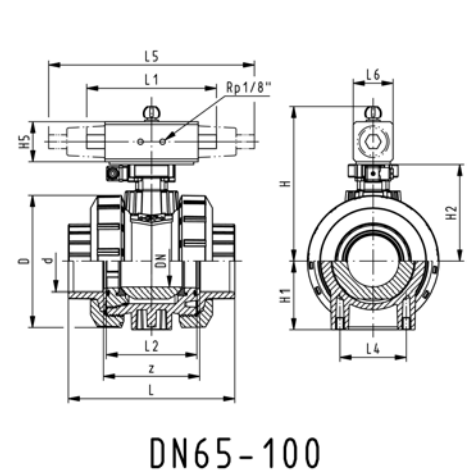
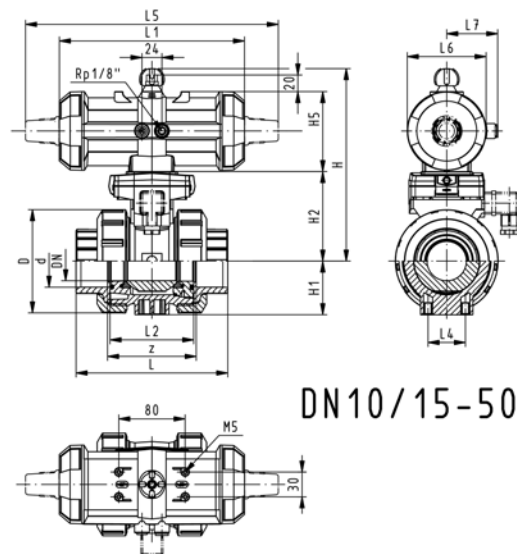
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 122	199 230 132
20	15	10	185	199 230 123	199 230 133
25	20	10	350	199 230 124	199 230 134
32	25	10	700	199 230 125	199 230 135
40	32	10	1000	199 230 126	199 230 136
50	40	10	1600	199 230 127	199 230 137
63	50	10	3100	199 230 128	199 230 138
75	65	10	5000	199 230 129	199 230 139
90	80	10	7000	199 230 130	199 230 140
110	100	10	11000	199 230 131	199 230 141

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	262	85	156	70	233		136	70	276	65		144
90	200	281	105	168	78	254		141	70	341	72		151
110	238	292	123	175	86	301		164	120	369	80		174



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

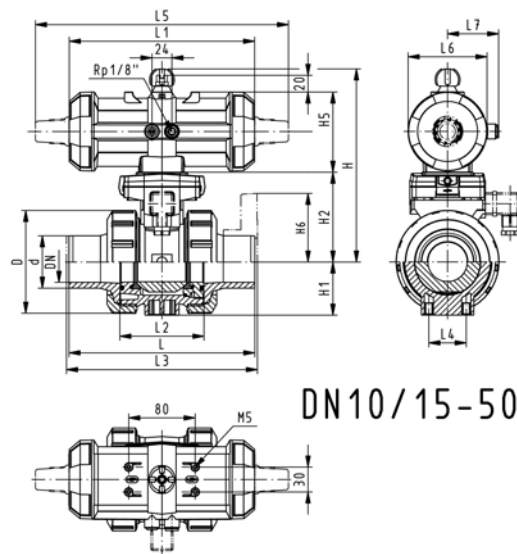
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

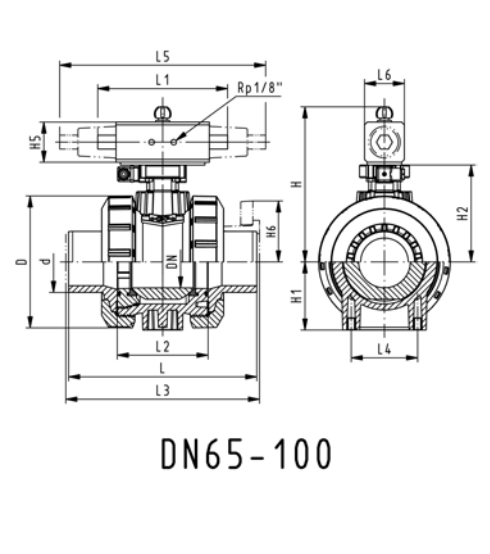
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 142	199 230 152
20	15	10	185	199 230 143	199 230 153
25	20	10	350	199 230 144	199 230 154
32	25	10	700	199 230 145	199 230 155
40	32	10	1000	199 230 146	199 230 156
50	40	10	1600	199 230 147	199 230 157
63	50	10	3100	199 230 148	199 230 158
75	65	10	5000	199 230 149	199 230 159
90	80	10	7000	199 230 150	199 230 160
110	100	10	11000	199 230 151	199 230 161

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	0	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	262	85	156	70	284		136	290	70	276	65	
90	200	281	105	168	78	300		141	310	70	341	72	
110	238	292	123	175	86	340		164	350	120	369	80	



DN10/15-50



DN65-100

# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

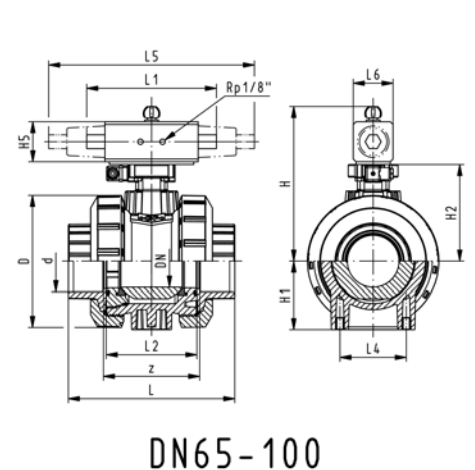
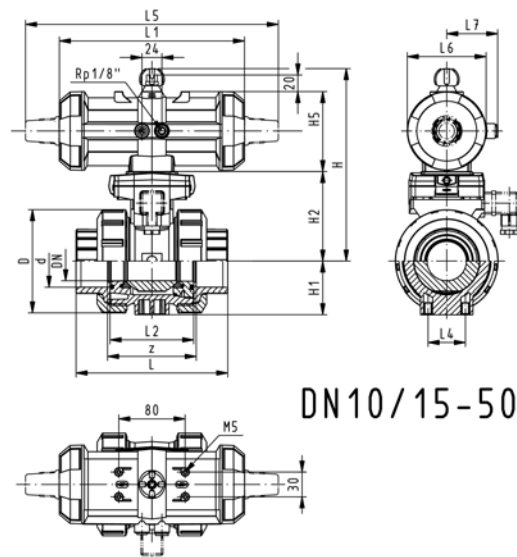
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 662	199 230 672
1/2	15	10	185	199 230 663	199 230 673
3/4	20	10	350	199 230 664	199 230 674
1	25	10	700	199 230 665	199 230 675
1 1/4	32	10	1000	199 230 666	199 230 676
1 1/2	40	10	1600	199 230 667	199 230 677
2	50	10	3100	199 230 668	199 230 678
2 1/2	65	10	5000	199 230 669	199 230 679
3	80	10	7000	199 230 670	199 230 680
4	100	10	11000	199 230 671	199 230 681

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174





# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) Without manual override With fixed flanges serrated metric



DN10/15 - 50

### Model:

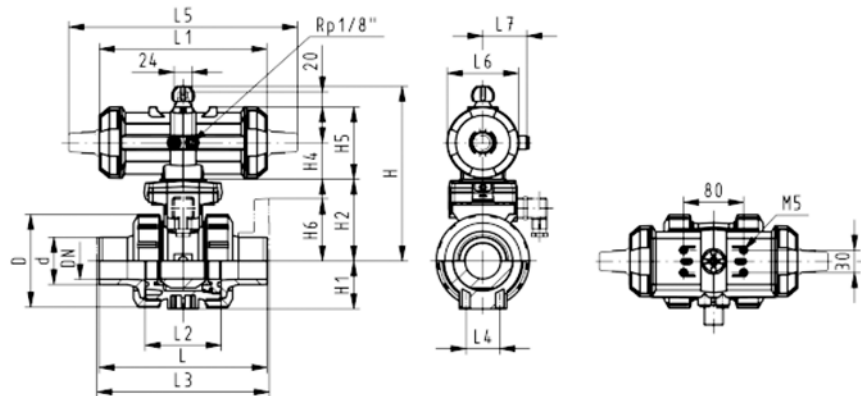
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	199 230 303	199 230 313
25	20	¾	10	350	199 230 304	199 230 314
32	25	1	10	700	199 230 305	199 230 315
40	32	1 ¼	10	1000	199 230 306	199 230 316
50	40	1 ½	10	1600	199 230 307	199 230 317
63	50	2	10	3100	199 230 308	199 230 318

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U FC (Fail safe to close) Without manual override With backing flanges PP-st metric



### Model:

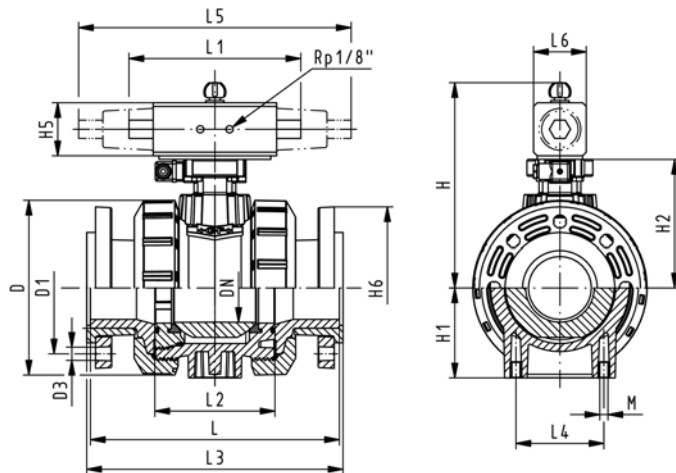
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

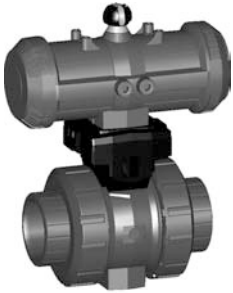
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 234 469</b>	<b>199 234 479</b>
90	80	10	7000	<b>199 234 470</b>	<b>199 234 480</b>
110	100	10	11000	<b>199 234 471</b>	<b>199 234 481</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	284	136	290	70	276	65
90	200	281	105	168	78	100	300	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

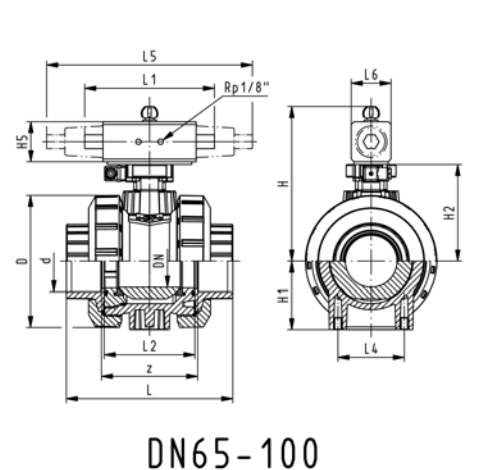
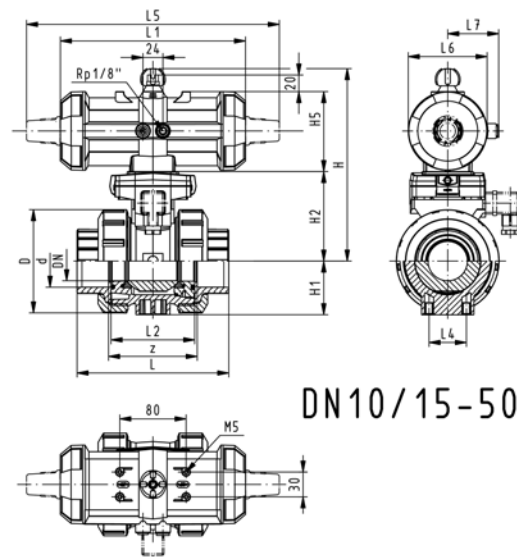
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 162	199 230 172
20	15	10	185	199 230 163	199 230 173
25	20	10	350	199 230 164	199 230 174
32	25	10	700	199 230 165	199 230 175
40	32	10	1000	199 230 166	199 230 176
50	40	10	1600	199 230 167	199 230 177
63	50	10	3100	199 230 168	199 230 178
75	65	10	5000	199 230 169	199 230 179
90	80	10	7000	199 230 170	199 230 180
110	100	10	11000	199 230 171	199 230 181

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	262	85	156	70	233		136	70	276	65		144
90	200	281	105	168	78	254		141	70	341	72		151
110	238	292	123	175	86	301		164	120	369	80		174



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

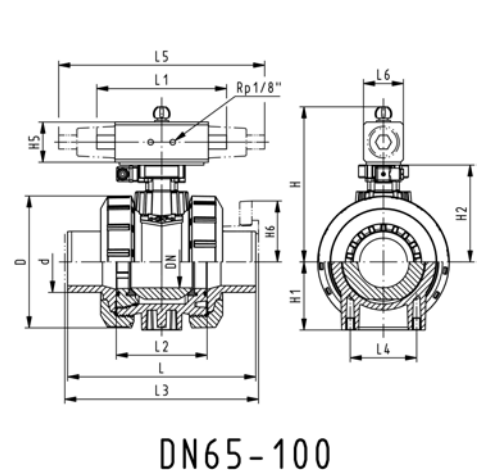
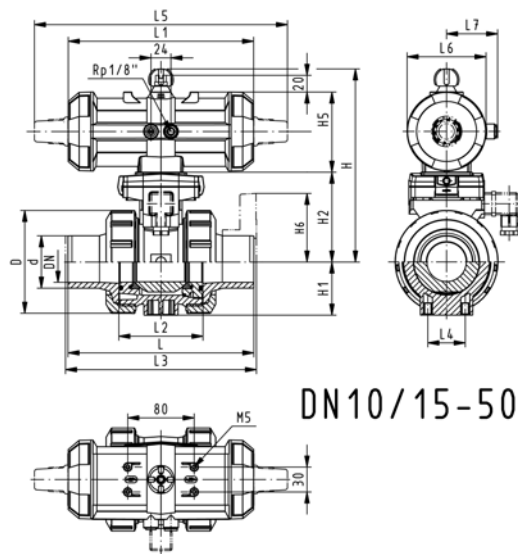
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

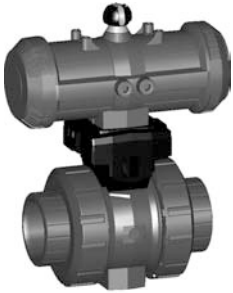
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 182	199 230 192
20	15	10	185	199 230 183	199 230 193
25	20	10	350	199 230 184	199 230 194
32	25	10	700	199 230 185	199 230 195
40	32	10	1000	199 230 186	199 230 196
50	40	10	1600	199 230 187	199 230 197
63	50	10	3100	199 230 188	199 230 198
75	65	10	5000	199 230 189	199 230 199
90	80	10	7000	199 230 190	199 230 200
110	100	10	11000	199 230 191	199 230 201

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	0	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	262	85	156	70	284		136	290	70	276	65	
90	200	281	105	168	78	300		141	310	70	341	72	
110	238	292	123	175	86	340		164	350	120	369	80	



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

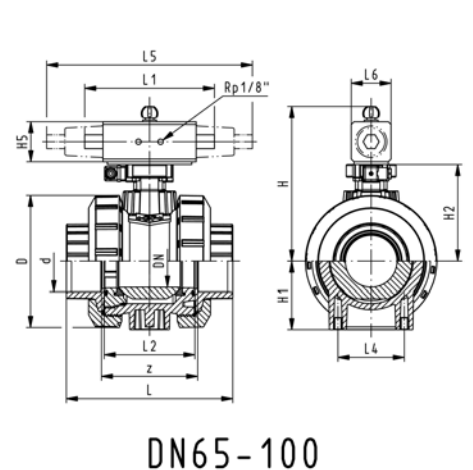
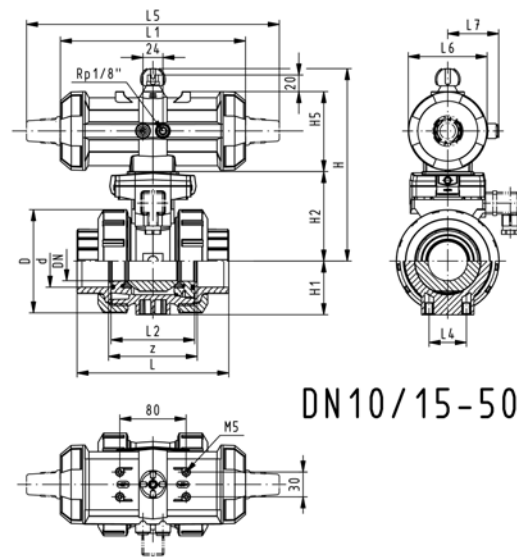
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 682	199 230 692
1/2	15	10	185	199 230 683	199 230 693
3/4	20	10	350	199 230 684	199 230 694
1	25	10	700	199 230 685	199 230 695
1 1/4	32	10	1000	199 230 686	199 230 696
1 1/2	40	10	1600	199 230 687	199 230 697
2	50	10	3100	199 230 688	199 230 698
2 1/2	65	10	5000	199 230 689	199 230 699
3	80	10	7000	199 230 690	199 230 700
4	100	10	11000	199 230 691	199 230 701

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) Without manual override With fixed flanges serrated metric



DN10/15 - 50

### Model:

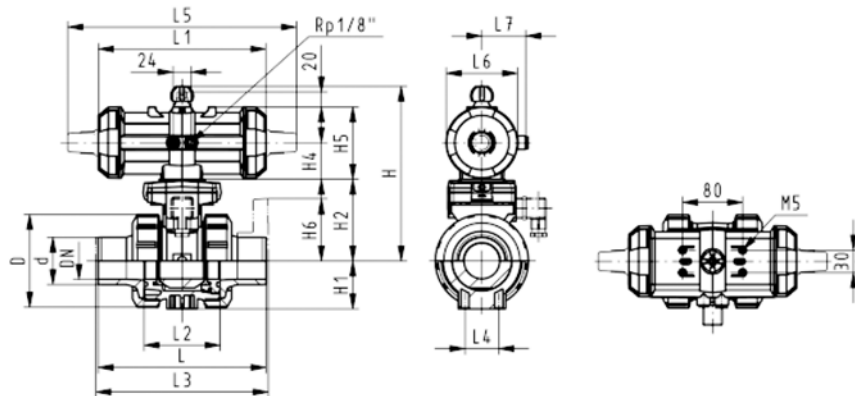
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 230 323</b>	<b>199 230 333</b>
25	20	¾	10	350	<b>199 230 324</b>	<b>199 230 334</b>
32	25	1	10	700	<b>199 230 325</b>	<b>199 230 335</b>
40	32	1 ¼	10	1000	<b>199 230 326</b>	<b>199 230 336</b>
50	40	1 ½	10	1600	<b>199 230 327</b>	<b>199 230 337</b>
63	50	2	10	3100	<b>199 230 328</b>	<b>199 230 338</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U FO (Fail safe to open) Without manual override With backing flanges PP-st metric



### Model:

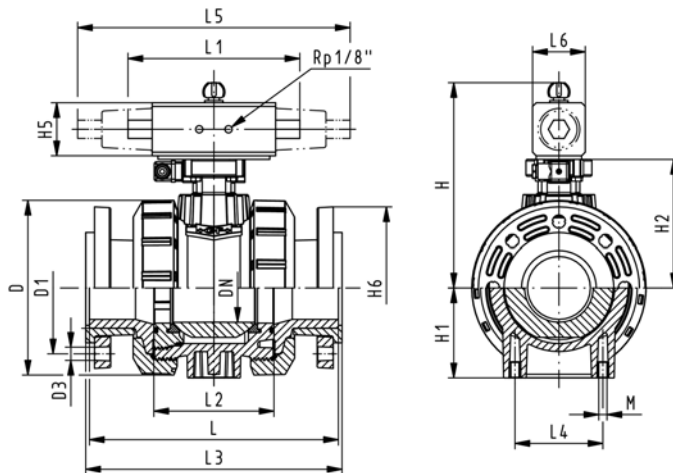
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	199 234 489	199 234 499
90	80	10	7000	199 234 490	199 234 500
110	100	10	11000	199 234 491	199 234 501

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	284	136	290	70	276	65
90	200	281	105	168	78	100	300	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

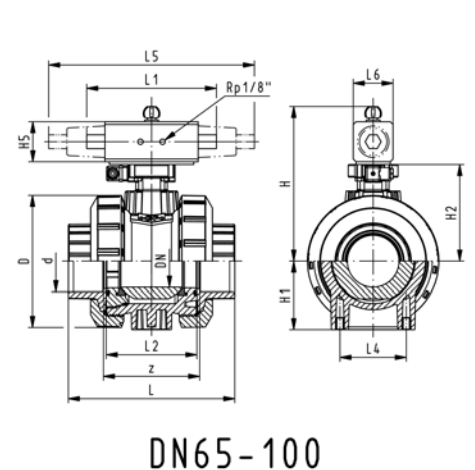
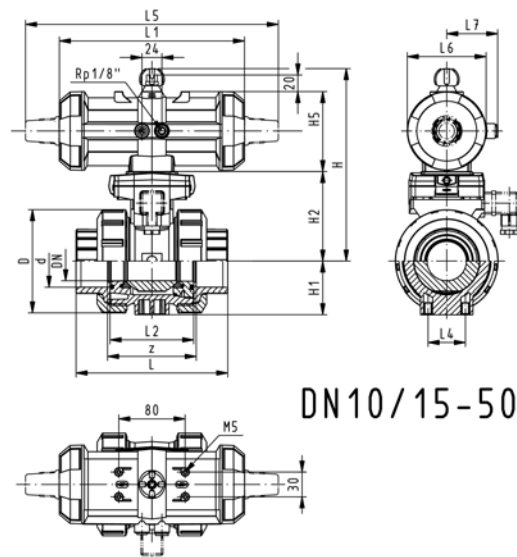
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 202	199 230 212
20	15	10	185	199 230 203	199 230 213
25	20	10	350	199 230 204	199 230 214
32	25	10	700	199 230 205	199 230 215
40	32	10	1000	199 230 206	199 230 216
50	40	10	1600	199 230 207	199 230 217
63	50	10	3100	199 230 208	199 230 218
75	65	10	5000	199 230 209	199 230 219
90	80	10	7000	199 230 210	199 230 220
110	100	10	11000	199 230 211	199 230 221

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	257	85	156	66	233	144	136	70	60	60	60	144
90	200	274	105	168	70	254	152	141	70	65	65	65	151
110	238	273	123	175	78	301	169	164	120	72	72	72	174





# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

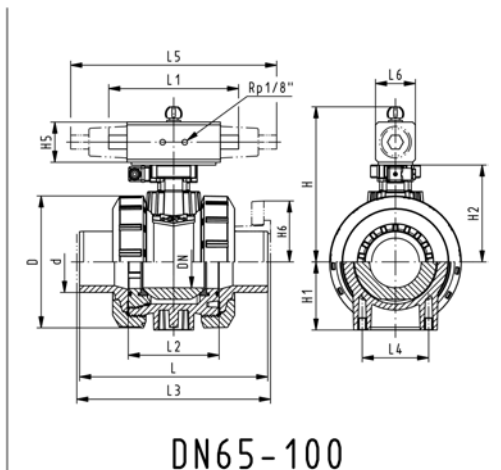
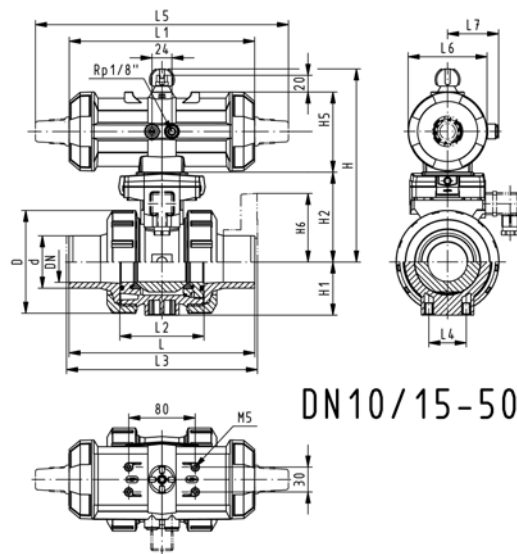
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 222	199 230 232
20	15	10	185	199 230 223	199 230 233
25	20	10	350	199 230 224	199 230 234
32	25	10	700	199 230 225	199 230 235
40	32	10	1000	199 230 226	199 230 236
50	40	10	1600	199 230 227	199 230 237
63	50	10	3100	199 230 228	199 230 238
75	65	10	5000	199 230 229	199 230 239
90	80	10	7000	199 230 230	199 230 240
110	100	10	11000	199 230 231	199 230 241

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	0	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	257	85	156	66	284	144	136	290	70		60	
90	200	274	105	168	70	300	152	141	310	70		65	
110	238	273	123	175	78	340	169	164	350	120		72	



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

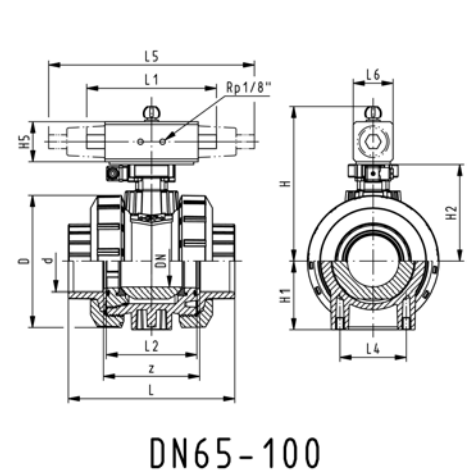
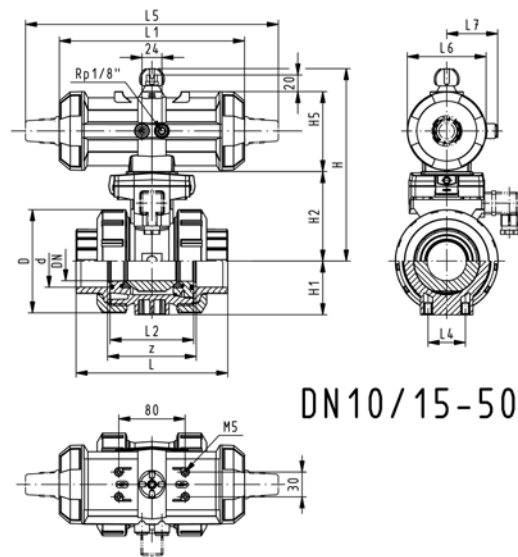
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 712	199 230 732
1/2	15	10	185	199 230 713	199 230 733
3/4	20	10	350	199 230 714	199 230 734
1	25	10	700	199 230 715	199 230 735
1 1/4	32	10	1000	199 230 716	199 230 736
1 1/2	40	10	1600	199 230 717	199 230 737
2	50	10	3100	199 230 718	199 230 738
2 1/2	65	10	5000	199 230 719	199 230 739
3	80	10	7000	199 230 720	199 230 740
4	100	10	11000	199 230 721	199 230 741

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	257	85	156	66	233	144	136	70	60	60	59	144
3	200	274	105	168	70	254	152	141	70	65	65	59	151
4	238	273	123	175	78	301	169	164	120	72	72	59	174



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) Without manual override With fixed flanges metric



DN10/15 - 50

### Model:

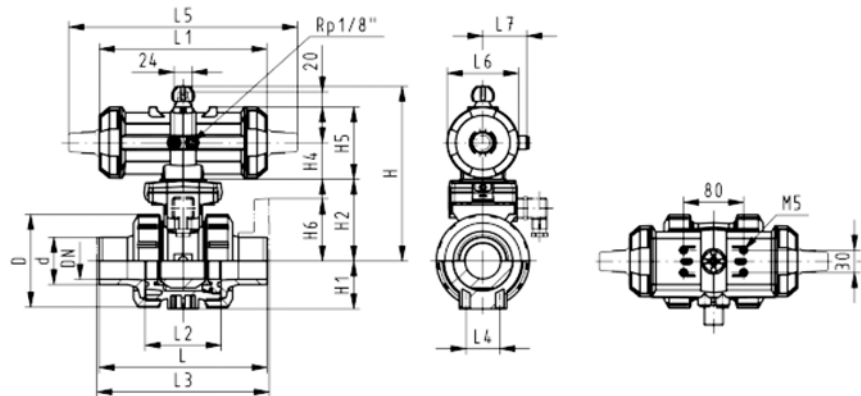
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 230 343</b>	<b>199 230 353</b>
25	20	¾	10	350	<b>199 230 344</b>	<b>199 230 354</b>
32	25	1	10	700	<b>199 230 345</b>	<b>199 230 355</b>
40	32	1 ¼	10	1000	<b>199 230 346</b>	<b>199 230 356</b>
50	40	1 ½	10	1600	<b>199 230 347</b>	<b>199 230 357</b>
63	50	2	10	3100	<b>199 230 348</b>	<b>199 230 358</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# PVC-U metric

## Ball valve type 230 PVC-U DA (Double acting) Without manual override With backing flanges PP-st metric



### Model:

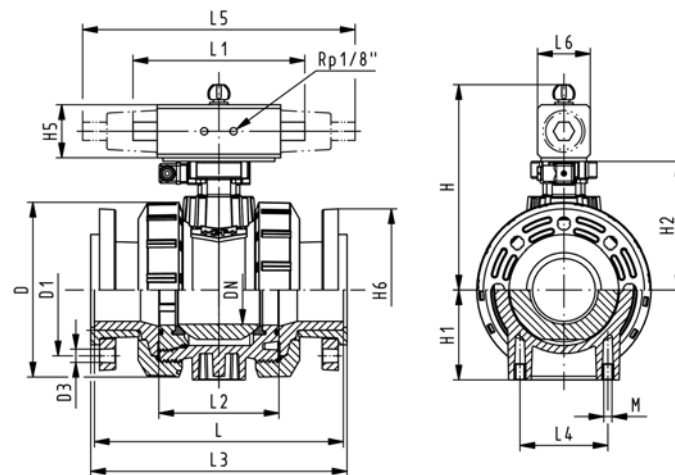
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 234 509</b>	<b>199 234 519</b>
90	80	10	7000	<b>199 234 510</b>	<b>199 234 520</b>
110	100	10	11000	<b>199 234 511</b>	<b>199 234 521</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]
75	166	257	85	156	66	93	284	144	136	290	70	60
90	200	274	105	168	70	100	300	152	141	310	70	65
110	238	273	123	175	78	110	340	169	164	350	120	72



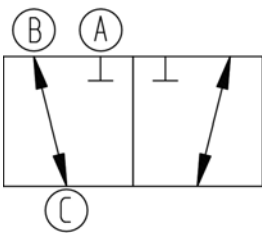
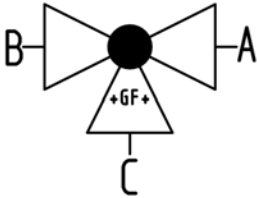
# PVC-U metric

## 3-Way ball valve type 285 PVC-U

### Horizontal/L-port

### Without manual override

### With solvent cement sockets metric



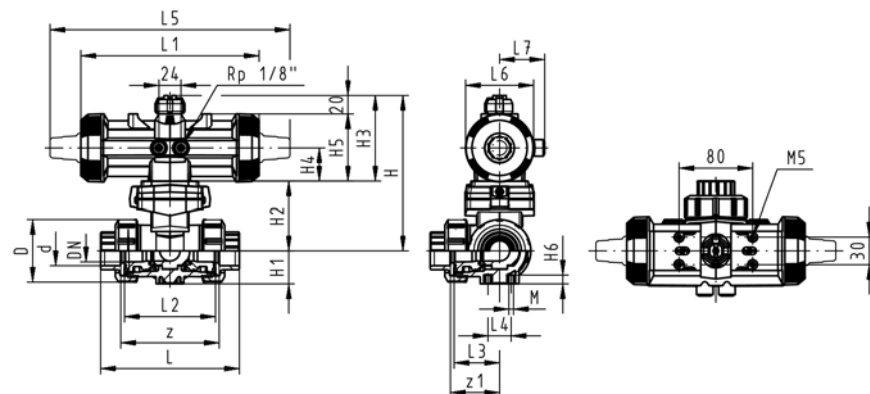
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 022	199 285 032
20	15	10	75	199 285 023	199 285 033
25	20	10	150	199 285 024	199 285 034
32	25	10	280	199 285 025	199 285 035
40	32	10	480	199 285 026	199 285 036
50	40	10	620	199 285 027	199 285 037
63	50	10	1230	199 285 028	199 285 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



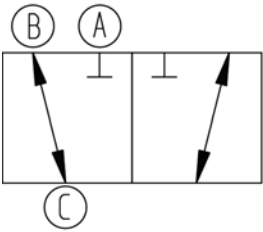
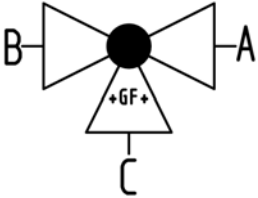
# PVC-U metric

## 3-Way ball valve type 285 PVC-U

### Horizontal/L-port

### Without manual override

### With solvent cement spigots metric



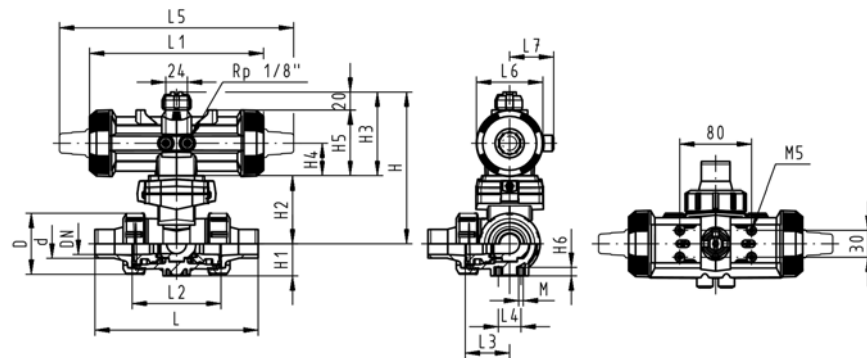
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 002	199 285 012
20	15	10	75	199 285 003	199 285 013
25	20	10	150	199 285 004	199 285 014
32	25	10	280	199 285 005	199 285 015
40	32	10	480	199 285 006	199 285 016
50	40	10	620	199 285 007	199 285 017
63	50	10	1230	199 285 008	199 285 018

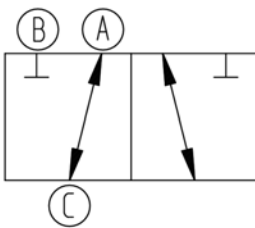
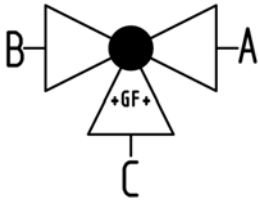
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-U metric

## 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement spigots metric



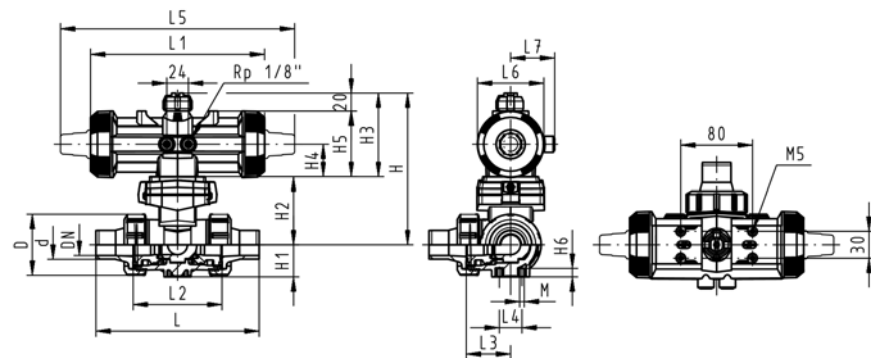
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 182	199 285 192
20	15	10	75	199 285 183	199 285 193
25	20	10	150	199 285 184	199 285 194
32	25	10	280	199 285 185	199 285 195
40	32	10	480	199 285 186	199 285 196
50	40	10	620	199 285 187	199 285 197
63	50	10	1230	199 285 188	199 285 198

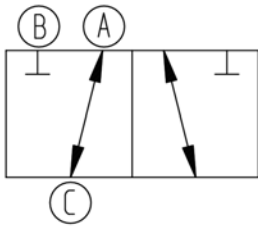
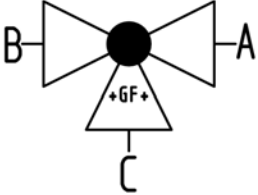
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-U metric

## 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets metric



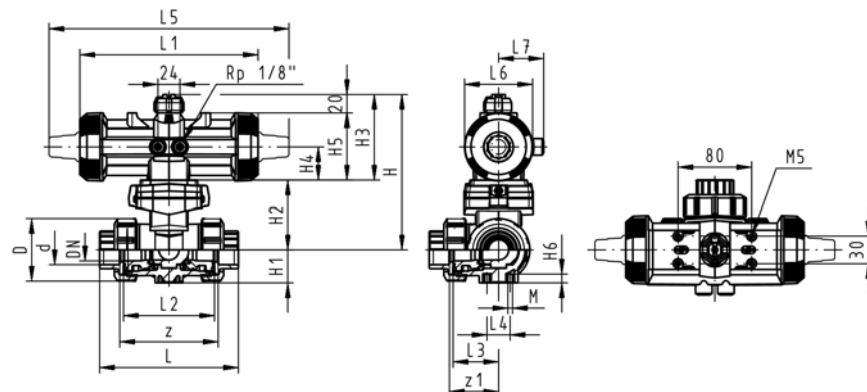
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 202	199 285 212
20	15	10	75	199 285 203	199 285 213
25	20	10	150	199 285 204	199 285 214
32	25	10	280	199 285 205	199 285 215
40	32	10	480	199 285 206	199 285 216
50	40	10	620	199 285 207	199 285 217
63	50	10	1230	199 285 208	199 285 218

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92





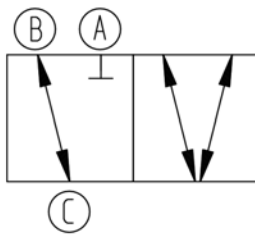
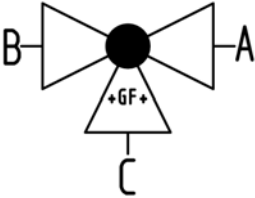
# PVC-U metric

## 3-Way ball valve type 285 PVC-U

### Horizontal/T-port

### Without manual override

### With solvent cement sockets metric



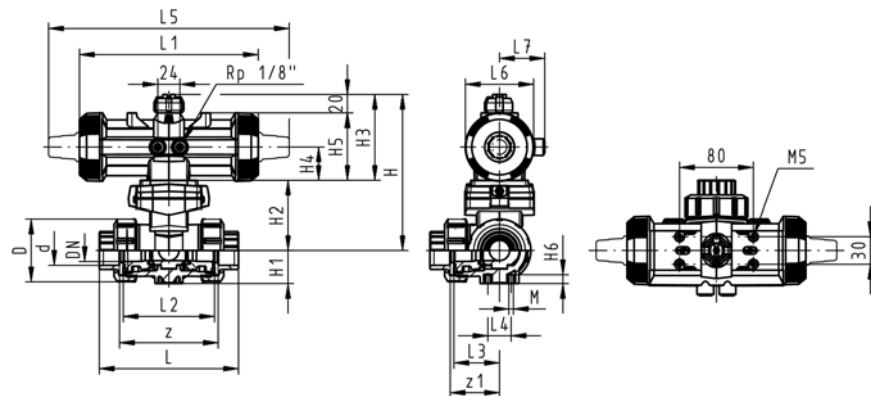
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 285 062	199 285 072
20	15	10	200	199 285 063	199 285 073
25	20	10	470	199 285 064	199 285 074
32	25	10	793	199 285 065	199 285 075
40	32	10	1290	199 285 066	199 285 076
50	40	10	1910	199 285 067	199 285 077
63	50	10	3100	199 285 068	199 285 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



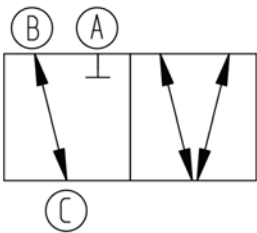
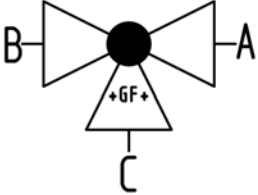
# PVC-U metric

## 3-Way ball valve type 285 PVC-U

### Horizontal/T-port

### Without manual override

### With solvent cement spigots metric



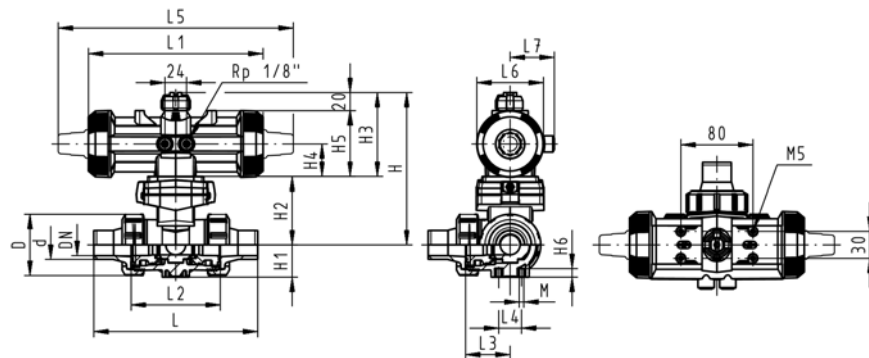
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 285 042	199 285 052
20	15	10	200	199 285 043	199 285 053
25	20	10	470	199 285 044	199 285 054
32	25	10	793	199 285 045	199 285 055
40	32	10	1290	199 285 046	199 285 056
50	40	10	1910	199 285 047	199 285 057
63	50	10	3100	199 285 048	199 285 058

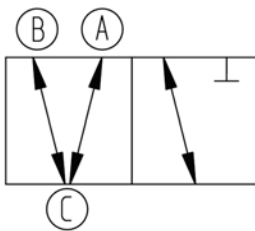
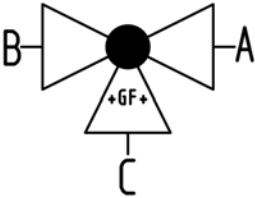
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-U metric

## 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement spigots metric



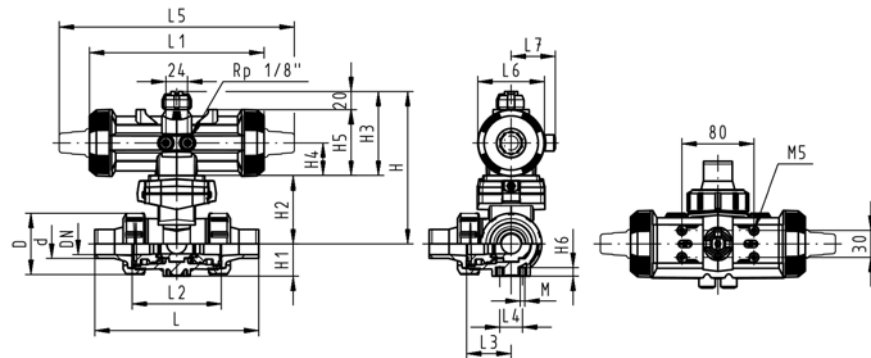
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 285 222	199 285 232
20	15	10	200	199 285 223	199 285 233
25	20	10	470	199 285 224	199 285 234
32	25	10	793	199 285 225	199 285 235
40	32	10	1290	199 285 226	199 285 236
50	40	10	1910	199 285 227	199 285 237
63	50	10	3100	199 285 228	199 285 238

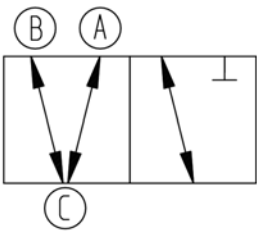
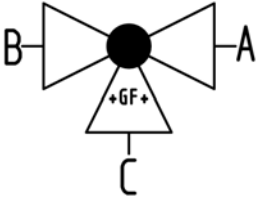
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-U metric

## 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets metric



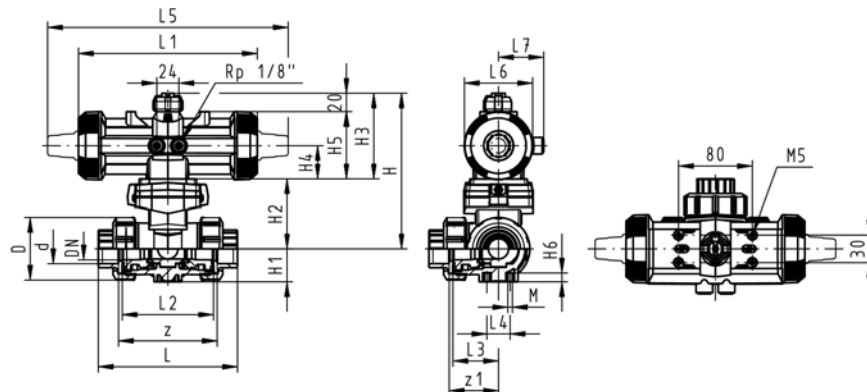
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 285 242</b>	<b>199 285 252</b>
20	15	10	200	<b>199 285 243</b>	<b>199 285 253</b>
25	20	10	470	<b>199 285 244</b>	<b>199 285 254</b>
32	25	10	793	<b>199 285 245</b>	<b>199 285 255</b>
40	32	10	1290	<b>199 285 246</b>	<b>199 285 256</b>
50	40	10	1910	<b>199 285 247</b>	<b>199 285 257</b>
63	50	10	3100	<b>199 285 248</b>	<b>199 285 258</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



# PVC-U metric

## Butterfly valves electric

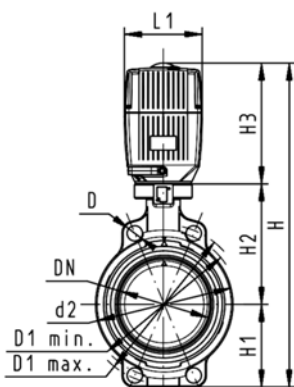
### Butterfly valve type 140 PVC-U 100-230V Without manual override



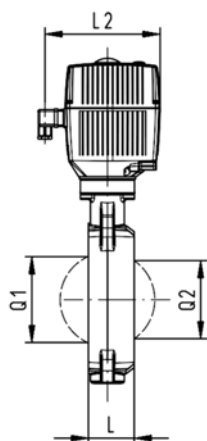
#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- For DN350-DN400 electric actuator from Valpes is equipped, various options available

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 140 042	199 140 062
75	65	2 ½	10	2200	199 140 043	199 140 063
90	80	3	10	3000	199 140 044	199 140 064
110	100	4	10	6500	199 140 045	199 140 065
140	125	5	10	11500	199 140 046	199 140 066
160	150	6	10	16600	199 140 047	199 140 067
225	200	8	10	39600	199 140 048	199 140 068
280	250	10	6	55200	199 140 049	199 140 069
315	300	12	4	80000	199 140 050	199 140 070
355	350	14	6	90000	199 140 051	199 140 071
400	400	16	6	115000	199 140 052	199 140 072



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256
355	VS-300	29	445.0	477.0	535	936	268	410	258	129	209	275	325
400	VT-600	29	510.0	540.0	593	1084	300	435	349	169	228	468	353



d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253
355	305
400	350

# PVC-U metric

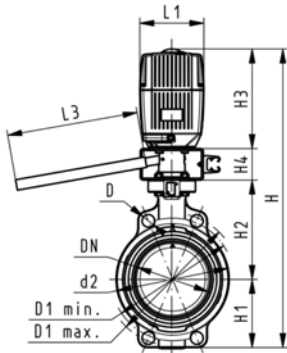
## Butterfly valve type 140 PVC-U 100-230V With manual override



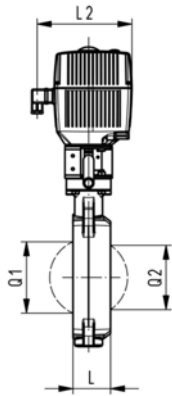
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Overall length according to EN 558, ISO 5752

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 002</b>	<b>199 140 022</b>
75	65	2 ½	10	2200	<b>199 140 003</b>	<b>199 140 023</b>
90	80	3	10	3000	<b>199 140 004</b>	<b>199 140 024</b>
110	100	4	10	6500	<b>199 140 005</b>	<b>199 140 025</b>
140	125	5	10	11500	<b>199 140 006</b>	<b>199 140 026</b>
160	150	6	10	16600	<b>199 140 007</b>	<b>199 140 027</b>
225	200	8	10	39600	<b>199 140 008</b>	<b>199 140 028</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



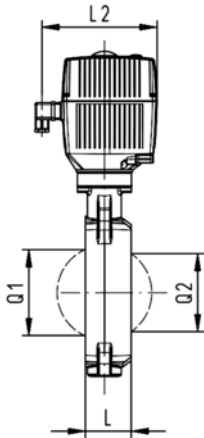
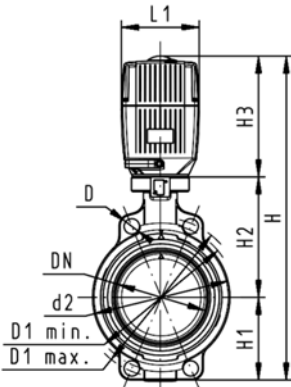
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# PVC-U metric

## Butterfly valve type 140 PVC-U 24V Without manual override

### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- The dimension DN300 on request



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 122</b>	<b>199 140 142</b>
75	65	2 ½	10	2200	<b>199 140 123</b>	<b>199 140 143</b>
90	80	3	10	3000	<b>199 140 124</b>	<b>199 140 144</b>
110	100	4	10	6500	<b>199 140 125</b>	<b>199 140 145</b>
140	125	5	10	11500	<b>199 140 126</b>	<b>199 140 146</b>
160	150	6	10	16600	<b>199 140 127</b>	<b>199 140 147</b>
225	200	8	10	39600	<b>199 140 128</b>	<b>199 140 148</b>
280	250	10	6	55200	<b>199 140 129</b>	<b>199 140 149</b>
315	300	12	4	80000	<b>199 140 130</b>	<b>199 140 150</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

# PVC-U metric

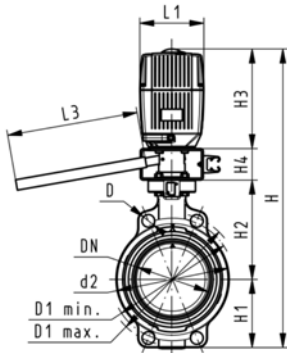
## Butterfly valve type 140 PVC-U 24V With manual override



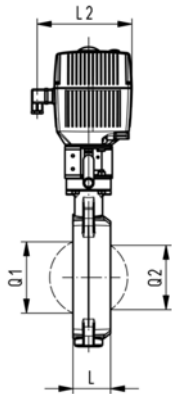
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 082</b>	<b>199 140 102</b>
75	65	2 ½	10	2200	<b>199 140 083</b>	<b>199 140 103</b>
90	80	3	10	3000	<b>199 140 084</b>	<b>199 140 104</b>
110	100	4	10	6500	<b>199 140 085</b>	<b>199 140 105</b>
140	125	5	10	11500	<b>199 140 086</b>	<b>199 140 106</b>
160	150	6	10	16600	<b>199 140 087</b>	<b>199 140 107</b>
225	200	8	10	39600	<b>199 140 088</b>	<b>199 140 108</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



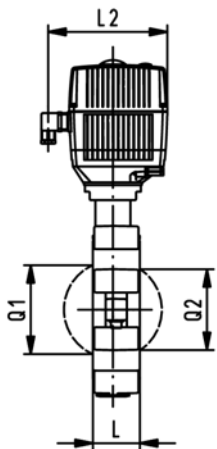
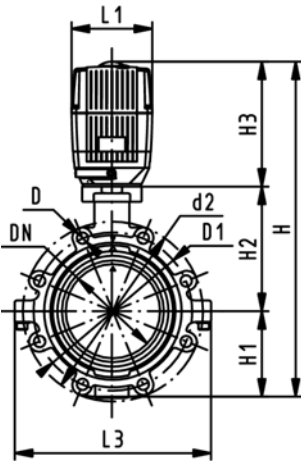
# PVC-U metric

## Lugstyle butterfly valve type 141 PVC-U 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



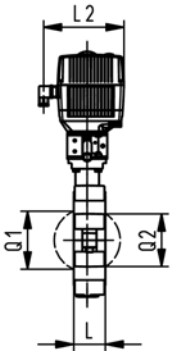
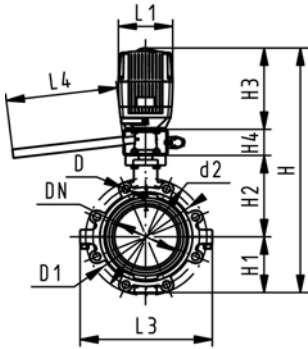
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 042</b>	<b>199 141 062</b>
75	65	2 ½	10	2200	<b>199 141 043</b>	<b>199 141 063</b>
90	80	3	10	3000	<b>199 141 044</b>	<b>199 141 064</b>
110	100	4	10	6500	<b>199 141 045</b>	<b>199 141 065</b>
140	125	5	10	11500	<b>199 141 046</b>	<b>199 141 066</b>
160	150	6	10	16600	<b>199 141 047</b>	<b>199 141 067</b>
225	200	8	10	39600	<b>199 141 048</b>	<b>199 141 068</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PVC-U metric

## Lugstyle butterfly valve type 141 PVC-U 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 002</b>	<b>199 141 022</b>
75	65	2 ½	10	2200	<b>199 141 003</b>	<b>199 141 023</b>
90	80	3	10	3000	<b>199 141 004</b>	<b>199 141 024</b>
110	100	4	10	6500	<b>199 141 005</b>	<b>199 141 025</b>
140	125	5	10	11500	<b>199 141 006</b>	<b>199 141 026</b>
160	150	6	10	16600	<b>199 141 007</b>	<b>199 141 027</b>
225	200	8	10	39600	<b>199 141 008</b>	<b>199 141 028</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

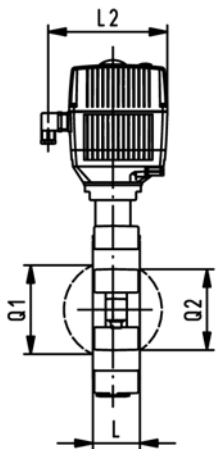
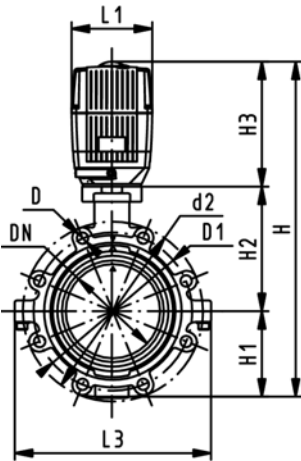
# PVC-U metric

## Lugstyle butterfly valve type 141 PVC-U 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



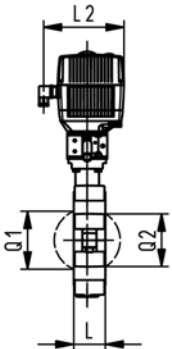
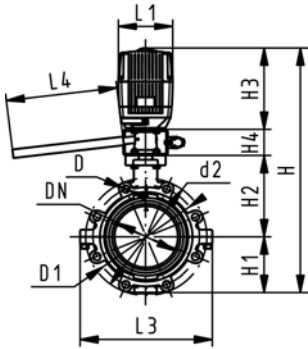
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 141 122	199 141 142
75	65	2 ½	10	2200	199 141 123	199 141 143
90	80	3	10	3000	199 141 124	199 141 144
110	100	4	10	6500	199 141 125	199 141 145
140	125	5	10	11500	199 141 126	199 141 146
160	150	6	10	16600	199 141 127	199 141 147
225	200	8	10	39600	199 141 128	199 141 148

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PVC-U metric

## Lugstyle butterfly valve type 141 PVC-U 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 082</b>	<b>199 141 102</b>
75	65	2 ½	10	2200	<b>199 141 083</b>	<b>199 141 103</b>
90	80	3	10	3000	<b>199 141 084</b>	<b>199 141 104</b>
110	100	4	10	6500	<b>199 141 085</b>	<b>199 141 105</b>
140	125	5	10	11500	<b>199 141 086</b>	<b>199 141 106</b>
160	150	6	10	16600	<b>199 141 087</b>	<b>199 141 107</b>
225	200	8	10	39600	<b>199 141 088</b>	<b>199 141 108</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

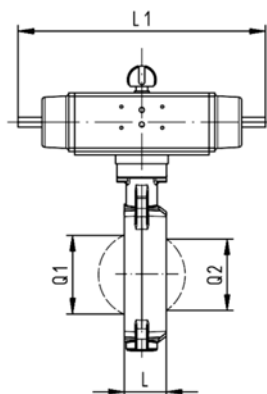
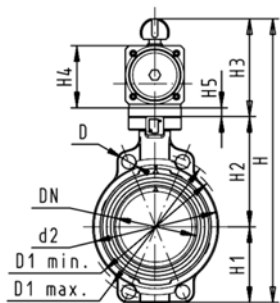
# PVC-U metric

## Butterfly valves pneumatic

### Butterfly valve type 240 PVC-U

#### FC (Fail safe to close)

#### Without manual override



#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

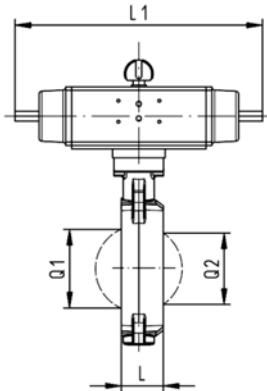
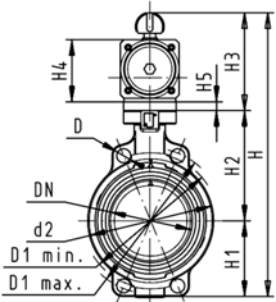
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 002</b>	<b>199 240 022</b>
75	65	2 ½	10	2200	<b>199 240 003</b>	<b>199 240 023</b>
90	80	3	10	3000	<b>199 240 004</b>	<b>199 240 024</b>
110	100	4	10	6500	<b>199 240 005</b>	<b>199 240 025</b>
140	125	5	10	11500	<b>199 240 006</b>	<b>199 240 026</b>
160	150	6	10	16600	<b>199 240 007</b>	<b>199 240 027</b>
225	200	8	10	39600	<b>199 240 008</b>	<b>199 240 028</b>
280	250	10	10	55200	<b>199 240 009</b>	<b>199 240 029</b>
315	300	12	10	80000	<b>199 240 010</b>	<b>199 240 030</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86	15	56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96	15	64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106	15	72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118	15	73	452
280	PA-65 FC	25	353.0	362.0	329	808	205	264	191	148	15	113	648
315	PA-70 FC	25	400.0	432.0	379	866	228	285	196	157	15	113	663

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

# PVC-U metric

## Butterfly valve type 240 PVC-U FO (Fail safe to open) Without manual override



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

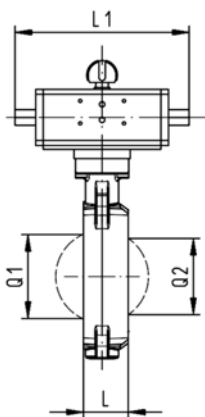
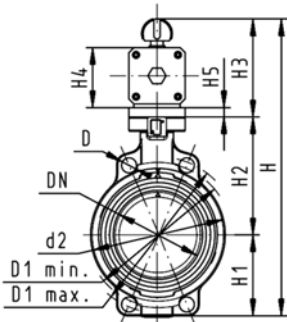
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 042</b>	<b>199 240 062</b>
75	65	2 ½	10	2200	<b>199 240 043</b>	<b>199 240 063</b>
90	80	3	10	3000	<b>199 240 044</b>	<b>199 240 064</b>
110	100	4	10	6500	<b>199 240 045</b>	<b>199 240 065</b>
140	125	5	10	11500	<b>199 240 046</b>	<b>199 240 066</b>
160	150	6	10	16600	<b>199 240 047</b>	<b>199 240 067</b>
225	200	8	10	39600	<b>199 240 048</b>	<b>199 240 068</b>
280	250	10	10	55200	<b>199 240 049</b>	<b>199 240 069</b>
315	300	12	10	80000	<b>199 240 050</b>	<b>199 240 070</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452
280	PA-70 FO	25	353.0	362.0	329	808	205	264	191	148		113	648
315	PA-70 FO	25	400.0	432.0	379	866	228	285	196	157		113	663

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

# PVC-U metric

## Butterfly valve type 240 PVC-U DA (Double acting) Without manual override



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Control range 90°<
- For DN350-DN400 pneumatic actuator supplied by Revac

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 082</b>	<b>199 240 102</b>
75	65	2 ½	10	2200	<b>199 240 083</b>	<b>199 240 103</b>
90	80	3	10	3000	<b>199 240 084</b>	<b>199 240 104</b>
110	100	4	10	6500	<b>199 240 085</b>	<b>199 240 105</b>
140	125	5	10	11500	<b>199 240 086</b>	<b>199 240 106</b>
160	150	6	10	16600	<b>199 240 087</b>	<b>199 240 107</b>
225	200	8	10	39600	<b>199 240 088</b>	<b>199 240 108</b>
280	250	10	10	55200	<b>199 240 089</b>	<b>199 240 109</b>
315	300	12	10	80000	<b>199 240 090</b>	<b>199 240 110</b>
355	350	14	6	90000	<b>199 240 091</b>	<b>199 240 111</b>
400	400	16	6	115000	<b>199 240 092</b>	<b>199 240 112</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	748	205	264	161	118		113	350
315	PA-70 DA	25	400.0	432.0	379	816	228	285	173	130		113	381
355	AP 5	29	445.0	577.0	535	863	268	410	185	155		129	360
400	AP 5.5	29	510.0	540.0	593	941	300	435	206	176		169	380

d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253
355	325	305
400	353	350

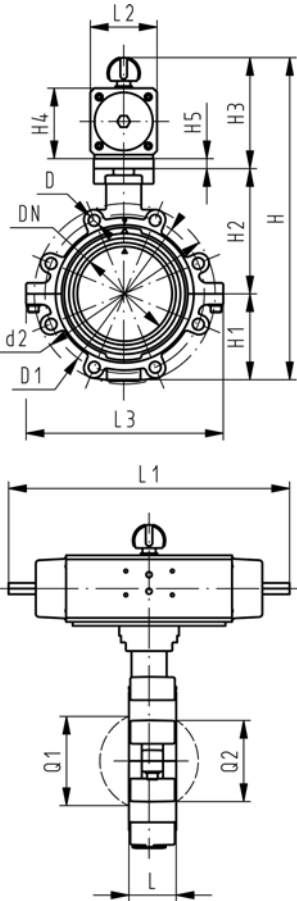
# PVC-U metric

## Lugstyle butterfly valve type 241 PVC-U FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 002</b>	<b>199 241 022</b>
75	65	2 ½	10	2200	<b>199 241 003</b>	<b>199 241 023</b>
90	80	3	10	3000	<b>199 241 004</b>	<b>199 241 024</b>
110	100	4	10	6500	<b>199 241 005</b>	<b>199 241 025</b>
140	125	5	10	11500	<b>199 241 006</b>	<b>199 241 026</b>
160	150	6	10	16600	<b>199 241 007</b>	<b>199 241 027</b>
225	200	8	10	39600	<b>199 241 008</b>	<b>199 241 028</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



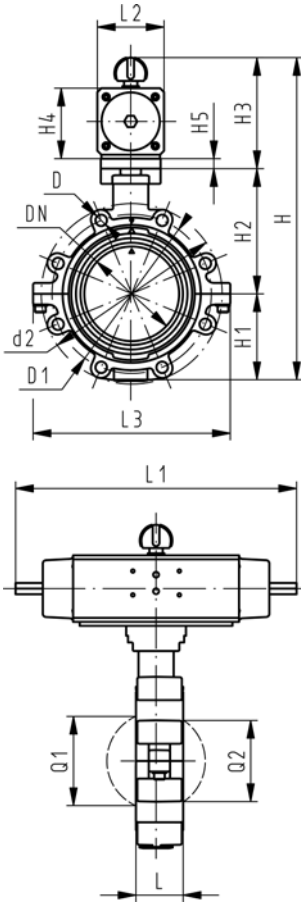
# PVC-U metric

## Lugstyle butterfly valve type 241 PVC-U FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 042</b>	<b>199 241 062</b>
75	65	2 ½	10	2200	<b>199 241 043</b>	<b>199 241 063</b>
90	80	3	10	3000	<b>199 241 044</b>	<b>199 241 064</b>
110	100	4	10	6500	<b>199 241 045</b>	<b>199 241 065</b>
140	125	5	10	11500	<b>199 241 046</b>	<b>199 241 066</b>
160	150	6	10	16600	<b>199 241 047</b>	<b>199 241 067</b>
225	200	8	10	39600	<b>199 241 048</b>	<b>199 241 068</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

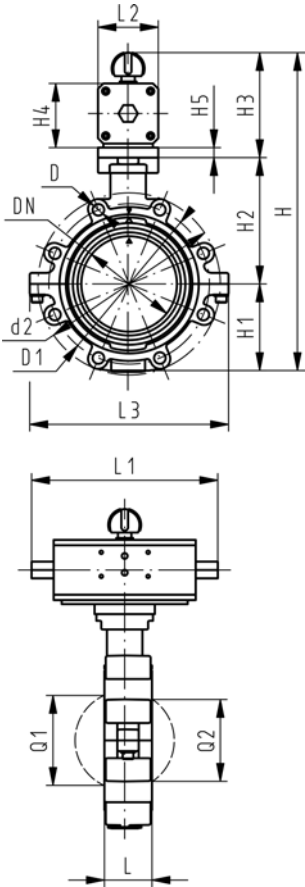
# PVC-U metric

## Lugstyle butterfly valve type 241 PVC-U DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 082</b>	<b>199 241 102</b>
75	65	2 ½	10	2200	<b>199 241 083</b>	<b>199 241 103</b>
90	80	3	10	3000	<b>199 241 084</b>	<b>199 241 104</b>
110	100	4	10	6500	<b>199 241 085</b>	<b>199 241 105</b>
140	125	5	10	11500	<b>199 241 086</b>	<b>199 241 106</b>
160	150	6	10	16600	<b>199 241 087</b>	<b>199 241 107</b>
225	200	8	10	39600	<b>199 241 088</b>	<b>199 241 108</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71		56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78		64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86		72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96		73	279	90

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

# PVC-U metric

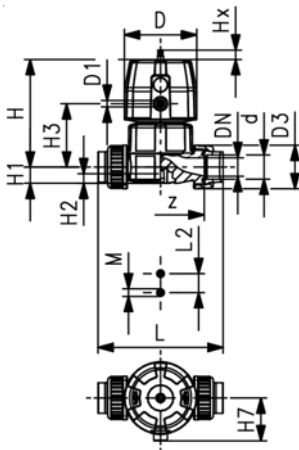
## Diaphragm valves pneumatic

### New generation

#### Diaphragm valve DIASTAR Six PVC-U

#### FC (Fail safe to close)

#### Unions with solvent cement sockets metric



#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

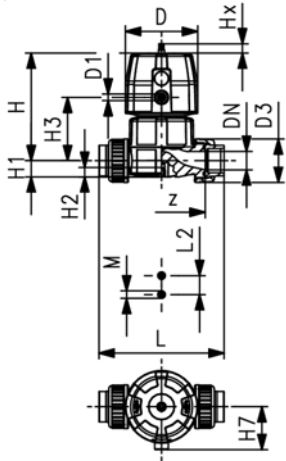
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	6	125	161 614 011	-
20	15	6	125	161 614 012	800 047 327
25	20	6	271	161 614 013	800 047 328
32	25	6	481	161 614 014	800 047 329
40	32	6	759	161 614 015	800 047 330
50	40	6	960	161 614 016	800 047 331
63	50	6	1181	161 614 017	800 047 332

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	1/8	124	25	101	14	12	60	43	M6	96	7
20	68	1/8	128	25	101	14	12	60	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	69	M8	140	14
50	120	1/8	222	45	193	32	15	119	69	M8	160	16
63	120	1/8	266	45	205	39	15	132	69	M8	190	16

# PVC-U metric

## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) Unions with threaded sockets Rp



### Model:

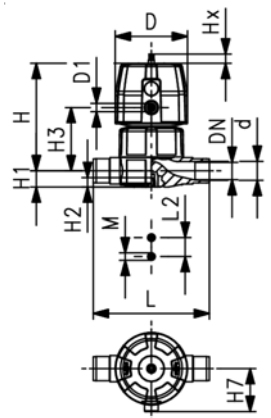
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
1/2	15	6	125	<b>161 614 412</b>
3/4	20	6	271	<b>161 614 413</b>
1	25	6	481	<b>161 614 414</b>
1 1/4	32	6	759	<b>161 614 415</b>
1 1/2	40	6	960	<b>161 614 416</b>
2	50	6	1181	<b>161 614 417</b>

Rp [inch]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	69	M8	140	14
1 1/2	120	1/8	222	45	193	32	15	119	69	M8	160	16
2	120	1/8	266	45	205	39	15	132	69	M8	190	16



## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) With solvent cement spigots metric

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)

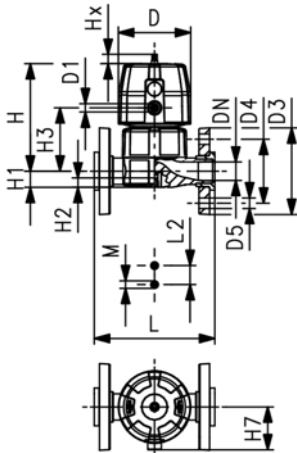
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>161 615 012</b>
25	20	6	271	<b>161 615 013</b>
32	25	6	481	<b>161 615 014</b>
40	32	6	759	<b>161 615 015</b>
50	40	6	960	<b>161 615 016</b>
63	50	6	1181	<b>161 615 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7
25	96	1/8	144	25	132	18	12	73	57	M6	10
32	96	1/8	154	25	143	22	12	84	57	M6	13
40	120	1/8	174	45	173	26	15	99	69	M8	14
50	120	1/8	194	45	193	32	15	119	69	M8	16
63	120	1/8	224	45	205	39	15	132	69	M8	16

## PVC-U metric

### Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close)

#### With backing flanges PVC-U metric/BS



#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

#### Option:

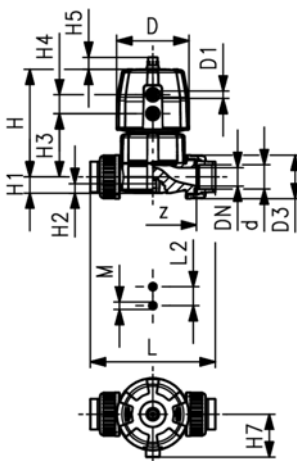
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	161 617 012
25	20	6	271	161 617 013
32	25	6	481	161 617 014
40	32	6	759	161 617 015
50	40	6	960	161 617 016
63	50	6	1181	161 617 017

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	95	65	14	130	25	101	14	12	60	43	M6	7
25	96	1/8	105	75	14	150	25	132	18	12	73	57	M6	10
32	96	1/8	115	85	14	160	25	143	22	12	84	57	M6	13
40	120	1/8	140	100	18	180	45	173	26	15	99	69	M8	14
50	120	1/8	150	110	18	200	45	193	32	15	119	69	M8	16
63	120	1/8	165	125	18	230	45	205	39	15	132	69	M8	16

### Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close)

#### Unions with solvent cement sockets metric



#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

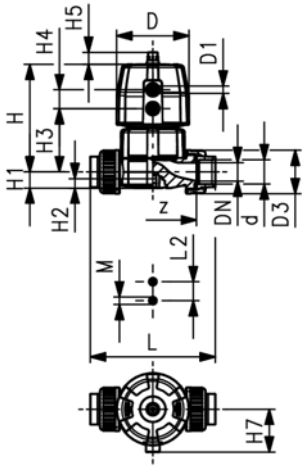
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	PTFE/FPM Code	FPM Code
16	10	10	125	161 624 011	161 624 031	-	800 047 333
20	15	10	125	161 624 012	161 624 032	800 047 348	800 047 334
25	20	10	271	161 624 013	161 624 033	800 047 349	800 047 294
32	25	10	481	161 624 014	161 624 034	800 047 350	800 047 335
40	32	10	759	161 624 015	161 624 035	800 047 351	800 047 336
50	40	10	1263	161 624 016	161 624 036	800 047 352	800 047 337
63	50	10/6*	1728	161 624 017	161 624 037	800 047 353	800 047 338

table continued next page

# PVC-U metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	1/8	124	25	101	14	12	60	24	16	43	M6	96	7
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close) With solvent cement spigots metric

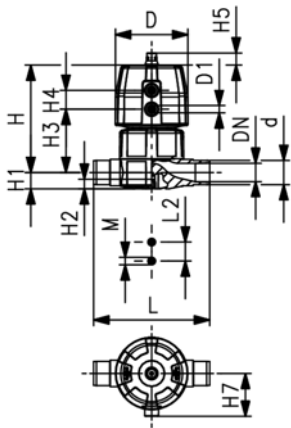
### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

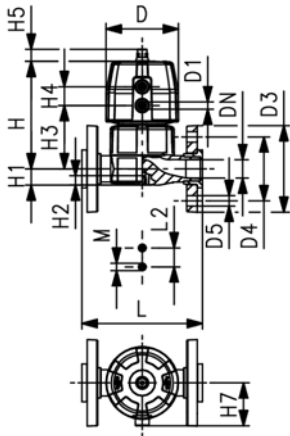


d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>161 625 012</b>	<b>161 625 032</b>
25	20	10	271	<b>161 625 013</b>	<b>161 625 033</b>
32	25	10	481	<b>161 625 014</b>	<b>161 625 034</b>
40	32	10	759	<b>161 625 015</b>	<b>161 625 035</b>
50	40	10	1263	<b>161 625 016</b>	<b>161 625 036</b>
63	50	10/6*	1728	<b>161 625 017</b>	<b>161 625 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close) With backing flanges PVC-U metric/BS



### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	161 627 012	161 627 032
25	20	10	271	161 627 013	161 627 033
32	25	10	481	161 627 014	161 627 034
40	32	10	759	161 627 015	161 627 035
50	40	10	1263	161 627 016	161 627 036
63	50	10/6*	1728	161 627 017	161 627 037

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U

### FO (Fail safe to open)

### Unions with solvent cement sockets metric

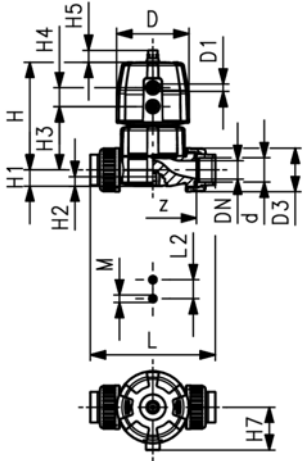


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
16	10	10	125	<b>161 644 011</b>	<b>161 644 031</b>
20	15	10	125	<b>161 644 012</b>	<b>161 644 032</b>
25	20	10	271	<b>161 644 013</b>	<b>161 644 033</b>
32	25	10	481	<b>161 644 014</b>	<b>161 644 034</b>
40	32	10	759	<b>161 644 015</b>	<b>161 644 035</b>
50	40	10	1263	<b>161 644 016</b>	<b>161 644 036</b>
63	50	10	1728	<b>161 644 017</b>	<b>161 644 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	1/8	124	25	101	14	12	60	24	16	43	M6	96	7
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23



# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) With solvent cement spigots metric

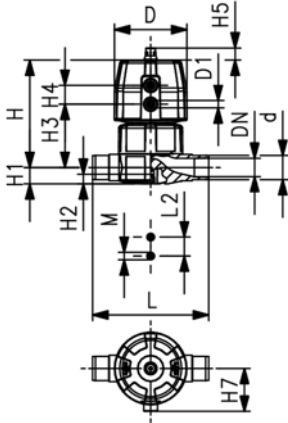


### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	161 645 012	161 645 032
25	20	10	271	161 645 013	161 645 033
32	25	10	481	161 645 014	161 645 034
40	32	10	759	161 645 015	161 645 035
50	40	10	1263	161 645 016	161 645 036
63	50	10	1728	161 645 017	161 645 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) With backing flanges PVC-U metric/BS

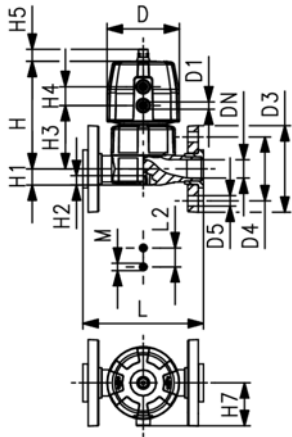


### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>161 647 012</b>	<b>161 647 032</b>
25	20	10/10*	271	<b>161 647 013</b>	<b>161 647 033</b>
32	25	10/10*	481	<b>161 647 014</b>	<b>161 647 034</b>
40	32	10/10*	759	<b>161 647 015</b>	<b>161 647 035</b>
50	40	10/10*	1263	<b>161 647 016</b>	<b>161 647 036</b>
63	50	10/10*	1728	<b>161 647 017</b>	<b>161 647 037</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting)

### Unions with solvent cement sockets metric

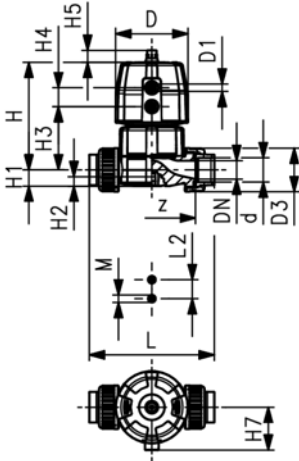


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
16	10	10	125	<b>161 654 011</b>	<b>161 654 031</b>
20	15	10	125	<b>161 654 012</b>	<b>161 654 032</b>
25	20	10	271	<b>161 654 013</b>	<b>161 654 033</b>
32	25	10	481	<b>161 654 014</b>	<b>161 654 034</b>
40	32	10	759	<b>161 654 015</b>	<b>161 654 035</b>
50	40	10	1263	<b>161 654 016</b>	<b>161 654 036</b>
63	50	10	1728	<b>161 654 017</b>	<b>161 654 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	1/8	124	25	101	14	12	60	24	16	43	M6	96	7
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) With solvent cement spigots metric

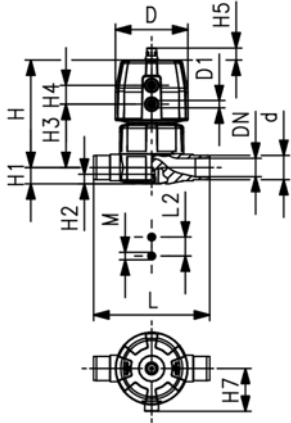


### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>161 655 012</b>	<b>161 655 032</b>
25	20	10	271	<b>161 655 013</b>	<b>161 655 033</b>
32	25	10	481	<b>161 655 014</b>	<b>161 655 034</b>
40	32	10	759	<b>161 655 015</b>	<b>161 655 035</b>
50	40	10	1263	<b>161 655 016</b>	<b>161 655 036</b>
63	50	10	1728	<b>161 655 017</b>	<b>161 655 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23

# PVC-U metric

## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting)

### With backing flanges PVC-U metric/BS

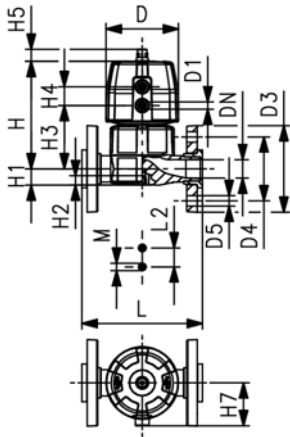


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	161 657 012	161 657 032
25	20	10	271	161 657 013	161 657 033
32	25	10	481	161 657 014	161 657 034
40	32	10	759	161 657 015	161 657 035
50	40	10	1263	161 657 016	161 657 036
63	50	10	1728	161 657 017	161 657 037

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# PVC-U metric

## Diaphragm valve DIASTAR Sixteen PVC-U FC (Fail safe to close)

### Unions with solvent cement sockets metric



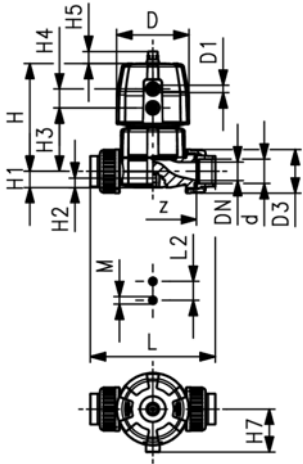
#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration

\* PN: PTFE/EPDM

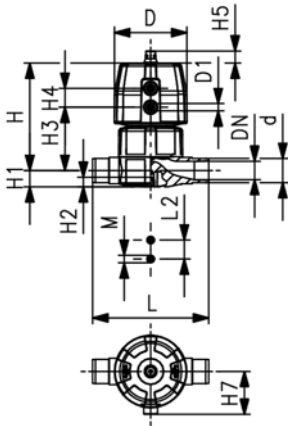


d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
16	10	16/16*	125	<b>161 634 011</b>	<b>161 634 031</b>
20	15	16/16*	125	<b>161 634 012</b>	<b>161 634 032</b>
25	20	16/16*	271	<b>161 634 013</b>	<b>161 634 033</b>
32	25	16/16*	481	<b>161 634 014</b>	<b>161 634 034</b>
40	32	16/16*	759	<b>161 634 015</b>	<b>161 634 035</b>
50	40	16/16*	1263	<b>161 634 016</b>	<b>161 634 036</b>
63	50	16/10*	1728	<b>161 634 017</b>	<b>161 634 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	96	1/8	124	25	127	14	12	68	25	16	57	M6	96	7
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	122	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	140	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	160	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	190	23

# PVC-U metric

## Diaphragm valve DIASTAR Sixteen PVC-U FC (Fail safe to close) With solvent cement spigots metric



### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

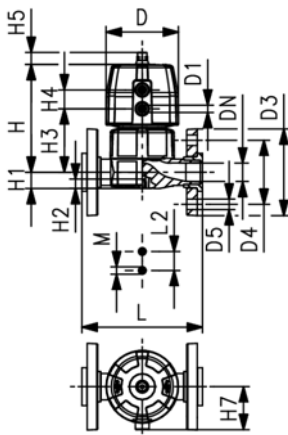
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	16/16*	125	<b>161 635 012</b>	<b>161 635 032</b>
25	20	16/16*	271	<b>161 635 013</b>	<b>161 635 033</b>
32	25	16/16*	481	<b>161 635 014</b>	<b>161 635 034</b>
40	32	16/16*	759	<b>161 635 015</b>	<b>161 635 035</b>
50	40	16/16*	1263	<b>161 635 016</b>	<b>161 635 036</b>
63	50	16/10*	1728	<b>161 635 017</b>	<b>161 635 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23

## Diaphragm valve DIASTAR Sixteen PVC-U FC (Fail safe to close) With backing flanges PVC-U metric/BS



### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

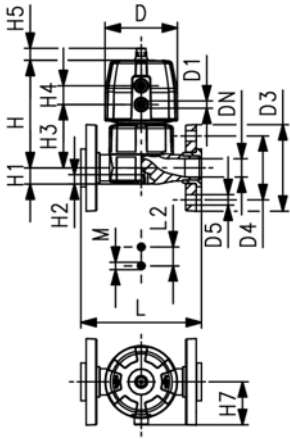
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>161 637 012</b>	<b>161 637 032</b>
25	20	10	271	<b>161 637 013</b>	<b>161 637 033</b>
32	25	10	481	<b>161 637 014</b>	<b>161 637 034</b>
40	32	10	759	<b>161 637 015</b>	<b>161 637 035</b>
50	40	10	1263	<b>161 637 016</b>	<b>161 637 036</b>
63	50	10	1728	<b>161 637 017</b>	<b>161 637 037</b>

table continued next page

# PVC-U metric



d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	96	1/8	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	1/8	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	1/4	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	1/4	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	1/4	165	125	18	230	45	251	39	15	137	37	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



# PVC-U metric

## Diaphragm valves pneumatic

### Diaphragm valve type DIASTAR PVC-U Series 025 FC (Fail safe to close) With fixed flanges PVC-U metric



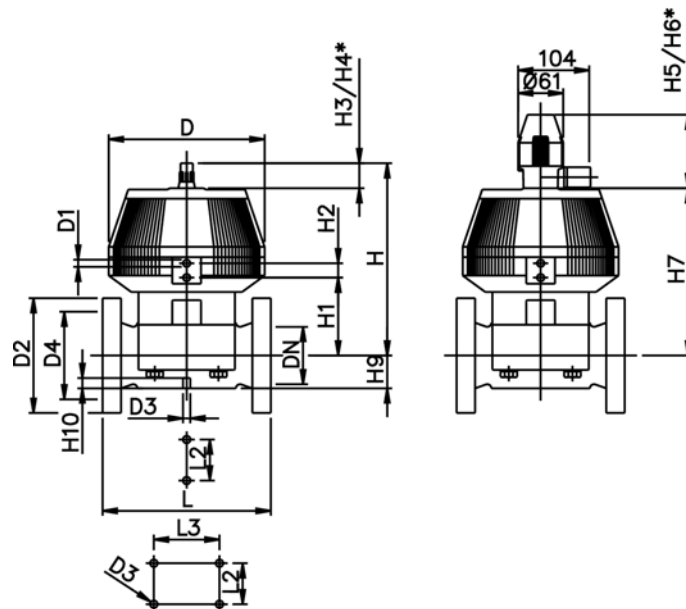
**Model:**

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* with backing flanges PVC-U metric
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 127</b>	<b>199 025 157</b>
** 90	80	3	10	1700	<b>199 025 128</b>	<b>199 025 158</b>
110	100	4	6	2700	<b>199 025 129</b>	<b>199 025 159</b>
** 160	150	6	6	6033	<b>199 025 130</b>	-

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# PVC-U metric

## Diaphragm valve type DIASTAR PVC-U Series 025 FO (Fail safe to open) With fixed flanges PVC-U metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

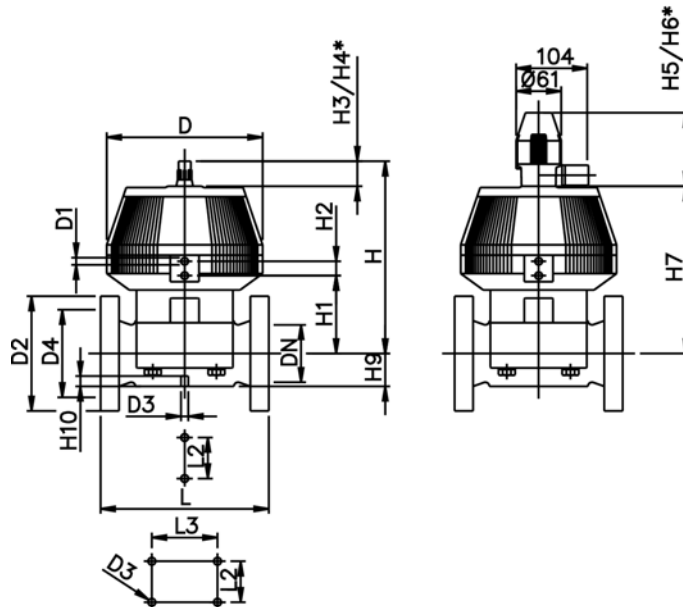
\* with backing flanges PVC-U metric

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 137</b>	<b>199 025 167</b>
** 90	80	3	10	1700	<b>199 025 138</b>	<b>199 025 168</b>
110	100	4	6	2700	<b>199 025 139</b>	<b>199 025 169</b>
** 160	150	6	6	6033	<b>199 025 140</b>	<b>199 025 170</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# PVC-U metric

## Diaphragm valve type DIASTAR PVC-U Series 025 DA (Double acting) With fixed flanges PVC-U metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

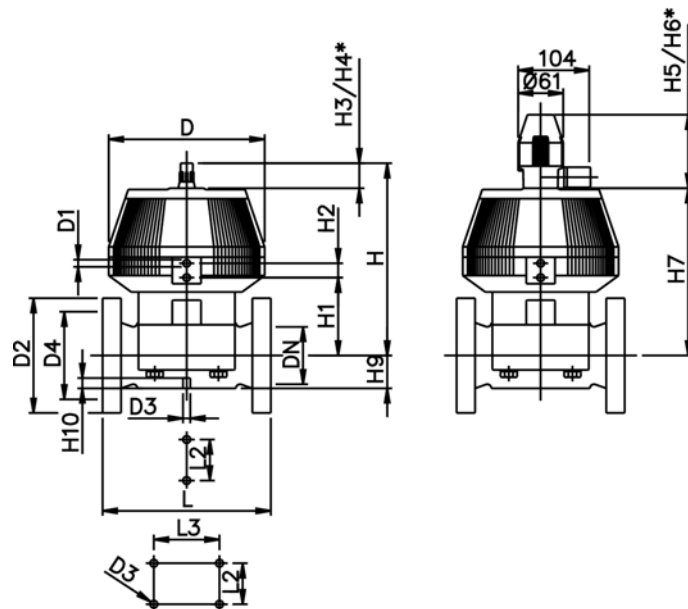
\* with backing flanges PVC-U metric

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 147</b>	<b>199 025 177</b>
** 90	80	3	10	1700	<b>199 025 148</b>	<b>199 025 178</b>
110	100	4	6	2700	<b>199 025 149</b>	<b>199 025 179</b>
** 160	150	6	6	6033	<b>199 025 150</b>	<b>199 025 180</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



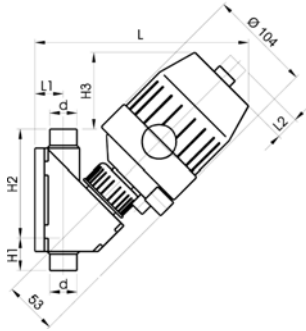
# PVC-U metric

## Angle seat valves pneumatic

### Angle seat valve type 211 PVC-U

#### FC (Fail safe to close)

#### With solvent cement spigots metric

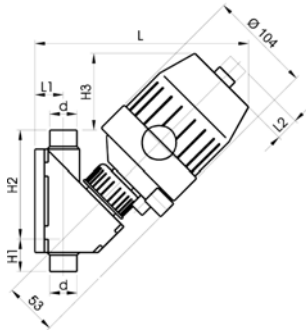


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
16	10	6	41	<b>199 211 305</b>	<b>199 211 355</b>	198	22	14	24	90	74
20	15	6	94	<b>199 211 306</b>	<b>199 211 356</b>	207	25	17	28	96	73
25	20	6	175	<b>199 211 307</b>	<b>199 211 357</b>	221	30	22	37	107	71
32	25	6	296	<b>199 211 308</b>	<b>199 211 358</b>	240	35	22	37	117	72
40	32	6	416	<b>199 211 309</b>	<b>199 211 359</b>	270	42	22	44	130	80
50	40	3	512	<b>199 211 310</b>	<b>199 211 360</b>			22	48	146	82
63	50	2	620	<b>199 211 311</b>	<b>199 211 361</b>			22	60	164	82

### Angle seat valve type 211 PVC-U

#### FO (Fail safe to open)

#### With solvent cement spigots metric

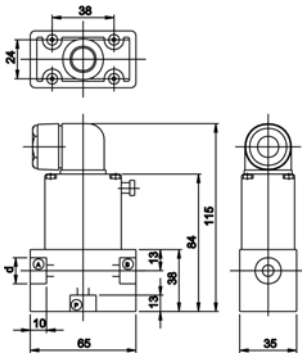
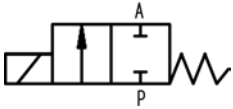


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
16	10	10	41	<b>199 211 705</b>	<b>199 211 755</b>	198	22	14	24	90	74
20	15	10	94	<b>199 211 706</b>	<b>199 211 756</b>	207	25	17	28	96	73
25	20	10	175	<b>199 211 707</b>	<b>199 211 757</b>	221	30	22	37	107	71
32	25	10	296	<b>199 211 708</b>	<b>199 211 758</b>	240	35	22	37	117	72
40	32	10	416	<b>199 211 709</b>	<b>199 211 759</b>	270	42	22	44	130	80
50	40	6	512	<b>199 211 710</b>	<b>199 211 760</b>			22	48	146	82
63	50	4	620	<b>199 211 711</b>	<b>199 211 761</b>			22	60	164	82

# PVC-U metric

## Solenoid valves

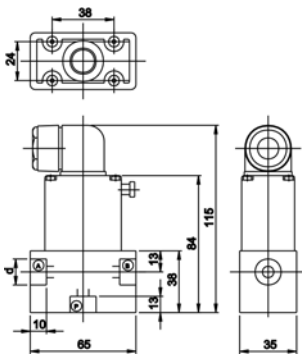
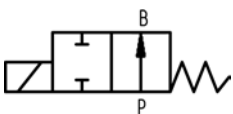
**Solenoid valve type 157 PVC-U**  
**Nominal voltage 230V 50Hz ±10%**  
**Function A straight-through valve 2/2 ways**  
**With threaded sockets parallel female thread Rp**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code
4	G3/8	0.0 - 4.0	199 157 007	199 157 002
6	G3/8	0.0 - 2.0	199 157 008	199 157 003
8	G3/8	0.0 - 1.0	199 157 009	199 157 004

**Solenoid valve type 157 PVC-U**  
**Nominal voltage 230V 50Hz ±10%**  
**Function B straight-through valve 2/2 ways**  
**With threaded sockets parallel female thread Rp**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code
4	G3/8	0.0 - 4.0	199 157 027	199 157 022
6	G3/8	0.0 - 2.0	199 157 028	199 157 023
8	G3/8	0.0 - 1.0	199 157 029	199 157 024

## PVC-U metric

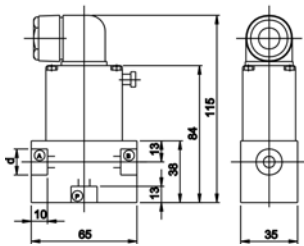
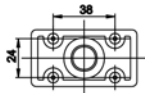
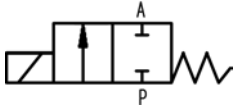
### Solenoid valve type 157 PVC-U

Nominal voltage 24V DC \*24V AC/DC

Function A straight-through valve 2/2 ways

With threaded sockets parallel female thread Rp

- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	
4	G3/8	0.0 - 4.0	199 157 627	199 157 622	
6	G3/8	0.0 - 2.0	199 157 628	199 157 623	
* 8	G3/8	0.0 - 1.0	199 157 629	199 157 624	

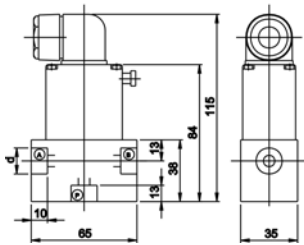
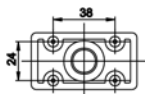
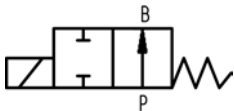
### Solenoid valve type 157 PVC-U

Nominal voltage 24V DC \*24V AC/DC

Function B straight-through valve 2/2 ways

With threaded sockets parallel female thread Rp

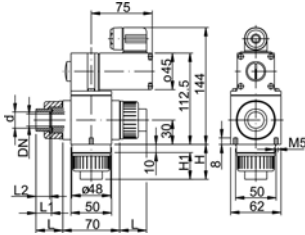
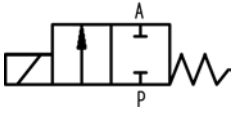
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	
4	G3/8	0.0 - 4.0	199 157 647	199 157 642	
6	G3/8	0.0 - 2.0	199 157 648	199 157 643	
* 8	G3/8	0.0 - 1.0	199 157 649	199 157 644	

## PVC-U metric

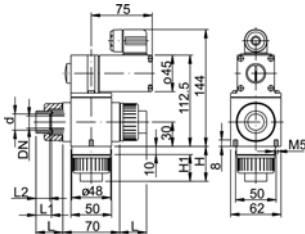
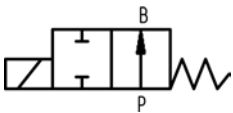
### Solenoid valve type 160 PVC-U Nominal voltage 230V 50Hz ± 10% Function A straight through valve 2/2 ways With solvent cement sockets metric



- With manual override
- Electric connection with cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 3.0	33	199 160 010	199 160 005	30	17	14
10	20	0.0 - 3.0	33	199 160 011	199 160 006	30	17	14
15	20	0.0 - 1.0	75	199 160 012	199 160 007	33	19	16
15	25	0.0 - 1.0	75	199 160 013	199 160 008	33	19	16
20	25	0.0 - 0.5	100	199 160 014	199 160 009	37	22	19

### Solenoid valve type 160 PVC-U Nominal voltage 230V 50Hz ± 10% Function B straight through valve 2/2 ways With solvent cement sockets metric



- With manual override
- Electric connection with cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 2.0	33	199 160 025	199 160 020	30	17	14
10	20	0.0 - 2.0	33	199 160 026	199 160 021	30	17	14
15	20	0.0 - 1.0	75	199 160 027	199 160 022	33	19	16
15	25	0.0 - 1.0	75	199 160 028	199 160 023	33	19	16
20	25	0.0 - 0.5	100	199 160 029	199 160 024	37	22	19

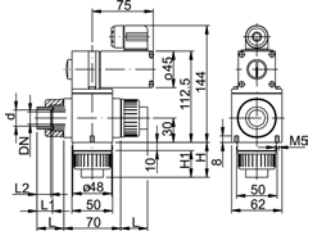
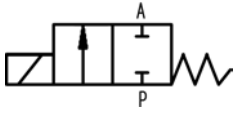
## PVC-U metric

### Solenoid valve type 160 PVC-U

Nominal voltage 24V AC/DC

Function A straight through valve 2/2 ways

With solvent cement sockets metric



- With manual override
- Electric connection with cable plug
- Protection class IP 65

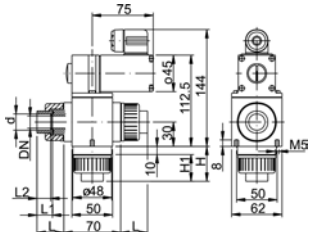
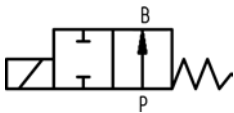
DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 3.0	33	<b>199 160 370</b>	<b>199 160 365</b>	30	17	14
10	20	0.0 - 3.0	33	<b>199 160 371</b>	<b>199 160 366</b>	30	17	14
15	20	0.0 - 1.0	75	<b>199 160 372</b>	<b>199 160 367</b>	33	19	16
15	25	0.0 - 1.0	75	<b>199 160 373</b>	<b>199 160 368</b>	33	19	16
20	25	0.0 - 0.5	100	<b>199 160 374</b>	<b>199 160 369</b>	37	22	19

### Solenoid valve type 160 PVC-U

Nominal voltage 24V AC/DC

Function B straight-through valve 2/2 ways

With solvent cement sockets metric



- With manual override
- Electric connection with cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 2.0	33	<b>199 160 385</b>	<b>199 160 380</b>	30	17	14
10	20	0.0 - 2.0	33	<b>199 160 386</b>	<b>199 160 381</b>	30	17	14
15	20	0.0 - 1.0	75	<b>199 160 387</b>	<b>199 160 382</b>	33	19	16
15	25	0.0 - 1.0	75	<b>199 160 388</b>	<b>199 160 383</b>	33	19	16
20	25	0.0 - 0.5	100	<b>199 160 389</b>	<b>199 160 384</b>	37	22	19

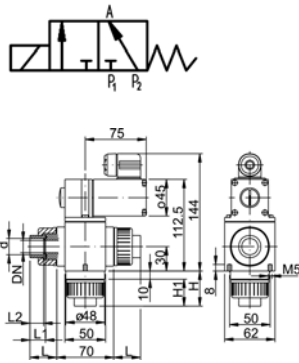


# PVC-U metric

**Solenoid valve type 161 PVC-U**  
**Nominal voltage 230V 50Hz ± 10%**  
**Function E mixing valve 3/2 ways**  
**With solvent cement sockets metric**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

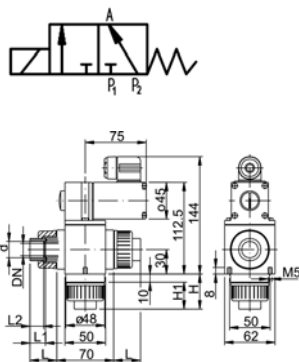


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	16	0.0 - 0.6	33	<b>199 161 040</b>	<b>199 161 035</b>	30	17	14	40	30
10	20	0.0 - 0.6	33	<b>199 161 041</b>	<b>199 161 036</b>	30	17	14	40	30
15	20	0.0 - 0.3	67	<b>199 161 042</b>	<b>199 161 037</b>	33	19	16	43	33
15	25	0.0 - 0.3	67	<b>199 161 043</b>	<b>199 161 038</b>	33	19	16	43	33
20	25	0.0 - 0.2	83	<b>199 161 044</b>	<b>199 161 039</b>	37	22	19	47	37

**Solenoid valve type 161 PVC-U**  
**Nominal voltage 24V AC/DC**  
**Function E mixing valve 3/2 ways**  
**With solvent cement sockets metric**



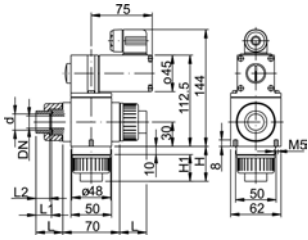
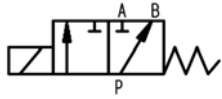
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	16	0.0 - 0.6	33	<b>199 161 430</b>	<b>199 161 425</b>	30	17	14	40	30
10	20	0.0 - 0.6	33	<b>199 161 431</b>	<b>199 161 426</b>	30	17	14	40	30
15	20	0.0 - 0.3	67	<b>199 161 432</b>	<b>199 161 427</b>	33	19	16	43	33
15	25	0.0 - 0.3	67	<b>199 161 433</b>	<b>199 161 428</b>	33	19	16	43	33
20	25	0.0 - 0.2	83	<b>199 161 434</b>	<b>199 161 429</b>	37	22	19	47	37

# PVC-U metric

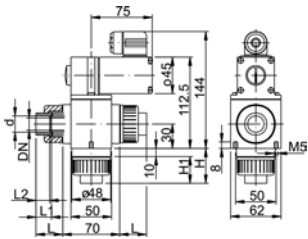
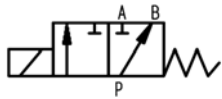
**Solenoid valve type 161 PVC-U**  
**Nominal voltage 230V 50Hz ± 10%**  
**Function F distribution valve 3/2 ways**  
**With solvent cement sockets metric**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	16	0 - 1.00	33	<b>199 161 055</b>	<b>199 161 050</b>	30	17	14	40	30
10	20	0 - 1.00	33	<b>199 161 056</b>	<b>199 161 051</b>	30	17	14	40	30
15	20	0 - 0.50	67	<b>199 161 057</b>	<b>199 161 052</b>	33	19	16	43	33
15	25	0 - 0.50	67	<b>199 161 058</b>	<b>199 161 053</b>	33	19	16	43	33
20	25	0 - 0.25	83	<b>199 161 059</b>	<b>199 161 054</b>	37	22	19	47	37

**Solenoid valve type 161 PVC-U**  
**Nominal voltage 24V AC/DC**  
**Function F distribution valve 3/2 ways**  
**With solvent cement sockets metric**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	d [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	PN [bar]	EPDM Code	FPM Code	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	16	33	0 - 1.00	<b>199 161 445</b>	<b>199 161 440</b>	30	17	14	40	30
10	20	33	0 - 1.00	<b>199 161 446</b>	<b>199 161 441</b>	30	17	14	40	30
15	20	67	0 - 0.50	<b>199 161 447</b>	<b>199 161 442</b>	33	19	16	43	33
15	25	67	0 - 0.50	<b>199 161 448</b>	<b>199 161 443</b>	33	19	16	43	33
20	25	83	0 - 0.25	<b>199 161 449</b>	<b>199 161 444</b>	37	22	19	47	37

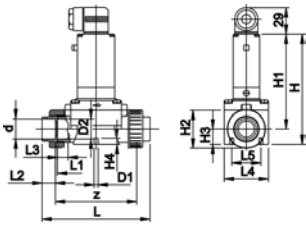
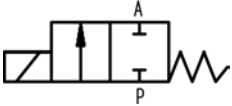
## PVC-U metric

### Solenoid valve type 165 PVC-U

Standard voltage 230V 50Hz

Function A straight-through valve 2/2 ways

With solvent cement sockets metric



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
15	20	0.5 - 6.0	83	199 165 012	199 165 002
20	25	0.5 - 6.0	100	199 165 013	199 165 003
25	32	0.5 - 6.0	233	199 165 014	199 165 004
32	40	0.5 - 6.0	267	199 165 015	199 165 005
40	50	0.5 - 6.0	500	199 165 016	199 165 006
50	63	0.5 - 6.0	600	199 165 017	199 165 007

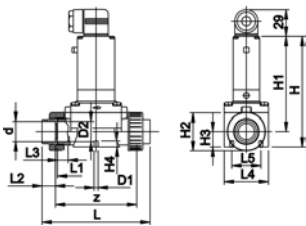
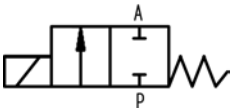
DN [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
15		116	148	110	16		63	40	148	122	53	22	8
20	25	116	154	110	19	18	62	40	148	122	53	22	8
25		147	190	141	22		85	45	175	137	76	31	15
32	40	147	198	141	26	23	85	45	175	137	76	31	15
40		198	254	192	31		115	45	212	160	105	42	15
50	63	198	268	192	38	33	115	45	212	160	105	42	15

### Solenoid valve type 165 PVC-U

Standard voltage 115V 50Hz

Function A straight-through valve 2/2 ways

With solvent cement sockets metric



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
15	20	0.5 - 6.0	83	199 165 042	199 165 032
20	25	0.5 - 6.0	100	199 165 043	199 165 033
25	32	0.5 - 6.0	233	199 165 044	199 165 034
32	40	0.5 - 6.0	267	199 165 045	199 165 035
40	50	0.5 - 6.0	500	199 165 046	199 165 036
50	63	0.5 - 6.0	600	199 165 047	199 165 037

DN [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
15		116	148	110	16		63	40	148	122	53	22	8
20	25	116	154	110	19	18	62	40	148	122	53	22	8
25		147	190	141	22		85	45	175	137	76	31	15
32	40	147	198	141	26	23	85	45	175	137	76	31	15
40		198	254	192	31		115	45	212	160	105	42	15
50	63	198	268	192	38	33	115	45	212	160	105	42	15

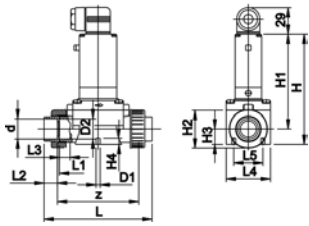
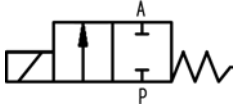
# PVC-U metric

**Solenoid valve type 165 PVC-U**

**Standard voltage 24V DC**

**Function A straight-through valve 2/2 ways**

**With solvent cement sockets metric**



- With manual override
- Electrical connection: cable plug
- Protection class IP 65

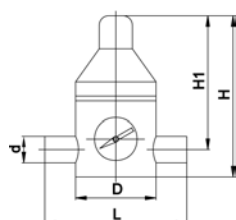
DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
15	20	0.5 - 6.0	83	<b>199 165 022</b>	<b>199 165 072</b>
20	25	0.5 - 6.0	100	<b>199 165 023</b>	<b>199 165 073</b>
25	32	0.5 - 6.0	233	<b>199 165 024</b>	<b>199 165 074</b>
32	40	0.5 - 6.0	267	<b>199 165 025</b>	<b>199 165 075</b>
40	50	0.5 - 6.0	500	<b>199 165 026</b>	<b>199 165 076</b>
50	63	0.5 - 6.0	600	<b>199 165 027</b>	<b>199 165 077</b>

DN [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
15		116	148	110	16		63	40	148	122	53	22	8
20	25	116	154	110	19	18	62	40	148	122	53	22	8
25		147	190	141	22		85	45	175	137	76	31	15
32	40	147	198	141	26	23	85	45	175	137	76	31	15
40		198	254	192	31		115	45	212	160	105	42	15
50	63	198	268	192	38	33	115	45	212	160	105	42	15

# PVC-U metric

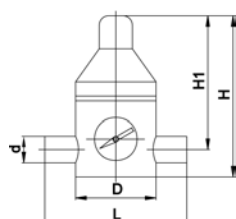
## Process control valves

### Pressure reducing valve type V82 PVC-U With solvent cement spigots metric



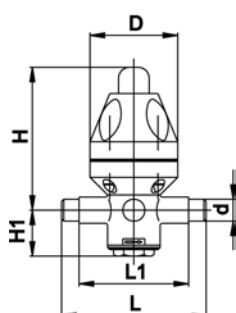
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 012	199 041 022	70	134	130	100
20	15	0.5 - 10	199 041 013	199 041 023	70	134	130	100
25	20	0.5 - 10	199 041 014	199 041 024	100	174	180	134
32	25	0.5 - 10	199 041 015	199 041 025	100	174	180	134
40	32	0.5 - 10	199 041 016	199 041 026	130	224	230	175
50	40	0.5 - 10	199 041 017	199 041 027	130	224	230	175
63	50	0.5 - 10	199 041 018	199 041 028	150	244	285	210
75	65	0.5 - 6	199 041 019	199 041 029	200	300	350	250
90	80	0.5 - 6	199 041 020	199 041 030	250	360	425	305
110	100	0.5 - 4	199 041 021	199 041 031	300	420	495	345

### Pressure reducing valve type V182 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 600	199 041 611	70	134	130	100
20	15	0.5 - 10	199 041 601	199 041 612	70	134	130	100
25	20	0.5 - 10	199 041 602	199 041 613	100	174	180	134
32	25	0.5 - 10	199 041 603	199 041 614	100	174	180	134
40	32	0.5 - 10	199 041 604	199 041 615	130	224	230	175
50	40	0.5 - 10	199 041 605	199 041 616	130	224	230	175

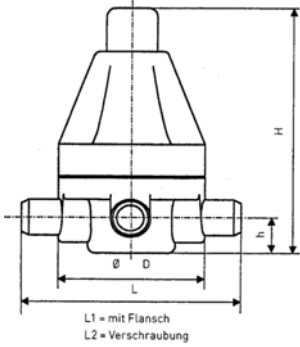
### Pressure reducing valve type V782 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 060	199 041 066	83	134	102	138	48
20	15	0.5 - 10	199 041 061	199 041 067	83	134	102	138	48
25	20	0.5 - 10	199 041 062	199 041 068	113	154	110	205	65
32	25	0.5 - 10	199 041 063	199 041 069	113	154	110	205	65
40	32	0.5 - 10	199 041 064	199 041 070	165	224	162	248	95
50	40	0.5 - 10	199 041 065	199 041 071	165	224	162	248	95

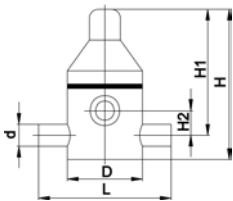
# PVC-U metric

## Pressure relief valve type V185 PVC-U With solvent cement spigots metric



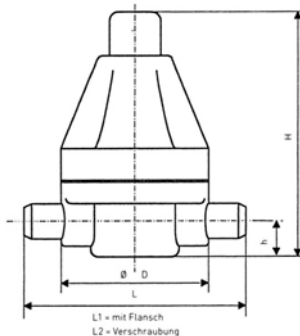
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 360	199 041 330	83	134	137	20
20	15	0.5 - 10	199 041 361	199 041 331	83	134	137	20
25	20	0.5 - 10	199 041 362	199 041 332	83	134	137	20
32	25	0.5 - 10	199 041 363	199 041 333	112	174	199	27
40	32	0.5 - 10	199 041 364	199 041 334	112	174	199	43
50	40	0.5 - 10	199 041 365	199 041 335	165	224	290	43
63	50	0.5 - 10	199 041 366	199 041 336	165	244	290	43

## Pressure relief valve type V85 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]
75	65	1.0 - 6	199 041 919	199 041 984	180	284	295	250	70
90	80	1.0 - 6	199 041 940	199 041 985	200	300	400	340	95
110	100	1.0 - 4	199 041 914	199 041 986	250	380	475	405	110

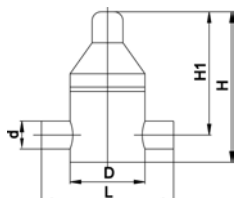
## Pressure retaining valve type V186 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 379	199 041 309	83	134	137	20
20	15	0.5 - 10	199 041 380	199 041 310	83	134	137	20
25	20	0.5 - 10	199 041 381	199 041 311	83	134	137	20
32	25	0.5 - 10	199 041 382	199 041 312	112	174	199	27
40	32	0.5 - 10	199 041 383	199 041 313	112	174	199	43
50	40	0.5 - 10	199 041 384	199 041 314	165	224	290	43
63	50	0.5 - 10	199 041 385	199 041 315	165	244	290	43

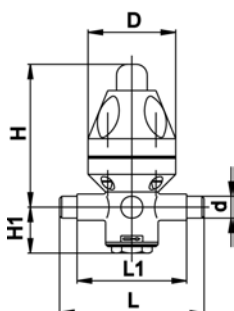
## PVC-U metric

### Pressure retaining valve type V86 PVC-U With solvent cement spigots metric



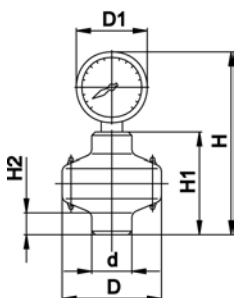
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	0.2 - 4	199 041 922	199 041 989	180	284	275	230
75	65	1.0 - 6	199 041 950	199 041 990	180	284	275	230
90	80	0.2 - 4	199 041 987	199 041 944	250	360	410	320
90	80	1.0 - 6	199 041 988	199 041 991	250	360	410	320
110	100	1.0 - 4	199 041 953	199 041 945	250	380	485	415

### Pressure retaining valve type V786 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 090	199 041 096	83	134	102	138	38
20	15	0.5 - 10	199 041 091	199 041 097	83	134	102	138	38
25	20	0.5 - 10	199 041 092	199 041 098	112	154	110	205	55
32	25	0.5 - 10	199 041 093	199 041 099	112	154	110	205	55
40	32	0.5 - 4	199 041 094	199 041 100	165	224	162	248	85
50	40	0.5 - 4	199 041 095	199 041 101	165	224	162	248	85

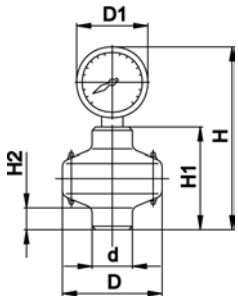
### Gauge guard type Z700 PVC-U With manometer 0-10 bar



d [mm]	PTFE Code	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 000	¼	72	63	129	71	15
32	199 041 001	½	100	100	210	90	22

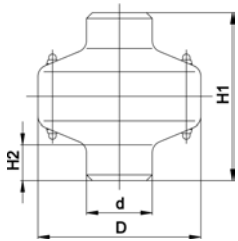
## PVC-U metric

### Gauge guard type Z700 PVC-U With manometer 0-6 bar



d [mm]	PTFE Code	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	<b>199 041 292</b>	¼	72	63	129	71	15
32	<b>199 041 293</b>	½	100	100	210	90	22

### Gauge guard type Z701 PVC-U Without manometer

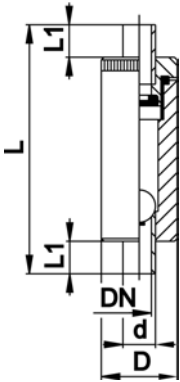


d [mm]	PTFE Code	G_R	D [mm]	H1 [mm]	H2 [mm]
25	<b>199 041 006</b>	¼	72	71	15
32	<b>199 041 007</b>	½	100	90	22



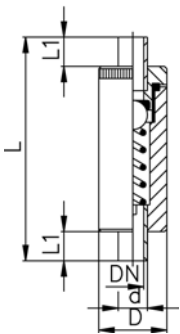
## PVC-U metric

### Ventilating and bleed valve type V91 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	PN	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 238</b>	35	114	14
20	15	10	<b>199 041 239</b>	40	124	16
25	20	10	<b>199 041 240</b>	45	144	19
32	25	10	<b>199 041 241</b>	55	154	22
40	32	10	<b>199 041 242</b>	70	174	26
50	40	10	<b>199 041 243</b>	80	194	31
63	50	10	<b>199 041 244</b>	95	224	38
75	65	10	<b>199 041 245</b>	115	284	44
90	80	10	<b>199 041 246</b>	150	300	51

### Ventilating valve type V95 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	PN	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 265</b>	35	114	14
20	15	10	<b>199 041 266</b>	40	124	16
25	20	10	<b>199 041 267</b>	45	144	19
32	25	10	<b>199 041 268</b>	55	154	22
40	32	10	<b>199 041 269</b>	70	174	26
50	40	10	<b>199 041 270</b>	80	194	31
63	50	10	<b>199 041 271</b>	95	224	38
75	65	10	<b>199 041 272</b>	115	284	44
90	80	10	<b>199 041 273</b>	150	300	51

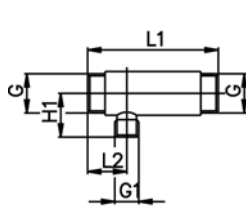
# PVC-U metric

## Water jet suction pump type P20 PVC-U

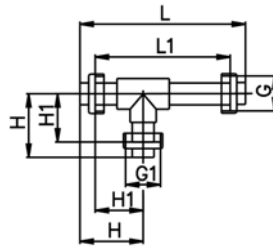
- DN 10-20: BSP parallel female thread
- DN 25-50: Solvent cement socket metric
- DN 65-80: Solvent cement spigot metric



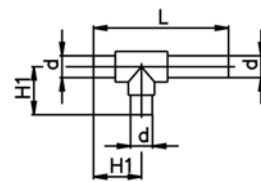
d [mm]	DN [mm]	PN	EPDM Code	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	10	10	199 041 120	R 3/4	R 3/4		110	40		35
20	15	10	199 041 121	R 1	R 3/4		125	40		35
25	20	10	199 041 122	R 1 1/4	R 3/4		145	45		45
32	25	10	199 041 123	R 1 1/2	R 1 1/2	245	195		96	71
40	32	10	199 041 124	R 2	R 2	297	239		116	87
50	40	10	199 041 125	R 2 1/4	R 2 1/4	369	301		139	105
63	50	10	199 041 126	R 2 3/4	R 2 3/4	433	351		169	128
75	65	10	199 041 127			388				115
90	80	10	199 041 128			465				149



DN 10 - 20

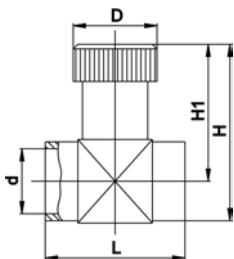


DN 25 - 50



DN 65 - 80

## Throttle valve type V251 PVC-U With solvent cement sockets metric

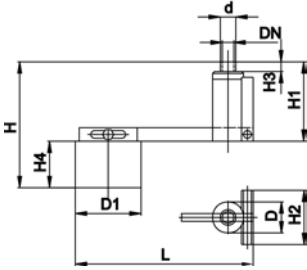


d [mm]	DN [mm]	PN	EPDM Code	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	10	199 041 203	199 041 210	29	47	57	45
20	15	10	199 041 204	199 041 211	35	55	66	51
25	20	10	199 041 205	199 041 212	40	66	80	63
32	25	10	199 041 206	199 041 213	47	80	96	75
40	32	10	199 041 207	199 041 214	56	100	111	86
50	40	10	199 041 208	199 041 215	70	120	133	101
63	50	10	199 041 209	199 041 216	88	146	158	118

# PVC-U metric

## Float valve type V140 PVC-U With solvent cement spigots metric







• Lever 1:10



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	D [mm]	D1 [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
16	10	6	<b>199 041 147</b>	<b>199 041 156</b>	45	125	380	270	120	80	14	130
20	15	6	<b>199 041 148</b>	<b>199 041 157</b>	45	125	380	270	120	80	16	130
25	20	6	<b>199 041 149</b>	<b>199 041 158</b>	65	200	530	340	160	110	19	170
32	25	6	<b>199 041 150</b>	<b>199 041 159</b>	65	200	530	345	165	110	22	170
40	32	6	<b>199 041 151</b>	<b>199 041 160</b>	90	225	720	440	210	130	26	210
50	40	6	<b>199 041 152</b>	<b>199 041 161</b>	90	225	720	445	215	130	31	210
63	50	6	<b>199 041 153</b>	<b>199 041 162</b>	130	315	975	595	255	160	38	290
75	65	6	<b>199 041 154</b>	<b>199 041 163</b>	130	315	975	600	260	160	44	290
90	80	6	<b>199 041 155</b>	<b>199 041 164</b>	150	355	1140	640	290	180	51	340



## PVC-C metric

		Page
	Ball valves electric	116
	Ball valves pneumatic	138
	Butterfly valves electric	167
	Butterfly valves pneumatic	175
	Diaphragm valves pneumatic New generation	181
	Diaphragm valves pneumatic	191

# PVC-C metric

## Ball valves electric

### Ball valve type 107 PVC-C 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50

#### Model:

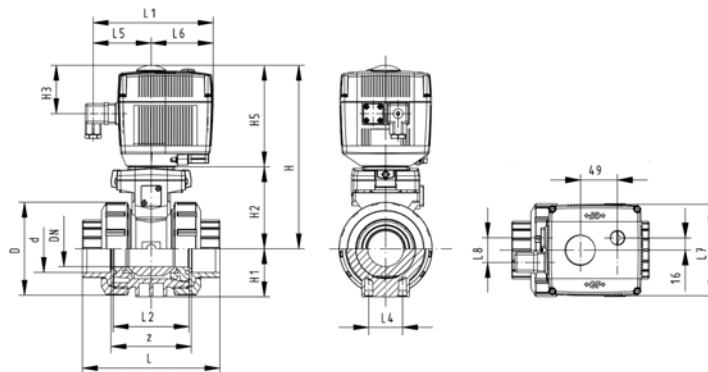
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 102</b>	<b>199 107 112</b>
20	15	10	185	<b>199 107 103</b>	<b>199 107 113</b>
25	20	10	350	<b>199 107 104</b>	<b>199 107 114</b>
32	25	10	700	<b>199 107 105</b>	<b>199 107 115</b>
40	32	10	1000	<b>199 107 106</b>	<b>199 107 116</b>
50	40	10	1600	<b>199 107 107</b>	<b>199 107 117</b>
63	50	10	3100	<b>199 107 108</b>	<b>199 107 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	64	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-C metric

## Ball valve type 107 PVC-C 100-230V With manual emergency override With solvent cement spigots metric



DN10/15 - 50

### Model:

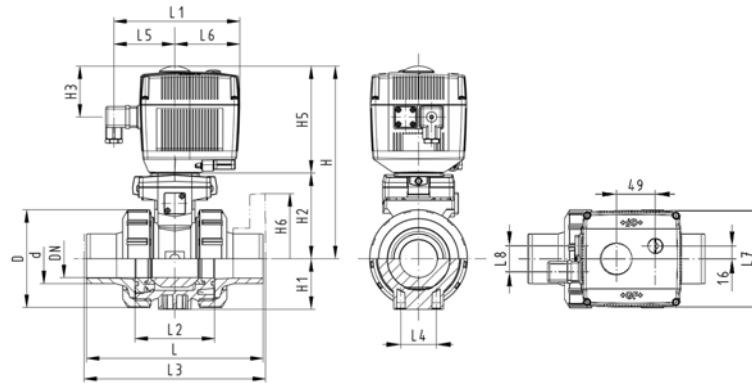
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 122	199 107 132
20	15	10	185	199 107 123	199 107 133
25	20	10	350	199 107 124	199 107 134
32	25	10	700	199 107 125	199 107 135
40	32	10	1000	199 107 126	199 107 136
50	40	10	1600	199 107 127	199 107 137
63	50	10	3100	199 107 128	199 107 138

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	124	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	144	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	154	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	174	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	194	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	224	161	101	230	45	77	83	122	33



# PVC-C metric

## Ball valve type 107 PVC-C 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

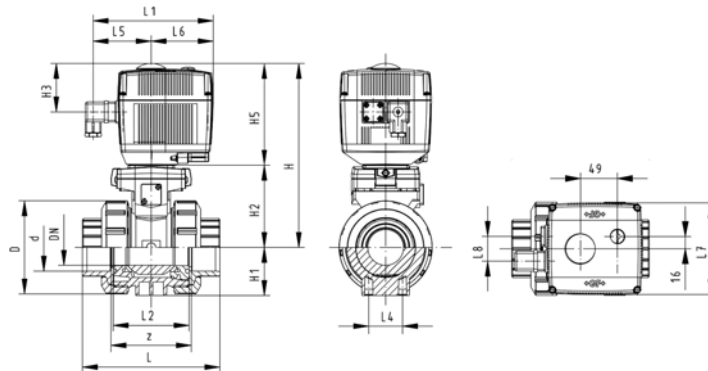
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 107 702</b>	<b>199 107 712</b>
1/2	15	10	185	<b>199 107 703</b>	<b>199 107 713</b>
3/4	20	10	350	<b>199 107 704</b>	<b>199 107 714</b>
1	25	10	700	<b>199 107 705</b>	<b>199 107 715</b>
1 1/4	32	10	1000	<b>199 107 706</b>	<b>199 107 716</b>
1 1/2	40	10	1600	<b>199 107 707</b>	<b>199 107 717</b>
2	50	10	3100	<b>199 107 708</b>	<b>199 107 718</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107





# PVC-C metric

## Ball valve type 107 PVC-C 24V

### With manual emergency override

### With solvent cement sockets metric



DN10/15 - 50

#### Model:

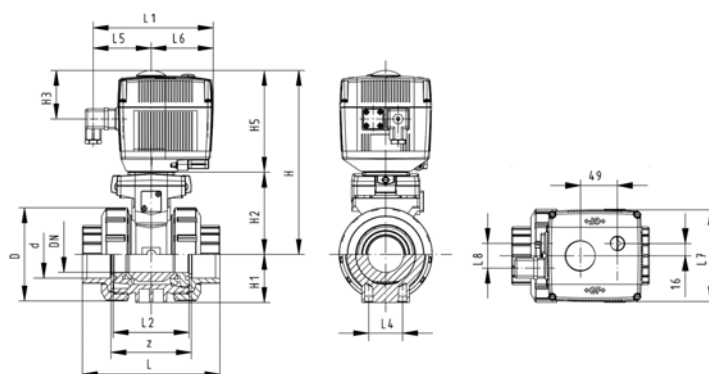
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 142</b>	<b>199 107 152</b>
20	15	10	185	<b>199 107 143</b>	<b>199 107 153</b>
25	20	10	350	<b>199 107 144</b>	<b>199 107 154</b>
32	25	10	700	<b>199 107 145</b>	<b>199 107 155</b>
40	32	10	1000	<b>199 107 146</b>	<b>199 107 156</b>
50	40	10	1600	<b>199 107 147</b>	<b>199 107 157</b>
63	50	10	3100	<b>199 107 148</b>	<b>199 107 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-C metric

## Ball valve type 107 PVC-C 24V With manual emergency override With solvent cement spigots metric



DN10/15 - 50

### Model:

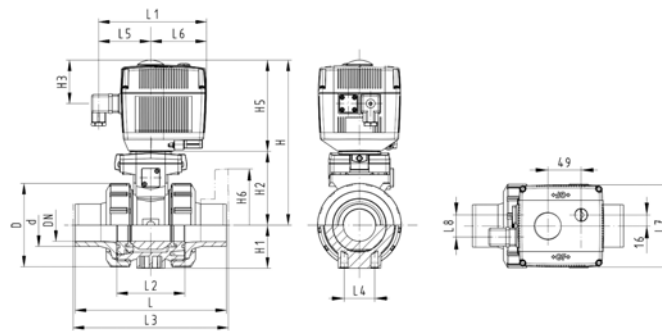
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 162</b>	<b>199 107 172</b>
20	15	10	185	<b>199 107 163</b>	<b>199 107 173</b>
25	20	10	350	<b>199 107 164</b>	<b>199 107 174</b>
32	25	10	700	<b>199 107 165</b>	<b>199 107 175</b>
40	32	10	1000	<b>199 107 166</b>	<b>199 107 176</b>
50	40	10	1600	<b>199 107 167</b>	<b>199 107 177</b>
63	50	10	3100	<b>199 107 168</b>	<b>199 107 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	124	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	144	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	154	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	174	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	194	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	224	161	101	230	45	77	83	122	33



# PVC-C metric

## Ball valve type 107 PVC-C 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

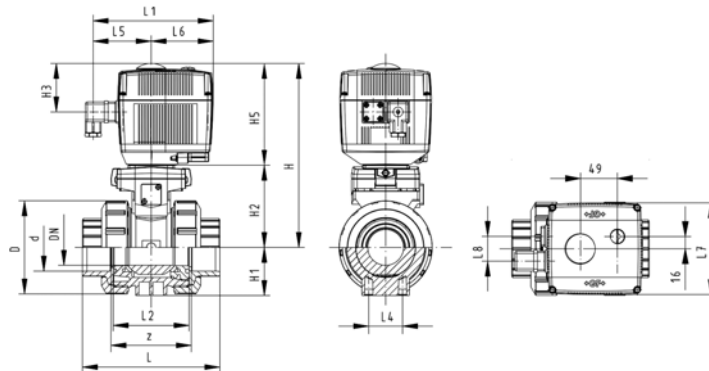
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 107 742	199 107 752
1/2	15	10	185	199 107 743	199 107 753
3/4	20	10	350	199 107 744	199 107 754
1	25	10	700	199 107 745	199 107 755
1 1/4	32	10	1000	199 107 746	199 107 756
1 1/2	40	10	1600	199 107 747	199 107 757
2	50	10	3100	199 107 748	199 107 758

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# PVC-C metric

## Ball valve type 130 PVC-C 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

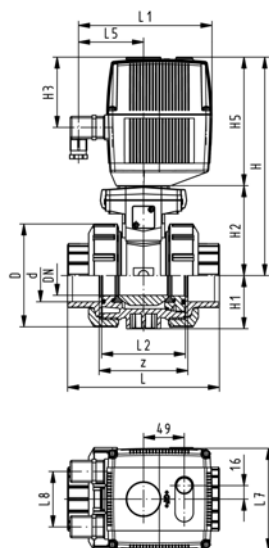
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

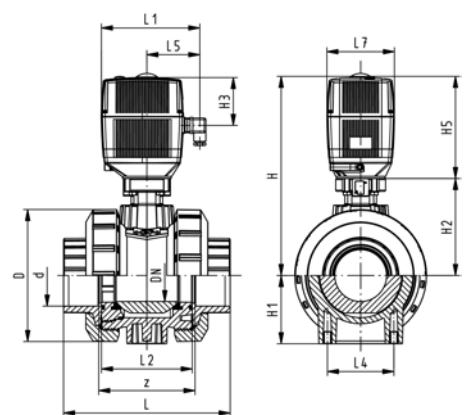
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 402	199 130 412
20	15	10	185	199 130 403	199 130 413
25	20	10	350	199 130 404	199 130 414
32	25	10	700	199 130 405	199 130 415
40	32	10	1000	199 130 406	199 130 416
50	40	10	1600	199 130 407	199 130 417
63	50	10	3100	199 130 408	199 130 418
75	65	10	5000	199 130 409	199 130 419
90	80	10	7000	199 130 410	199 130 420
110	100	10	11000	199 130 411	199 130 421

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-C metric

## Ball valve type 130 PVC-C 100-230V With manual emergency override With solvent cement spigots metric



DN10/15 - 50



### Model:

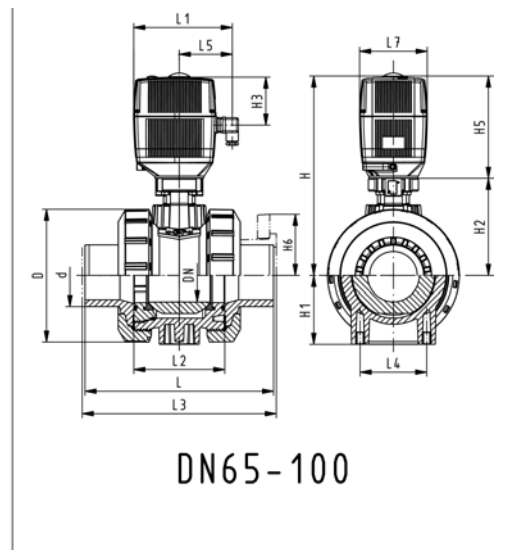
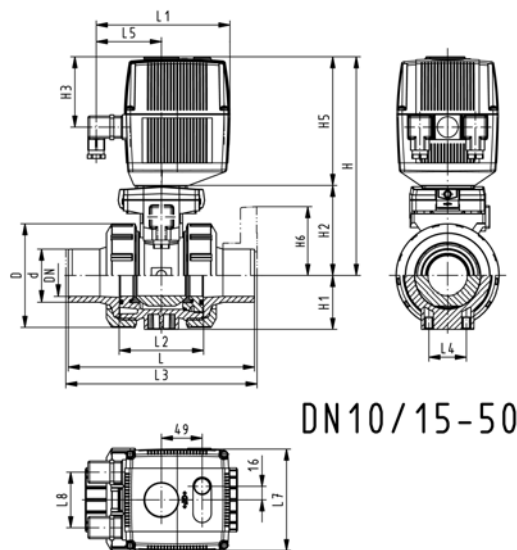
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 422	199 130 432
20	15	10	185	199 130 423	199 130 433
25	20	10	350	199 130 424	199 130 434
32	25	10	700	199 130 425	199 130 435
40	32	10	1000	199 130 426	199 130 436
50	40	10	1600	199 130 427	199 130 437
63	50	10	3100	199 130 428	199 130 438
75	65	10	5000	199 130 429	199 130 439
90	80	10	7000	199 130 430	199 130 440
110	100	10	11000	199 130 431	199 130 441

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	114	180	56	130	25	97	122
20	50	231	27	64	94	167	124	180	56	130	25	97	122
25	58	240	30	73	94	167	144	180	65	150	25	97	122
32	68	240	36	73	94	167	154	180	71	160	25	97	122
40	84	251	44	84	94	167	174	180	85	180	45	97	122
50	97	251	51	84	94	167	194	180	89	200	45	97	122
63	124	273	64	106	94	167	224	180	101	230	45	97	122
75	166	346	85	156	94	190	284	180	136	290	70	98	122
90	200	358	105	168	94	190	300	180	141	310	70	98	122
110	238	365	123	175	94	190	340	180	164	350	120	98	122



# PVC-C metric

## Ball valve type 130 PVC-C 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50



### Model:

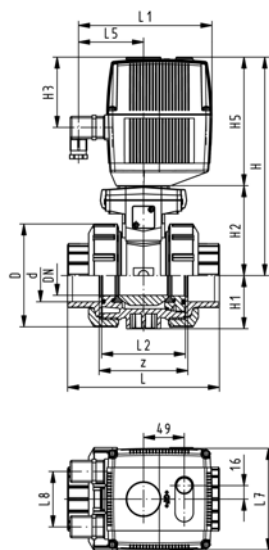
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

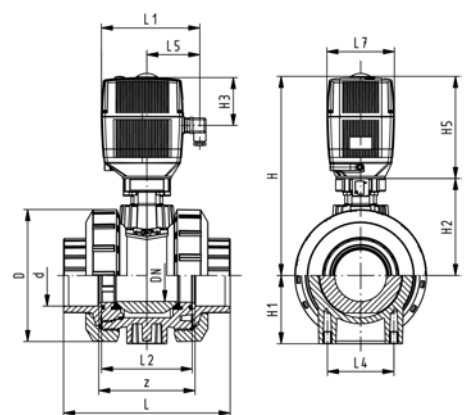
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 130 182	199 130 192
1/2	15	10	185	199 130 183	199 130 193
3/4	20	10	350	199 130 184	199 130 194
1	25	10	700	199 130 185	199 130 195
1 1/4	32	10	1000	199 130 186	199 130 196
1 1/2	40	10	1600	199 130 187	199 130 197
2	50	10	3100	199 130 188	199 130 198
2 1/2	65	10	5000	199 130 189	199 130 199
3	80	10	7000	199 130 190	199 130 200
4	100	10	11000	199 130 191	199 130 201

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	122	72
1	68	240	36	73	94	167	123	180	71	25	97	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	95
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-C metric

## Ball valve type 130 PVC-C 100-230V With manual emergency override With backing flanges PP-st metric



### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

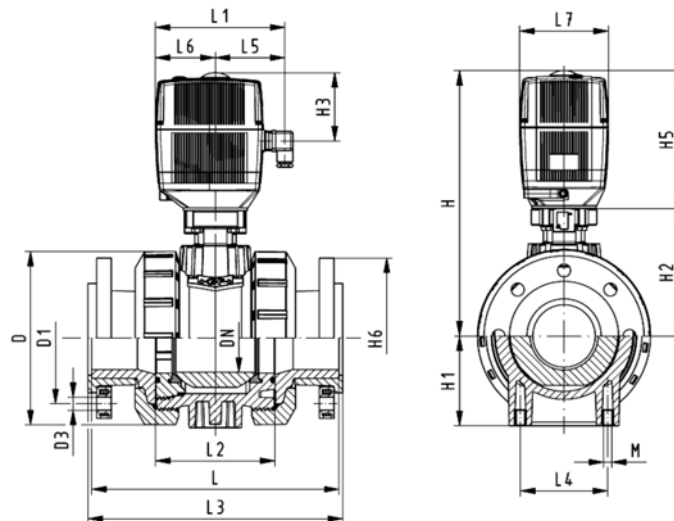
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	199 134 489	199 134 499
90	80	10	7000	199 134 490	199 134 500
110	100	10	11000	199 134 491	199 134 501

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



# PVC-C metric

## Ball valve type 130 PVC-C 24V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

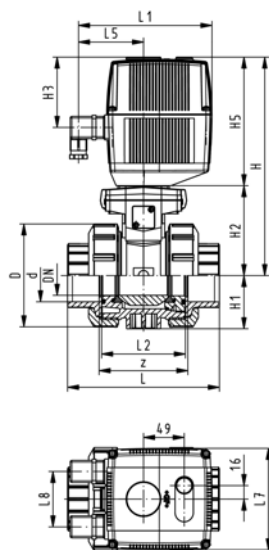
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

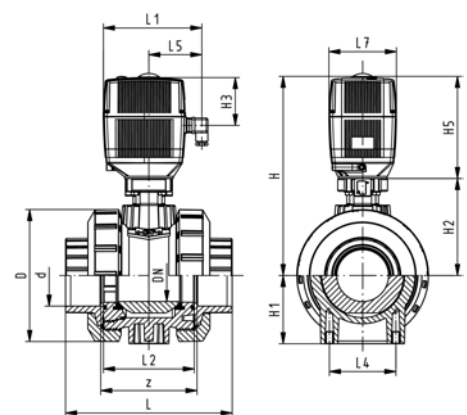
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 442	199 130 452
20	15	10	185	199 130 443	199 130 453
25	20	10	350	199 130 444	199 130 454
32	25	10	700	199 130 445	199 130 455
40	32	10	1000	199 130 446	199 130 456
50	40	10	1600	199 130 447	199 130 457
63	50	10	3100	199 130 448	199 130 458
75	65	10	5000	199 130 449	199 130 459
90	80	10	7000	199 130 450	199 130 460
110	100	10	11000	199 130 451	199 130 461

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100



# PVC-C metric

## Ball valve type 130 PVC-C 24V With manual emergency override With solvent cement spigots metric



DN10/15 - 50



### Model:

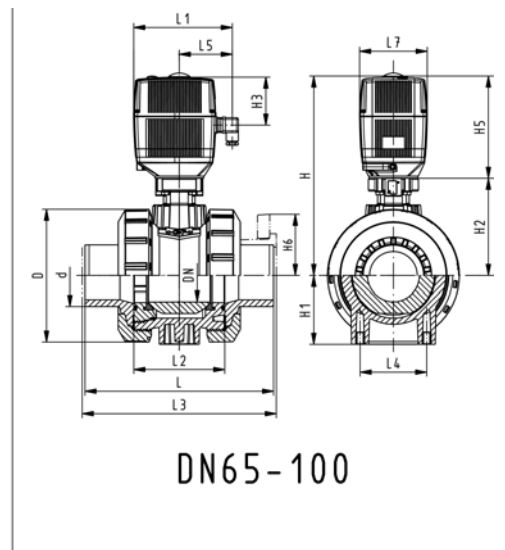
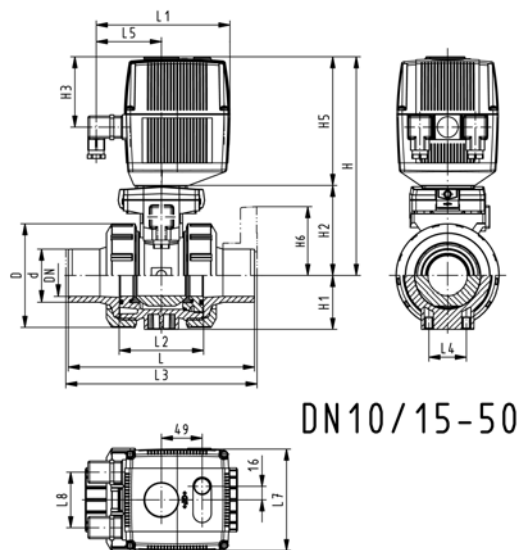
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 130 462	199 130 472
20	15	10	185	199 130 463	199 130 473
25	20	10	350	199 130 464	199 130 474
32	25	10	700	199 130 465	199 130 475
40	32	10	1000	199 130 466	199 130 476
50	40	10	1600	199 130 467	199 130 477
63	50	10	3100	199 130 468	199 130 478
75	65	10	5000	199 130 469	199 130 479
90	80	10	7000	199 130 470	199 130 480
110	100	10	11000	199 130 471	199 130 481

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	114	180	56	0	25	97	122
20	50	231	27	64	94	167	124	180	56	130	25	97	122
25	58	240	30	73	94	167	144	180	65	150	25	97	122
32	68	240	36	73	94	167	154	180	71	160	25	97	122
40	84	251	44	84	94	167	174	180	85	180	45	97	122
50	97	251	51	84	94	167	194	180	89	200	45	97	122
63	124	273	64	106	94	167	224	180	101	230	45	97	122
75	166	346	85	156	94	190	284	180	136	290	70	98	122
90	200	358	105	168	94	190	300	180	141	310	70	98	122
110	238	365	123	175	94	190	340	180	164	350	120	98	122



# PVC-C metric

## Ball valve type 130 PVC-C 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50



### Model:

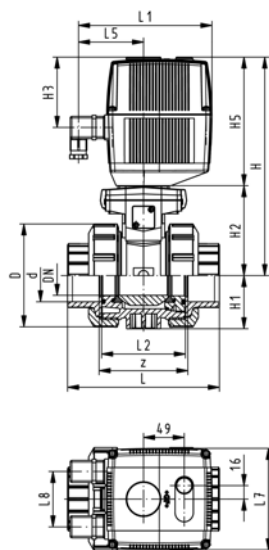
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

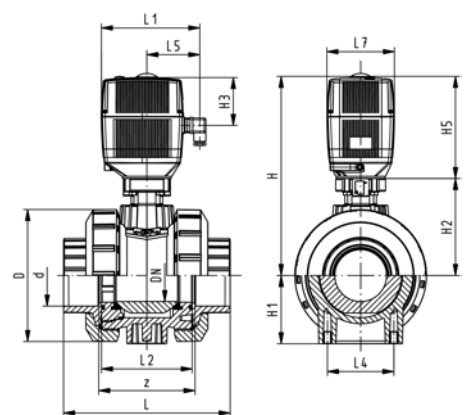
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 130 202	199 130 212
1/2	15	10	185	199 130 203	199 130 213
3/4	20	10	350	199 130 204	199 130 214
1	25	10	700	199 130 205	199 130 215
1 1/4	32	10	1000	199 130 206	199 130 216
1 1/2	40	10	1600	199 130 207	199 130 217
2	50	10	3100	199 130 208	199 130 218
2 1/2	65	10	5000	199 130 209	199 130 219
3	80	10	7000	199 130 210	199 130 220
4	100	10	11000	199 130 211	199 130 221

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	122	72
1	68	240	36	73	94	167	123	180	71	25	97	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	95
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# PVC-C metric

## Ball valve type 130 PVC-C 24V With manual emergency override With backing flanges PP-st metric



### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

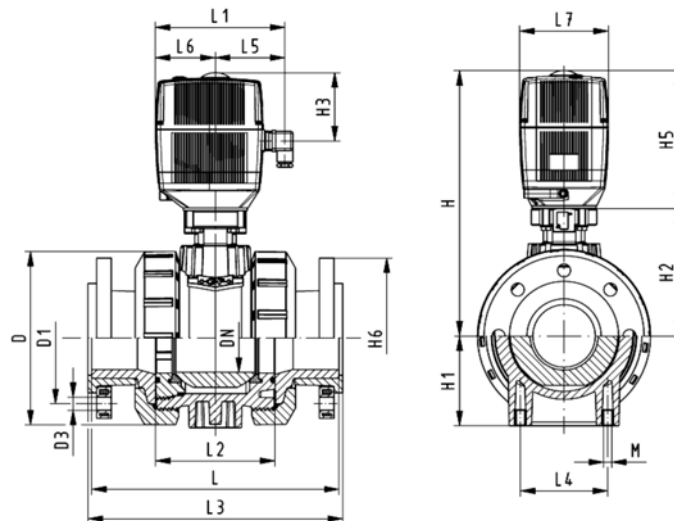
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	199 134 509	199 134 519
90	80	10	7000	199 134 510	199 134 520
110	100	10	11000	199 134 511	199 134 521

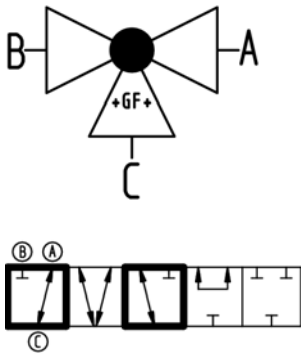
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



# PVC-C metric

## 3-Way ball valve type 185 PVC-C Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets metric



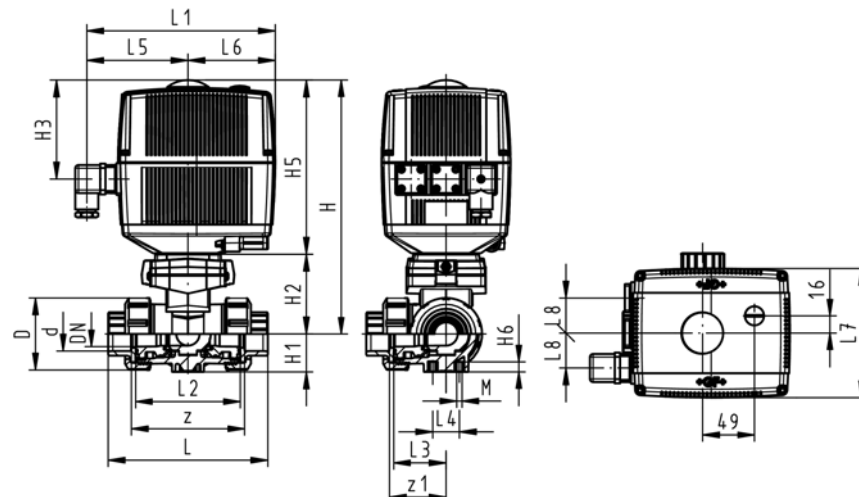
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 185 102</b>	<b>199 185 112</b>
20	15	10	75	<b>199 185 103</b>	<b>199 185 113</b>
25	20	10	150	<b>199 185 104</b>	<b>199 185 114</b>
32	25	10	280	<b>199 185 105</b>	<b>199 185 115</b>
40	32	10	480	<b>199 185 106</b>	<b>199 185 116</b>
50	40	10	620	<b>199 185 107</b>	<b>199 185 117</b>
63	50	10	1230	<b>199 185 108</b>	<b>199 185 118</b>

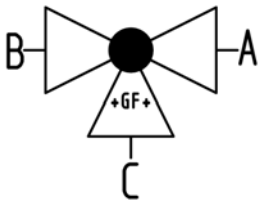
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# PVC-C metric

## 3-Way ball valve type 185 PVC-C Horizontal/L-port 100-230V With manual emergency override With solvent cement spigots metric



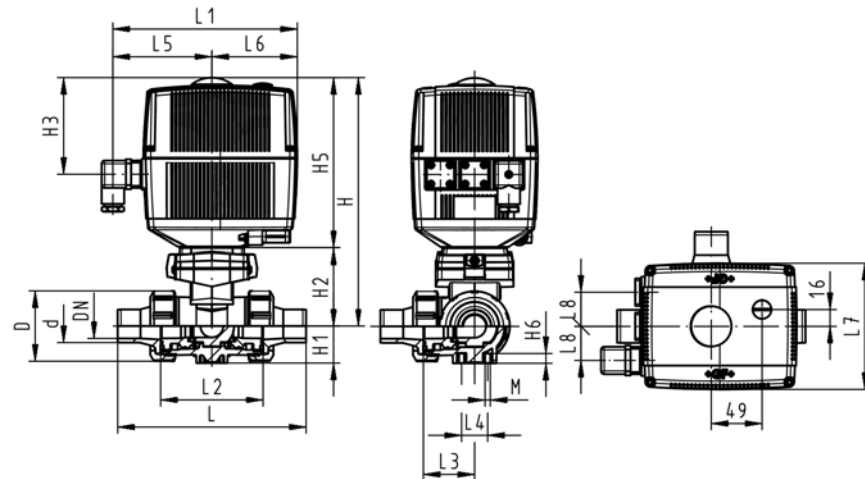
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 082	199 185 092
20	15	10	75	199 185 083	199 185 093
25	20	10	150	199 185 084	199 185 094
32	25	10	280	199 185 085	199 185 095
40	32	10	480	199 185 086	199 185 096
50	40	10	620	199 185 087	199 185 097
63	50	10	1230	199 185 088	199 185 098

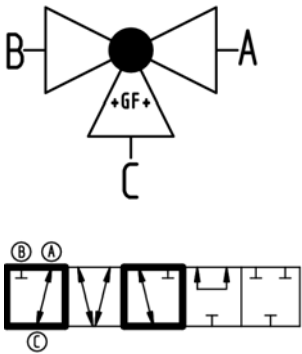
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-C metric

## 3-Way ball valve type 185 PVC-C Horizontal/L-port 24V With manual emergency override With solvent cement sockets metric



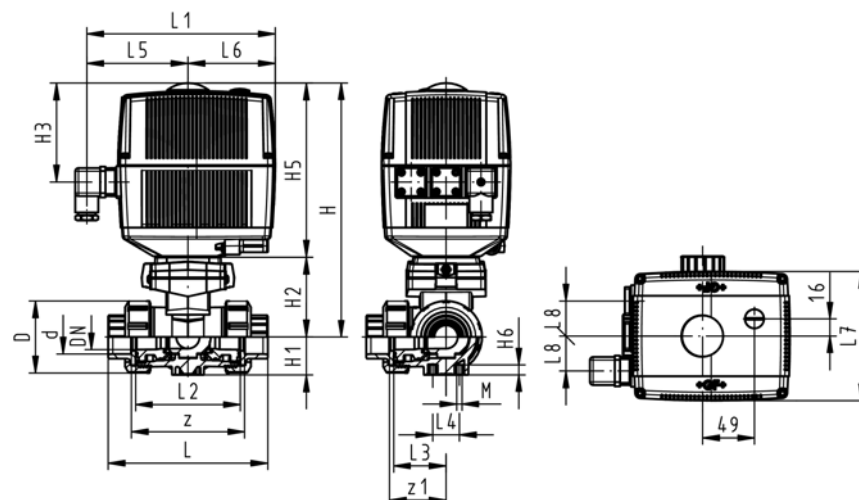
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 262	199 185 272
20	15	10	75	199 185 263	199 185 273
25	20	10	150	199 185 264	199 185 274
32	25	10	280	199 185 265	199 185 275
40	32	10	480	199 185 266	199 185 276
50	40	10	620	199 185 267	199 185 277
63	50	10	1230	199 185 268	199 185 278

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



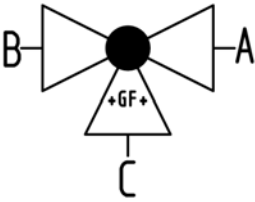
# PVC-C metric

## 3-Way ball valve type 185 PVC-C

### Horizontal/L-port 24V

### With manual emergency override

### With solvent cement spigots metric



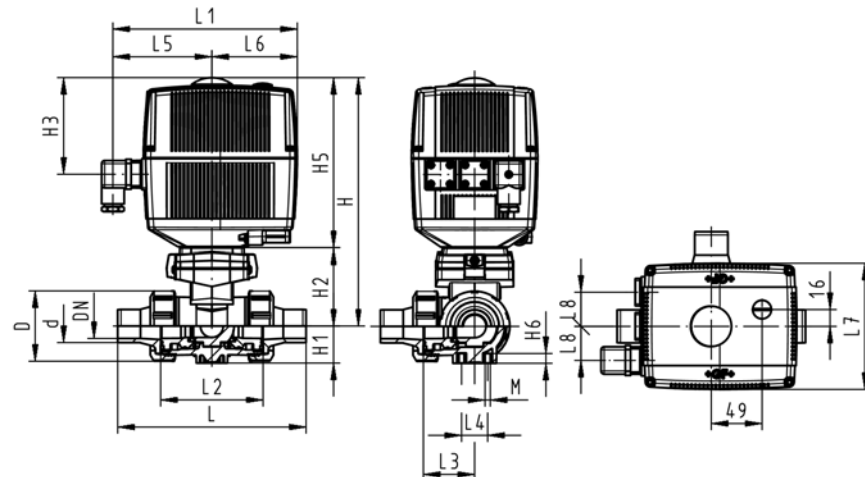
#### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 185 282	199 185 292
20	15	10	75	199 185 283	199 185 293
25	20	10	150	199 185 284	199 185 294
32	25	10	280	199 185 285	199 185 295
40	32	10	480	199 185 286	199 185 296
50	40	10	620	199 185 287	199 185 297
63	50	10	1230	199 185 288	199 185 298

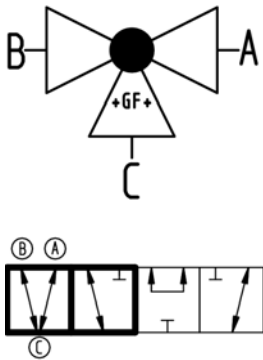
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-C metric

## 3-Way ball valve type 185 PVC-C Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets metric



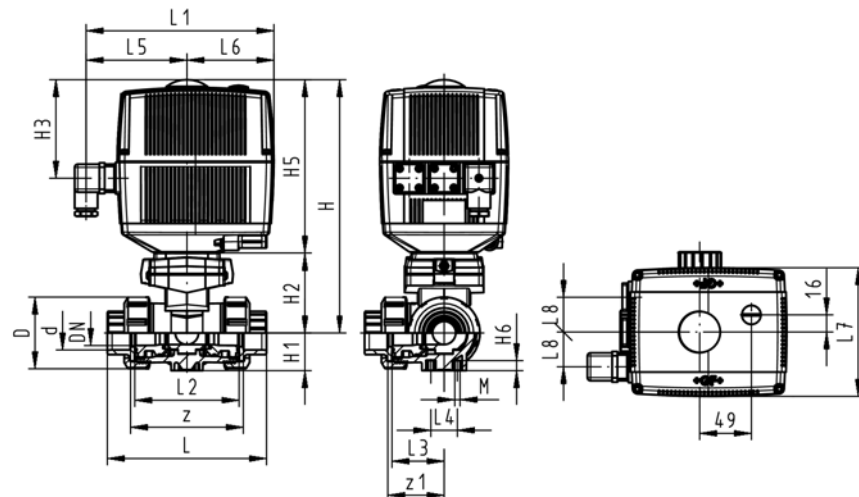
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 185 142</b>	<b>199 185 152</b>
20	15	10	200	<b>199 185 143</b>	<b>199 185 153</b>
25	20	10	470	<b>199 185 144</b>	<b>199 185 154</b>
32	25	10	793	<b>199 185 145</b>	<b>199 185 155</b>
40	32	10	1290	<b>199 185 146</b>	<b>199 185 156</b>
50	40	10	1910	<b>199 185 147</b>	<b>199 185 157</b>
63	50	10	3100	<b>199 185 148</b>	<b>199 185 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

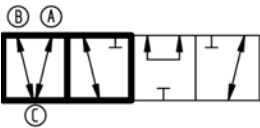
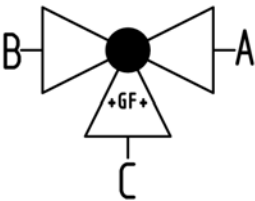
d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92





# PVC-C metric

## 3-Way ball valve type 185 PVC-C Horizontal/T-port 100-230V With manual emergency override With solvent cement spigots metric



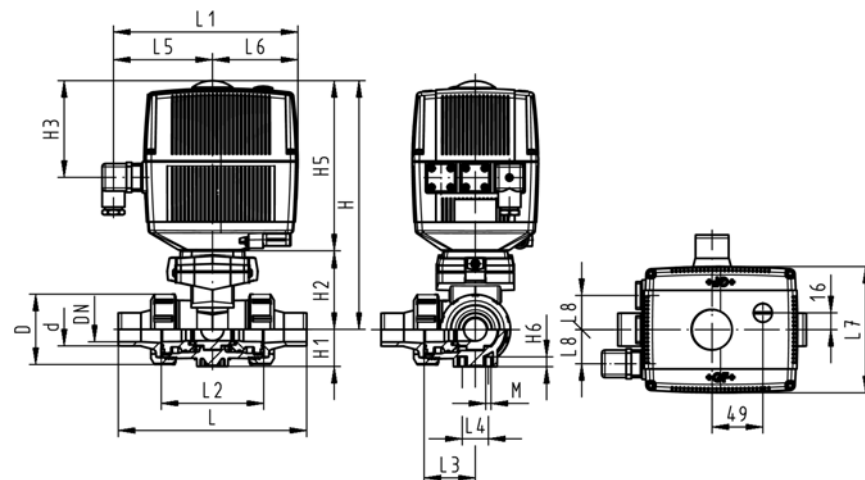
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 185 122	199 185 132
20	15	10	200	199 185 123	199 185 133
25	20	10	470	199 185 124	199 185 134
32	25	10	793	199 185 125	199 185 135
40	32	10	1290	199 185 126	199 185 136
50	40	10	1910	199 185 127	199 185 137
63	50	10	3100	199 185 128	199 185 138

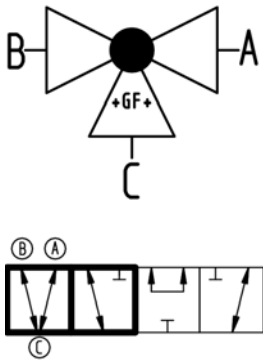
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-C metric

## 3-Way ball valve bar type 185 PVC-C Horizontal/T-port 24V With manual emergency override With solvent cement sockets metric



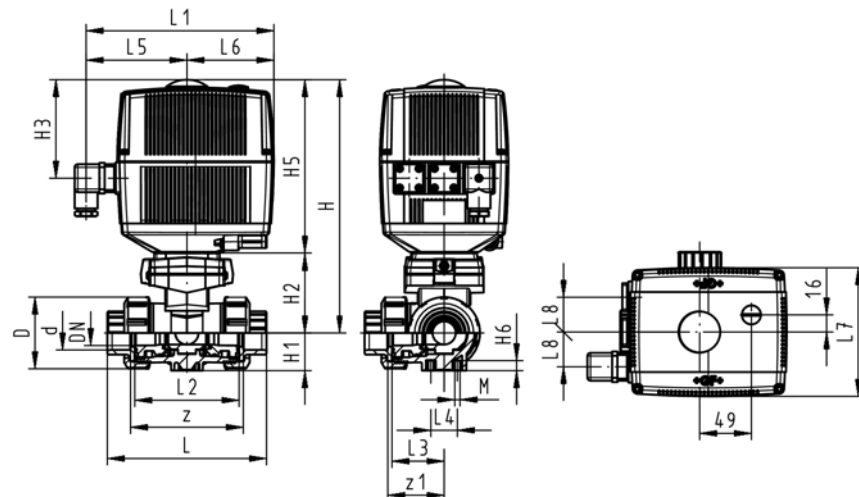
### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 185 322</b>	<b>199 185 332</b>
20	15	10	200	<b>199 185 323</b>	<b>199 185 333</b>
25	20	10	470	<b>199 185 324</b>	<b>199 185 334</b>
32	25	10	793	<b>199 185 325</b>	<b>199 185 335</b>
40	32	10	1290	<b>199 185 326</b>	<b>199 185 336</b>
50	40	10	1910	<b>199 185 327</b>	<b>199 185 337</b>
63	50	10	3100	<b>199 185 328</b>	<b>199 185 338</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



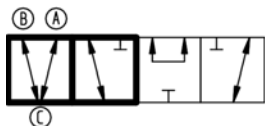
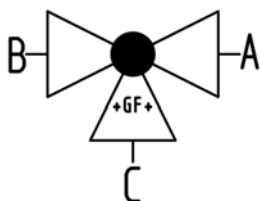
# PVC-C metric

## 3-Way ball valve type 185 PVC-C

### Horizontal/T-port 24V

### With manual emergency override

### With solvent cement spigots metric



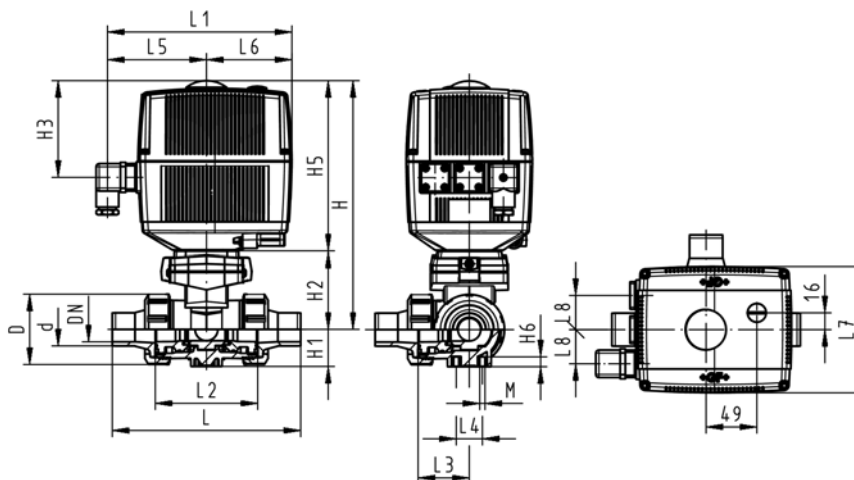
#### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 185 302	199 185 312
20	15	10	200	199 185 303	199 185 313
25	20	10	470	199 185 304	199 185 314
32	25	10	793	199 185 305	199 185 315
40	32	10	1290	199 185 306	199 185 316
50	40	10	1910	199 185 307	199 185 317
63	50	10	3100	199 185 308	199 185 318

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	131	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	141	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	165	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	182	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	209	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	242	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	302	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PVC-C metric

## Ball valves pneumatic

### Ball valve type 230 PVC-C FC (fail safe to close)

#### With manual override

#### With solvent cement sockets metric



DN10/15 - 50

#### Model:

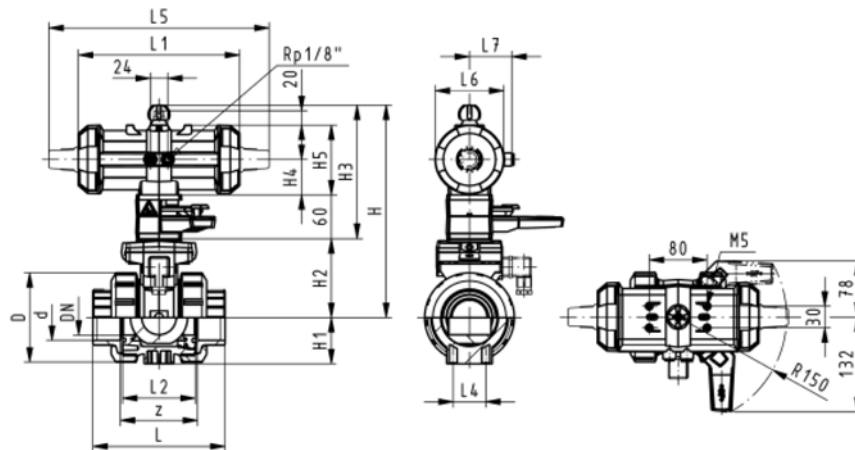
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 230 402</b>	<b>199 230 412</b>
20	15	10	185	<b>199 230 403</b>	<b>199 230 413</b>
25	20	10	350	<b>199 230 404</b>	<b>199 230 414</b>
32	25	10	700	<b>199 230 405</b>	<b>199 230 415</b>
40	32	10	1000	<b>199 230 406</b>	<b>199 230 416</b>
50	40	10	1600	<b>199 230 407</b>	<b>199 230 417</b>
63	50	10	3100	<b>199 230 408</b>	<b>199 230 418</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C FC (fail safe to close) With manual override With solvent cement spigots metric



DN10/15 - 50

### Model:

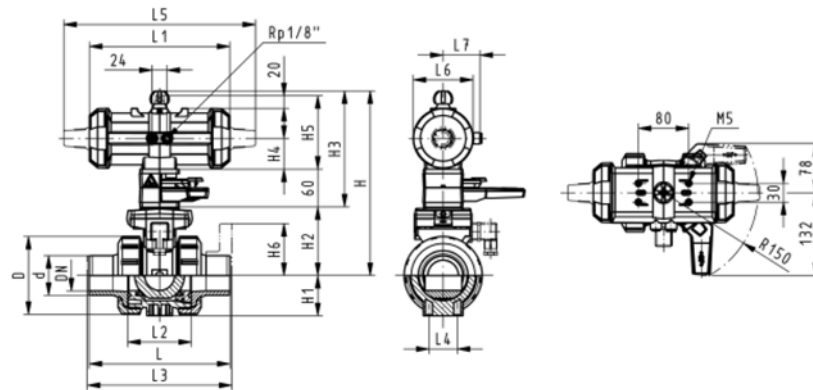
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 422	199 230 432
20	15	10	185	199 230 423	199 230 433
25	20	10	350	199 230 424	199 230 434
32	25	10	700	199 230 425	199 230 435
40	32	10	1000	199 230 426	199 230 436
50	40	10	1600	199 230 427	199 230 437
63	50	10	3100	199 230 428	199 230 438

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59



# PVC-C metric

## Ball valve type 230 PVC-C FC (fail safe to close) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

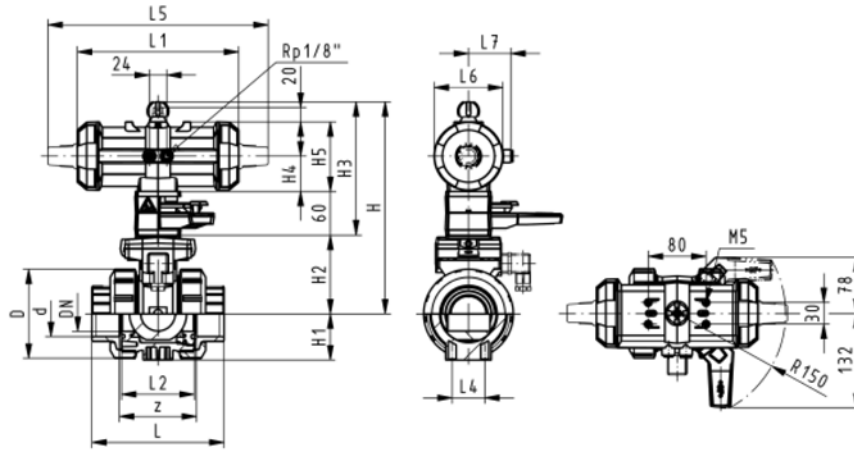
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 230 752</b>	<b>199 230 772</b>
1/2	15	10	185	<b>199 230 753</b>	<b>199 230 773</b>
3/4	20	10	350	<b>199 230 754</b>	<b>199 230 774</b>
1	25	10	700	<b>199 230 755</b>	<b>199 230 775</b>
1 1/4	32	10	1000	<b>199 230 756</b>	<b>199 230 776</b>
1 1/2	40	10	1600	<b>199 230 757</b>	<b>199 230 777</b>
2	50	10	3100	<b>199 230 758</b>	<b>199 230 778</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) With manual override With solvent cement sockets metric



DN10/15 - 50

### Model:

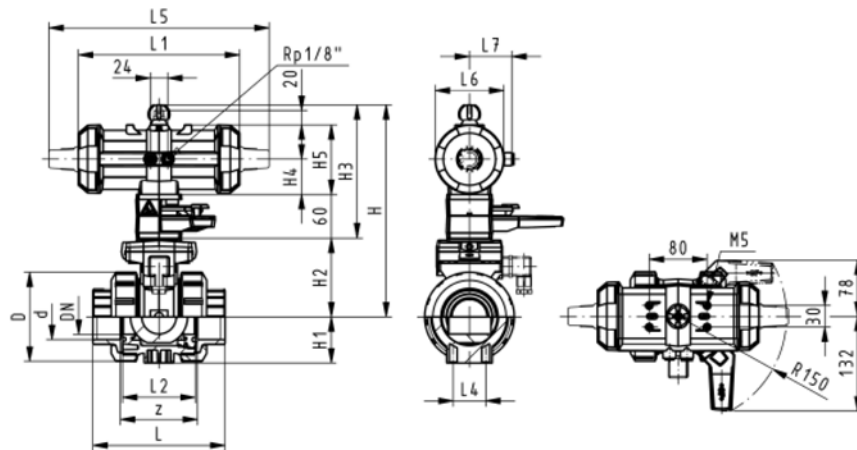
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 442	199 230 452
20	15	10	185	199 230 443	199 230 453
25	20	10	350	199 230 444	199 230 454
32	25	10	700	199 230 445	199 230 455
40	32	10	1000	199 230 446	199 230 456
50	40	10	1600	199 230 447	199 230 457
63	50	10	3100	199 230 448	199 230 458

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) With manual override With solvent cement spigots metric



DN10/15 - 50

### Model:

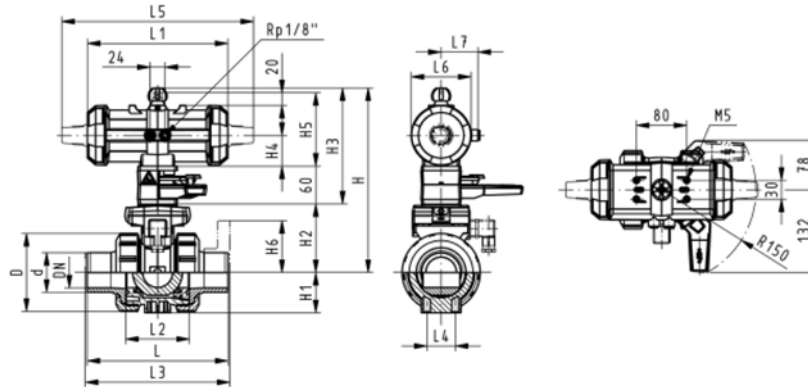
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 230 462</b>	<b>199 230 472</b>
20	15	10	185	<b>199 230 463</b>	<b>199 230 473</b>
25	20	10	350	<b>199 230 464</b>	<b>199 230 474</b>
32	25	10	700	<b>199 230 465</b>	<b>199 230 475</b>
40	32	10	1000	<b>199 230 466</b>	<b>199 230 476</b>
50	40	10	1600	<b>199 230 467</b>	<b>199 230 477</b>
63	50	10	3100	<b>199 230 468</b>	<b>199 230 478</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59





# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

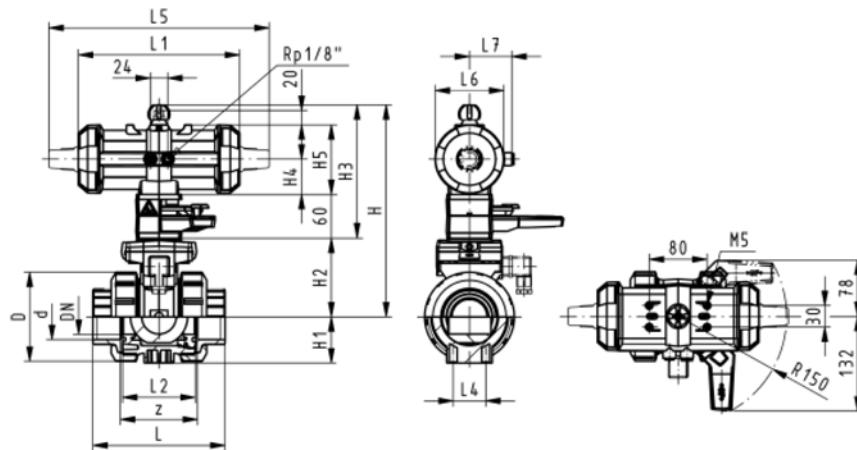
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 230 792</b>	<b>199 230 812</b>
1/2	15	10	185	<b>199 230 793</b>	<b>199 230 813</b>
3/4	20	10	350	<b>199 230 794</b>	<b>199 230 814</b>
1	25	10	700	<b>199 230 795</b>	<b>199 230 815</b>
1 1/4	32	10	1000	<b>199 230 796</b>	<b>199 230 816</b>
1 1/2	40	10	1600	<b>199 230 797</b>	<b>199 230 817</b>
2	50	10	3100	<b>199 230 798</b>	<b>199 230 818</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) With manual override With solvent cement sockets metric



DN10/15 - 50

### Model:

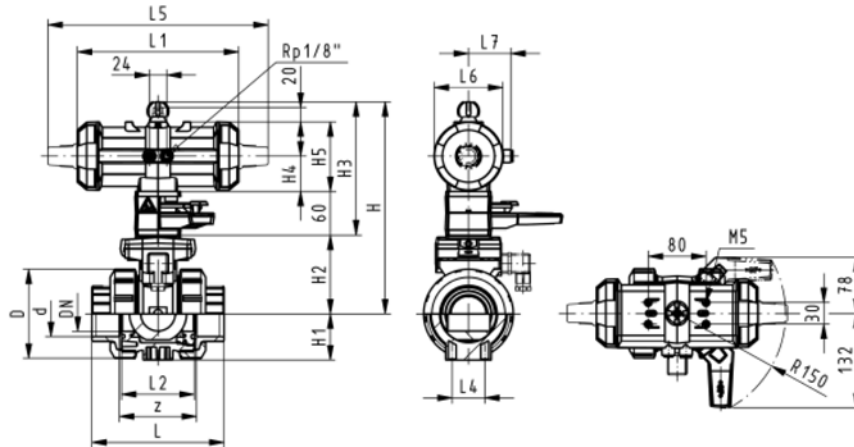
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 482	199 230 492
20	15	10	185	199 230 483	199 230 493
25	20	10	350	199 230 484	199 230 494
32	25	10	700	199 230 485	199 230 495
40	32	10	1000	199 230 486	199 230 496
50	40	10	1600	199 230 487	199 230 497
63	50	10	3100	199 230 488	199 230 498

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) With manual override With solvent cement spigots metric



DN10/15 - 50

### Model:

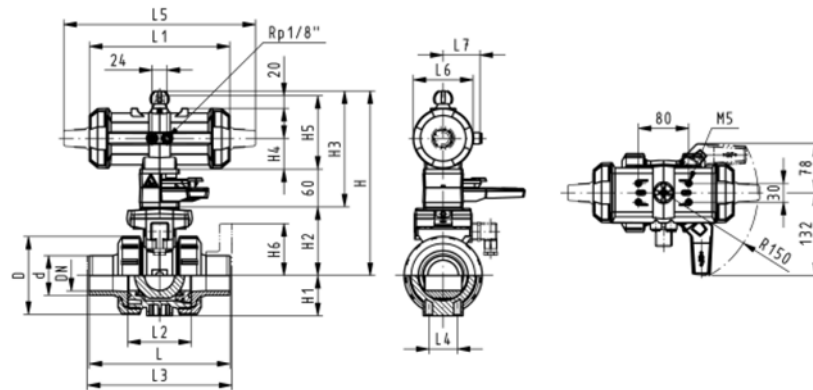
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 502	199 230 512
20	15	10	185	199 230 503	199 230 513
25	20	10	350	199 230 504	199 230 514
32	25	10	700	199 230 505	199 230 515
40	32	10	1000	199 230 506	199 230 516
50	40	10	1600	199 230 507	199 230 517
63	50	10	3100	199 230 508	199 230 518

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	224	224	101	230	45	305	95	59



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

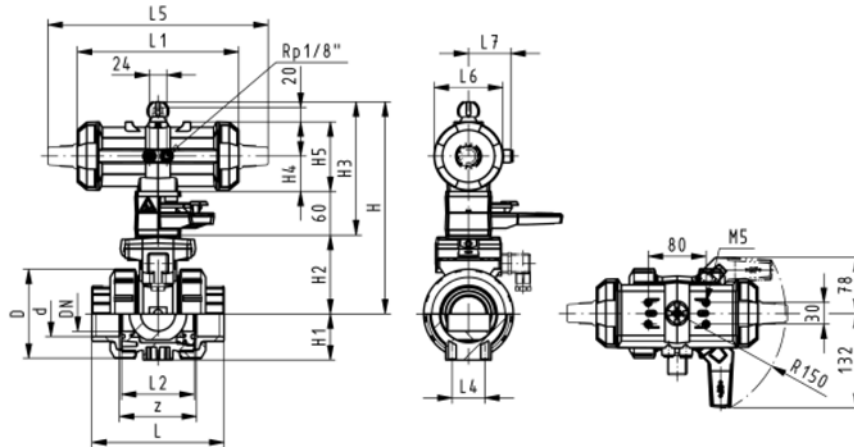
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	<b>199 230 832</b>	<b>199 230 852</b>
1/2	15	10	185	<b>199 230 833</b>	<b>199 230 853</b>
3/4	20	10	350	<b>199 230 834</b>	<b>199 230 854</b>
1	25	10	700	<b>199 230 835</b>	<b>199 230 855</b>
1 1/4	32	10	1000	<b>199 230 836</b>	<b>199 230 856</b>
1 1/2	40	10	1600	<b>199 230 837</b>	<b>199 230 857</b>
2	50	10	3100	<b>199 230 838</b>	<b>199 230 858</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# PVC-C metric

## Ball valve type 230 PVC-C FC (Fail safe to close) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

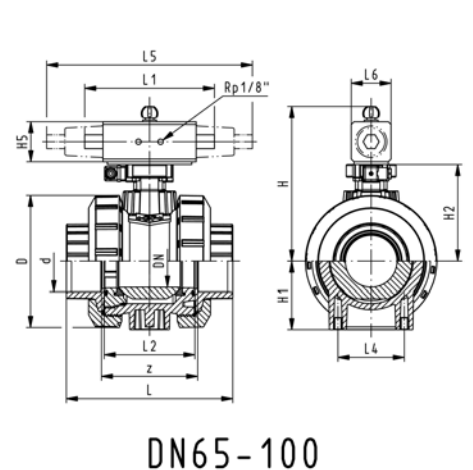
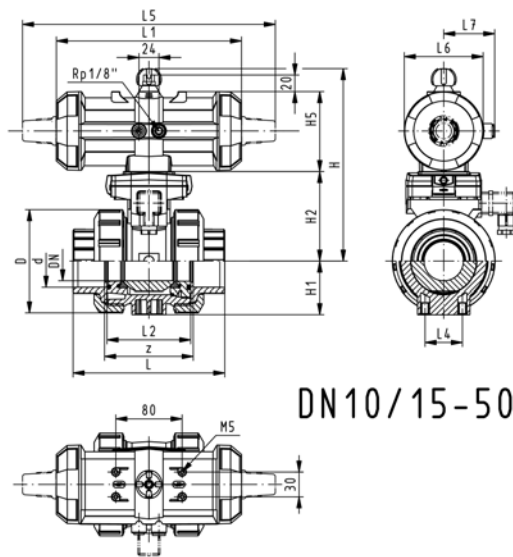
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

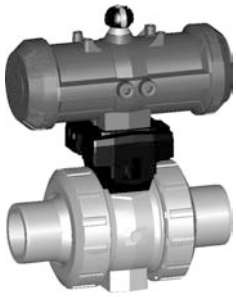
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 522	199 230 532
20	15	10	185	199 230 523	199 230 533
25	20	10	350	199 230 524	199 230 534
32	25	10	700	199 230 525	199 230 535
40	32	10	1000	199 230 526	199 230 536
50	40	10	1600	199 230 527	199 230 537
63	50	10	3100	199 230 528	199 230 538
75	65	10	5000	199 230 529	199 230 539
90	80	10	7000	199 230 530	199 230 540
110	100	10	11000	199 230 531	199 230 541

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	262	85	156	70	233		136	70	276	65		144
90	200	281	105	168	78	254		141	70	341	72		151
110	238	292	123	175	86	301		164	120	369	80		174



# PVC-C metric

## Ball valve type 230 PVC-C FC (Fail safe to close) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

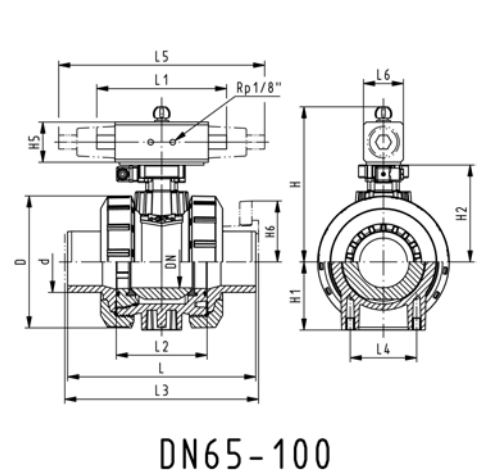
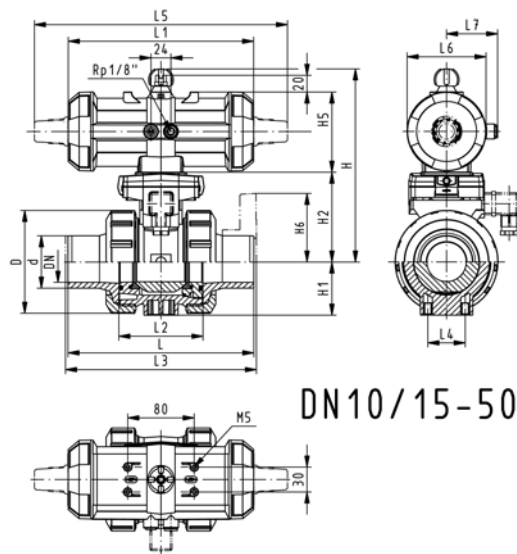
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

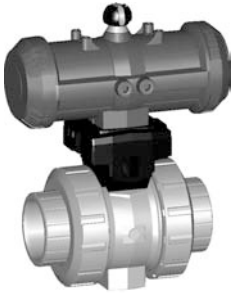
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 542	199 230 552
20	15	10	185	199 230 543	199 230 553
25	20	10	350	199 230 544	199 230 554
32	25	10	700	199 230 545	199 230 555
40	32	10	1000	199 230 546	199 230 556
50	40	10	1600	199 230 547	199 230 557
63	50	10	3100	199 230 548	199 230 558
75	65	10	5000	199 230 549	199 230 559
90	80	10	7000	199 230 550	199 230 560
110	100	10	11000	199 230 551	199 230 561

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	0	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	262	85	156	70	284		136	290	70	276	65	
90	200	281	105	168	78	300		141	310	70	341	72	
110	238	292	123	175	86	340		164	350	120	369	80	



# PVC-C metric

## Ball valve type 230 PVC-C FC (Fail safe to close) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

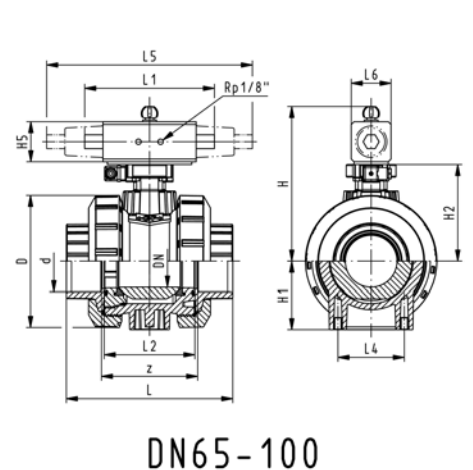
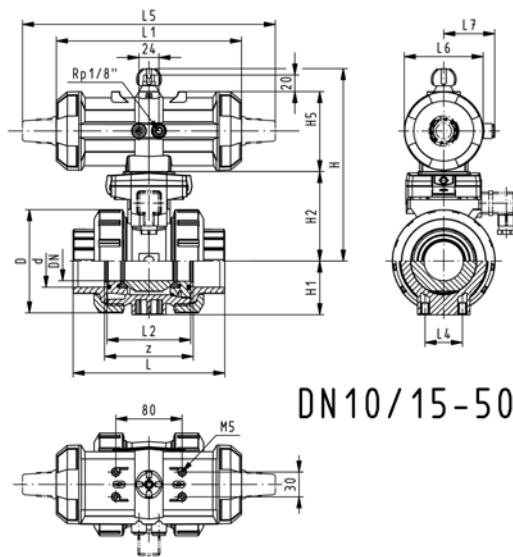
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 872	199 230 892
1/2	15	10	185	199 230 873	199 230 893
3/4	20	10	350	199 230 874	199 230 894
1	25	10	700	199 230 875	199 230 895
1 1/4	32	10	1000	199 230 876	199 230 896
1 1/2	40	10	1600	199 230 877	199 230 897
2	50	10	3100	199 230 878	199 230 898
2 1/2	65	10	5000	199 230 879	199 230 899
3	80	10	7000	199 230 880	199 230 900
4	100	10	11000	199 230 881	199 230 901

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174



# PVC-C metric

## Ball valve type 230 PVC-C FC (Fail safe to close) Without manual override With backing flanges PP-st metric



### Model:

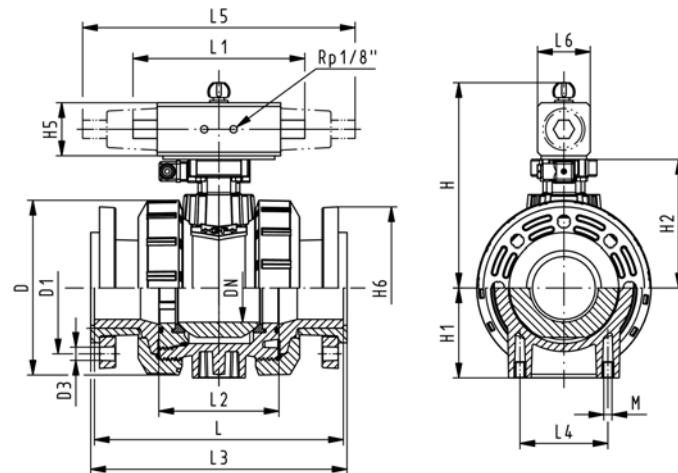
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 234 609</b>	<b>199 234 619</b>
90	80	10	7000	<b>199 234 610</b>	<b>199 234 620</b>
110	100	10	11000	<b>199 234 611</b>	<b>199 234 621</b>

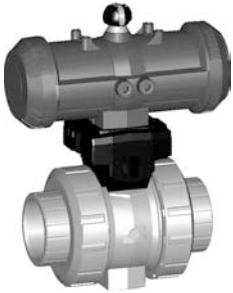
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	284	136	290	70	276	65
90	200	281	105	168	78	100	300	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80





# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

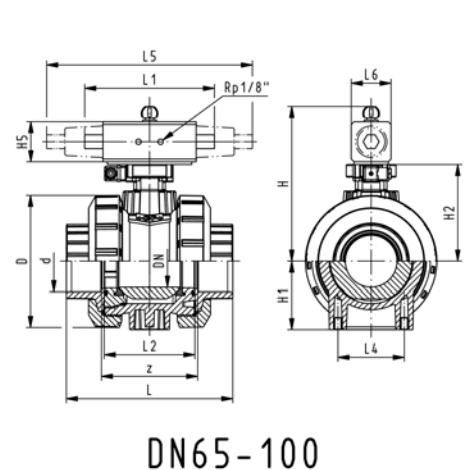
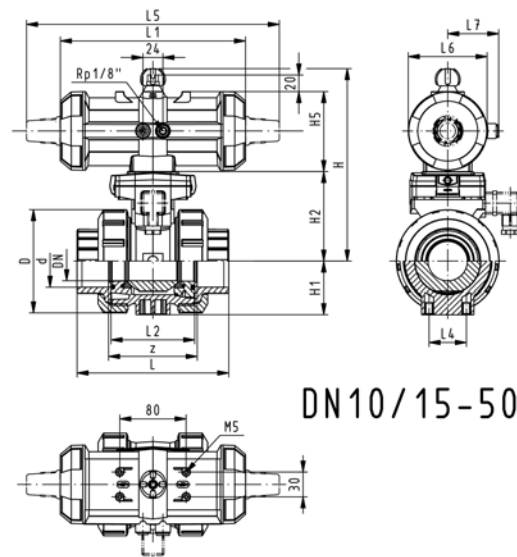
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

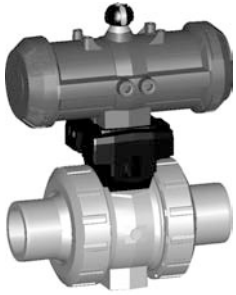
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 562	199 230 572
20	15	10	185	199 230 563	199 230 573
25	20	10	350	199 230 564	199 230 574
32	25	10	700	199 230 565	199 230 575
40	32	10	1000	199 230 566	199 230 576
50	40	10	1600	199 230 567	199 230 577
63	50	10	3100	199 230 568	199 230 578
75	65	10	5000	199 230 569	199 230 579
90	80	10	7000	199 230 570	199 230 580
110	100	10	11000	199 230 571	199 230 581

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	262	85	156	70	233		136	70	276	65		144
90	200	281	105	168	78	254		141	70	341	72		151
110	238	292	123	175	86	301		164	120	369	80		174



# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

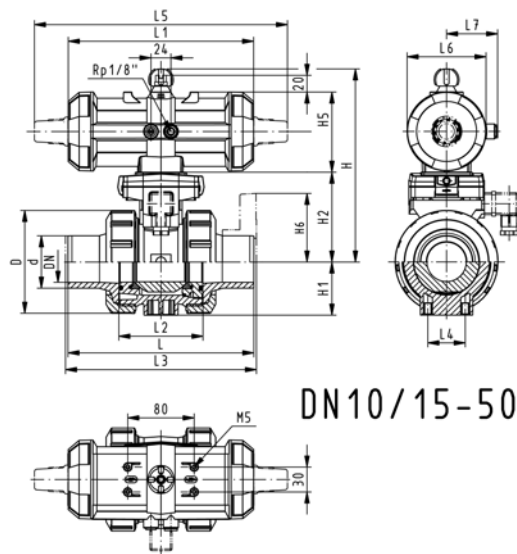
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

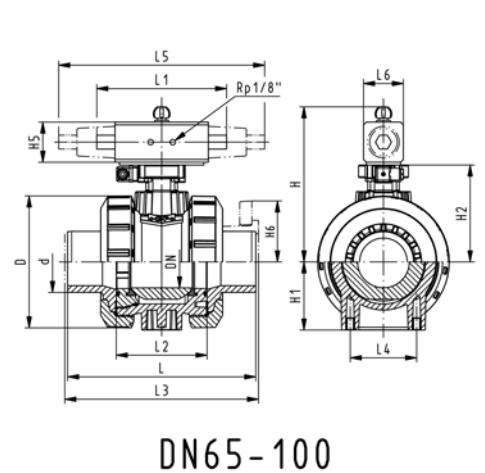
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 582	199 230 592
20	15	10	185	199 230 583	199 230 593
25	20	10	350	199 230 584	199 230 594
32	25	10	700	199 230 585	199 230 595
40	32	10	1000	199 230 586	199 230 596
50	40	10	1600	199 230 587	199 230 597
63	50	10	3100	199 230 588	199 230 598
75	65	10	5000	199 230 589	199 230 599
90	80	10	7000	199 230 590	199 230 600
110	100	10	11000	199 230 591	199 230 601

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	130	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	262	85	156	70	284		136	290	70	276	65	
90	200	281	105	168	78	300		141	310	70	341	72	
110	238	292	123	175	86	340		164	350	120	369	80	



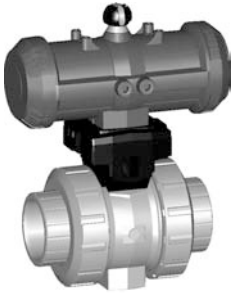
DN10/15-50



DN65-100

# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

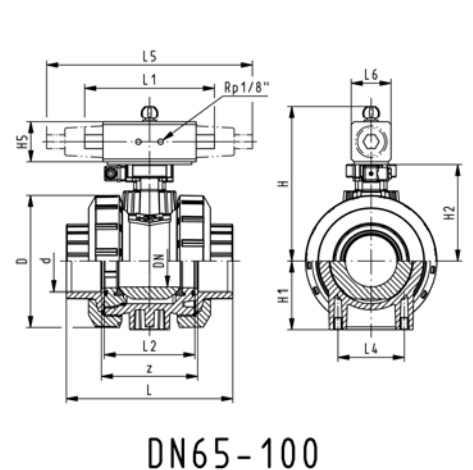
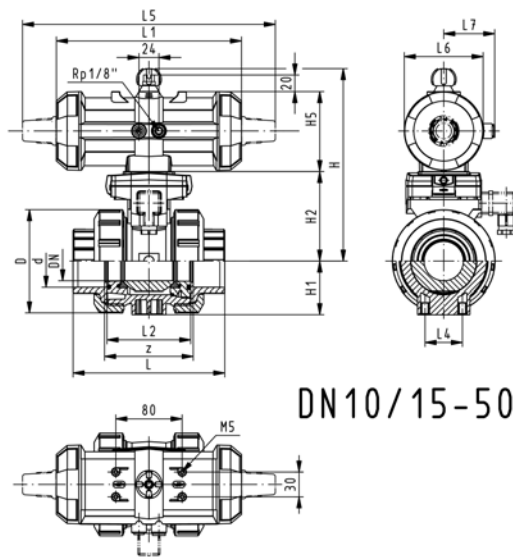
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 912	199 230 932
1/2	15	10	185	199 230 913	199 230 933
3/4	20	10	350	199 230 914	199 230 934
1	25	10	700	199 230 915	199 230 935
1 1/4	32	10	1000	199 230 916	199 230 936
1 1/2	40	10	1600	199 230 917	199 230 937
2	50	10	3100	199 230 918	199 230 938
2 1/2	65	10	5000	199 230 919	199 230 939
3	80	10	7000	199 230 920	199 230 940
4	100	10	11000	199 230 921	199 230 941

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174



# PVC-C metric

## Ball valve type 230 PVC-C FO (Fail safe to open) Without manual override With backing flanges PP-st metric



### Model:

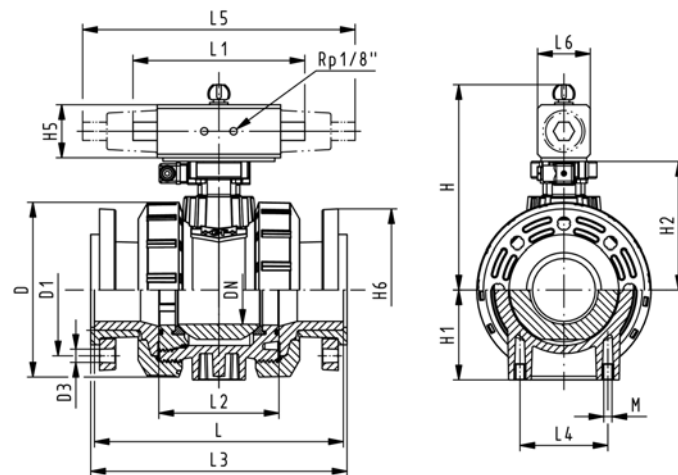
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 234 629</b>	<b>199 234 639</b>
90	80	10	7000	<b>199 234 630</b>	<b>199 234 640</b>
110	100	10	11000	<b>199 234 631</b>	<b>199 234 641</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	284	136	290	70	276	65
90	200	281	105	168	78	100	300	141	310	70	341	72
110	238	292	123	175	86	110	340	164	350	120	369	80



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

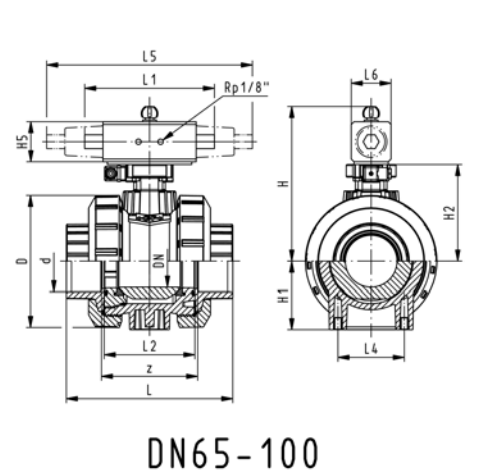
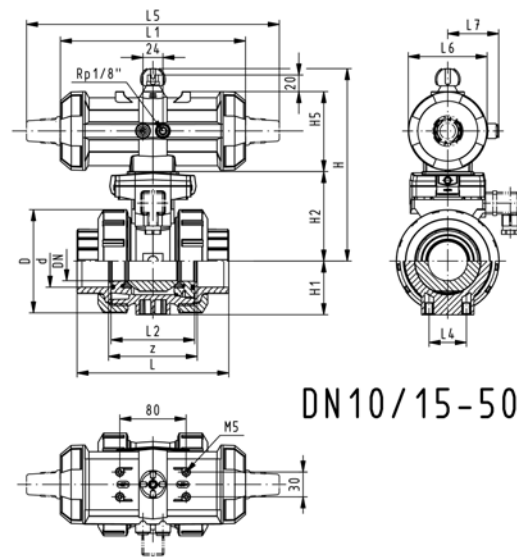
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

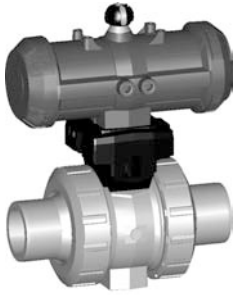
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 602	199 230 612
20	15	10	185	199 230 603	199 230 613
25	20	10	350	199 230 604	199 230 614
32	25	10	700	199 230 605	199 230 615
40	32	10	1000	199 230 606	199 230 616
50	40	10	1600	199 230 607	199 230 617
63	50	10	3100	199 230 608	199 230 618
75	65	10	5000	199 230 609	199 230 619
90	80	10	7000	199 230 610	199 230 620
110	100	10	11000	199 230 611	199 230 621

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	257	85	156	66	233	144	136	70		60		144
90	200	274	105	168	70	254	152	141	70		65		151
110	238	273	123	175	78	301	169	164	120		72		174



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) Without manual override With solvent cement spigots metric



DN10/15 - 50



### Model:

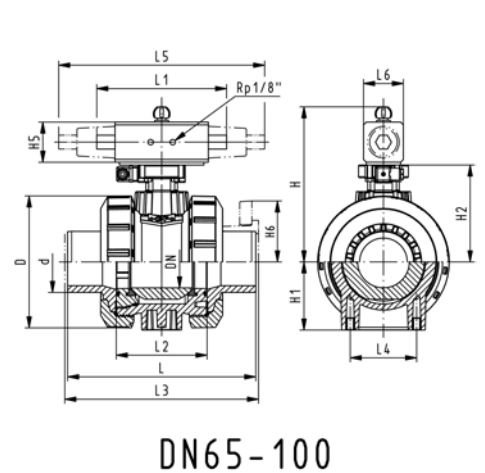
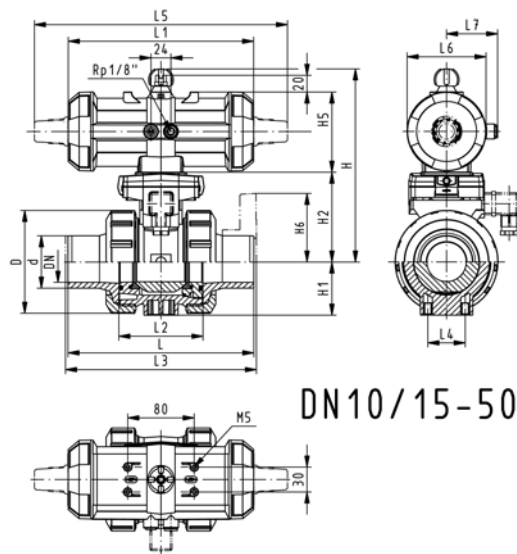
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

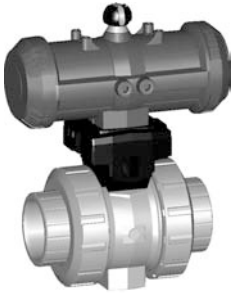
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 230 622	199 230 632
20	15	10	185	199 230 623	199 230 633
25	20	10	350	199 230 624	199 230 634
32	25	10	700	199 230 625	199 230 635
40	32	10	1000	199 230 626	199 230 636
50	40	10	1600	199 230 627	199 230 637
63	50	10	3100	199 230 628	199 230 638
75	65	10	5000	199 230 629	199 230 639
90	80	10	7000	199 230 630	199 230 640
110	100	10	11000	199 230 631	199 230 641

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	114	194	56	130	25	261	76	48
20	50	159	27	62	77	124	194	56	130	25	261	76	48
25	58	168	30	71	77	144	194	65	150	25	261	76	48
32	68	168	36	71	77	154	194	71	160	25	261	76	48
40	84	202	44	84	99	174	224	85	180	45	305	95	59
50	97	202	51	84	99	194	224	89	200	45	305	95	59
63	124	225	64	106	99	224	224	101	230	45	305	95	59
75	166	257	85	156	66	284	144	136	290	70		60	
90	200	274	105	168	70	300	152	141	310	70		65	
110	238	273	123	175	78	340	169	164	350	120		72	



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) Without manual override With threaded sockets Rp



DN10/15 - 50



### Model:

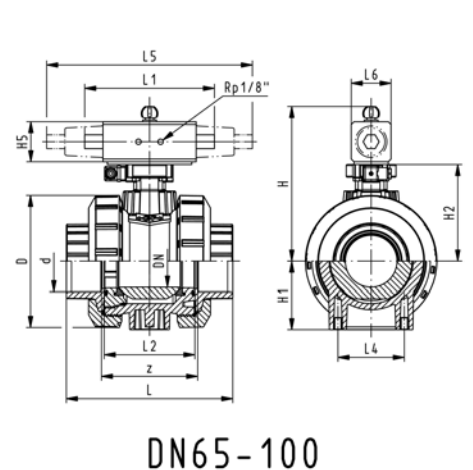
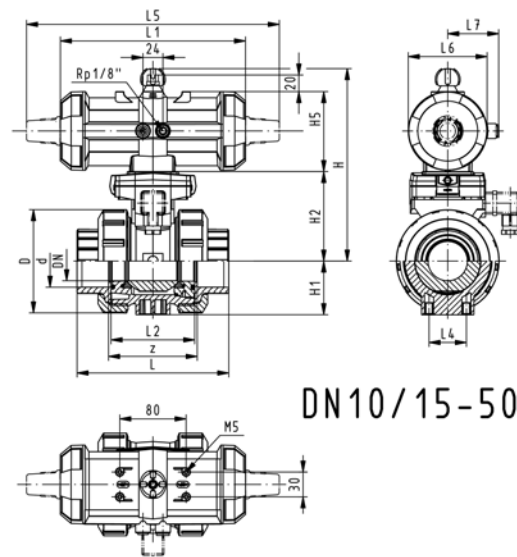
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 230 942	199 230 952
1/2	15	10	185	199 230 943	199 230 953
3/4	20	10	350	199 230 944	199 230 954
1	25	10	700	199 230 945	199 230 955
1 1/4	32	10	1000	199 230 946	199 230 956
1 1/2	40	10	1600	199 230 947	199 230 957
2	50	10	3100	199 230 948	199 230 958
2 1/2	65	10	5000	199 230 949	199 230 959
3	80	10	7000	199 230 950	199 230 960
4	100	10	11000	199 230 951	199 230 961

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	77	110	194	65	25	261	76	48	72
1	68	168	36	71	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	95
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	257	85	156	66	233	144	136	70		60		144
3	200	274	105	168	70	254	152	141	70		65		151
4	238	273	123	175	78	301	169	164	120		72		174



# PVC-C metric

## Ball valve type 230 PVC-C DA (Double acting) Without manual override With backing flanges PP-st metric



### Model:

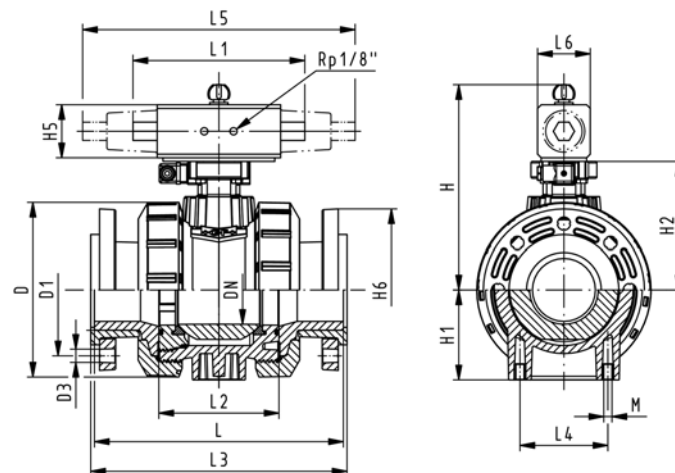
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 234 649</b>	<b>199 234 659</b>
90	80	10	7000	<b>199 234 650</b>	<b>199 234 660</b>
110	100	10	11000	<b>199 234 651</b>	<b>199 234 661</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]
75	166	257	85	156	66	93	284	144	136	290	70	60
90	200	274	105	168	70	100	300	152	141	310	70	65
110	238	273	123	175	78	110	340	169	164	350	120	72





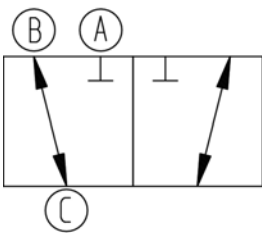
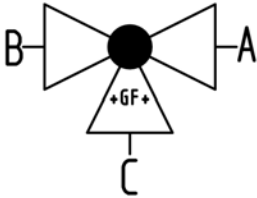
# PVC-C metric

## 3-Way ball valve type 285 PVC-C

### Horizontal/L-port

### Without manual override

### With solvent cement sockets metric



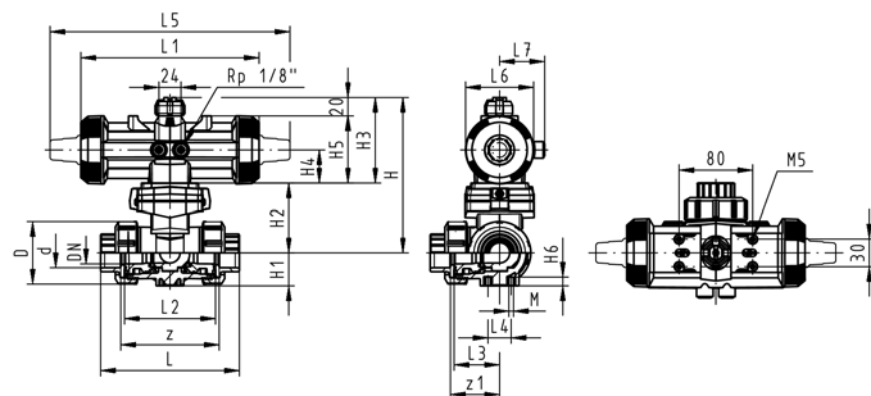
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 102	199 285 112
20	15	10	75	199 285 103	199 285 113
25	20	10	150	199 285 104	199 285 114
32	25	10	280	199 285 105	199 285 115
40	32	10	480	199 285 106	199 285 116
50	40	10	620	199 285 107	199 285 117
63	50	10	1230	199 285 108	199 285 118

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



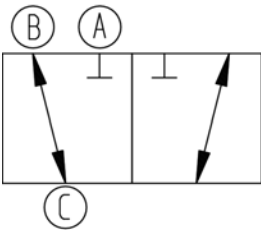
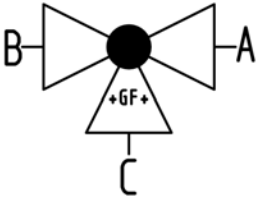
# PVC-C metric

## 3-Way ball valve type 285 PVC-C

Horizontal/L-port

Without manual override

With solvent cement spigots metric



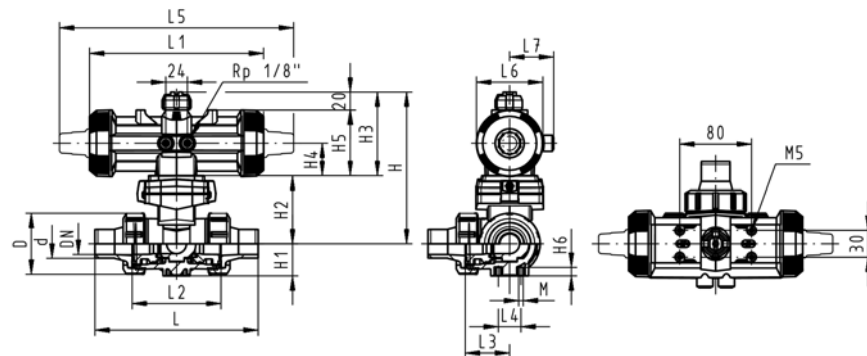
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 082	199 285 092
20	15	10	75	199 285 083	199 285 093
25	20	10	150	199 285 084	199 285 094
32	25	10	280	199 285 085	199 285 095
40	32	10	480	199 285 086	199 285 096
50	40	10	620	199 285 087	199 285 097
63	50	10	1230	199 285 088	199 285 098

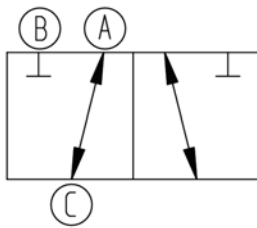
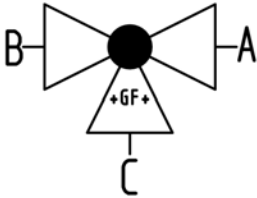
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-C metric

## 3-Way ball valve type 285 PVC-C Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets metric



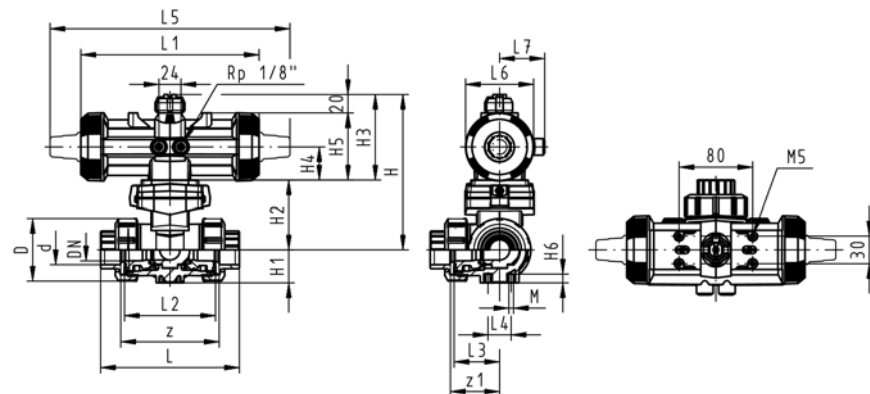
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 282	199 285 292
20	15	10	75	199 285 283	199 285 293
25	20	10	150	199 285 284	199 285 294
32	25	10	280	199 285 285	199 285 295
40	32	10	480	199 285 286	199 285 296
50	40	10	620	199 285 287	199 285 297
63	50	10	1230	199 285 288	199 285 298

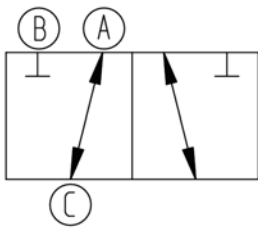
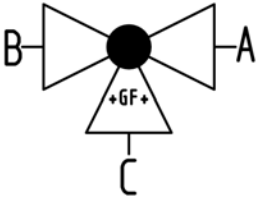
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



# PVC-C metric

## 3-Way ball valve type 285 PVC-C Horizontal/L-port DA (Double acting) Without manual override With solvent cement spigots metric



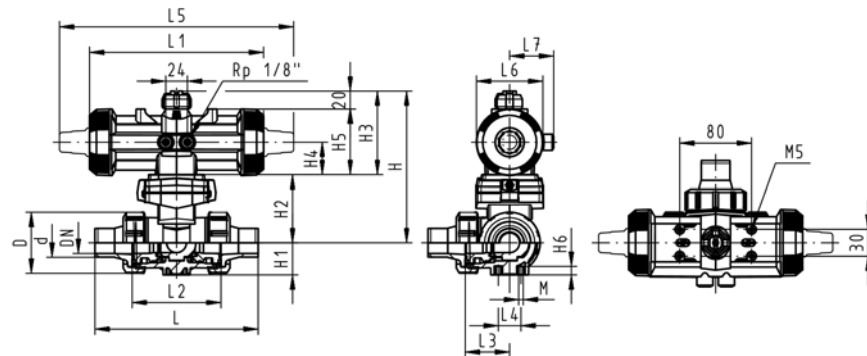
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 285 262	199 285 272
20	15	10	75	199 285 263	199 285 273
25	20	10	150	199 285 264	199 285 274
32	25	10	280	199 285 265	199 285 275
40	32	10	480	199 285 266	199 285 276
50	40	10	620	199 285 267	199 285 277
63	50	10	1230	199 285 268	199 285 278

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-C metric

## 3-Way ball valve type 285 PVC-C

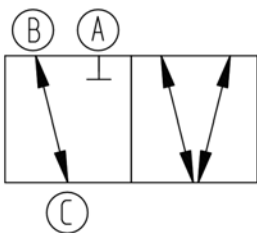
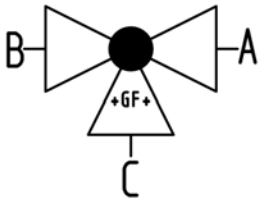
### Horizontal/T-port

### Without manual override

### With solvent cement sockets metric

#### Model:

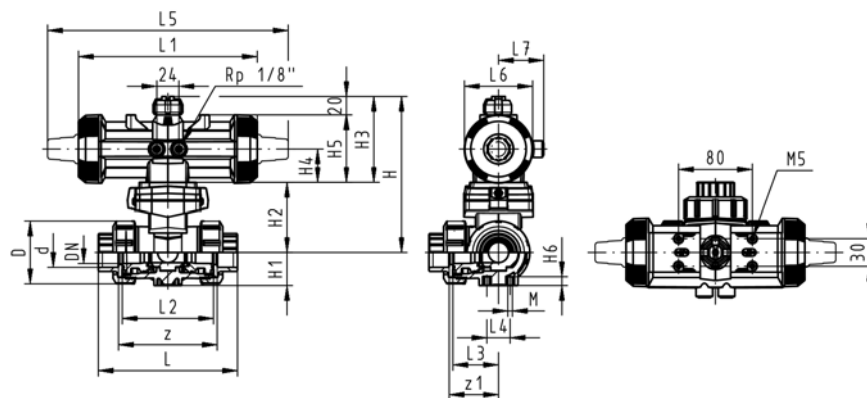
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 285 142</b>	<b>199 285 152</b>
20	15	10	200	<b>199 285 143</b>	<b>199 285 153</b>
25	20	10	470	<b>199 285 144</b>	<b>199 285 154</b>
32	25	10	793	<b>199 285 145</b>	<b>199 285 155</b>
40	32	10	1290	<b>199 285 146</b>	<b>199 285 156</b>
50	40	10	1910	<b>199 285 147</b>	<b>199 285 157</b>
63	50	10	3100	<b>199 285 148</b>	<b>199 285 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



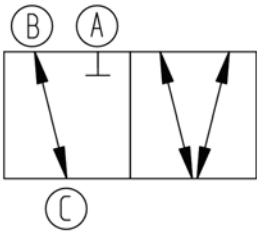
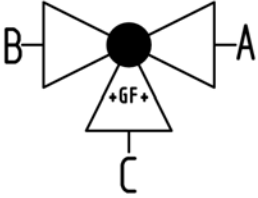
# PVC-C metric

## 3-Way ball valve type 285 PVC-C

### Horizontal/T-port

### Without manual override

### With solvent cement spigots metric



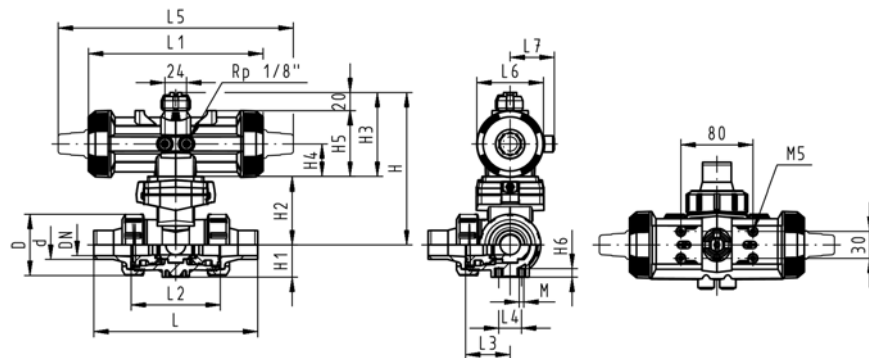
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 285 122</b>	<b>199 285 132</b>
20	15	10	200	<b>199 285 123</b>	<b>199 285 133</b>
25	20	10	470	<b>199 285 124</b>	<b>199 285 134</b>
32	25	10	793	<b>199 285 125</b>	<b>199 285 135</b>
40	32	10	1290	<b>199 285 126</b>	<b>199 285 136</b>
50	40	10	1910	<b>199 285 127</b>	<b>199 285 137</b>
63	50	10	3100	<b>199 285 128</b>	<b>199 285 138</b>

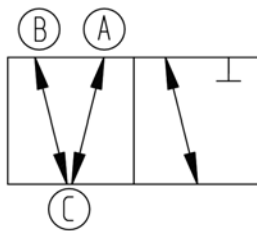
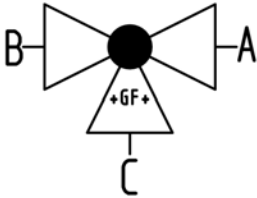
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PVC-C metric

## 3-Way ball valve type 285 PVC-C Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets metric



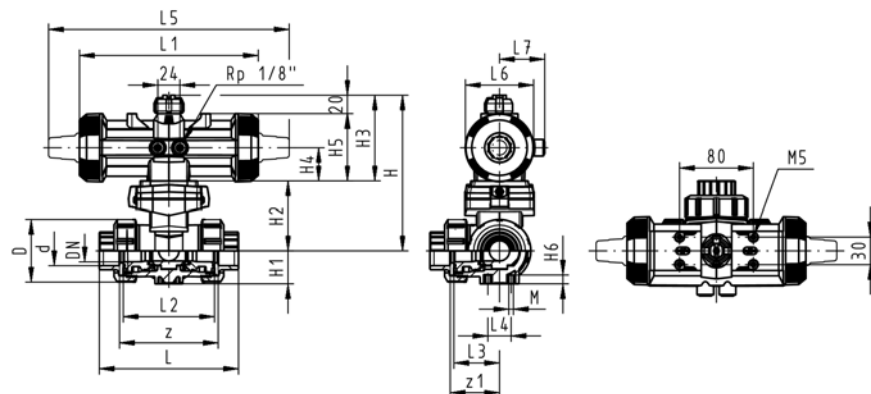
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 285 322	199 285 332
20	15	10	200	199 285 323	199 285 333
25	20	10	470	199 285 324	199 285 334
32	25	10	793	199 285 325	199 285 335
40	32	10	1290	199 285 326	199 285 336
50	40	10	1910	199 285 327	199 285 337
63	50	10	3100	199 285 328	199 285 338

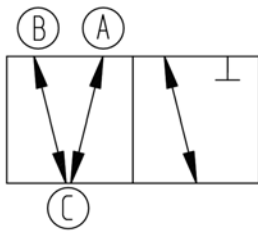
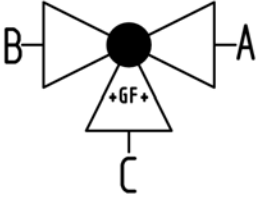
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



# PVC-C metric

## 3-Way ball valve type 285 PVC-C Horizontal/T-port DA (Double acting) Without manual override With solvent cement spigots metric



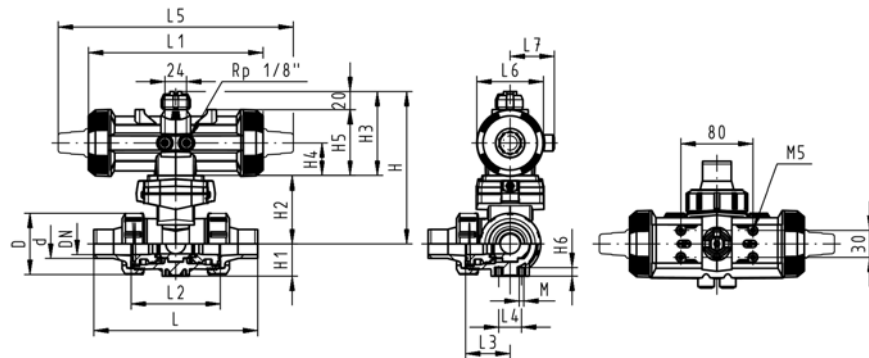
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°< 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 285 302</b>	<b>199 285 312</b>
20	15	10	200	<b>199 285 303</b>	<b>199 285 313</b>
25	20	10	470	<b>199 285 304</b>	<b>199 285 314</b>
32	25	10	793	<b>199 285 305</b>	<b>199 285 315</b>
40	32	10	1290	<b>199 285 306</b>	<b>199 285 316</b>
50	40	10	1910	<b>199 285 307</b>	<b>199 285 317</b>
63	50	10	3100	<b>199 285 308</b>	<b>199 285 318</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	131	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	141	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	165	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	242	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	302	224	179	89	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





# PVC-C metric

## Butterfly valves electric

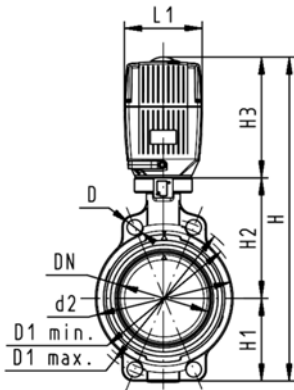
### Butterfly valve type 140 PVC-C 100-230V Without manual override



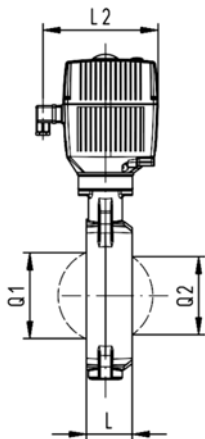
#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 202</b>	<b>199 140 222</b>
75	65	2 ½	10	2200	<b>199 140 203</b>	<b>199 140 223</b>
90	80	3	10	3000	<b>199 140 204</b>	<b>199 140 224</b>
110	100	4	10	6500	<b>199 140 205</b>	<b>199 140 225</b>
140	125	5	10	11500	<b>199 140 206</b>	<b>199 140 226</b>
160	150	6	10	16600	<b>199 140 207</b>	<b>199 140 227</b>
225	200	8	10	39600	<b>199 140 208</b>	<b>199 140 228</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178



d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PVC-C metric

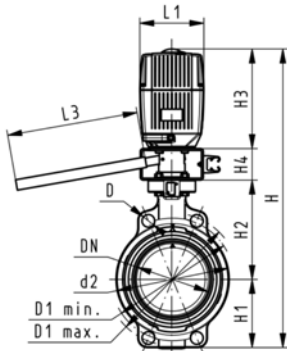
## Butterfly valve type 140 PVC-C 100-230V With manual override



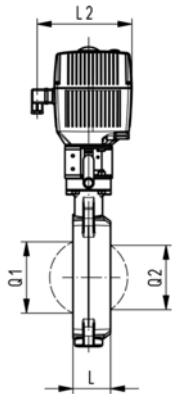
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 162</b>	<b>199 140 182</b>
75	65	2 ½	10	2200	<b>199 140 163</b>	<b>199 140 183</b>
90	80	3	10	3000	<b>199 140 164</b>	<b>199 140 184</b>
110	100	4	10	6500	<b>199 140 165</b>	<b>199 140 185</b>
140	125	5	10	11500	<b>199 140 166</b>	<b>199 140 186</b>
160	150	6	10	16600	<b>199 140 167</b>	<b>199 140 187</b>
225	200	8	10	39600	<b>199 140 168</b>	<b>199 140 188</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# PVC-C metric

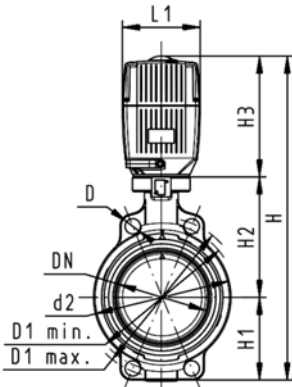
## Butterfly valve type 140 PVC-C 24V Without manual override



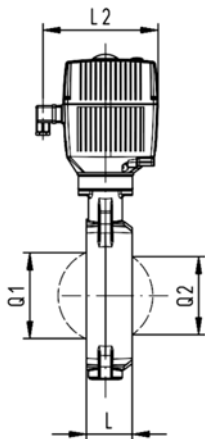
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 140 282	199 140 302
75	65	2 ½	10	2200	199 140 283	199 140 303
90	80	3	10	3000	199 140 284	199 140 304
110	100	4	10	6500	199 140 285	199 140 305
140	125	5	10	11500	199 140 286	199 140 306
160	150	6	10	16600	199 140 287	199 140 307
225	200	8	10	39600	199 140 288	199 140 308



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178



d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PVC-C metric

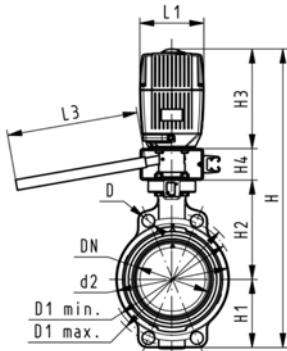
## Butterfly valve type 140 PVC-C 24V With manual override



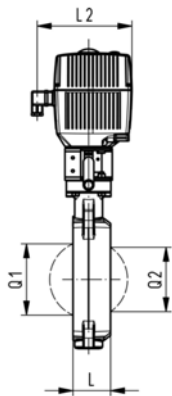
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 242</b>	<b>199 140 262</b>
75	65	2 ½	10	2200	<b>199 140 243</b>	<b>199 140 263</b>
90	80	3	10	3000	<b>199 140 244</b>	<b>199 140 264</b>
110	100	4	10	6500	<b>199 140 245</b>	<b>199 140 265</b>
140	125	5	10	11500	<b>199 140 246</b>	<b>199 140 266</b>
160	150	6	10	16600	<b>199 140 247</b>	<b>199 140 267</b>
225	200	8	10	39600	<b>199 140 248</b>	<b>199 140 268</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

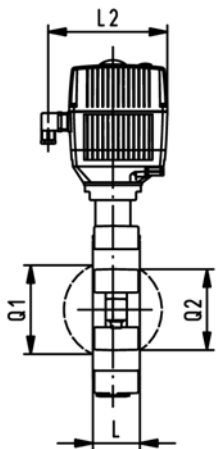
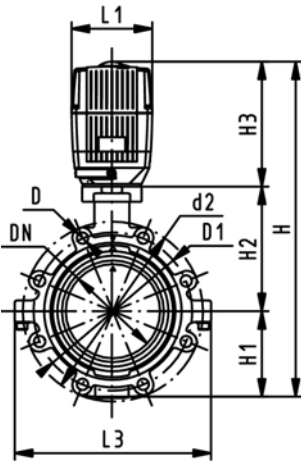
# PVC-C metric

## Lugstyle butterfly valve type 141 PVC-C 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



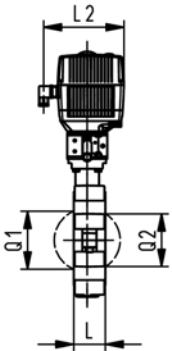
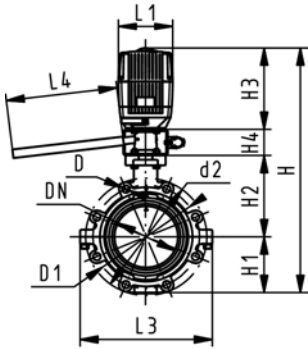
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 202</b>	<b>199 141 222</b>
75	65	2 ½	10	2200	<b>199 141 203</b>	<b>199 141 223</b>
90	80	3	10	3000	<b>199 141 204</b>	<b>199 141 224</b>
110	100	4	10	6500	<b>199 141 205</b>	<b>199 141 225</b>
140	125	5	10	11500	<b>199 141 206</b>	<b>199 141 226</b>
160	150	6	10	16600	<b>199 141 207</b>	<b>199 141 227</b>
225	200	8	10	39600	<b>199 141 208</b>	<b>199 141 228</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PVC-C metric

## Lugstyle butterfly valve type 141 PVC-C 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 162</b>	<b>199 141 182</b>
75	65	2 ½	10	2200	<b>199 141 163</b>	<b>199 141 183</b>
90	80	3	10	3000	<b>199 141 164</b>	<b>199 141 184</b>
110	100	4	10	6500	<b>199 141 165</b>	<b>199 141 185</b>
140	125	5	10	11500	<b>199 141 166</b>	<b>199 141 186</b>
160	150	6	10	16600	<b>199 141 167</b>	<b>199 141 187</b>
225	200	8	10	39600	<b>199 141 168</b>	<b>199 141 188</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

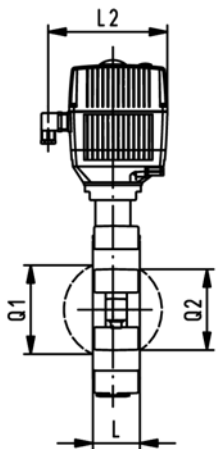
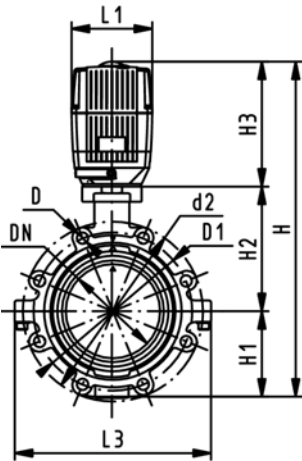
# PVC-C metric

## Lugstyle butterfly valve type 141 PVC-C 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 141 282	199 141 302
75	65	2 ½	10	2200	199 141 283	199 141 303
90	80	3	10	3000	199 141 284	199 141 304
110	100	4	10	6500	199 141 285	199 141 305
140	125	5	10	11500	199 141 286	199 141 306
160	150	6	10	16600	199 141 287	199 141 307
225	200	8	10	39600	199 141 288	199 141 308

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

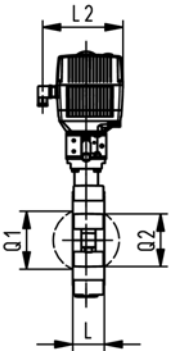
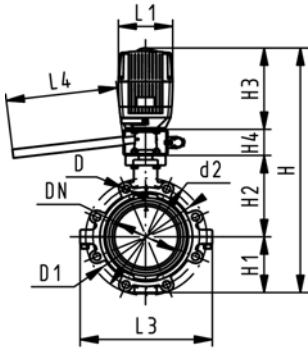
# PVC-C metric

## Lugstyle butterfly valve type 141 PVC-C 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 242</b>	<b>199 141 262</b>
75	65	2 ½	10	2200	<b>199 141 243</b>	<b>199 141 263</b>
90	80	3	10	3000	<b>199 141 244</b>	<b>199 141 264</b>
110	100	4	10	6500	<b>199 141 245</b>	<b>199 141 265</b>
140	125	5	10	11500	<b>199 141 246</b>	<b>199 141 266</b>
160	150	6	10	16600	<b>199 141 247</b>	<b>199 141 267</b>
225	200	8	10	39600	<b>199 141 248</b>	<b>199 141 268</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



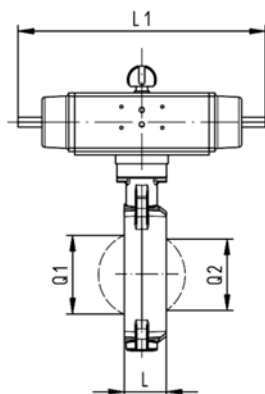
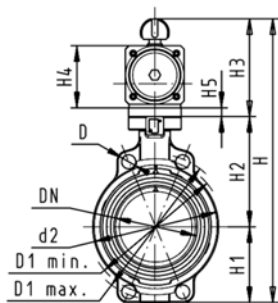
# PVC-C metric

## Butterfly valves pneumatic

### Butterfly valve type 240 PVC-C

#### FC (Fail safe to close)

#### Without manual override



#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

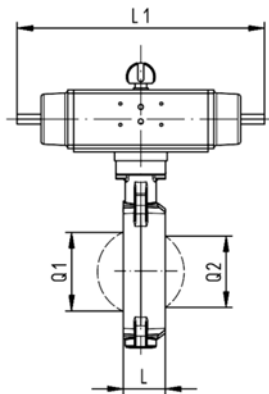
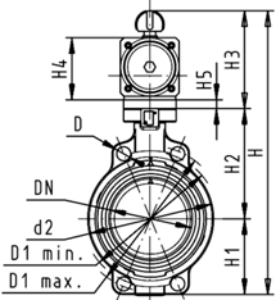
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 162</b>	<b>199 240 182</b>
75	65	2 ½	10	2200	<b>199 240 163</b>	<b>199 240 183</b>
90	80	3	10	3000	<b>199 240 164</b>	<b>199 240 184</b>
110	100	4	10	6500	<b>199 240 165</b>	<b>199 240 185</b>
140	125	5	10	11500	<b>199 240 166</b>	<b>199 240 186</b>
160	150	6	10	16600	<b>199 240 167</b>	<b>199 240 187</b>
225	200	8	10	39600	<b>199 240 168</b>	<b>199 240 188</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118		73	452

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169

# PVC-C metric

## Butterfly valve type 240 PVC-C FO (Fail safe to open) Without manual override



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 202</b>	<b>199 240 222</b>
75	65	2 ½	10	2200	<b>199 240 203</b>	<b>199 240 223</b>
90	80	3	10	3000	<b>199 240 204</b>	<b>199 240 224</b>
110	100	4	10	6500	<b>199 240 205</b>	<b>199 240 225</b>
140	125	5	10	11500	<b>199 240 206</b>	<b>199 240 226</b>
160	150	6	10	16600	<b>199 240 207</b>	<b>199 240 227</b>
225	200	8	10	39600	<b>199 240 208</b>	<b>199 240 228</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169

# PVC-C metric

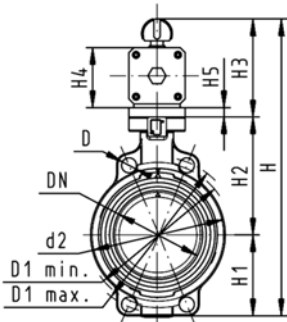
## Butterfly valve type 240 PVC-C DA (Double acting) Without manual override



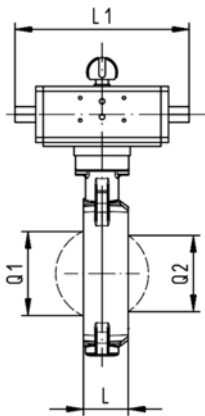
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 242</b>	<b>199 240 262</b>
75	65	2 ½	10	2200	<b>199 240 243</b>	<b>199 240 263</b>
90	80	3	10	3000	<b>199 240 244</b>	<b>199 240 264</b>
110	100	4	10	6500	<b>199 240 245</b>	<b>199 240 265</b>
140	125	5	10	11500	<b>199 240 246</b>	<b>199 240 266</b>
160	150	6	10	16600	<b>199 240 247</b>	<b>199 240 267</b>
225	200	8	10	39600	<b>199 240 248</b>	<b>199 240 268</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279



d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169

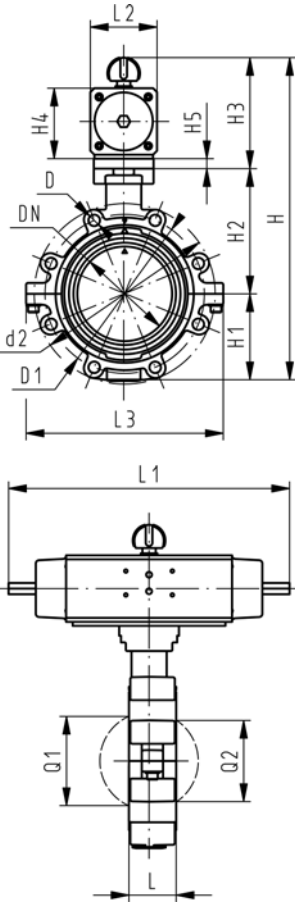
# PVC-C metric

## Lugstyle butterfly valve type 241 PVC-C FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 162</b>	<b>199 241 182</b>
75	65	2 ½	10	2200	<b>199 241 163</b>	<b>199 241 183</b>
90	80	3	10	3000	<b>199 241 164</b>	<b>199 241 184</b>
110	100	4	10	6500	<b>199 241 165</b>	<b>199 241 185</b>
140	125	5	10	11500	<b>199 241 166</b>	<b>199 241 186</b>
160	150	6	10	16600	<b>199 241 167</b>	<b>199 241 187</b>
225	200	8	10	39600	<b>199 241 168</b>	<b>199 241 188</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

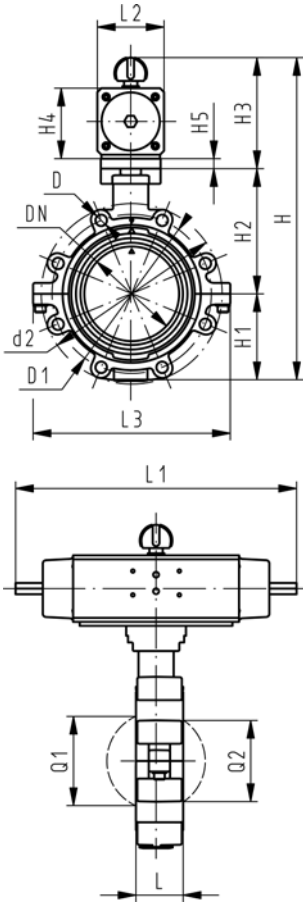
# PVC-C metric

## Lugstyle butterfly valve type 241 PVC-C FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 202</b>	<b>199 241 222</b>
75	65	2 ½	10	2200	<b>199 241 203</b>	<b>199 241 223</b>
90	80	3	10	3000	<b>199 241 204</b>	<b>199 241 224</b>
110	100	4	10	6500	<b>199 241 205</b>	<b>199 241 225</b>
140	125	5	10	11500	<b>199 241 206</b>	<b>199 241 226</b>
160	150	6	10	16600	<b>199 241 207</b>	<b>199 241 227</b>
225	200	8	10	39600	<b>199 241 208</b>	<b>199 241 228</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

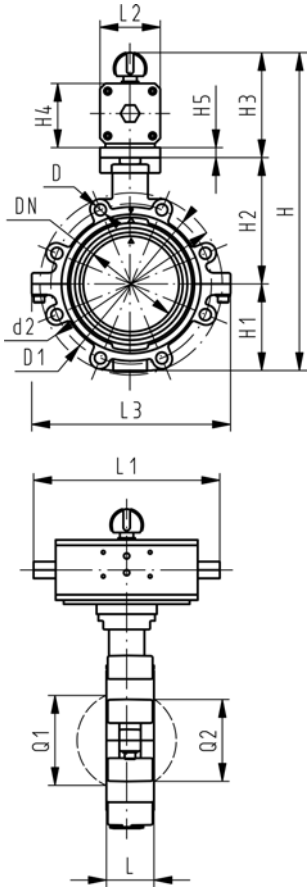
# PVC-C metric

## Lugstyle butterfly valve type 241 PVC-C DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 242</b>	<b>199 241 262</b>
75	65	2 ½	10	2200	<b>199 241 243</b>	<b>199 241 263</b>
90	80	3	10	3000	<b>199 241 244</b>	<b>199 241 264</b>
110	100	4	10	6500	<b>199 241 245</b>	<b>199 241 265</b>
140	125	5	10	11500	<b>199 241 246</b>	<b>199 241 266</b>
160	150	6	10	16600	<b>199 241 247</b>	<b>199 241 267</b>
225	200	8	10	39600	<b>199 241 248</b>	<b>199 241 268</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71		56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78		64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86		72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96		73	279	90

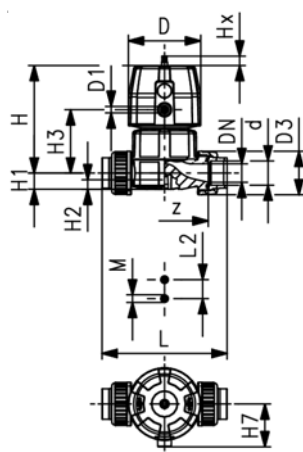
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

## PVC-C metric

### Diaphragm valves pneumatic New generation

#### Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close)

#### Unions with solvent cement sockets metric



#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>163 614 012</b>
25	20	6	271	<b>163 614 013</b>
32	25	6	481	<b>163 614 014</b>
40	32	6	759	<b>163 614 015</b>
50	40	6	960	<b>163 614 016</b>
63	50	6	1181	<b>163 614 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	69	M8	140	14
50	120	1/8	222	45	193	32	15	119	69	M8	160	16
63	120	1/8	266	45	205	39	15	132	69	M8	190	16



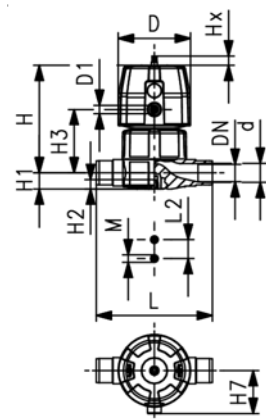
#### Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close) With solvent cement spigots metric

#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

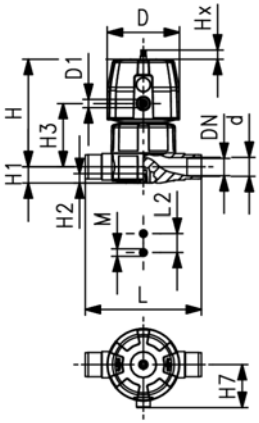
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>163 615 012</b>
25	20	6	271	<b>163 615 013</b>
32	25	6	481	<b>163 615 014</b>
40	32	6	759	<b>163 615 015</b>
50	40	6	960	<b>163 615 016</b>
63	50	6	1181	<b>163 615 017</b>

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# PVC-C metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7
25	96	1/8	144	25	132	18	12	73	57	M6	10
32	96	1/8	154	25	143	22	12	84	57	M6	13
40	120	1/8	174	45	173	26	15	99	69	M8	14
50	120	1/8	194	45	193	32	15	119	69	M8	16
63	120	1/8	224	45	205	39	15	132	69	M8	16



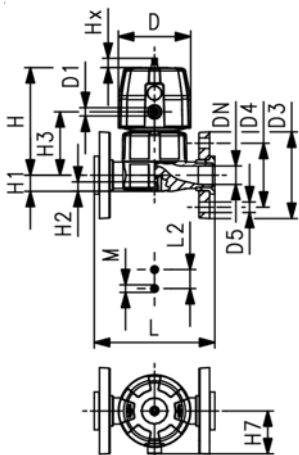
## Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>163 617 112</b>
25	20	6	271	<b>163 617 113</b>
32	25	6	481	<b>163 617 114</b>
40	32	6	759	<b>163 617 115</b>
50	40	6	960	<b>163 617 116</b>
63	50	6	1181	<b>163 617 117</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	95	65	14	130	25	101	14	12	60	43	M6	7
25	96	1/8	105	75	14	150	25	132	18	12	73	57	M6	10
32	96	1/8	115	85	14	160	25	143	22	12	84	57	M6	13
40	120	1/8	140	100	18	180	45	173	26	15	99	69	M8	14
50	120	1/8	150	110	18	200	45	193	32	15	119	69	M8	16
63	120	1/8	165	125	18	230	45	205	39	15	132	69	M8	16



## PVC-C metric

### Diaphragm valve DIASTAR Ten PVC-C FC (Fail safe to close)

#### Unions with solvent cement sockets metric



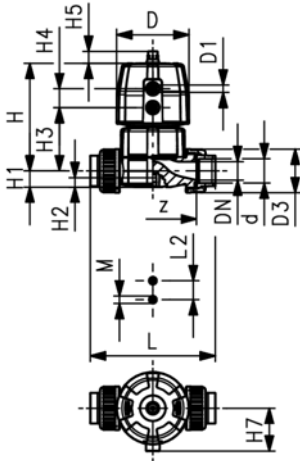
#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>163 624 012</b>	<b>163 624 032</b>
25	20	10/10*	271	<b>163 624 013</b>	<b>163 624 033</b>
32	25	10/10*	481	<b>163 624 014</b>	<b>163 624 034</b>
40	32	10/10*	759	<b>163 624 015</b>	<b>163 624 035</b>
50	40	10/10*	1263	<b>163 624 016</b>	<b>163 624 036</b>
63	50	10/6*	1728	<b>163 624 017</b>	<b>163 624 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

### Diaphragm valve DIASTAR Ten PVC-C FC (Fail safe to close)

#### With solvent cement spigots metric



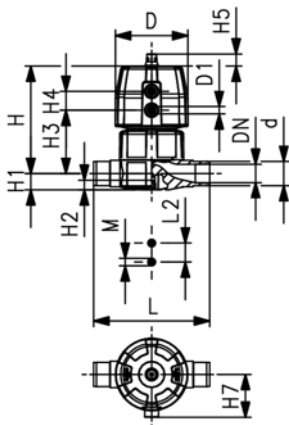
#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

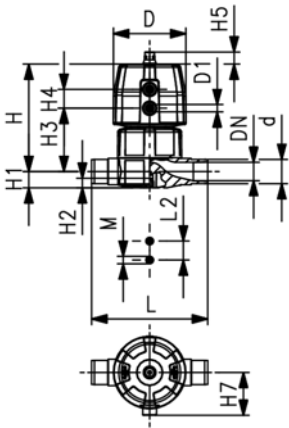
\* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>163 625 012</b>	<b>163 625 032</b>
25	20	10/10*	271	<b>163 625 013</b>	<b>163 625 033</b>
32	25	10/10*	481	<b>163 625 014</b>	<b>163 625 034</b>
40	32	10/10*	759	<b>163 625 015</b>	<b>163 625 035</b>
50	40	10/10*	1263	<b>163 625 016</b>	<b>163 625 036</b>
63	50	10/6*	1728	<b>163 625 017</b>	<b>163 625 037</b>

table continued next page

# PVC-C metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



## Diaphragm valve DIASTAR Ten PVC-C FC (Fail safe to close) With backing flanges PP-V metric/BS

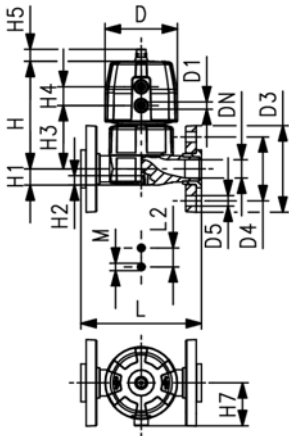
### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>163 627 112</b>	<b>163 627 132</b>
25	20	10/10*	271	<b>163 627 113</b>	<b>163 627 133</b>
32	25	10/10*	481	<b>163 627 114</b>	<b>163 627 134</b>
40	32	10/10*	759	<b>163 627 115</b>	<b>163 627 135</b>
50	40	10/10*	1263	<b>163 627 116</b>	<b>163 627 136</b>
63	50	10/6*	1728	<b>163 627 117</b>	<b>163 627 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

## PVC-C metric

### Diaphragm valve DIASTAR Ten PVC-C FO (Fail safe to open)

#### Unions with solvent cement sockets metric

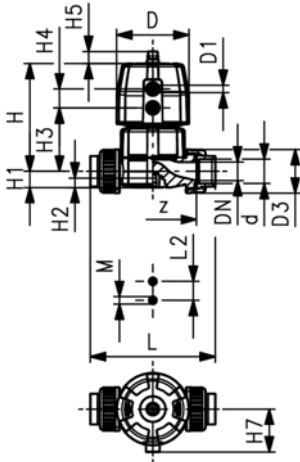


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 644 012	163 644 032
25	20	10	271	163 644 013	163 644 033
32	25	10	481	163 644 014	163 644 034
40	32	10	759	163 644 015	163 644 035
50	40	10	1263	163 644 016	163 644 036
63	50	10	1728	163 644 017	163 644 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

### Diaphragm valve DIASTAR Ten PVC-C FO (Fail safe to open)

#### With solvent cement spigots metric

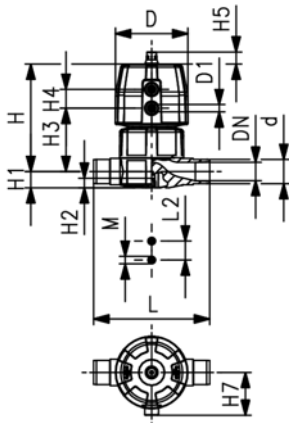


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

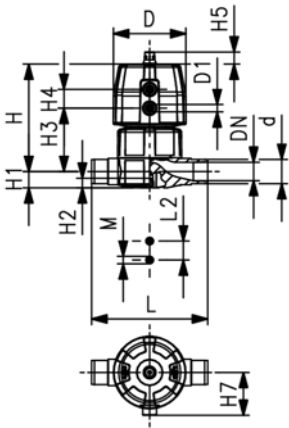


d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 645 012	163 645 032
25	20	10	271	163 645 013	163 645 033
32	25	10	481	163 645 014	163 645 034
40	32	10	759	163 645 015	163 645 035
50	40	10	1263	163 645 016	163 645 036
63	50	10	1728	163 645 017	163 645 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13

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# PVC-C metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



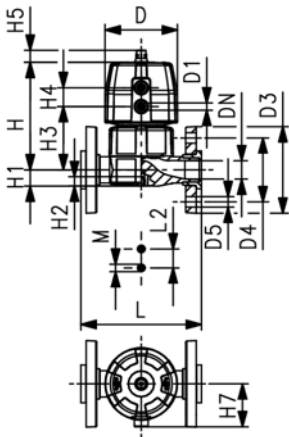
## Diaphragm valve DIASTAR Ten PVC-C FO (Fail safe to open) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>163 647 112</b>	<b>163 647 132</b>
25	20	10	271	<b>163 647 113</b>	<b>163 647 133</b>
32	25	10	481	<b>163 647 114</b>	<b>163 647 134</b>
40	32	10	759	<b>163 647 115</b>	<b>163 647 135</b>
50	40	10	1263	<b>163 647 116</b>	<b>163 647 136</b>
63	50	10	1728	<b>163 647 117</b>	<b>163 647 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

## PVC-C metric

### Diaphragm valve DIASTAR Ten PVC-C DA (Double acting)

#### Unions with solvent cement sockets metric

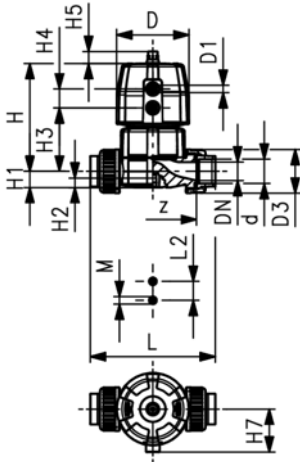


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 654 012	163 654 032
25	20	10	271	163 654 013	163 654 033
32	25	10	481	163 654 014	163 654 034
40	32	10	759	163 654 015	163 654 035
50	40	10	1263	163 654 016	163 654 036
63	50	10	1728	163 654 017	163 654 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

### Diaphragm valve DIASTAR Ten PVC-C DA (Double acting)

#### With solvent cement spigots metric

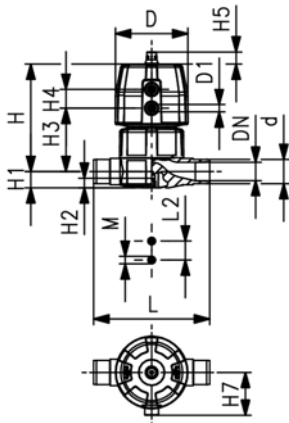


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

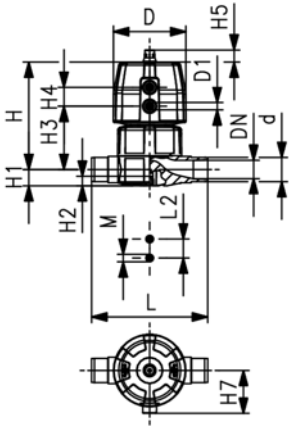


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 655 012	163 655 032
25	20	10	271	163 655 013	163 655 033
32	25	10	481	163 655 014	163 655 034
40	32	10	759	163 655 015	163 655 035
50	40	10	1263	163 655 016	163 655 036
63	50	10	1728	163 655 017	163 655 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13

table continued next page

# PVC-C metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



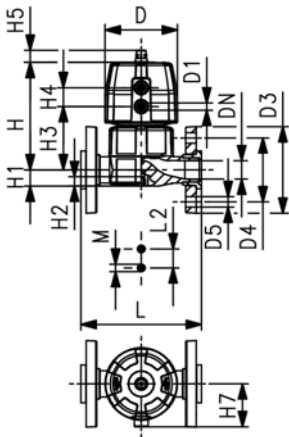
## Diaphragm valve DIASTAR Ten PVC-C DA (Double acting) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>163 657 112</b>	<b>163 657 132</b>
25	20	10	271	<b>163 657 113</b>	<b>163 657 133</b>
32	25	10	481	<b>163 657 114</b>	<b>163 657 134</b>
40	32	10	759	<b>163 657 115</b>	<b>163 657 135</b>
50	40	10	1263	<b>163 657 116</b>	<b>163 657 136</b>
63	50	10	1728	<b>163 657 117</b>	<b>163 657 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

## PVC-C metric

### Diaphragm valve DIASTAR Sixteen PVC-C FC (Fail safe to close) Unions with solvent cement sockets metric

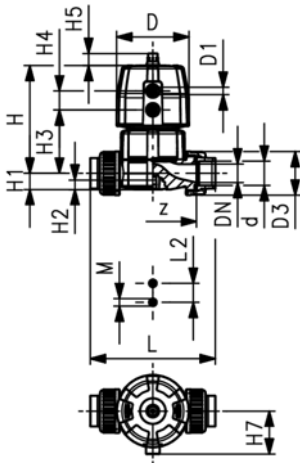


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 634 012	163 634 032
25	20	10	271	163 634 013	163 634 033
32	25	10	481	163 634 014	163 634 034
40	32	10	759	163 634 015	163 634 035
50	40	10	1263	163 634 016	163 634 036
63	50	10	1728	163 634 017	163 634 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	122	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	140	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	160	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	190	23

### Diaphragm valve DIASTAR Sixteen PVC-C FC (Fail safe to close) With solvent cement spigots metric

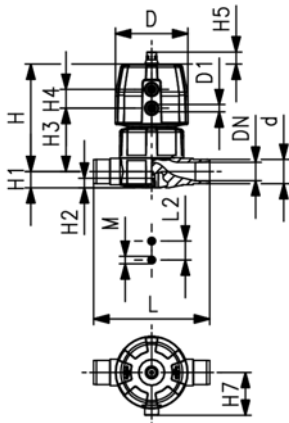


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

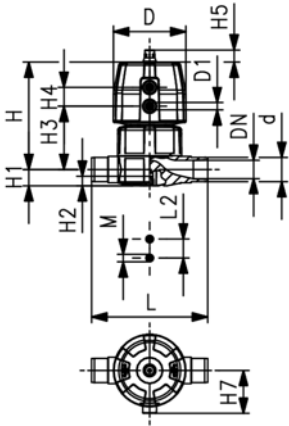


d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	163 635 012	163 635 032
25	20	10	271	163 635 013	163 635 033
32	25	10	481	163 635 014	163 635 034
40	32	10	759	163 635 015	163 635 035
50	40	10	1263	163 635 016	163 635 036
63	50	10	1728	163 635 017	163 635 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13

table continued next page

# PVC-C metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	150	¼	174	45	196	26	15	101	36	26	88	M8	15
50	180	¼	194	45	239	32	15	124	37	26	103	M8	19
63	180	¼	224	45	251	39	15	137	37	26	103	M8	23

## Diaphragm valve DIASTAR Sixteen PVC-C FC (Fail safe to close) With backing flanges PP-V metric/BS

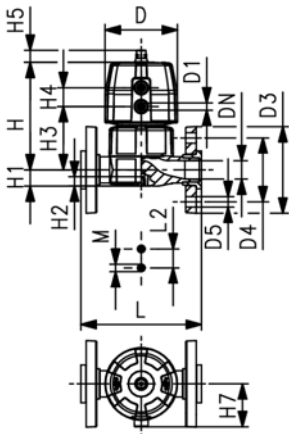


### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>163 637 112</b>	<b>163 637 132</b>
25	20	10	271	<b>163 637 113</b>	<b>163 637 133</b>
32	25	10	481	<b>163 637 114</b>	<b>163 637 134</b>
40	32	10	759	<b>163 637 115</b>	<b>163 637 135</b>
50	40	10	1263	<b>163 637 116</b>	<b>163 637 136</b>
63	50	10	1728	<b>163 637 117</b>	<b>163 637 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	96	⅜	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	⅜	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	⅜	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	¼	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	¼	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	¼	165	125	18	230	45	251	39	15	137	37	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



# PVC-C metric

## Diaphragm valves pneumatic

### Diaphragm valve type DIASTAR PVC-C Series 025 FC (Fail safe to close) With fixed flanges PVC-C metric



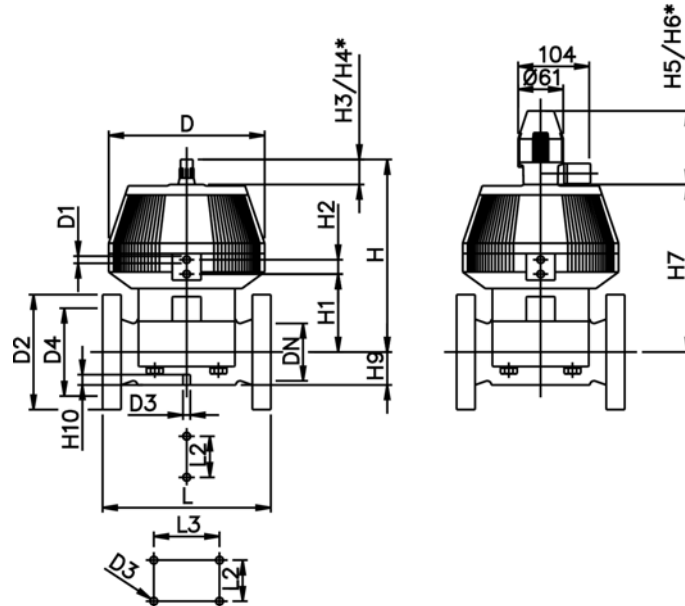
**Model:**

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 697</b>	<b>199 025 727</b>
** 90	80	3	10	1700	<b>199 025 698</b>	<b>199 025 728</b>
110	100	4	6	2700	<b>199 025 699</b>	<b>199 025 729</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# PVC-C metric

## Diaphragm valve type DIASTAR PVC-C Series 025 FO (Fail safe to open) With fixed flanges PVC-C metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

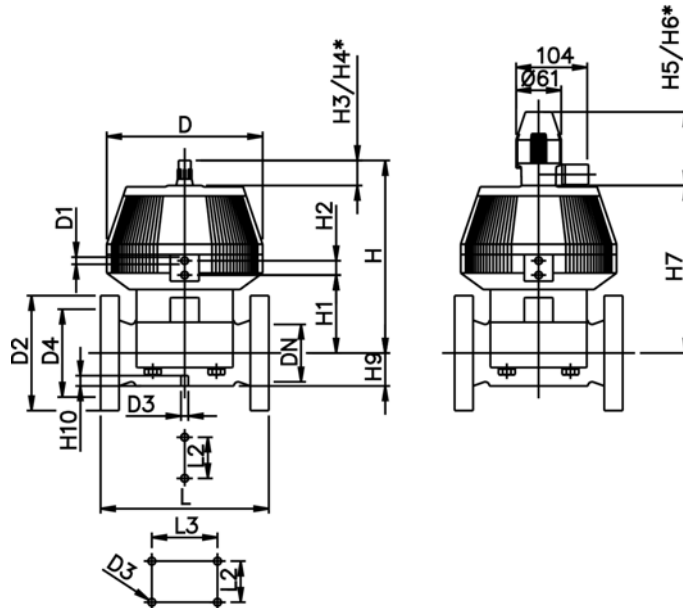
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 707</b>	<b>199 025 737</b>
** 90	80	3	10	1700	<b>199 025 708</b>	<b>199 025 738</b>
110	100	4	6	2700	<b>199 025 709</b>	<b>199 025 739</b>

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	8	185	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	12	200	160	310	120	348	150	24	46	100	129	195
110	335	¼	12	225	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# PVC-C metric

## Diaphragm valve type DIASTAR PVC-C Series 025 DA (Double acting) With fixed flanges PVC-C metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

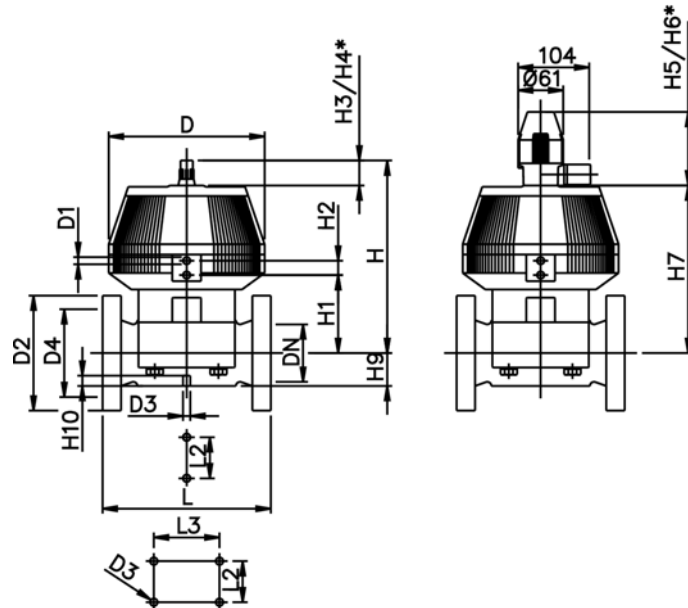
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 717</b>	<b>199 025 747</b>
** 90	80	3	10	1700	<b>199 025 718</b>	<b>199 025 748</b>
110	100	4	6	2700	<b>199 025 719</b>	<b>199 025 749</b>







d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20





## ABS metric

		Page
	Ball valves electric	196
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	Diaphragm valves pneumatic	250

# ABS metric

## Ball valves electric

### Ball valve type 107 ABS 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50

#### Model:

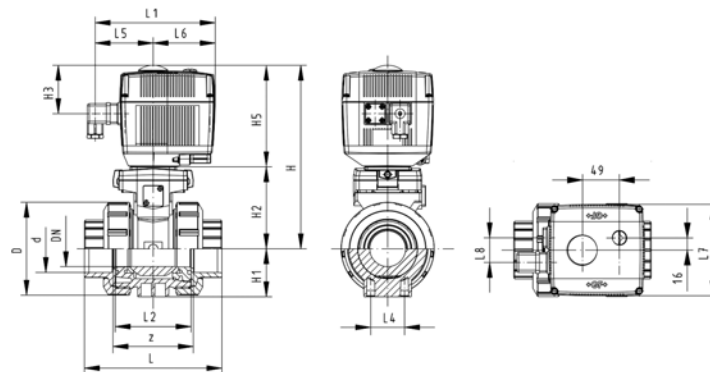
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 107 082</b>
20	15	10	185	<b>199 107 083</b>
25	20	10	350	<b>199 107 084</b>
32	25	10	700	<b>199 107 085</b>
40	32	10	1000	<b>199 107 086</b>
50	40	10	1600	<b>199 107 087</b>
63	50	10	3100	<b>199 107 088</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# ABS metric

## Ball valve type 107 ABS 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

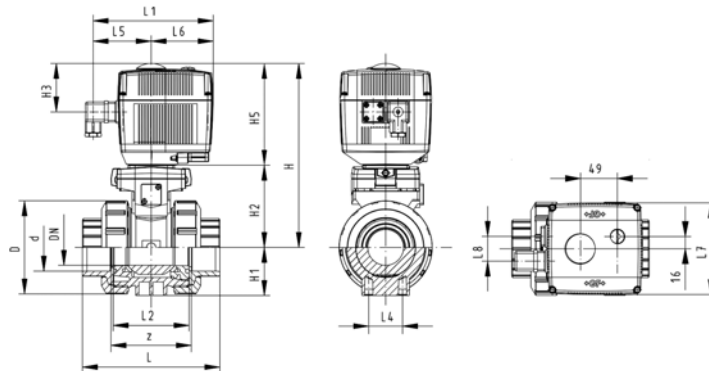
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 107 682</b>
1/2	15	10	185	<b>199 107 683</b>
3/4	20	10	350	<b>199 107 684</b>
1	25	10	700	<b>199 107 685</b>
1 1/4	32	10	1000	<b>199 107 686</b>
1 1/2	40	10	1600	<b>199 107 687</b>
2	50	10	3100	<b>199 107 688</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# ABS metric

## Ball valve type 107 ABS 24V With manual emergency override With solvent cement sockets metric



DN10/15 - 50

### Model:

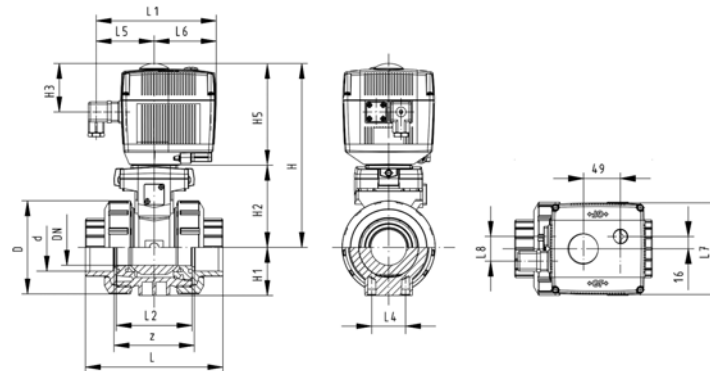
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 107 092</b>
20	15	10	185	<b>199 107 093</b>
25	20	10	350	<b>199 107 094</b>
32	25	10	700	<b>199 107 095</b>
40	32	10	1000	<b>199 107 096</b>
50	40	10	1600	<b>199 107 097</b>
63	50	10	3100	<b>199 107 098</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
25	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
32	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
40	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
50	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
63	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107





# ABS metric

## Ball valve type 107 ABS 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

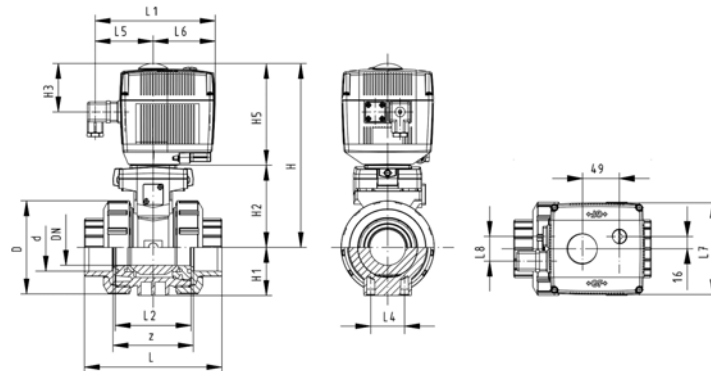
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 107 692</b>
1/2	15	10	185	<b>199 107 693</b>
3/4	20	10	350	<b>199 107 694</b>
1	25	10	700	<b>199 107 695</b>
1 1/4	32	10	1000	<b>199 107 696</b>
1 1/2	40	10	1600	<b>199 107 697</b>
2	50	10	3100	<b>199 107 698</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	77	83	122	33	64
1/2	50	200	27	64	64	137	95	161	56	25	77	83	122	33	64
3/4	58	209	30	73	64	137	110	161	65	25	77	83	122	33	72
1	68	209	36	73	64	137	123	161	71	25	77	83	122	33	79
1 1/4	84	220	44	84	64	137	146	161	85	45	77	83	122	33	94
1 1/2	97	220	51	84	64	137	157	161	89	45	77	83	122	33	95
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107



# ABS metric

## Ball valve type 130 ABS 100-230V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

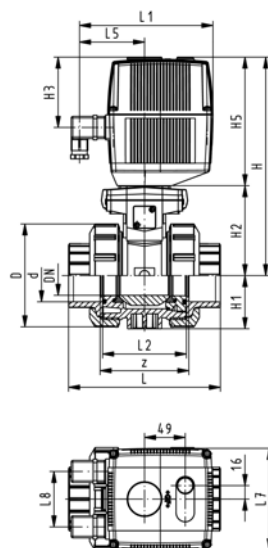
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

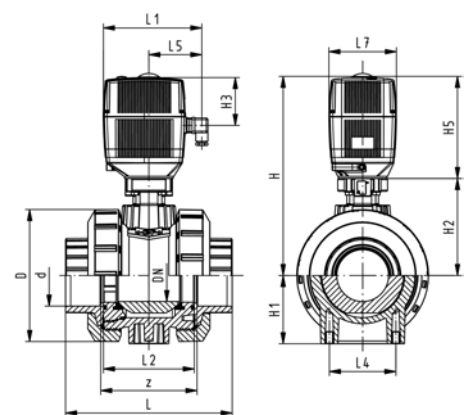
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 130 702</b>
20	15	10	185	<b>199 130 703</b>
25	20	10	350	<b>199 130 704</b>
32	25	10	700	<b>199 130 705</b>
40	32	10	1000	<b>199 130 706</b>
50	40	10	1600	<b>199 130 707</b>
63	50	10	3100	<b>199 130 708</b>
75	65	10	5000	<b>199 130 709</b>
90	80	10	7000	<b>199 130 710</b>
110	100	10	11000	<b>199 130 711</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# ABS metric

## Ball valve type 130 ABS 100-230V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

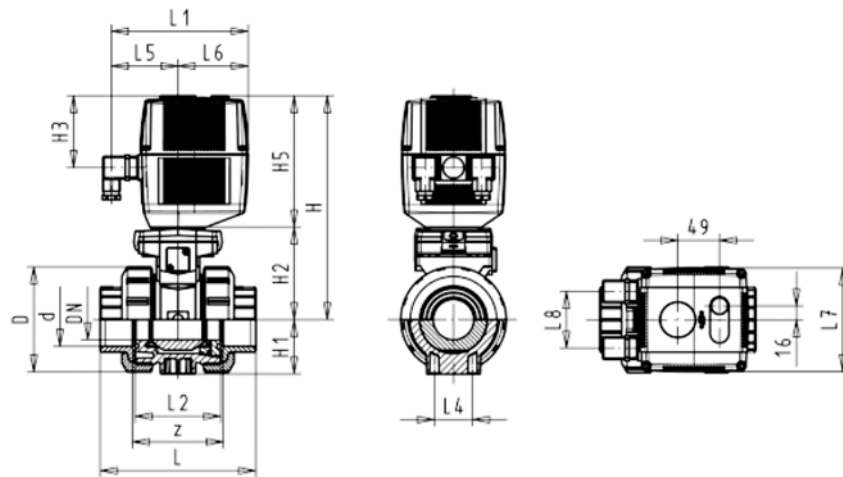
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 130 722</b>
1/2	15	10	185	<b>199 130 723</b>
3/4	20	10	350	<b>199 130 724</b>
1	25	10	700	<b>199 130 725</b>
1 1/4	32	10	1000	<b>199 130 726</b>
1 1/2	40	10	1600	<b>199 130 727</b>
2	50	10	3100	<b>199 130 728</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	83	122	66	64
1/2	50	231	27	64	94	167	95	180	56	25	97	83	122	66	64
3/4	58	240	30	73	94	167	110	180	65	25	97	83	122	66	72
1	68	240	36	73	94	167	123	180	71	25	97	83	122	66	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	66	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	66	95
2	124	273	64	106	94	167	183	180	101	45	97	83	122	66	107



# ABS metric

## Ball valve type 130 ABS 24V With manual emergency override With solvent cement sockets metric



DN10/15 - 50



### Model:

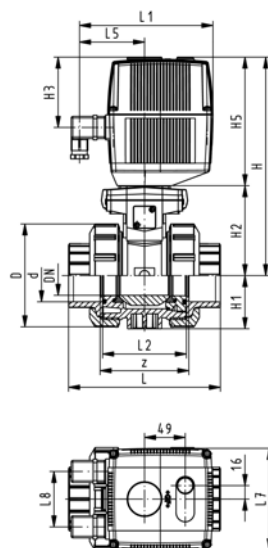
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

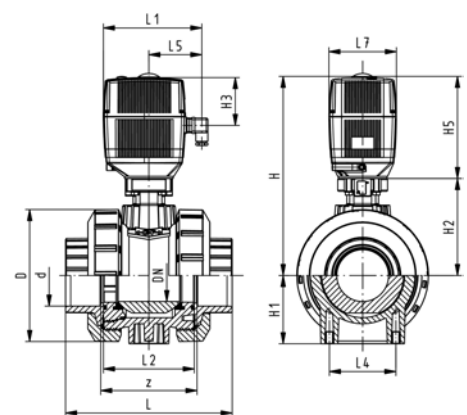
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	199 130 742
20	15	10	185	199 130 743
25	20	10	350	199 130 744
32	25	10	700	199 130 745
40	32	10	1000	199 130 746
50	40	10	1600	199 130 747
63	50	10	3100	199 130 748
75	65	10	5000	199 130 749
90	80	10	7000	199 130 750
110	100	10	11000	199 130 751

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	144
90	200	358	105	168	94	190	254	180	141	70	98	122	151
110	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

# ABS metric

## Ball valve type 130 ABS 24V With manual emergency override With threaded sockets Rp



DN10/15 - 50

### Model:

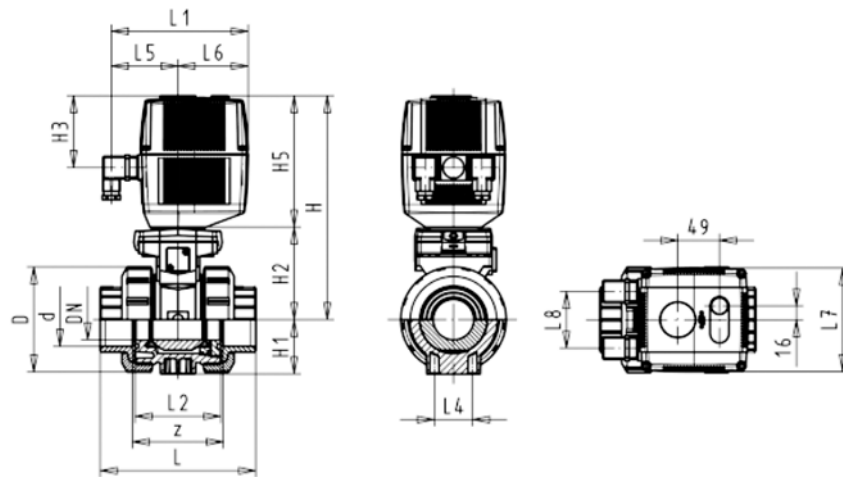
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

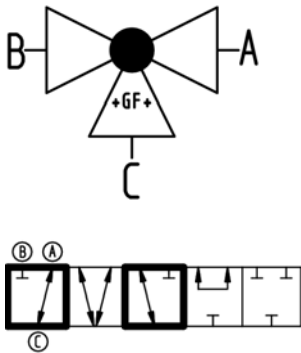
Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 130 762</b>
1/2	15	10	185	<b>199 130 763</b>
3/4	20	10	350	<b>199 130 764</b>
1	25	10	700	<b>199 130 765</b>
1 1/4	32	10	1000	<b>199 130 766</b>
1 1/2	40	10	1600	<b>199 130 767</b>
2	50	10	3100	<b>199 130 768</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	83	122	66	64
1/2	50	231	27	64	94	167	95	180	56	25	97	83	122	66	64
3/4	58	240	30	73	94	167	110	180	65	25	97	83	122	66	72
1	68	240	36	73	94	167	123	180	71	25	97	83	122	66	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	66	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	66	95
2	124	273	64	106	94	167	183	180	101	45	97	83	122	66	107



# ABS metric

## 3-Way ball valve type 185 ABS Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets metric



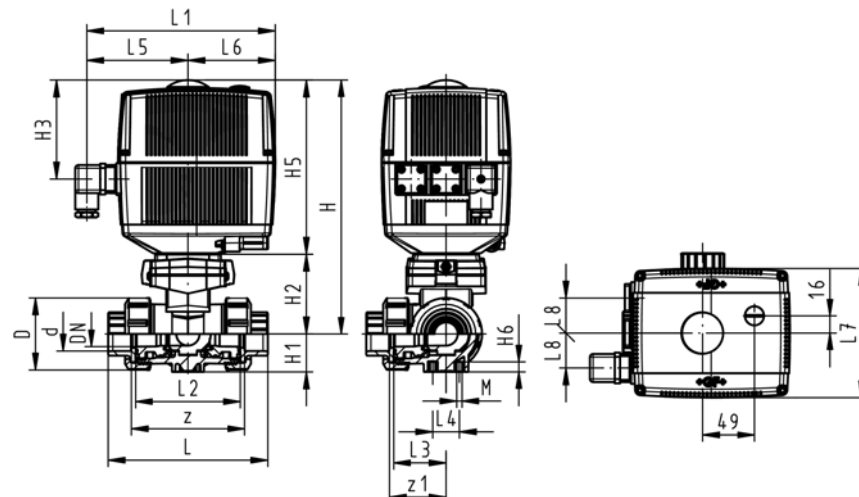
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	50	<b>199 185 162</b>
20	15	10	75	<b>199 185 163</b>
25	20	10	150	<b>199 185 164</b>
32	25	10	280	<b>199 185 165</b>
40	32	10	480	<b>199 185 166</b>
50	40	10	620	<b>199 185 167</b>
63	50	10	1230	<b>199 185 168</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



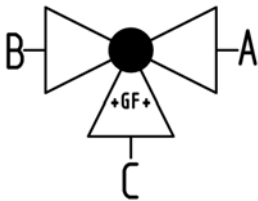
# ABS metric

## 3-Way ball valve type 185 ABS

### Horizontal/L-port 24V

### With manual emergency override

### With solvent cement sockets metric



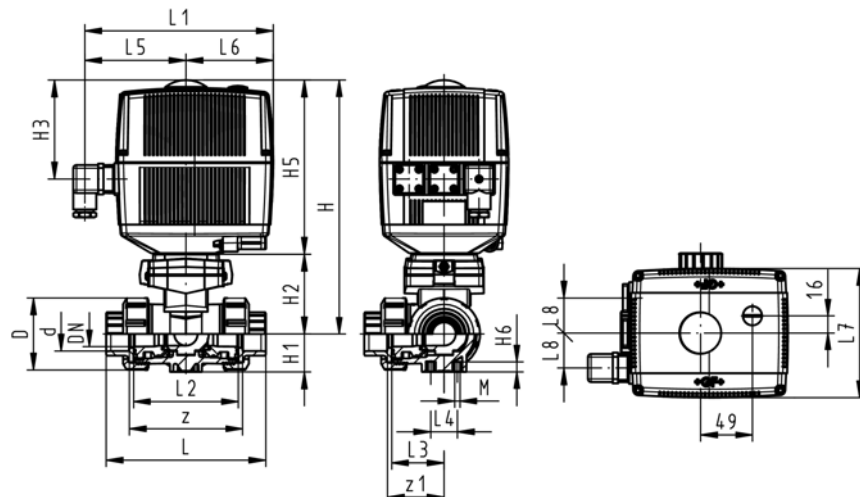
#### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	50	<b>199 185 342</b>
20	15	10	75	<b>199 185 343</b>
25	20	10	150	<b>199 185 344</b>
32	25	10	280	<b>199 185 345</b>
40	32	10	480	<b>199 185 346</b>
50	40	10	620	<b>199 185 347</b>
63	50	10	1230	<b>199 185 348</b>

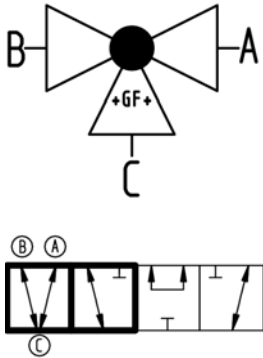
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# ABS metric

## 3-Way ball valve type 185 ABS Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets metric



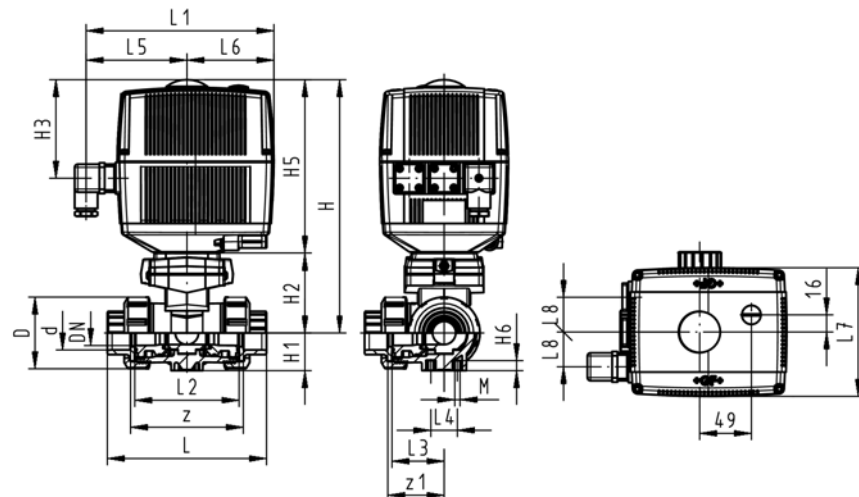
### Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	140	<b>199 185 172</b>
20	15	10	200	<b>199 185 173</b>
25	20	10	470	<b>199 185 174</b>
32	25	10	793	<b>199 185 175</b>
40	32	10	1290	<b>199 185 176</b>
50	40	10	1910	<b>199 185 177</b>
63	50	10	3100	<b>199 185 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92





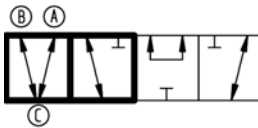
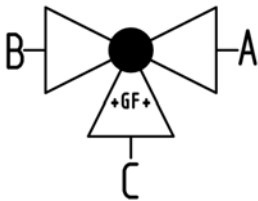
# ABS metric

## 3-Way ball valve type 185 ABS

### Horizontal/T-port 24V

### With manual emergency override

### With solvent cement sockets metric



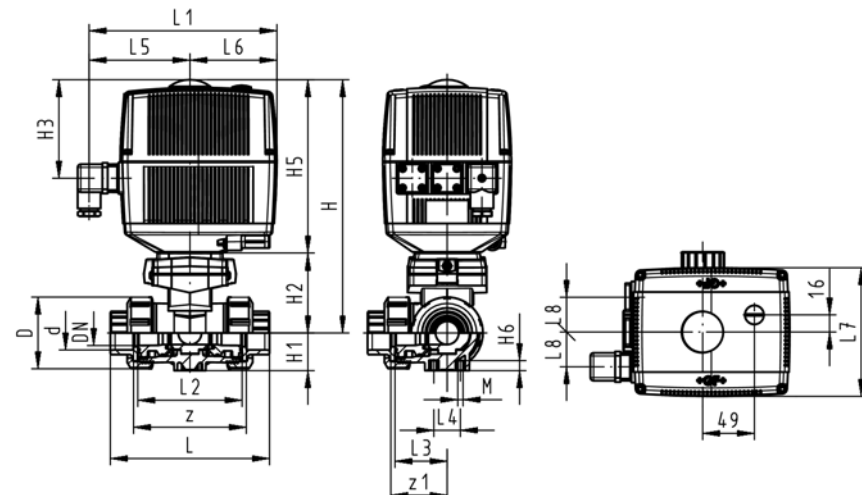
#### Model:

- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	140	<b>199 185 352</b>
20	15	10	200	<b>199 185 353</b>
25	20	10	470	<b>199 185 354</b>
32	25	10	793	<b>199 185 355</b>
40	32	10	1290	<b>199 185 356</b>
50	40	10	1910	<b>199 185 357</b>
63	50	10	3100	<b>199 185 358</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
25	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
32	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
40	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
50	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
63	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	81	40
20	33	6	81	40
25	33	6	94	47
32	33	6	107	54
40	33	8	130	65
50	33	8	143	72
63	33	8	185	92



# ABS metric

## 3-Way ball valve type 188 ABS

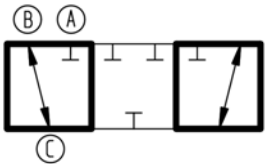
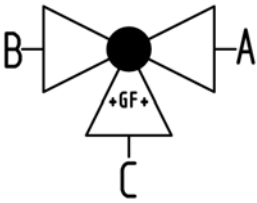
### Vertical/L-port 100-230V

### With manual emergency override

### With solvent cement sockets metric

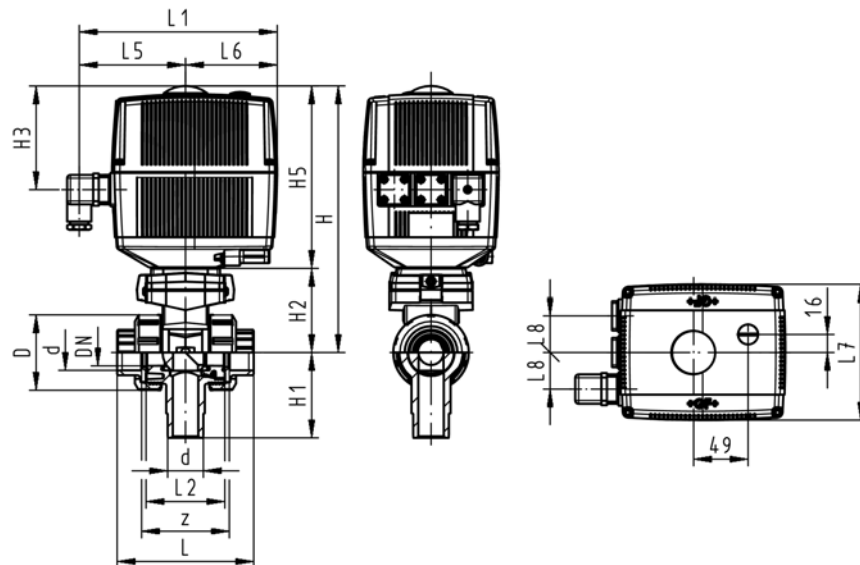
#### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	49	<b>199 188 162</b>
20	15	10	77	<b>199 188 163</b>
25	20	10	146	<b>199 188 164</b>
32	25	10	260	<b>199 188 165</b>
40	32	10	437	<b>199 188 166</b>
50	40	10	667	<b>199 188 167</b>
63	50	10	1293	<b>199 188 168</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107



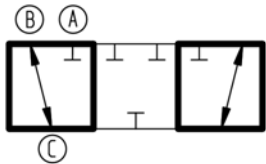
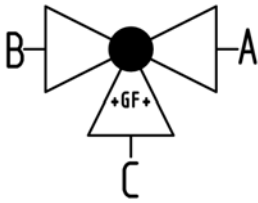
# ABS metric

## 3-Way ball valve type 188 ABS

### Vertical/L-port 24V

### With manual emergency override

### With solvent cement sockets metric

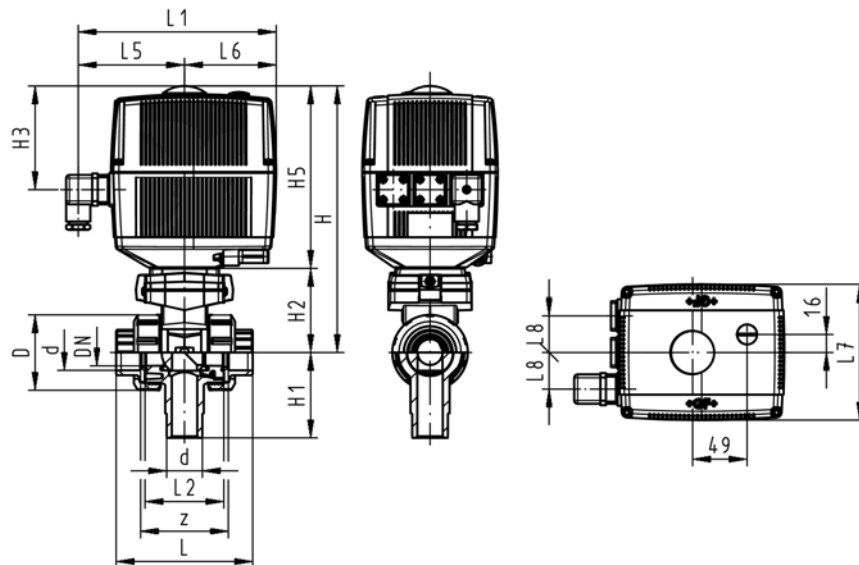


#### Model:

- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	49	<b>199 188 452</b>
20	15	10	77	<b>199 188 453</b>
25	20	10	146	<b>199 188 454</b>
32	25	10	260	<b>199 188 455</b>
40	32	10	437	<b>199 188 456</b>
50	40	10	667	<b>199 188 457</b>
63	50	10	1293	<b>199 188 458</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107



# ABS metric

## Ball valves pneumatic

### Ball valve type 230 ABS FC (Fail safe to close)

#### With manual override

#### With solvent cement sockets metric



DN10/15 - 50

#### Model:

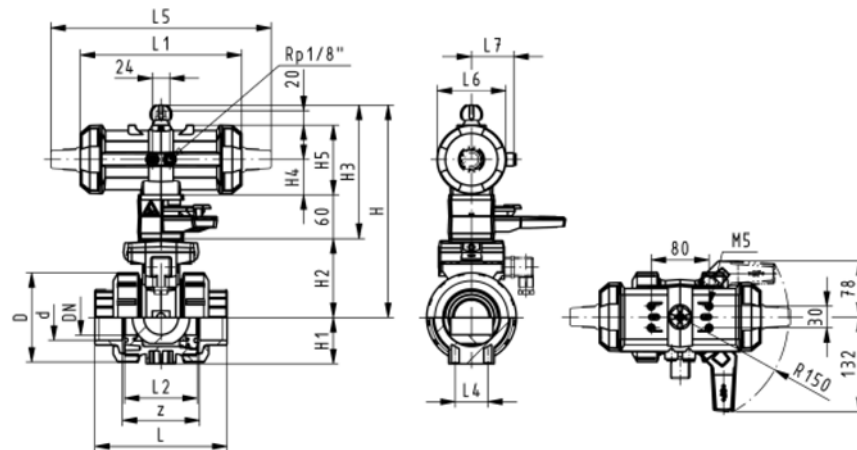
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 230 702</b>
20	15	10	185	<b>199 230 703</b>
25	20	10	350	<b>199 230 704</b>
32	25	10	700	<b>199 230 705</b>
40	32	10	1000	<b>199 230 706</b>
50	40	10	1600	<b>199 230 707</b>
63	50	10	3100	<b>199 230 708</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS FC (Fail safe to close) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

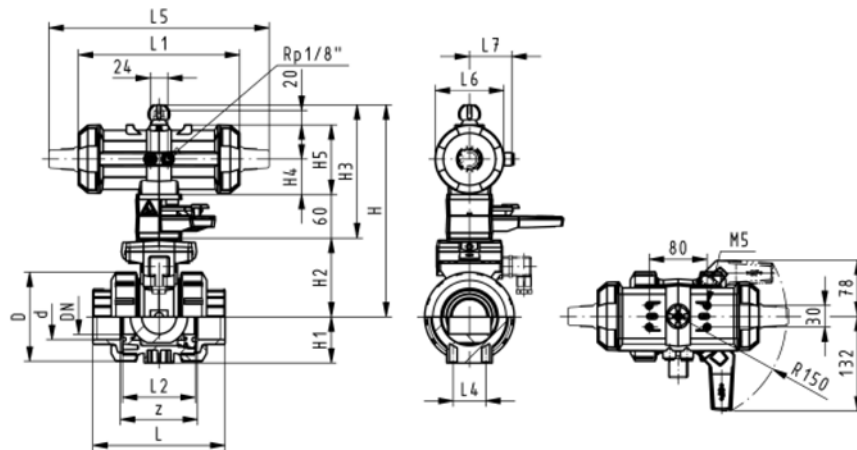
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 722</b>
1/2	15	10	185	<b>199 230 723</b>
3/4	20	10	350	<b>199 230 724</b>
1	25	10	700	<b>199 230 725</b>
1 1/4	32	10	1000	<b>199 230 726</b>
1 1/2	40	10	1600	<b>199 230 727</b>
2	50	10	3100	<b>199 230 728</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS FO (Fail safe to open) With manual override With solvent cement sockets metric



DN10/15 - 50

### Model:

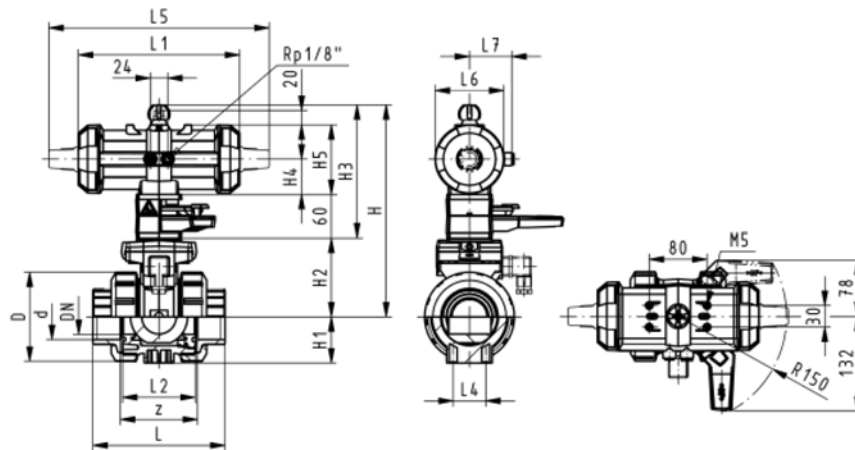
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 230 742</b>
20	15	10	185	<b>199 230 743</b>
25	20	10	350	<b>199 230 744</b>
32	25	10	700	<b>199 230 745</b>
40	32	10	1000	<b>199 230 746</b>
50	40	10	1600	<b>199 230 747</b>
63	50	10	3100	<b>199 230 748</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS FO (Fail safe to open) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

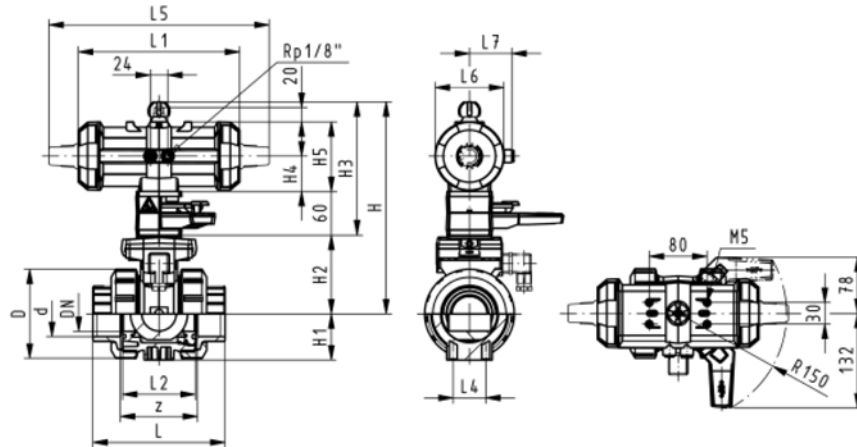
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 762</b>
1/2	15	10	185	<b>199 230 763</b>
3/4	20	10	350	<b>199 230 764</b>
1	25	10	700	<b>199 230 765</b>
1 1/4	32	10	1000	<b>199 230 766</b>
1 1/2	40	10	1600	<b>199 230 767</b>
2	50	10	3100	<b>199 230 768</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS DA (Double acting) With manual override With solvent cement sockets metric



DN10/15 - 50

### Model:

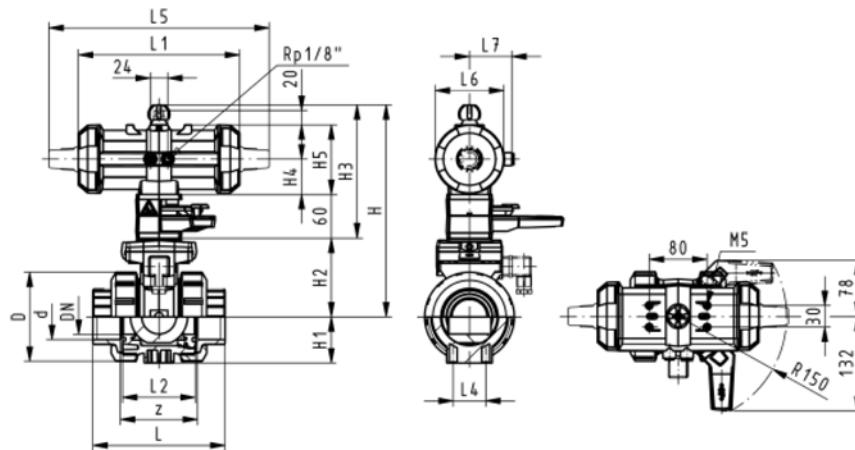
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 230 782</b>
20	15	10	185	<b>199 230 783</b>
25	20	10	350	<b>199 230 784</b>
32	25	10	700	<b>199 230 785</b>
40	32	10	1000	<b>199 230 786</b>
50	40	10	1600	<b>199 230 787</b>
63	50	10	3100	<b>199 230 788</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107





# ABS metric

## Ball valve type 230 ABS DA (Double acting) With manual override With threaded sockets Rp



DN10/15 - 50

### Model:

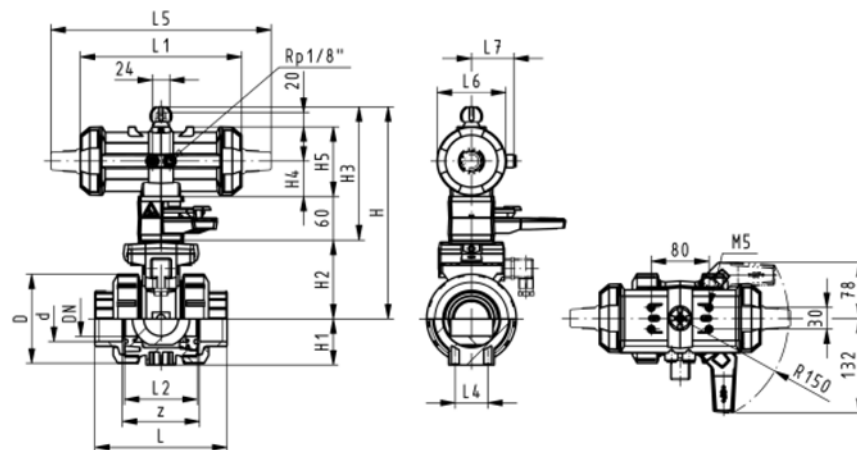
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 802</b>
1/2	15	10	185	<b>199 230 803</b>
3/4	20	10	350	<b>199 230 804</b>
1	25	10	700	<b>199 230 805</b>
1 1/4	32	10	1000	<b>199 230 806</b>
1 1/2	40	10	1600	<b>199 230 807</b>
2	50	10	3100	<b>199 230 808</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS FC (Fail safe to close) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

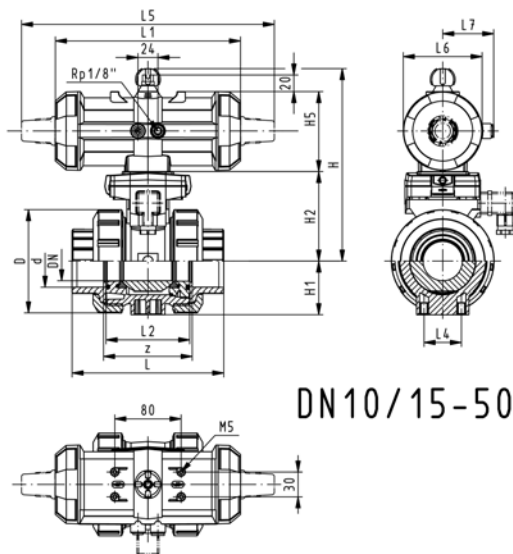
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

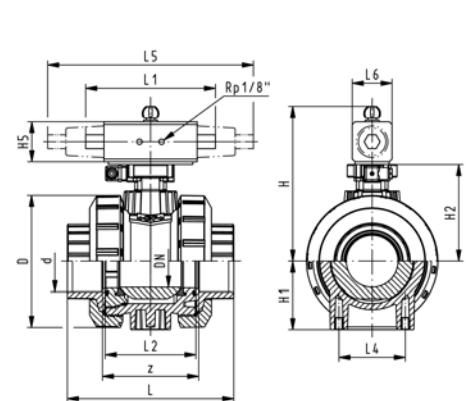
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 230 822</b>
20	15	10	185	<b>199 230 823</b>
25	20	10	350	<b>199 230 824</b>
32	25	10	700	<b>199 230 825</b>
40	32	10	1000	<b>199 230 826</b>
50	40	10	1600	<b>199 230 827</b>
63	50	10	3100	<b>199 230 828</b>
75	65	10	5000	<b>199 230 829</b>
90	80	10	7000	<b>199 230 830</b>
110	100	10	11000	<b>199 230 831</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	262	85	156	70	233		136	70	276	65		144
90	200	281	105	168	78	254		141	70	341	72		151
110	238	292	123	175	86	301		164	120	369	80		174



DN10/15-50



DN65-100

# ABS metric

## Ball valve type 230 ABS FC (Fail safe to close) Without manual override With threaded sockets Rp



DN10/15 - 50

### Model:

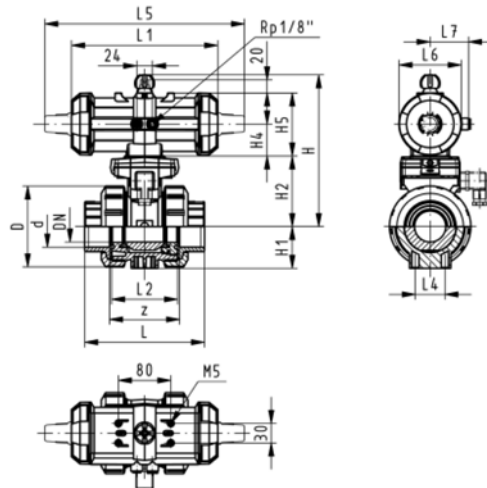
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 842</b>
1/2	15	10	185	<b>199 230 843</b>
3/4	20	10	350	<b>199 230 844</b>
1	25	10	700	<b>199 230 845</b>
1 1/4	32	10	1000	<b>199 230 846</b>
1 1/2	40	10	1600	<b>199 230 847</b>
2	50	10	3100	<b>199 230 848</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS FO (Fail safe to open) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

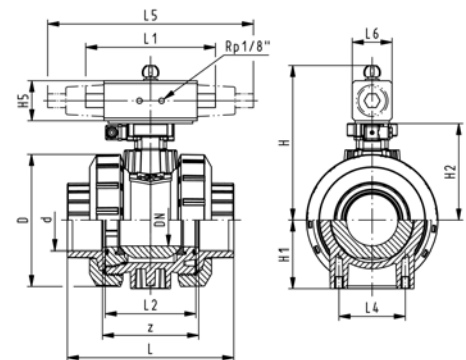
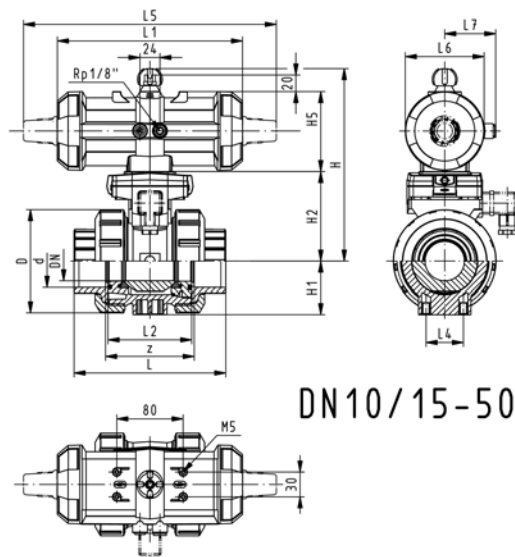
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	199 230 862
20	15	10	185	199 230 863
25	20	10	350	199 230 864
32	25	10	700	199 230 865
40	32	10	1000	199 230 866
50	40	10	1600	199 230 867
63	50	10	3100	199 230 868
75	65	10	5000	199 230 869
90	80	10	7000	199 230 870
110	100	10	11000	199 230 871

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233		136	70	276	65		144
90	200	281	105	168		78	254		141	70	341	72		151
110	238	292	123	175		86	301		164	120	369	80		174



# ABS metric

## Ball valve type 230 ABS FO (Fail safe to open) Without manual override With threaded sockets Rp



DN10/15 - 50

### Model:

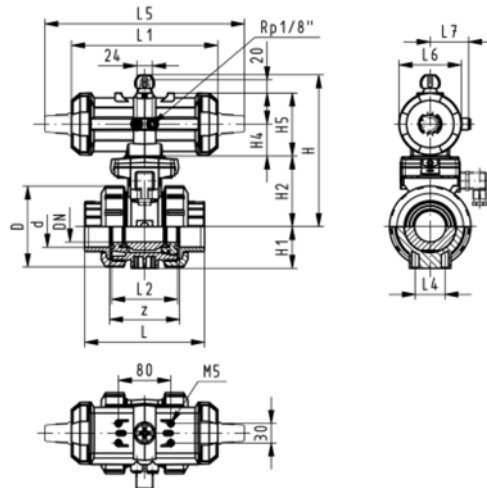
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 882</b>
1/2	15	10	185	<b>199 230 883</b>
3/4	20	10	350	<b>199 230 884</b>
1	25	10	700	<b>199 230 885</b>
1 1/4	32	10	1000	<b>199 230 886</b>
1 1/2	40	10	1600	<b>199 230 887</b>
2	50	10	3100	<b>199 230 888</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	51	99	183	224	101	45	305	95	59	107



# ABS metric

## Ball valve type 230 ABS DA (Double acting) Without manual override With solvent cement sockets metric



DN10/15 - 50



### Model:

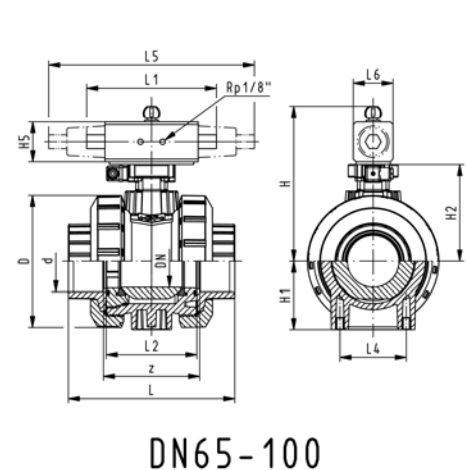
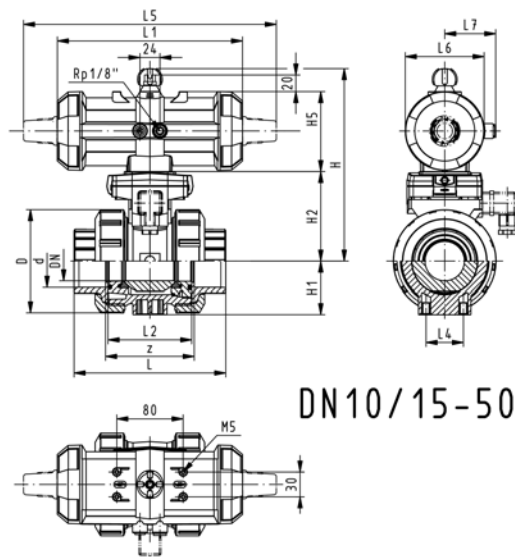
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	70	<b>199 230 902</b>
20	15	10	185	<b>199 230 903</b>
25	20	10	350	<b>199 230 904</b>
32	25	10	700	<b>199 230 905</b>
40	32	10	1000	<b>199 230 906</b>
50	40	10	1600	<b>199 230 907</b>
63	50	10	3100	<b>199 230 908</b>
75	65	10	5000	<b>199 230 909</b>
90	80	10	7000	<b>199 230 910</b>
110	100	10	11000	<b>199 230 911</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	92	194	56	25	261	76	48	64
20	50	159	27	62	77	95	194	56	25	261	76	48	64
25	58	168	30	71	77	110	194	65	25	261	76	48	72
32	68	168	36	71	77	123	194	71	25	261	76	48	79
40	84	202	44	84	99	146	224	85	45	305	95	59	94
50	97	202	51	84	99	157	224	89	45	305	95	59	95
63	124	225	64	106	99	183	224	101	45	305	95	59	107
75	166	257	85	156	66	233	144	136	70		60		144
90	200	274	105	168	70	254	152	141	70		65		151
110	238	273	123	175	78	301	169	164	120		72		174



# ABS metric

## Ball valve type 230 ABS DA (Double acting) Without manual override With threaded sockets Rp



DN10/15 - 50

### Model:

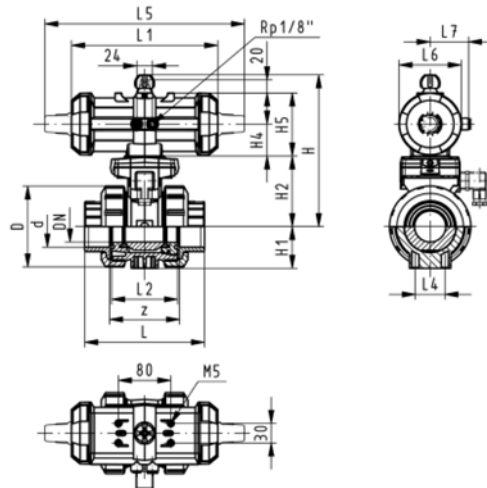
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
3/8	10	10	70	<b>199 230 922</b>
1/2	15	10	185	<b>199 230 923</b>
3/4	20	10	350	<b>199 230 924</b>
1	25	10	700	<b>199 230 925</b>
1 1/4	32	10	1000	<b>199 230 926</b>
1 1/2	40	10	1600	<b>199 230 927</b>
2	50	10	3100	<b>199 230 928</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	92	194	56	25	261	76	48	64
1/2	50	159	27	62	40	77	95	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	110	194	65	25	261	76	48	72
1	68	168	36	71	40	77	123	194	71	25	261	76	48	79
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	94
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	95
2	124	225	64	106	51	99	183	224	101	45	305	95	59	107



# ABS metric

## 3-Way ball valve type 285 ABS

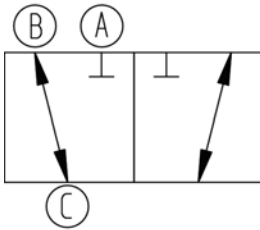
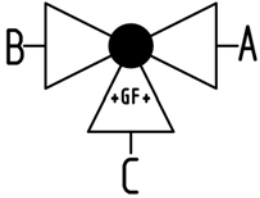
Horizontal/L-port

Without manual override

With solvent cement sockets metric

### Model:

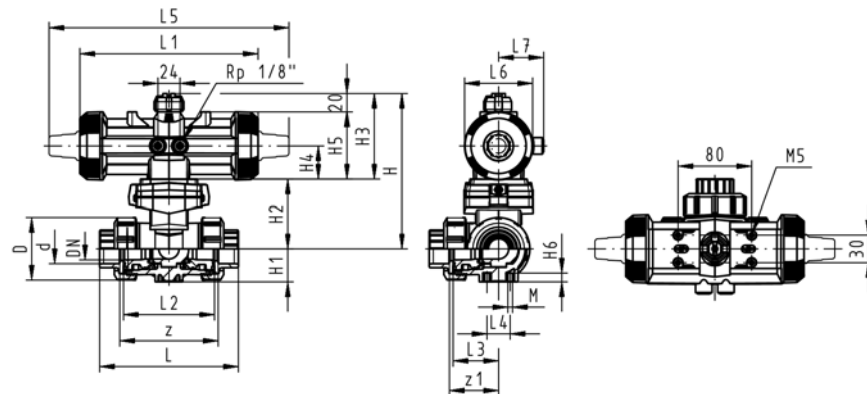
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	50	<b>199 285 162</b>
20	15	10	75	<b>199 285 163</b>
25	20	10	150	<b>199 285 164</b>
32	25	10	280	<b>199 285 165</b>
40	32	10	480	<b>199 285 166</b>
50	40	10	620	<b>199 285 167</b>
63	50	10	1230	<b>199 285 168</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

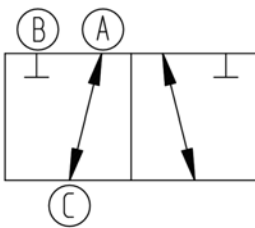
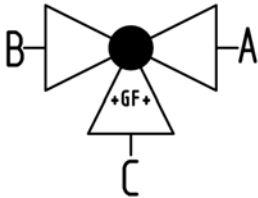
d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92





# ABS metric

## 3-Way ball valve type 285 ABS Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets metric



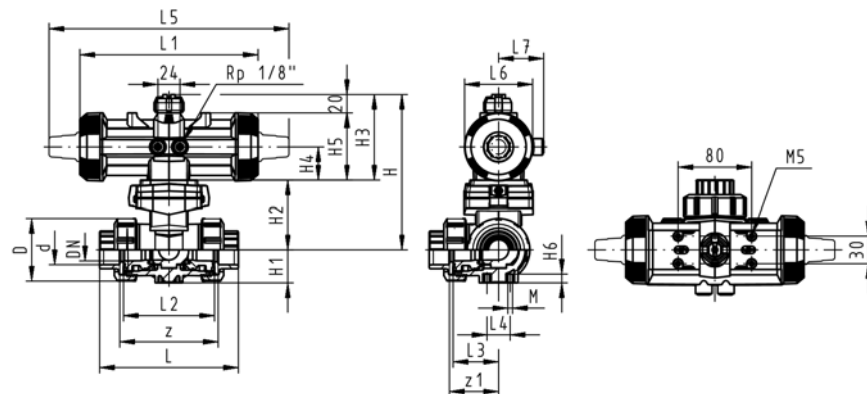
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1 \text{ bar}$ ) [l/min]	EPDM Code
16	10	10	50	<b>199 285 342</b>
20	15	10	75	<b>199 285 343</b>
25	20	10	150	<b>199 285 344</b>
32	25	10	280	<b>199 285 345</b>
40	32	10	480	<b>199 285 346</b>
50	40	10	620	<b>199 285 347</b>
63	50	10	1230	<b>199 285 348</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M [mm]	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



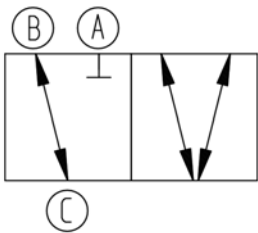
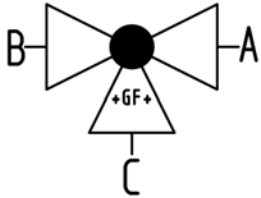
# ABS metric

## 3-Way ball valve type 285 ABS

Horizontal/T-port

Without manual override

With solvent cement sockets metric



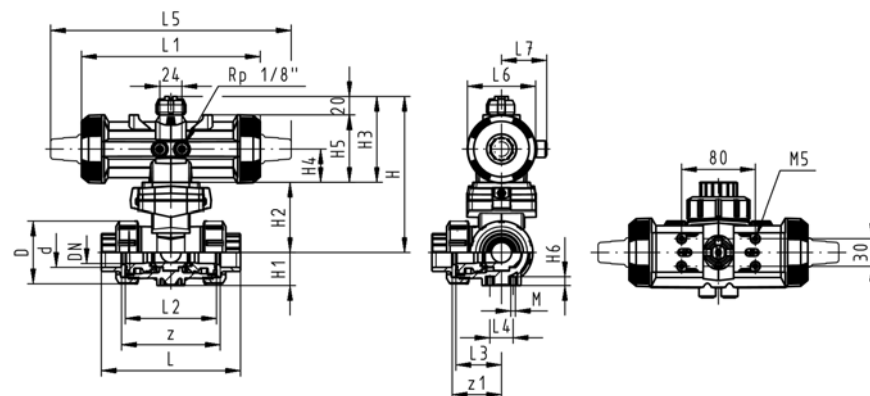
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	140	<b>199 285 172</b>
20	15	10	200	<b>199 285 173</b>
25	20	10	470	<b>199 285 174</b>
32	25	10	793	<b>199 285 175</b>
40	32	10	1290	<b>199 285 176</b>
50	40	10	1910	<b>199 285 177</b>
63	50	10	3100	<b>199 285 178</b>

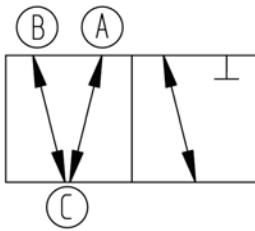
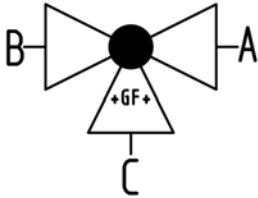
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



# ABS metric

## 3-Way ball valve type 285 ABS Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets metric



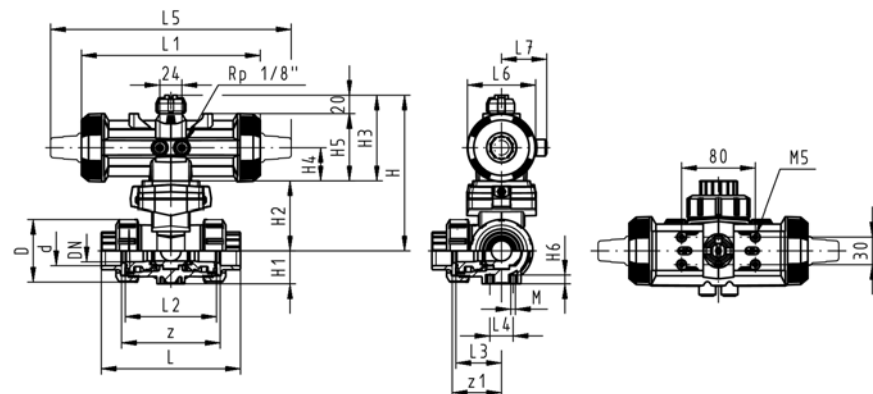
### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
16	10	10	140	<b>199 285 352</b>
20	15	10	200	<b>199 285 353</b>
25	20	10	470	<b>199 285 354</b>
32	25	10	793	<b>199 285 355</b>
40	32	10	1290	<b>199 285 356</b>
50	40	10	1910	<b>199 285 357</b>
63	50	10	3100	<b>199 285 358</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
25	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
32	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
50	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
63	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	81	40
20	48	6	81	40
25	48	6	94	47
32	48	6	107	54
40	59	8	130	65
50	59	8	143	72
63	59	8	185	92



# ABS metric

## Butterfly valves electric

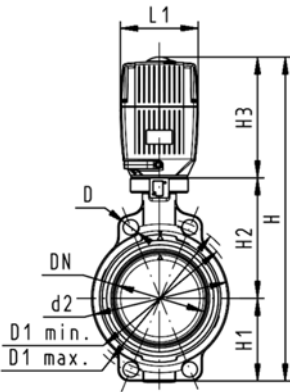
### Butterfly valve type 140 ABS 100-230V Without manual override



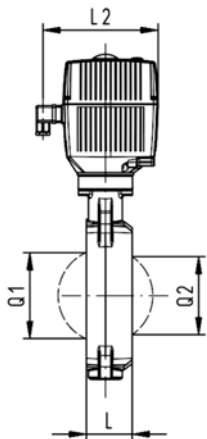
**Model:**

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 140 502</b>
75	65	10	2200	<b>199 140 503</b>
90	80	10	3000	<b>199 140 504</b>
110	100	10	6500	<b>199 140 505</b>
140	125	10	11500	<b>199 140 506</b>
160	150	10	16600	<b>199 140 507</b>
225	200	10	39600	<b>199 140 508</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178



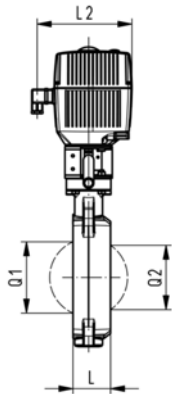
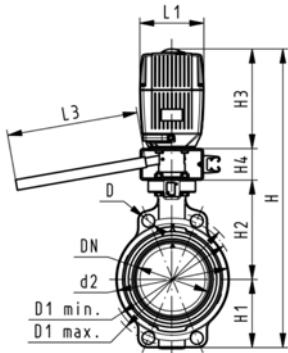
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# ABS metric

## Butterfly valve type 140 ABS 100-230V With manual override

### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 140 482</b>
75	65	10	2200	<b>199 140 483</b>
90	80	10	3000	<b>199 140 484</b>
110	100	10	6500	<b>199 140 485</b>
140	125	10	11500	<b>199 140 486</b>
160	150	10	16600	<b>199 140 487</b>
225	200	10	39600	<b>199 140 488</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# ABS metric

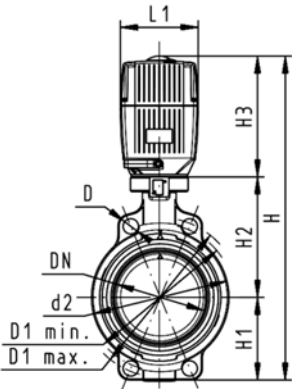
## Butterfly valve type 140 ABS 24V Without manual override



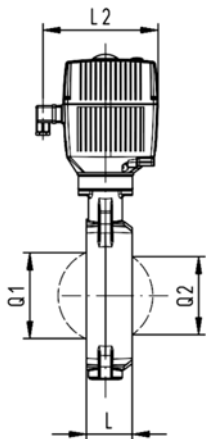
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 140 542</b>
75	65	10	2200	<b>199 140 543</b>
90	80	10	3000	<b>199 140 544</b>
110	100	10	6500	<b>199 140 545</b>
140	125	10	11500	<b>199 140 546</b>
160	150	10	16600	<b>199 140 547</b>
225	200	10	39600	<b>199 140 548</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178



d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# ABS metric

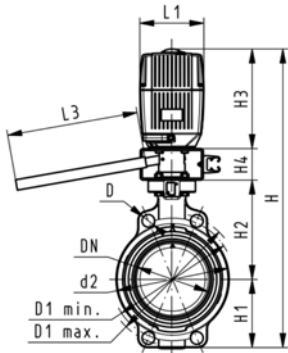
## Butterfly valve type 140 ABS 24V With manual override



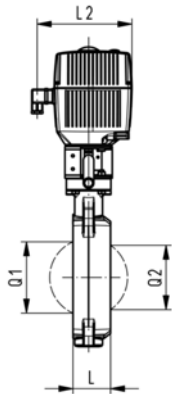
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 140 522</b>
75	65	10	2200	<b>199 140 523</b>
90	80	10	3000	<b>199 140 524</b>
110	100	10	6500	<b>199 140 525</b>
140	125	10	11500	<b>199 140 526</b>
160	150	10	16600	<b>199 140 527</b>
225	200	10	39600	<b>199 140 528</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

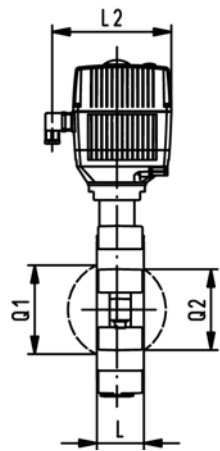
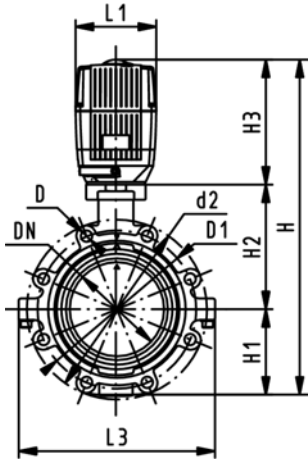
# ABS metric

## Lugstyle butterfly valve type 141 ABS 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 141 502</b>
75	65	10	2200	<b>199 141 503</b>
90	80	10	3000	<b>199 141 504</b>
110	100	10	6500	<b>199 141 505</b>
140	125	10	11500	<b>199 141 506</b>
160	150	10	16600	<b>199 141 507</b>
225	200	10	39600	<b>199 141 508</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169



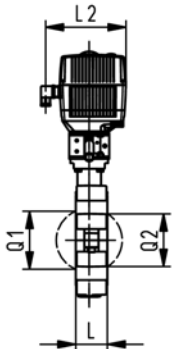
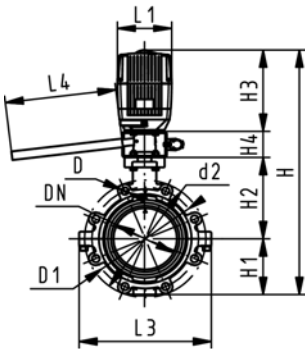
# ABS metric

## Lugstyle butterfly valve type 141 ABS 100-230V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 141 482</b>
75	65	10	2200	<b>199 141 483</b>
90	80	10	3000	<b>199 141 484</b>
110	100	10	6500	<b>199 141 485</b>
140	125	10	11500	<b>199 141 486</b>
160	150	10	16600	<b>199 141 487</b>
225	200	10	39600	<b>199 141 488</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

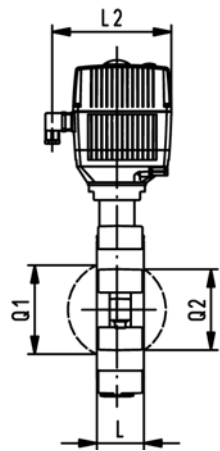
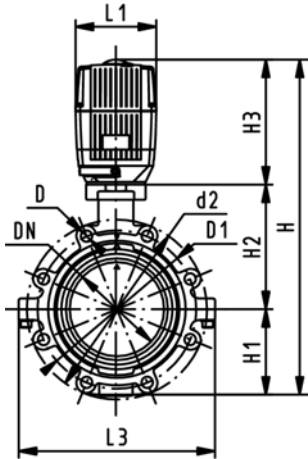
# ABS metric

## Lugstyle butterfly valve type 141 ABS 24V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 141 542</b>
75	65	10	2200	<b>199 141 543</b>
90	80	10	3000	<b>199 141 544</b>
110	100	10	6500	<b>199 141 545</b>
140	125	10	11500	<b>199 141 546</b>
160	150	10	16600	<b>199 141 547</b>
225	200	10	39600	<b>199 141 548</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

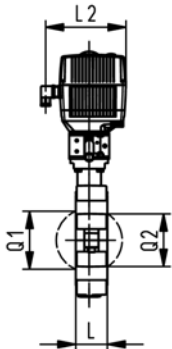
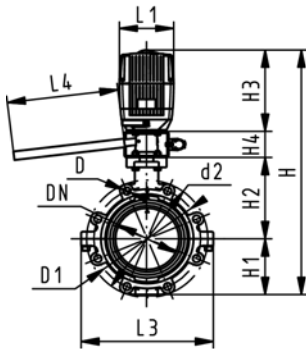
# ABS metric

## Lugstyle butterfly valve type 141 ABS 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 141 522</b>
75	65	10	2200	<b>199 141 523</b>
90	80	10	3000	<b>199 141 524</b>
110	100	10	6500	<b>199 141 525</b>
140	125	10	11500	<b>199 141 526</b>
160	150	10	16600	<b>199 141 527</b>
225	200	10	39600	<b>199 141 528</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

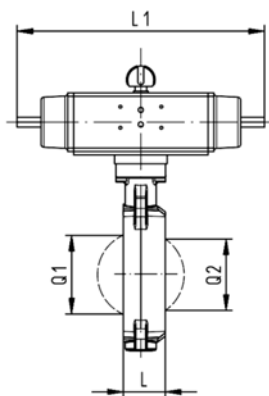
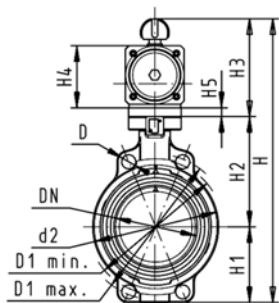
# ABS metric

## Butterfly valves pneumatic

### Butterfly valve type 240 ABS

#### FC (Fail safe to close)

#### Without manual override



#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 240 402</b>
75	65	10	2200	<b>199 240 403</b>
90	80	10	3000	<b>199 240 404</b>
110	100	10	6500	<b>199 240 405</b>
140	125	10	11500	<b>199 240 406</b>
160	150	10	16600	<b>199 240 407</b>
225	200	10	39600	<b>199 240 408</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118		73	452

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169

# ABS metric

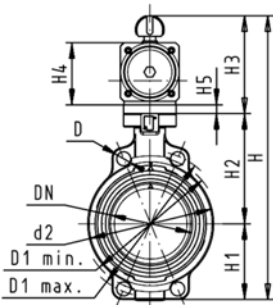
## Butterfly valve type 240 ABS FO (Fail safe to open) Without manual override



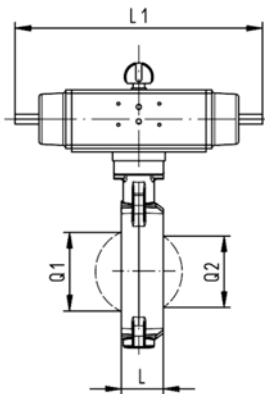
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 240 422</b>
75	65	10	2200	<b>199 240 423</b>
90	80	10	3000	<b>199 240 424</b>
110	100	10	6500	<b>199 240 425</b>
140	125	10	11500	<b>199 240 426</b>
160	150	10	16600	<b>199 240 427</b>
225	200	10	39600	<b>199 240 428</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452



d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169

# ABS metric

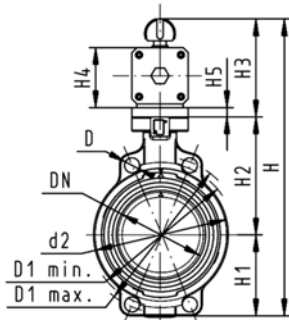
## Butterfly valve type 240 ABS DA (Double acting) Without manual override



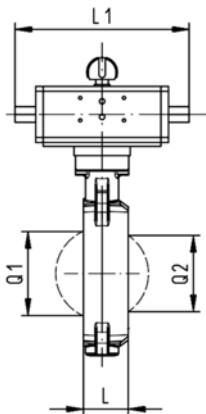
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 240 442</b>
75	65	10	2200	<b>199 240 443</b>
90	80	10	3000	<b>199 240 444</b>
110	100	10	6500	<b>199 240 445</b>
140	125	10	11500	<b>199 240 446</b>
160	150	10	16600	<b>199 240 447</b>
225	200	10	39600	<b>199 240 448</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279



d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169

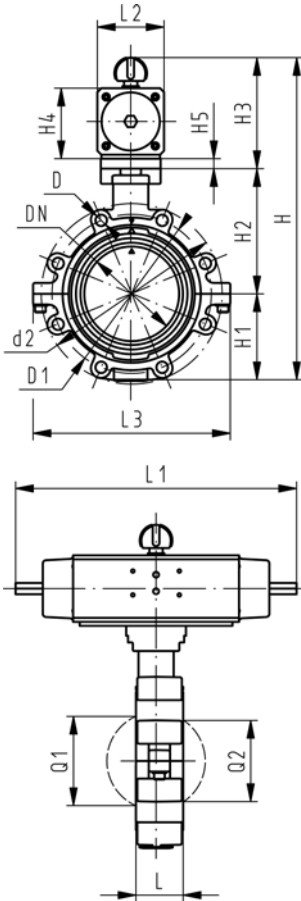
# ABS metric

## Lugstyle butterfly valve type 241 ABS FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 241 402</b>
75	65	10	2200	<b>199 241 403</b>
90	80	10	3000	<b>199 241 404</b>
110	100	10	6500	<b>199 241 405</b>
140	125	10	11500	<b>199 241 406</b>
160	150	10	16600	<b>199 241 407</b>
225	200	10	39600	<b>199 241 408</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

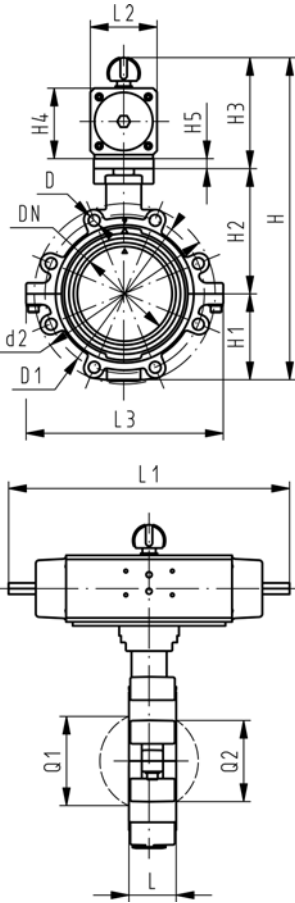
# ABS metric

## Lugstyle butterfly valve type 241 ABS FO (Fail safe to open) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 241 422</b>
75	65	10	2200	<b>199 241 423</b>
90	80	10	3000	<b>199 241 424</b>
110	100	10	6500	<b>199 241 425</b>
140	125	10	11500	<b>199 241 426</b>
160	150	10	16600	<b>199 241 427</b>
225	200	10	39600	<b>199 241 428</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



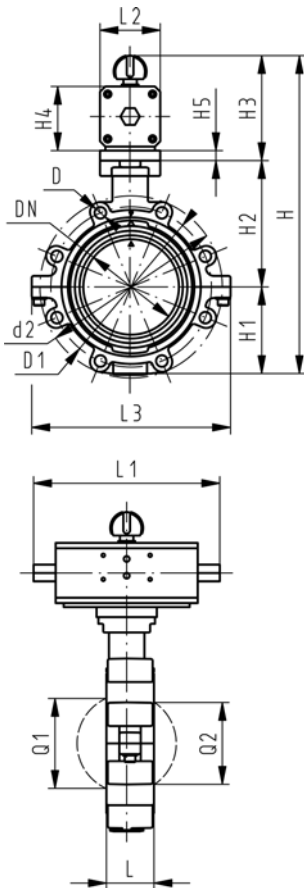
# ABS metric

## Lugstyle butterfly valve type 241 ABS DA (Double acting) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
63	50	10	1470	<b>199 241 442</b>
75	65	10	2200	<b>199 241 443</b>
90	80	10	3000	<b>199 241 444</b>
110	100	10	6500	<b>199 241 445</b>
140	125	10	11500	<b>199 241 446</b>
160	150	10	16600	<b>199 241 447</b>
225	200	10	39600	<b>199 241 448</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71		56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78		64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86		72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96		73	279	90

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

# ABS metric

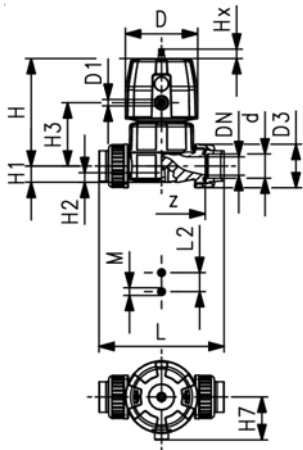
## Diaphragm valves pneumatic

### New generation

#### Diaphragm valve DIASTAR Six ABS

#### FC (Fail safe to close)

#### Unions with solvent cement sockets metric



#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>169 614 012</b>
25	20	6	271	<b>169 614 013</b>
32	25	6	481	<b>169 614 014</b>
40	32	6	759	<b>169 614 015</b>
50	40	6	960	<b>169 614 016</b>
63	50	6	1181	<b>169 614 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	69	M8	140	14
50	120	1/8	222	45	193	32	15	119	69	M8	160	16
63	120	1/8	266	45	205	39	15	132	69	M8	190	16



#### Diaphragm valve DIASTAR Six ABS

#### FC (Fail safe to close)

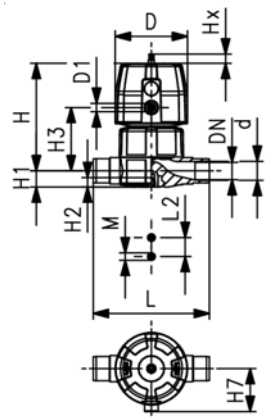
#### With solvent cement spigots metric

#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

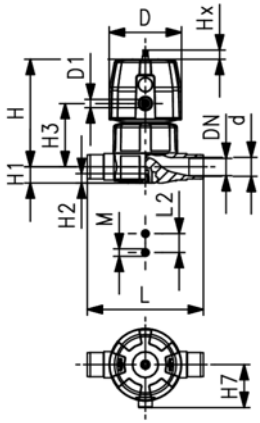
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>169 615 012</b>
25	20	6	271	<b>169 615 013</b>
32	25	6	481	<b>169 615 014</b>
40	32	6	759	<b>169 615 015</b>
50	40	6	960	<b>169 615 016</b>
63	50	6	1181	<b>169 615 017</b>

table continued next page

# ABS metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7
25	96	1/8	144	25	132	18	12	73	57	M6	10
32	96	1/8	154	25	143	22	12	84	57	M6	13
40	120	1/8	174	45	173	26	15	99	69	M8	14
50	120	1/8	194	45	193	32	15	119	69	M8	16
63	120	1/8	224	45	205	39	15	132	69	M8	16



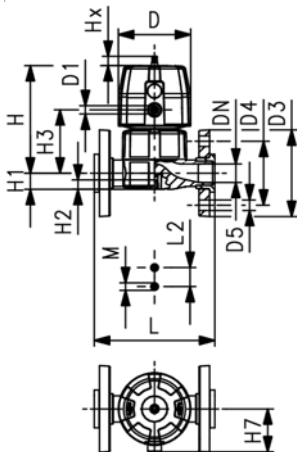
## Diaphragm valve DIASTAR Six ABS FC (Fail safe to close) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code
20	15	6	125	<b>169 617 112</b>
25	20	6	271	<b>169 617 113</b>
32	25	6	481	<b>169 617 114</b>
40	32	6	759	<b>169 617 115</b>
50	40	6	960	<b>169 617 116</b>
63	50	6	1181	<b>169 617 117</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	95	65	14	130	25	101	14	12	60	43	M6	7
25	96	1/8	105	75	14	150	25	132	18	12	73	57	M6	10
32	96	1/8	115	85	14	160	25	143	22	12	84	57	M6	13
40	120	1/8	140	100	18	180	45	173	26	15	99	69	M8	14
50	120	1/8	150	110	18	200	45	193	32	15	119	69	M8	16
63	120	1/8	165	125	18	230	45	205	39	15	132	69	M8	16

# ABS metric

## Diaphragm valve DIASTAR Ten ABS FC (Fail safe to close)

### Unions with solvent cement sockets metric

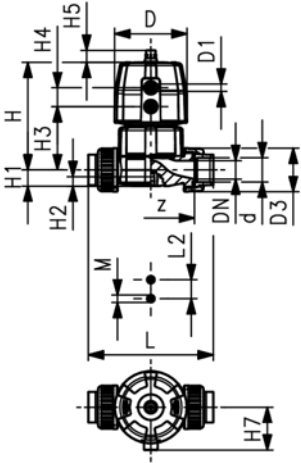


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 624 012</b>
25	20	10	271	<b>169 624 013</b>
32	25	10	481	<b>169 624 014</b>
40	32	10	759	<b>169 624 015</b>
50	40	10	1263	<b>169 624 016</b>
63	50	10	1728	<b>169 624 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

## Diaphragm valve DIASTAR Ten ABS FC (Fail safe to close)

### With solvent cement spigots metric

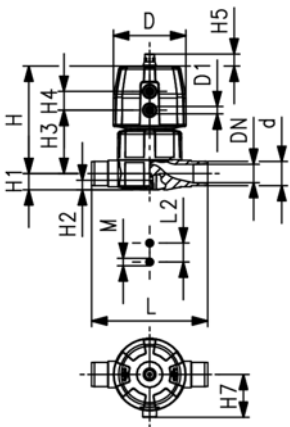


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

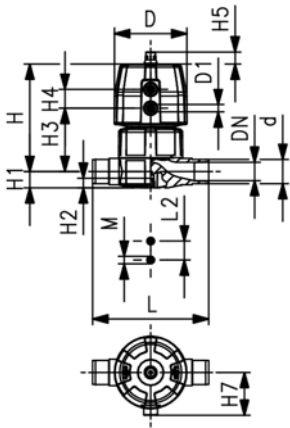


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 625 012</b>
25	20	10	271	<b>169 625 013</b>
32	25	10	481	<b>169 625 014</b>
40	32	10	759	<b>169 625 015</b>
50	40	10	1263	<b>169 625 016</b>
63	50	10	1728	<b>169 625 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13

table continued next page

# ABS metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



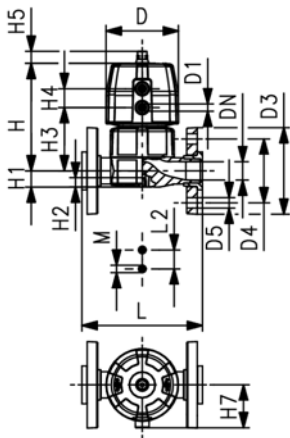
## Diaphragm valve DIASTAR Ten ABS FC (Fail safe to close) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 627 112</b>
25	20	10	271	<b>169 627 113</b>
32	25	10	481	<b>169 627 114</b>
40	32	10	759	<b>169 627 115</b>
50	40	10	1263	<b>169 627 116</b>
63	50	10	1728	<b>169 627 117</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# ABS metric

## Diaphragm valve DIASTAR Ten ABS FO (Fail safe to open)

### Unions with solvent cement sockets metric

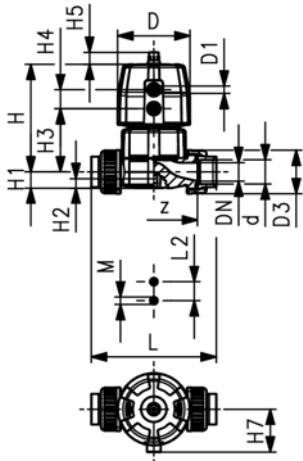


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 644 012</b>
25	20	10	271	<b>169 644 013</b>
32	25	10	481	<b>169 644 014</b>
40	32	10	759	<b>169 644 015</b>
50	40	10	1263	<b>169 644 016</b>
63	50	10	1728	<b>169 644 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

## Diaphragm valve DIASTAR Ten ABS FO (Fail safe to open)

### With solvent cement spigots metric

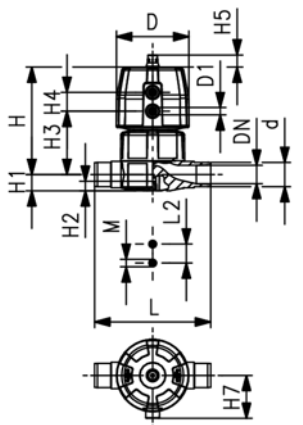


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

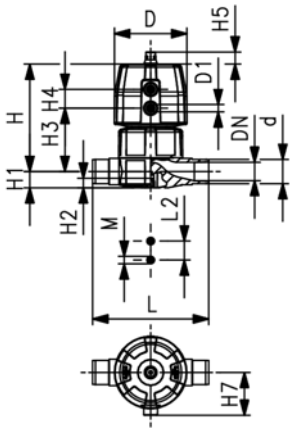


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 645 012</b>
25	20	10	271	<b>169 645 013</b>
32	25	10	481	<b>169 645 014</b>
40	32	10	759	<b>169 645 015</b>
50	40	10	1263	<b>169 645 016</b>
63	50	10	1728	<b>169 645 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13

table continued next page

# ABS metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



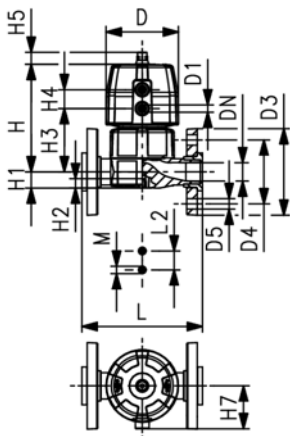
## Diaphragm valve DIASTAR Ten ABS FO (Fail safe to open) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 647 112</b>
25	20	10	271	<b>169 647 113</b>
32	25	10	481	<b>169 647 114</b>
40	32	10	759	<b>169 647 115</b>
50	40	10	1263	<b>169 647 116</b>
63	50	10	1728	<b>169 647 117</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# ABS metric

## Diaphragm valve DIASTAR Ten ABS

### DA (Double acting)

### Unions with solvent cement sockets metric

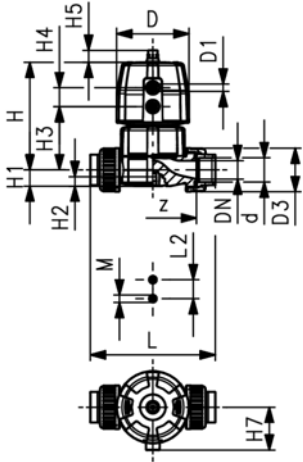


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 654 012</b>
25	20	10	271	<b>169 654 013</b>
32	25	10	481	<b>169 654 014</b>
40	32	10	759	<b>169 654 015</b>
50	40	10	1263	<b>169 654 016</b>
63	50	10	1728	<b>169 654 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

## Diaphragm valve DIASTAR Ten ABS

### DA (Double acting)

### With solvent cement spigots metric

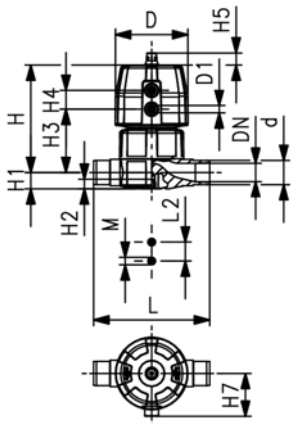


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



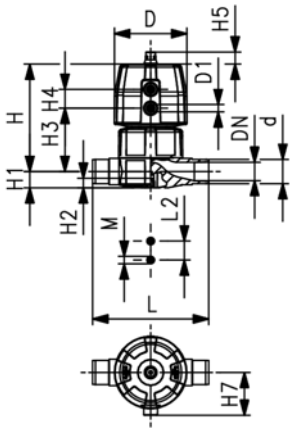
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 655 012</b>
25	20	10	271	<b>169 655 013</b>
32	25	10	481	<b>169 655 014</b>
40	32	10	759	<b>169 655 015</b>
50	40	10	1263	<b>169 655 016</b>
63	50	10	1728	<b>169 655 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13

table continued next page



# ABS metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



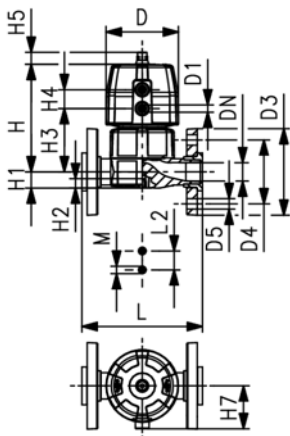
## Diaphragm valve DIASTAR Ten ABS DA (Double acting) With backing flanges PP-V metric/BS

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	169 657 112
25	20	10	271	169 657 113
32	25	10	481	169 657 114
40	32	10	759	169 657 115
50	40	10	1263	169 657 116
63	50	10	1728	169 657 117

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	57	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# ABS metric

## Diaphragm valve DIASTAR Sixteen ABS

### FC (Fail safe to close)

### Unions with solvent cement sockets metric

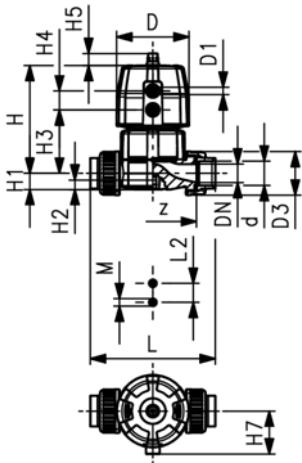


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 634 012</b>
25	20	10	271	<b>169 634 013</b>
32	25	10	481	<b>169 634 014</b>
40	32	10	759	<b>169 634 015</b>
50	40	10	1263	<b>169 634 016</b>
63	50	10	1728	<b>169 634 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	122	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	140	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	160	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	190	23

## Diaphragm valve DIASTAR Sixteen ABS

### FC (Fail safe to close)

### With solvent cement spigots metric

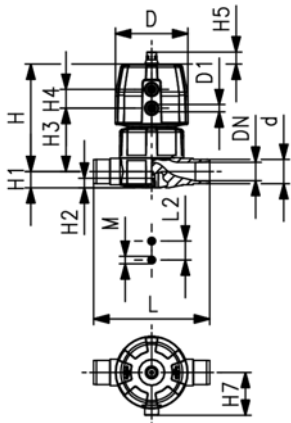


#### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

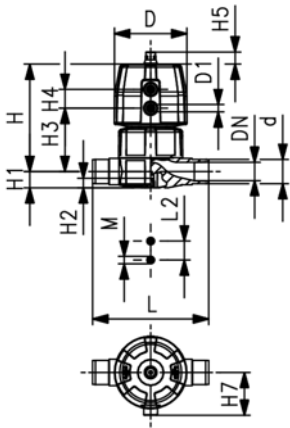


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 635 012</b>
25	20	10	271	<b>169 635 013</b>
32	25	10	481	<b>169 635 014</b>
40	32	10	759	<b>169 635 015</b>
50	40	10	1263	<b>169 635 016</b>
63	50	10	1728	<b>169 635 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13

table continued next page

# ABS metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	150	¼	174	45	196	26	15	101	36	26	88	M8	15
50	180	¼	194	45	239	32	15	124	37	26	103	M8	19
63	180	¼	224	45	251	39	15	137	37	26	103	M8	23

## Diaphragm valve DIASTAR Sixteen ABS FC (Fail safe to close) With backing flanges PP-V metric/BS

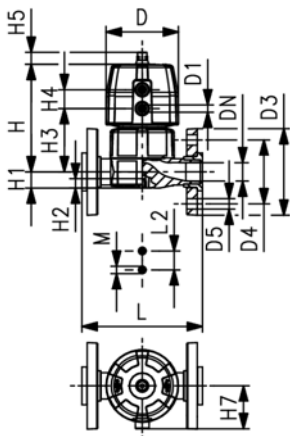


### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	10	125	<b>169 637 112</b>
25	20	10	271	<b>169 637 113</b>
32	25	10	481	<b>169 637 114</b>
40	32	10	759	<b>169 637 115</b>
50	40	10	1263	<b>169 637 116</b>
63	50	10	1728	<b>169 637 117</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	96	⅜	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	⅜	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	⅜	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	¼	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	¼	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	¼	165	125	18	230	45	251	39	15	137	37	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# ABS metric

## Diaphragm valves pneumatic

### Diaphragm valve type DIASTAR ABS Series 025 FC (Fail safe to close) With fixed flanges ABS metric



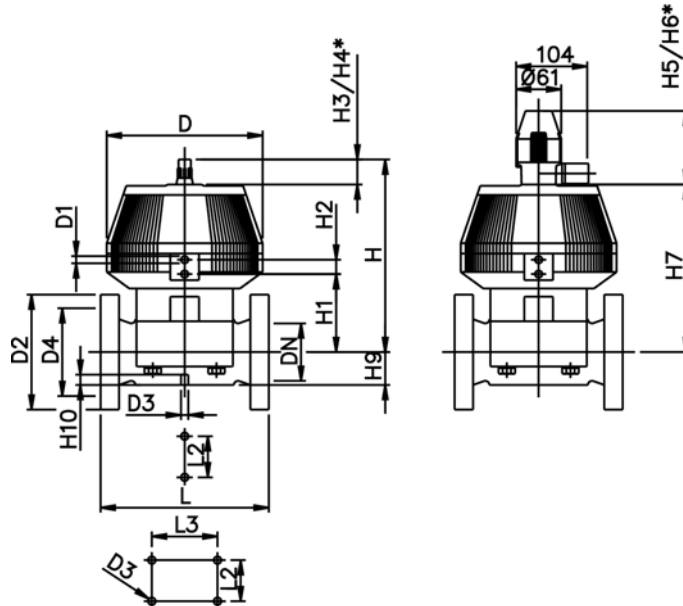
**Model:**

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* with backing flanges PP-V metric
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
* 75	65	2 1/2	10	992	<b>199 025 947</b>
** 90	80	3	10	1700	<b>199 025 948</b>
110	100	4	6	2700	<b>199 025 949</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	1/4	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	1/4	200	12	160	310	120	348	150	24	46	100	129	195
110	335	1/4	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# ABS metric

## Diaphragm valve type DIASTAR ABS Series 025 FO (Fail safe to open) With fixed flanges ABS metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

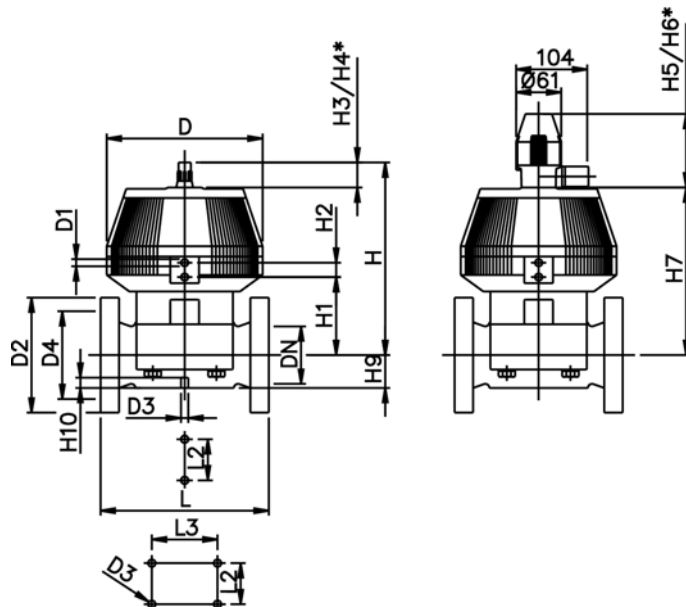
\* with backing flanges PP-V metric

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
* 75	65	2 ½	10	992	<b>199 025 957</b>
** 90	80	3	10	1700	<b>199 025 958</b>
110	100	4	6	2700	<b>199 025 959</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# ABS metric

## Diaphragm valve type DIASTAR ABS Series 025 DA (Double acting) With fixed flanges ABS metric



### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

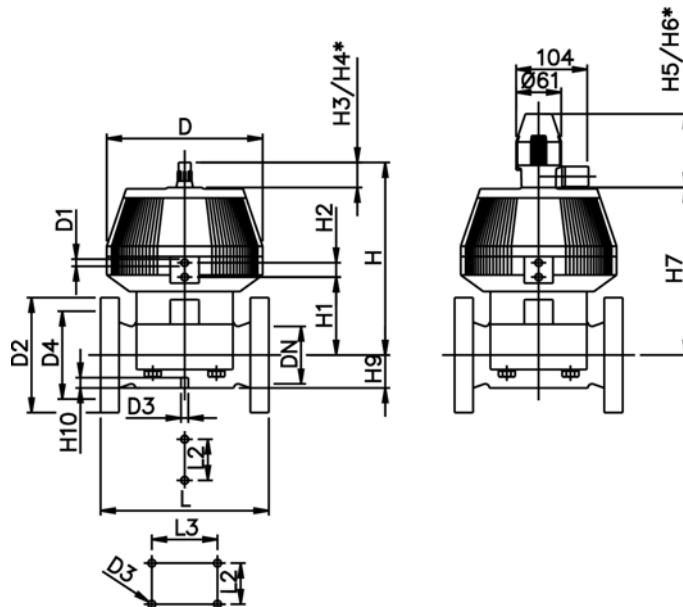
\* with backing flanges PP-V metric

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5









d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
* 75	65	2 ½	10	992	<b>199 025 967</b>
** 90	80	3	10	1700	<b>199 025 968</b>
110	100	4	6	2700	<b>199 025 969</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# PROGEF Standard metric

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# PROGEF Standard metric

## Ball valves electric

### PROGEF Standard

### Ball valve type 107 100-230V

### With manual emergency override

### With fusion sockets metric



DN10/15 - 50

#### Model:

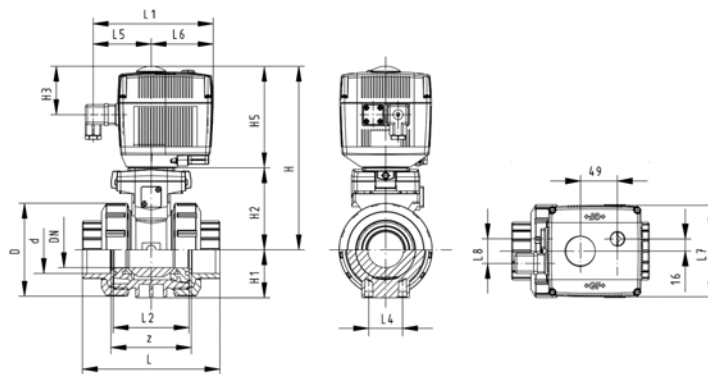
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 502</b>	<b>199 107 512</b>
20	15	10	185	<b>199 107 503</b>	<b>199 107 513</b>
25	20	10	350	<b>199 107 504</b>	<b>199 107 514</b>
32	25	10	700	<b>199 107 505</b>	<b>199 107 515</b>
40	32	10	1000	<b>199 107 506</b>	<b>199 107 516</b>
50	40	10	1600	<b>199 107 507</b>	<b>199 107 517</b>
63	50	10	3100	<b>199 107 508</b>	<b>199 107 518</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117





# PROGEF Standard metric

## PROGEF Standard Ball valve type 107 100-230V With manual emergency override With socket fusion spigots metric



DN10/15 - 50

### Model:

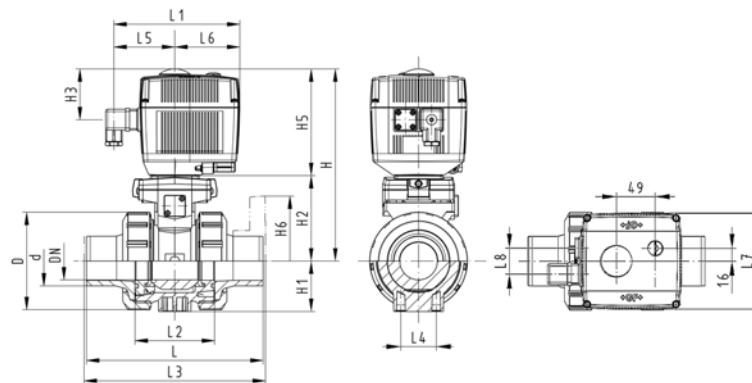
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 522	199 107 532
20	15	10	185	199 107 523	199 107 533
25	20	10	350	199 107 524	199 107 534
32	25	10	700	199 107 525	199 107 535
40	32	10	1000	199 107 526	199 107 536
50	40	10	1600	199 107 527	199 107 537
63	50	10	3100	199 107 528	199 107 538

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 107 100-230V

### With manual emergency override

### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50

#### Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

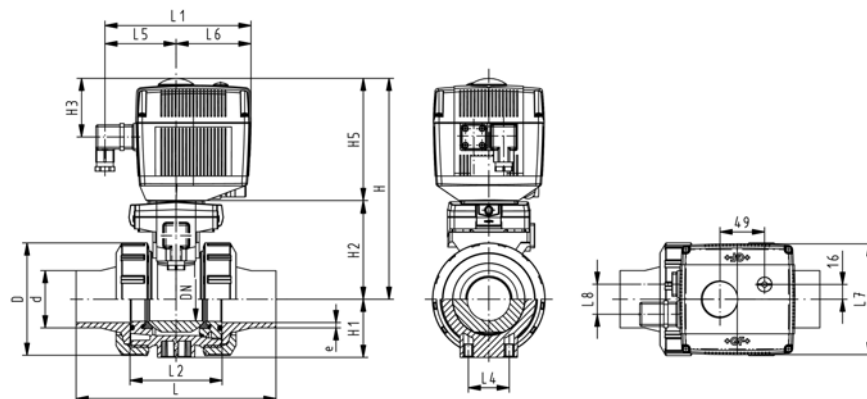
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>800 046 107</b>	<b>800 046 110</b>
25	20	10	350	<b>800 046 108</b>	<b>800 046 112</b>
32	25	10	700	<b>800 027 956</b>	<b>800 046 113</b>
40	32	10	1000	<b>800 046 109</b>	<b>800 046 114</b>
50	40	10	1600	<b>800 021 699</b>	<b>800 046 115</b>
63	50	10	3100	<b>800 027 113</b>	<b>800 046 116</b>

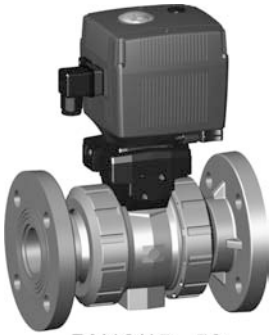
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	143	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	171	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	191	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8



# PROGEF Standard metric

## PROGEF Standard Ball valve type 107 100-230V With manual emergency override With fixed flanges PP-H serrated metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

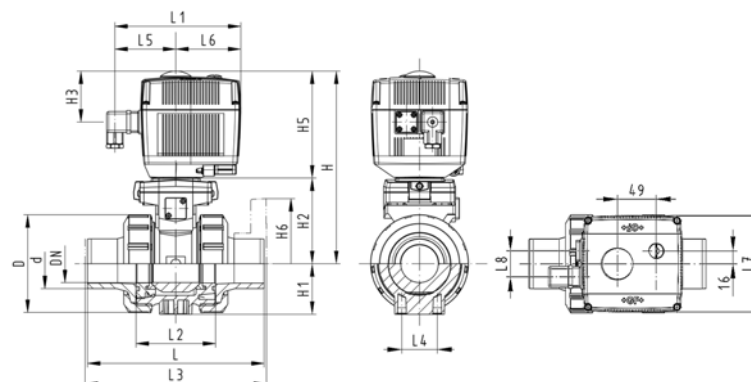
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 107 583</b>	<b>199 107 593</b>
25	20	¾	10	350	<b>199 107 584</b>	<b>199 107 594</b>
32	25	1	10	700	<b>199 107 585</b>	<b>199 107 595</b>
40	32	1 ¼	10	1000	<b>199 107 586</b>	<b>199 107 596</b>
50	40	1 ½	10	1600	<b>199 107 587</b>	<b>199 107 597</b>
63	50	2	10	3100	<b>199 107 588</b>	<b>199 107 598</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# PROGEF Standard metric

## PROGEF Standard Ball valve type 107 24V With manual emergency override With fusion sockets metric



DN10/15 - 50

### Model:

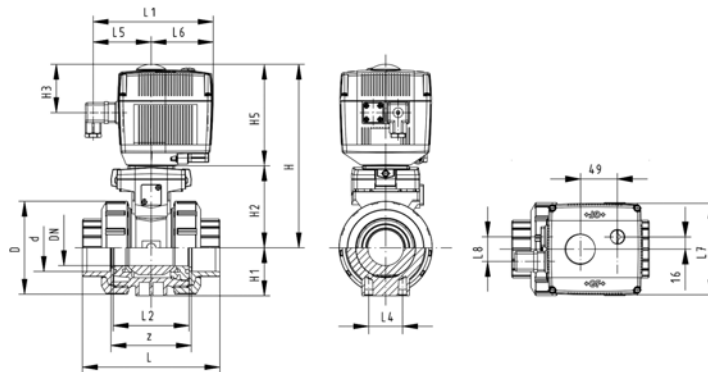
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 107 542	199 107 552
20	15	10	185	199 107 543	199 107 553
25	20	10	350	199 107 544	199 107 554
32	25	10	700	199 107 545	199 107 555
40	32	10	1000	199 107 546	199 107 556
50	40	10	1600	199 107 547	199 107 557
63	50	10	3100	199 107 548	199 107 558

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117



# PROGEF Standard metric

## PROGEF Standard Ball valve type 107 24V With manual emergency override With socket fusion spigots metric



DN10/15 - 50

### Model:

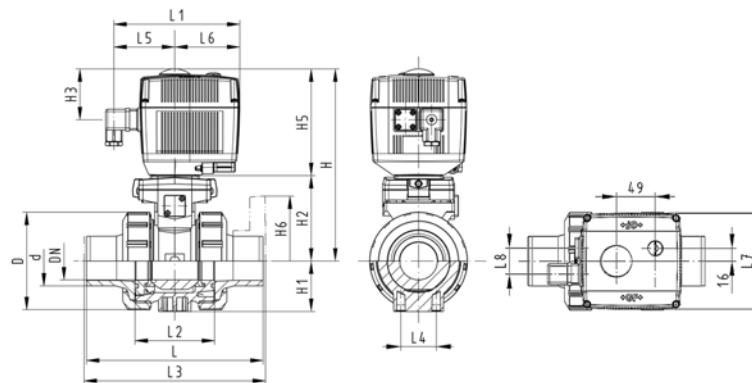
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 107 562</b>	<b>199 107 572</b>
20	15	10	185	<b>199 107 563</b>	<b>199 107 573</b>
25	20	10	350	<b>199 107 564</b>	<b>199 107 574</b>
32	25	10	700	<b>199 107 565</b>	<b>199 107 575</b>
40	32	10	1000	<b>199 107 566</b>	<b>199 107 576</b>
50	40	10	1600	<b>199 107 567</b>	<b>199 107 577</b>
63	50	10	3100	<b>199 107 568</b>	<b>199 107 578</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	156	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 107 24V

### With manual emergency override

### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50

#### Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

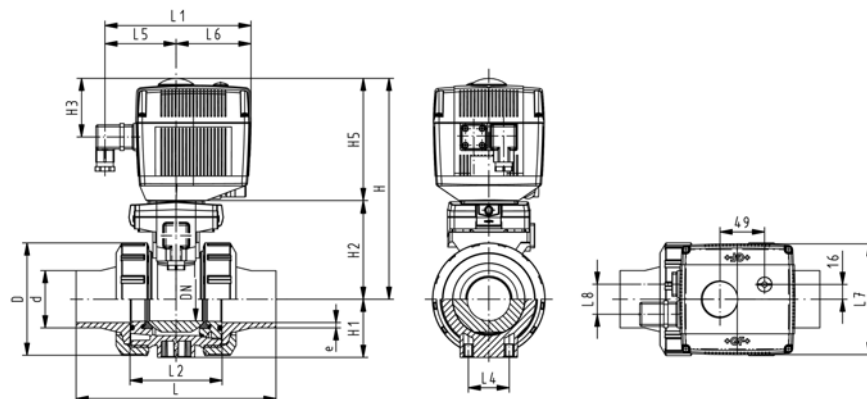
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>800 015 073</b>	<b>800 046 119</b>
25	20	10	350	<b>800 046 117</b>	<b>800 046 120</b>
32	25	10	700	<b>800 046 118</b>	<b>800 046 121</b>
40	32	10	1000	<b>800 021 702</b>	<b>800 046 122</b>
50	40	10	1600	<b>800 021 700</b>	<b>800 046 123</b>
63	50	10	3100	<b>800 021 701</b>	<b>800 046 124</b>

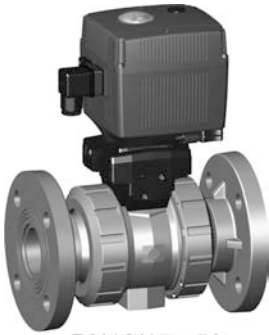
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	143	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	171	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	191	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8



# PROGEF Standard metric

## PROGEF Standard Ball valve type 107 24V With manual emergency override With fixed flanges PP-H serrated metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

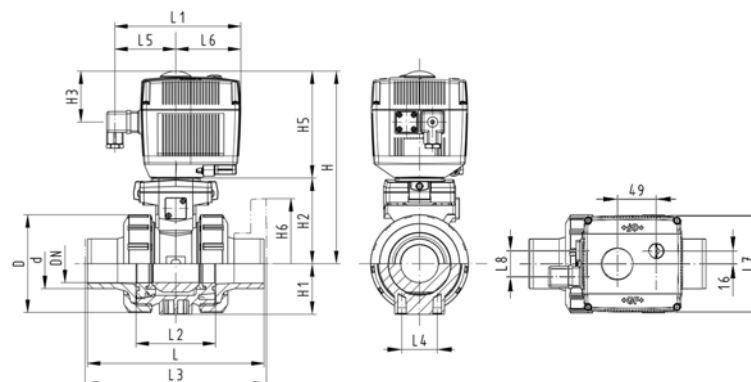
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 107 783</b>	<b>199 107 793</b>
25	20	¾	10	350	<b>199 107 784</b>	<b>199 107 794</b>
32	25	1	10	700	<b>199 107 785</b>	<b>199 107 795</b>
40	32	1 ¼	10	1000	<b>199 107 786</b>	<b>199 107 796</b>
50	40	1 ½	10	1600	<b>199 107 787</b>	<b>199 107 797</b>
63	50	2	10	3100	<b>199 107 788</b>	<b>199 107 798</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 100-230V With manual emergency override With fusion sockets metric



DN10/15 - 50



### Model:

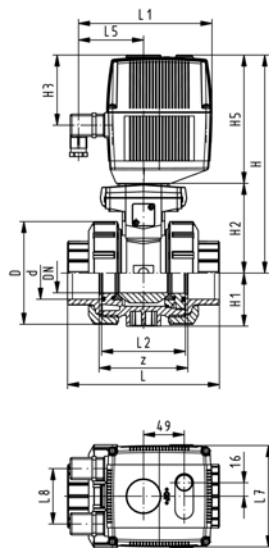
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

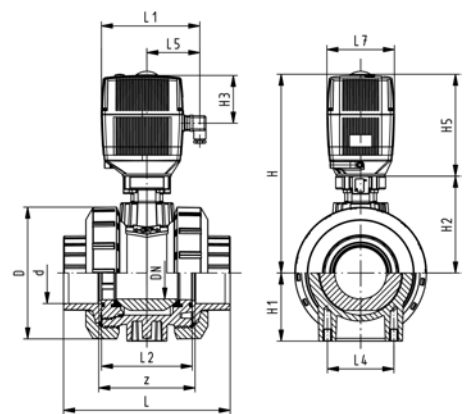
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 131 002</b>	<b>199 131 012</b>
20	15	10	185	<b>199 131 003</b>	<b>199 131 013</b>
25	20	10	350	<b>199 131 004</b>	<b>199 131 014</b>
32	25	10	700	<b>199 131 005</b>	<b>199 131 015</b>
40	32	10	1000	<b>199 131 006</b>	<b>199 131 016</b>
50	40	10	1600	<b>199 131 007</b>	<b>199 131 017</b>
63	50	10	3100	<b>199 131 008</b>	<b>199 131 018</b>
75	65	10	5000	<b>199 131 009</b>	<b>199 131 019</b>
90	80	10	7000	<b>199 131 010</b>	<b>199 131 020</b>
110	100	10	11000	<b>199 131 011</b>	<b>199 131 021</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	93	180	56	25	97	122	67
20	50	231	27	64	94	167	95	180	56	25	97	122	66
25	58	240	30	73	94	167	108	180	65	25	97	122	77
32	68	240	36	73	94	167	118	180	71	25	97	122	83
40	84	251	44	84	94	167	137	180	85	45	97	122	99
50	97	251	51	84	94	167	147	180	89	45	97	122	105
63	124	273	64	106	94	167	168	180	101	45	97	122	117
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100



# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 100-230V With manual emergency override With socket fusion spigots metric



DN10/15 - 50



### Model:

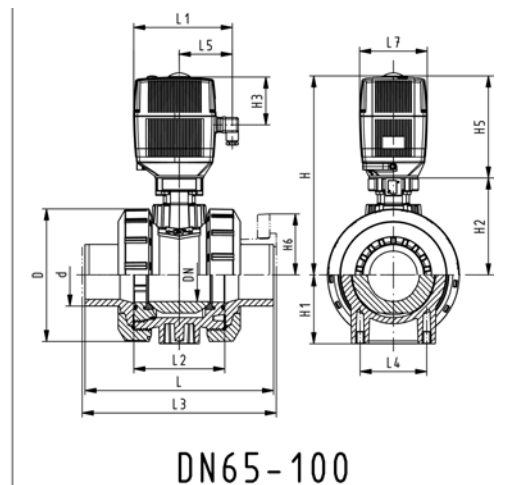
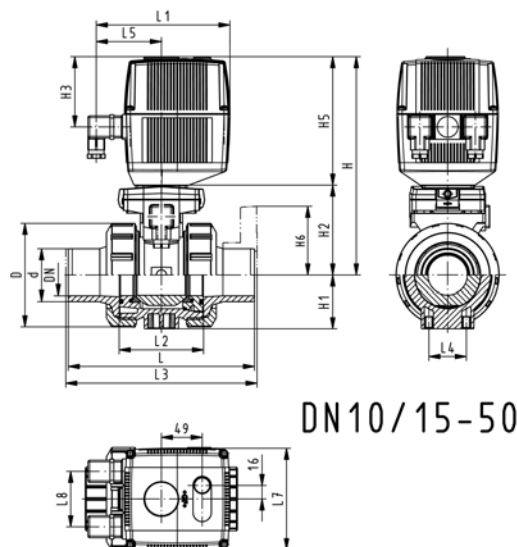
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 131 022	199 131 032
20	15	10	185	199 131 023	199 131 033
25	20	10	350	199 131 024	199 131 034
32	25	10	700	199 131 025	199 131 035
40	32	10	1000	199 131 026	199 131 036
50	40	10	1600	199 131 027	199 131 037
63	50	10	3100	199 131 028	199 131 038
75	65	10	5000	199 131 029	199 131 039
90	80	10	7000	199 131 030	199 131 040
110	100	10	11000	199 131 031	199 131 041

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	110	180	56	130	25	97	122
20	50	231	27	64	94	167	120	180	56	130	25	97	122
25	58	240	30	73	94	167	139	180	65	150	25	97	122
32	68	240	36	73	94	167	150	180	71	160	25	97	122
40	84	251	44	84	94	167	170	180	85	180	45	97	122
50	97	251	51	84	94	167	190	180	89	200	45	97	122
63	124	273	64	106	94	167	220	180	101	230	45	97	122
75	166	346	85	156	94	190	280	180	136	290	70	98	122
90	200	358	105	168	94	190	296	180	141	310	70	98	122
110	238	365	123	175	94	190	336	180	164	350	120	98	122



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 100-230V

### With manual emergency override

### With fixed flanges PP-H serrated metric



DN10/15 - 50

#### Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

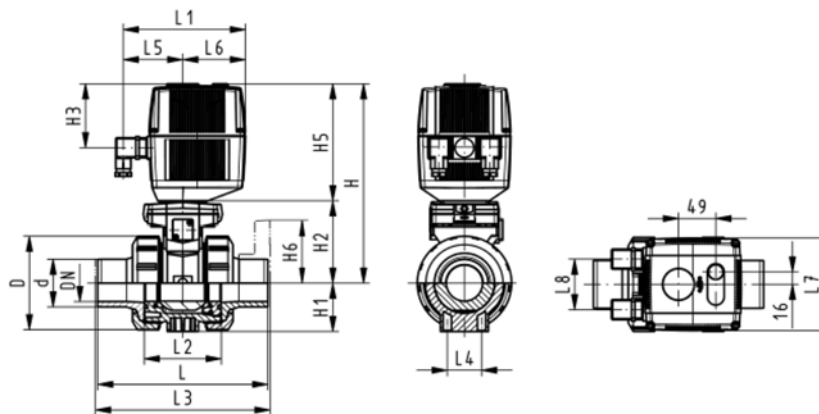
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 131 083</b>	<b>199 131 093</b>
25	20	¾	10	350	<b>199 131 084</b>	<b>199 131 094</b>
32	25	1	10	700	<b>199 131 085</b>	<b>199 131 095</b>
40	32	1 ¼	10	1000	<b>199 131 086</b>	<b>199 131 096</b>
50	40	1 ½	10	1600	<b>199 131 087</b>	<b>199 131 097</b>
63	50	2	10	3100	<b>199 131 088</b>	<b>199 131 098</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	120	180	56	130	25	97	83	122
25	58	240	30	73	94	167	53	140	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	150	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	170	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	190	180	89	200	45	97	83	122
63	124	273	64	106	94	167	165	220	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66



# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 100-230V With manual emergency override With backing flanges PP-st metric



### Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

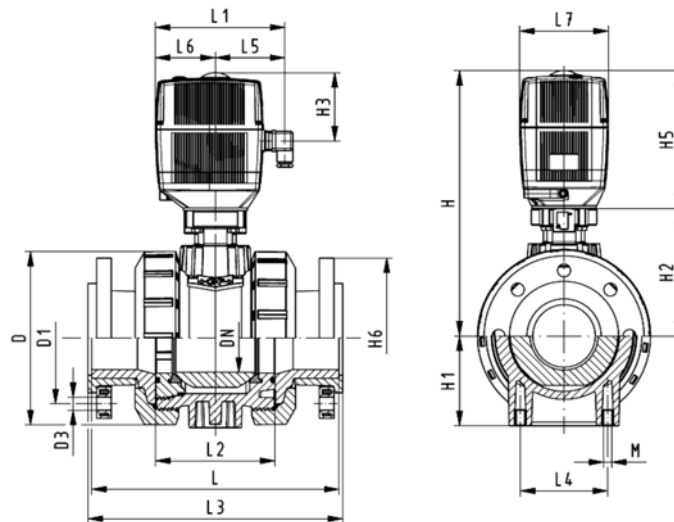
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	2 ½	10	5000	199 131 129	199 131 139
90	80	3	10	7000	199 131 130	199 131 140
110	100	4	10	11000	199 131 131	199 131 141

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 100-230V

### With manual emergency override

### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



#### Model:

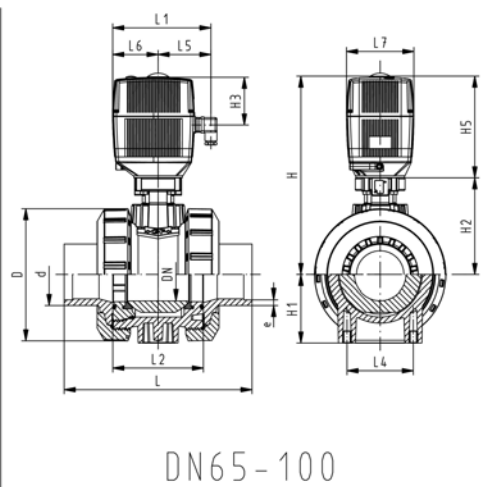
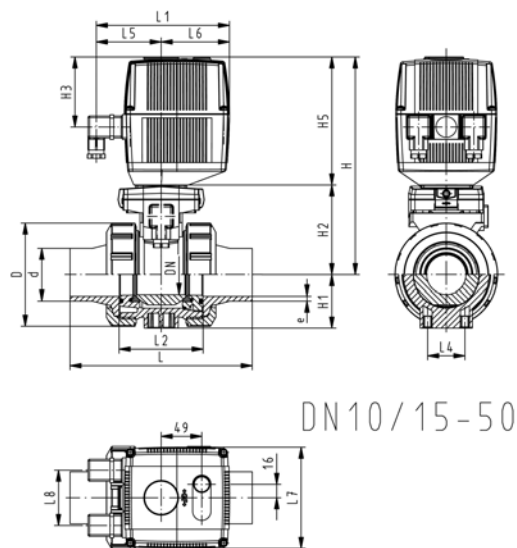
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 131 323</b>	<b>199 131 333</b>
25	20	10	350	<b>199 131 324</b>	<b>199 131 334</b>
32	25	10	700	<b>199 131 325</b>	<b>199 131 335</b>
40	32	10	1000	<b>199 131 326</b>	<b>199 131 336</b>
50	40	10	1600	<b>199 131 327</b>	<b>199 131 337</b>
63	50	10	3100	<b>199 131 328</b>	<b>199 131 338</b>
75	65	10	5000	<b>199 131 329</b>	<b>199 131 339</b>
90	80	10	7000	<b>199 131 330</b>	<b>199 131 340</b>
110	100	10	11000	<b>199 131 331</b>	<b>199 131 341</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
20	50	231	27	64	94	167	130	180	56	130	25	97	122	1.9
25	58	240	30	73	94	167	143	180	65	150	25	97	122	2.3
32	68	240	36	73	94	167	150	180	71	160	25	97	122	3.0
40	84	251	44	84	94	167	171	180	85	180	45	97	122	3.7
50	97	251	51	84	94	167	191	180	89	200	45	97	122	4.6
63	124	273	64	106	94	167	220	180	101	230	45	97	122	5.8
75	166	346	85	156	94	190	266	180	136	290	70	98	122	8.2
90	200	358	105	168	94	190	264	180	141	310	70	98	122	9.9
110	238	365	123	175	94	190	301	180	164	350	120	98	122	12.0



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 100-230V

### With manual emergency override

### With butt fusion spigots SDR17.6 metric



DN10/15 - 50



#### Model:

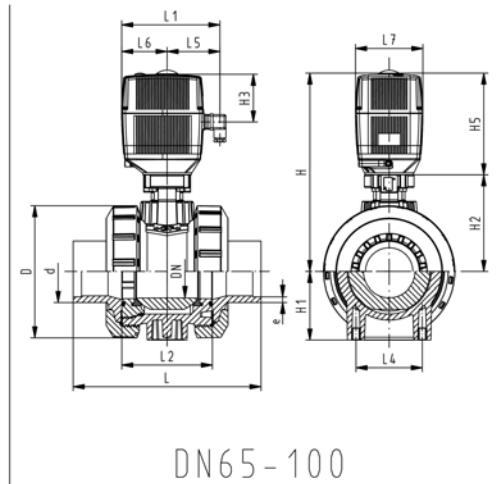
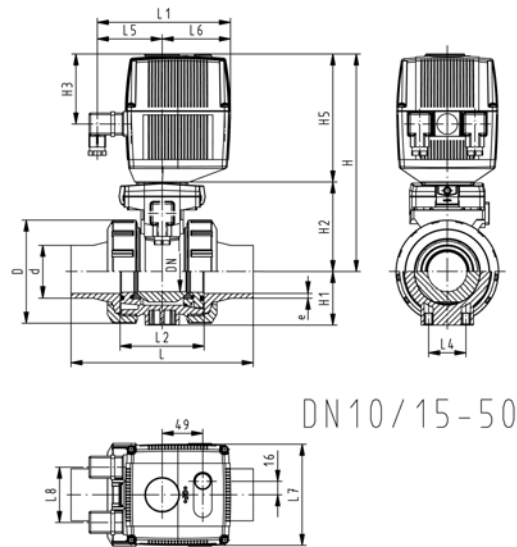
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 131 729</b>	<b>199 131 739</b>
90	80	10	7000	<b>199 131 730</b>	<b>199 131 740</b>
110	100	10	11000	<b>199 131 731</b>	<b>199 131 741</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	122	4.6
90	200	358	105	168	94	190	264	180	141	310	70	98	122	5.5
110	238	365	123	175	94	190	301	180	164	350	120	98	122	6.7



# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 24V With manual emergency override With fusion sockets metric



DN10/15 - 50



### Model:

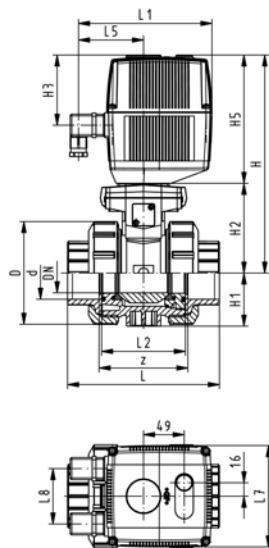
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

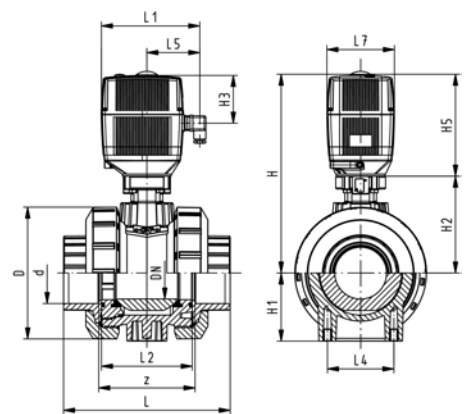
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 131 042	199 131 052
20	15	10	185	199 131 043	199 131 053
25	20	10	350	199 131 044	199 131 054
32	25	10	700	199 131 045	199 131 055
40	32	10	1000	199 131 046	199 131 056
50	40	10	1600	199 131 047	199 131 057
63	50	10	3100	199 131 048	199 131 058
75	65	10	5000	199 131 049	199 131 059
90	80	10	7000	199 131 050	199 131 060
110	100	10	11000	199 131 051	199 131 061

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	93	180	56	25	97	122	67
20	50	231	27	64	94	167	95	180	56	25	97	122	66
25	58	240	30	73	94	167	108	180	65	25	97	122	77
32	68	240	36	73	94	167	118	180	71	25	97	122	83
40	84	251	44	84	94	167	137	180	85	45	97	122	99
50	97	251	51	84	94	167	147	180	89	45	97	122	105
63	124	273	64	106	94	167	168	180	101	45	97	122	117
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100

# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 24V With manual emergency override With socket fusion spigots metric



DN10/15 - 50



### Model:

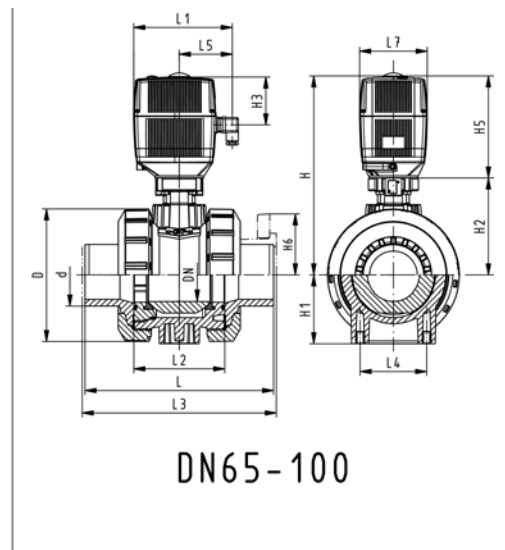
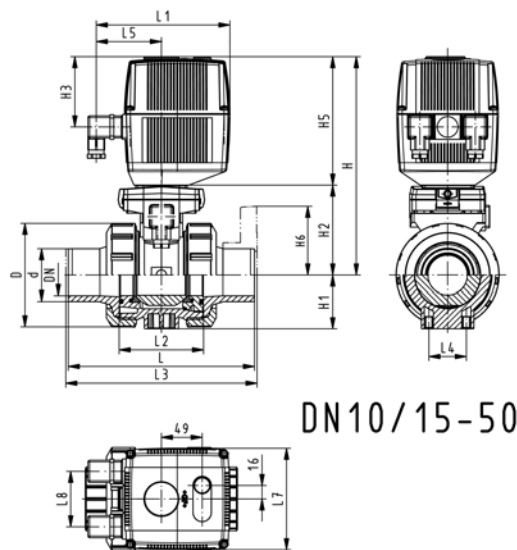
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 131 062	199 131 072
20	15	10	185	199 131 063	199 131 073
25	20	10	350	199 131 064	199 131 074
32	25	10	700	199 131 065	199 131 075
40	32	10	1000	199 131 066	199 131 076
50	40	10	1600	199 131 067	199 131 077
63	50	10	3100	199 131 068	199 131 078
75	65	10	5000	199 131 069	199 131 079
90	80	10	7000	199 131 070	199 131 080
110	100	10	11000	199 131 071	199 131 081

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	110	180	56	130	25	97	122
20	50	231	27	64	94	167	120	180	56	130	25	97	122
25	58	240	30	73	94	167	139	180	65	150	25	97	122
32	68	240	36	73	94	167	150	180	71	160	25	97	122
40	84	251	44	84	94	167	170	180	85	180	45	97	122
50	97	251	51	84	94	167	190	180	89	200	45	97	122
63	124	273	64	106	94	167	220	180	101	230	45	97	122
75	166	346	85	156	94	190	280	180	136	290	70	98	122
90	200	358	105	168	94	190	296	180	141	310	70	98	122
110	238	365	123	175	94	190	336	180	164	350	120	98	122



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 24V

### With manual emergency override

### With fixed flanges PP-H serrated metric



DN10/15 - 50

#### Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

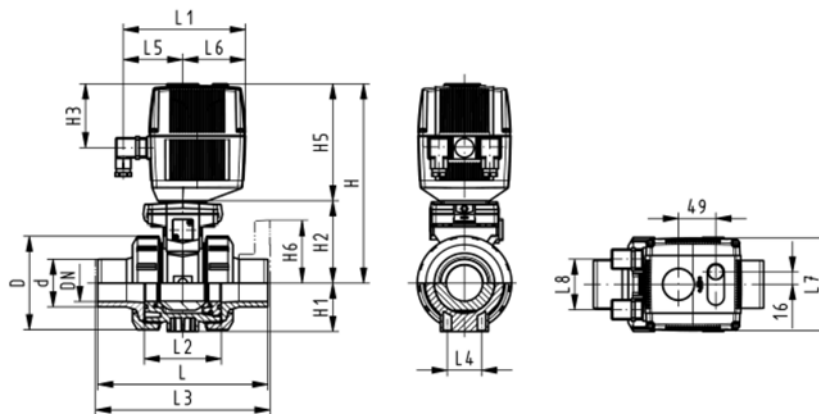
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 131 103</b>	<b>199 131 113</b>
25	20	¾	10	350	<b>199 131 104</b>	<b>199 131 114</b>
32	25	1	10	700	<b>199 131 105</b>	<b>199 131 115</b>
40	32	1 ¼	10	1000	<b>199 131 106</b>	<b>199 131 116</b>
50	40	1 ½	10	1600	<b>199 131 107</b>	<b>199 131 117</b>
63	50	2	10	3100	<b>199 131 108</b>	<b>199 131 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	120	180	56	130	25	97	83	122
25	58	240	30	73	94	167	53	140	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	150	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	170	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	190	180	89	200	45	97	83	122
63	124	273	64	106	94	167	165	220	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66





# PROGEF Standard metric

## PROGEF Standard Ball valve type 131 24V With manual emergency override With backing flanges PP-st metric



### Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

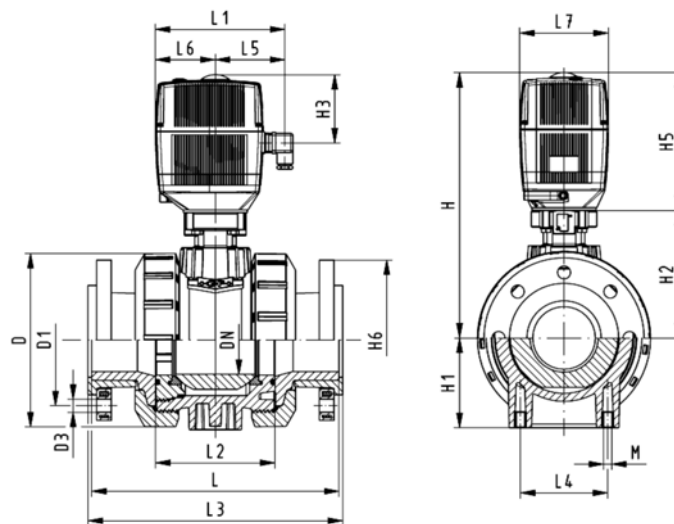
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	2 ½	10	5000	199 131 149	199 131 159
90	80	3	10	7000	199 131 150	199 131 160
110	100	4	10	11000	199 131 151	199 131 161

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 24V

### With manual emergency override

### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



#### Model:

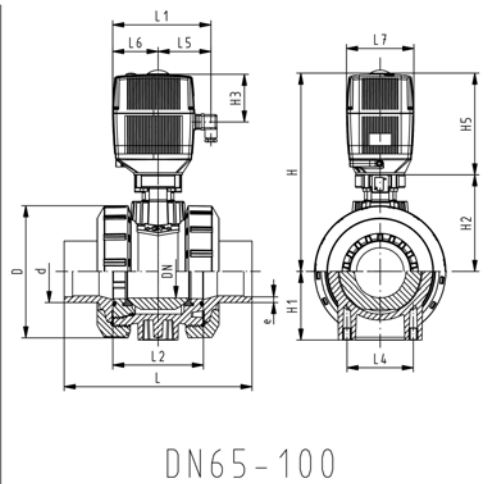
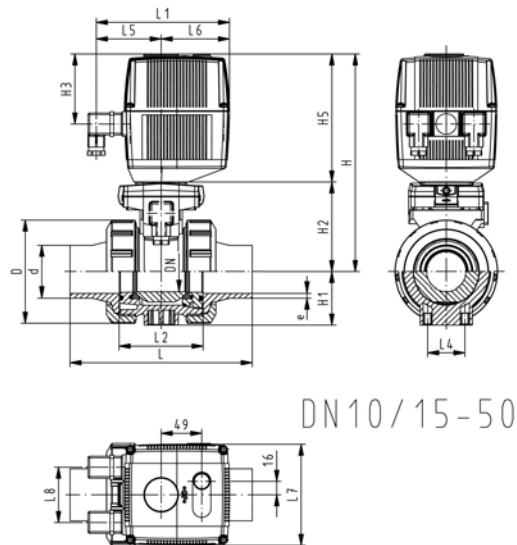
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 131 363</b>	<b>199 131 373</b>
25	20	10	350	<b>199 131 364</b>	<b>199 131 374</b>
32	25	10	700	<b>199 131 365</b>	<b>199 131 375</b>
40	32	10	1000	<b>199 131 366</b>	<b>199 131 376</b>
50	40	10	1600	<b>199 131 367</b>	<b>199 131 377</b>
63	50	10	3100	<b>199 131 368</b>	<b>199 131 378</b>
75	65	10	5000	<b>199 131 369</b>	<b>199 131 379</b>
90	80	10	7000	<b>199 131 370</b>	<b>199 131 380</b>
110	100	10	11000	<b>199 131 371</b>	<b>199 131 381</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
20	50	231	27	64	94	167	130	180	56	130	25	97	122	1.9
25	58	240	30	73	94	167	143	180	65	150	25	97	122	2.3
32	68	240	36	73	94	167	150	180	71	160	25	97	122	3.0
40	84	251	44	84	94	167	171	180	85	180	45	97	122	3.7
50	97	251	51	84	94	167	191	180	89	200	45	97	122	4.6
63	124	273	64	106	94	167	220	180	101	230	45	97	122	5.8
75	166	346	85	156	94	190	266	180	136	290	70	98	122	8.2
90	200	358	105	168	94	190	264	180	141	310	70	98	122	9.9
110	238	365	123	175	94	190	301	180	164	350	120	98	122	12.0



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 131 24V

#### With manual emergency override

#### With butt fusion spigots SDR17.6 metric



DN10/15 - 50



#### Model:

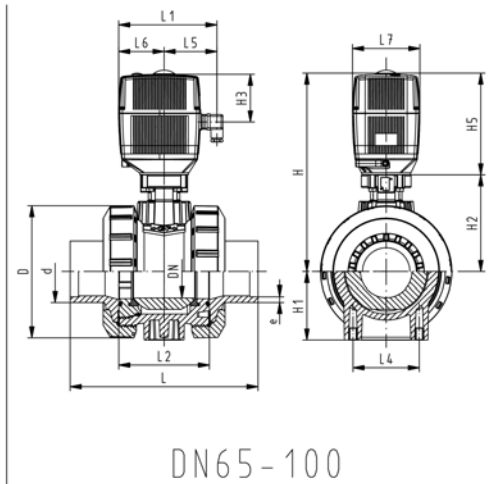
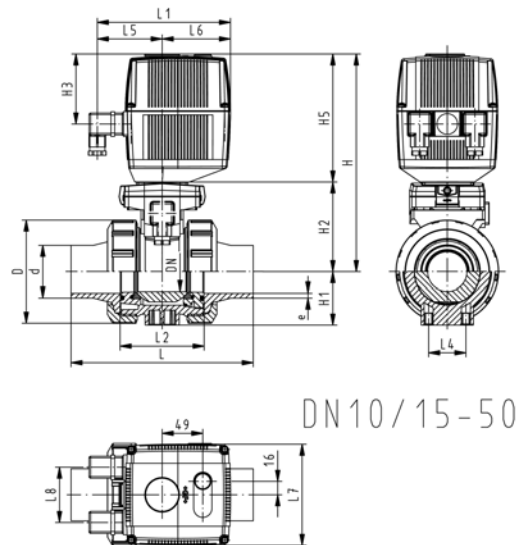
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 131 769</b>	<b>199 131 779</b>
90	80	10	7000	<b>199 131 770</b>	<b>199 131 780</b>
110	100	10	11000	<b>199 131 771</b>	<b>199 131 781</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	122	4.6
90	200	358	105	168	94	190	264	180	141	310	70	98	122	5.5
110	238	365	123	175	94	190	301	180	164	350	120	98	122	6.7



# PROGEF Standard metric

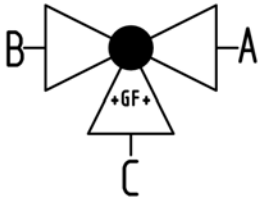
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/L-port 100-230V

### With manual emergency override

### With fusion sockets metric



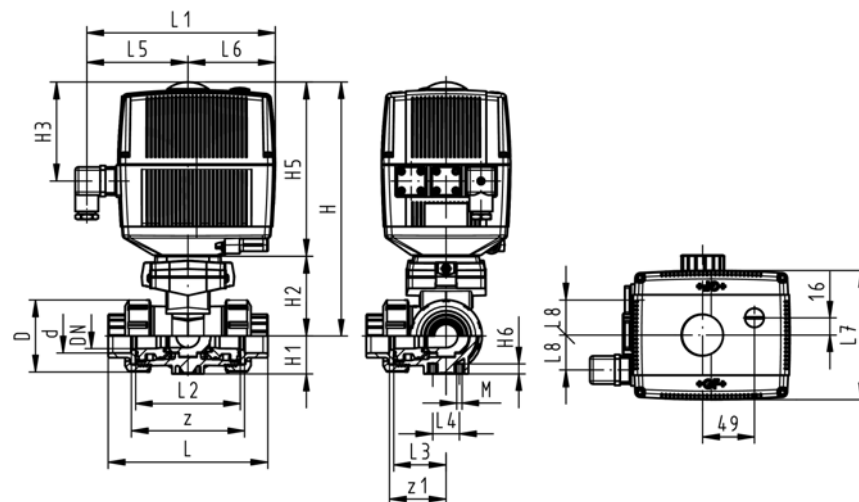
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 186 022	199 186 032
20	15	10	75	199 186 023	199 186 033
25	20	10	150	199 186 024	199 186 034
32	25	10	280	199 186 025	199 186 035
40	32	10	480	199 186 026	199 186 036
50	40	10	620	199 186 027	199 186 037
63	50	10	1230	199 186 028	199 186 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# PROGEF Standard metric

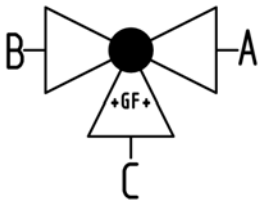
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/L-port 100-230V

### With manual emergency override

### With threaded sockets reinforced Rp



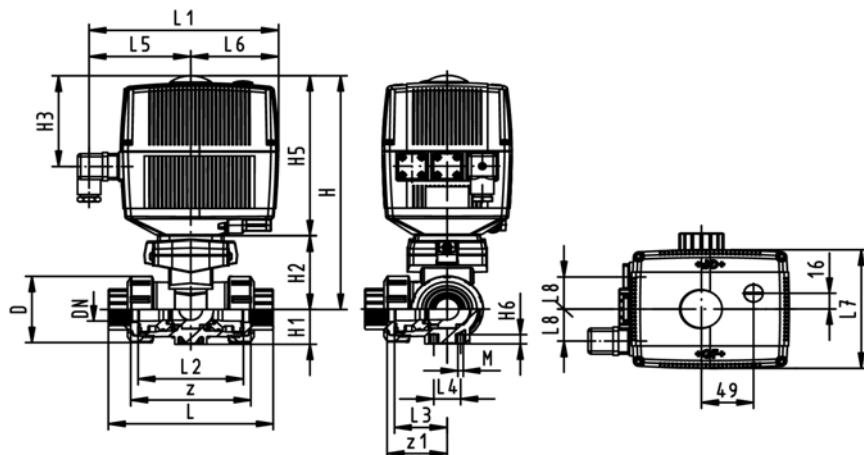
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	50	<b>199 186 122</b>	<b>199 186 132</b>
1/2	15	10	75	<b>199 186 123</b>	<b>199 186 133</b>
3/4	20	10	150	<b>199 186 124</b>	<b>199 186 134</b>
1	25	10	280	<b>199 186 125</b>	<b>199 186 135</b>
1 1/4	32	10	480	<b>199 186 126</b>	<b>199 186 136</b>
1 1/2	40	10	620	<b>199 186 127</b>	<b>199 186 137</b>
2	50	10	1230	<b>199 186 128</b>	<b>199 186 138</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98



# PROGEF Standard metric

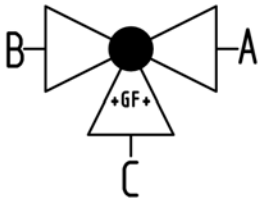
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/L-port 100-230V

### With manual emergency override

### With socket fusion spigots metric



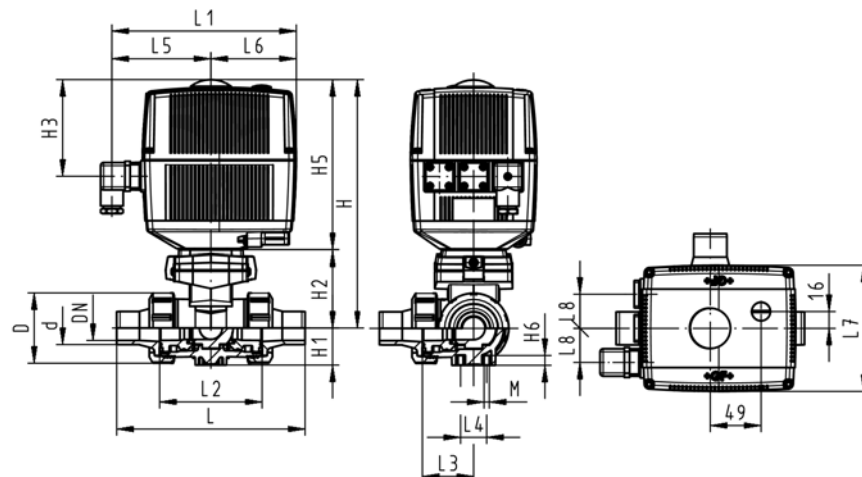
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 186 002	199 186 012
20	15	10	75	199 186 003	199 186 013
25	20	10	150	199 186 004	199 186 014
32	25	10	280	199 186 005	199 186 015
40	32	10	480	199 186 006	199 186 016
50	40	10	620	199 186 007	199 186 017
63	50	10	1230	199 186 008	199 186 018

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

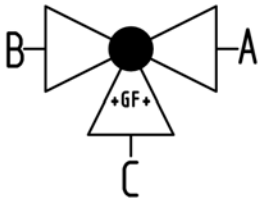
### 3-Way ball valve type 186

### Horizontal/L-port 100-230V

### With manual emergency override

### With butt fusion spigots

### IR-Plus SDR11 metric



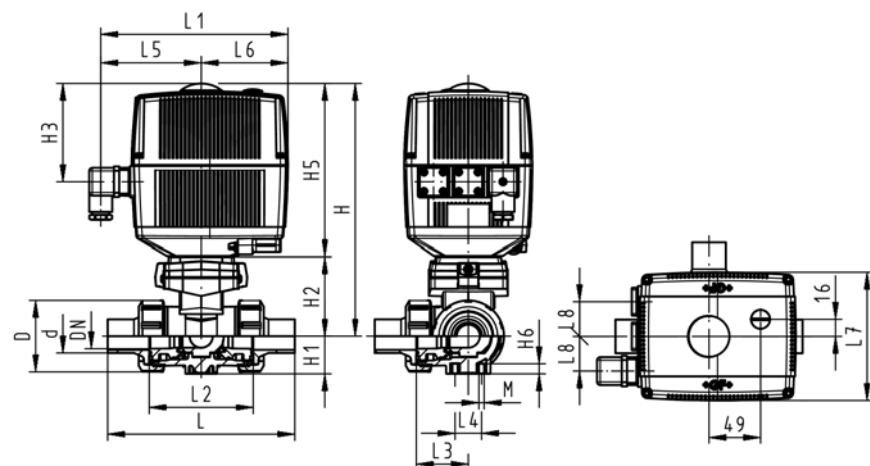
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	75	199 186 083	199 186 093
25	20	10	150	199 186 084	199 186 094
32	25	10	280	199 186 085	199 186 095
40	32	10	480	199 186 086	199 186 096
50	40	10	620	199 186 087	199 186 097
63	50	10	1230	199 186 088	199 186 098

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

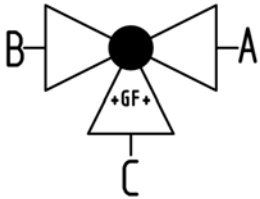
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/L-port 24V

### With manual emergency override

### With fusion sockets metric



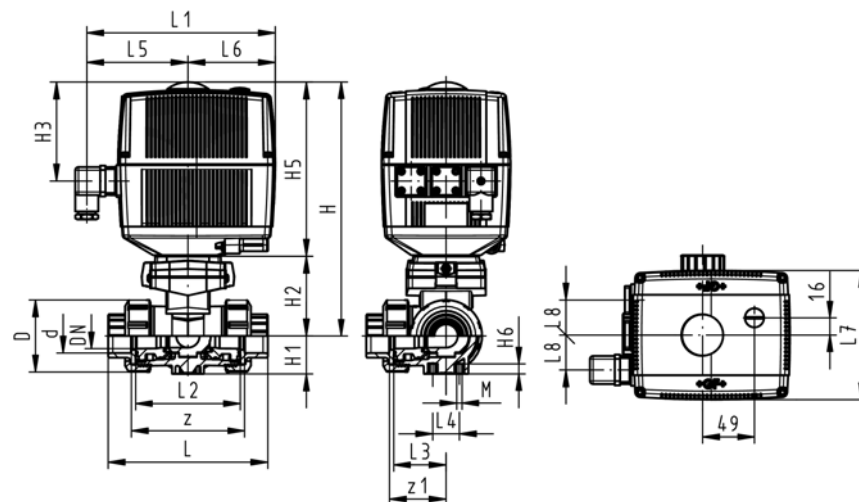
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 186 182</b>	<b>199 186 192</b>
20	15	10	75	<b>199 186 183</b>	<b>199 186 193</b>
25	20	10	150	<b>199 186 184</b>	<b>199 186 194</b>
32	25	10	280	<b>199 186 185</b>	<b>199 186 195</b>
40	32	10	480	<b>199 186 186</b>	<b>199 186 196</b>
50	40	10	620	<b>199 186 187</b>	<b>199 186 197</b>
63	50	10	1230	<b>199 186 188</b>	<b>199 186 198</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94





# PROGEF Standard metric

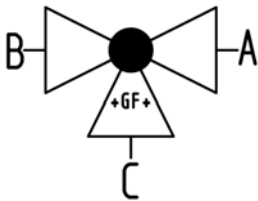
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/L-port 24V

### With manual emergency override

### With threaded sockets reinforced Rp



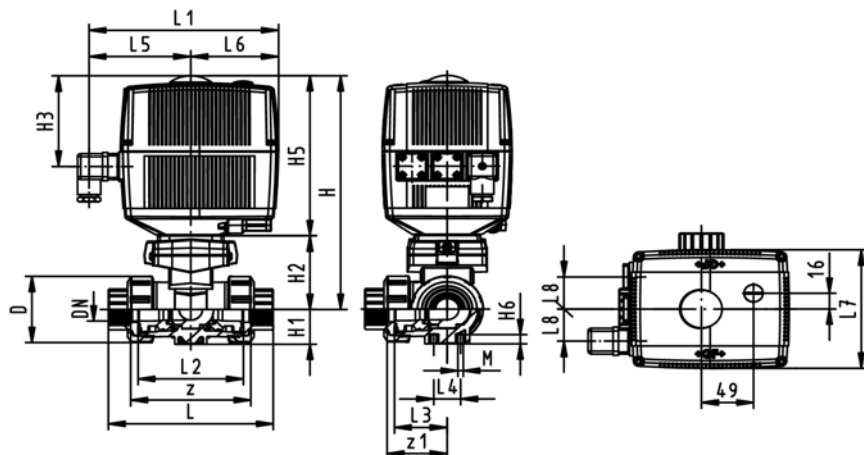
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	50	<b>199 186 282</b>	<b>199 186 292</b>
1/2	15	10	75	<b>199 186 283</b>	<b>199 186 293</b>
3/4	20	10	150	<b>199 186 284</b>	<b>199 186 294</b>
1	25	10	280	<b>199 186 285</b>	<b>199 186 295</b>
1 1/4	32	10	480	<b>199 186 286</b>	<b>199 186 296</b>
1 1/2	40	10	620	<b>199 186 287</b>	<b>199 186 297</b>
2	50	10	1230	<b>199 186 288</b>	<b>199 186 298</b>

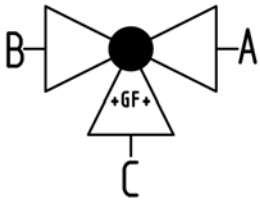
Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98



# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 186 Horizontal/L-port 24V With manual emergency override With socket fusion spigots metric



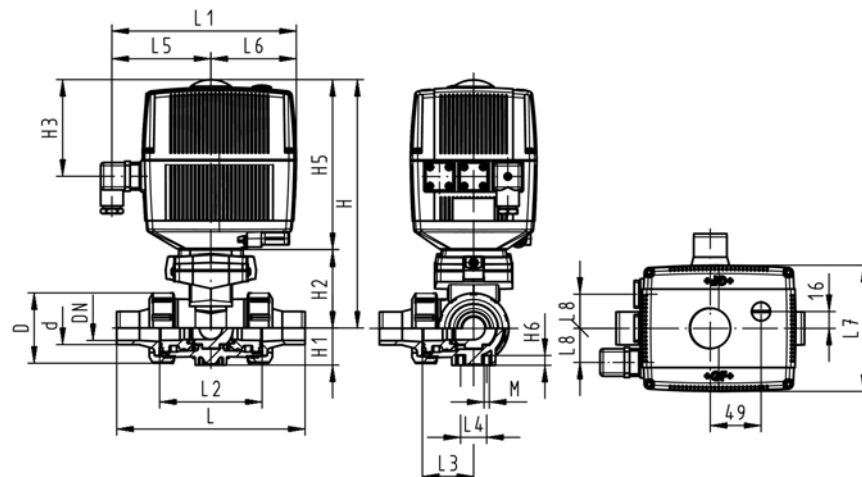
### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 186 162</b>	<b>199 186 172</b>
20	15	10	75	<b>199 186 163</b>	<b>199 186 173</b>
25	20	10	150	<b>199 186 164</b>	<b>199 186 174</b>
32	25	10	280	<b>199 186 165</b>	<b>199 186 175</b>
40	32	10	480	<b>199 186 166</b>	<b>199 186 176</b>
50	40	10	620	<b>199 186 167</b>	<b>199 186 177</b>
63	50	10	1230	<b>199 186 168</b>	<b>199 186 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

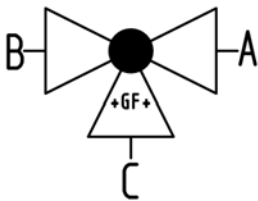
### 3-Way ball valve type 186

### Horizontal/L-port 24V

### With manual emergency override

### With butt fusion spigots

### IR-Plus SDR11 metric



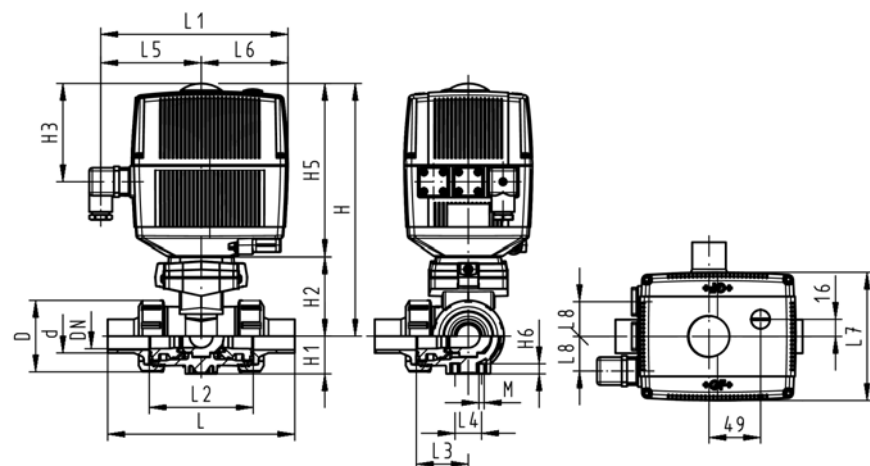
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	75	199 186 243	199 186 253
25	20	10	150	199 186 244	199 186 254
32	25	10	280	199 186 245	199 186 255
40	32	10	480	199 186 246	199 186 256
50	40	10	620	199 186 247	199 186 257
63	50	10	1230	199 186 248	199 186 258

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

### 3-Way ball valve type 186

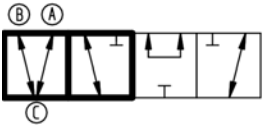
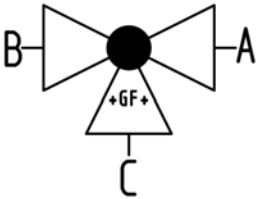
### Horizontal/T-port 100-230V

### With manual emergency override

### With fusion sockets metric

#### Model:

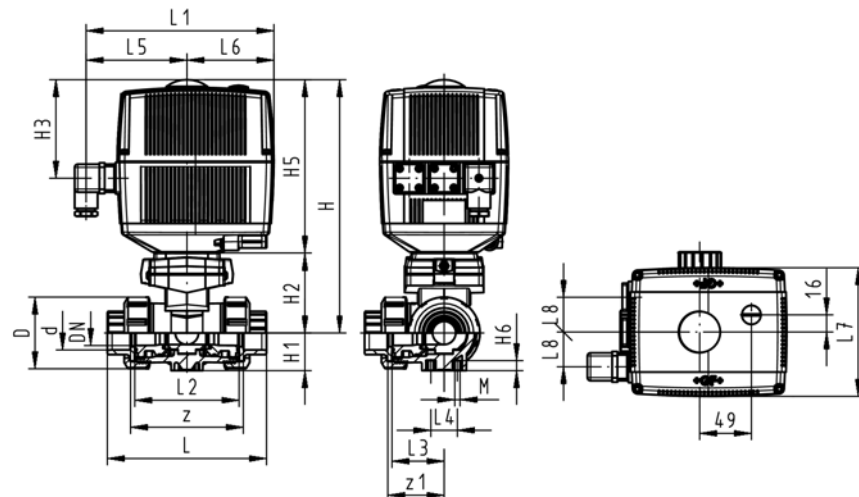
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 186 062	199 186 072
20	15	10	200	199 186 063	199 186 073
25	20	10	470	199 186 064	199 186 074
32	25	10	793	199 186 065	199 186 075
40	32	10	1290	199 186 066	199 186 076
50	40	10	1910	199 186 067	199 186 077
63	50	10	3100	199 186 068	199 186 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# PROGEF Standard metric

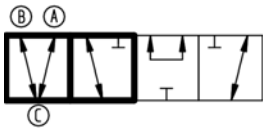
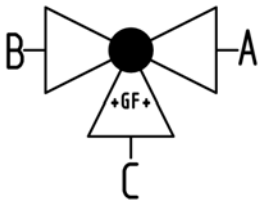
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/T-port 100-230V

### With manual emergency override

### With threaded sockets reinforced Rp



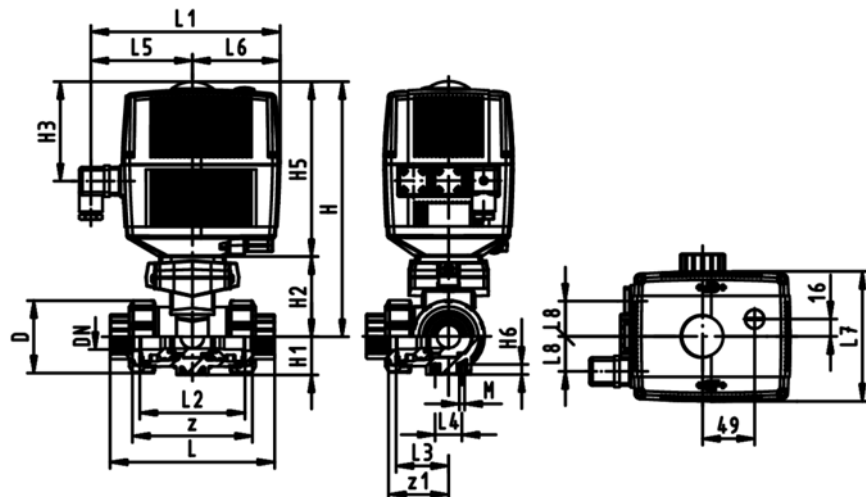
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	140	<b>199 186 142</b>	<b>199 186 152</b>
1/2	15	10	200	<b>199 186 143</b>	<b>199 186 153</b>
3/4	20	10	470	<b>199 186 144</b>	<b>199 186 154</b>
1	25	10	793	<b>199 186 145</b>	<b>199 186 155</b>
1 1/4	32	10	1290	<b>199 186 146</b>	<b>199 186 156</b>
1 1/2	40	10	1910	<b>199 186 147</b>	<b>199 186 157</b>
2	50	10	3100	<b>199 186 148</b>	<b>199 186 158</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98



# PROGEF Standard metric

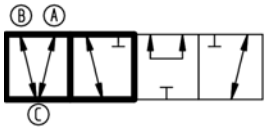
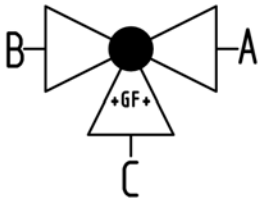
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/T-port 100-230V

### With manual emergency override

### With socket fusion spigots metric



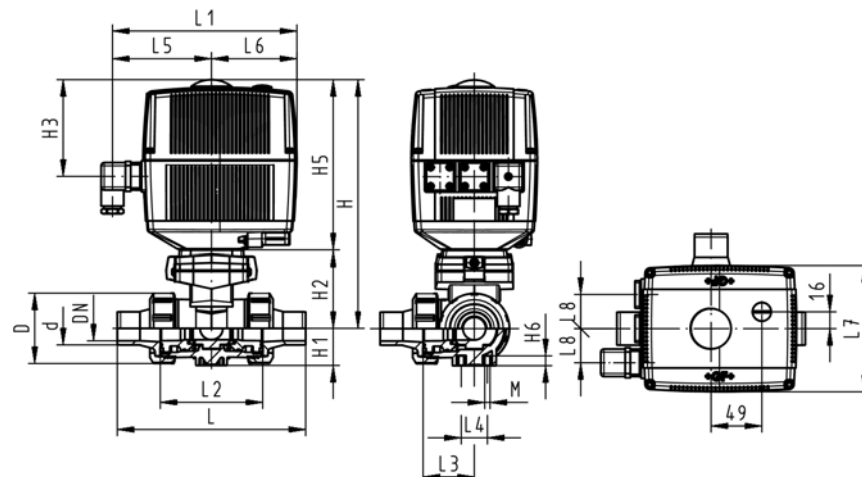
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 186 042	199 186 052
20	15	10	200	199 186 043	199 186 053
25	20	10	470	199 186 044	199 186 054
32	25	10	793	199 186 045	199 186 055
40	32	10	1290	199 186 046	199 186 056
50	40	10	1910	199 186 047	199 186 057
63	50	10	3100	199 186 048	199 186 058

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

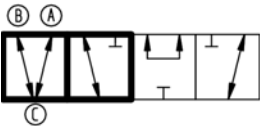
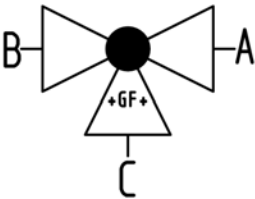
### 3-Way ball valve type 186

### Horizontal/T-port 100-230V

### With manual emergency override

### With butt fusion spigots

### IR-Plus SDR11 metric



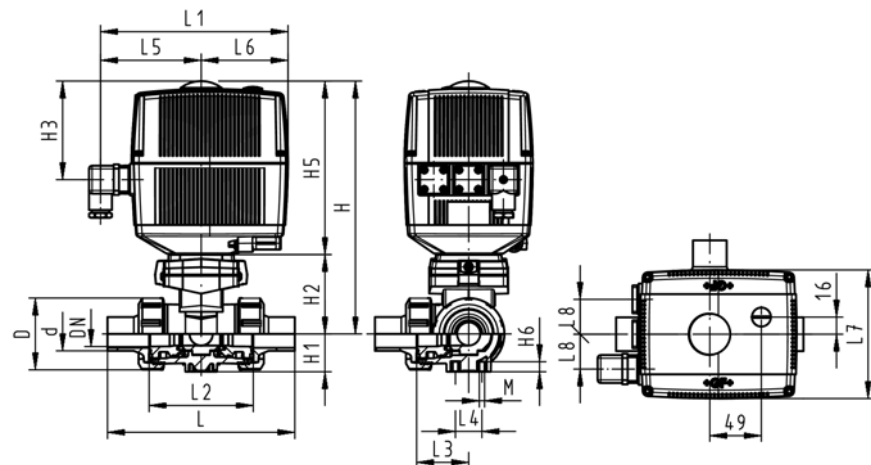
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	200	<b>199 186 103</b>	<b>199 186 113</b>
25	20	10	470	<b>199 186 104</b>	<b>199 186 114</b>
32	25	10	793	<b>199 186 105</b>	<b>199 186 115</b>
40	32	10	1290	<b>199 186 106</b>	<b>199 186 116</b>
50	40	10	1910	<b>199 186 107</b>	<b>199 186 117</b>
63	50	10	3100	<b>199 186 108</b>	<b>199 186 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

### 3-Way ball valve type 186

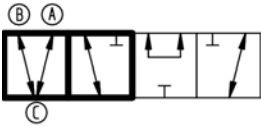
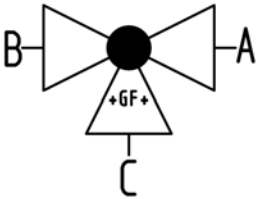
### Horizontal/T-port 24V

### With manual emergency override

### With fusion sockets metric

#### Model:

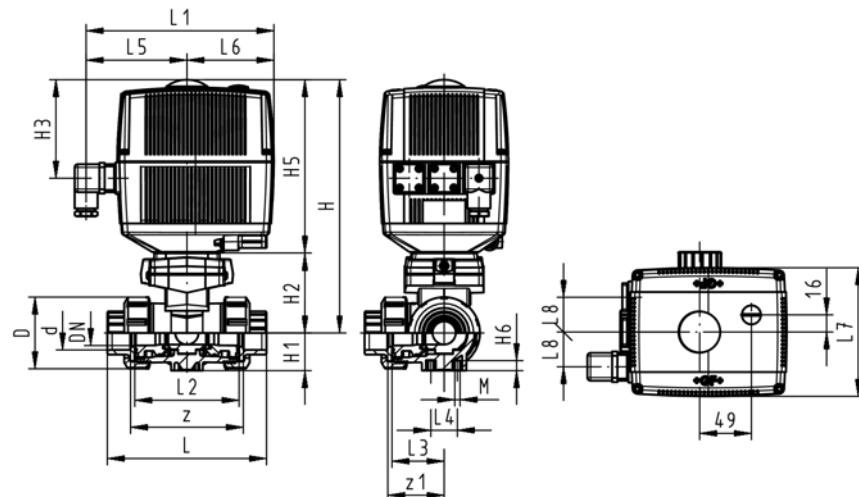
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 186 222	199 186 232
20	15	10	200	199 186 223	199 186 233
25	20	10	470	199 186 224	199 186 234
32	25	10	793	199 186 225	199 186 235
40	32	10	1290	199 186 226	199 186 236
50	40	10	1910	199 186 227	199 186 237
63	50	10	3100	199 186 228	199 186 238

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94





# PROGEF Standard metric

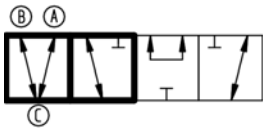
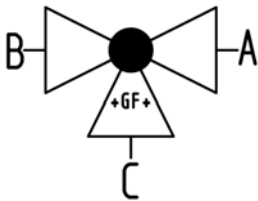
## PROGEF Standard

### 3-Way ball valve type 186

### Horizontal/T-port 24V

### With manual emergency override

### With threaded sockets reinforced Rp



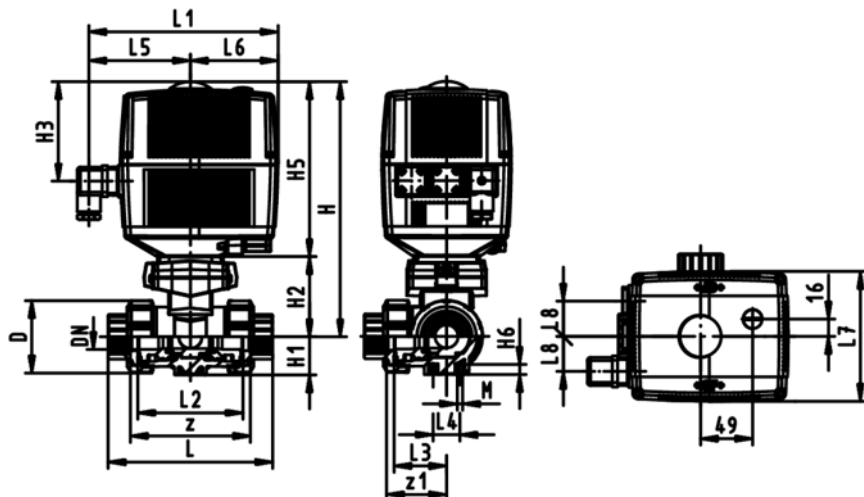
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	140	199 186 302	199 186 312
1/2	15	10	200	199 186 303	199 186 313
3/4	20	10	470	199 186 304	199 186 314
1	25	10	793	199 186 305	199 186 315
1 1/4	32	10	1290	199 186 306	199 186 316
1 1/2	40	10	1910	199 186 307	199 186 317
2	50	10	3100	199 186 308	199 186 318

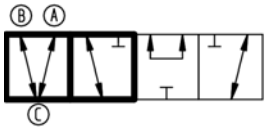
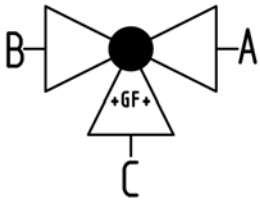
Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98



# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 186 Horizontal/T-port 24V With manual emergency override With socket fusion spigots metric



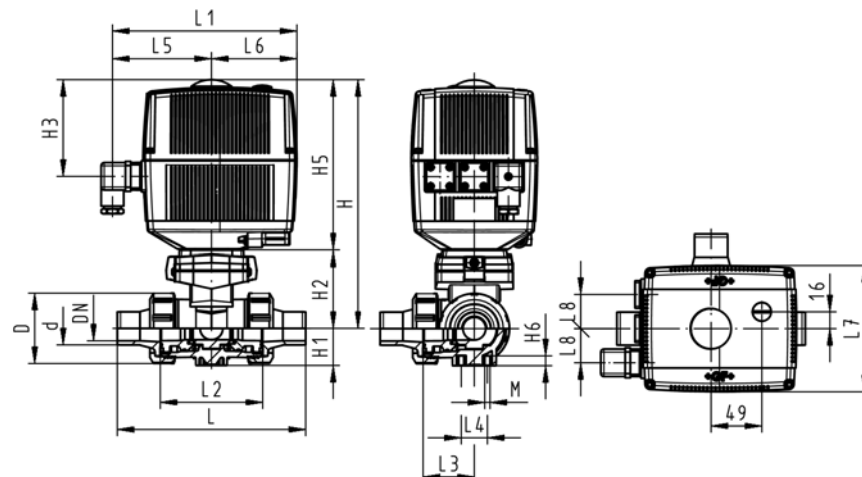
### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 186 202	199 186 212
20	15	10	200	199 186 203	199 186 213
25	20	10	470	199 186 204	199 186 214
32	25	10	793	199 186 205	199 186 215
40	32	10	1290	199 186 206	199 186 216
50	40	10	1910	199 186 207	199 186 217
63	50	10	3100	199 186 208	199 186 218

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## PROGEF Standard

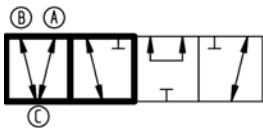
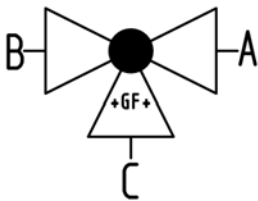
### 3-Way ball valve type 186

### Horizontal/T-port 24V

### With manual emergency override

### With butt fusion spigots

### IR-Plus SDR11 metric



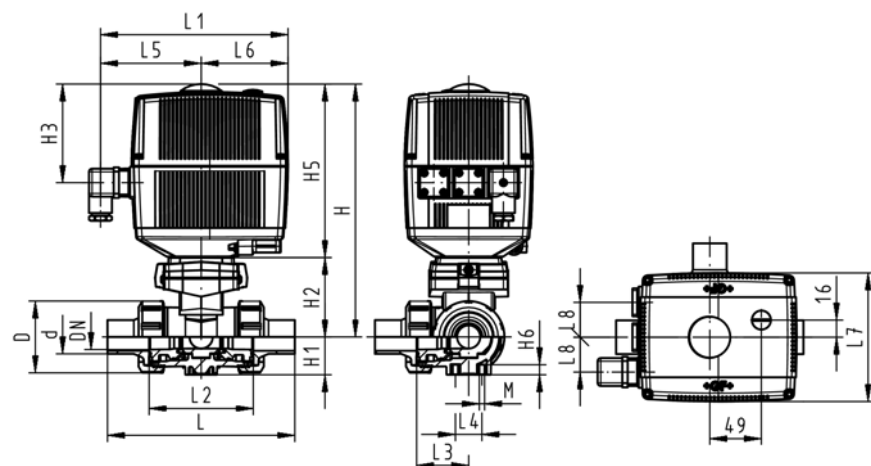
#### Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	200	199 186 263	199 186 273
25	20	10	470	199 186 264	199 186 274
32	25	10	793	199 186 265	199 186 275
40	32	10	1290	199 186 266	199 186 276
50	40	10	1910	199 186 267	199 186 277
63	50	10	3100	199 186 268	199 186 278

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# PROGEF Standard metric

## Ball valves pneumatic

### PROGEF Standard

### Ball valve type 231 FC (Fail safe to close)

### With manual override

### With fusion sockets metric



DN10/15 - 50

#### Model:

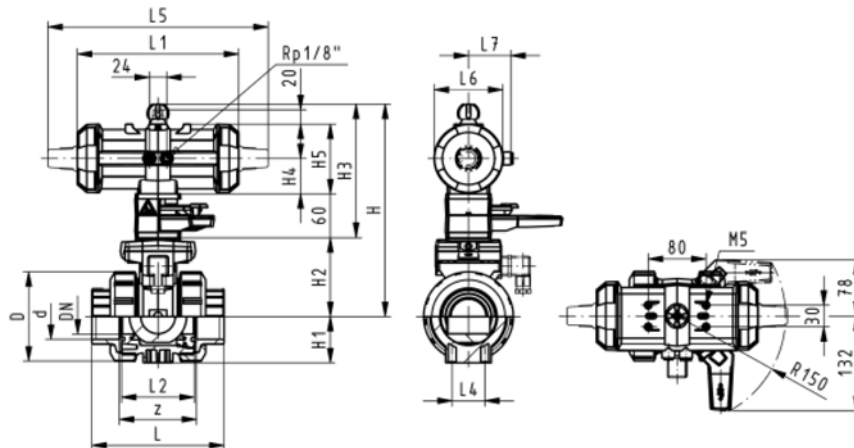
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 002	199 231 012
20	15	10	185	199 231 003	199 231 013
25	20	10	350	199 231 004	199 231 014
32	25	10	700	199 231 005	199 231 015
40	32	10	1000	199 231 006	199 231 016
50	40	10	1600	199 231 007	199 231 017
63	50	10	3100	199 231 008	199 231 018

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) With manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

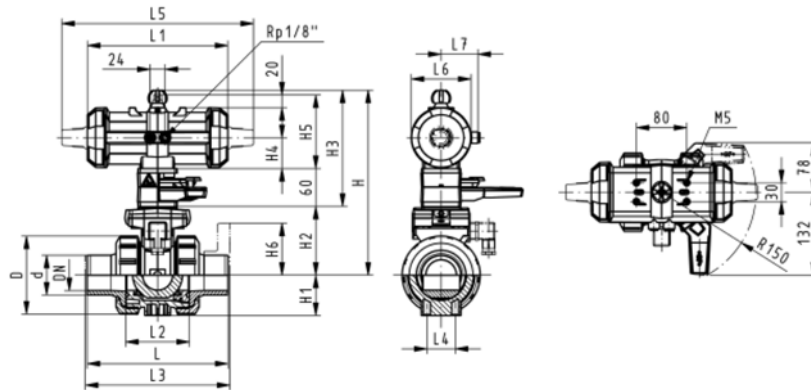
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 022	199 231 032
20	15	10	185	199 231 023	199 231 033
25	20	10	350	199 231 024	199 231 034
32	25	10	700	199 231 025	199 231 035
40	32	10	1000	199 231 026	199 231 036
50	40	10	1600	199 231 027	199 231 037
63	50	10	3100	199 231 028	199 231 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 FC (Fail safe to close)

#### With manual override

#### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50

#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

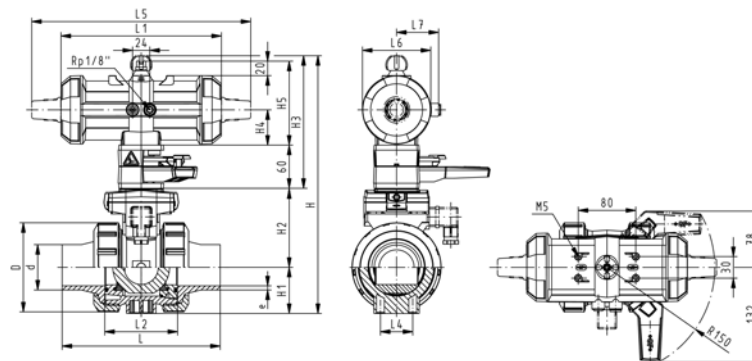
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 231 623</b>	<b>199 231 633</b>
25	20	10	350	<b>199 231 624</b>	<b>199 231 634</b>
32	25	10	700	<b>199 231 625</b>	<b>199 231 635</b>
40	32	10	1000	<b>199 231 626</b>	<b>199 231 636</b>
50	40	10	1600	<b>199 231 627</b>	<b>199 231 637</b>
63	50	10	3100	<b>199 231 628</b>	<b>199 231 638</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56		25	261	76	48
25	50	159	27	62	168	40	77	143	194	56	130	25	261	76	48
32	58	168	30	71	168	40	77	150	194	65	150	25	261	76	48
40	68	168	36	71	168	40	77	171	194	71	160	25	261	76	48
50	84	202	44	84	187	51	99	191	224	85	180	45	305	95	59
63	97	202	51	84	187	51	99	220	224	89	200	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) With manual override With fixed flanges PP-H serrated metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

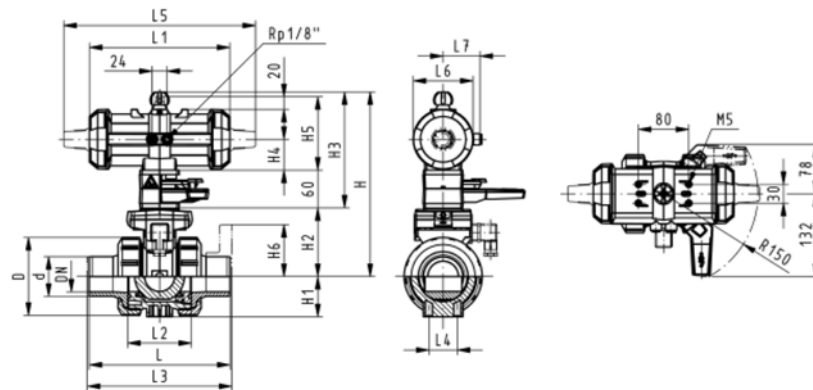
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	1/2	10	185	<b>199 231 243</b>	<b>199 231 253</b>
25	20	3/4	10	350	<b>199 231 244</b>	<b>199 231 254</b>
32	25	1	10	700	<b>199 231 245</b>	<b>199 231 255</b>
40	32	1 1/4	10	1000	<b>199 231 246</b>	<b>199 231 256</b>
50	40	1 1/2	10	1600	<b>199 231 247</b>	<b>199 231 257</b>
63	50	2	10	3100	<b>199 231 248</b>	<b>199 231 258</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With fusion sockets metric



DN10/15 - 50

### Model:

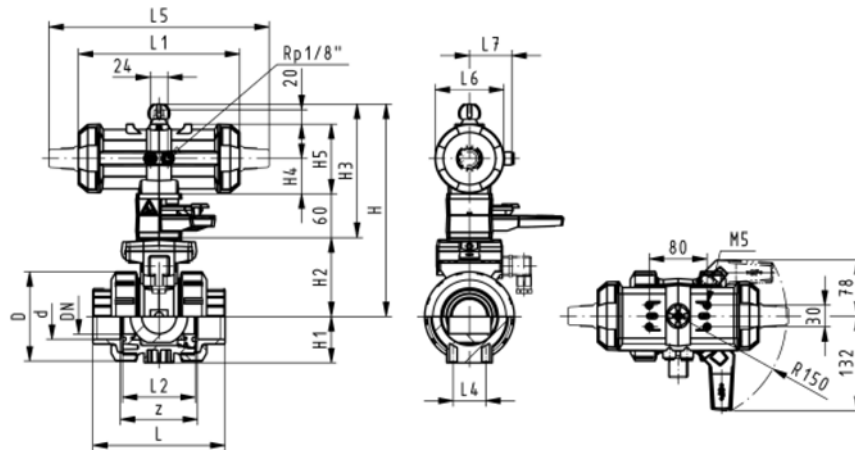
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 042	199 231 052
20	15	10	185	199 231 043	199 231 053
25	20	10	350	199 231 044	199 231 054
32	25	10	700	199 231 045	199 231 055
40	32	10	1000	199 231 046	199 231 056
50	40	10	1600	199 231 047	199 231 057
63	50	10	3100	199 231 048	199 231 058

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117





# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

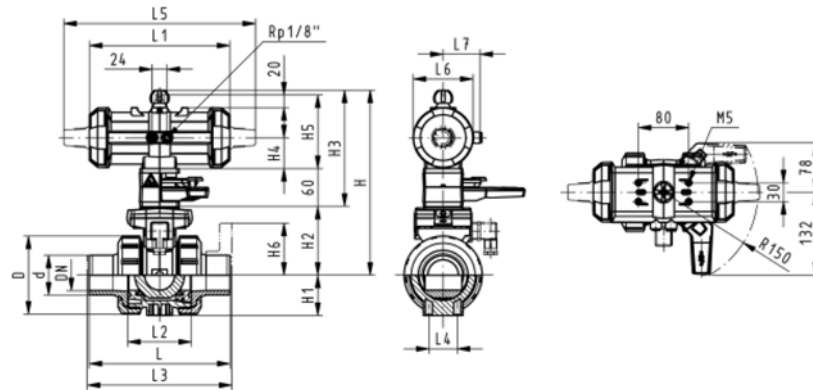
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 062	199 231 072
20	15	10	185	199 231 063	199 231 073
25	20	10	350	199 231 064	199 231 074
32	25	10	700	199 231 065	199 231 075
40	32	10	1000	199 231 066	199 231 076
50	40	10	1600	199 231 067	199 231 077
63	50	10	3100	199 231 068	199 231 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59



# PROGEF Standard metric

## PROGEF Standard

Ball valve type 231 FO (Fail safe to open)

With manual override

With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

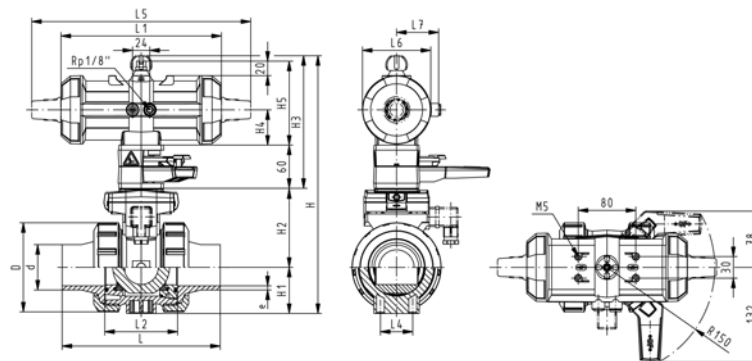
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 231 643</b>	<b>199 231 653</b>
25	20	10	350	<b>199 231 644</b>	<b>199 231 654</b>
32	25	10	700	<b>199 231 645</b>	<b>199 231 655</b>
40	32	10	1000	<b>199 231 646</b>	<b>199 231 656</b>
50	40	10	1600	<b>199 231 647</b>	<b>199 231 657</b>
63	50	10	3100	<b>199 231 648</b>	<b>199 231 658</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With fixed flanges PP-H serrated metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

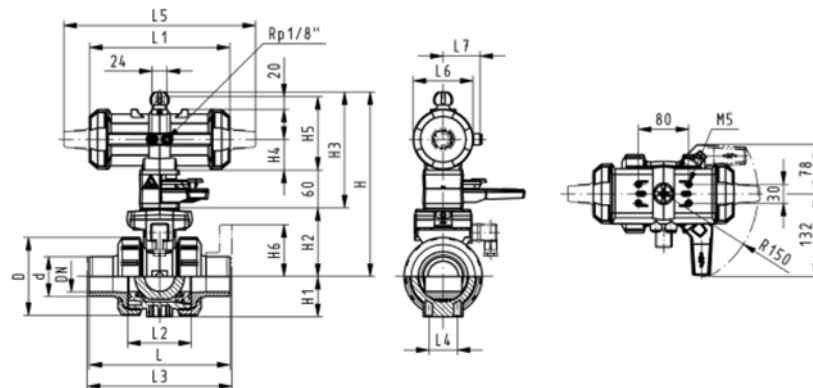
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	1/2	10	185	<b>199 231 263</b>	<b>199 231 273</b>
25	20	3/4	10	350	<b>199 231 264</b>	<b>199 231 274</b>
32	25	1	10	700	<b>199 231 265</b>	<b>199 231 275</b>
40	32	1 1/4	10	1000	<b>199 231 266</b>	<b>199 231 276</b>
50	40	1 1/2	10	1600	<b>199 231 267</b>	<b>199 231 277</b>
63	50	2	10	3100	<b>199 231 268</b>	<b>199 231 278</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	58	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With fusion sockets metric



DN10/15 - 50

### Model:

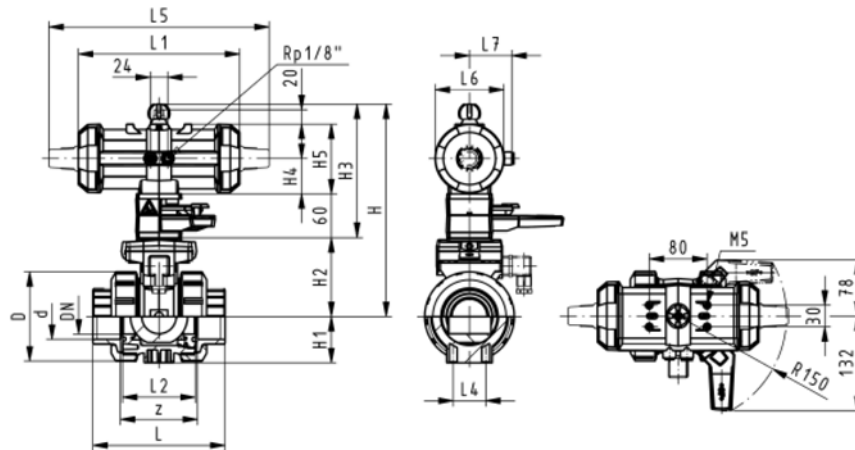
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 082	199 231 092
20	15	10	185	199 231 083	199 231 093
25	20	10	350	199 231 084	199 231 094
32	25	10	700	199 231 085	199 231 095
40	32	10	1000	199 231 086	199 231 096
50	40	10	1600	199 231 087	199 231 097
63	50	10	3100	199 231 088	199 231 098

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

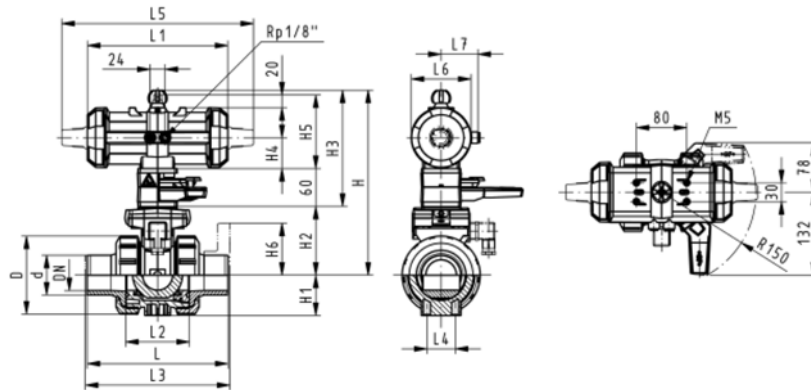
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 102	199 231 112
20	15	10	185	199 231 103	199 231 113
25	20	10	350	199 231 104	199 231 114
32	25	10	700	199 231 105	199 231 115
40	32	10	1000	199 231 106	199 231 116
50	40	10	1600	199 231 107	199 231 117
63	50	10	3100	199 231 108	199 231 118

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 DA (Double acting)

#### With manual override

#### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50

#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

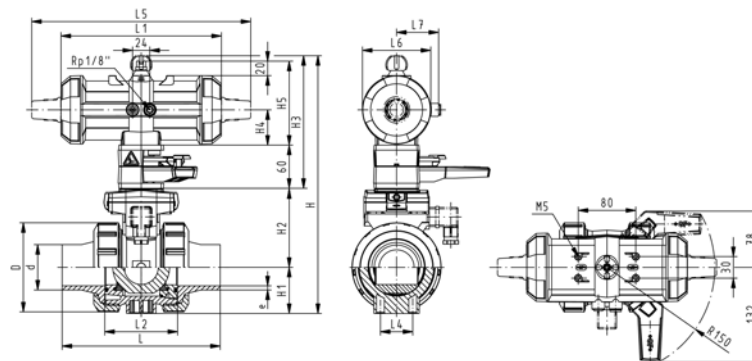
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 231 663</b>	<b>199 231 673</b>
25	20	10	350	<b>199 231 664</b>	<b>199 231 674</b>
32	25	10	700	<b>199 231 665</b>	<b>199 231 675</b>
40	32	10	1000	<b>199 231 666</b>	<b>199 231 676</b>
50	40	10	1600	<b>199 231 667</b>	<b>199 231 677</b>
63	50	10	3100	<b>199 231 668</b>	<b>199 231 678</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With fixed flanges PP-H serrated metric



DN10/15 - 50

### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

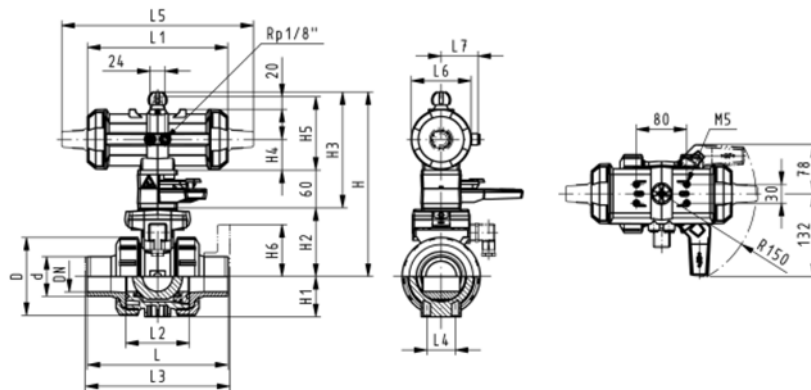
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	1/2	10	185	<b>199 231 283</b>	<b>199 231 293</b>
25	20	3/4	10	350	<b>199 231 284</b>	<b>199 231 294</b>
32	25	1	10	700	<b>199 231 285</b>	<b>199 231 295</b>
40	32	1 1/4	10	1000	<b>199 231 286</b>	<b>199 231 296</b>
50	40	1 1/2	10	1600	<b>199 231 287</b>	<b>199 231 297</b>
63	50	2	10	3100	<b>199 231 288</b>	<b>199 231 298</b>

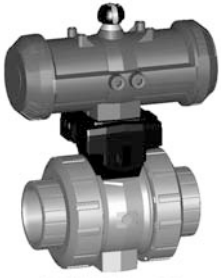
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

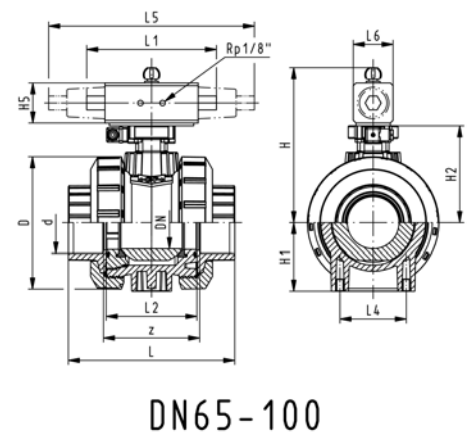
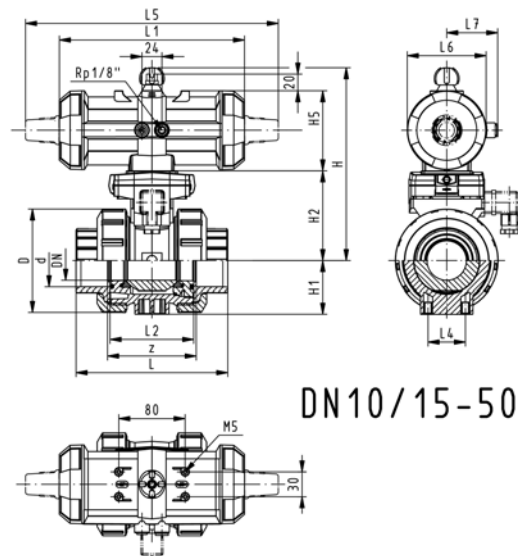
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 122	199 231 132
20	15	10	185	199 231 123	199 231 133
25	20	10	350	199 231 124	199 231 134
32	25	10	700	199 231 125	199 231 135
40	32	10	1000	199 231 126	199 231 136
50	40	10	1600	199 231 127	199 231 137
63	50	10	3100	199 231 128	199 231 138
75	65	10	5000	199 231 129	199 231 139
90	80	10	7000	199 231 130	199 231 140
110	100	10	11000	199 231 131	199 231 141

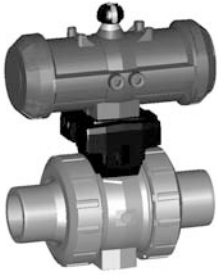
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	67
20	50	159	27	62	77	95	194	56	25	261	76	48	66
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	262	85	156	70	233		136	70	276	65		167
90	200	281	105	168	78	254		141	70	341	72		180
110	238	292	123	175	86	301		164	120	369	80		215





# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With socket fusion spigots metric



DN10/15 - 50



### Model:

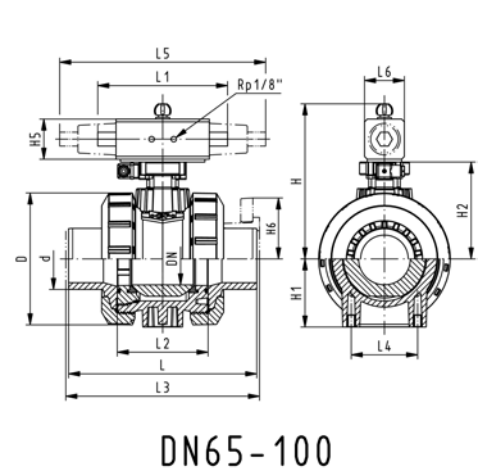
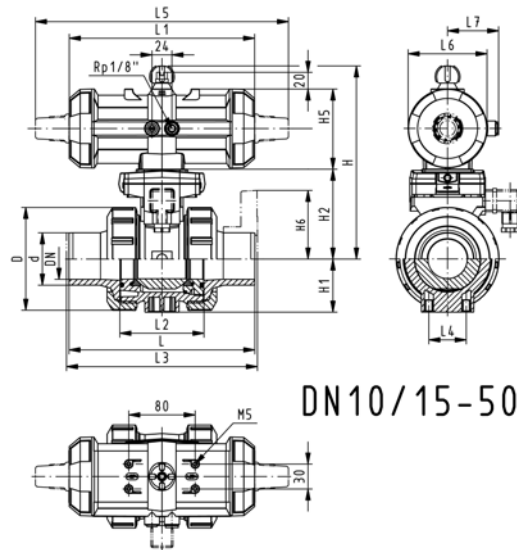
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 142	199 231 152
20	15	10	185	199 231 143	199 231 153
25	20	10	350	199 231 144	199 231 154
32	25	10	700	199 231 145	199 231 155
40	32	10	1000	199 231 146	199 231 156
50	40	10	1600	199 231 147	199 231 157
63	50	10	3100	199 231 148	199 231 158
75	65	10	5000	199 231 149	199 231 159
90	80	10	7000	199 231 150	199 231 160
110	100	10	11000	199 231 151	199 231 161

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	262	85	156	70	280		136	290	70	276	65	
90	200	281	105	168	78	296		141	310	70	341	72	
110	238	292	123	175	86	336		164	350	120	369	80	



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 FC (Fail safe to close)

#### Without manual override

#### With fixed flanges PP-H serrated metric



DN10/15 - 50

#### Model:

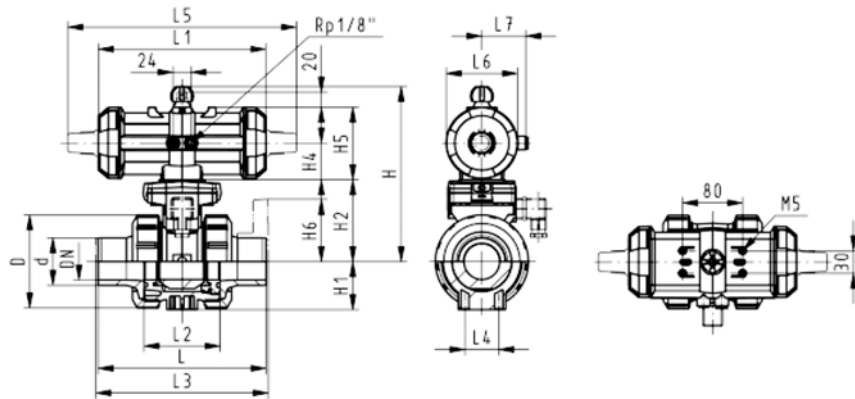
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 231 423</b>	<b>199 231 433</b>
25	20	¾	10	350	<b>199 231 424</b>	<b>199 231 434</b>
32	25	1	10	700	<b>199 231 425</b>	<b>199 231 435</b>
40	32	1 ¼	10	1000	<b>199 231 426</b>	<b>199 231 436</b>
50	40	1 ½	10	1600	<b>199 231 427</b>	<b>199 231 437</b>
63	50	2	10	3100	<b>199 231 428</b>	<b>199 231 438</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With backing flanges PP-st metric



### Model:

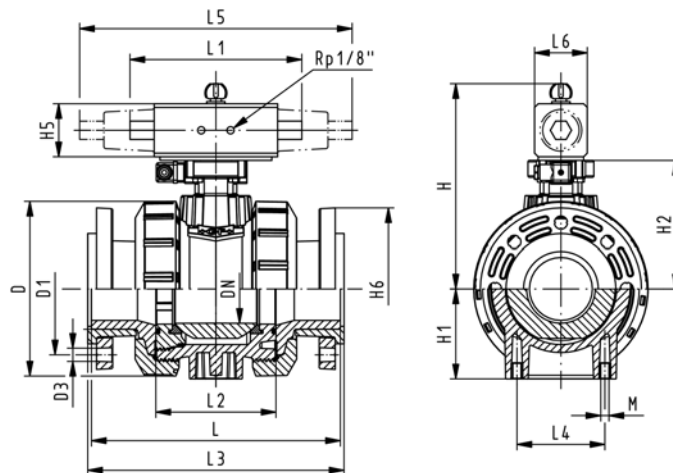
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	2 ½	10	5000	<b>199 231 329</b>	<b>199 231 339</b>
90	80	3	10	7000	<b>199 231 330</b>	<b>199 231 340</b>
110	100	4	10	11000	<b>199 231 331</b>	<b>199 231 341</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 FC (Fail safe to close)

#### Without manual override

#### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



#### Model:

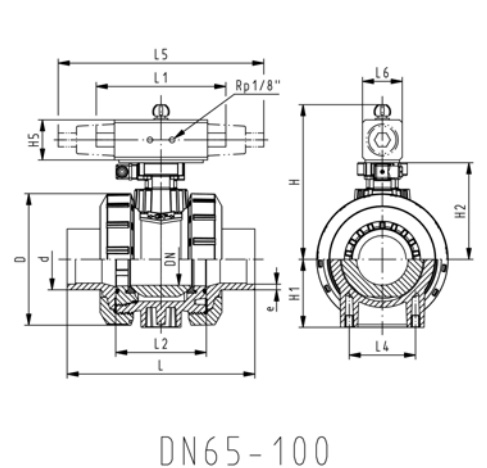
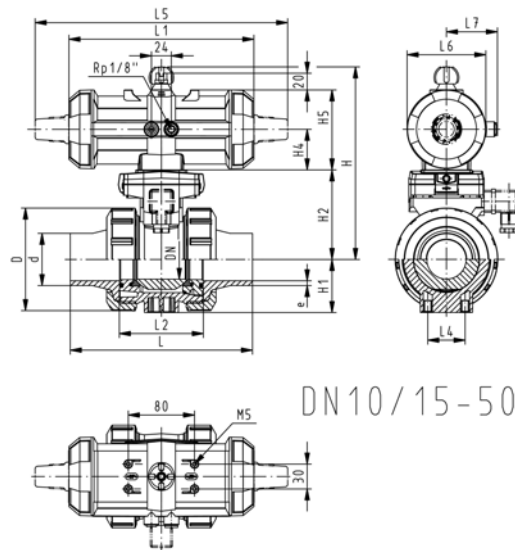
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	199 231 833	199 231 843
25	20	10	350	199 231 834	199 231 844
32	25	10	700	199 231 835	199 231 845
40	32	10	1000	199 231 836	199 231 846
50	40	10	1600	199 231 837	199 231 847
63	50	10	3100	199 231 838	199 231 848
75	65	10	5000	199 231 839	199 231 849
90	80	10	7000	199 231 840	199 231 850
110	100	10	11000	199 231 841	199 231 851

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
20	50	159	27	62	77	130	194.0	56	130	25	261	76	1.9
25	58	168	30	71	77	143	194.0	65	150	25	261	76	2.3
32	68	168	36	71	77	150	194.0	71	160	25	261	76	3.0
40	84	202	44	84	99	171	224.0	85	180	45	305	95	3.7
50	97	202	51	84	99	191	224.0	89	200	45	305	95	4.6
63	142	225	64	106	99	220	224.0	101	230	45	305	95	5.8
75	166	262	85	156	70	266	270.0	136	290	70	276	65	8.2
90	200	281	105	168	78	264	270.0	141	310	70	341	72	9.9
110	238	292	123	175	86	301	320.0	164	350	120	369	80	12.0



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With butt fusion spigots SDR17.6 metric



DN10/15 - 50



### Model:

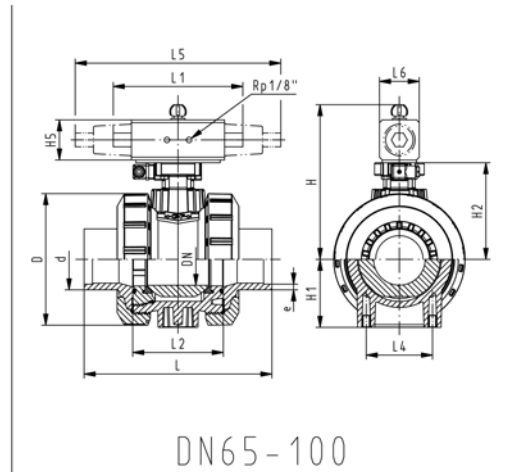
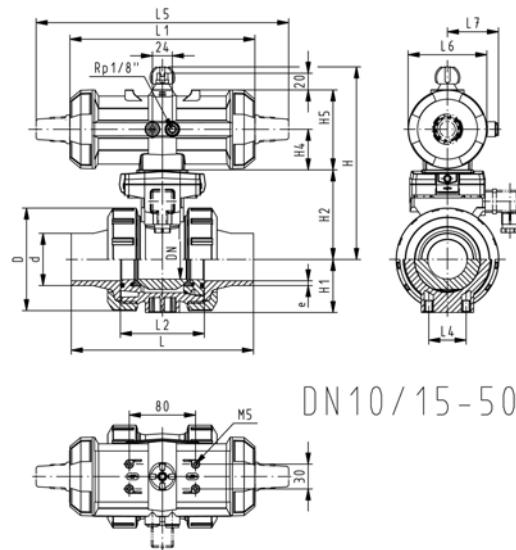
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 231 939</b>	<b>199 231 949</b>
90	80	10	7000	<b>199 231 940</b>	<b>199 231 950</b>
110	100	10	11000	<b>199 231 941</b>	<b>199 231 951</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	136	290	70	276	65	4.6
90	200	281	105	168	78	264	141	310	70	341	72	5.5
110	238	292	123	175	86	301	164	350	120	369	80	6.7



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

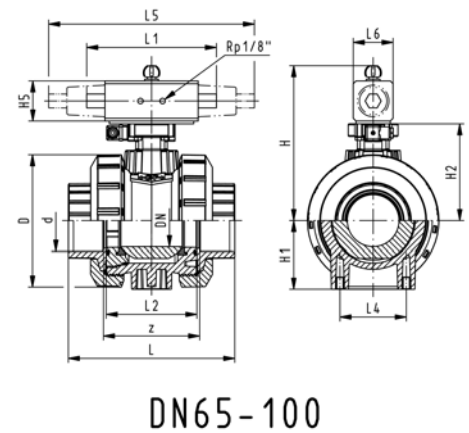
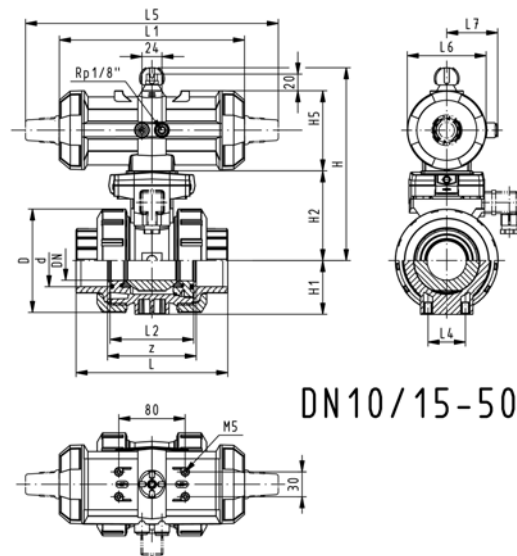
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 162	199 231 172
20	15	10	185	199 231 163	199 231 173
25	20	10	350	199 231 164	199 231 174
32	25	10	700	199 231 165	199 231 175
40	32	10	1000	199 231 166	199 231 176
50	40	10	1600	199 231 167	199 231 177
63	50	10	3100	199 231 168	199 231 178
75	65	10	5000	199 231 169	199 231 179
90	80	10	7000	199 231 170	199 231 180
110	100	10	11000	199 231 171	199 231 181

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	66
20	50	159	27	62	77	95	194	56	25	261	76	48	67
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	262	85	156	70	233		136	70	276	65		167
90	200	281	105	168	78	254		141	70	341	72		180
110	238	292	123	175	86	301		164	120	369	80		215



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With socket fusion spigots metric



DN10/15 - 50



### Model:

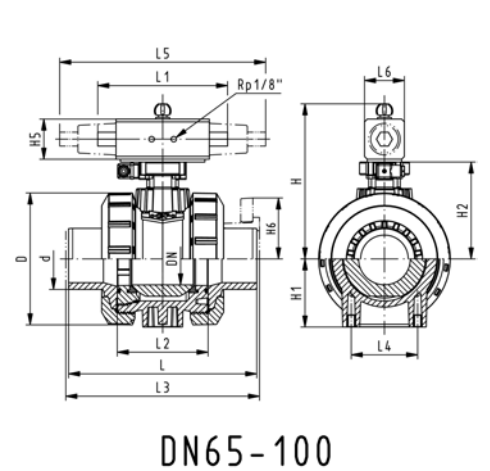
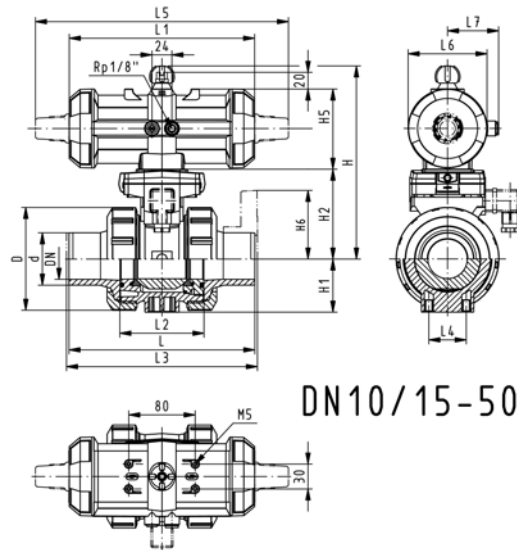
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 182	199 231 192
20	15	10	185	199 231 183	199 231 193
25	20	10	350	199 231 184	199 231 194
32	25	10	700	199 231 185	199 231 195
40	32	10	1000	199 231 186	199 231 196
50	40	10	1600	199 231 187	199 231 197
63	50	10	3100	199 231 188	199 231 198
75	65	10	5000	199 231 189	199 231 199
90	80	10	7000	199 231 190	199 231 200
110	100	10	11000	199 231 191	199 231 201

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	262	85	156	70	280		136	290	70	276	65	
90	200	281	105	168	78	296		141	310	70	341	72	
110	238	292	123	175	86	336		164	350	120	369	80	



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 FO (Fail safe to open)

#### Without manual override

#### With fixed flanges PP-H serrated metric



DN10/15 - 50

#### Model:

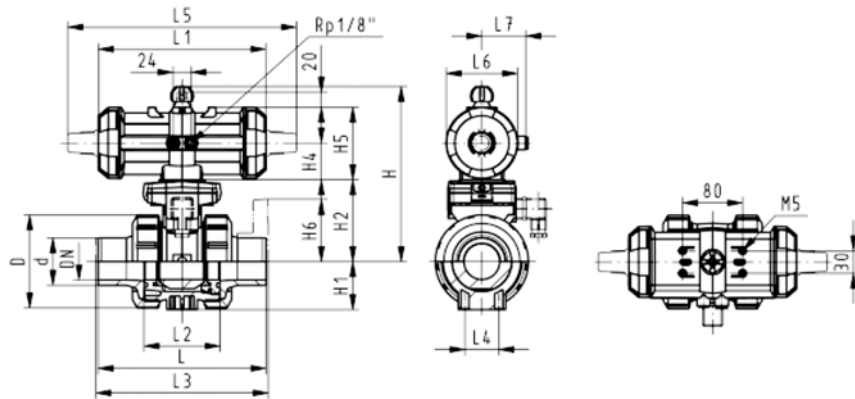
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 231 443</b>	<b>199 231 453</b>
25	20	¾	10	350	<b>199 231 444</b>	<b>199 231 454</b>
32	25	1	10	700	<b>199 231 445</b>	<b>199 231 455</b>
40	32	1 ¼	10	1000	<b>199 231 446</b>	<b>199 231 456</b>
50	40	1 ½	10	1600	<b>199 231 447</b>	<b>199 231 457</b>
63	50	2	10	3100	<b>199 231 448</b>	<b>199 231 458</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With backing flanges PP-st metric



### Model:

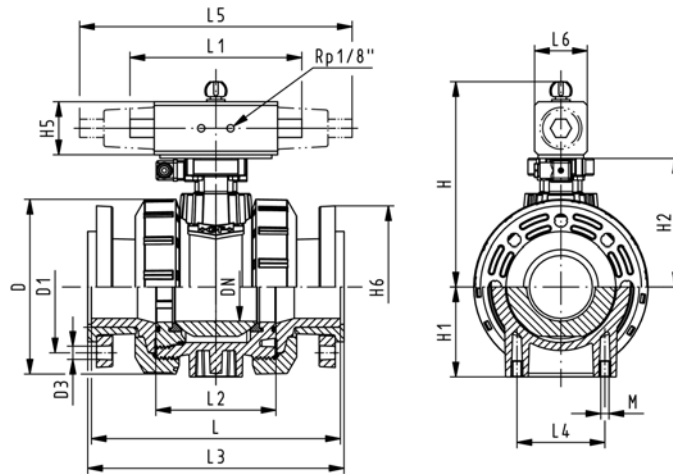
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	2 ½	10	5000	<b>199 231 349</b>	<b>199 231 359</b>
90	80	3	10	7000	<b>199 231 350</b>	<b>199 231 360</b>
110	100	4	10	11000	<b>199 231 351</b>	<b>199 231 361</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 FO (Fail safe to open)

#### Without manual override

#### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



#### Model:

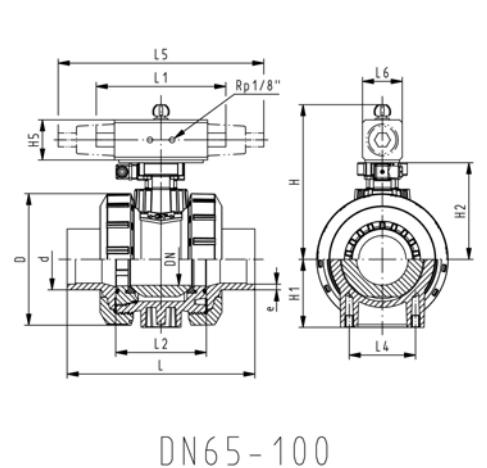
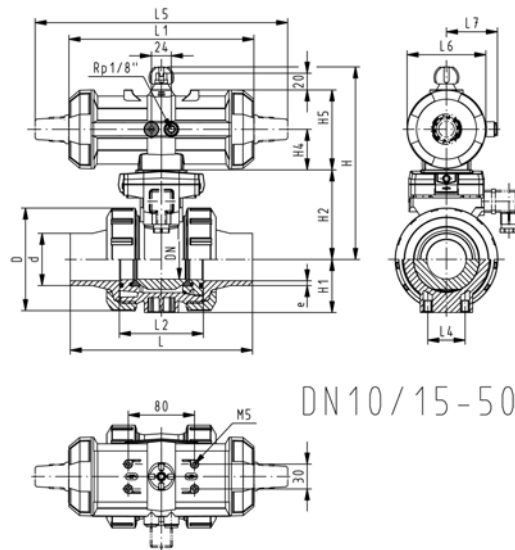
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	<b>199 231 853</b>	<b>199 231 863</b>
25	20	10	350	<b>199 231 854</b>	<b>199 231 864</b>
32	25	10	700	<b>199 231 855</b>	<b>199 231 865</b>
40	32	10	1000	<b>199 231 856</b>	<b>199 231 866</b>
50	40	10	1600	<b>199 231 857</b>	<b>199 231 867</b>
63	50	10	3100	<b>199 231 858</b>	<b>199 231 868</b>
75	65	10	5000	<b>199 231 859</b>	<b>199 231 869</b>
90	80	10	7000	<b>199 231 860</b>	<b>199 231 870</b>
110	100	10	11000	<b>199 231 861</b>	<b>199 231 871</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
20	50	159	27	62	77	120	194	56	130	25	261	76	1.9
25	58	168	30	71	77	139	194	65	150	25	261	76	2.3
32	68	168	36	71	77	150	194	71	160	25	261	76	3.0
40	84	202	44	84	99	170	224	85	180	45	305	95	3.7
50	97	202	51	84	99	190	224	89	200	45	305	95	4.6
63	124	225	64	106	99	220	224	101	230	45	305	95	5.8
75	166	262	85	156	70	266	218	136	290	70	276	65	8.2
90	200	281	105	168	78	264	259	141	310	70	341	72	9.9
110	238	292	123	175	86	301	287	164	350	120	369	80	12.0



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With butt fusion spigots SDR17.6 metric



DN10/15 - 50



### Model:

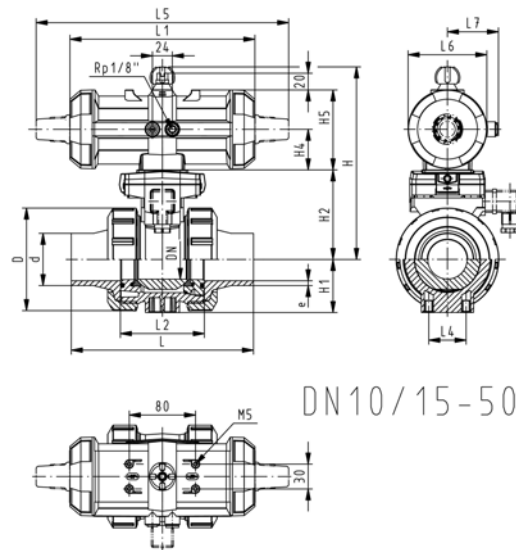
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

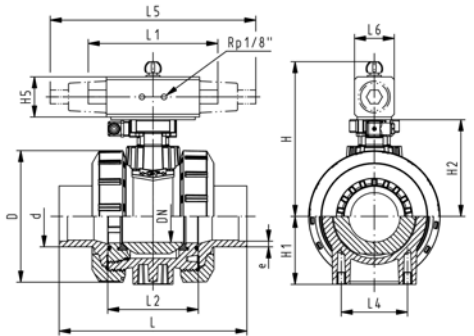
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 231 959</b>	<b>199 231 969</b>
90	80	10	7000	<b>199 231 960</b>	<b>199 231 970</b>
110	100	10	11000	<b>199 231 961</b>	<b>199 231 971</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	136	290	70	276	65	4.6
90	200	281	105	168	78	264	141	310	70	341	72	5.5
110	238	292	123	175	86	301	164	350	120	369	80	6.7



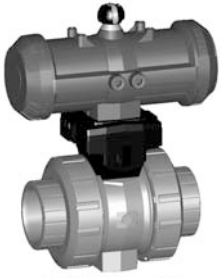
DN10/15-50



DN65-100

# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

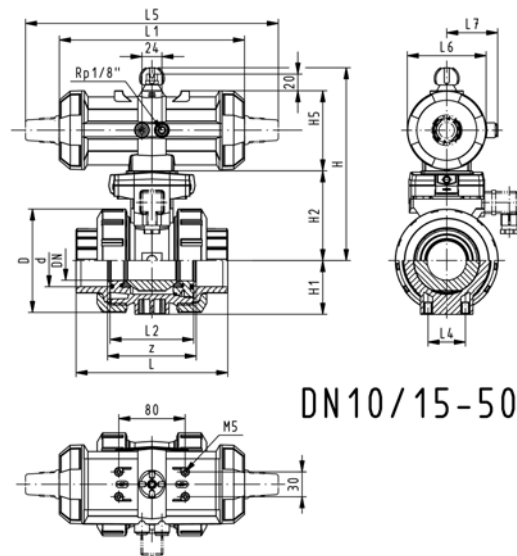
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

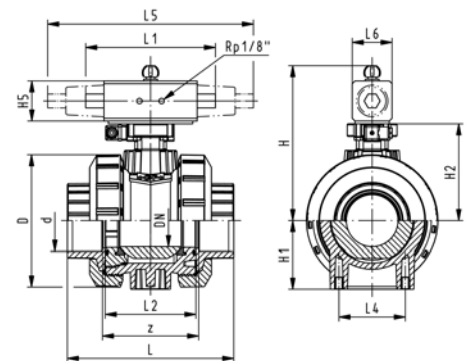
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	<b>199 231 202</b>	<b>199 231 212</b>
20	15	10	185	<b>199 231 203</b>	<b>199 231 213</b>
25	20	10	350	<b>199 231 204</b>	<b>199 231 214</b>
32	25	10	700	<b>199 231 205</b>	<b>199 231 215</b>
40	32	10	1000	<b>199 231 206</b>	<b>199 231 216</b>
50	40	10	1600	<b>199 231 207</b>	<b>199 231 217</b>
63	50	10	3100	<b>199 231 208</b>	<b>199 231 218</b>
75	65	10	5000	<b>199 231 209</b>	<b>199 231 219</b>
90	80	10	7000	<b>199 231 210</b>	<b>199 231 220</b>
110	100	10	11000	<b>199 231 211</b>	<b>199 231 221</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	66
20	50	159	27	62	77	95	194	56	25	261	76	48	67
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	257	85	156	66	233	144	136	70		60		167
90	200	274	105	168	70	254	152	141	70		65		180
110	238	273	123	175	78	301	169	164	120		72		215



DN10/15-50



DN65-100

# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With socket fusion spigots metric



DN10/15 - 50



### Model:

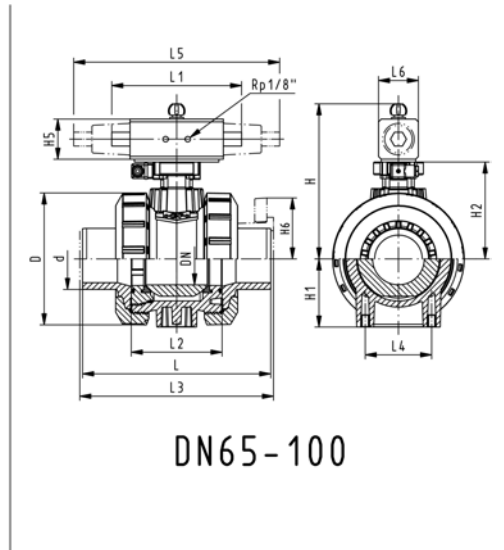
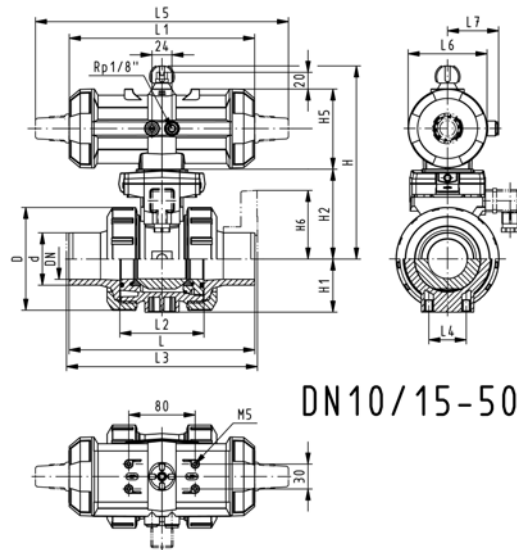
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	70	199 231 222	199 231 232
20	15	10	185	199 231 223	199 231 233
25	20	10	350	199 231 224	199 231 234
32	25	10	700	199 231 225	199 231 235
40	32	10	1000	199 231 226	199 231 236
50	40	10	1600	199 231 227	199 231 237
63	50	10	3100	199 231 228	199 231 238
75	65	10	5000	199 231 229	199 231 239
90	80	10	7000	199 231 230	199 231 240
110	100	10	11000	199 231 231	199 231 241

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	257	85	156	66	280	144	136	290	70		60	
90	200	274	105	168	70	296	152	141	310	70		65	
110	238	273	123	175	78	336	169	164	350	120		72	



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 DA (Double acting)

#### Without manual override

#### With fixed flanges PP-H serrated metric



DN10/15 - 50

#### Model:

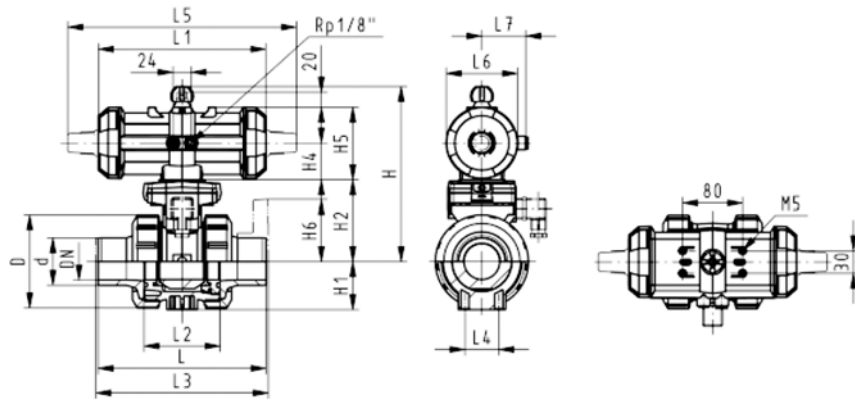
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	½	10	185	<b>199 231 463</b>	<b>199 231 473</b>
25	20	¾	10	350	<b>199 231 464</b>	<b>199 231 474</b>
32	25	1	10	700	<b>199 231 465</b>	<b>199 231 475</b>
40	32	1 ¼	10	1000	<b>199 231 466</b>	<b>199 231 476</b>
50	40	1 ½	10	1600	<b>199 231 467</b>	<b>199 231 477</b>
63	50	2	10	3100	<b>199 231 468</b>	<b>199 231 478</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59



# PROGEF Standard metric

## PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With backing flanges PP-st metric



### Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

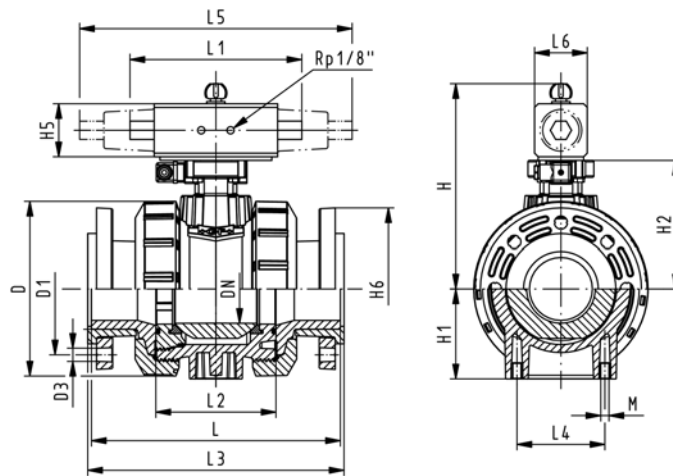
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code						
75	65	2 ½	10	5000	<b>199 231 369</b>	<b>199 231 379</b>						
90	80	3	10	7000	<b>199 231 370</b>	<b>199 231 380</b>						
110	100	4	10	11000	<b>199 231 371</b>	<b>199 231 381</b>						

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]		
75	166	257	85	156	66	93	280	144	136	290	70	60		
90	200	274	105	168	70	100	296	152	141	310	70	65		
110	238	273	123	175	78	110	336	169	164	350	120	72		



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 DA (Double acting)

#### Without manual override

#### With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



#### Model:

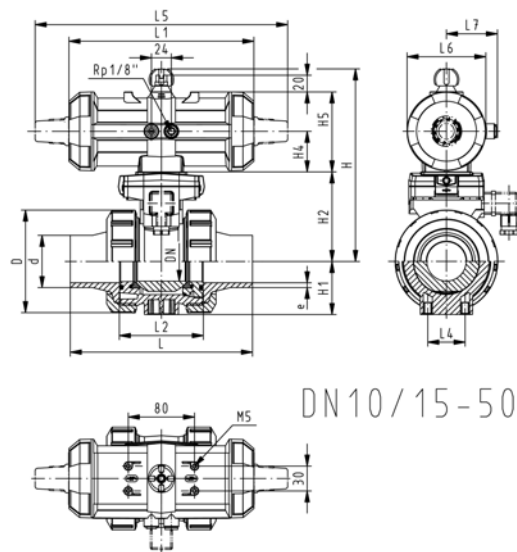
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

#### Option:

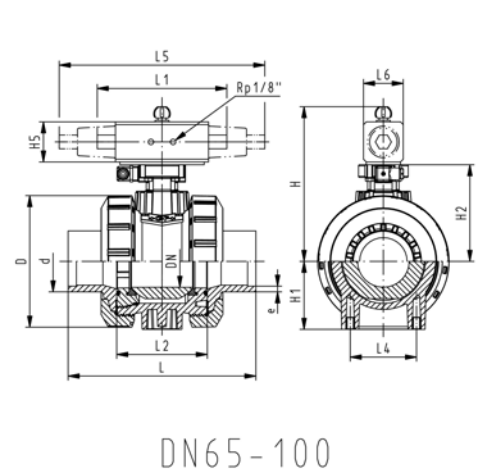
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	185	199 231 873	199 231 883
25	20	10	350	199 231 874	199 231 884
32	25	10	700	199 231 875	199 231 885
40	32	10	1000	199 231 876	199 231 886
50	40	10	1600	199 231 877	199 231 887
63	50	10	3100	199 231 878	199 231 888
75	65	10	5000	199 231 879	199 231 889
90	80	10	7000	199 231 880	199 231 890
110	100	10	11000	199 231 881	199 231 891

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]	e [mm]
20	50	159	27	62	77	130	194	56	130	25	76	1.9
25	58	168	30	71	77	143	194	65	150	25	76	2.3
32	68	168	36	71	77	150	194	71	160	25	76	3.0
40	84	202	44	84	99	171	224	85	180	45	95	3.7
50	97	202	51	84	99	191	224	89	200	45	95	4.6
63	124	225	64	106	99	220	224	101	230	45	95	5.8
75	166	257	85	156	66	266	144	136	290	70	60	8.2
90	200	274	105	168	70	264	152	141	310	70	65	9.9
110	238	273	123	175	78	301	169	164	350	120	72	12.0



DN10/15-50



DN65-100



# PROGEF Standard metric

## PROGEF Standard

### Ball valve type 231 DA (Double acting)

### Without manual override

### With butt fusion spigots SDR17.6 metric



DN10/15 - 50



#### Model:

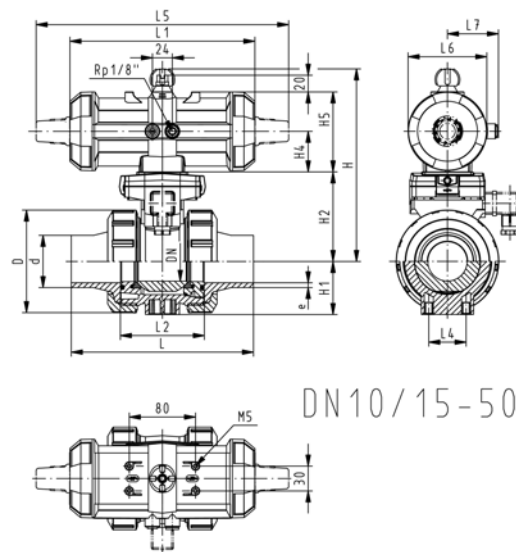
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

#### Option:

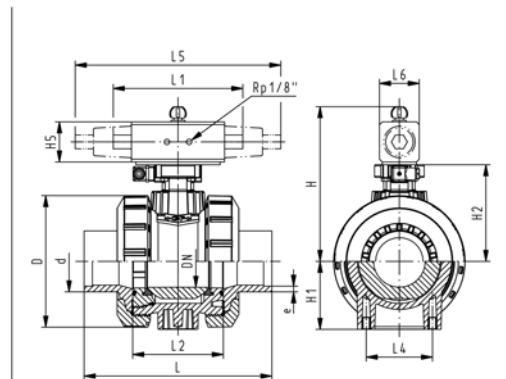
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
75	65	10	5000	<b>199 231 979</b>	<b>199 231 989</b>
90	80	10	7000	<b>199 231 980</b>	<b>199 231 990</b>
110	100	10	11000	<b>199 231 981</b>	<b>199 231 991</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]	e [mm]
75	166	257	85	156	66	266	144	136	290	70	60	4.6
90	200	274	105	168	70	264	152	141	310	70	65	5.5
110	238	273	123	175	78	301	169	164	350	120	72	6.7



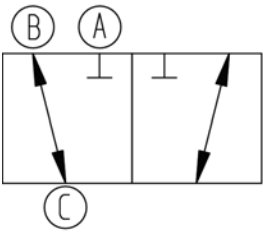
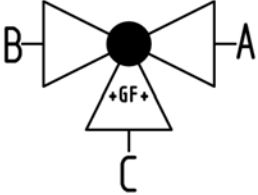
DN10/15-50



DN65-100

# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 286 Horizontal/L-port Without manual override With fusion sockets metric



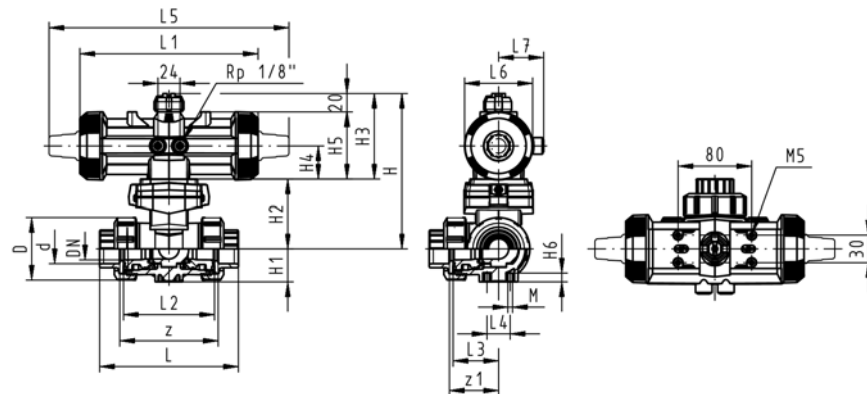
### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	199 286 022	199 286 032
20	15	10	75	199 286 023	199 286 033
25	20	10	150	199 286 024	199 286 034
32	25	10	280	199 286 025	199 286 035
40	32	10	480	199 286 026	199 286 036
50	40	10	620	199 286 027	199 286 037
63	50	10	1230	199 286 028	199 286 038

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# PROGEF Standard metric

## PROGEF Standard

### 3-Way ball valve type 286

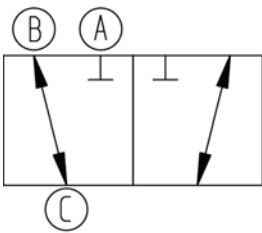
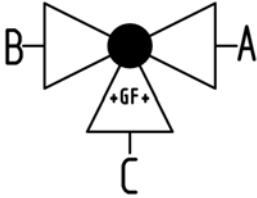
#### Horizontal/L-port

#### Without manual override

#### With threaded sockets reinforced Rp

#### Model:

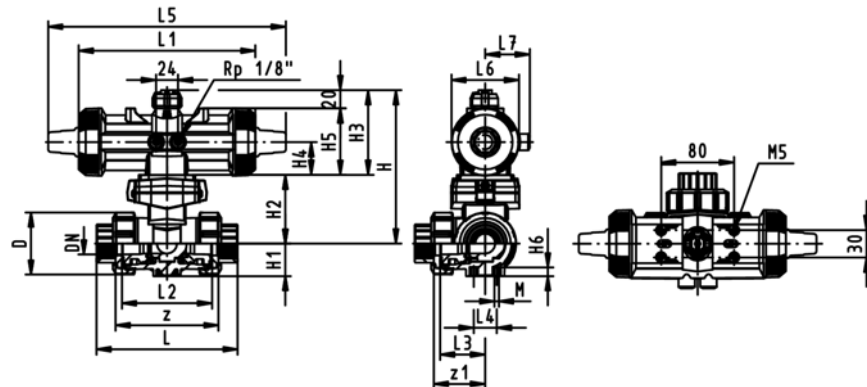
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	50	199 286 122	199 286 132
1/2	15	10	75	199 286 123	199 286 133
3/4	20	10	150	199 286 124	199 286 134
1	25	10	280	199 286 125	199 286 135
1 1/4	32	10	480	199 286 126	199 286 136
1 1/2	40	10	620	199 286 127	199 286 137
2	50	10	1230	199 286 128	199 286 138

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98



# PROGEF Standard metric

## PROGEF Standard

### 3-Way ball valve type 286

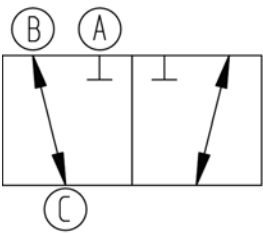
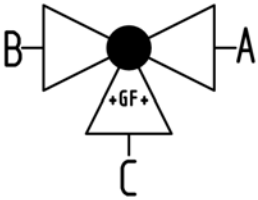
#### Horizontal/L-port

#### Without manual override

#### With socket fusion spigots metric

#### Model:

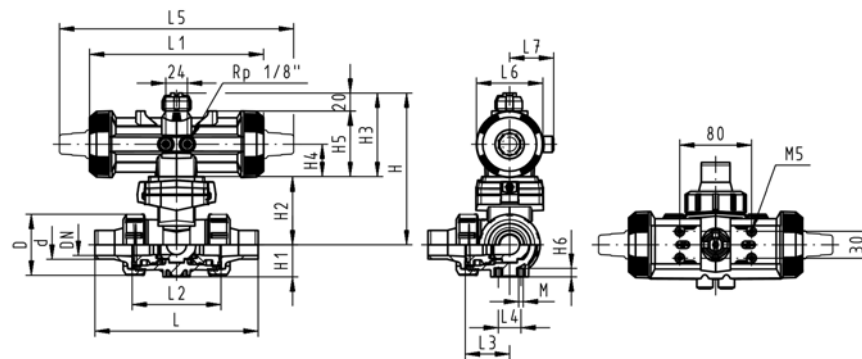
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 286 002</b>	<b>199 286 012</b>
20	15	10	75	<b>199 286 003</b>	<b>199 286 013</b>
25	20	10	150	<b>199 286 004</b>	<b>199 286 014</b>
32	25	10	280	<b>199 286 005</b>	<b>199 286 015</b>
40	32	10	480	<b>199 286 006</b>	<b>199 286 016</b>
50	40	10	620	<b>199 286 007</b>	<b>199 286 017</b>
63	50	10	1230	<b>199 286 008</b>	<b>199 286 018</b>

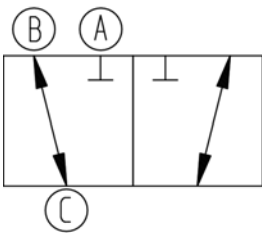
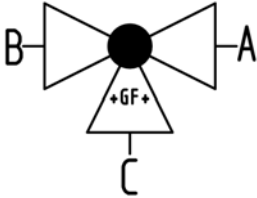
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/L-port**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**



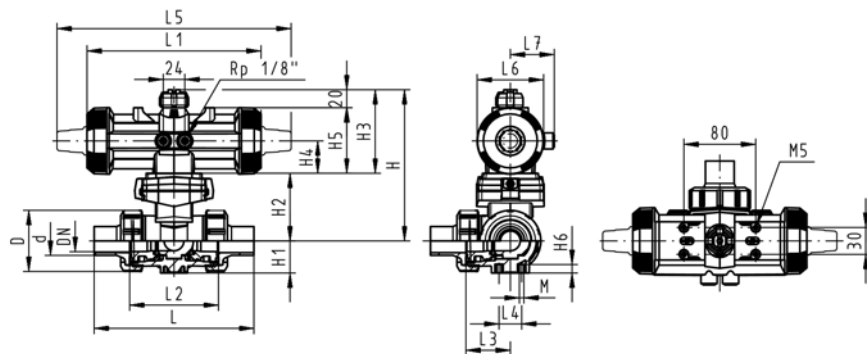
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°(<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code
20	15	10	75	199 286 083	199 286 093
25	20	10	150	199 286 084	199 286 094
32	25	10	280	199 286 085	199 286 095
40	32	10	480	199 286 086	199 286 096
50	40	10	620	199 286 087	199 286 097
63	50	10	1230	199 286 088	199 286 098

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

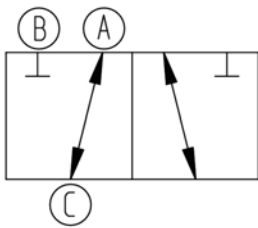
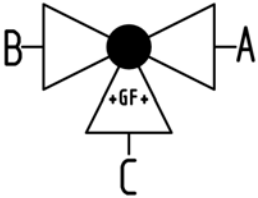
## PROGEF Standard

### 3-Way ball valve type 286

### Horizontal/L-port DA (Double acting)

### Without manual override

### With fusion sockets metric



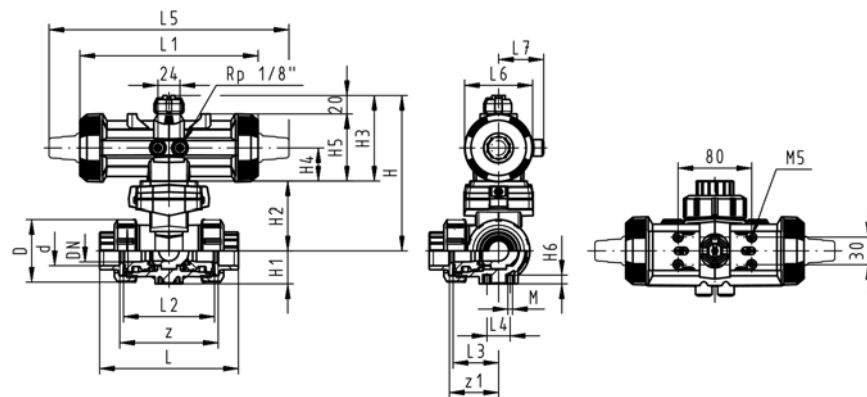
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 286 182</b>	<b>199 286 192</b>
20	15	10	75	<b>199 286 183</b>	<b>199 286 193</b>
25	20	10	150	<b>199 286 184</b>	<b>199 286 194</b>
32	25	10	280	<b>199 286 185</b>	<b>199 286 195</b>
40	32	10	480	<b>199 286 186</b>	<b>199 286 196</b>
50	40	10	620	<b>199 286 187</b>	<b>199 286 197</b>
63	50	10	1230	<b>199 286 188</b>	<b>199 286 198</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# PROGEF Standard metric

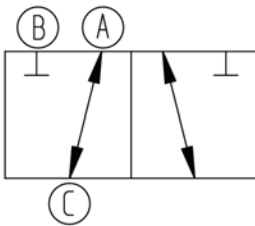
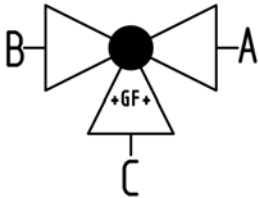
## PROGEF Standard

### 3-Way ball valve type 286

### Horizontal/L-port DA (Double acting)

### Without manual override

### With threaded sockets reinforced Rp



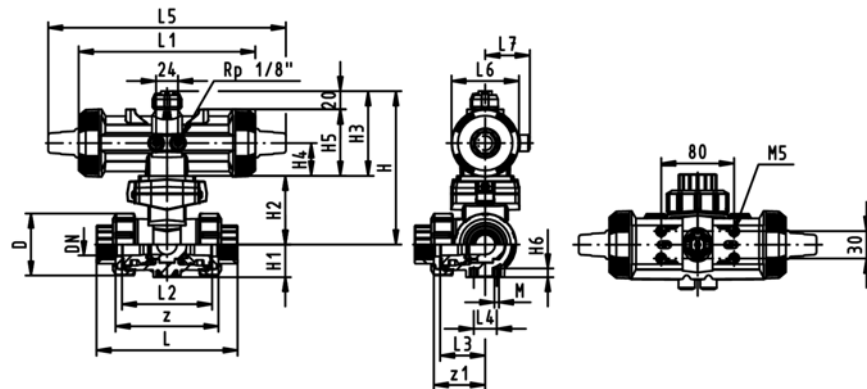
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	50	<b>199 286 282</b>	<b>199 286 292</b>
1/2	15	10	75	<b>199 286 283</b>	<b>199 286 293</b>
3/4	20	10	150	<b>199 286 284</b>	<b>199 286 294</b>
1	25	10	280	<b>199 286 285</b>	<b>199 286 295</b>
1 1/4	32	10	480	<b>199 286 286</b>	<b>199 286 296</b>
1 1/2	40	10	620	<b>199 286 287</b>	<b>199 286 297</b>
2	50	10	1230	<b>199 286 288</b>	<b>199 286 298</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98



# PROGEF Standard metric

## PROGEF Standard

### 3-Way ball valve type 286

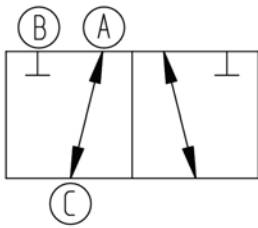
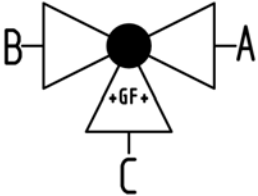
### Horizontal/L-port DA (Double acting)

### Without manual override

### With socket fusion spigots metric

#### Model:

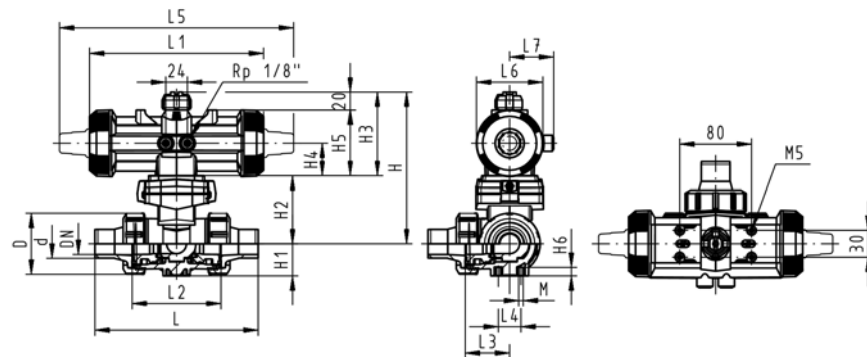
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	50	<b>199 286 162</b>	<b>199 286 172</b>
20	15	10	75	<b>199 286 163</b>	<b>199 286 173</b>
25	20	10	150	<b>199 286 164</b>	<b>199 286 174</b>
32	25	10	280	<b>199 286 165</b>	<b>199 286 175</b>
40	32	10	480	<b>199 286 166</b>	<b>199 286 176</b>
50	40	10	620	<b>199 286 167</b>	<b>199 286 177</b>
63	50	10	1230	<b>199 286 168</b>	<b>199 286 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





# PROGEF Standard metric

## PROGEF Standard

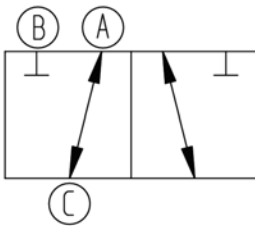
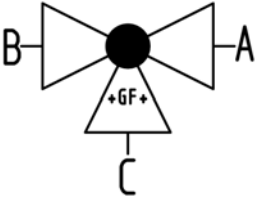
### 3-Way ball valve type 286

### Horizontal/L-port DA (Double acting)

### Without manual override

### With butt fusion spigots

### IR-Plus SDR11 metric



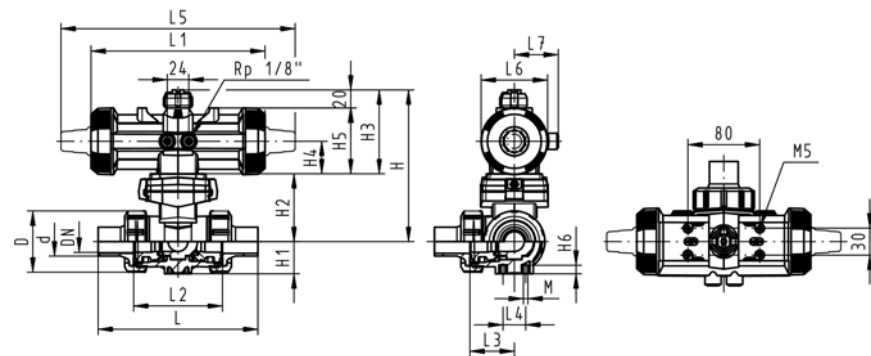
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	75	<b>199 286 243</b>	<b>199 286 253</b>
25	20	10	150	<b>199 286 244</b>	<b>199 286 254</b>
32	25	10	280	<b>199 286 245</b>	<b>199 286 255</b>
40	32	10	480	<b>199 286 246</b>	<b>199 286 256</b>
50	40	10	620	<b>199 286 247</b>	<b>199 286 257</b>
63	50	10	1230	<b>199 286 248</b>	<b>199 286 258</b>

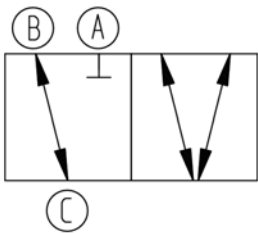
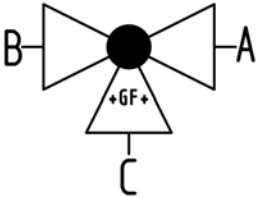
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port Without manual override With fusion sockets metric



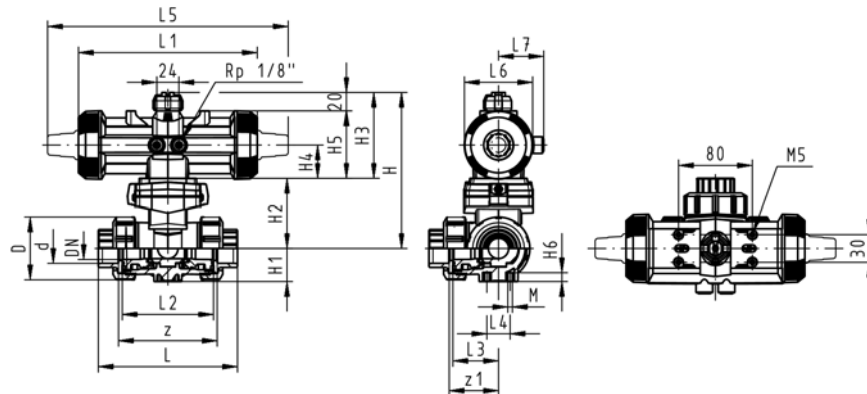
### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 286 062	199 286 072
20	15	10	200	199 286 063	199 286 073
25	20	10	470	199 286 064	199 286 074
32	25	10	793	199 286 065	199 286 075
40	32	10	1290	199 286 066	199 286 076
50	40	10	1910	199 286 067	199 286 077
63	50	10	3100	199 286 068	199 286 078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# PROGEF Standard metric

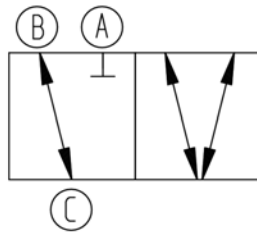
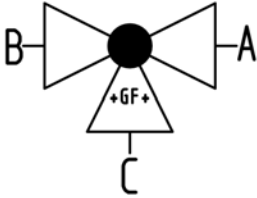
## PROGEF Standard

### 3-Way ball valve type 286

#### Horizontal/T-port

#### Without manual override

#### With threaded sockets reinforced Rp



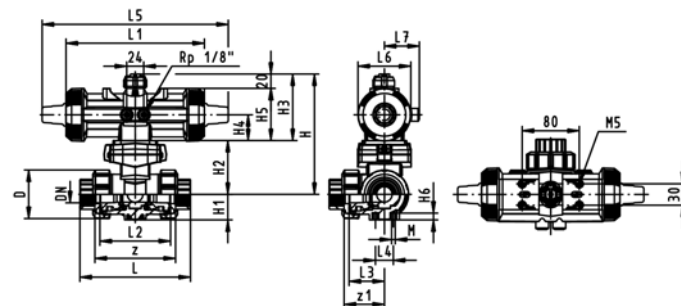
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	140	<b>199 286 142</b>	<b>199 286 152</b>
1/2	15	10	200	<b>199 286 143</b>	<b>199 286 153</b>
3/4	20	10	470	<b>199 286 144</b>	<b>199 286 154</b>
1	25	10	793	<b>199 286 145</b>	<b>199 286 155</b>
1 1/4	32	10	1290	<b>199 286 146</b>	<b>199 286 156</b>
1 1/2	40	10	1910	<b>199 286 147</b>	<b>199 286 157</b>
2	50	10	3100	<b>199 286 148</b>	<b>199 286 158</b>

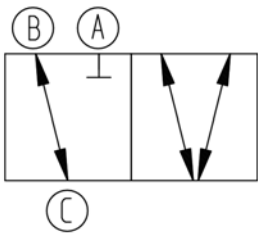
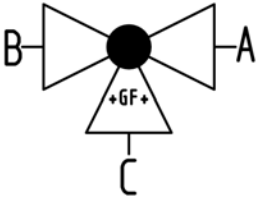
Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98



# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port Without manual override With socket fusion spigots metric



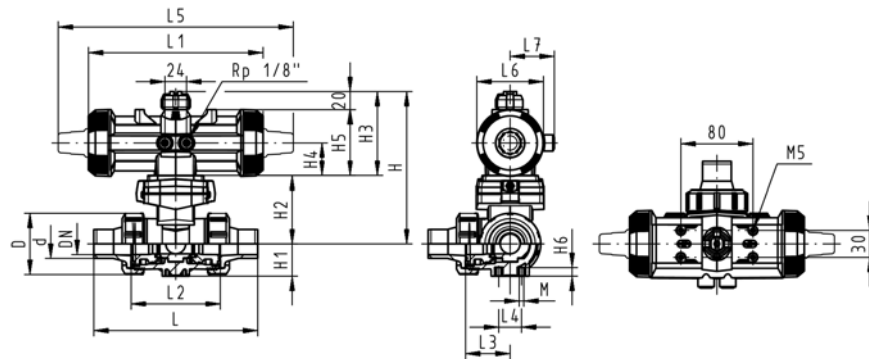
### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 286 042</b>	<b>199 286 052</b>
20	15	10	200	<b>199 286 043</b>	<b>199 286 053</b>
25	20	10	470	<b>199 286 044</b>	<b>199 286 054</b>
32	25	10	793	<b>199 286 045</b>	<b>199 286 055</b>
40	32	10	1290	<b>199 286 046</b>	<b>199 286 056</b>
50	40	10	1910	<b>199 286 047</b>	<b>199 286 057</b>
63	50	10	3100	<b>199 286 048</b>	<b>199 286 058</b>

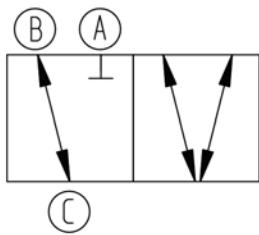
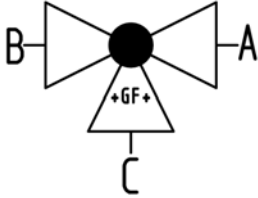
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**



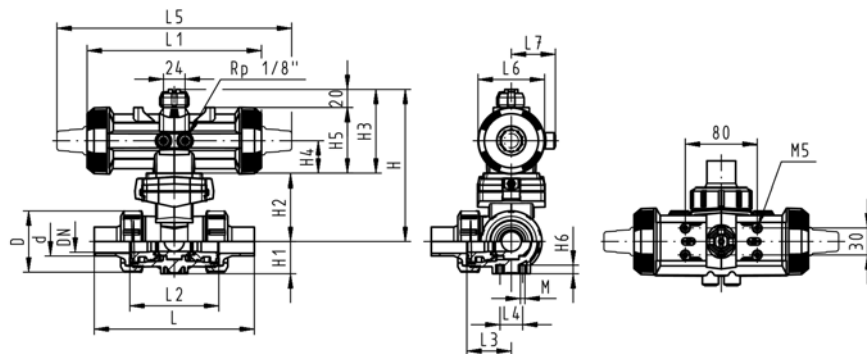
**Model:**

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code
20	15	10	200	199 286 103	199 286 113
25	20	10	470	199 286 104	199 286 114
32	25	10	793	199 286 105	199 286 115
40	32	10	1290	199 286 106	199 286 116
50	40	10	1910	199 286 107	199 286 117
63	50	10	3100	199 286 108	199 286 118

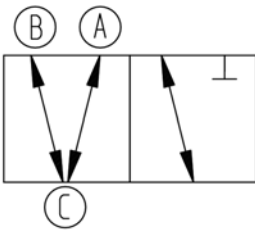
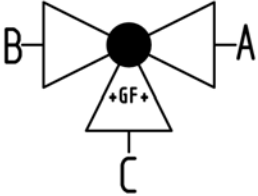
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

## PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port DA (Double acting) Without manual override With fusion sockets metric



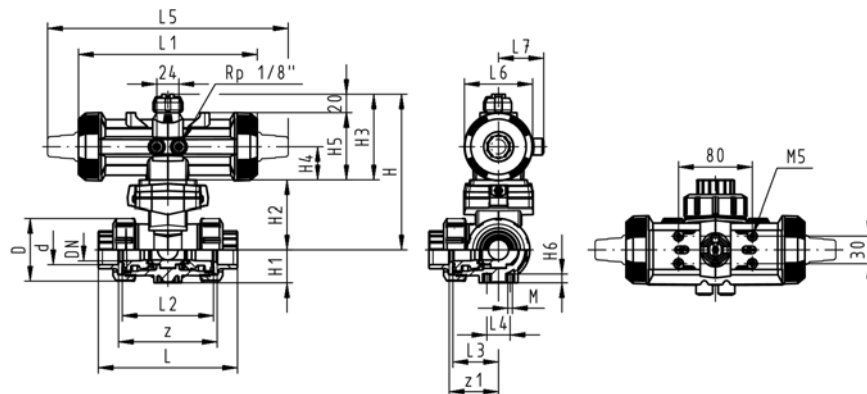
### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	199 286 222	199 286 232
20	15	10	200	199 286 223	199 286 233
25	20	10	470	199 286 224	199 286 234
32	25	10	793	199 286 225	199 286 235
40	32	10	1290	199 286 226	199 286 236
50	40	10	1910	199 286 227	199 286 237
63	50	10	3100	199 286 228	199 286 238

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# PROGEF Standard metric

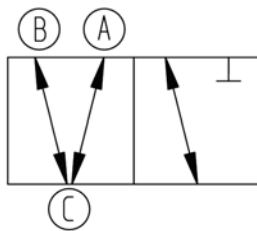
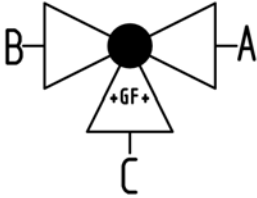
## PROGEF Standard

### 3-Way ball valve type 286

### Horizontal/T-port DA (Double acting)

### Without manual override

### With threaded sockets reinforced Rp



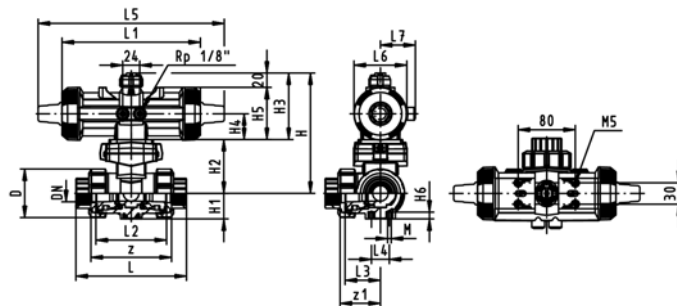
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$ ) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	140	<b>199 286 302</b>	<b>199 286 312</b>
1/2	15	10	200	<b>199 286 303</b>	<b>199 286 313</b>
3/4	20	10	470	<b>199 286 304</b>	<b>199 286 314</b>
1	25	10	793	<b>199 286 305</b>	<b>199 286 315</b>
1 1/4	32	10	1290	<b>199 286 306</b>	<b>199 286 316</b>
1 1/2	40	10	1910	<b>199 286 307</b>	<b>199 286 317</b>
2	50	10	3100	<b>199 286 308</b>	<b>199 286 318</b>

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98



# PROGEF Standard metric

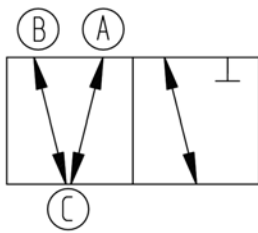
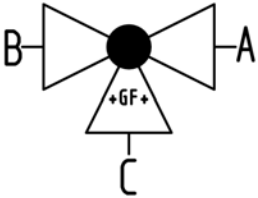
## PROGEF Standard

### 3-Way ball valve type 286

### Horizontal/T-port DA (Double acting)

### Without manual override

### With socket fusion spigots metric



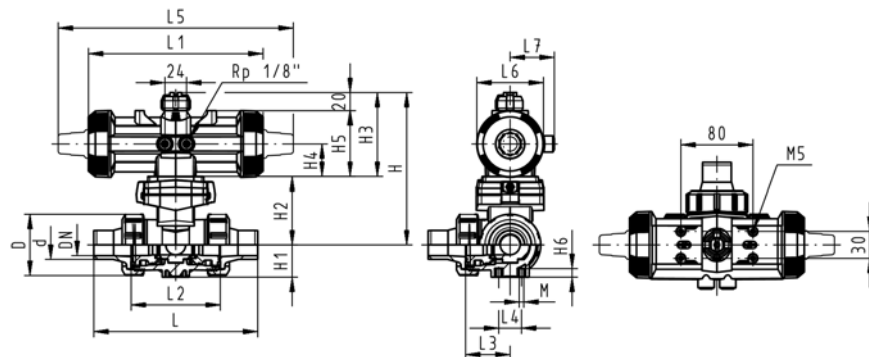
#### Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
16	10	10	140	<b>199 286 202</b>	<b>199 286 212</b>
20	15	10	200	<b>199 286 203</b>	<b>199 286 213</b>
25	20	10	470	<b>199 286 204</b>	<b>199 286 214</b>
32	25	10	793	<b>199 286 205</b>	<b>199 286 215</b>
40	32	10	1290	<b>199 286 206</b>	<b>199 286 216</b>
50	40	10	1910	<b>199 286 207</b>	<b>199 286 217</b>
63	50	10	3100	<b>199 286 208</b>	<b>199 286 218</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

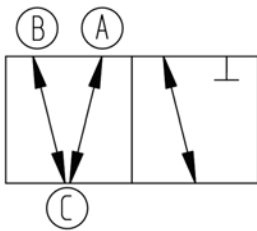
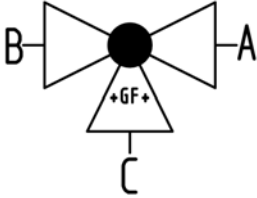
d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





# PROGEF Standard metric

**PROGEF Standard**  
**3-Way ball valve type 286**  
**Horizontal/T-port DA (Double acting)**  
**Without manual override**  
**With butt fusion spigots**  
**IR-Plus SDR11 metric**



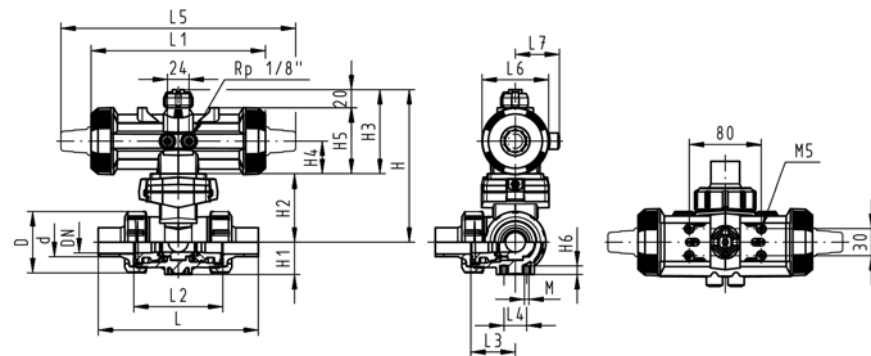
## Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	10	200	<b>199 286 263</b>	<b>199 286 273</b>
25	20	10	470	<b>199 286 264</b>	<b>199 286 274</b>
32	25	10	793	<b>199 286 265</b>	<b>199 286 275</b>
40	32	10	1290	<b>199 286 266</b>	<b>199 286 276</b>
50	40	10	1910	<b>199 286 267</b>	<b>199 286 277</b>
63	50	10	3100	<b>199 286 268</b>	<b>199 286 278</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# PROGEF Standard metric

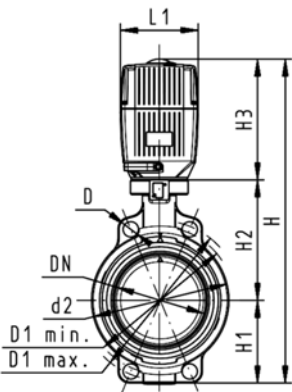
## Butterfly valves electric

### PROGEF Standard Butterfly valve type 140 100-230V Without manual override

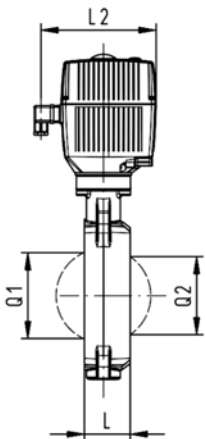


#### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Material: PP-H, DN350-DN600 material PP-R
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- For DN350-DN600 electric actuator from Valpes is equipped, various options available



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 362</b>	<b>199 140 382</b>
75	65	2 ½	10	2200	<b>199 140 363</b>	<b>199 140 383</b>
90	80	3	10	3000	<b>199 140 364</b>	<b>199 140 384</b>
110	100	4	10	6500	<b>199 140 365</b>	<b>199 140 385</b>
140	125	5	10	11500	<b>199 140 366</b>	<b>199 140 386</b>
160	150	6	10	16600	<b>199 140 367</b>	<b>199 140 387</b>
225	200	8	10	39600	<b>199 140 368</b>	<b>199 140 388</b>
280	250	10	6	55200	<b>199 140 369</b>	<b>199 140 389</b>
315	300	12	4	80000	<b>199 140 370</b>	<b>199 140 390</b>
* 355	350	14	6	900000	<b>199 140 371</b>	<b>199 140 391</b>
* 400	400	16	6	115000	<b>199 140 372</b>	<b>199 140 392</b>
* 450	450	18	5	155000	<b>199 140 373</b>	<b>199 140 393</b>
* 500	500	20	4	204000	<b>199 140 374</b>	<b>199 140 394</b>
* 630	600	24	4	265000	<b>199 140 375</b>	<b>199 140 395</b>

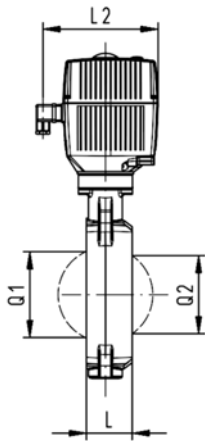
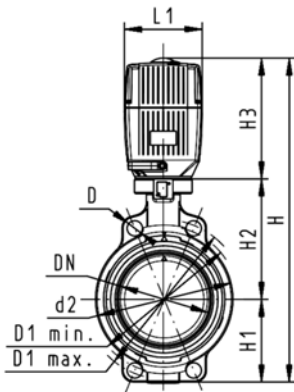


d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180
* 355	VS-300	29	445.0	477.0	535	936	268	410	258	129	209	275
* 400	VT-600	29	510.0	540.0	595	1084	300	435	349	169	228	468
* 450	VT-600	32	565.0	578.0	635	1189	320	520	349	179	228	468
* 500	VT-600	32	620.0	635.0	700	1249	350	550	349	190	228	468
* 630	VT-1000	35	725.0	750.0	813	1379	420	610	349	209	228	468

d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169

table continued next page

# PROGEF Standard metric



d [mm]	Q1 [mm]	Q2 [mm]
280	210	207
315	256	253
* 355	325	305
* 400	353	350
* 450	393	390
* 500	444	440
* 630	530	527

# PROGEF Standard metric

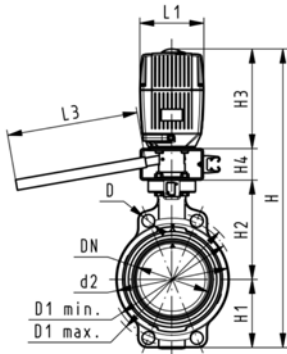
## PROGEF Standard Butterfly valve type 140 100-230V With manual override



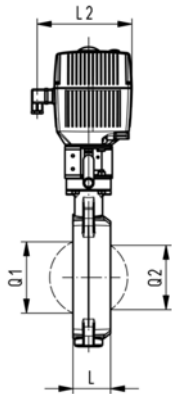
### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Material: PP-H
- Overall length according to EN 558, ISO 5752

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 322</b>	<b>199 140 342</b>
75	65	2 ½	10	2200	<b>199 140 323</b>	<b>199 140 343</b>
90	80	3	10	3000	<b>199 140 324</b>	<b>199 140 344</b>
110	100	4	10	6500	<b>199 140 325</b>	<b>199 140 345</b>
140	125	5	10	11500	<b>199 140 326</b>	<b>199 140 346</b>
160	150	6	10	16600	<b>199 140 327</b>	<b>199 140 347</b>
225	200	8	10	39600	<b>199 140 328</b>	<b>199 140 348</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

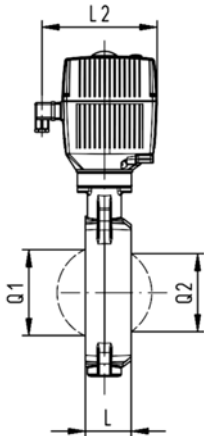
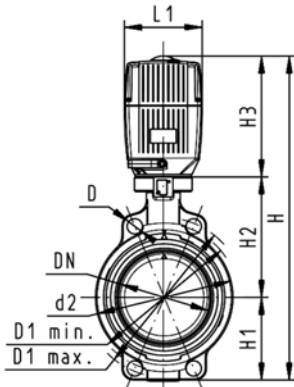
# PROGEF Standard metric

## PROGEF Standard Butterfly valve type 140 24V Without manual override



### Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- The dimension DN300 on request



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 442</b>	<b>199 140 462</b>
75	65	2 ½	10	2200	<b>199 140 443</b>	<b>199 140 463</b>
90	80	3	10	3000	<b>199 140 444</b>	<b>199 140 464</b>
110	100	4	10	6500	<b>199 140 445</b>	<b>199 140 465</b>
140	125	5	10	11500	<b>199 140 446</b>	<b>199 140 466</b>
160	150	6	10	16600	<b>199 140 447</b>	<b>199 140 467</b>
225	200	8	10	39600	<b>199 140 448</b>	<b>199 140 468</b>
280	250	10	6	55200	<b>199 140 449</b>	<b>199 140 469</b>
315	300	12	4	80000	<b>199 140 450</b>	<b>199 140 470</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

# PROGEF Standard metric

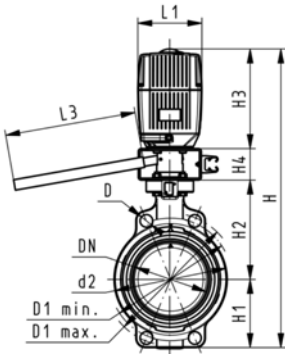
## PROGEF Standard Butterfly valve type 140 24V With manual override



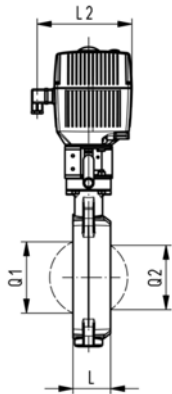
### Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 140 402</b>	<b>199 140 422</b>
75	65	2 ½	10	2200	<b>199 140 403</b>	<b>199 140 423</b>
90	80	3	10	3000	<b>199 140 404</b>	<b>199 140 424</b>
110	100	4	10	6500	<b>199 140 405</b>	<b>199 140 425</b>
140	125	5	10	11500	<b>199 140 406</b>	<b>199 140 426</b>
160	150	6	10	16600	<b>199 140 407</b>	<b>199 140 427</b>
225	200	8	10	39600	<b>199 140 408</b>	<b>199 140 428</b>



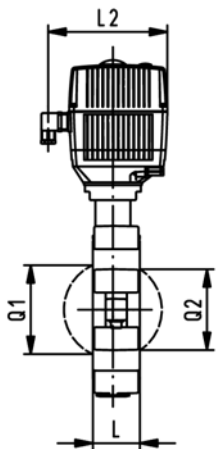
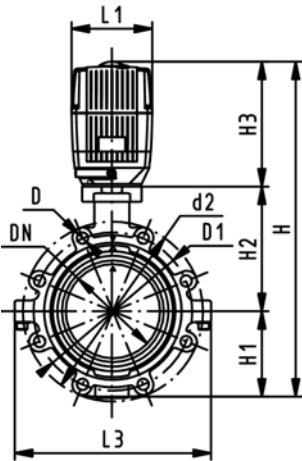
d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 141 100-230V Without manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 362</b>	<b>199 141 382</b>
75	65	2 ½	10	2200	<b>199 141 363</b>	<b>199 141 383</b>
90	80	3	10	3000	<b>199 141 364</b>	<b>199 141 384</b>
110	100	4	10	6500	<b>199 141 365</b>	<b>199 141 385</b>
140	125	5	10	11500	<b>199 141 366</b>	<b>199 141 386</b>
160	150	6	10	16600	<b>199 141 367</b>	<b>199 141 387</b>
225	200	8	10	39600	<b>199 141 368</b>	<b>199 141 388</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# PROGEF Standard metric

## PROGEF Standard

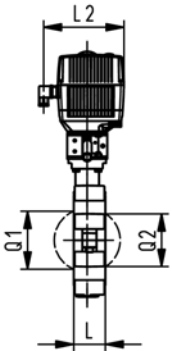
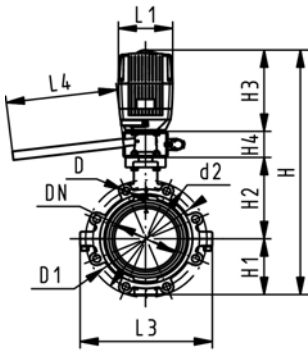
### Lugstyle butterfly valve type 141 100-230V

#### With manual override



#### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 322</b>	<b>199 141 342</b>
75	65	2 ½	10	2200	<b>199 141 323</b>	<b>199 141 343</b>
90	80	3	10	3000	<b>199 141 324</b>	<b>199 141 344</b>
110	100	4	10	6500	<b>199 141 325</b>	<b>199 141 345</b>
140	125	5	10	11500	<b>199 141 326</b>	<b>199 141 346</b>
160	150	6	10	16600	<b>199 141 327</b>	<b>199 141 347</b>
225	200	8	10	39600	<b>199 141 328</b>	<b>199 141 348</b>

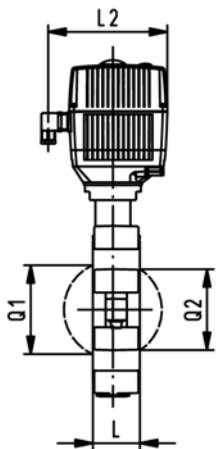
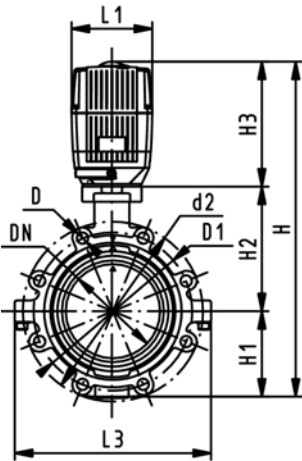
d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 141 24V Without manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 141 442</b>	<b>199 141 462</b>
75	65	2 ½	10	2200	<b>199 141 443</b>	<b>199 141 463</b>
90	80	3	10	3000	<b>199 141 444</b>	<b>199 141 464</b>
110	100	4	10	6500	<b>199 141 445</b>	<b>199 141 465</b>
140	125	5	10	11500	<b>199 141 446</b>	<b>199 141 466</b>
160	150	6	10	16600	<b>199 141 447</b>	<b>199 141 467</b>
225	200	8	10	39600	<b>199 141 448</b>	<b>199 141 468</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

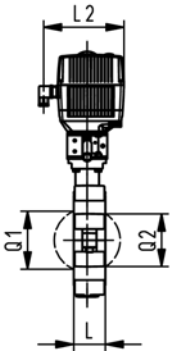
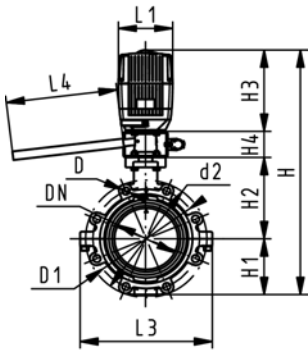
# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 141 24V With manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 141 402	199 141 422
75	65	2 ½	10	2200	199 141 403	199 141 423
90	80	3	10	3000	199 141 404	199 141 424
110	100	4	10	6500	199 141 405	199 141 425
140	125	5	10	11500	199 141 406	199 141 426
160	150	6	10	16600	199 141 407	199 141 427
225	200	8	10	39600	199 141 408	199 141 428

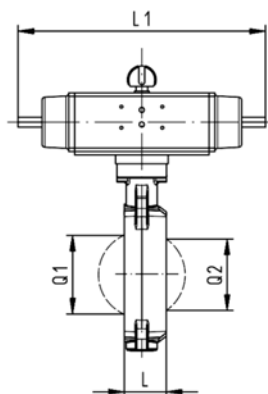
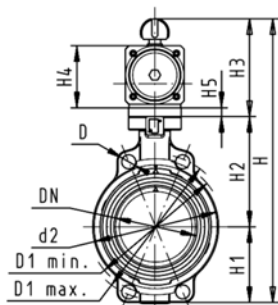
d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# PROGEF Standard metric

## Butterfly valves pneumatic

### PROGEF Standard Butterfly valve type 240 FC (Fail safe to close) Without manual override



#### Model:

- Material: PP-H, DN350-DN600 material PP-R
- For DN350-DN600 pneumatic actuator supplied by Revac
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Control range 90°<

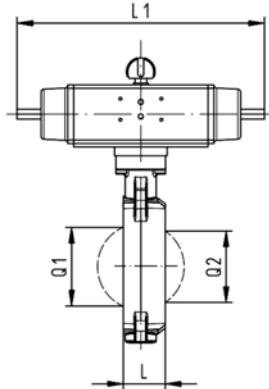
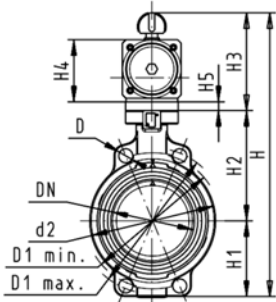
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 240 282</b>	<b>199 240 302</b>
75	65	2 ½	10	2200	<b>199 240 283</b>	<b>199 240 303</b>
90	80	3	10	3000	<b>199 240 284</b>	<b>199 240 304</b>
110	100	4	10	6500	<b>199 240 285</b>	<b>199 240 305</b>
140	125	5	10	11500	<b>199 240 286</b>	<b>199 240 306</b>
160	150	6	10	16600	<b>199 240 287</b>	<b>199 240 307</b>
225	200	8	10	39600	<b>199 240 288</b>	<b>199 240 308</b>
280	250	10	8	55200	<b>199 240 289</b>	<b>199 240 309</b>
315	300	12	8	80000	<b>199 240 290</b>	<b>199 240 310</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86	15	56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96	15	64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106	15	72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118	15	73	452
280	PA-65 FC	25	353.0	362.0	329	808	205	264	191	148	15	113	648
315	PA-70 FC	25	400.0	432.0	379	866	228	285	196	157	15	113	663

d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253

# PROGEF Standard metric

## PROGEF Standard Butterfly valve type 240 FO (Fail safe to open) Without manual override



### Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 240 322	199 240 342
75	65	2 ½	10	2200	199 240 323	199 240 343
90	80	3	10	3000	199 240 324	199 240 344
110	100	4	10	6500	199 240 325	199 240 345
140	125	5	10	11500	199 240 326	199 240 346
160	150	6	10	16600	199 240 327	199 240 347
225	200	8	10	39600	199 240 328	199 240 348
280	250	10	8	55200	199 240 329	199 240 349
315	300	12	8	80000	199 240 330	199 240 350

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452
280	PA-70 FO	25	353.0	362.0	329	808	205	264	191	148		113	648
315	PA-70 FO	25	400.0	432.0	379	866	228	285	196	157		113	663

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

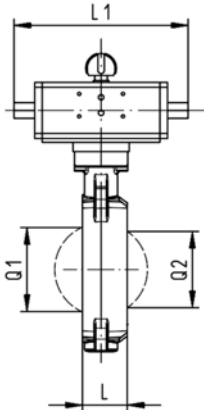
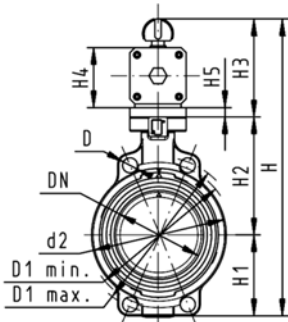
# PROGEF Standard metric

## PROGEF Standard Butterfly valve type 240 DA (Double acting) Without manual override



### Model:

- Material: PP-H, DN350-DN600 material PP-R
- For DN350-DN600 pneumatic actuator supplied by Revac
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Control range 90°<



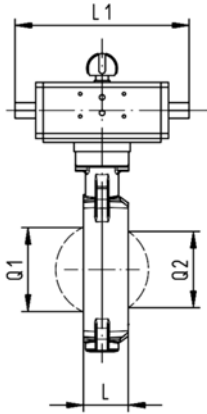
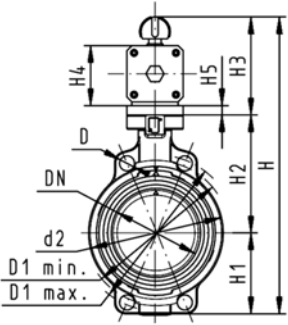
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	199 240 362	199 240 382
75	65	2 ½	10	2200	199 240 363	199 240 383
90	80	3	10	3000	199 240 364	199 240 384
110	100	4	10	6500	199 240 365	199 240 385
140	125	5	10	11500	199 240 366	199 240 386
160	150	6	10	16600	199 240 367	199 240 387
225	200	8	10	39600	199 240 368	199 240 388
280	250	10	8	55200	199 240 369	199 240 389
315	300	12	8	80000	199 240 370	199 240 390
* 355	350	14	6	90000	199 240 371	199 240 391
* 400	400	16	6	115000	199 240 372	199 240 392
* 450	450	18	5	155000	199 240 373	199 240 393
* 500	500	20	4	204000	199 240 374	199 240 394
* 630	600	24	4	265000	199 240 375	199 240 395

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	748	205	264	161	118		113	350
315	PA-70 DA	25	400.0	432.0	379	816	228	285	173	130		113	381
* 355	AP 5	29	445.0	477.0	535	863	268	410	185	155	27	129	360
* 400	AP 5.5	29	510.0	540.0	595	941	300	435	206	176	27	169	380
* 450	AP 5.5	32	565.0	578.0	635	1046	320	520	206	176	36	179	380
* 500	AP 6	32	620.0	635.0	700	1130	350	550	230	200	36	190	462
* 630	AP8	35	725.0	750.0	813	1330	420	610	300	250	36	209	530

d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253
* 355	325	305
* 400	353	350

table continued next page

# PROGEF Standard metric



d [mm]	Q1 [mm]	Q2 [mm]
* 450	393	390
* 500	444	440
* 630	530	527

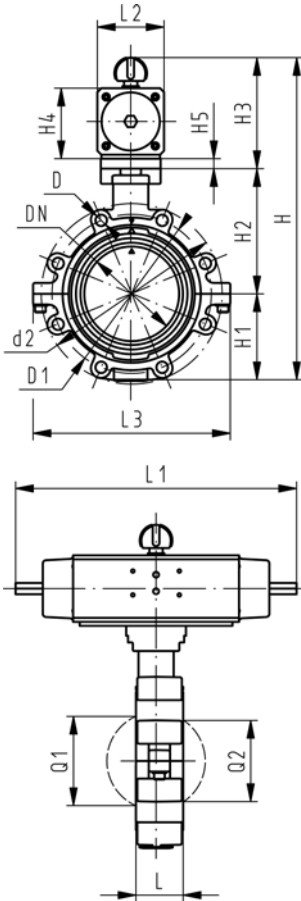
# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 241 FC (Fail safe to close) Without manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 282</b>	<b>199 241 302</b>
75	65	2 ½	10	2200	<b>199 241 283</b>	<b>199 241 303</b>
90	80	3	10	3000	<b>199 241 284</b>	<b>199 241 304</b>
110	100	4	10	6500	<b>199 241 285</b>	<b>199 241 305</b>
140	125	5	10	11500	<b>199 241 286</b>	<b>199 241 306</b>
160	150	6	10	16600	<b>199 241 287</b>	<b>199 241 307</b>
225	200	8	10	39600	<b>199 241 288</b>	<b>199 241 308</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

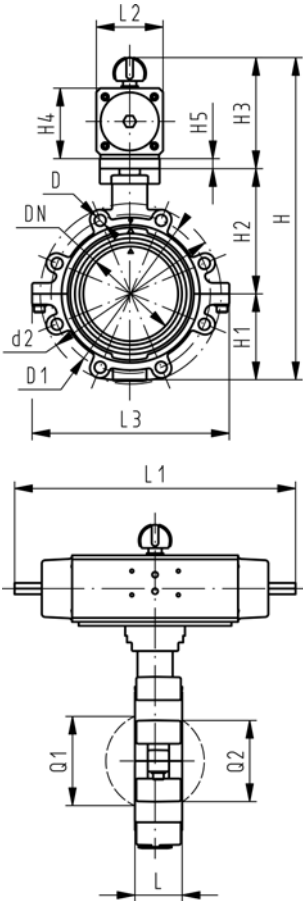
# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 241 FO (Fail safe to open) Without manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 322</b>	<b>199 241 342</b>
75	65	2 ½	10	2200	<b>199 241 323</b>	<b>199 241 343</b>
90	80	3	10	3000	<b>199 241 324</b>	<b>199 241 344</b>
110	100	4	10	6500	<b>199 241 325</b>	<b>199 241 345</b>
140	125	5	10	11500	<b>199 241 326</b>	<b>199 241 346</b>
160	150	6	10	16600	<b>199 241 327</b>	<b>199 241 347</b>
225	200	8	10	39600	<b>199 241 328</b>	<b>199 241 348</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



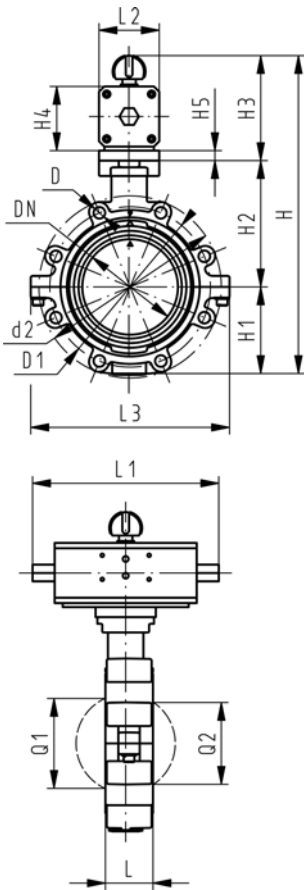
# PROGEF Standard metric

## PROGEF Standard Lugstyle butterfly valve type 241 DA (Double acting) Without manual override



### Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
63	50	2	10	1470	<b>199 241 362</b>	<b>199 241 382</b>
75	65	2 ½	10	2200	<b>199 241 363</b>	<b>199 241 383</b>
90	80	3	10	3000	<b>199 241 364</b>	<b>199 241 384</b>
110	100	4	10	6500	<b>199 241 365</b>	<b>199 241 385</b>
140	125	5	10	11500	<b>199 241 366</b>	<b>199 241 386</b>
160	150	6	10	16600	<b>199 241 367</b>	<b>199 241 387</b>
225	200	8	10	39600	<b>199 241 368</b>	<b>199 241 388</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71		56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78		64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86		72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96		73	279	90

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

# PROGEF Standard metric Diaphragm valves pneumatic New generation



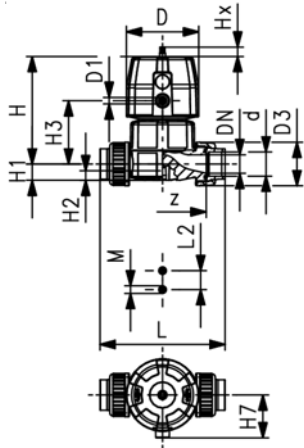
## PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) Unions with fusion sockets metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>167 614 012</b>
25	20	6	271	<b>167 614 013</b>
32	25	6	481	<b>167 614 014</b>
40	32	6	759	<b>167 614 015</b>
50	40	6	960	<b>167 614 016</b>
63	50	6	1181	<b>167 614 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	43	M6	100	7
25	96	1/8	150	25	132	18	12	73	57	M6	118	10
32	96	1/8	162	25	143	22	12	84	57	M6	126	13
40	120	1/8	184	45	173	26	15	99	69	M8	144	14
50	120	1/8	210	45	193	32	15	119	69	M8	164	16
63	120	1/8	248	45	205	39	15	132	69	M8	194	16



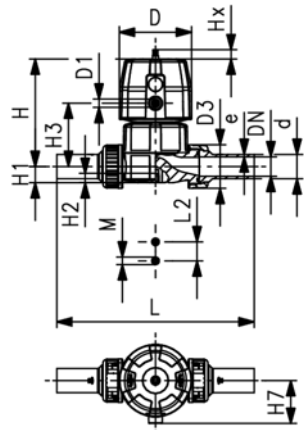
## PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) Unions with butt fusion spigots SDR11 metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

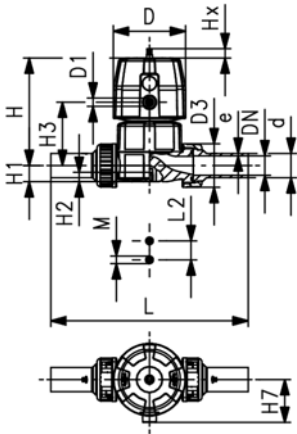
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	6	125	<b>167 614 112</b>	<b>800 047 261</b>
25	20	6	271	<b>167 614 113</b>	<b>800 047 262</b>
32	25	6	481	<b>167 614 114</b>	<b>800 047 263</b>
40	32	6	759	<b>167 614 115</b>	<b>800 047 259</b>
50	40	6	960	<b>167 614 116</b>	<b>800 047 264</b>
63	50	6	1181	<b>167 614 117</b>	<b>800 047 265</b>

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	284	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	321	45	205	39	15	132	69	M8	16	5.8



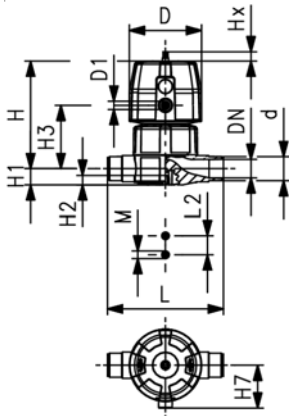
## PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With socket fusion spigots metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>167 615 012</b>
25	20	6	271	<b>167 615 013</b>
32	25	6	481	<b>167 615 014</b>
40	32	6	759	<b>167 615 015</b>
50	40	6	960	<b>167 615 016</b>
63	50	6	1181	<b>167 615 017</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With butt fusion spigots SDR11 metric

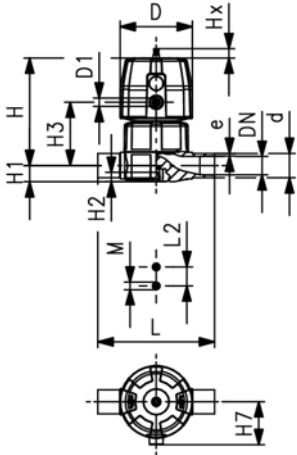


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>167 615 112</b>
25	20	6	271	<b>167 615 113</b>
32	25	6	481	<b>167 615 114</b>
40	32	6	759	<b>167 615 115</b>
50	40	6	960	<b>167 615 116</b>
63	50	6	1181	<b>167 615 117</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8

## PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With backing flanges PP-V metric/BS

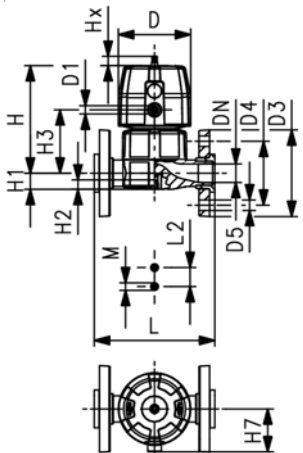


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

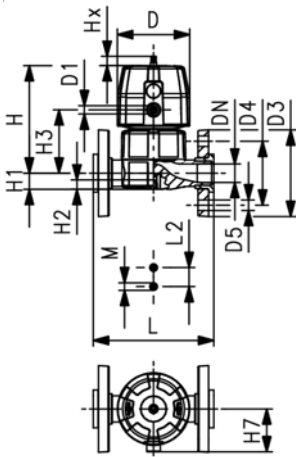
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>167 617 112</b>
25	20	6	271	<b>167 617 113</b>
32	25	6	481	<b>167 617 114</b>
40	32	6	759	<b>167 617 115</b>
50	40	6	960	<b>167 617 116</b>
63	50	6	1181	<b>167 617 117</b>

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	95	65	14	130	25	101	14	12	60	43	M6	7
25	96	1/8	105	75	14	150	25	132	18	12	73	57	M6	10
32	96	1/8	115	85	14	160	25	143	22	12	84	69	M6	13
40	120	1/8	140	100	18	180	45	173	26	15	99	69	M8	14
50	120	1/8	150	110	18	200	45	193	32	15	119	69	M8	16
63	120	1/8	165	125	18	230	45	205	39	15	132	69	M8	16



## PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with fusion sockets metric

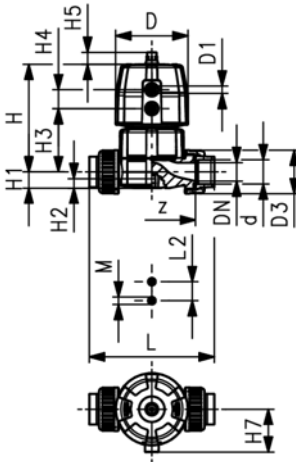
### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

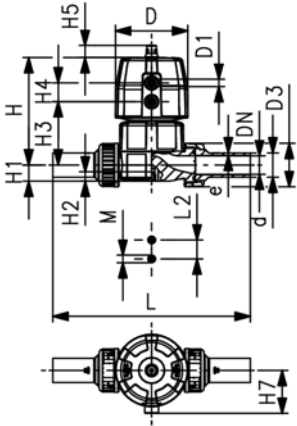


d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>167 624 012</b>	<b>167 624 032</b>
25	20	10/10*	271	<b>167 624 013</b>	<b>167 624 033</b>
32	25	10/10*	481	<b>167 624 014</b>	<b>167 624 034</b>
40	32	10/10*	759	<b>167 624 015</b>	<b>167 624 035</b>
50	40	10/10*	1263	<b>167 624 016</b>	<b>167 624 036</b>
63	50	10/6*	1728	<b>167 624 017</b>	<b>167 624 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	150	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	162	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	184	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	210	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	248	45	226	39	15	132	36	26	88	M8	194	23

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with butt fusion spigots SDR11 metric



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

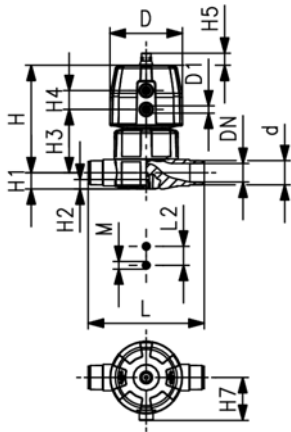
\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	PTFE/FPM Code	FPM Code
20	15	10/10*	125	167 624 112	167 624 132	800 047 354	800 047 273
25	20	10/10*	271	167 624 113	167 624 133	800 047 355	800 047 339
32	25	10/10*	481	167 624 114	167 624 134	800 047 356	800 047 340
40	32	10/10*	759	167 624 115	167 624 135	800 047 230	800 047 274
50	40	10/10*	1263	167 624 116	167 624 136	800 047 357	800 047 341
63	50	10/6*	1728	167 624 117	167 624 137	800 047 358	800 047 342

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	88	M8	23	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With socket fusion spigots metric



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

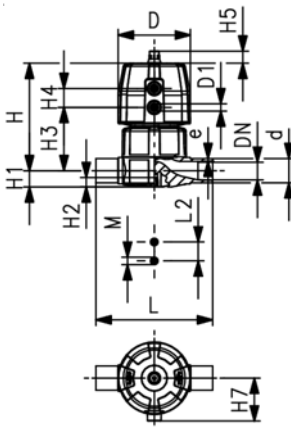
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	167 625 012	167 625 032
25	20	10/10*	271	167 625 013	167 625 033
32	25	10/10*	481	167 625 014	167 625 034
40	32	10/10*	759	167 625 015	167 625 035
50	40	10/10*	1263	167 625 016	167 625 036
63	50	10/6*	1728	167 625 017	167 625 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

## PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

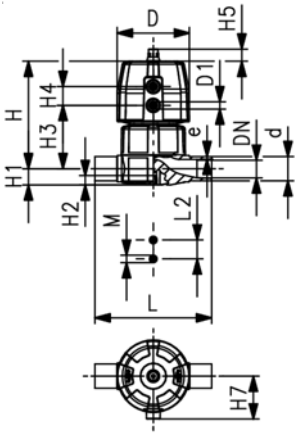
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

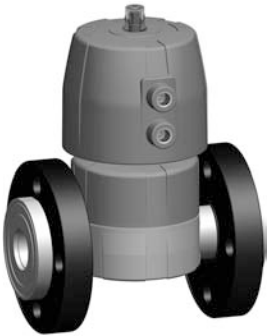
d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	167 625 112	167 625 132
25	20	10/10*	271	167 625 113	167 625 133
32	25	10/10*	481	167 625 114	167 625 134
40	32	10/10*	759	167 625 115	167 625 135
50	40	10/10*	1263	167 625 116	167 625 136
63	50	10/6*	1728	167 625 117	167 625 137

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



## PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With backing flanges PP-V metric/BS

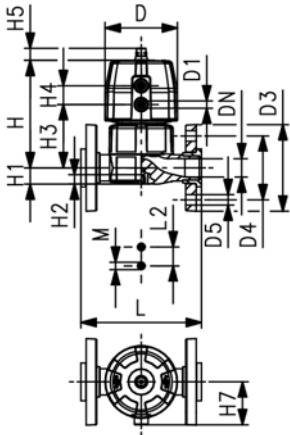
### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10/10*	125	<b>167 627 112</b>	<b>167 627 132</b>
25	20	10/10*	271	<b>167 627 113</b>	<b>167 627 133</b>
32	25	10/10*	481	<b>167 627 114</b>	<b>167 627 134</b>
40	32	10/10*	759	<b>167 627 115</b>	<b>167 627 135</b>
50	40	10/10*	1263	<b>167 627 116</b>	<b>167 627 136</b>
63	50	10/6*	1728	<b>167 627 117</b>	<b>167 627 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with fusion sockets metric

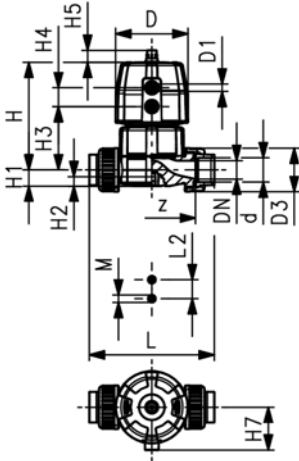


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 644 012	167 644 032
25	20	10	271	167 644 013	167 644 033
32	25	10	481	167 644 014	167 644 034
40	32	10	759	167 644 015	167 644 035
50	40	10	1263	167 644 016	167 644 036
63	50	10	1728	167 644 017	167 644 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23

## PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with butt fusion spigots SDR11 metric

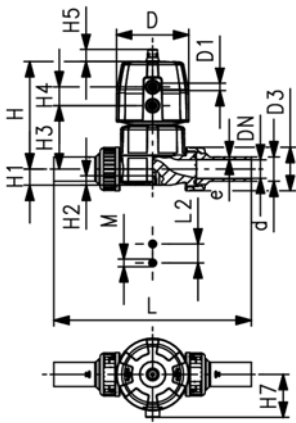


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

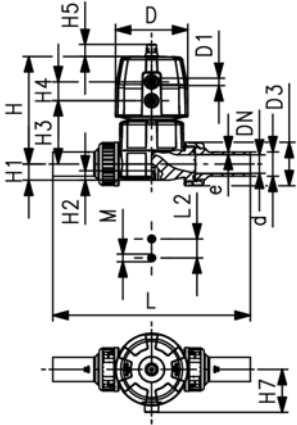
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 644 112	167 644 132
25	20	10	271	167 644 113	167 644 133
32	25	10	481	167 644 114	167 644 134
40	32	10	759	167 644 115	167 644 135
50	40	10	1263	167 644 116	167 644 136
63	50	10	1728	167 644 117	167 644 137

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	5.8



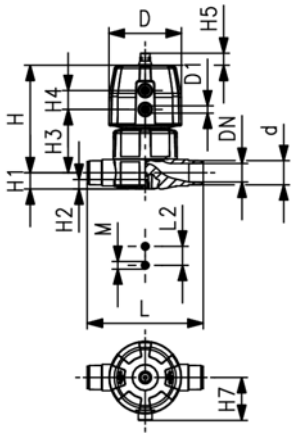
## PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With socket fusion spigots metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

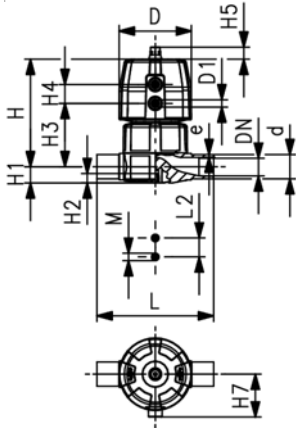


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 645 012</b>	<b>167 645 032</b>
25	20	10	271	<b>167 645 013</b>	<b>167 645 033</b>
32	25	10	481	<b>167 645 014</b>	<b>167 645 034</b>
40	32	10	759	<b>167 645 015</b>	<b>167 645 035</b>
50	40	10	1263	<b>167 645 016</b>	<b>167 645 036</b>
63	50	10	1728	<b>167 645 017</b>	<b>167 645 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

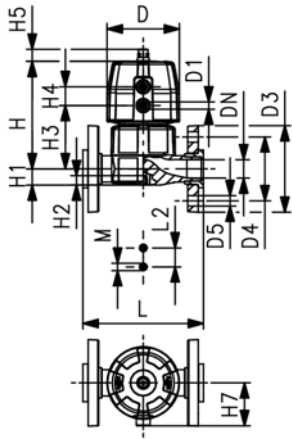
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 645 112	167 645 132
25	20	10	271	167 645 113	167 645 133
32	25	10	481	167 645 114	167 645 134
40	32	10	759	167 645 115	167 645 135
50	40	10	1263	167 645 116	167 645 136
63	50	10	1728	167 645 117	167 645 137

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With backing flanges PP-V metric/BS



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 647 112</b>	<b>167 647 132</b>
25	20	10	271	<b>167 647 113</b>	<b>167 647 133</b>
32	25	10	481	<b>167 647 114</b>	<b>167 647 134</b>
40	32	10	759	<b>167 647 115</b>	<b>167 647 135</b>
50	40	10	1263	<b>167 647 116</b>	<b>167 647 136</b>
63	50	10	1728	<b>167 647 117</b>	<b>167 647 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with fusion sockets metric

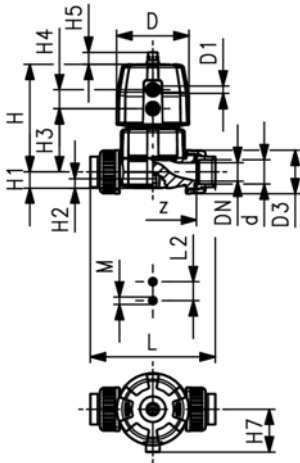


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 654 012	167 654 032
25	20	10	271	167 654 013	167 654 033
32	25	10	481	167 654 014	167 654 034
40	32	10	759	167 654 015	167 654 035
50	40	10	1263	167 654 016	167 654 036
63	50	10	1728	167 654 017	167 654 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23

## PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with butt fusion spigots SDR11 metric

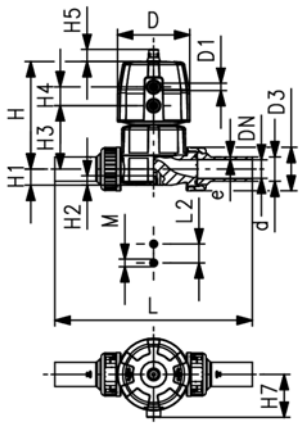


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

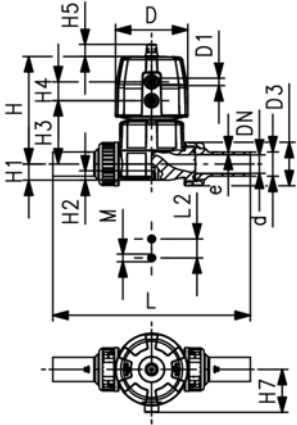
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 654 112	167 654 132
25	20	10	271	167 654 113	167 654 133
32	25	10	481	167 654 114	167 654 134
40	32	10	759	167 654 115	167 654 135
50	40	10	1263	167 654 116	167 654 136
63	50	10	1728	167 654 117	167 654 137

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	5.8



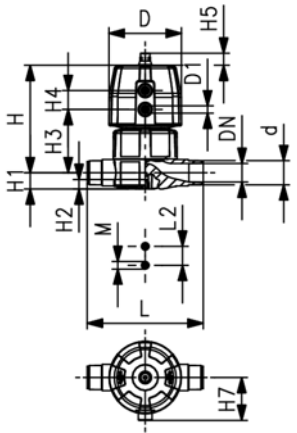
## PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With socket fusion spigots metric

### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

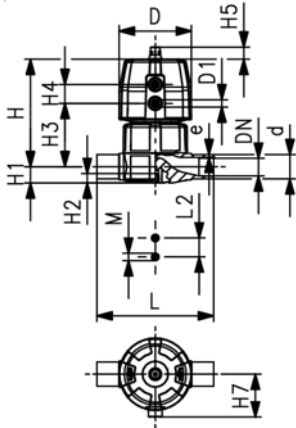


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 655 012</b>	<b>167 655 032</b>
25	20	10	271	<b>167 655 013</b>	<b>167 655 033</b>
32	25	10	481	<b>167 655 014</b>	<b>167 655 034</b>
40	32	10	759	<b>167 655 015</b>	<b>167 655 035</b>
50	40	10	1263	<b>167 655 016</b>	<b>167 655 036</b>
63	50	10	1728	<b>167 655 017</b>	<b>167 655 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 655 112</b>	<b>167 655 132</b>
25	20	10	271	<b>167 655 113</b>	<b>167 655 133</b>
32	25	10	481	<b>167 655 114</b>	<b>167 655 134</b>
40	32	10	759	<b>167 655 115</b>	<b>167 655 135</b>
50	40	10	1263	<b>167 655 116</b>	<b>167 655 136</b>
63	50	10	1728	<b>167 655 117</b>	<b>167 655 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With backing flanges PP-V metric/BS

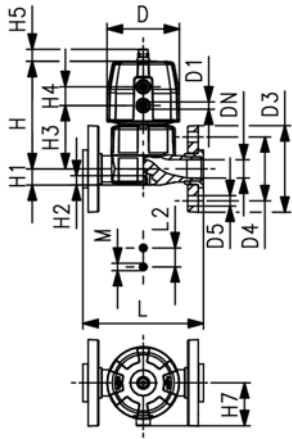


### Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 657 112</b>	<b>167 657 132</b>
25	20	10	271	<b>167 657 113</b>	<b>167 657 133</b>
32	25	10	481	<b>167 657 114</b>	<b>167 657 134</b>
40	32	10	759	<b>167 657 115</b>	<b>167 657 135</b>
50	40	10	1263	<b>167 657 116</b>	<b>167 657 136</b>
63	50	10	1728	<b>167 657 117</b>	<b>167 657 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with fusion sockets metric

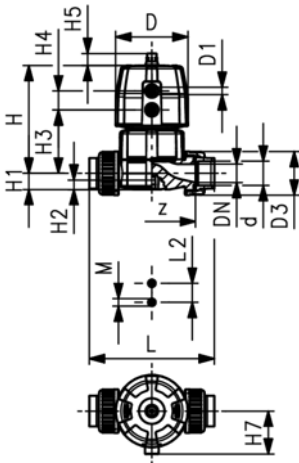


### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 634 012	167 634 032
25	20	10	271	167 634 013	167 634 033
32	25	10	481	167 634 014	167 634 034
40	32	10	759	167 634 015	167 634 035
50	40	10	1263	167 634 016	167 634 036
63	50	10	1728	167 634 017	167 634 037

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	126	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	144	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	164	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	194	23

## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with butt fusion spigots SDR11 metric

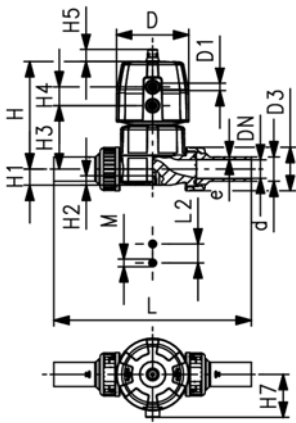


### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- For easy installation and removal
- Short overall length

### Option:

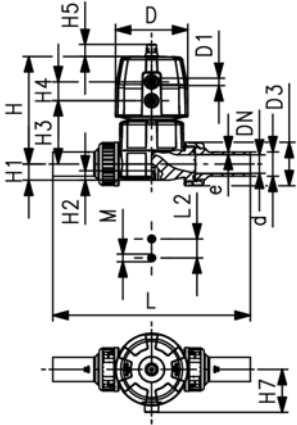
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	167 634 112	167 634 132
25	20	10	271	167 634 113	167 634 133
32	25	10	481	167 634 114	167 634 134
40	32	10	759	167 634 115	167 634 135
50	40	10	1263	167 634 116	167 634 136
63	50	10	1728	167 634 117	167 634 137

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	5.8



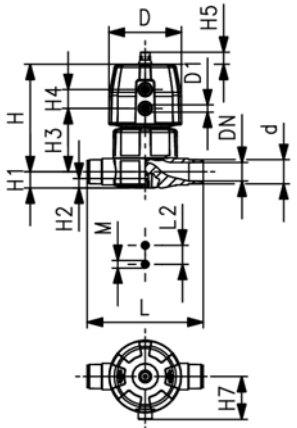
## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With socket fusion spigots metric

### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

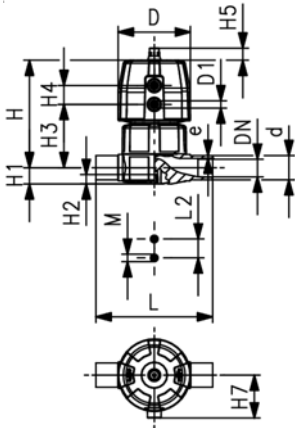


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 635 012</b>	<b>167 635 032</b>
25	20	10	271	<b>167 635 013</b>	<b>167 635 033</b>
32	25	10	481	<b>167 635 014</b>	<b>167 635 034</b>
40	32	10	759	<b>167 635 015</b>	<b>167 635 035</b>
50	40	10	1263	<b>167 635 016</b>	<b>167 635 036</b>
63	50	10	1728	<b>167 635 017</b>	<b>167 635 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	5.8

# PROGEF Standard metric

## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor

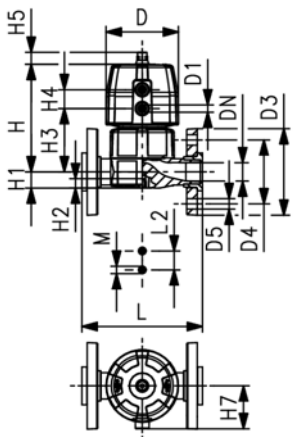
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 635 112</b>	<b>167 635 132</b>
25	20	10	271	<b>167 635 113</b>	<b>167 635 133</b>
32	25	10	481	<b>167 635 114</b>	<b>167 635 134</b>
40	32	10	759	<b>167 635 115</b>	<b>167 635 135</b>
50	40	10	1263	<b>167 635 116</b>	<b>167 635 136</b>
63	50	10	1728	<b>167 635 117</b>	<b>167 635 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	5.8

## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With backing flanges PP-V metric/BS



### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

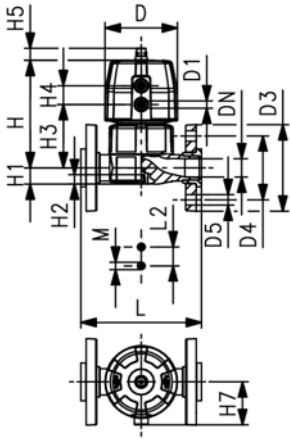
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	15	10	125	<b>167 637 112</b>	<b>167 637 132</b>
25	20	10	271	<b>167 637 113</b>	<b>167 637 133</b>
32	25	10	481	<b>167 637 114</b>	<b>167 637 134</b>
40	32	10	759	<b>167 637 115</b>	<b>167 637 135</b>
50	40	10	1263	<b>167 637 116</b>	<b>167 637 136</b>
63	50	10	1728	<b>167 637 117</b>	<b>167 637 137</b>

table continued next page

# PROGEF Standard metric



d	D	D1_G	D3	D4	D5	L	L2	H	H1	H2	H3	H4	H5	H7	M
[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
20	96	1/8	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	1/8	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	1/4	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	1/4	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	1/4	165	125	18	230	45	251	39	15	137	37	26	103	M8

d	Lift = Hx
[mm]	[mm]
20	7
25	10
32	13
40	15
50	19
63	23



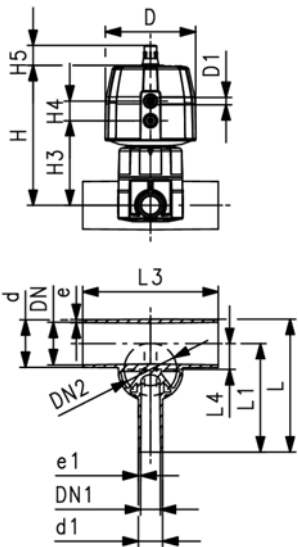
## PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric

### Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

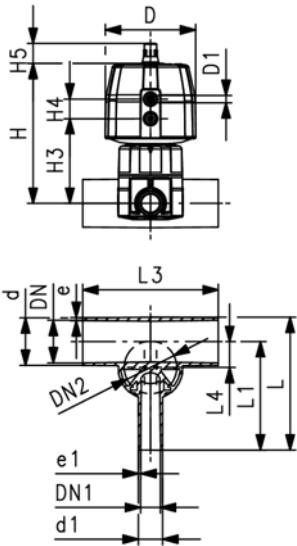


d	d1	DN	DN1	DN2	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code
[mm]	[mm]	[mm]	[mm]	[mm]				
20	20	15	15	15	10	57	167 639 101	167 639 301
25	20	20	15	20	10	89	167 639 103	167 639 303
25	25	20	20	20	10	118	167 639 104	167 639 304
32	20	25	15	20	10	80	167 639 107	167 639 307
32	25	25	20	20	10	105	167 639 108	167 639 308
32	32	25	25	25	10	231	167 639 109	167 639 309
40	20	32	15	25	10	85	167 639 112	167 639 312
50	20	40	15	20	10	86	167 639 118	167 639 318
50	25	40	20	25	10	160	167 639 119	167 639 319
50	32	40	25	25	10	206	167 639 120	167 639 320
63	20	50	15	20	10	84	167 639 125	167 639 325
63	25	50	20	25	10	150	167 639 126	167 639 326
63	32	50	25	25	10	184	167 639 127	167 639 327

d	D	D1	L	L1	L3	L4	H	H3	H4	H5	Lift = Hx	e	e1
[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
20	96	1/8	117	96	162	12	130	71	25	16	7	1.9	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	2.3
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	1.9
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	2.3
32	120	1/8	145	120	160	19	167	93	26	26	13	2.9	2.9
40	120	1/8	149	128	180	23	175	101	26	26	13	3.7	1.9
50	96	1/8	160	134	180	27	148	90	25	16	10	4.6	1.9
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.3
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.9

table continued next page

# PROGEF Standard metric



d [mm]	D [mm]	D1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]	
63	96	1/8	177	144	180	33	155	96	25	26	10	5.8	1.9	
63	120	1/8	177	144	180	35	187	113	26	16	13	5.8	2.3	
63	120	1/8	177	144	180	35	187	113	26	26	13	5.8	2.9	

# PROGEF Standard metric

## Diaphragm valves pneumatic



### PROGEF Standard

#### Diaphragm valve type DIASTAR

#### Series 025 FC (Fail safe to close)

#### With fixed flanges PP metric

**Model:**

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

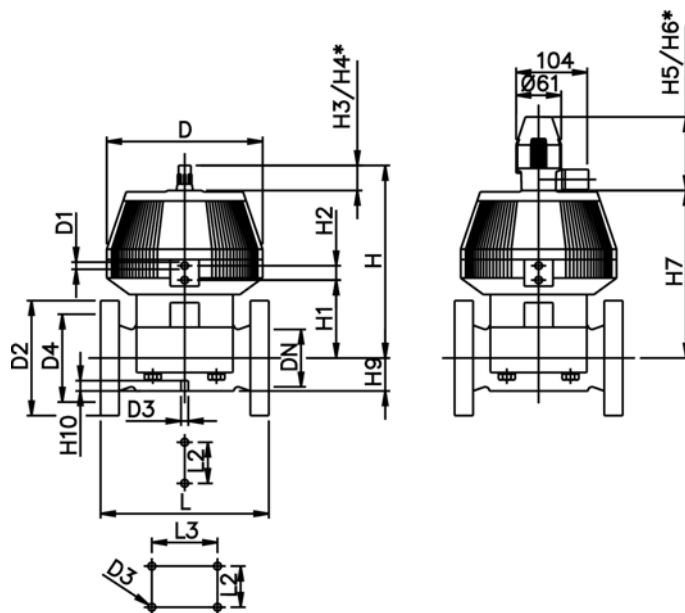
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 267</b>	<b>199 025 297</b>
** 90	80	3	10	1700	<b>199 025 268</b>	<b>199 025 298</b>
110	100	4	6	2700	<b>199 025 269</b>	<b>199 025 299</b>
** 160	150	6	6	6033	<b>199 025 270</b>	-

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# PROGEF Standard metric

## PROGEF Standard Diaphragm valve type DIASTAR Series 025 FO (Fail safe to open) With fixed flanges PP metric



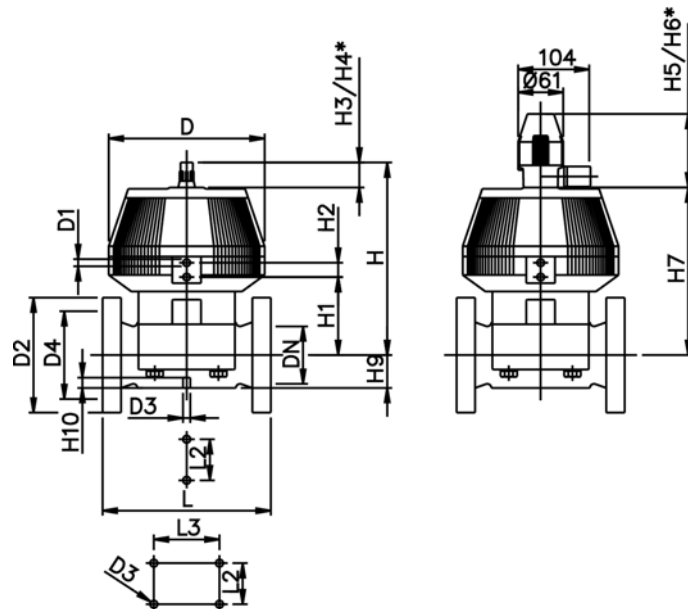
### Model:

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 277</b>	<b>199 025 307</b>
** 90	80	3	10	1700	<b>199 025 278</b>	<b>199 025 308</b>
110	100	4	6	2700	<b>199 025 279</b>	<b>199 025 309</b>
** 160	150	6	6	6033	<b>199 025 280</b>	<b>199 025 310</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# PROGEF Standard metric

## PROGEF Standard Diaphragm valve type DIASTAR Series 025 DA (Double acting) With fixed flanges PP metric



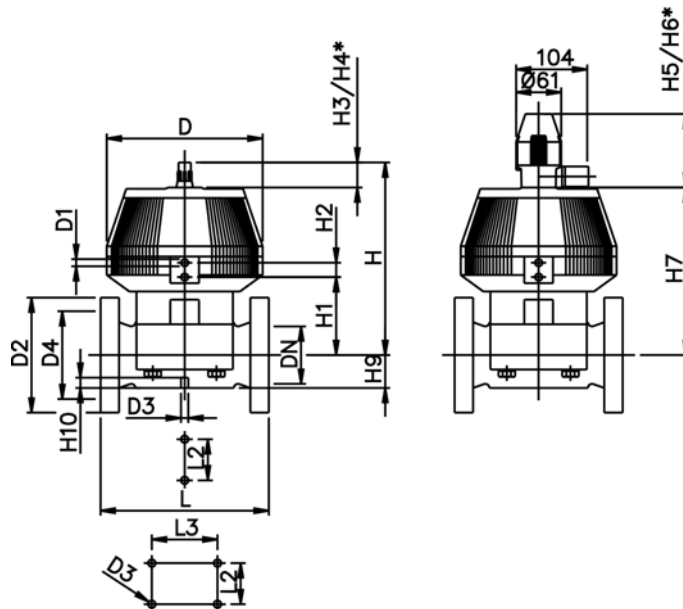
### Model:

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 287</b>	<b>199 025 317</b>
** 90	80	3	10	1700	<b>199 025 288</b>	<b>199 025 318</b>
110	100	4	6	2700	<b>199 025 289</b>	<b>199 025 319</b>
** 160	150	6	6	6033	<b>199 025 290</b>	<b>199 025 320</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20





# PROGEF Standard metric

## Solenoid valves

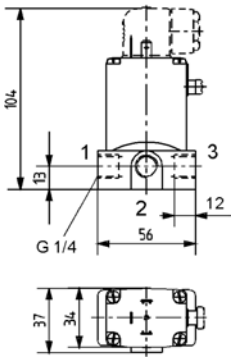
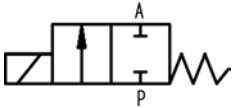
### PROGEF Standard

#### Solenoid valve type 166

#### Function A straight-through valve 2/2 ways

#### Nominal voltage 24V DC

#### With G 1/4 line connection



#### Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3	1/4	A	0.0 - 8.0	4	199 166 000	199 166 005
4	1/4	A	0.0 - 4.0	5	199 166 001	199 166 006
5	1/4	A	0.0 - 3.0	6	199 166 002	199 166 007

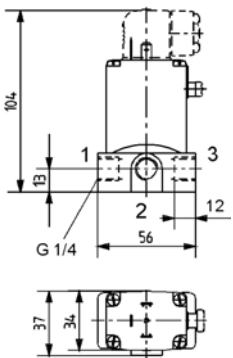
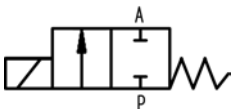
### PROGEF Standard

#### Solenoid valve type 166

#### Function A straight-through valve 2/2 ways

#### Nominal voltage 230V 50Hz $\pm 10\%$

#### With G 1/4 line connection



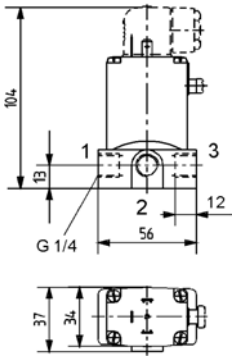
#### Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3	1/4	A	0.0 - 10.0	4	199 166 010	199 166 015
4	1/4	A	0.0 - 5.0	5	199 166 011	199 166 016
5	1/4	A	0.0 - 4.5	6	199 166 012	199 166 017

# PROGEF Standard metric

**PROGEF Standard**  
**Solenoid valve type 166**  
**Function E mixing valve 3/2 ways**  
**Nominal voltage 24V DC**  
**With G 1/4 line connection**

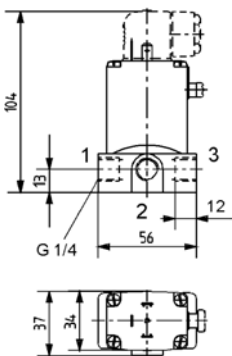


**Model:**

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3	1/4	E	0.0 - 4.0	4	<b>199 166 150</b>	<b>199 166 155</b>
4	1/4	E	0.0 - 2.0	5	<b>199 166 151</b>	<b>199 166 156</b>

**PROGEF Standard**  
**Solenoid valve type 166**  
**Function E mixing valve 3/2 ways**  
**Nominal voltage 230V 50Hz  $\pm 10\%$**   
**With G 1/4 line connection**



**Model:**

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3	1/4	E	0.0 - 6.0	4	<b>199 166 160</b>	<b>199 166 165</b>
4	1/4	E	0.0 - 3.0	5	<b>199 166 161</b>	<b>199 166 166</b>

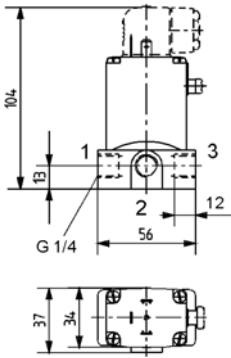
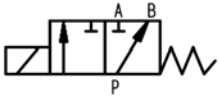
# PROGEF Standard metric



**PROGEF Standard**  
**Solenoid valve type 166**  
**Function F distribution valve 3/2 ways**  
**Nominal voltage 24V DC**  
**With G 1/4 line connection**

**Model:**

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



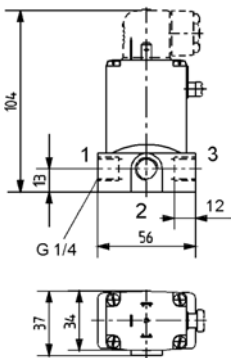
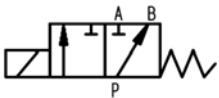
DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
4	1/4	F	0.0 - 4.0	5	199 166 201	199 166 206



**PROGEF Standard**  
**Solenoid valve type 166**  
**Function F distribution valve 3/2 ways**  
**Nominal voltage 230V 50Hz  $\pm 10\%$**   
**With G 1/4 line connection**

**Model:**

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
4	1/4	F	0.0 - 5.0	5	199 166 211	199 166 216

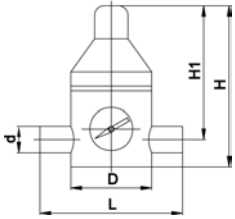
# PROGEF Standard metric

## Process control valves

### PROGEF Standard Pressure reducing valve type V82 With fusion spigots metric

Model:

- Material: PP-H

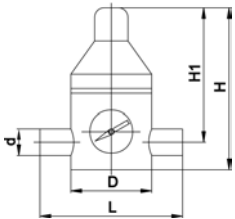


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 032	199 041 042	70	134	130	100
20	15	0.5 - 10	199 041 033	199 041 043	70	134	130	100
25	20	0.5 - 10	199 041 034	199 041 044	100	174	180	134
32	25	0.5 - 10	199 041 035	199 041 045	100	174	180	134
40	32	0.5 - 10	199 041 036	199 041 046	130	224	230	175
50	40	0.5 - 10	199 041 037	199 041 047	130	224	230	175
63	50	0.5 - 10	199 041 038	199 041 048	150	244	285	210
75	65	0.5 - 6	199 041 039	199 041 049	200	300	350	250
90	80	0.5 - 6	199 041 040	199 041 050	250	360	425	305
110	100	0.5 - 4	199 041 041	199 041 051	300	420	495	345

### PROGEF Standard Pressure reducing valve type V82 With butt fusion spigots IR metric

Model:

- Material: PP-H

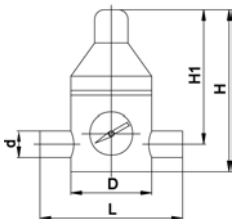


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	199 041 411	199 041 421	70	150	130	100
25	20	0.5 - 10	199 041 412	199 041 422	100	190	180	134
32	25	0.5 - 10	199 041 413	199 041 423	100	190	180	134
40	32	0.5 - 10	199 041 414	199 041 424	130	240	230	175
50	40	0.5 - 10	199 041 415	199 041 425	130	240	230	175
63	50	0.5 - 10	199 041 416	199 041 426	150	260	285	210
75	65	0.5 - 6	199 041 417	199 041 427	200	300	350	250
90	80	0.5 - 6	199 041 418	199 041 428	250	360	425	305
110	100	0.5 - 4	199 041 419	199 041 429	300	420	495	345

### PROGEF Standard Pressure reducing valve type V182 With fusion spigots metric

Model:

- Material: PP-H



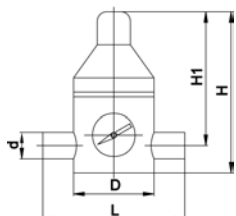
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 621	199 041 631	70	134	130	100
20	15	0.5 - 10	199 041 622	199 041 632	70	134	130	100
25	20	0.5 - 10	199 041 623	199 041 633	100	174	180	134
32	25	0.5 - 10	199 041 624	199 041 634	100	174	180	134
40	32	0.5 - 10	199 041 625	199 041 635	130	224	230	175
50	40	0.5 - 10	199 041 626	199 041 636	130	224	230	175

## PROGEF Standard metric

### PROGEF Standard Pressure reducing valve type V182 With butt fusion spigots IR metric

Model:

- Material: PP-H

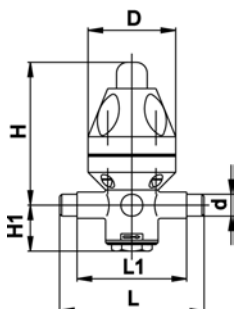


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]	
16	10	0.5 - 10	199 041 641	199 041 651	70		130	100	
20	15	0.5 - 10	199 041 642	199 041 652	70	150	130	100	
25	20	0.5 - 10	199 041 643	199 041 653	100	190	180	134	
32	25	0.5 - 10	199 041 644	199 041 654	100	190	180	134	
40	32	0.5 - 10	199 041 645	199 041 655	130	240	230	175	
50	40	0.5 - 10	199 041 646	199 041 656	130	240	230	175	

### PROGEF Standard Pressure reducing valve type V782 With fusion spigots metric

Model:

- Material: PP-H

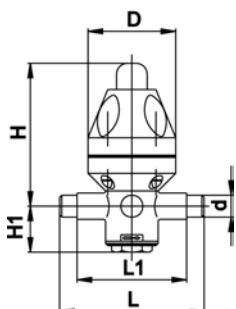


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	
16	10	0.5 - 10	199 041 072	199 041 078	83	134	102	138	48	
20	15	0.5 - 10	199 041 073	199 041 079	83	134	102	138	48	
25	20	0.5 - 10	199 041 074	199 041 080	113	154	110	205	65	
32	25	0.5 - 10	199 041 075	199 041 081	113	154	110	205	65	
40	32	0.5 - 10	199 041 076	199 041 082	165	224	162	248	95	
50	40	0.5 - 10	199 041 077	199 041 083	165	224	162	248	95	

### PROGEF Standard Pressure reducing valve type V782 With butt fusion spigots IR metric

Model:

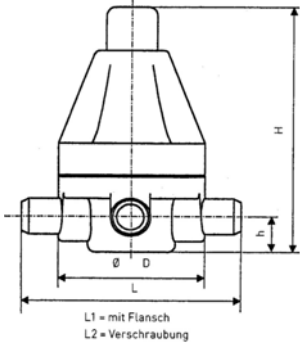
- Material: PP-H



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	
20	15	0.5 - 10	199 041 299	199 041 404	83	172	102	138	48	
25	20	0.5 - 10	199 041 300	199 041 405	113	190	110	205	65	
32	25	0.5 - 10	199 041 301	199 041 406	113	190	110	205	65	
40	32	0.5 - 10	199 041 302	199 041 407	165	262	162	248	95	
50	40	0.5 - 10	199 041 303	199 041 408	165	262	162	248	95	

# PROGEF Standard metric

## PROGEF Standard Pressure relief valve type V185 With fusion spigots metric

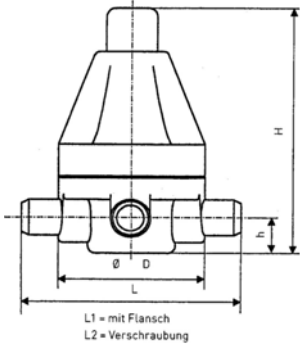


Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	
16	10	0.5 - 10	199 041 367	199 041 337	83	134	137	20	
20	15	0.5 - 10	199 041 368	199 041 338	83	134	137	20	
25	20	0.5 - 10	199 041 369	199 041 339	83	134	137	20	
32	25	0.5 - 10	199 041 370	199 041 340	112	174	199	27	
40	32	0.5 - 10	199 041 371	199 041 341	112	174	199	43	
50	40	0.5 - 10	199 041 372	199 041 342	165	224	290	43	
63	50	0.5 - 10	199 041 373	199 041 343	165	244	290	43	

## PROGEF Standard Pressure relief valve type V185 With butt fusion spigots IR metric

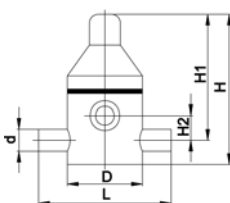


Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	
20	15	0.5 - 10	199 041 505	199 041 512	83	158	137	20	
25	20	0.5 - 10	199 041 506	199 041 513	83	158	137	20	
32	25	0.5 - 10	199 041 507	199 041 514	112	198	199	27	
40	32	0.5 - 10	199 041 508	199 041 515	165	202	199	43	
50	40	0.5 - 10	199 041 509	199 041 516	165	256	290	43	
63	50	0.5 - 10	199 041 510	199 041 517	165	256	290	43	

## PROGEF Standard Pressure relief valve type V85 With fusion spigots metric



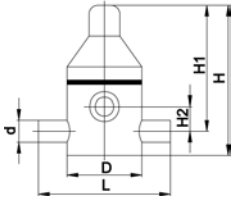
Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	
75	65	1.0 - 6	199 041 926	199 041 895	180	284	295	250	70	
90	80	1.0 - 6	199 041 893	199 041 896	200	300	400	340	95	
110	100	1.0 - 4	199 041 894	199 041 897	250	380	475	405	110	

# PROGEF Standard metric

## PROGEF Standard Pressure relief valve type V85 With butt fusion spigots IR metric

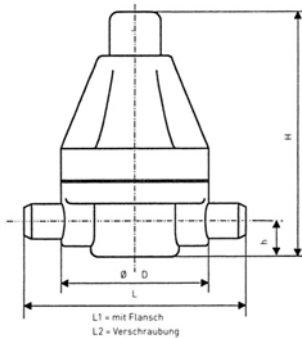


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]
75	65	1.0 - 6	199 041 530	199 041 533	180	284	295	250	70
90	80	1.0 - 6	199 041 531	199 041 534	200	300	400	340	95
110	100	1.0 - 4	199 041 532	199 041 535	250	380	475	405	110

## PROGEF Standard Pressure retaining valve type V186 With fusion spigots metric

Model:

- Material: PP-H

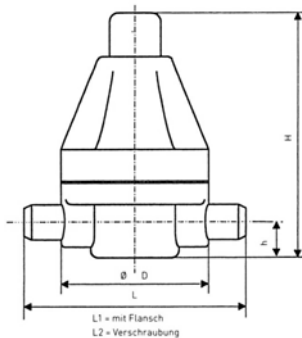


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 386	199 041 316	83	134	137	20
20	15	0.5 - 10	199 041 387	199 041 317	83	134	137	20
25	20	0.5 - 10	199 041 388	199 041 318	83	134	137	20
32	25	0.5 - 10	199 041 389	199 041 319	112	174	199	27
40	32	0.5 - 10	199 041 390	199 041 320	112	174	199	43
50	40	0.5 - 10	199 041 391	199 041 321	165	224	290	43
63	50	0.5 - 10	199 041 392	199 041 322	165	244	290	43

## PROGEF Standard Pressure retaining valve type V186 With butt fusion spigots IR metric

Model:

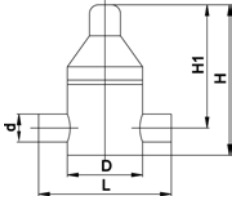
- Material: PP-H



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	199 041 446	199 041 453	83	158	137	20
25	20	0.5 - 10	199 041 447	199 041 454	83	158	137	20
32	25	0.5 - 10	199 041 448	199 041 455	112	198	199	27
40	32	0.5 - 10	199 041 449	199 041 456	112	202	199	43
50	40	0.5 - 10	199 041 450	199 041 457	165	256	290	43
63	50	0.5 - 10	199 041 451	199 041 458	165	256	290	43

# PROGEF Standard metric

## PROGEF Standard Pressure retaining valve type V86 With fusion spigots metric

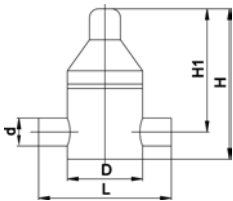


Model:

- Material: PP-H

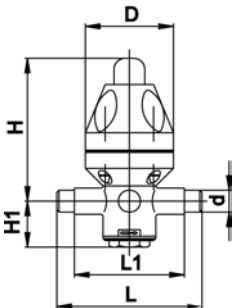
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	0.2 - 4	199 041 882	199 041 887	180	284	275	230
75	65	1.0 - 6	199 041 883	199 041 888	180	284	275	230
90	80	0.2 - 4	199 041 884	199 041 889	250	360	410	320
90	80	1.0 - 6	199 041 885	199 041 890	250	360	410	320
110	100	1.0 - 4	199 041 886	199 041 891	250	380	485	415

## PROGEF Standard Pressure retaining valve type V86 With butt fusion spigots IR metric



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	0.2 - 4	199 041 470	199 041 475	180	284	275	230
75	65	1.0 - 6	199 041 471	199 041 476	180	284	275	230
90	80	0.2 - 4	199 041 472	199 041 477	250	360	410	320
90	80	1.0 - 6	199 041 473	199 041 478	250	360	410	320
110	100	1.0 - 4	199 041 474	199 041 479	250	380	485	415

## PROGEF Standard Pressure retaining valve type V786 With fusion spigots metric



Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 102	199 041 108	83	134	102	138	38
20	15	0.5 - 10	199 041 103	199 041 109	83	134	102	138	38
25	20	0.5 - 10	199 041 104	199 041 110	112	154	110	205	55
32	25	0.5 - 10	199 041 105	199 041 111	112	154	110	205	55
40	32	0.5 - 4	199 041 106	199 041 112	165	224	162	248	85
50	40	0.5 - 4	199 041 107	199 041 113	165	224	162	248	85



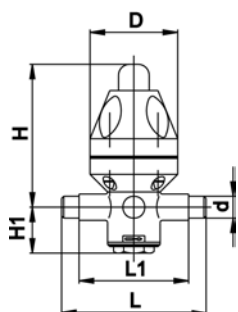
# PROGEF Standard metric

## PROGEF Standard Pressure retaining valve type V786 With butt fusion spigots IR metric



Model:

- Material: PP-H



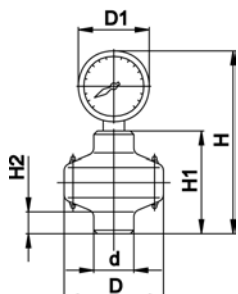
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	199 041 431	199 041 437	83	172	102	138	38
25	20	0.5 - 10	199 041 432	199 041 438	112	190	110	205	55
32	25	0.5 - 10	199 041 433	199 041 439	112	190	110	205	55
40	32	0.5 - 4	199 041 434	199 041 440	165	262	162	248	85
50	40	0.5 - 4	199 041 435	199 041 441	165	262	162	248	85

## PROGEF Standard Gauge guard type Z700 With manometer 0-10 bar



Model:

- Material: PP-H



d [mm]	PTFE Code	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 002	¼	72	63	129	71	15
32	199 041 003	½	100	100	210	90	22

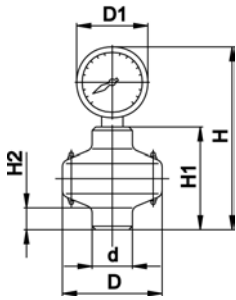
# PROGEF Standard metric

## PROGEF Standard Gauge guard type Z700 With manometer 0-6 bar



Model:

- Material: PP-H



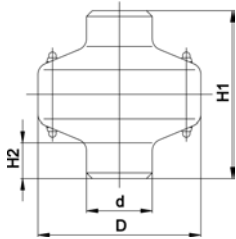
d [mm]	PTFE Code	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 294	¼	72	63	129	71	15
32	199 041 295	½	100	100	210	90	22



## PROGEF Standard Gauge guard type Z701 Without manometer

Model:

- Material: PP-H



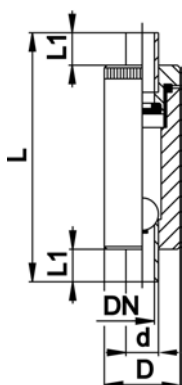
d [mm]	PTFE Code	G_R	D [mm]	H1 [mm]	H2 [mm]
25	199 041 008	¼	72	71	15
32	199 041 009	½	100	90	22

## PROGEF Standard metric

### PROGEF Standard Ventilating and bleed valve type V91 With fusion spigots metric

Model:

- Material: PP-H

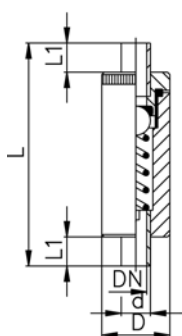


d [mm]	DN [mm]	PN	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 247</b>	35	114	14
20	15	10	<b>199 041 248</b>	40	124	16
25	20	10	<b>199 041 249</b>	45	144	19
32	25	10	<b>199 041 250</b>	55	154	22
40	32	10	<b>199 041 251</b>	70	174	26
50	40	10	<b>199 041 252</b>	80	194	31
63	50	10	<b>199 041 253</b>	95	224	38
75	65	10	<b>199 041 254</b>	115	284	44
90	80	10	<b>199 041 255</b>	150	300	51

### PROGEF Standard Ventilating valve type V95 With fusion spigots metric

Model:

- Material: PP-H



d [mm]	DN [mm]	PN	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 274</b>	35	114	14
20	15	10	<b>199 041 275</b>	40	124	16
25	20	10	<b>199 041 276</b>	45	144	19
32	25	10	<b>199 041 277</b>	55	154	22
40	32	10	<b>199 041 278</b>	70	174	26
50	40	10	<b>199 041 279</b>	80	194	31
63	50	10	<b>199 041 280</b>	95	224	38
75	65	10	<b>199 041 281</b>	115	284	44
90	80	10	<b>199 041 282</b>	150	300	51

# PROGEF Standard metric

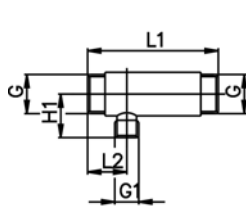
## PROGEF Standard Water jet suction pump type P20



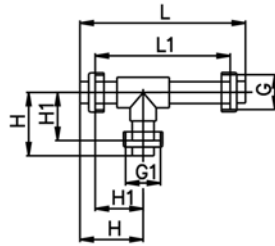
### Model:

- Material: PP-H
- DN 10-20: BSP parallel female thread
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

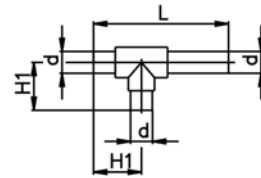
d [mm]	DN [mm]	PN	EPDM Code	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	10	10	<b>199 041 129</b>	R 3/4	R 3/4		110	40		35
20	15	10	<b>199 041 130</b>	R 1	R 3/4		125	40		35
25	20	10	<b>199 041 131</b>	R 1 1/4	R 3/4		145	45		45
32	25	10	<b>199 041 132</b>	R 1 1/2	R 1 1/2	245	195		96	71
40	32	10	<b>199 041 133</b>	R 2	R 2	297	239		116	87
50	40	10	<b>199 041 134</b>	R 2 1/4	R 2 1/4	369	301		139	105
63	50	10	<b>199 041 135</b>	R 2 3/4	R 2 3/4	433	351		169	128
75	65	10	<b>199 041 136</b>	R 1	-	388				115
90	80	10	<b>199 041 137</b>	R 2 3/4	-	465				149



DN 10 - 20



DN 25 - 50



DN 65 - 80

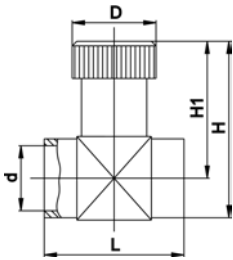
## PROGEF Standard Throttle valve type V251 With fusion sockets metric



### Model:

- Material: PP-H

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	10	<b>199 041 217</b>	<b>199 041 224</b>	29	47	57	45
20	15	10	<b>199 041 218</b>	<b>199 041 225</b>	35	55	66	51
25	20	10	<b>199 041 219</b>	<b>199 041 226</b>	40	66	80	63
32	25	10	<b>199 041 220</b>	<b>199 041 227</b>	47	80	96	75
40	32	10	<b>199 041 221</b>	<b>199 041 228</b>	56	100	111	86
50	40	10	<b>199 041 222</b>	<b>199 041 229</b>	70	120	133	101
63	50	10	<b>199 041 223</b>	<b>199 041 230</b>	88	146	158	118



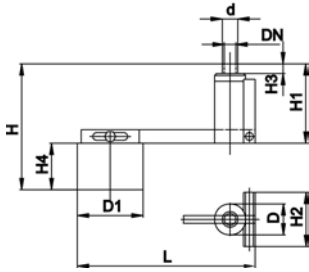
# PROGEF Standard metric

## PROGEF Standard Float valve type V140 With fusion spigots metric



### Model:

- Material: PP-H
- Lever 1:10



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	D [mm]	D1 [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
16	10	6	<b>199 041 165</b>	<b>199 041 174</b>	45	125	380	270	120	80	14	130
20	15	6	<b>199 041 166</b>	<b>199 041 175</b>	45	125	380	270	120	80	16	130
25	20	6	<b>199 041 167</b>	<b>199 041 176</b>	65	200	530	340	160	110	19	170
32	25	6	<b>199 041 168</b>	<b>199 041 177</b>	65	200	530	345	165	110	22	170
40	32	6	<b>199 041 169</b>	<b>199 041 178</b>	90	225	720	440	210	130	26	210
50	40	6	<b>199 041 170</b>	<b>199 041 179</b>	90	225	720	445	215	130	31	210
63	50	6	<b>199 041 171</b>	<b>199 041 180</b>	130	315	975	595	255	160	38	290
75	65	6	<b>199 041 172</b>	<b>199 041 181</b>	130	315	975	600	260	160	44	290
90	80	6	<b>199 041 173</b>	<b>199 041 182</b>	150	355	1140	640	290	180	51	340





Diaphragm valves pneumatic  
New generation

390

# PROGEF Natural

## Diaphragm valves pneumatic

### New generation



### PROGEF Natural

#### Diaphragm valve DIASTAR Six

#### FC (Fail safe to close)

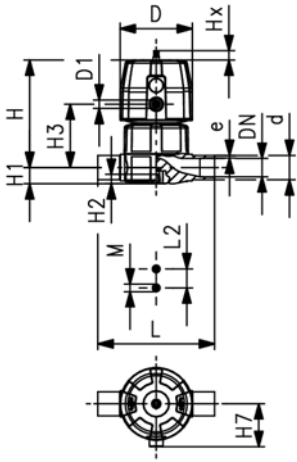
#### With butt fusion spigots SDR11 metric

#### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

#### Option:

- Individual configuration of the valve (see diagram)



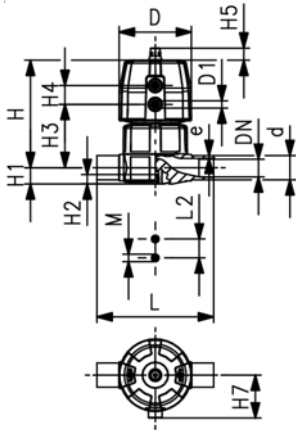
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code
20	15	6	125	<b>168 615 112</b>
25	20	6	271	<b>168 615 113</b>
32	25	6	481	<b>168 615 114</b>
40	32	6	759	<b>168 615 115</b>
50	40	6	960	<b>168 615 116</b>
63	50	6	1181	<b>168 615 117</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8



# PROGEF Natural

## PROGEF Natural Diaphragm valve DIASTAR Ten FC (Fail safe to close) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

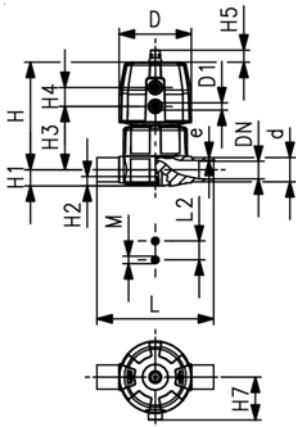
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE Code
20	15	10	125	<b>168 625 112</b>	<b>168 625 132</b>
25	20	10	271	<b>168 625 113</b>	<b>168 625 133</b>
32	25	10	481	<b>168 625 114</b>	<b>168 625 134</b>
40	32	10	759	<b>168 625 115</b>	<b>168 625 135</b>
50	40	10	1263	<b>168 625 116</b>	<b>168 625 136</b>
63	50	10	1728	<b>168 625 117</b>	<b>168 625 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/4	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

## PROGEF Natural Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

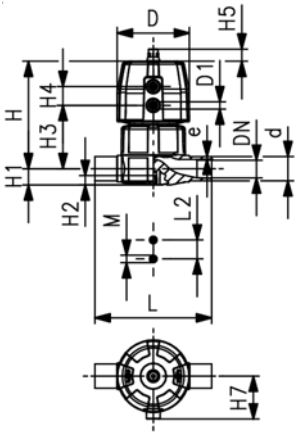
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE Code
20	15	10	125	<b>168 645 112</b>	<b>168 645 132</b>
25	20	10	271	<b>168 645 113</b>	<b>168 645 133</b>
32	25	10	481	<b>168 645 114</b>	<b>168 645 134</b>
40	32	10	759	<b>168 645 115</b>	<b>168 645 135</b>
50	40	10	1263	<b>168 645 116</b>	<b>168 645 136</b>
63	50	10	1728	<b>168 645 117</b>	<b>168 645 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9

table continued next page

# PROGEF Natural



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



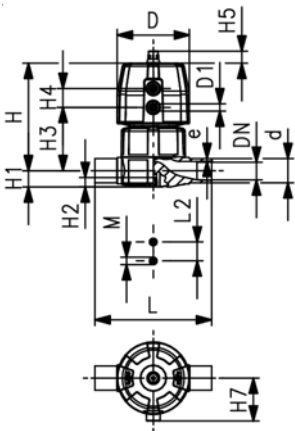
## PROGEF Natural Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots SDR11 metric

### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

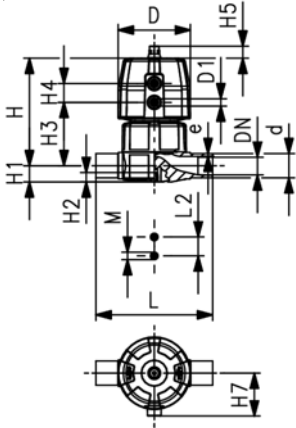


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE Code
20	15	10	125	<b>168 655 112</b>	<b>168 655 132</b>
25	20	10	271	<b>168 655 113</b>	<b>168 655 133</b>
32	25	10	481	<b>168 655 114</b>	<b>168 655 134</b>
40	32	10	759	<b>168 655 115</b>	<b>168 655 135</b>
50	40	10	1263	<b>168 655 116</b>	<b>168 655 136</b>
63	50	10	1728	<b>168 655 117</b>	<b>168 655 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8

# PROGEF Natural

## PROGEF Natural Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

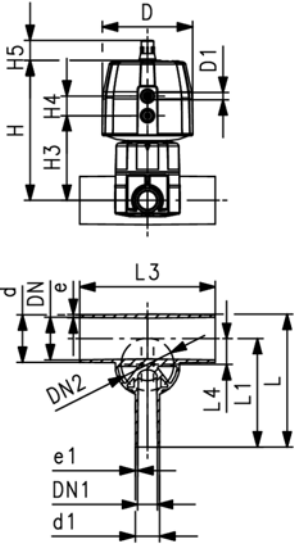
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE Code
20	15	10	125	<b>168 635 112</b>	<b>168 635 132</b>
25	20	10	271	<b>168 635 113</b>	<b>168 635 133</b>
32	25	10	481	<b>168 635 114</b>	<b>168 635 134</b>
40	32	10	759	<b>168 635 115</b>	<b>168 635 135</b>
50	40	10	1263	<b>168 635 116</b>	<b>168 635 136</b>
63	50	10	1728	<b>168 635 117</b>	<b>168 635 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	5.8

# PROGEF Natural

## PROGEF Natural Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric



### Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space










### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	20	15	15	15	10	57	<b>168 639 101</b>	<b>168 639 301</b>
25	20	20	15	20	10	89	<b>168 639 103</b>	<b>168 639 303</b>
25	25	20	20	20	10	118	<b>168 639 104</b>	<b>168 639 304</b>
32	20	25	15	20	10	80	<b>168 639 107</b>	<b>168 639 307</b>
32	25	25	20	20	10	105	<b>168 639 108</b>	<b>168 639 308</b>
32	32	25	25	25	10	231	<b>168 639 109</b>	<b>168 639 309</b>
40	20	32	15	25	10	85	<b>168 639 112</b>	<b>168 639 312</b>
50	20	40	15	20	10	86	<b>168 639 118</b>	<b>168 639 318</b>
50	25	40	20	25	10	160	<b>168 639 119</b>	<b>168 639 319</b>
50	32	40	25	25	10	206	<b>168 639 120</b>	<b>168 639 320</b>
63	20	50	15	20	10	84	<b>168 639 125</b>	<b>168 639 325</b>
63	25	50	20	25	10	150	<b>168 639 126</b>	<b>168 639 326</b>
63	32	50	25	25	10	184	<b>168 639 127</b>	<b>168 639 327</b>

d [mm]	D [mm]	DN1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	96	1/8	117	96	162	12	130	71	25	16	7	1.9	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	2.3
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	1.9
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	2.3
32	120	1/8	145	120	160	19	167	93	26	26	13	2.9	2.9
40	120	1/8	149	128	180	23	175	101	26	26	13	3.7	1.9
50	96	1/8	160	134	180	27	148	90	25	16	10	4.6	1.9
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.3
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.9
63	96	1/8	177	144	180	33	155	96	25	16	10	5.8	1.9
63	120	1/8	177	144	180	35	187	113	26	26	13	5.8	2.3
63	120	1/8	177	144	180	35	187	113	26	26	13	5.8	2.9

# SYGEF Standard metric

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# SYGEF Standard metric

## Ball valves electric

### SYGEF Standard

### Ball valve type 107 100-230V

### With manual emergency override

### With fusion sockets metric



DN10/15 - 50

#### Model:

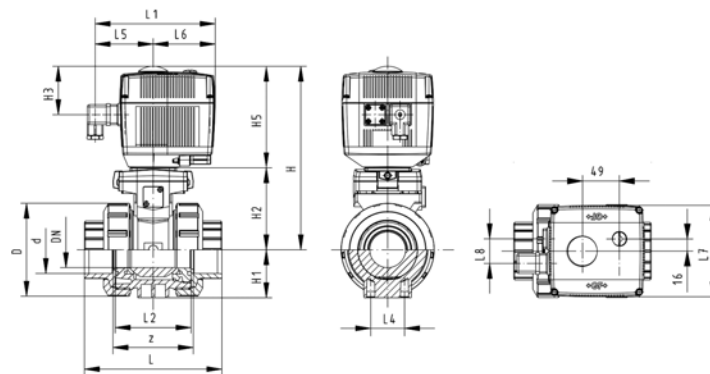
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 107 802</b>
20	15	10	185	<b>199 107 803</b>
25	20	10	350	<b>199 107 804</b>
32	25	10	700	<b>199 107 805</b>
40	32	10	1000	<b>199 107 806</b>
50	40	10	1600	<b>199 107 807</b>
63	50	10	3100	<b>199 107 808</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	79	83	122	67	64
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	64
25	58	209	30	73	64	137	110	161	65	25	79	83	122	67	72
32	68	209	36	73	64	137	123	161	71	25	79	83	122	67	79
40	84	220	44	84	64	137	146	161	85	45	79	83	122	67	94
50	97	220	51	84	64	137	157	161	89	45	79	83	122	67	95
63	124	243	64	106	64	137	183	161	101	45	79	83	122	67	107



# SYGEF Standard metric

## SYGEF Standard Ball valve type 107 100-230V With manual emergency override With socket fusion spigots metric



### Model:

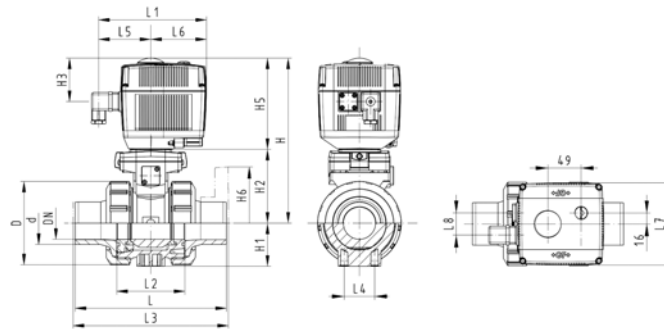
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 107 812</b>
20	15	10	185	<b>199 107 813</b>
25	20	10	350	<b>199 107 814</b>
32	25	10	700	<b>199 107 815</b>
40	32	10	1000	<b>199 107 816</b>
50	40	10	1600	<b>199 107 817</b>
63	50	10	3100	<b>199 107 818</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	0	25	79	83	122	67
20	50	200	27	64	64	137	124	161	56	130	25	79	83	122	67
25	58	209	30	73	64	137	144	161	65	150	25	79	83	122	67
32	68	209	36	73	64	137	154	161	71	160	25	79	83	122	67
40	84	220	44	84	64	137	174	161	85	180	45	79	83	122	67
50	97	220	51	84	64	137	194	161	89	200	45	79	83	122	67
63	124	243	64	106	64	137	224	161	101	230	45	79	83	122	67



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 107 100-230V

### With manual emergency override

### With butt fusion spigots IR-Plus metric



DN10/15 - 50

#### Model:

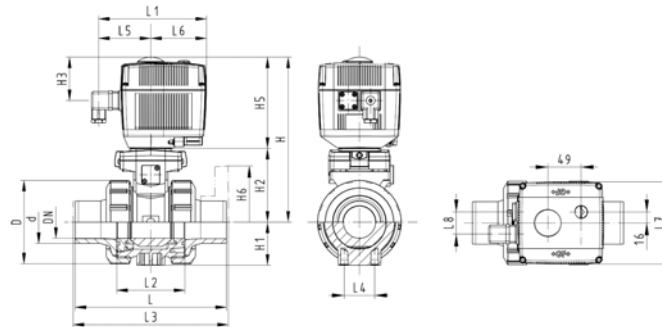
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 107 423</b>
25	20	10	350	<b>199 107 424</b>
32	25	10	700	<b>199 107 425</b>
40	32	10	1000	<b>199 107 426</b>
50	40	10	1600	<b>199 107 427</b>
63	50	10	3100	<b>199 107 428</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67





# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 107 100-230V

### With manual emergency override

### With fixed flanges PVDF serrated metric



DN10/15 - 50

#### Model:

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

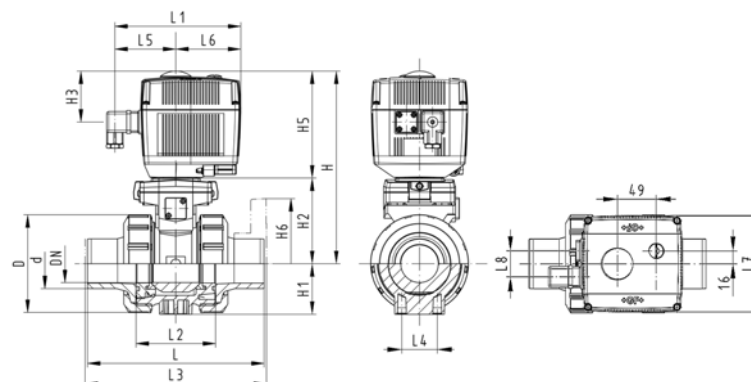
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 107 843</b>
25	20	¾	10	350	<b>199 107 844</b>
32	25	1	10	700	<b>199 107 845</b>
40	32	1 ¼	10	1000	<b>199 107 846</b>
50	40	1 ½	10	1600	<b>199 107 847</b>
63	50	2	10	3100	<b>199 107 848</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 107 24V

### With manual emergency override

### With fusion sockets metric



DN10/15 - 50

#### Model:

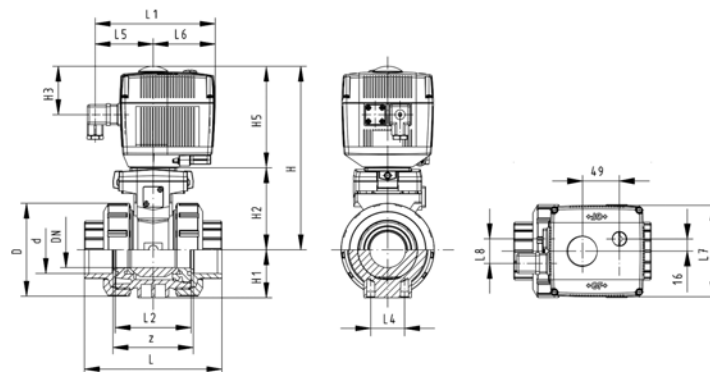
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 107 822</b>
20	15	10	185	<b>199 107 823</b>
25	20	10	350	<b>199 107 824</b>
32	25	10	700	<b>199 107 825</b>
40	32	10	1000	<b>199 107 826</b>
50	40	10	1600	<b>199 107 827</b>
63	50	10	3100	<b>199 107 828</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	92	161	56	25	79	83	122	67	64
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	64
25	58	209	30	73	64	137	110	161	65	25	79	83	122	67	72
32	68	209	36	73	64	137	123	161	71	25	79	83	122	67	79
40	84	220	44	84	64	137	146	161	85	45	79	83	122	67	94
50	97	220	51	84	64	137	157	161	89	45	79	83	122	67	95
63	124	243	64	106	64	137	183	161	101	45	79	83	122	67	107



# SYGEF Standard metric

## SYGEF Standard Ball valve type 107 24V With manual emergency override With socket fusion spigots metric



DN10/15 - 50

### Model:

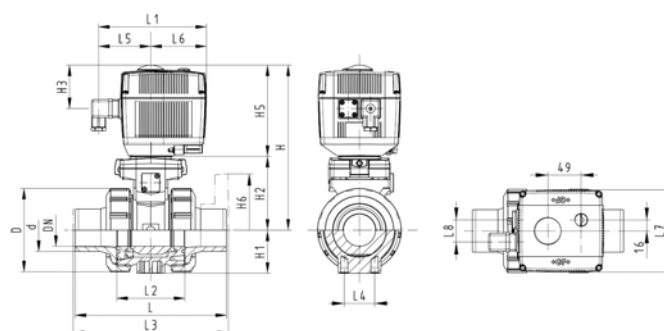
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 107 832</b>
20	15	10	185	<b>199 107 833</b>
25	20	10	350	<b>199 107 834</b>
32	25	10	700	<b>199 107 835</b>
40	32	10	1000	<b>199 107 836</b>
50	40	10	1600	<b>199 107 837</b>
63	50	10	3100	<b>199 107 838</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	114	161	56	0	25	79	83	122	67
20	50	200	27	64	64	137	124	161	56	130	25	79	83	122	67
25	58	209	30	73	64	137	144	161	65	150	25	79	83	122	67
32	68	209	36	73	64	137	154	161	71	160	25	79	83	122	67
40	84	220	44	84	64	137	174	161	85	180	45	79	83	122	67
50	97	220	51	84	64	137	194	161	89	200	45	79	83	122	67
63	124	243	64	106	64	137	224	161	101	230	45	79	83	122	67



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 107 24V

### With manual emergency override

### With butt fusion spigots IR-Plus metric



DN10/15 - 50

#### Model:

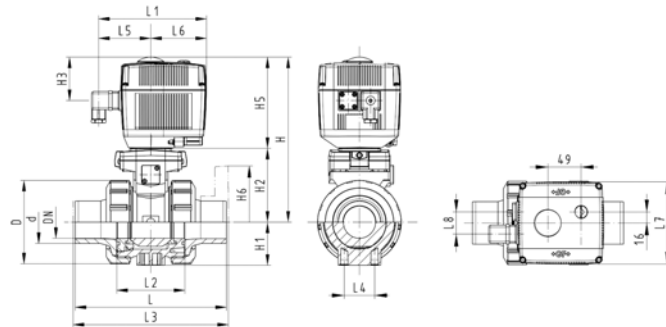
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

#### Option:

- Individual configuration of the valve (see diagram)

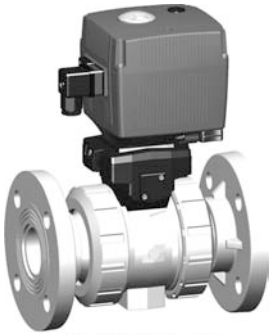
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 107 433</b>
25	20	10	350	<b>199 107 434</b>
32	25	10	700	<b>199 107 435</b>
40	32	10	1000	<b>199 107 436</b>
50	40	10	1600	<b>199 107 437</b>
63	50	10	3100	<b>199 107 438</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67



# SYGEF Standard metric

## SYGEF Standard Ball valve type 107 24V With manual emergency override With fixed flanges PVDF serrated metric



DN10/15 - 50

### Model:

- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

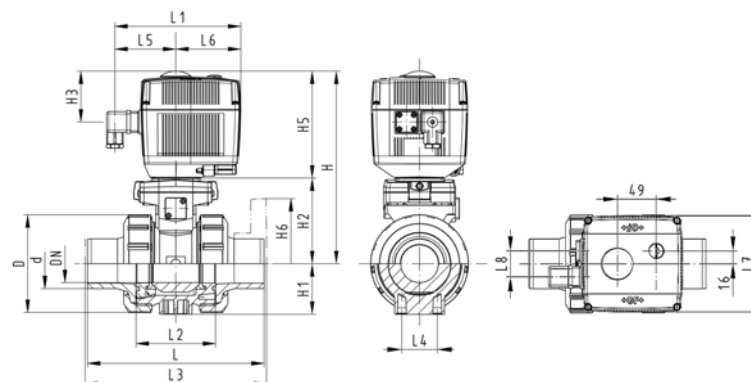
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 107 853</b>
25	20	¾	10	350	<b>199 107 854</b>
32	25	1	10	700	<b>199 107 855</b>
40	32	1 ¼	10	1000	<b>199 107 856</b>
50	40	1 ½	10	1600	<b>199 107 857</b>
63	50	2	10	3100	<b>199 107 858</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	201	27	64	65	138	48	124	160	56	130	25	77	83	122
25	58	210	30	73	65	138	53	144	160	65	150	25	77	83	122
32	68	210	36	73	65	138	58	154	160	71	160	25	77	83	122
40	84	221	44	84	65	138	70	174	160	85	180	45	77	83	122
50	97	221	51	84	65	138	75	194	160	89	200	45	77	83	122
63	124	244	64	106	65	138	83	224	160	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 100-230V

### With manual emergency override

### With fusion sockets metric



DN10/15 - 50



#### Model:

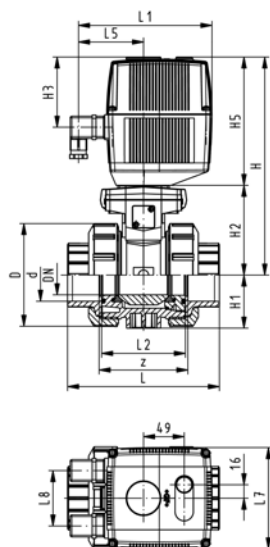
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

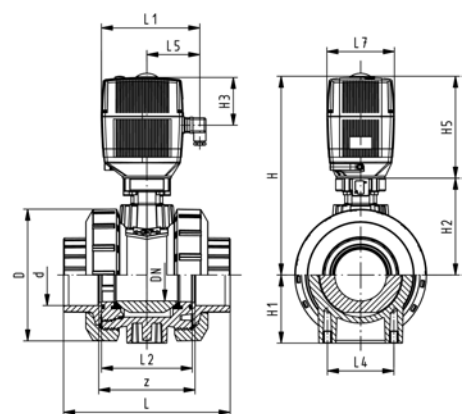
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 132 012</b>
20	15	10	185	<b>199 132 013</b>
25	20	10	350	<b>199 132 014</b>
32	25	10	700	<b>199 132 015</b>
40	32	10	1000	<b>199 132 016</b>
50	40	10	1600	<b>199 132 017</b>
63	50	10	3100	<b>199 132 018</b>
75	65	10	5000	<b>199 132 019</b>
90	80	10	7000	<b>199 132 020</b>
110	100	10	11000	<b>199 132 021</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100

# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 100-230V With manual emergency override With socket fusion spigots metric



### Model:

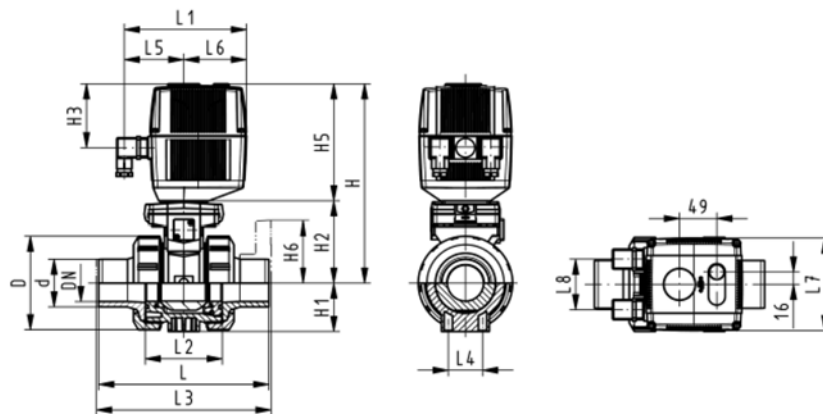
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 132 032</b>
20	15	10	185	<b>199 132 033</b>
25	20	10	350	<b>199 132 034</b>
32	25	10	700	<b>199 132 035</b>
40	32	10	1000	<b>199 132 036</b>
50	40	10	1600	<b>199 132 037</b>
63	50	10	3100	<b>199 132 038</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	231	27	64	94	167	114	180	56	130	25	97	83	122	66
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122	66
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122	66
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122	66
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122	66
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122	66
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122	66



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 100-230V

### With manual emergency override

### With butt fusion spigots IR-Plus metric



#### Model:

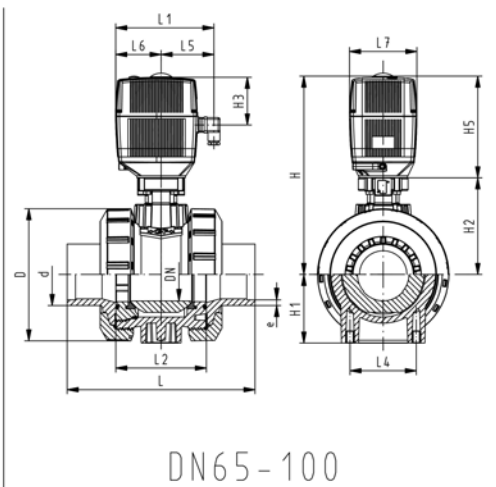
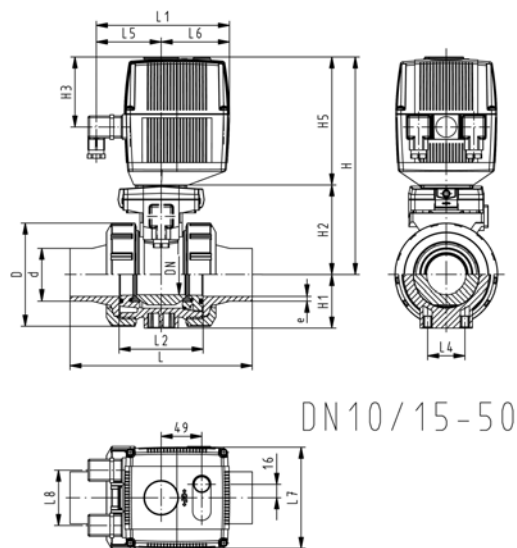
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 132 113</b>
25	20	10	350	<b>199 132 114</b>
32	25	10	700	<b>199 132 115</b>
40	32	10	1000	<b>199 132 116</b>
50	40	10	1600	<b>199 132 117</b>
63	50	10	3100	<b>199 132 118</b>
75	65	10	5000	<b>199 132 119</b>
90	80	10	7000	<b>199 132 120</b>
110	100	10	11000	<b>199 132 121</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
20	50	231	27	64	94	167	130	180	56	25	97	122	1.9
25	58	240	30	73	94	167	143	180	65	25	97	122	1.9
32	68	240	36	73	94	167	150	180	71	25	97	122	2.4
40	84	251	44	84	94	167	171	180	85	45	97	122	2.4
50	97	251	51	84	94	167	191	180	89	45	97	122	3.0
63	124	273	64	106	94	167	220	180	101	45	97	122	3.0
75	166	346	85	156	94	190	266	180	136	70	98	122	3.6
90	200	358	105	168	94	190	264	180	141	70	98	122	4.3
110	238	365	123	175	94	190	301	180	164	70	98	122	5.3





# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 100-230V With manual emergency override With backing flanges PP-st metric



### Model:

- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

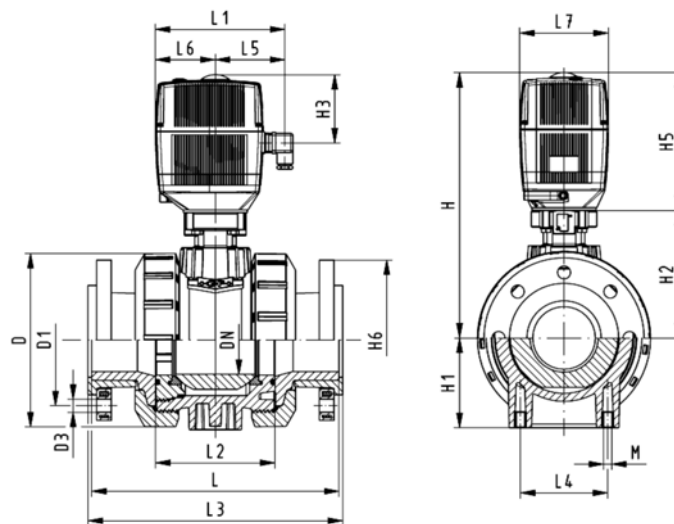
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
75	65	2 1/2	10	5000	199 132 169
90	80	3	10	7000	199 132 170
110	100	4	10	11000	199 132 171

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83

d [mm]	L7 [mm]	L8 [mm]
75	122	66
90	122	66
110	122	66



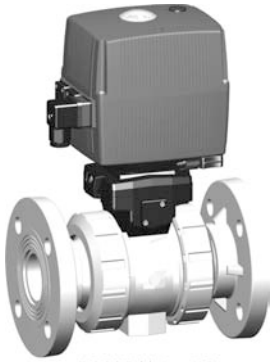
# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 100-230V

### With manual emergency override

### With fixed flanges PVDF serrated metric



DN10/15 - 50

#### Model:

- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- Overall length EN 558

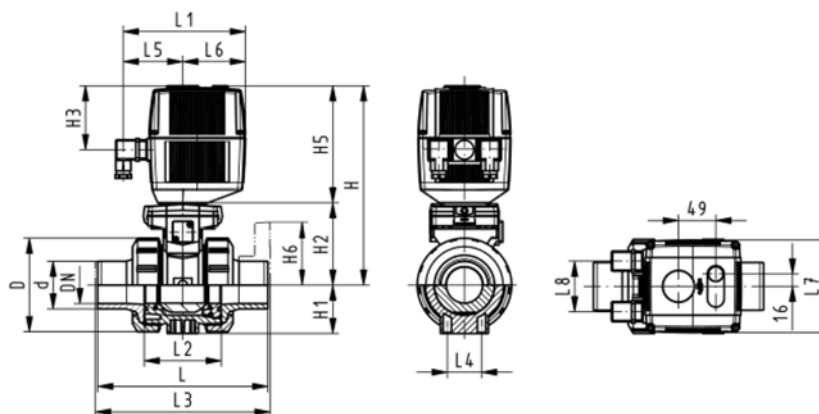
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 132 083</b>
25	20	¾	10	350	<b>199 132 084</b>
32	25	1	10	700	<b>199 132 085</b>
40	32	1 ¼	10	1000	<b>199 132 086</b>
50	40	1 ½	10	1600	<b>199 132 087</b>
63	50	2	10	3100	<b>199 132 088</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	124	180	56	130	25	98	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	98	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66



# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 100-230V With manual emergency override With threaded sockets NPT



DN10/15 - 50

### Model:

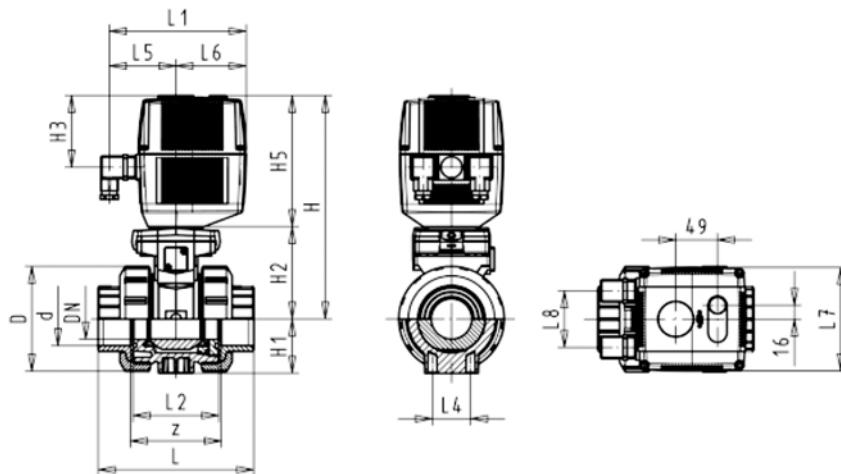
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 132 412</b>
1/2	15	10	185	<b>199 132 413</b>
3/4	20	10	350	<b>199 132 414</b>
1	25	10	700	<b>199 132 415</b>
1 1/4	32	10	1000	<b>199 132 416</b>
1 1/2	40	10	1600	<b>199 132 417</b>
2	50	10	3100	<b>199 132 418</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	231	27	64	94	167	96	180	56	25	97	83	122	66	69
1/2	50	231	27	64	94	167	99	180	56	25	97	83	122	66	64
3/4	58	240	30	73	94	167	111	180	65	25	97	83	122	66	76
1	68	240	36	73	94	167	127	180	71	25	97	83	122	66	83
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	66	101
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	66	111
2	124	273	64	106	94	167	183	180	101	45	97	83	122	66	135



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 24V

### With manual emergency override

### With fusion sockets metric



DN10/15 - 50



#### Model:

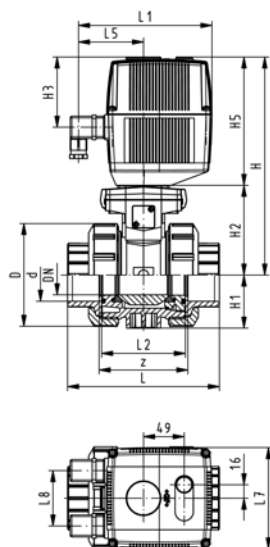
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

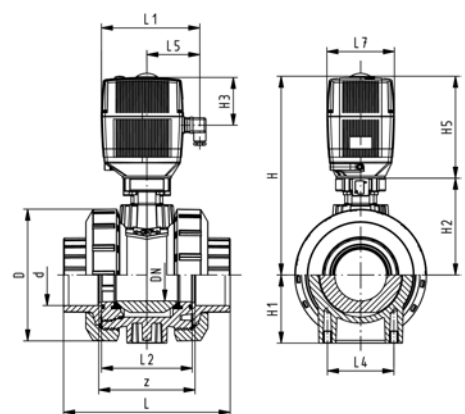
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 132 052</b>
20	15	10	185	<b>199 132 053</b>
25	20	10	350	<b>199 132 054</b>
32	25	10	700	<b>199 132 055</b>
40	32	10	1000	<b>199 132 056</b>
50	40	10	1600	<b>199 132 057</b>
63	50	10	3100	<b>199 132 058</b>
75	65	10	5000	<b>199 132 059</b>
90	80	10	7000	<b>199 132 060</b>
110	100	10	11000	<b>199 132 061</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	172	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100

# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 24V With manual emergency override With socket fusion spigots metric



### Model:

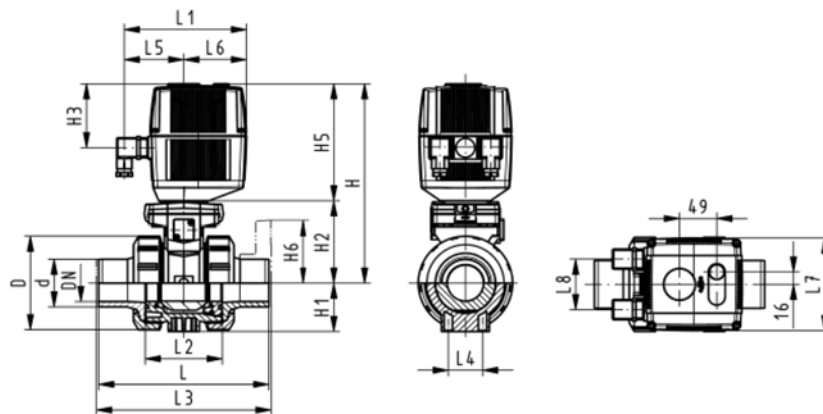
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 132 072</b>
20	15	10	185	<b>199 132 073</b>
25	20	10	350	<b>199 132 074</b>
32	25	10	700	<b>199 132 075</b>
40	32	10	1000	<b>199 132 076</b>
50	40	10	1600	<b>199 132 077</b>
63	50	10	3100	<b>199 132 078</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	231	27	64	94	167	114	180	56	130	25	97	83	122	66
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122	66
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122	66
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122	66
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122	66
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122	66
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122	66



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 24V

### With manual emergency override

### With butt fusion spigots IR-Plus metric



#### Model:

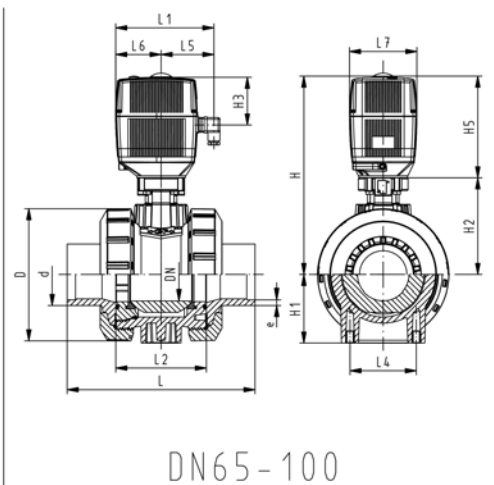
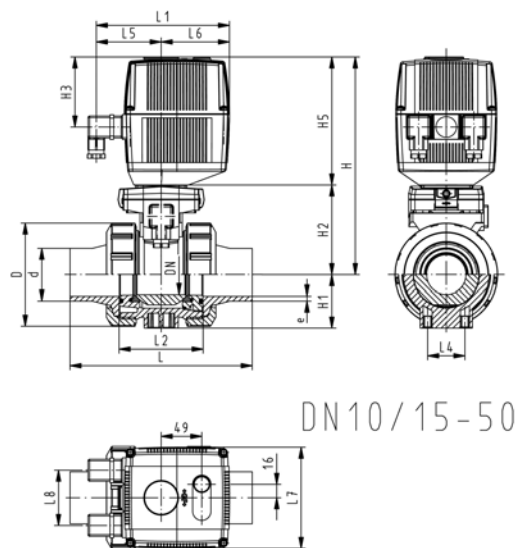
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 132 153</b>
25	20	10	350	<b>199 132 154</b>
32	25	10	700	<b>199 132 155</b>
40	32	10	1000	<b>199 132 156</b>
50	40	10	1600	<b>199 132 157</b>
63	50	10	3100	<b>199 132 158</b>
75	65	10	5000	<b>199 132 159</b>
90	80	10	7000	<b>199 132 160</b>
110	100	10	11000	<b>199 132 161</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
20	50	231	27	64	94	167	130	180	56	25	97	122	1.9
25	58	240	30	73	94	167	143	180	65	25	97	122	1.9
32	68	240	36	73	94	167	150	180	71	25	97	122	2.4
40	84	251	44	84	94	167	171	180	85	45	97	122	2.4
50	97	251	51	84	94	167	191	180	89	45	97	122	3.0
63	124	273	64	106	94	167	220	180	101	45	97	122	3.0
75	166	346	85	156	94	190	266	180	136	70	98	122	3.6
90	200	358	105	168	94	190	264	180	141	70	98	122	4.3
110	238	365	123	175	94	190	301	180	164	120	98	122	5.3



# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 24V With manual emergency override With backing flanges PP-st metric



### Model:

- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

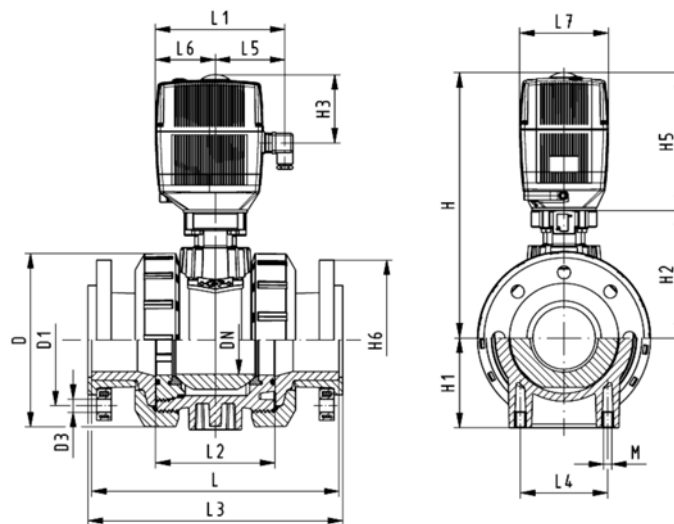
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
75	65	2 1/2	10	5000	199 132 179
90	80	3	10	7000	199 132 180
110	100	4	10	11000	199 132 181

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83

d [mm]	L7 [mm]	L8 [mm]
75	122	66
90	122	66
110	122	66



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 132 24V

### With manual emergency override

### With fixed flanges PVDF serrated metric



DN10/15 - 50

#### Model:

- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

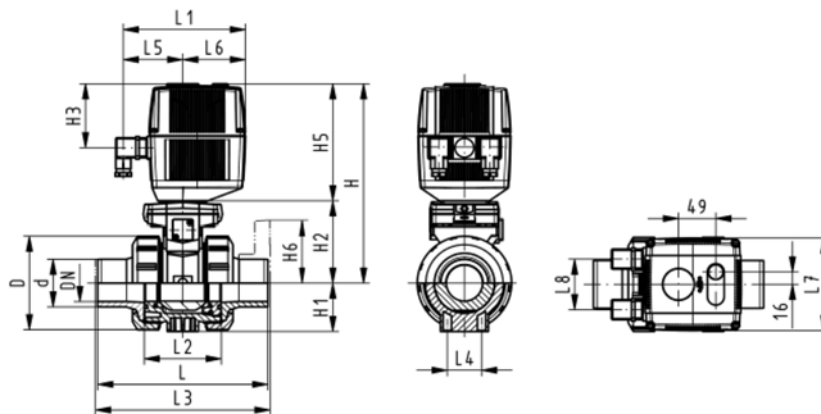
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 132 093</b>
25	20	¾	10	350	<b>199 132 094</b>
32	25	1	10	700	<b>199 132 095</b>
40	32	1 ¼	10	1000	<b>199 132 096</b>
50	40	1 ½	10	1600	<b>199 132 097</b>
63	50	2	10	3100	<b>199 132 098</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	124	180	56	130	25	98	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	98	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66





# SYGEF Standard metric

## SYGEF Standard Ball valve type 132 24V With manual emergency override With threaded sockets NPT



DN10/15 - 50

### Model:

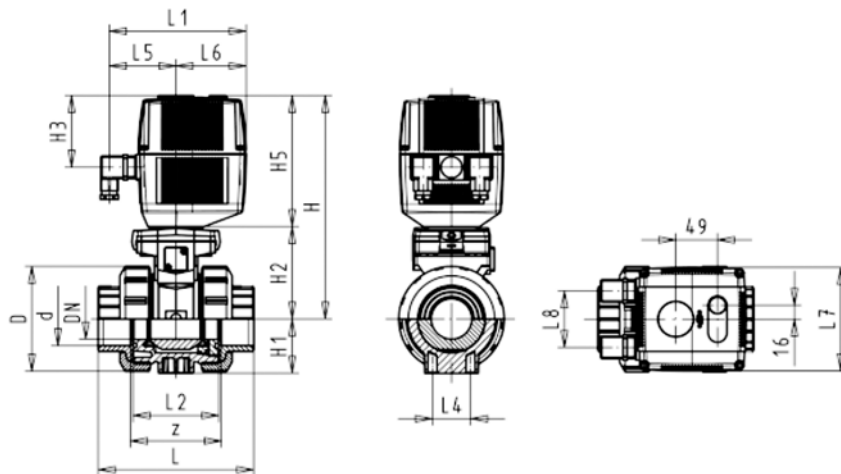
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 132 432</b>
1/2	15	10	185	<b>199 132 433</b>
3/4	20	10	350	<b>199 132 434</b>
1	25	10	700	<b>199 132 435</b>
1 1/4	32	10	1000	<b>199 132 436</b>
1 1/2	40	10	1600	<b>199 132 437</b>
2	50	10	3100	<b>199 132 438</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	231	27	64	94	167	96	180	56	25	97	83	122	66	69
1/2	50	231	27	64	94	167	99	180	56	25	97	83	122	66	64
3/4	58	240	30	73	94	167	111	180	65	25	97	83	122	66	76
1	68	240	36	73	94	167	127	180	71	25	97	83	122	66	83
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	66	101
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	66	111
2	124	273	64	106	94	167	183	180	101	45	97	83	122	66	135



# SYGEF Standard metric

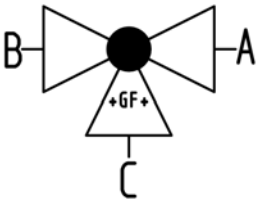
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/L-port 100-230V

### With manual emergency override

### With fusion sockets metric



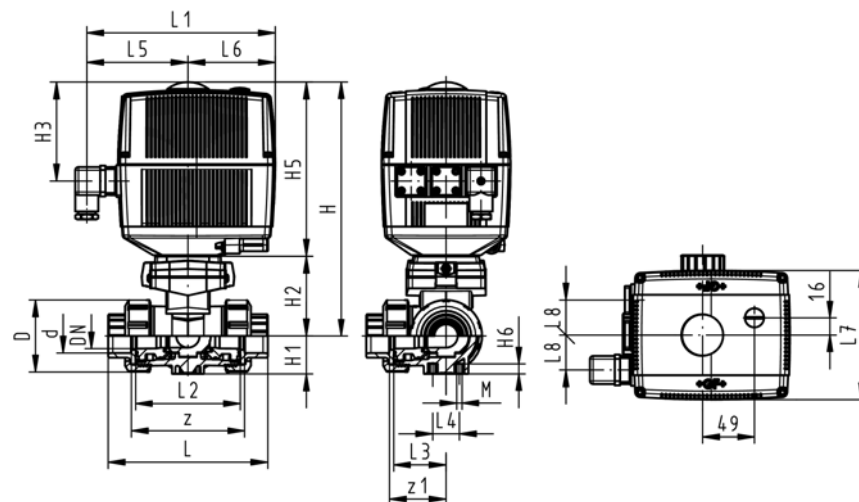
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	<b>199 187 092</b>
20	15	10	75	<b>199 187 093</b>
25	20	10	150	<b>199 187 094</b>
32	25	10	280	<b>199 187 095</b>
40	32	10	480	<b>199 187 096</b>
50	40	10	620	<b>199 187 097</b>
63	50	10	1230	<b>199 187 098</b>

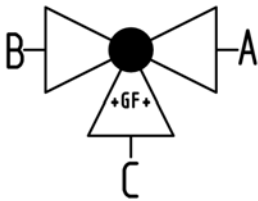
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With threaded sockets NPT



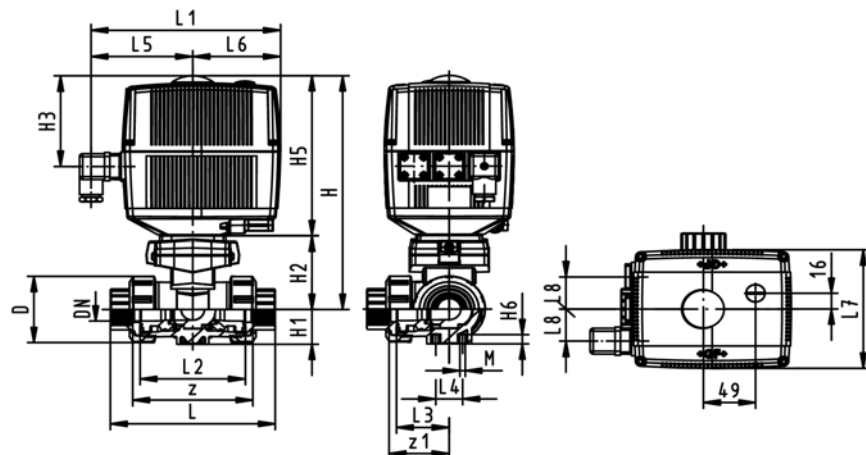
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	50	<b>199 187 242</b>
1/2	15	10	75	<b>199 187 243</b>
3/4	20	10	150	<b>199 187 244</b>
1	25	10	280	<b>199 187 245</b>
1 1/4	32	10	480	<b>199 187 246</b>
1 1/2	40	10	620	<b>199 187 247</b>
2	50	10	1230	<b>199 187 248</b>

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



# SYGEF Standard metric

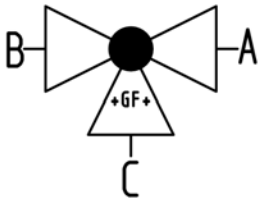
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/L-port 100-230V

### With manual emergency override

### With socket fusion spigots metric



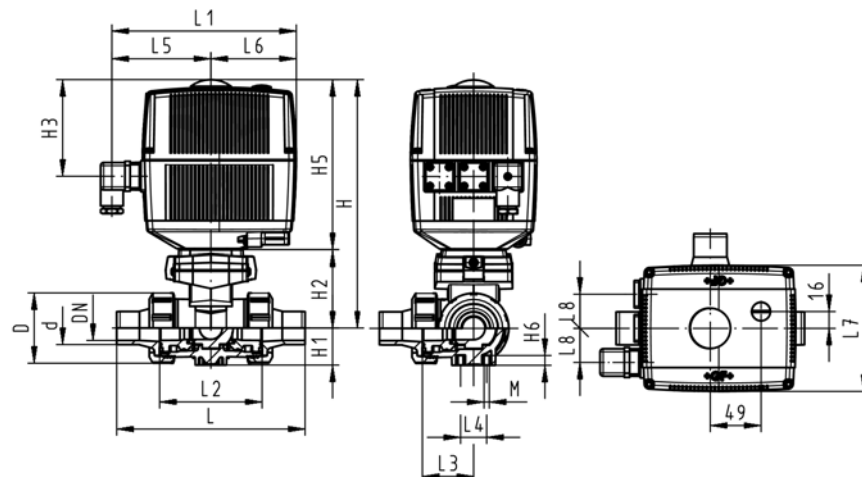
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	<b>199 187 012</b>
20	15	10	75	<b>199 187 013</b>
25	20	10	150	<b>199 187 014</b>
32	25	10	280	<b>199 187 015</b>
40	32	10	480	<b>199 187 016</b>
50	40	10	620	<b>199 187 017</b>
63	50	10	1230	<b>199 187 018</b>

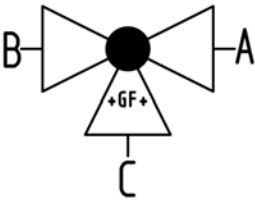
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With butt fusion spigots IR-Plus metric



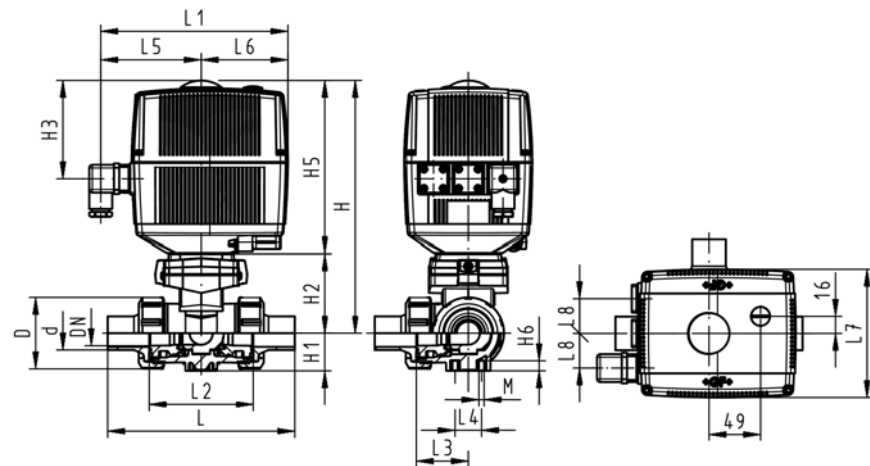
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	75	<b>199 187 053</b>
25	20	10	150	<b>199 187 054</b>
32	25	10	280	<b>199 187 055</b>
40	32	10	480	<b>199 187 056</b>
50	40	10	620	<b>199 187 057</b>
63	50	10	1230	<b>199 187 058</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

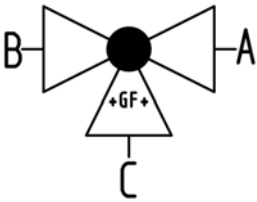
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/L-port 24V

### With manual emergency override

### With fusion sockets metric



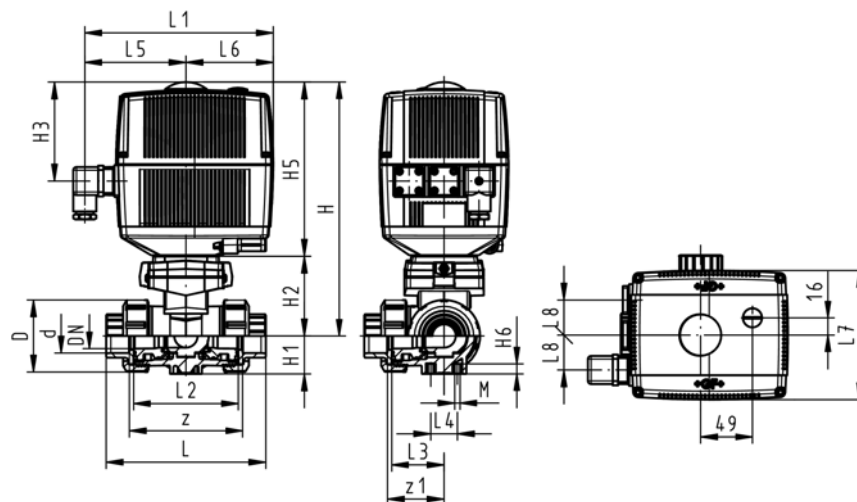
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	<b>199 187 212</b>
20	15	10	75	<b>199 187 213</b>
25	20	10	150	<b>199 187 214</b>
32	25	10	280	<b>199 187 215</b>
40	32	10	480	<b>199 187 216</b>
50	40	10	620	<b>199 187 217</b>
63	50	10	1230	<b>199 187 218</b>

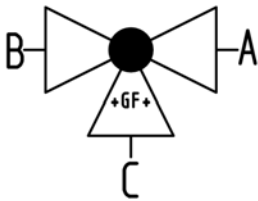
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With threaded sockets NPT



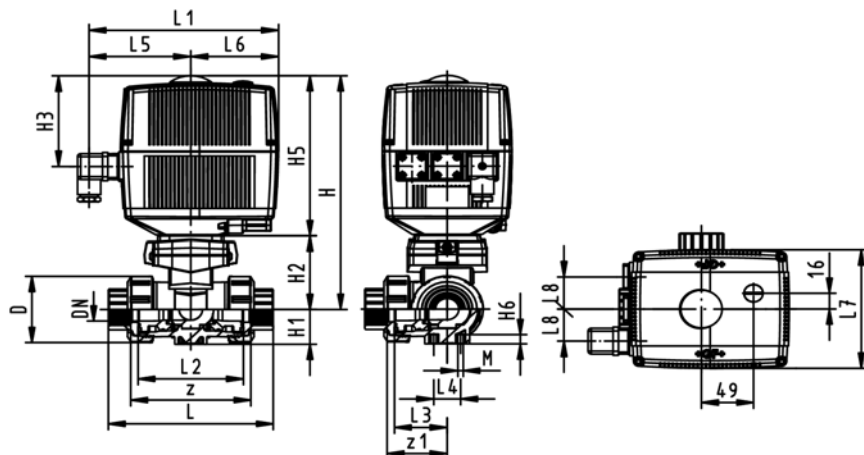
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	50	<b>199 187 262</b>
1/2	15	10	75	<b>199 187 263</b>
3/4	20	10	150	<b>199 187 264</b>
1	25	10	280	<b>199 187 265</b>
1 1/4	32	10	480	<b>199 187 266</b>
1 1/2	40	10	620	<b>199 187 267</b>
2	50	10	1230	<b>199 187 268</b>

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



# SYGEF Standard metric

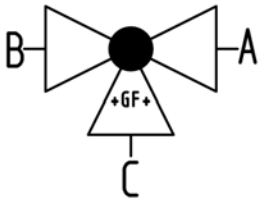
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/L-port 24V

### With manual emergency override

### With socket fusion spigots metric



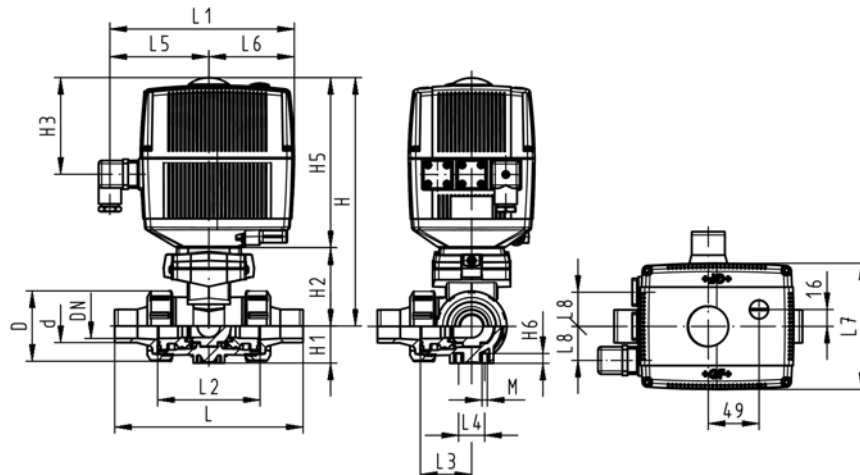
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range  $90^\circ <$
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/ $90^\circ <$
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	<b>199 187 132</b>
20	15	10	75	<b>199 187 133</b>
25	20	10	150	<b>199 187 134</b>
32	25	10	280	<b>199 187 135</b>
40	32	10	480	<b>199 187 136</b>
50	40	10	620	<b>199 187 137</b>
63	50	10	1230	<b>199 187 138</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

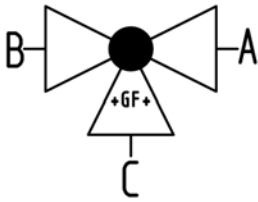
d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With butt fusion spigots IR-Plus metric



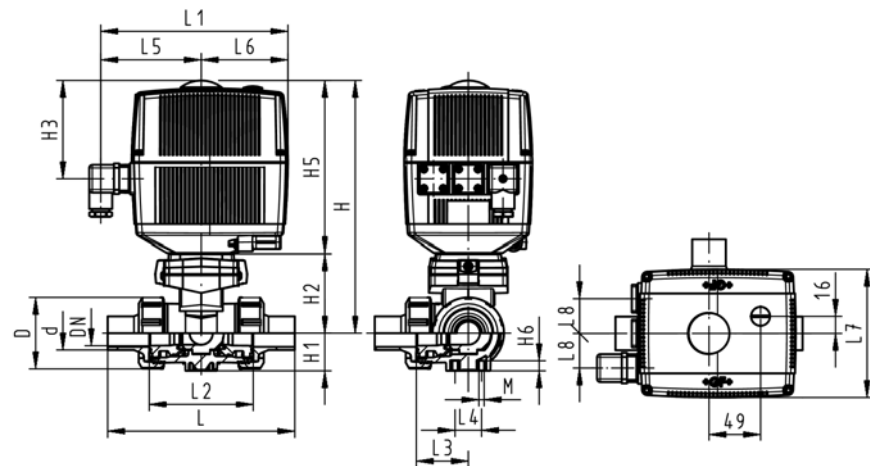
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	75	<b>199 187 173</b>
25	20	10	150	<b>199 187 174</b>
32	25	10	280	<b>199 187 175</b>
40	32	10	480	<b>199 187 176</b>
50	40	10	620	<b>199 187 177</b>
63	50	10	1230	<b>199 187 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

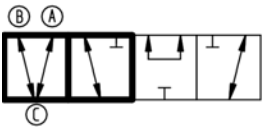
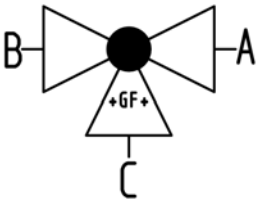
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/T-port 100-230V

### With manual emergency override

### With fusion sockets metric



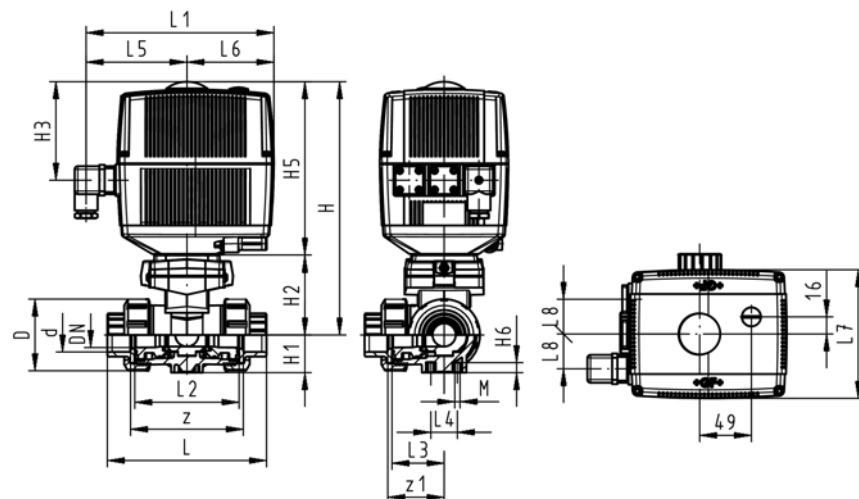
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 187 112</b>
20	15	10	200	<b>199 187 113</b>
25	20	10	470	<b>199 187 114</b>
32	25	10	793	<b>199 187 115</b>
40	32	10	1290	<b>199 187 116</b>
50	40	10	1910	<b>199 187 117</b>
63	50	10	3100	<b>199 187 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# SYGEF Standard metric

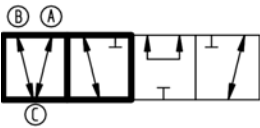
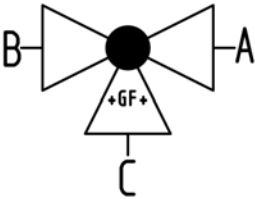
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/T-port 100-230V

### With manual emergency override

### With threaded sockets NPT



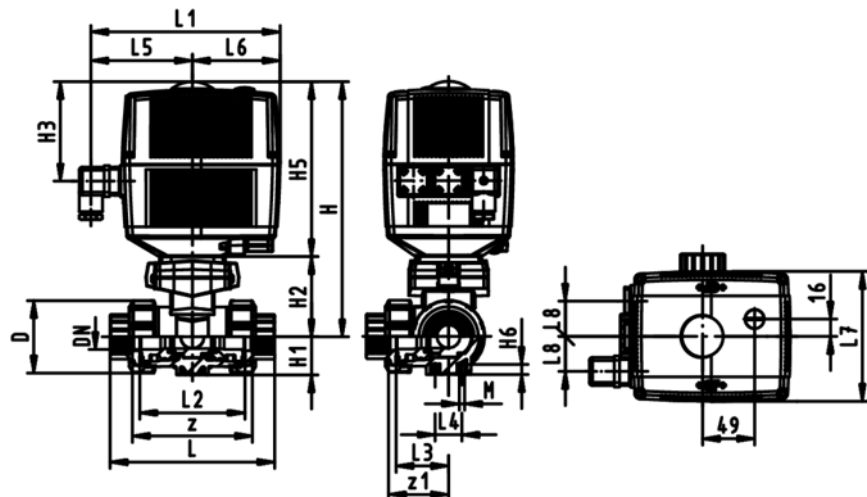
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	140	<b>199 187 252</b>
1/2	15	10	200	<b>199 187 253</b>
3/4	20	10	470	<b>199 187 254</b>
1	25	10	793	<b>199 187 255</b>
1 1/4	32	10	1290	<b>199 187 256</b>
1 1/2	40	10	1910	<b>199 187 257</b>
2	50	10	3100	<b>199 187 258</b>

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 187

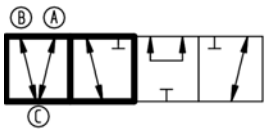
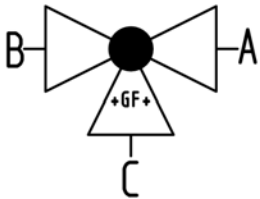
### Horizontal/T-port 100-230V

### With manual emergency override

### With socket fusion spigots metric

#### Model:

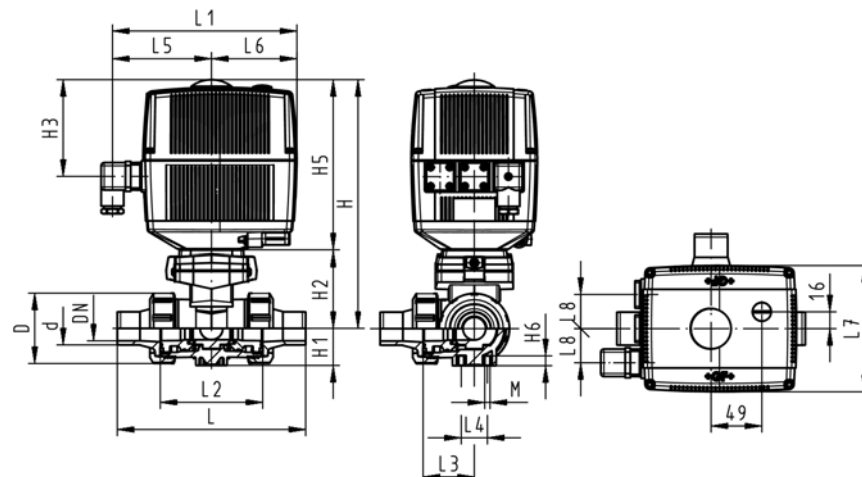
- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 187 032</b>
20	15	10	200	<b>199 187 033</b>
25	20	10	470	<b>199 187 034</b>
32	25	10	793	<b>199 187 035</b>
40	32	10	1290	<b>199 187 036</b>
50	40	10	1910	<b>199 187 037</b>
63	50	10	3100	<b>199 187 038</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

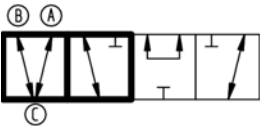
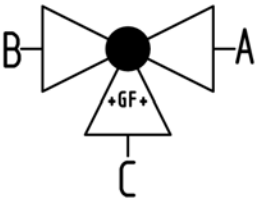
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/T-port 100-230V

### With manual emergency override

### With butt fusion spigots IR-Plus metric



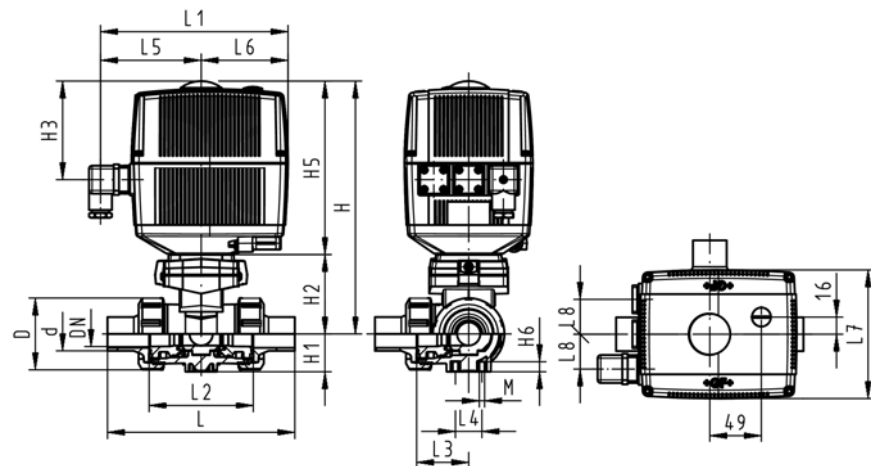
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	200	<b>199 187 073</b>
25	20	10	470	<b>199 187 074</b>
32	25	10	793	<b>199 187 075</b>
40	32	10	1290	<b>199 187 076</b>
50	40	10	1910	<b>199 187 077</b>
63	50	10	3100	<b>199 187 078</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

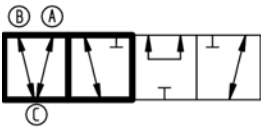
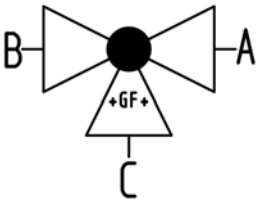
## SYGEF Standard

### 3-Way ball valve type 187

### Horizontal/T-port 24V

### With manual emergency override

### With fusion sockets metric



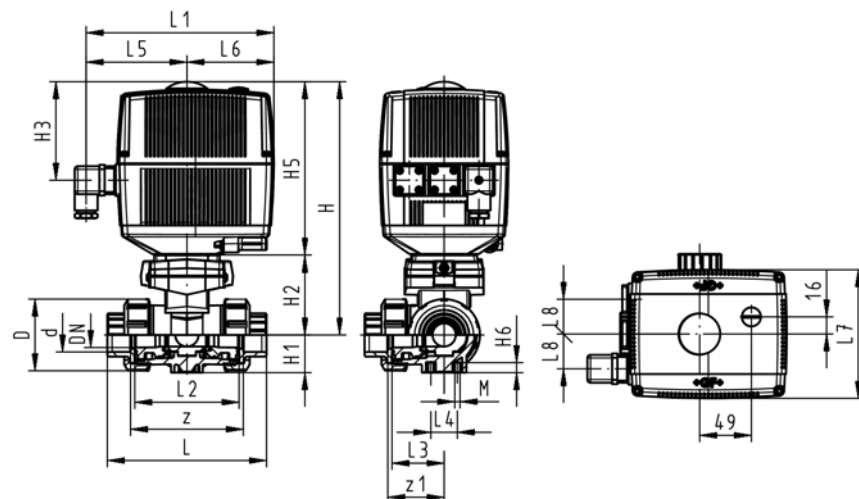
#### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 187 232</b>
20	15	10	200	<b>199 187 233</b>
25	20	10	470	<b>199 187 234</b>
32	25	10	793	<b>199 187 235</b>
40	32	10	1290	<b>199 187 236</b>
50	40	10	1910	<b>199 187 237</b>
63	50	10	3100	<b>199 187 238</b>

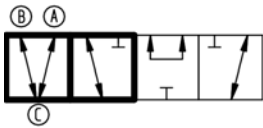
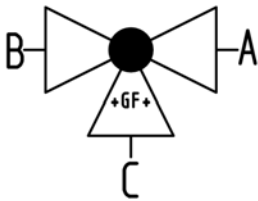
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With threaded sockets NPT



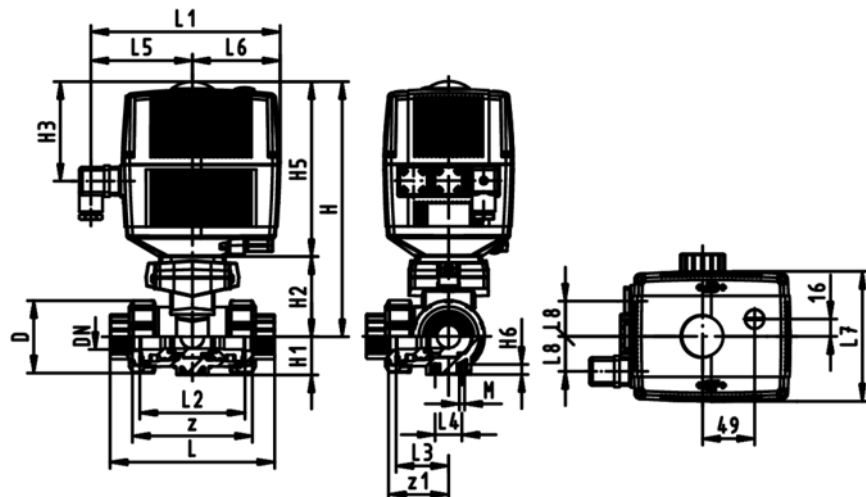
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	140	<b>199 187 272</b>
1/2	15	10	200	<b>199 187 273</b>
3/4	20	10	470	<b>199 187 274</b>
1	25	10	793	<b>199 187 275</b>
1 1/4	32	10	1290	<b>199 187 276</b>
1 1/2	40	10	1910	<b>199 187 277</b>
2	50	10	3100	<b>199 187 278</b>

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 187

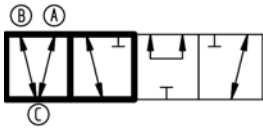
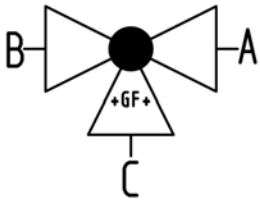
### Horizontal/T-port 24V

### With manual emergency override

### With socket fusion spigots metric

#### Model:

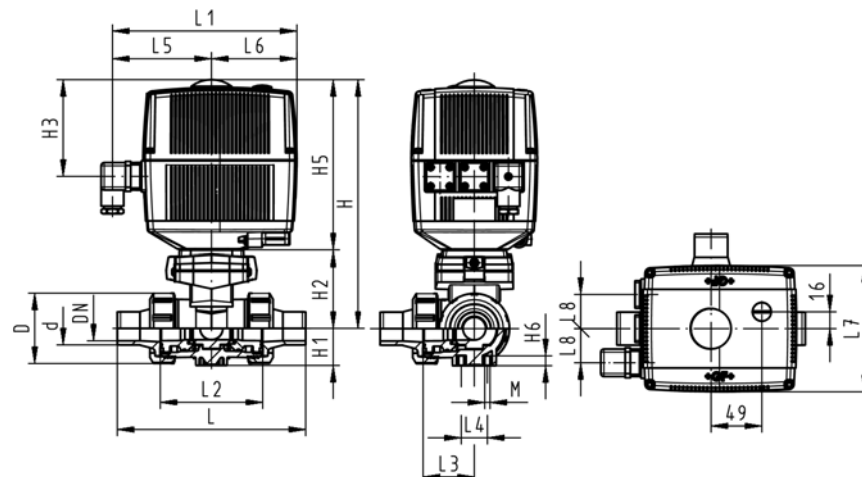
- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 187 152</b>
20	15	10	200	<b>199 187 153</b>
25	20	10	470	<b>199 187 154</b>
32	25	10	793	<b>199 187 155</b>
40	32	10	1290	<b>199 187 156</b>
50	40	10	1910	<b>199 187 157</b>
63	50	10	3100	<b>199 187 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

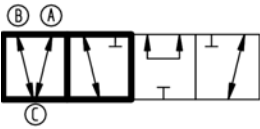
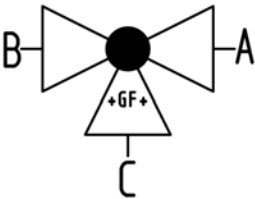
d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With butt fusion spigots IR-Plus metric



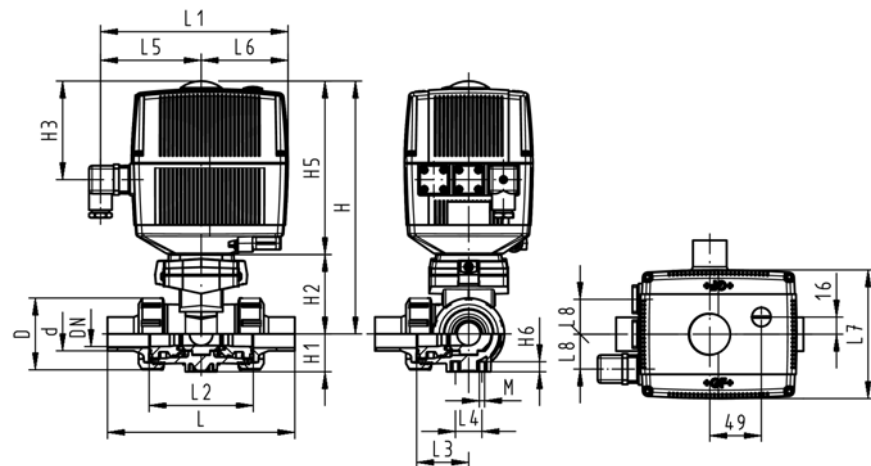
### Model:

- Material: PVDF
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	200	<b>199 187 193</b>
25	20	10	470	<b>199 187 194</b>
32	25	10	793	<b>199 187 195</b>
40	32	10	1290	<b>199 187 196</b>
50	40	10	1910	<b>199 187 197</b>
63	50	10	3100	<b>199 187 198</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# SYGEF Standard metric

## Ball valves pneumatic

### SYGEF Standard

#### Ball valve type 232

#### Function FC (Fail safe to close)

#### With manual override

#### With fusion Sockets metric



DN10/15 - 50

#### Model:

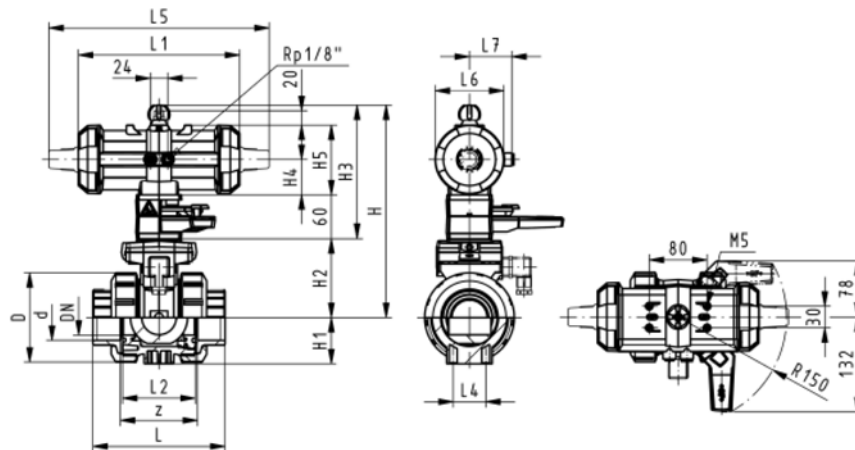
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 012</b>
20	15	10	185	<b>199 232 013</b>
25	20	10	350	<b>199 232 014</b>
32	25	10	700	<b>199 232 015</b>
40	32	10	1000	<b>199 232 016</b>
50	40	10	1600	<b>199 232 017</b>
63	50	10	3100	<b>199 232 018</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	224	64	106	187	51	99	183	224	101	45	305	95	59	107



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FC (Fail safe to close) With manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

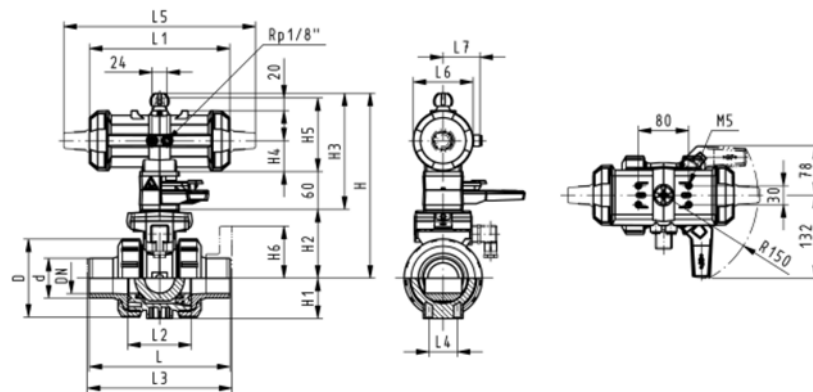
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 032</b>
20	15	10	185	<b>199 232 033</b>
25	20	10	350	<b>199 232 034</b>
32	25	10	700	<b>199 232 035</b>
40	32	10	1000	<b>199 232 036</b>
50	40	10	1600	<b>199 232 037</b>
63	50	10	3100	<b>199 232 038</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function FC (Fail safe to close)

### With manual override

### With butt fusion spigots IR-Plus metric



DN10/15 - 50

#### Model:

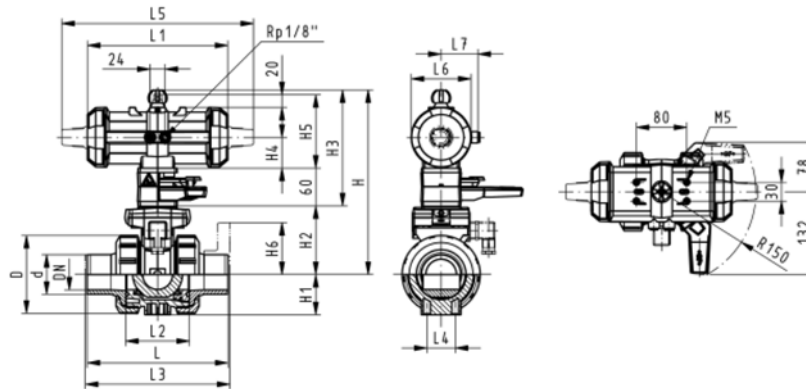
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 713</b>
25	20	10	350	<b>199 232 714</b>
32	25	10	700	<b>199 232 715</b>
40	32	10	1000	<b>199 232 716</b>
50	40	10	1600	<b>199 232 717</b>
63	50	10	3100	<b>199 232 718</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59



# SYGEF Standard metric

**SYGEF Standard**  
**Ball valve type 232**  
**Function FC (Fail safe to close)**  
**With manual override**  
**With fixed flanges PVDF serrated metric**



DN10/15 - 50

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°(<) 1-2 s
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

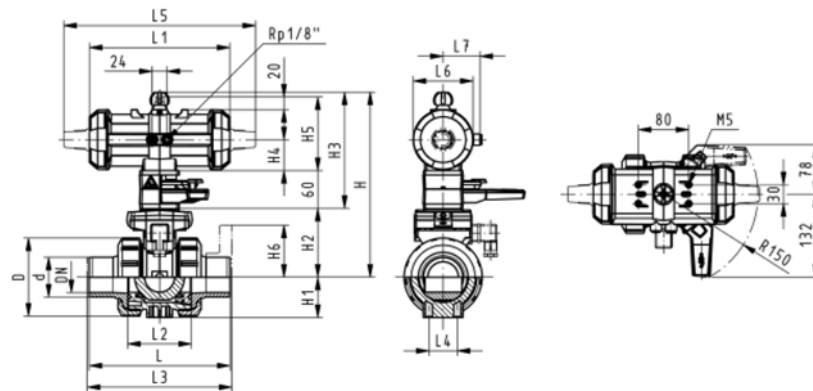
**Option:**

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 003</b>
25	20	¾	10	350	<b>199 232 004</b>
32	25	1	10	700	<b>199 232 005</b>
40	32	1 ¼	10	1000	<b>199 232 006</b>
50	40	1 ½	10	1600	<b>199 232 007</b>
63	50	2	10	3100	<b>199 232 008</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function FC (Fail safe to close)

### With manual override

### With threaded sockets NPT



DN10/15 - 50

#### Model:

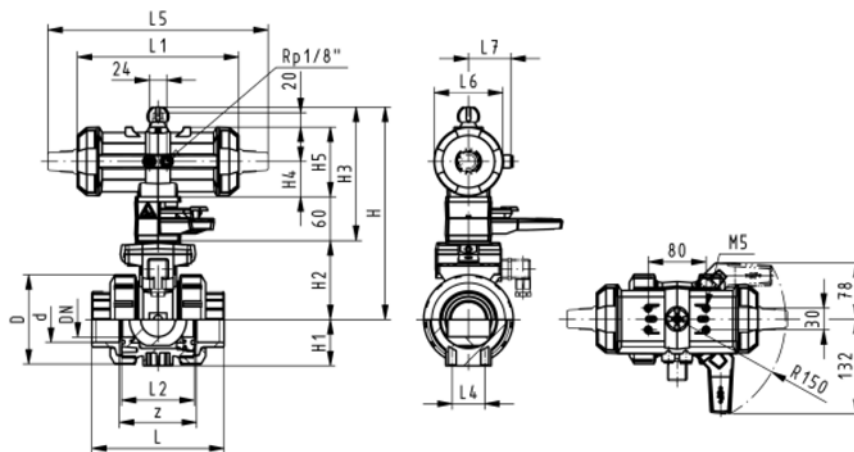
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 232 512</b>
1/2	15	10	185	<b>199 232 513</b>
3/4	20	10	350	<b>199 232 514</b>
1	25	10	700	<b>199 232 515</b>
1 1/4	32	10	1000	<b>199 232 516</b>
1 1/2	40	10	1600	<b>199 232 517</b>
2	50	10	3100	<b>199 232 518</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) With manual override With fusion sockets metric



DN10/15 - 50

### Model:

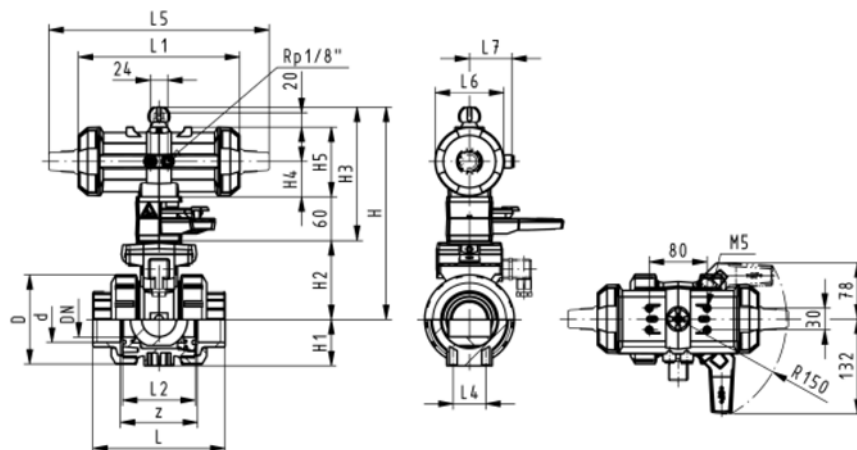
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 052</b>
20	15	10	185	<b>199 232 053</b>
25	20	10	350	<b>199 232 054</b>
32	25	10	700	<b>199 232 055</b>
40	32	10	1000	<b>199 232 056</b>
50	40	10	1600	<b>199 232 057</b>
63	50	10	3100	<b>199 232 058</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function FO (Fail safe to open)

### With manual override

### With socket fusion spigots metric



DN10/15 - 50

#### Model:

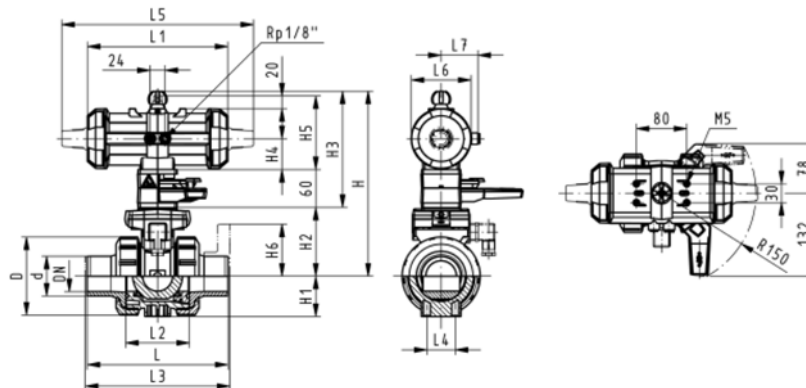
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 072</b>
20	15	10	185	<b>199 232 073</b>
25	20	10	350	<b>199 232 074</b>
32	25	10	700	<b>199 232 075</b>
40	32	10	1000	<b>199 232 076</b>
50	40	10	1600	<b>199 232 077</b>
63	50	10	3100	<b>199 232 078</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59





# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) With manual override With butt fusion spigots IR-Plus metric



DN10/15 - 50

### Model:

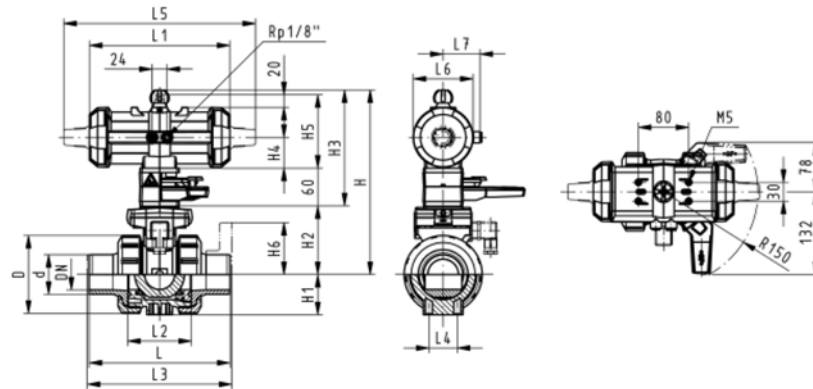
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 753</b>
25	20	10	350	<b>199 232 754</b>
32	25	10	700	<b>199 232 755</b>
40	32	10	1000	<b>199 232 756</b>
50	40	10	1600	<b>199 232 757</b>
63	50	10	3100	<b>199 232 758</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function FO (Fail safe to open)

### With manual override

### With fixed flanges PVDF serrated metric



DN10/15 - 50

#### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

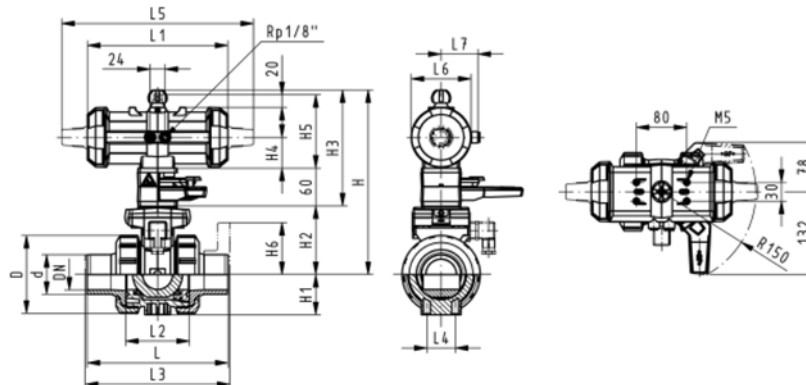
#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 023</b>
25	20	¾	10	350	<b>199 232 024</b>
32	25	1	10	700	<b>199 232 025</b>
40	32	1 ¼	10	1000	<b>199 232 026</b>
50	40	1 ½	10	1600	<b>199 232 027</b>
63	50	2	10	3100	<b>199 232 028</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) With manual override With threaded sockets NPT



DN10/15 - 50

### Model:

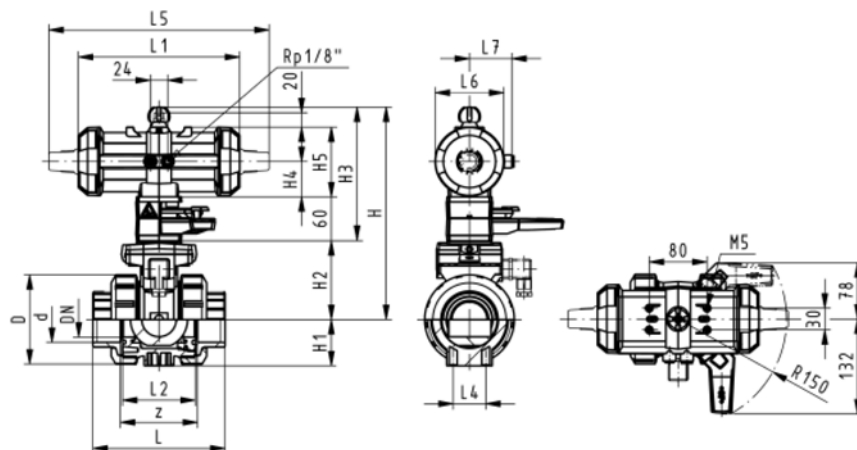
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
$\frac{3}{8}$	10	10	70	<b>199 232 532</b>
$\frac{1}{2}$	15	10	185	<b>199 232 533</b>
$\frac{3}{4}$	20	10	350	<b>199 232 534</b>
1	25	10	700	<b>199 232 535</b>
1 $\frac{1}{4}$	32	10	1000	<b>199 232 536</b>
1 $\frac{1}{2}$	40	10	1600	<b>199 232 537</b>
2	50	10	3100	<b>199 232 538</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
$\frac{3}{8}$	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
$\frac{1}{2}$	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
$\frac{3}{4}$	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 $\frac{1}{4}$	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 $\frac{1}{2}$	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) With manual override With fusion sockets metric



DN10/15 - 50

### Model:

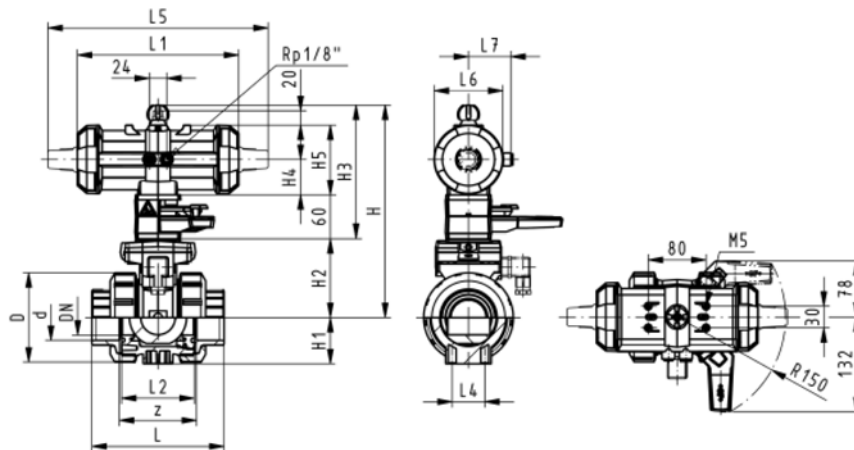
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 092</b>
20	15	10	185	<b>199 232 093</b>
25	20	10	350	<b>199 232 094</b>
32	25	10	700	<b>199 232 095</b>
40	32	10	1000	<b>199 232 096</b>
50	40	10	1600	<b>199 232 097</b>
63	50	10	3100	<b>199 232 098</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) With manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

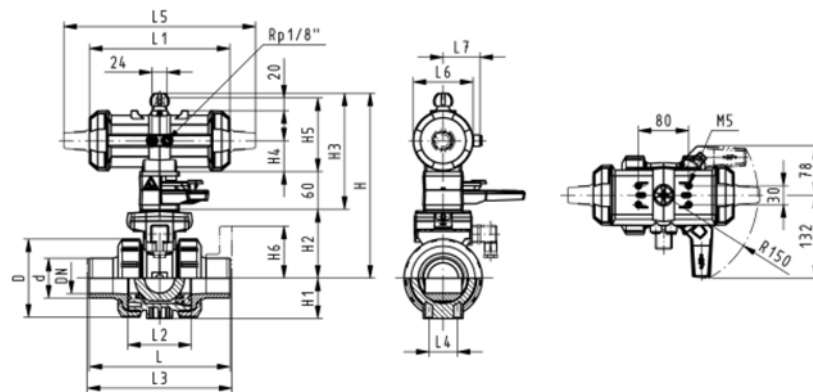
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 112</b>
20	15	10	185	<b>199 232 113</b>
25	20	10	350	<b>199 232 114</b>
32	25	10	700	<b>199 232 115</b>
40	32	10	1000	<b>199 232 116</b>
50	40	10	1600	<b>199 232 117</b>
63	50	10	3100	<b>199 232 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	92	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	95	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	110	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	123	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	146	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	157	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	183	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function DA (Double acting)

### With manual override

### With butt fusion spigots IR-Plus metric



DN10/15 - 50

#### Model:

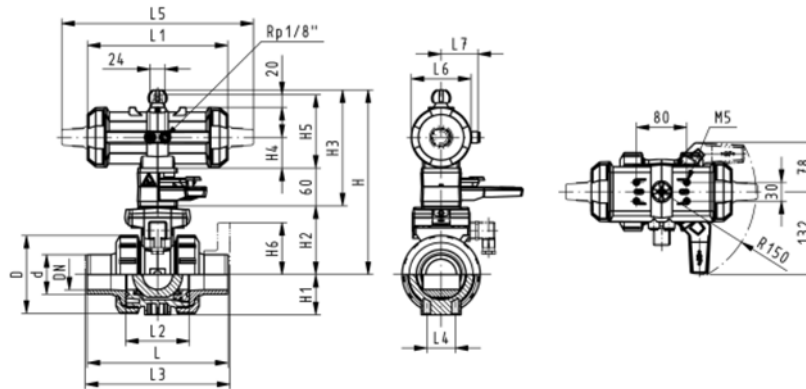
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 793</b>
25	20	10	350	<b>199 232 794</b>
32	25	10	700	<b>199 232 795</b>
40	32	10	1000	<b>199 232 796</b>
50	40	10	1600	<b>199 232 797</b>
63	50	10	3100	<b>199 232 798</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59



# SYGEF Standard metric

**SYGEF Standard  
Ball valve type 232  
Function DA (Double acting)  
With manual override  
With fixed flanges PVDF serrated metric**



DN10/15 - 50

**Model:**

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

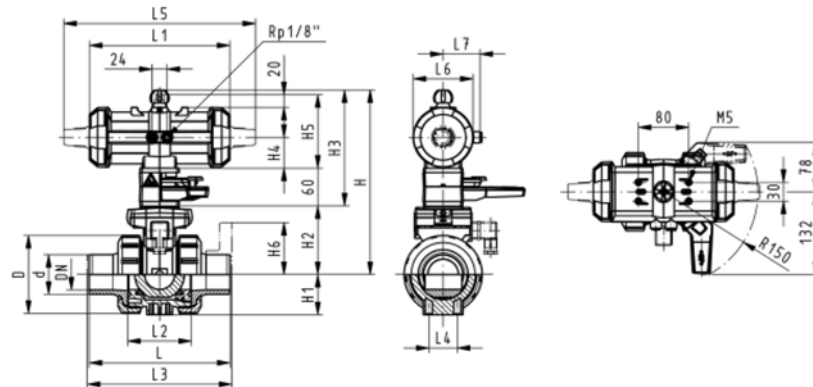
**Option:**

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 043</b>
25	20	¾	10	350	<b>199 232 044</b>
32	25	1	10	700	<b>199 232 045</b>
40	32	1 ¼	10	1000	<b>199 232 046</b>
50	40	1 ½	10	1600	<b>199 232 047</b>
63	50	2	10	3100	<b>199 232 048</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) With manual override With threaded sockets NPT



DN10/15 - 50

### Model:

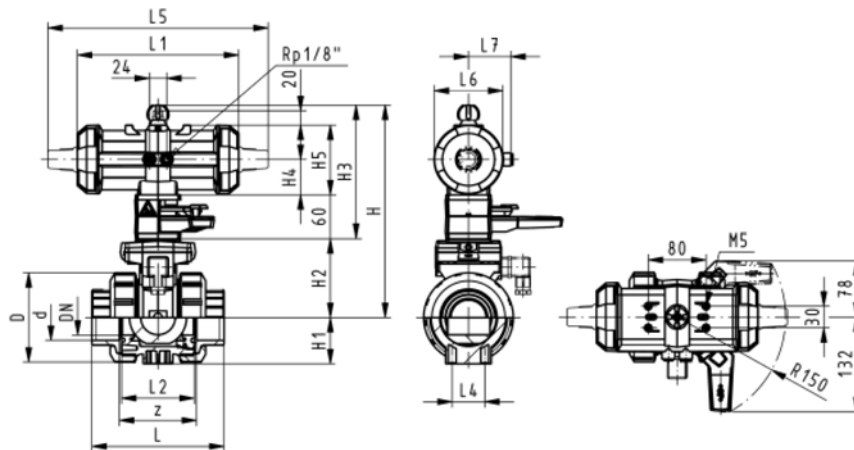
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 232 552</b>
1/2	15	10	185	<b>199 232 553</b>
3/4	20	10	350	<b>199 232 554</b>
1	25	10	700	<b>199 232 555</b>
1 1/4	32	10	1000	<b>199 232 556</b>
1 1/2	40	10	1600	<b>199 232 557</b>
2	50	10	3100	<b>199 232 558</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	135



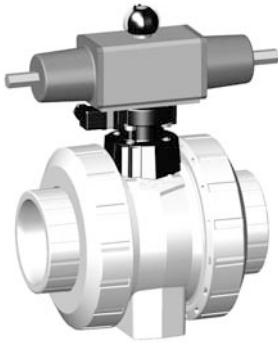


# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FC (Fail safe to close) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

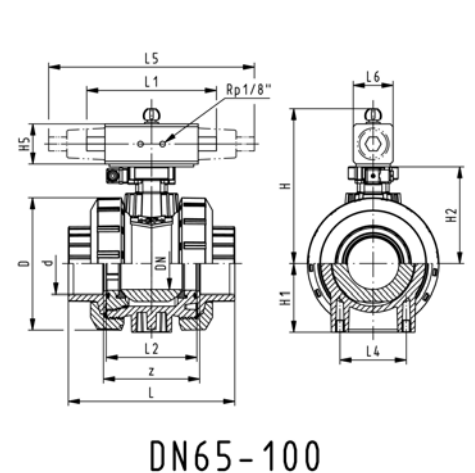
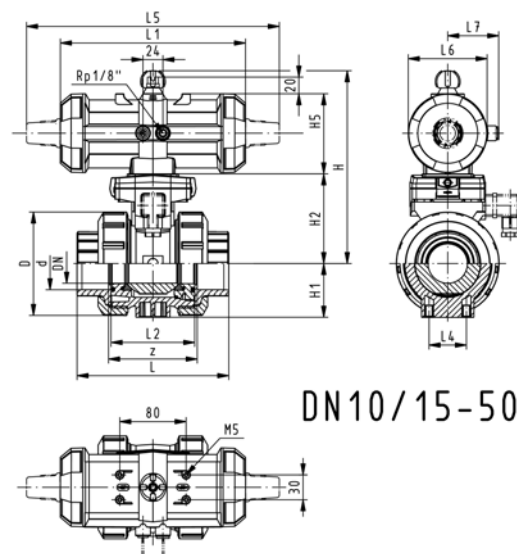
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 132</b>
20	15	10	185	<b>199 232 133</b>
25	20	10	350	<b>199 232 134</b>
32	25	10	700	<b>199 232 135</b>
40	32	10	1000	<b>199 232 136</b>
50	40	10	1600	<b>199 232 137</b>
63	50	10	3100	<b>199 232 138</b>
75	65	10	5000	<b>199 232 139</b>
90	80	10	7000	<b>199 232 140</b>
110	100	10	11000	<b>199 232 141</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function FC (Fail safe to close)

### Without manual override

### With butt fusion spigots IR-Plus metric



DN10/15 - 50



#### Model:

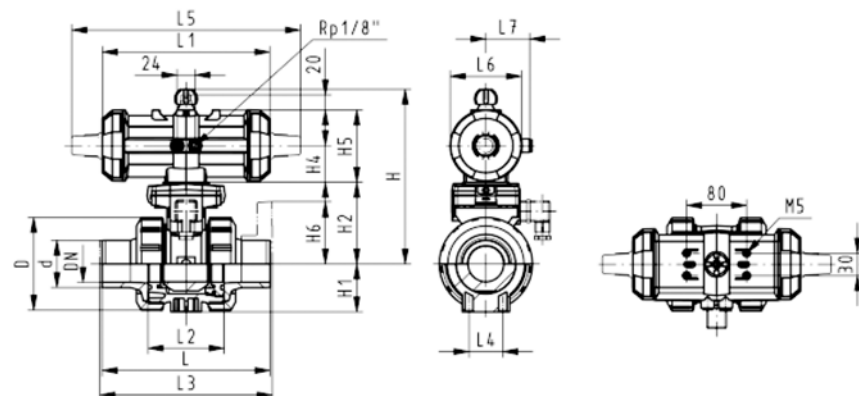
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 833</b>
25	20	10	350	<b>199 232 834</b>
32	25	10	700	<b>199 232 835</b>
40	32	10	1000	<b>199 232 836</b>
50	40	10	1600	<b>199 232 837</b>
63	50	10	3100	<b>199 232 838</b>
75	65	10	5000	<b>199 232 839</b>
90	80	10	7000	<b>199 232 840</b>
110	100	10	11000	<b>199 232 841</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0
75	166	262	85	156		70	266	270	136	70	276	65		3.6
90	200	281	105	168		78	264	270	141	70	341	72		4.3
110	238	292	123	175		86	301	320	164	120	369	80		5.3



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FC (Fail safe to close) Without manual override With socket fusion spigots metric



DN10/15 - 50

### Model:

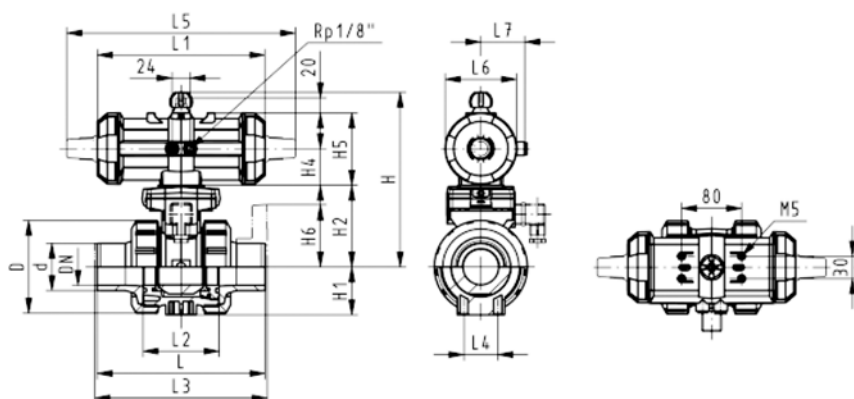
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 152</b>
20	15	10	185	<b>199 232 153</b>
25	20	10	350	<b>199 232 154</b>
32	25	10	700	<b>199 232 155</b>
40	32	10	1000	<b>199 232 156</b>
50	40	10	1600	<b>199 232 157</b>
63	50	10	3100	<b>199 232 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

#### Function FC (Fail safe to close)

#### Without manual override

#### With backing flanges PP-st metric



#### Model:

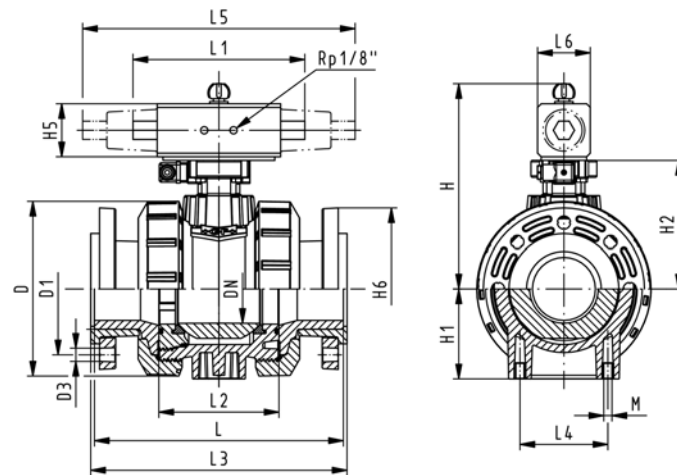
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
75	65	2 ½	10	5000	199 232 929
90	80	3	10	7000	199 232 930
110	100	4	10	11000	199 232 931

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80



# SYGEF Standard metric

**SYGEF Standard  
Ball valve type 232  
Function FC (Fail safe to close)  
Without manual override  
With fixed flanges PVDF serrated metric**



DN10/15 - 50

**Model:**

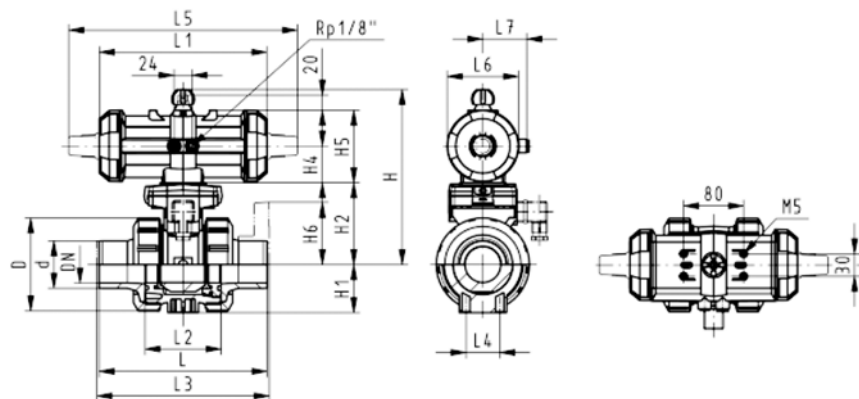
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 063</b>
25	20	¾	10	350	<b>199 232 064</b>
32	25	1	10	700	<b>199 232 065</b>
40	32	1 ¼	10	1000	<b>199 232 066</b>
50	40	1 ½	10	1600	<b>199 232 067</b>
63	50	2	10	3100	<b>199 232 068</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FC (Fail safe to close) Without manual override With threaded sockets NPT



DN10/15 - 50

### Model:

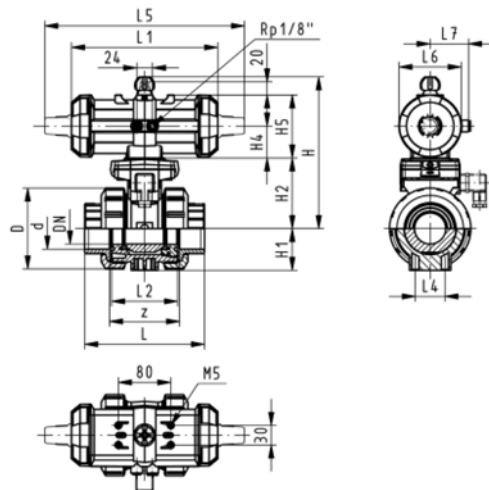
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 232 572</b>
1/2	15	10	185	<b>199 232 573</b>
3/4	20	10	350	<b>199 232 574</b>
1	25	10	700	<b>199 232 575</b>
1 1/4	32	10	1000	<b>199 232 576</b>
1 1/2	40	10	1600	<b>199 232 577</b>
2	50	10	3100	<b>199 232 578</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

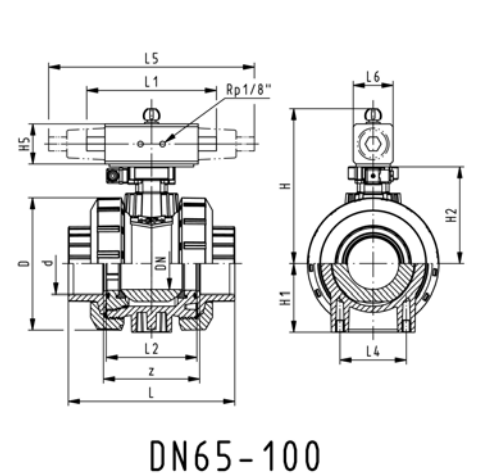
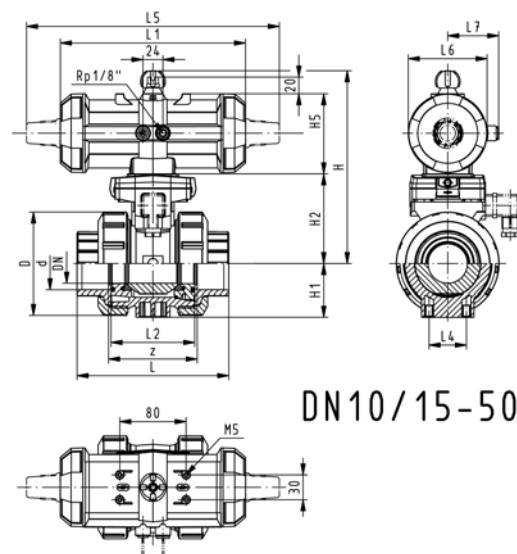
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 172</b>
20	15	10	185	<b>199 232 173</b>
25	20	10	350	<b>199 232 174</b>
32	25	10	700	<b>199 232 175</b>
40	32	10	1000	<b>199 232 176</b>
50	40	10	1600	<b>199 232 177</b>
63	50	10	3100	<b>199 232 178</b>
75	65	10	5000	<b>199 232 179</b>
90	80	10	7000	<b>199 232 180</b>
110	100	10	11000	<b>199 232 181</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

#### Function FO (Fail safe to open)

#### Without manual override

#### With socket fusion spigots metric



DN10/15 - 50

#### Model:

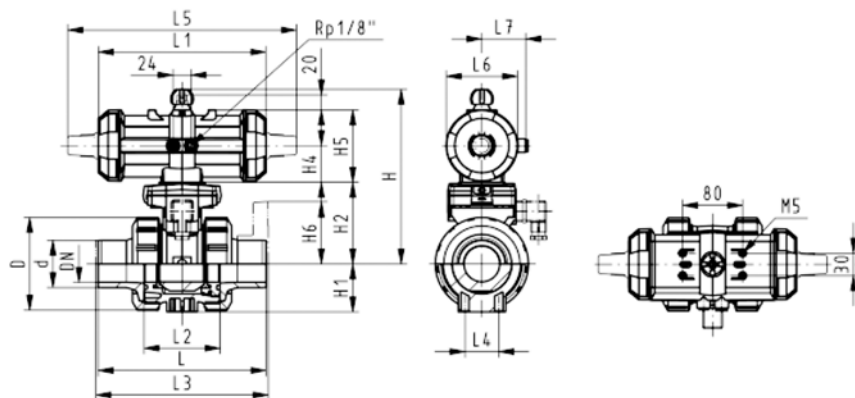
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 192</b>
20	15	10	185	<b>199 232 193</b>
25	20	10	350	<b>199 232 194</b>
32	25	10	700	<b>199 232 195</b>
40	32	10	1000	<b>199 232 196</b>
50	40	10	1600	<b>199 232 197</b>
63	50	10	3100	<b>199 232 198</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59



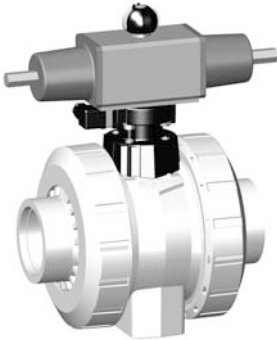


# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) Without manual override With butt fusion spigots IR-Plus metric



DN10/15 - 50



### Model:

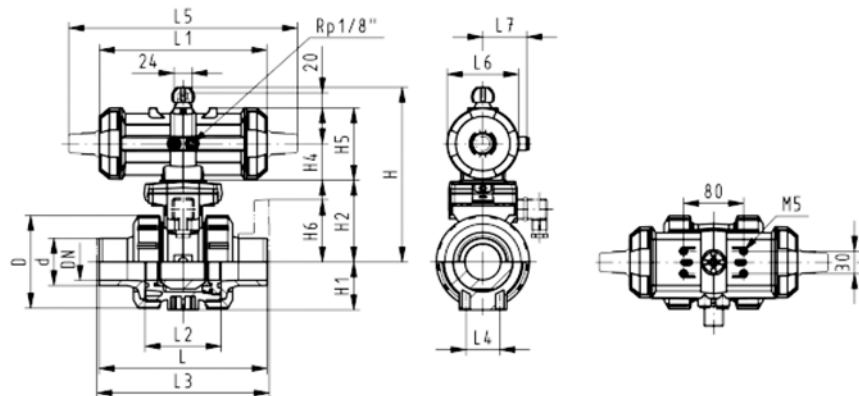
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 873</b>
25	20	10	350	<b>199 232 874</b>
32	25	10	700	<b>199 232 875</b>
40	32	10	1000	<b>199 232 876</b>
50	40	10	1600	<b>199 232 877</b>
63	50	10	3100	<b>199 232 878</b>
75	65	10	5000	<b>199 232 879</b>
90	80	10	7000	<b>199 232 880</b>
110	100	10	11000	<b>199 232 881</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0
75	166	262	85	156	70	266	218	136	70	276	65			3.6
90	200	281	105	168	70	264	259	141	70	341	72			4.3
110	238	292	123	175	70	301	287	164	120	369	80			5.3



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

#### Function FO (Fail safe to open)

#### Without manual override

#### With backing flanges PP-st metric



#### Model:

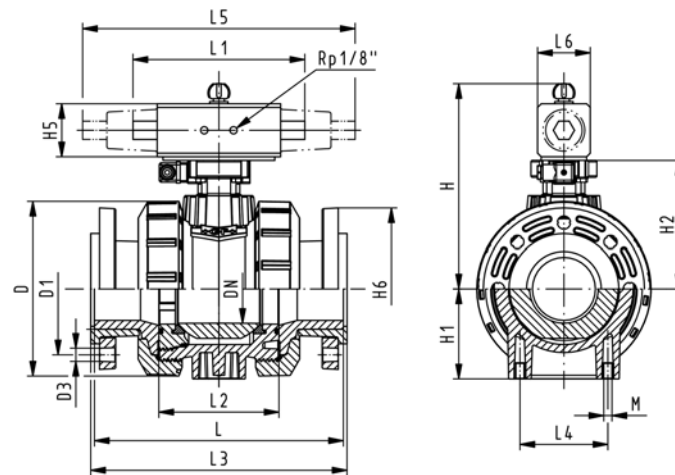
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
75	65	2 ½	10	5000	199 232 939
90	80	3	10	7000	199 232 940
110	100	4	10	11000	199 232 941

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80



# SYGEF Standard metric

**SYGEF Standard  
Ball valve type 232  
Function FO (Fail safe to open)  
Without manual override  
With fixed flanges PVDF serrated metric**



DN10/15 - 50

**Model:**

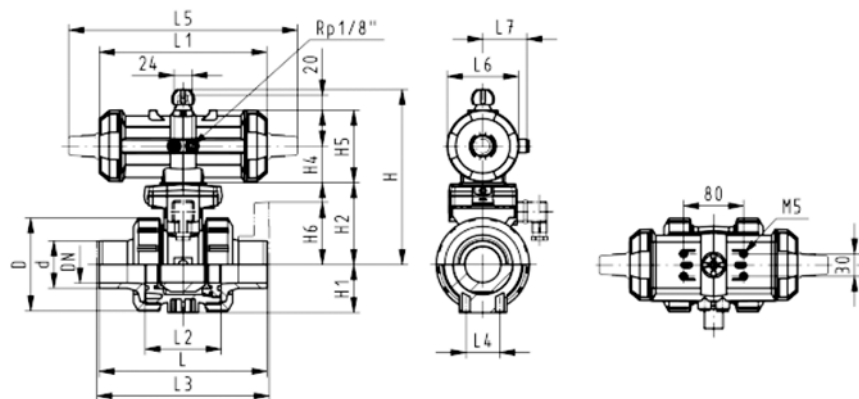
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

**Option:**

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 083</b>
25	20	¾	10	350	<b>199 232 084</b>
32	25	1	10	700	<b>199 232 085</b>
40	32	1 ¼	10	1000	<b>199 232 086</b>
50	40	1 ½	10	1600	<b>199 232 087</b>
63	50	2	10	3100	<b>199 232 088</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function FO (Fail safe to open) Without manual override With threaded sockets NPT



DN10/15 - 50

### Model:

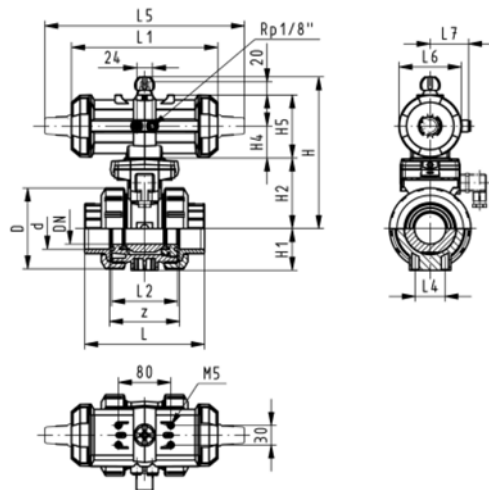
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 232 592</b>
1/2	15	10	185	<b>199 232 593</b>
3/4	20	10	350	<b>199 232 594</b>
1	25	10	700	<b>199 232 595</b>
1 1/4	32	10	1000	<b>199 232 596</b>
1 1/2	40	10	1600	<b>199 232 597</b>
2	50	10	3100	<b>199 232 598</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) Without manual override With fusion sockets metric



DN10/15 - 50



### Model:

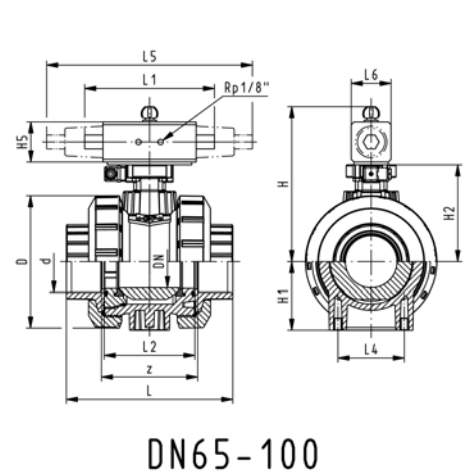
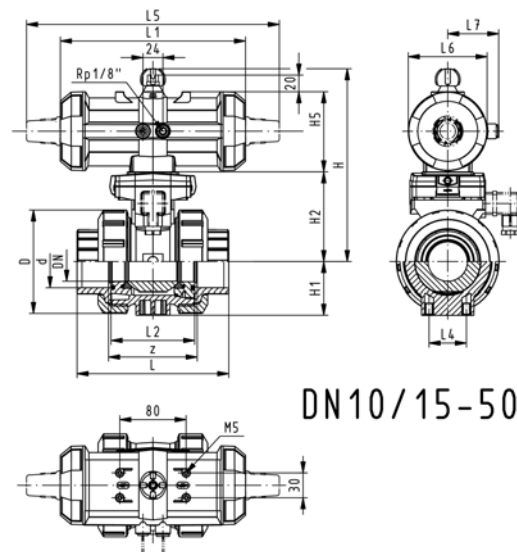
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 212</b>
20	15	10	185	<b>199 232 213</b>
25	20	10	350	<b>199 232 214</b>
32	25	10	700	<b>199 232 215</b>
40	32	10	1000	<b>199 232 216</b>
50	40	10	1600	<b>199 232 217</b>
63	50	10	3100	<b>199 232 218</b>
75	65	10	5000	<b>199 232 219</b>
90	80	10	7000	<b>199 232 220</b>
110	100	10	11000	<b>199 232 221</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	257	85	156		66	233	144	136	70		60		167
90	200	274	105	168		70	254	152	141	70		65		180
110	238	273	123	175		78	301	169	164	120		72		215



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function DA (Double acting)

### Without manual override

### With socket fusion spigots metric



DN10/15 - 50

#### Model:

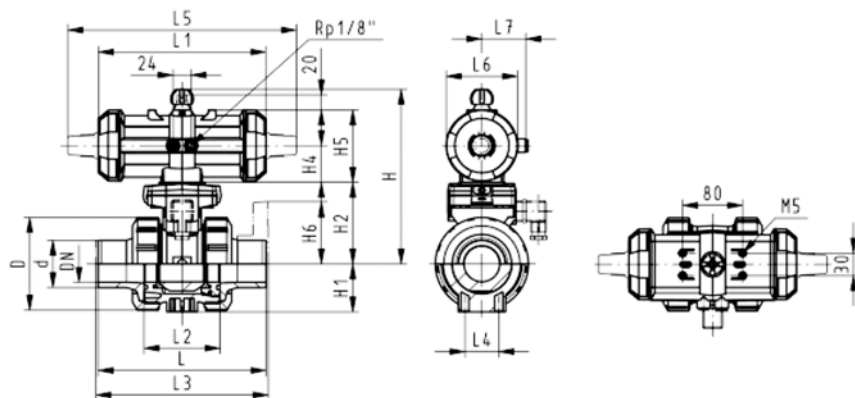
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	70	<b>199 232 232</b>
20	15	10	185	<b>199 232 233</b>
25	20	10	350	<b>199 232 234</b>
32	25	10	700	<b>199 232 235</b>
40	32	10	1000	<b>199 232 236</b>
50	40	10	1600	<b>199 232 237</b>
63	50	10	3100	<b>199 232 238</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) Without manual override With butt fusion spigots IR-Plus metric



DN10/15 - 50



### Model:

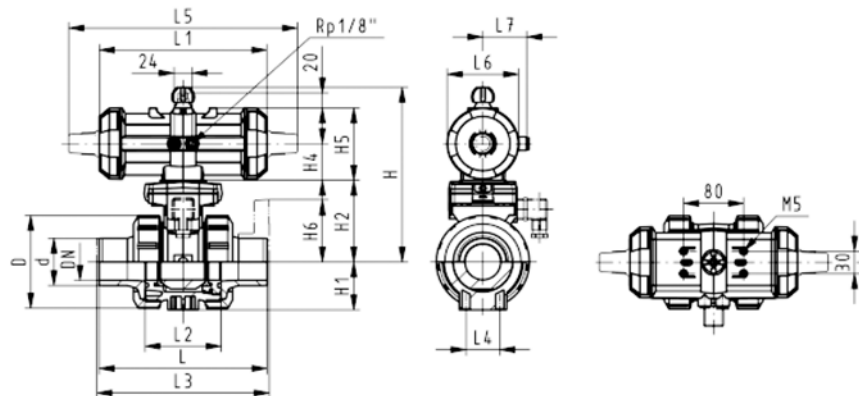
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	185	<b>199 232 913</b>
25	20	10	350	<b>199 232 914</b>
32	25	10	700	<b>199 232 915</b>
40	32	10	1000	<b>199 232 916</b>
50	40	10	1600	<b>199 232 917</b>
63	50	10	3100	<b>199 232 918</b>
75	65	10	5000	<b>199 232 919</b>
90	80	10	7000	<b>199 232 920</b>
110	100	10	11000	<b>199 232 921</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0
75	166	257	85	156	66	266	144	136	70	60	60	60	60	3.6
90	200	274	105	168	70	264	152	141	70	65	65	65	65	4.3
110	238	273	123	175	78	301	169	164	120	72	72	72	72	5.3



# SYGEF Standard metric

## SYGEF Standard

### Ball valve type 232

### Function DA (Double acting)

### Without manual override

### With backing flanges PP-st metric



#### Model:

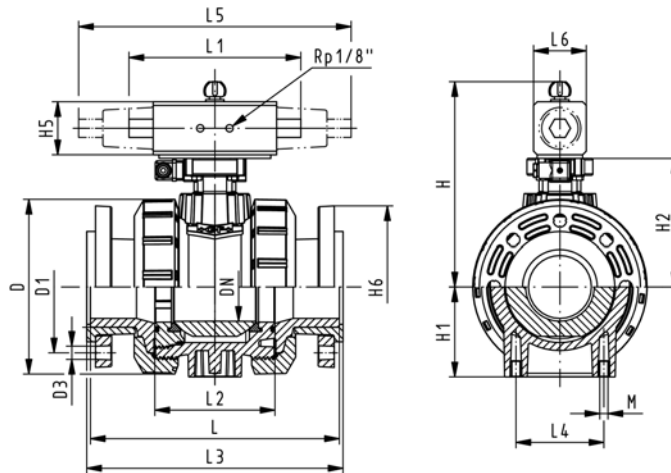
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

#### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
75	65	2 ½	10	5000	199 232 949
90	80	3	10	7000	199 232 950
110	100	4	10	11000	199 232 951

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	110	336	169	164	350	120	72





# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) Without manual override With fixed flanges PVDF serrated metric



DN10/15 - 50

### Model:

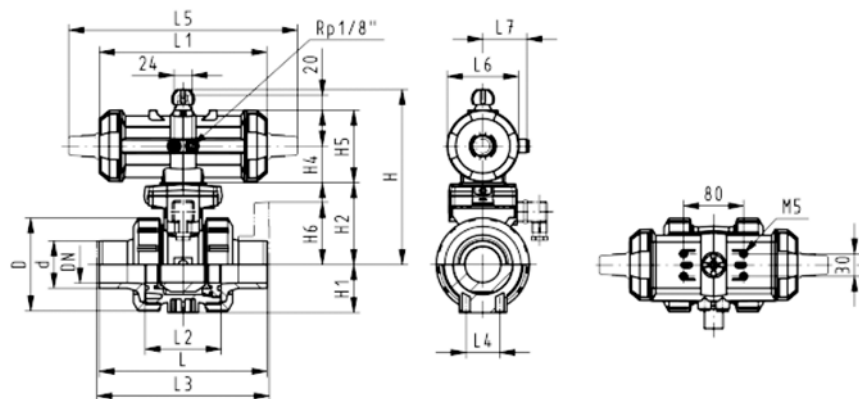
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	½	10	185	<b>199 232 103</b>
25	20	¾	10	350	<b>199 232 104</b>
32	25	1	10	700	<b>199 232 105</b>
40	32	1 ¼	10	1000	<b>199 232 106</b>
50	40	1 ½	10	1600	<b>199 232 107</b>
63	50	2	10	3100	<b>199 232 108</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



# SYGEF Standard metric

## SYGEF Standard Ball valve type 232 Function DA (Double acting) Without manual override With threaded sockets NPT



DN10/15 - 50

### Model:

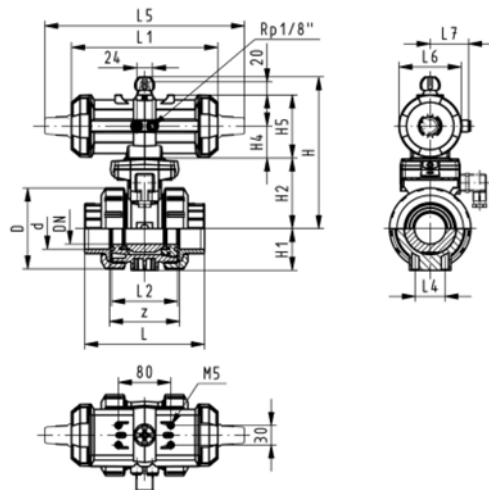
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

### Option:

- Individual configuration of the valve (see diagram)

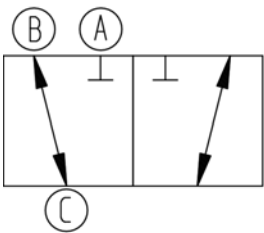
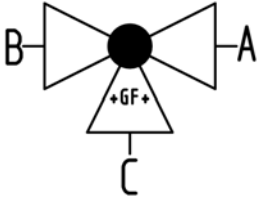
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	70	<b>199 232 612</b>
1/2	15	10	185	<b>199 232 613</b>
3/4	20	10	350	<b>199 232 614</b>
1	25	10	700	<b>199 232 615</b>
1 1/4	32	10	1000	<b>199 232 616</b>
1 1/2	40	10	1600	<b>199 232 617</b>
2	50	10	3100	<b>199 232 618</b>

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	48	83
1 1/4	84	202	44	84	51	99	146	224	85	45	305	95	59	101
1 1/2	97	202	51	84	51	99	157	224	89	45	305	95	59	111
2	124	225	64	106	51	99	183	224	101	45	305	95	59	135



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/L-port Without manual override With fusion sockets metric



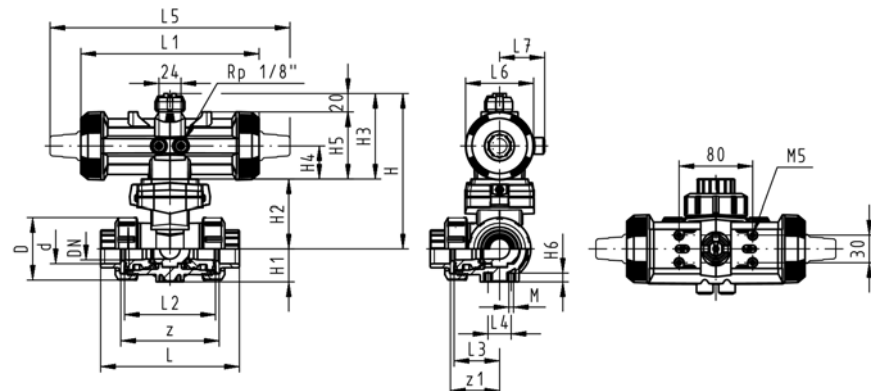
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	199 287 092
20	15	10	75	199 287 093
25	20	10	150	199 287 094
32	25	10	280	199 287 095
40	32	10	480	199 287 096
50	40	10	620	199 287 097
63	50	10	1230	199 287 098

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94

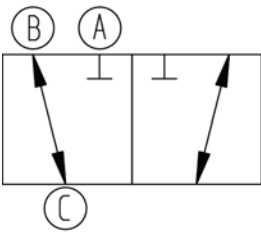
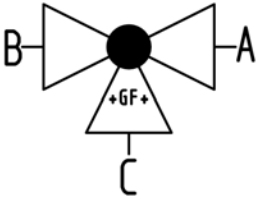


# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/L-port Without manual override With socket fusion spigots metric

### Model:

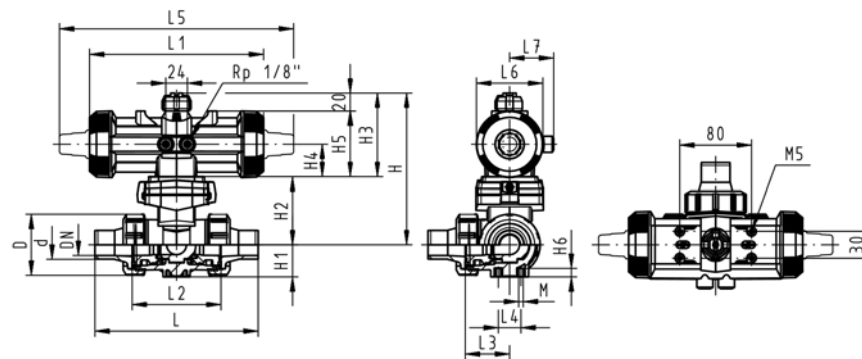
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	199 287 012
20	15	10	75	199 287 013
25	20	10	150	199 287 014
32	25	10	280	199 287 015
40	32	10	480	199 287 016
50	40	10	620	199 287 017
63	50	10	1230	199 287 018

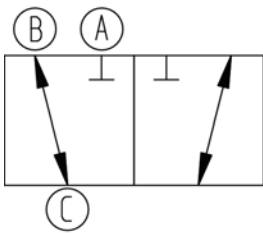
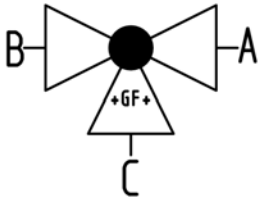
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/L-port Without manual override With butt fusion spigots IR-Plus metric



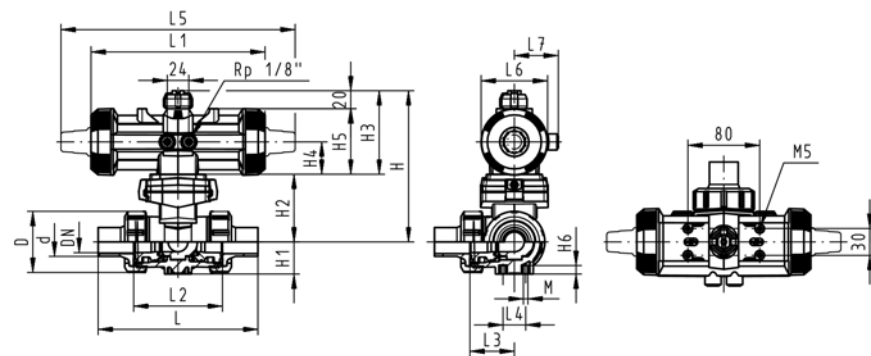
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	75	<b>199 287 053</b>
25	20	10	150	<b>199 287 054</b>
32	25	10	280	<b>199 287 055</b>
40	32	10	480	<b>199 287 056</b>
50	40	10	620	<b>199 287 057</b>
63	50	10	1230	<b>199 287 058</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287

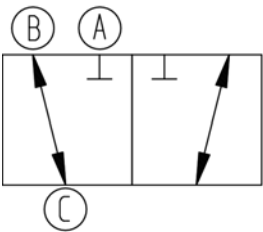
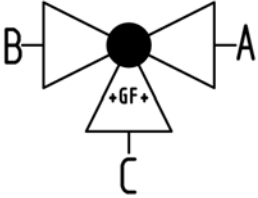
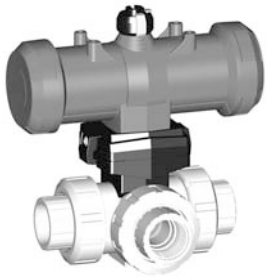
### Horizontal/L-port

### Without manual override

### With threaded sockets NPT

#### Model:

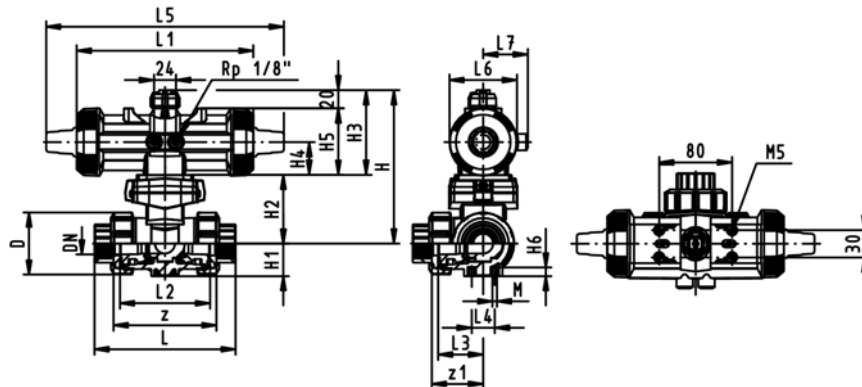
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	50	<b>199 287 242</b>
1/2	15	10	75	<b>199 287 243</b>
3/4	20	10	150	<b>199 287 244</b>
1	25	10	280	<b>199 287 245</b>
1 1/4	32	10	480	<b>199 287 246</b>
1 1/2	40	10	620	<b>199 287 247</b>
2	50	10	1230	<b>199 287 248</b>

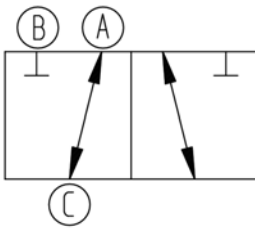
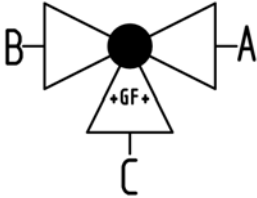
NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/L-port DA (Double acting) Without manual override With fusion sockets metric



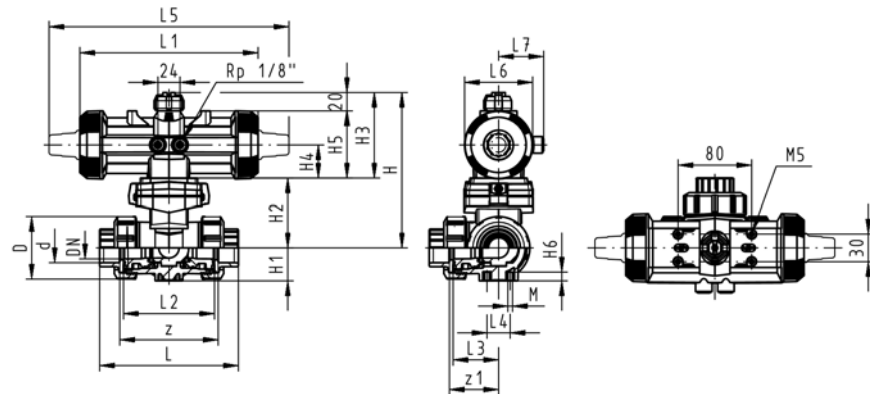
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	<b>199 287 212</b>
20	15	10	75	<b>199 287 213</b>
25	20	10	150	<b>199 287 214</b>
32	25	10	280	<b>199 287 215</b>
40	32	10	480	<b>199 287 216</b>
50	40	10	620	<b>199 287 217</b>
63	50	10	1230	<b>199 287 218</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 287

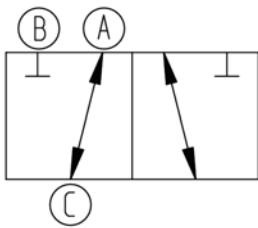
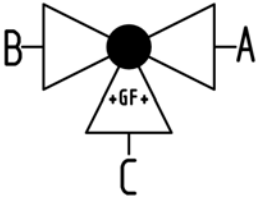
### Horizontal/L-port DA (Double acting)

### Without manual override

### With socket fusion spigots metric

#### Model:

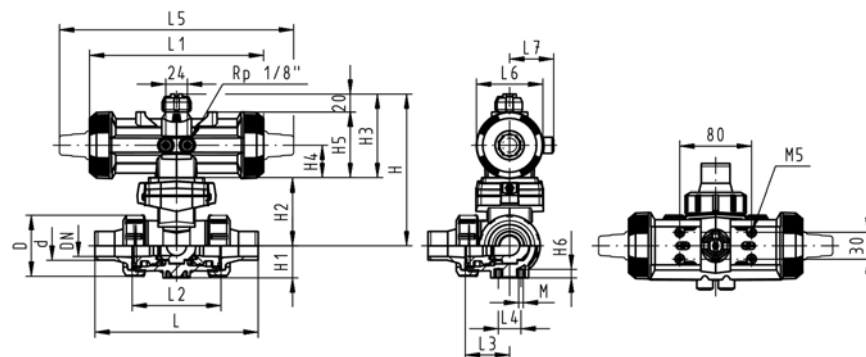
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	50	199 287 132
20	15	10	75	199 287 133
25	20	10	150	199 287 134
32	25	10	280	199 287 135
40	32	10	480	199 287 136
50	40	10	620	199 287 137
63	50	10	1230	199 287 138

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





# SYGEF Standard metric

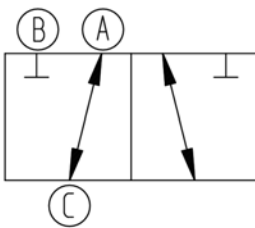
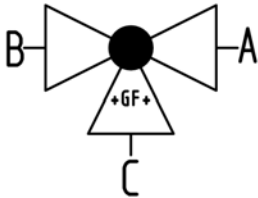
## SYGEF Standard

### 3-Way ball valve type 287

### Horizontal/L-port DA (Double acting)

### Without manual override

### With butt fusion spigots IR-Plus metric



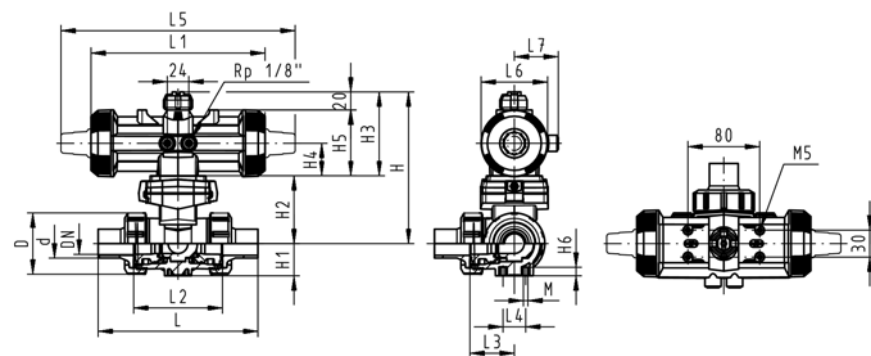
#### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	75	<b>199 287 173</b>
25	20	10	150	<b>199 287 174</b>
32	25	10	280	<b>199 287 175</b>
40	32	10	480	<b>199 287 176</b>
50	40	10	620	<b>199 287 177</b>
63	50	10	1230	<b>199 287 178</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 287

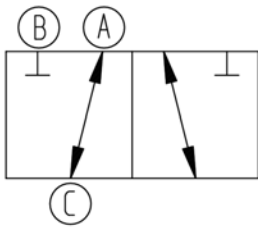
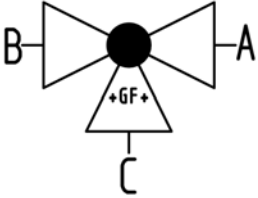
### Horizontal/L-port DA (Double acting)

### Without manual override

### With threaded sockets NPT

#### Model:

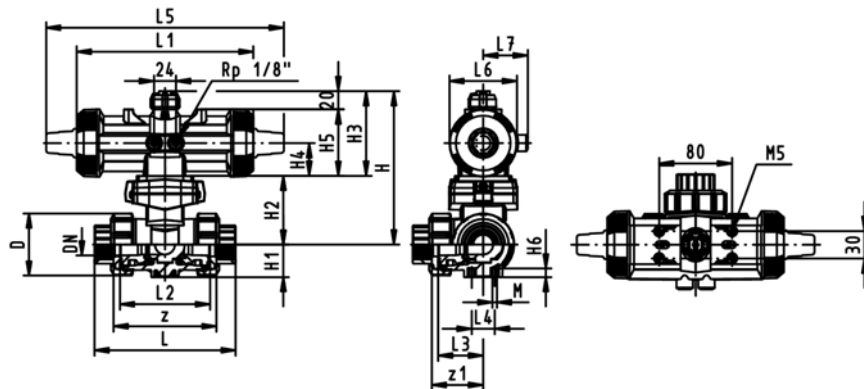
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°< 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	50	199 287 262
1/2	15	10	75	199 287 263
3/4	20	10	150	199 287 264
1	25	10	280	199 287 265
1 1/4	32	10	480	199 287 266
1 1/2	40	10	620	199 287 267
2	50	10	1230	199 287 268

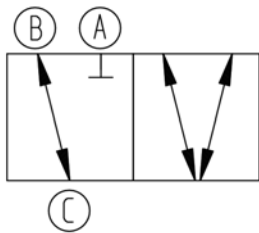
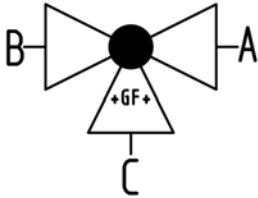
NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/T-port Without manual override With fusion sockets metric



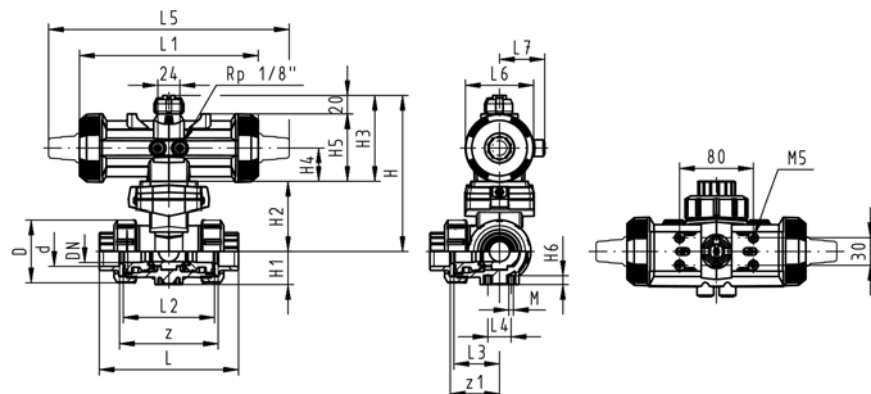
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 287 112</b>
20	15	10	200	<b>199 287 113</b>
25	20	10	470	<b>199 287 114</b>
32	25	10	793	<b>199 287 115</b>
40	32	10	1290	<b>199 287 116</b>
50	40	10	1910	<b>199 287 117</b>
63	50	10	3100	<b>199 287 118</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94

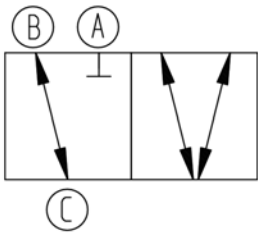
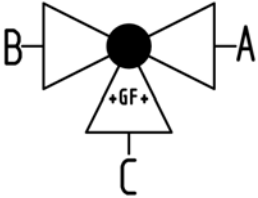


# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/T-port Without manual override With socket fusion spigots metric

### Model:

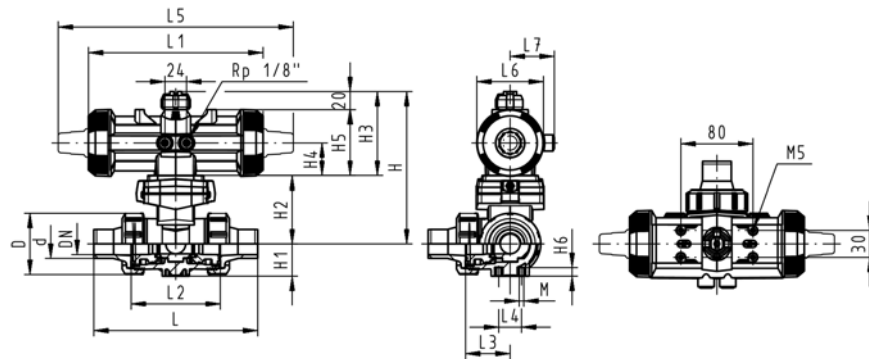
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 287 032</b>
20	15	10	200	<b>199 287 033</b>
25	20	10	470	<b>199 287 034</b>
32	25	10	793	<b>199 287 035</b>
40	32	10	1290	<b>199 287 036</b>
50	40	10	1910	<b>199 287 037</b>
63	50	10	3100	<b>199 287 038</b>

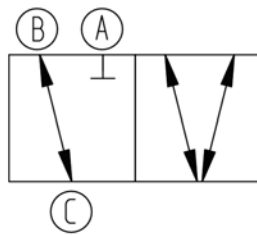
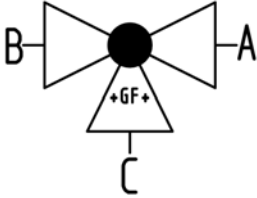
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/T-port Without manual override With butt fusion spigots IR-Plus metric



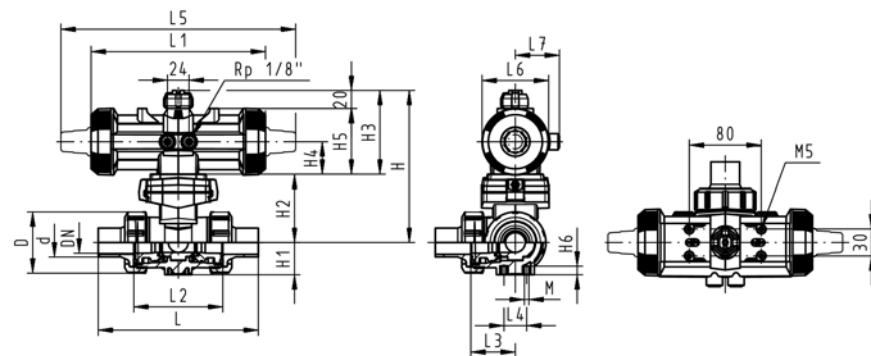
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	200	<b>199 287 073</b>
25	20	10	470	<b>199 287 074</b>
32	25	10	793	<b>199 287 075</b>
40	32	10	1290	<b>199 287 076</b>
50	40	10	1910	<b>199 287 077</b>
63	50	10	3100	<b>199 287 078</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8

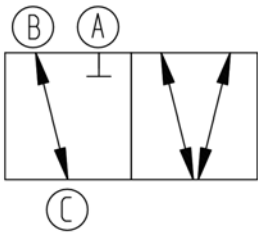
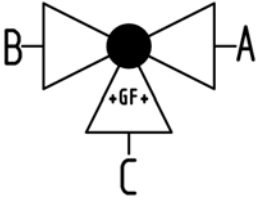


# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/T-port Without manual override With threaded sockets NPT

### Model:

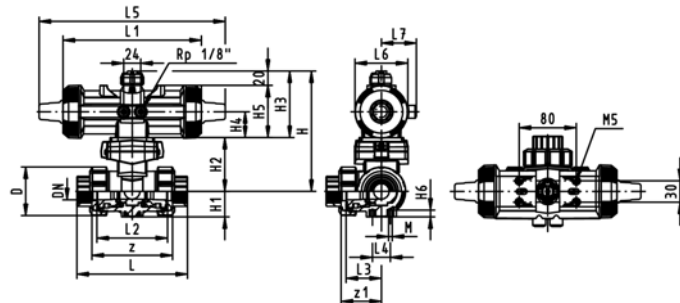
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	140	<b>199 287 252</b>
1/2	15	10	200	<b>199 287 253</b>
3/4	20	10	470	<b>199 287 254</b>
1	25	10	793	<b>199 287 255</b>
1 1/4	32	10	1290	<b>199 287 256</b>
1 1/2	40	10	1910	<b>199 287 257</b>
2	50	10	3100	<b>199 287 258</b>

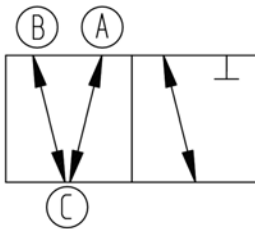
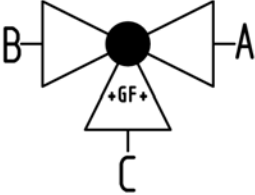
NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105



# SYGEF Standard metric

## SYGEF Standard 3-Way ball valve type 287 Horizontal/T-port DA (Double acting) Without manual override With fusion sockets metric



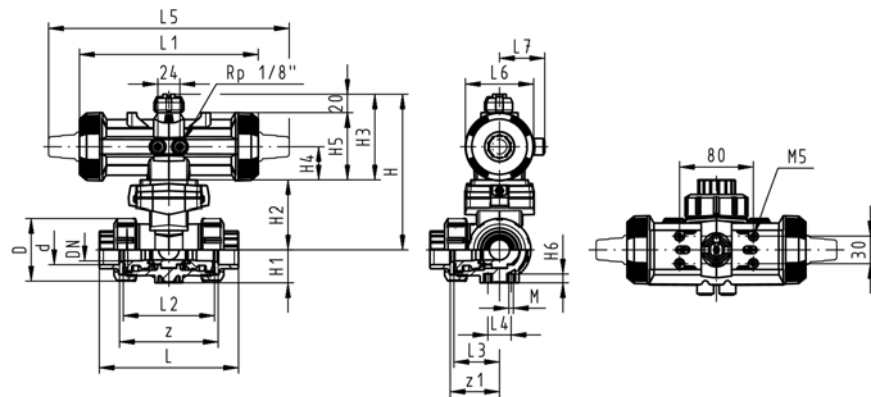
### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 287 232</b>
20	15	10	200	<b>199 287 233</b>
25	20	10	470	<b>199 287 234</b>
32	25	10	793	<b>199 287 235</b>
40	32	10	1290	<b>199 287 236</b>
50	40	10	1910	<b>199 287 237</b>
63	50	10	3100	<b>199 287 238</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 287

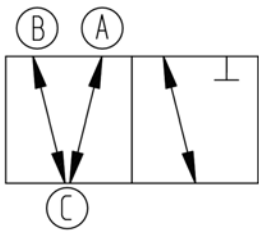
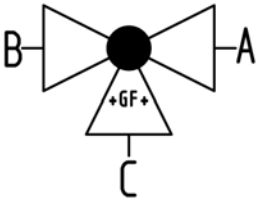
### Horizontal/T-port DA (Double acting)

### Without manual override

### With socket fusion spigots metric

#### Model:

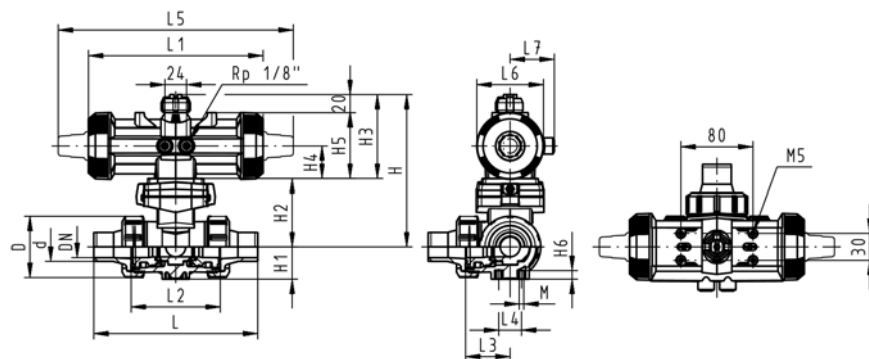
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
16	10	10	140	<b>199 287 152</b>
20	15	10	200	<b>199 287 153</b>
25	20	10	470	<b>199 287 154</b>
32	25	10	793	<b>199 287 155</b>
40	32	10	1290	<b>199 287 156</b>
50	40	10	1910	<b>199 287 157</b>
63	50	10	3100	<b>199 287 158</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





# SYGEF Standard metric

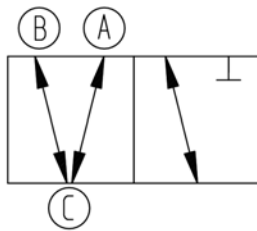
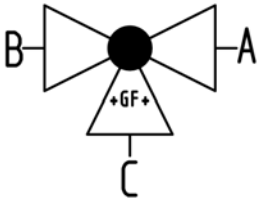
## SYGEF Standard

### 3-Way ball valve type 287

### Horizontal/T-port DA (Double acting)

### Without manual override

### With butt fusion spigots IR-Plus metric



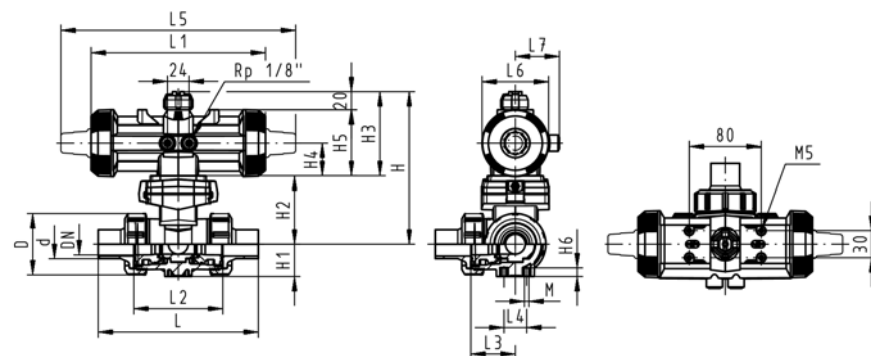
#### Model:

- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
20	15	10	140	<b>199 287 193</b>
25	20	10	200	<b>199 287 194</b>
32	25	10	470	<b>199 287 195</b>
40	32	10	793	<b>199 287 196</b>
50	40	10	1290	<b>199 287 197</b>
63	50	10	3100	<b>199 287 198</b>

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# SYGEF Standard metric

## SYGEF Standard

### 3-Way ball valve type 287

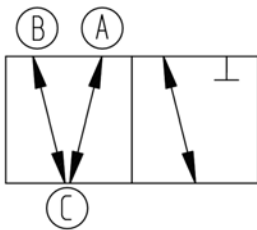
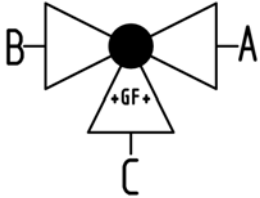
### Horizontal/T-port DA (Double acting)

### Without manual override

### With threaded sockets NPT

#### Model:

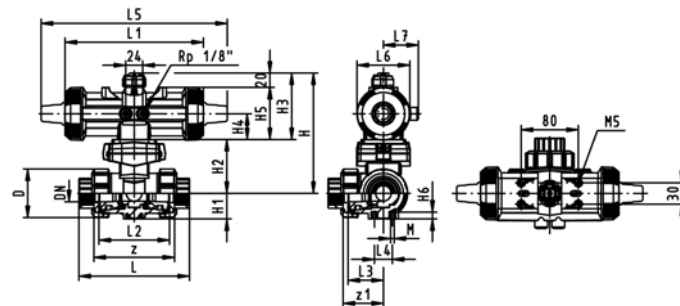
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3/8	10	10	140	<b>199 287 272</b>
1/2	15	10	200	<b>199 287 273</b>
3/4	20	10	470	<b>199 287 274</b>
1	25	10	793	<b>199 287 275</b>
1 1/4	32	10	1290	<b>199 287 276</b>
1 1/2	40	10	1910	<b>199 287 277</b>
2	50	10	3100	<b>199 287 278</b>

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	80	40
3/4	48	6	95	48
1	48	6	110	55
1 1/4	59	8	132	66
1 1/2	59	8	157	79
2	59	8	210	105



# SYGEF Standard metric

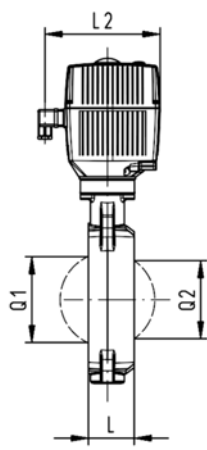
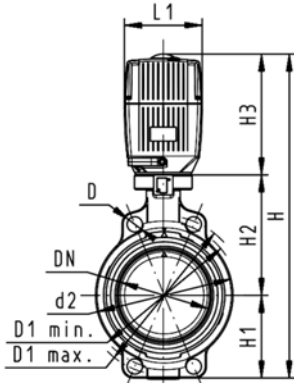
## Butterfly valves electric

### SYGEF Standard Butterfly valve type 140 100-230V Without manual override



#### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 140 582</b>	<b>199 140 642</b>
75	65	2 ½	10	2200	<b>199 140 583</b>	<b>199 140 643</b>
90	80	3	10	3000	<b>199 140 584</b>	<b>199 140 644</b>
110	100	4	10	6500	<b>199 140 585</b>	<b>199 140 645</b>
140	125	5	10	11500	<b>199 140 586</b>	<b>199 140 646</b>
160	150	6	10	16600	<b>199 140 587</b>	<b>199 140 647</b>
225	200	8	10	39600	<b>199 140 588</b>	<b>199 140 648</b>
280	250	10	6	55200	<b>199 140 589</b>	<b>199 140 649</b>
315	300	12	4	80000	<b>199 140 590</b>	<b>199 140 650</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

# SYGEF Standard metric

## SYGEF Standard

### Butterfly valve type 140 100-230V

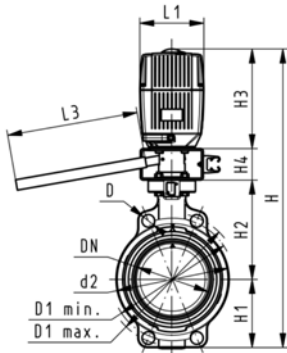
#### With manual override



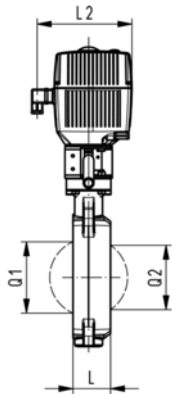
#### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
63	50	2	10	1470	<b>199 140 562</b>
75	65	2 ½	10	2200	<b>199 140 563</b>
90	80	3	10	3000	<b>199 140 564</b>
110	100	4	10	6500	<b>199 140 565</b>
140	125	5	10	11500	<b>199 140 566</b>
160	150	6	10	16600	<b>199 140 567</b>
225	200	8	10	39600	<b>199 140 568</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

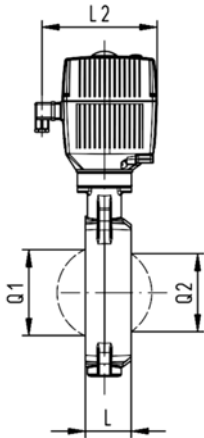
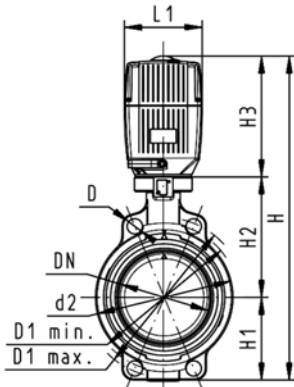
# SYGEF Standard metric

## SYGEF Standard Butterfly valve type 140 24V Without manual override



### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 140 622</b>	<b>199 140 662</b>
75	65	2 ½	10	2200	<b>199 140 623</b>	<b>199 140 663</b>
90	80	3	10	3000	<b>199 140 624</b>	<b>199 140 664</b>
110	100	4	10	6500	<b>199 140 625</b>	<b>199 140 665</b>
140	125	5	10	11500	<b>199 140 626</b>	<b>199 140 666</b>
160	150	6	10	16600	<b>199 140 627</b>	<b>199 140 667</b>
225	200	8	10	39600	<b>199 140 628</b>	<b>199 140 668</b>
280	250	10	6	55200	<b>199 140 629</b>	<b>199 140 669</b>
315	300	12	4	80000	<b>199 140 630</b>	<b>199 140 670</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253

# SYGEF Standard metric

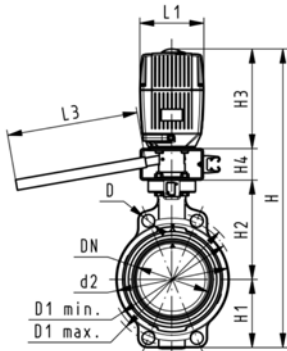
## SYGEF Standard Butterfly valve type 140 24V With manual override



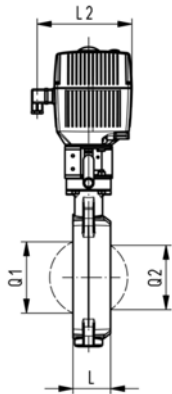
### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
63	50	2	10	1470	<b>199 140 602</b>
75	65	2 ½	10	2200	<b>199 140 603</b>
90	80	3	10	3000	<b>199 140 604</b>
110	100	4	10	6500	<b>199 140 605</b>
140	125	5	10	11500	<b>199 140 606</b>
160	150	6	10	16600	<b>199 140 607</b>
225	200	8	10	39600	<b>199 140 608</b>



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



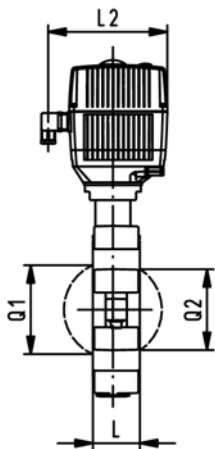
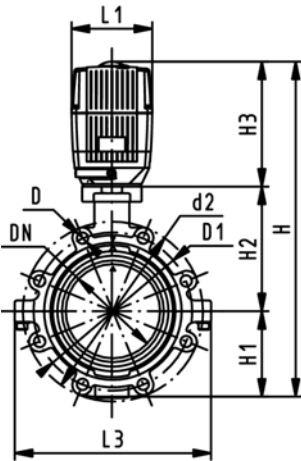
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# SYGEF Standard metric

## SYGEF Standard

### Lugstyle butterfly valve type 141 100-230V

#### Without manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 141 582</b>	<b>199 141 642</b>
75	65	2 ½	10	2200	<b>199 141 583</b>	<b>199 141 643</b>
90	80	3	10	3000	<b>199 141 584</b>	<b>199 141 644</b>
110	100	4	10	6500	<b>199 141 585</b>	<b>199 141 645</b>
140	125	5	10	11500	<b>199 141 586</b>	<b>199 141 646</b>
160	150	6	10	16600	<b>199 141 587</b>	<b>199 141 647</b>
225	200	8	10	39600	<b>199 141 588</b>	<b>199 141 648</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

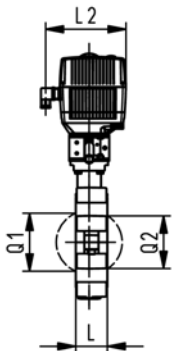
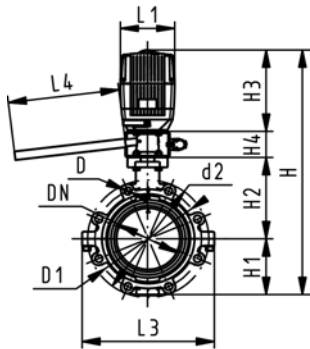
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# SYGEF Standard metric

## SYGEF Standard

### Lugstyle butterfly valve type 141 100-230V

#### With manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
63	50	2	10	1470	<b>199 141 562</b>
75	65	2 ½	10	2200	<b>199 141 563</b>
90	80	3	10	3000	<b>199 141 564</b>
110	100	4	10	6500	<b>199 141 565</b>
140	125	5	10	11500	<b>199 141 566</b>
160	150	6	10	16600	<b>199 141 567</b>
225	200	8	10	39600	<b>199 141 568</b>

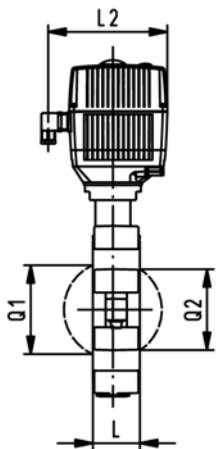
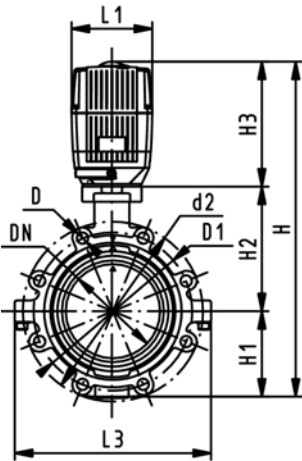
d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 141 24V Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 141 622</b>	<b>199 141 662</b>
75	65	2 ½	10	2200	<b>199 141 623</b>	<b>199 141 663</b>
90	80	3	10	3000	<b>199 141 624</b>	<b>199 141 664</b>
110	100	4	10	6500	<b>199 141 625</b>	<b>199 141 665</b>
140	125	5	10	11500	<b>199 141 626</b>	<b>199 141 666</b>
160	150	6	10	16600	<b>199 141 627</b>	<b>199 141 667</b>
225	200	8	10	39600	<b>199 141 628</b>	<b>199 141 668</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

# SYGEF Standard metric

## SYGEF Standard

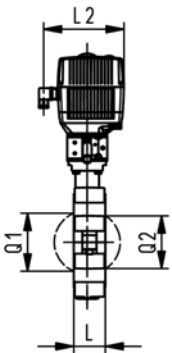
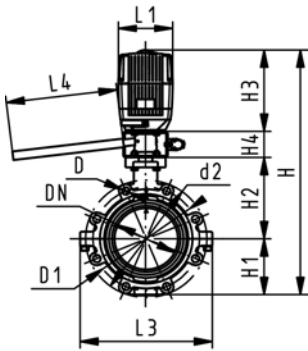
### Lugstyle butterfly valve type 141 24V

#### With manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



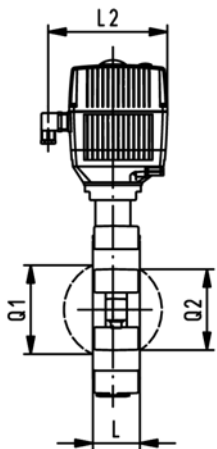
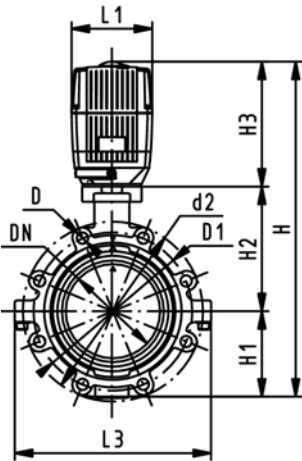
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
63	50	2	10	1470	<b>199 141 602</b>
75	65	2 ½	10	2200	<b>199 141 603</b>
90	80	3	10	3000	<b>199 141 604</b>
110	100	4	10	6500	<b>199 141 605</b>
140	125	5	10	11500	<b>199 141 606</b>
160	150	6	10	16600	<b>199 141 607</b>
225	200	8	10	39600	<b>199 141 608</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 142 100-230V ANSI Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
2	50	63	10	1470	<b>199 142 582</b>	<b>199 142 642</b>
2 ½	65	75	10	2200	<b>199 142 583</b>	<b>199 142 643</b>
3	80	90	10	3000	<b>199 142 584</b>	<b>199 142 644</b>
4	100	110	10	6500	<b>199 142 585</b>	<b>199 142 645</b>
5	125	140	10	11500	<b>199 142 586</b>	<b>199 142 646</b>
6	150	160	10	16600	<b>199 142 587</b>	<b>199 142 647</b>
8	200	225	10	39600	<b>199 142 588</b>	<b>199 142 648</b>

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169

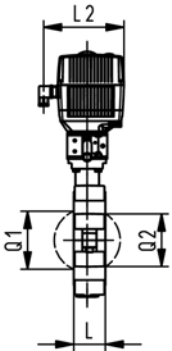
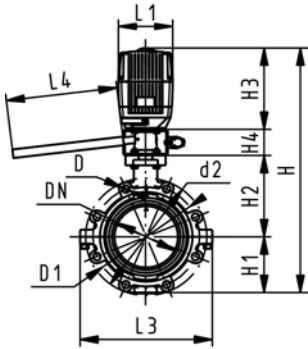
# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 142 100-230V ANSI With manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
2	50	63	10	1470	<b>199 142 562</b>
2 ½	65	75	10	2200	<b>199 142 563</b>
3	80	90	10	3000	<b>199 142 564</b>
4	100	110	10	6500	<b>199 142 565</b>
5	125	140	10	11500	<b>199 142 566</b>
6	150	160	10	16600	<b>199 142 567</b>
8	200	225	10	39600	<b>199 142 568</b>

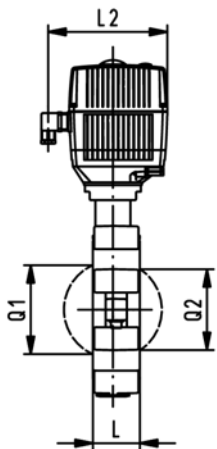
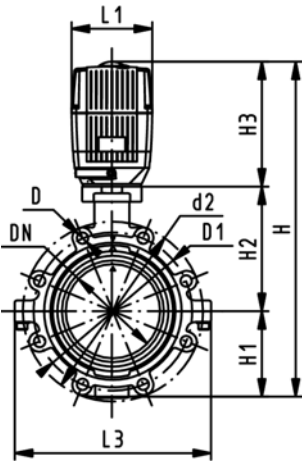
Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169

# SYGEF Standard metric

## SYGEF Standard

### Lugstyle butterfly valve type 142 24V ANSI Without manual override



**Model:**

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
2	50	63	10	1470	<b>199 142 622</b>	<b>199 142 662</b>
2 ½	65	75	10	2200	<b>199 142 623</b>	<b>199 142 663</b>
3	80	90	10	3000	<b>199 142 624</b>	<b>199 142 664</b>
4	100	110	10	6500	<b>199 142 625</b>	<b>199 142 665</b>
5	125	140	10	11500	<b>199 142 626</b>	<b>199 142 666</b>
6	150	160	10	16600	<b>199 142 627</b>	<b>199 142 667</b>
8	200	225	10	39600	<b>199 142 628</b>	<b>199 142 668</b>

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169

# SYGEF Standard metric

## SYGEF Standard

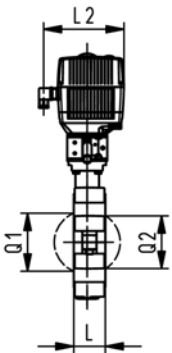
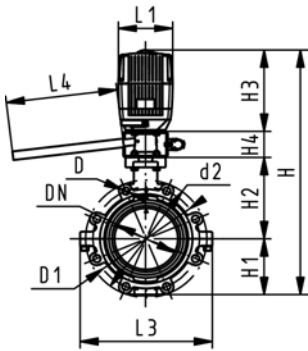
### Lugstyle butterfly valve type 142 24V ANSI

#### With manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
2	50	63	10	1470	<b>199 142 602</b>
2 ½	65	75	10	2200	<b>199 142 603</b>
3	80	90	10	3000	<b>199 142 604</b>
4	100	110	10	6500	<b>199 142 605</b>
5	125	140	10	11500	<b>199 142 606</b>
6	150	160	10	16600	<b>199 142 607</b>
8	200	225	10	39600	<b>199 142 608</b>

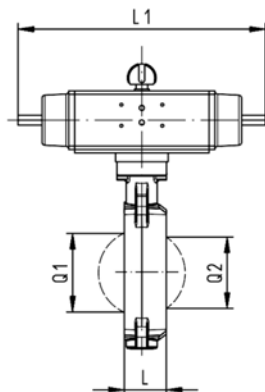
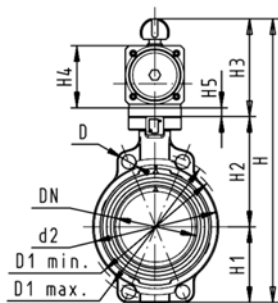
Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169

# SYGEF Standard metric

## Butterfly valves pneumatic

### SYGEF Standard Butterfly valve type 240 FC (Fail safe to close) Without manual override



#### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

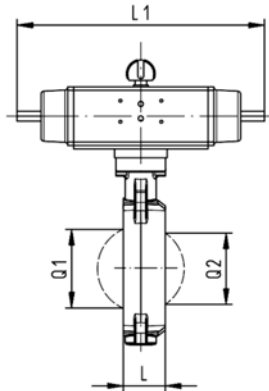
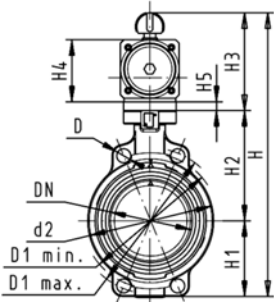
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	199 240 462	199 240 522
75	65	2 ½	10	2200	199 240 463	199 240 523
90	80	3	10	3000	199 240 464	199 240 524
110	100	4	10	6500	199 240 465	199 240 525
140	125	5	10	11500	199 240 466	199 240 526
160	150	6	10	16600	199 240 467	199 240 527
225	200	8	10	39600	199 240 468	199 240 528
280	250	10	10	55200	199 240 469	199 240 529
315	300	12	10	80000	199 240 470	199 240 530

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86	15	56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96	15	64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106	15	72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118	15	73	452
280	PA-65 FC	25	353.0	362.0	329	808	205	264	191	148	15	113	648
315	PA-70 FC	25	400.0	432.0	379	866	228	285	196	157	15	113	663

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253

# SYGEF Standard metric

## SYGEF Standard Butterfly valve type 240 FO (Fail safe to open) Without manual override



### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	199 240 482	199 240 542
75	65	2 ½	10	2200	199 240 483	199 240 543
90	80	3	10	3000	199 240 484	199 240 544
110	100	4	10	6500	199 240 485	199 240 545
140	125	5	10	11500	199 240 486	199 240 546
160	150	6	10	16600	199 240 487	199 240 547
225	200	8	10	39600	199 240 488	199 240 548
280	250	10	10	55200	199 240 489	199 240 549
315	300	12	10	80000	199 240 490	199 240 550

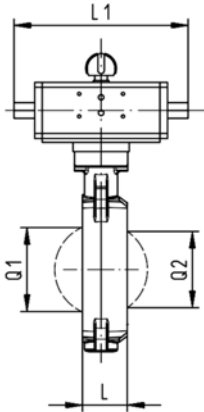
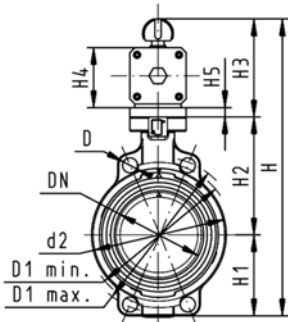
d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452
280	PA-70 FO	25	353.0	362.0	329	808	205	264	191	148		113	648
315	PA-70 FO	25	400.0	432.0	379	866	228	285	196	157		113	663

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



# SYGEF Standard metric

## SYGEF Standard Butterfly valve type 240 DA (Double acting) Without manual override



### Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 240 502</b>	<b>199 240 562</b>
75	65	2 ½	10	2200	<b>199 240 503</b>	<b>199 240 563</b>
90	80	3	10	3000	<b>199 240 504</b>	<b>199 240 564</b>
110	100	4	10	6500	<b>199 240 505</b>	<b>199 240 565</b>
140	125	5	10	11500	<b>199 240 506</b>	<b>199 240 566</b>
160	150	6	10	16600	<b>199 240 507</b>	<b>199 240 567</b>
225	200	8	10	39600	<b>199 240 508</b>	<b>199 240 568</b>
280	250	10	10	55200	<b>199 240 509</b>	<b>199 240 569</b>
315	300	12	10	80000	<b>199 240 510</b>	<b>199 240 570</b>

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	748	205	264	161	118		113	350
315	PA-70 DA	25	400.0	432.0	379	816	228	285	173	130		113	381

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253

# SYGEF Standard metric

## SYGEF Standard

### Lugstyle butterfly valve type 241

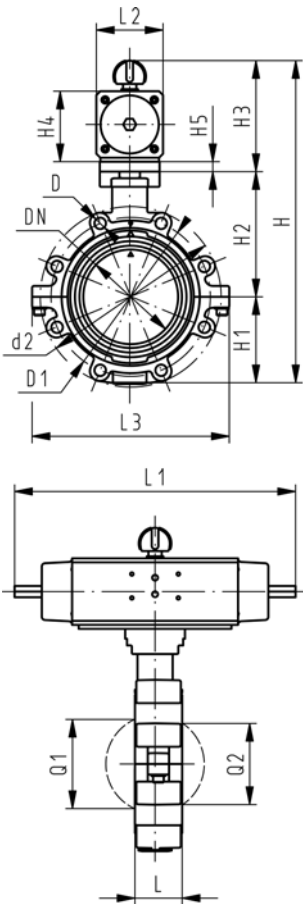
#### FC (Fail safe to close)

#### Without manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 241 462</b>	<b>199 241 522</b>
75	65	2 ½	10	2200	<b>199 241 463</b>	<b>199 241 523</b>
90	80	3	10	3000	<b>199 241 464</b>	<b>199 241 524</b>
110	100	4	10	6500	<b>199 241 465</b>	<b>199 241 525</b>
140	125	5	10	11500	<b>199 241 466</b>	<b>199 241 526</b>
160	150	6	10	16600	<b>199 241 467</b>	<b>199 241 527</b>
225	200	8	10	39600	<b>199 241 468</b>	<b>199 241 528</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

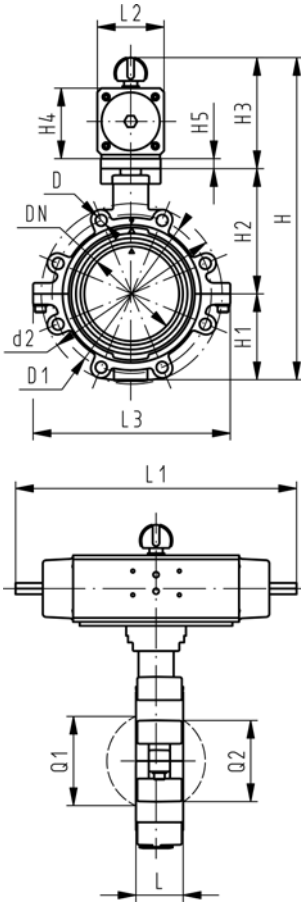
# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 241 FO (Fail safe to open) Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



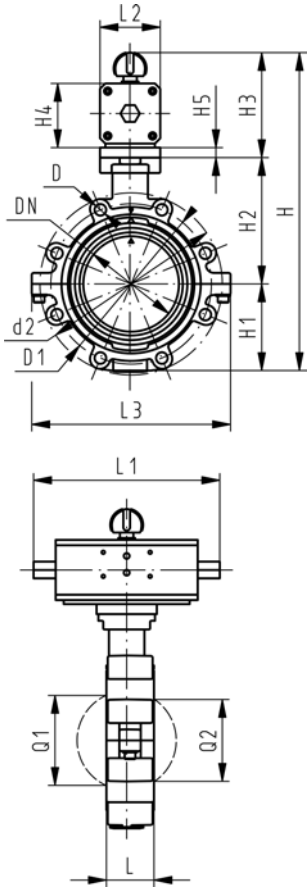
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 241 482</b>	<b>199 241 542</b>
75	65	2 ½	10	2200	<b>199 241 483</b>	<b>199 241 543</b>
90	80	3	10	3000	<b>199 241 484</b>	<b>199 241 544</b>
110	100	4	10	6500	<b>199 241 485</b>	<b>199 241 545</b>
140	125	5	10	11500	<b>199 241 486</b>	<b>199 241 546</b>
160	150	6	10	16600	<b>199 241 487</b>	<b>199 241 547</b>
225	200	8	10	39600	<b>199 241 488</b>	<b>199 241 548</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 241 DA (Double acting) Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
63	50	2	10	1470	<b>199 241 502</b>	<b>199 241 562</b>
75	65	2 ½	10	2200	<b>199 241 503</b>	<b>199 241 563</b>
90	80	3	10	3000	<b>199 241 504</b>	<b>199 241 564</b>
110	100	4	10	6500	<b>199 241 505</b>	<b>199 241 565</b>
140	125	5	10	11500	<b>199 241 506</b>	<b>199 241 566</b>
160	150	6	10	16600	<b>199 241 507</b>	<b>199 241 567</b>
225	200	8	10	39600	<b>199 241 508</b>	<b>199 241 568</b>

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71	15	56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78	15	64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86	15	72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96	15	73	279	90

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169

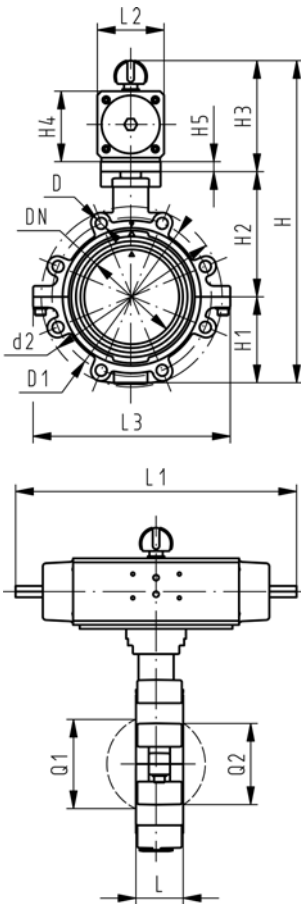
# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 242 ANSI FC (Fail safe to close) Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
2	50	63	10	1470	<b>199 242 462</b>	<b>199 242 522</b>
2 ½	65	75	10	2200	<b>199 242 463</b>	<b>199 242 523</b>
3	80	90	10	3000	<b>199 242 464</b>	<b>199 242 524</b>
4	100	110	10	6500	<b>199 242 465</b>	<b>199 242 525</b>
5	125	140	10	11500	<b>199 242 466</b>	<b>199 242 526</b>
6	150	160	10	16600	<b>199 242 467</b>	<b>199 242 527</b>
8	200	225	10	39600	<b>199 242 468</b>	<b>199 242 528</b>

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FC	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FC	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FC	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FC	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FC	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FC	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FC	UNC 3/4	299	334	529	158	210	161	118		73	452	112

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

# SYGEF Standard metric

## SYGEF Standard

### Lugstyle butterfly valve type 242 ANSI

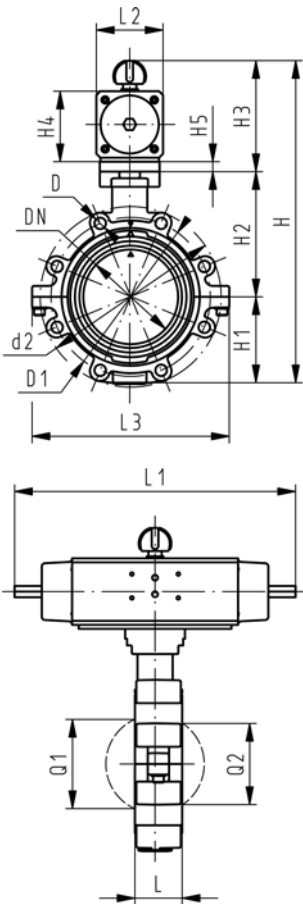
#### FO (Fail safe to open)

#### Without manual override



#### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
2	50	63	10	1470	<b>199 242 482</b>	<b>199 242 542</b>
2 ½	65	75	10	2200	<b>199 242 483</b>	<b>199 242 543</b>
3	80	90	10	3000	<b>199 242 484</b>	<b>199 242 544</b>
4	100	110	10	6500	<b>199 242 485</b>	<b>199 242 545</b>
5	125	140	10	11500	<b>199 242 486</b>	<b>199 242 546</b>
6	150	160	10	16600	<b>199 242 487</b>	<b>199 242 547</b>
8	200	225	10	39600	<b>199 242 488</b>	<b>199 242 548</b>

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FO	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FO	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FO	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FO	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FO	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FO	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FO	UNC 3/4	299	334	529	158	210	161	118		73	452	112

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

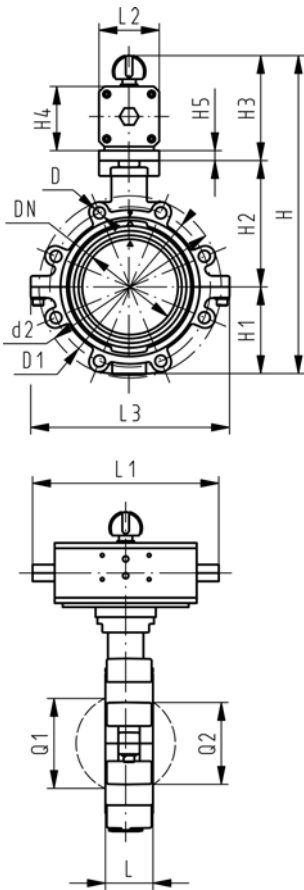
# SYGEF Standard metric

## SYGEF Standard Lugstyle butterfly valve type 242 ANSI DA (Double acting) Without manual override



### Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code
2	50	63	10	1470	<b>199 242 502</b>	<b>199 242 562</b>
2 ½	65	75	10	2200	<b>199 242 503</b>	<b>199 242 563</b>
3	80	90	10	3000	<b>199 242 504</b>	<b>199 242 564</b>
4	100	110	10	6500	<b>199 242 505</b>	<b>199 242 565</b>
5	125	140	10	11500	<b>199 242 506</b>	<b>199 242 566</b>
6	150	160	10	16600	<b>199 242 507</b>	<b>199 242 567</b>
8	200	225	10	39600	<b>199 242 508</b>	<b>199 242 568</b>

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-35 DA	UNC 5/8	121	150	318	77	134	107	60	15	45	177	55
2 ½	PA-35 DA	UNC 5/8	140	170	330	83	140	107	60	15	46	177	55
3	PA-40 DA	UNC 5/8	153	177	348	89	146	113	66	15	49	190	60
4	PA-45 DA	UNC 5/8	191	216	373	104	167	102	71		56	235	65
5	PA-45 DA	UNC 3/4	216	246	409	117	181	111	78		64	235	72
6	PA-55 DA	UNC 3/4	242	273	448	130	189	129	86		72	279	80
8	PA-55 DA	UNC 3/4	299	334	507	158	210	139	96		73	279	90

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

# SYGEF Standard metric

## Diaphragm valves pneumatic

### New generation

#### SYGEF Standard

#### Diaphragm valve DIASTAR Ten

#### FC (Fail safe to close)

#### Unions with fusion sockets metric

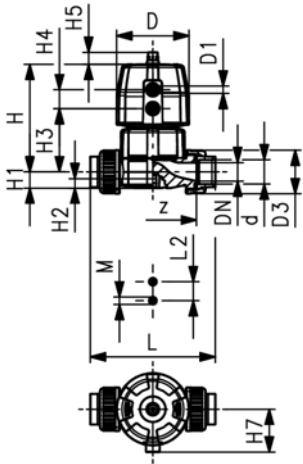


#### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



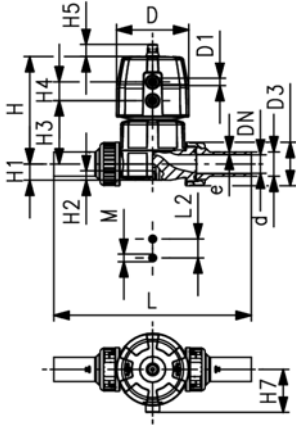
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 624 032</b>
25	20	10	271	<b>175 624 033</b>
32	25	10	481	<b>175 624 034</b>
40	32	10	759	<b>175 624 035</b>
50	40	10	1263	<b>175 624 036</b>
63	50	6	1728	<b>175 624 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	150	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	162	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	184	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	210	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	248	45	226	39	15	132	36	26	88	M8	194	23



# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with butt fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

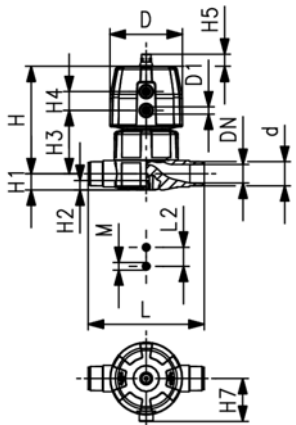
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	FPM Code
20	15	10	125	175 624 132	800 047 359	800 047 269
25	20	10	271	175 624 133	800 047 360	800 047 343
32	25	10	481	175 624 134	800 047 361	800 047 344
40	32	10	759	175 624 135	800 047 362	800 047 270
50	40	10	1263	175 624 136	800 047 363	800 047 345
63	50	6	1728	175 624 137	800 047 364	800 047 346

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	88	M8	23	3.0

## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With socket fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

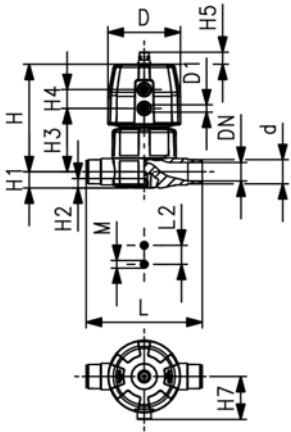
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	175 625 032
25	20	10	271	175 625 033
32	25	10	481	175 625 034
40	32	10	759	175 625 035
50	40	10	1263	175 625 036
63	50	6	1728	175 625 037

table continued next page

# SYGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



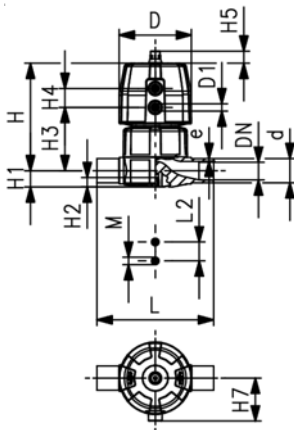
## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With butt fusion spigots metric

### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

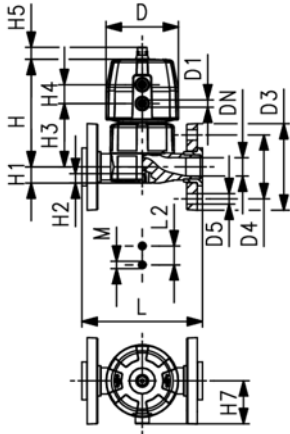
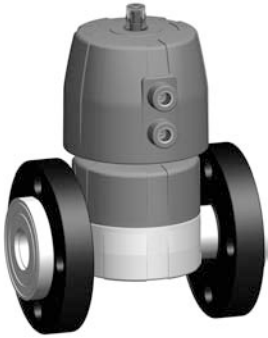


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 625 132</b>
25	20	10	271	<b>175 625 133</b>
32	25	10	481	<b>175 625 134</b>
40	32	10	759	<b>175 625 135</b>
50	40	10	1263	<b>175 625 136</b>
63	50	6	1728	<b>175 625 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With backing flanges PP-V metric/BS



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

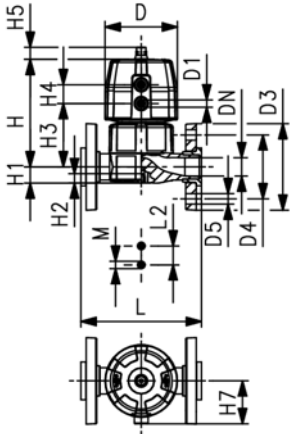
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 627 132</b>
25	20	10	271	<b>175 627 133</b>
32	25	10	481	<b>175 627 134</b>
40	32	10	759	<b>175 627 135</b>
50	40	10	1263	<b>175 627 136</b>
63	50	6	1728	<b>175 627 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With backing flanges PP-V Inch ANSI



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
1/2	15	10	125	<b>175 627 732</b>
3/4	20	10	271	<b>175 627 733</b>
1	25	10	481	<b>175 627 734</b>
1 1/4	32	10	759	<b>175 627 735</b>
1 1/2	40	10	1263	<b>175 627 736</b>
2	50	6	1728	<b>175 627 737</b>

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	43	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	69	M8
1 1/2	150	1/4	150	98	16	200	45	193	32	15	119	36	26	88	M8
2	150	1/4	165	121	19	230	45	205	39	15	132	36	26	88	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with fusion sockets metric

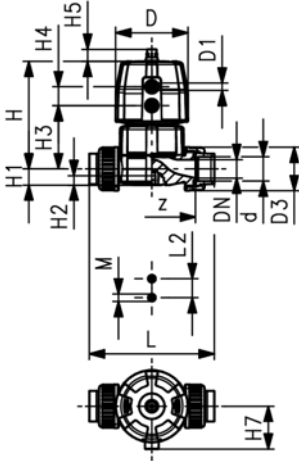


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 644 032</b>
25	20	10	271	<b>175 644 033</b>
32	25	10	481	<b>175 644 034</b>
40	32	10	759	<b>175 644 035</b>
50	40	10	1263	<b>175 644 036</b>
63	50	10	1728	<b>175 644 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23

## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with butt fusion spigots metric

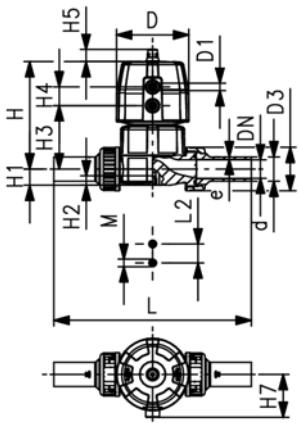


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

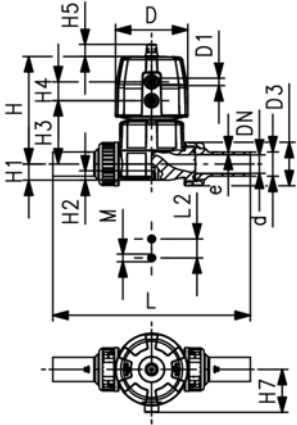
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 644 132</b>
25	20	10	271	<b>175 644 133</b>
32	25	10	481	<b>175 644 134</b>
40	32	10	759	<b>175 644 135</b>
50	40	10	1263	<b>175 644 136</b>
63	50	10	1728	<b>175 644 137</b>

table continued next page

# SYGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0



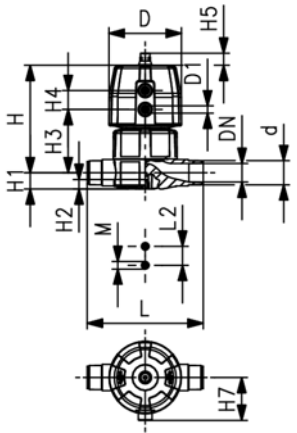
## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With socket fusion spigots metric

### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

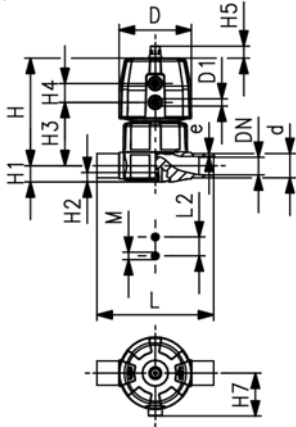


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 645 032</b>
25	20	10	271	<b>175 645 033</b>
32	25	10	481	<b>175 645 034</b>
40	32	10	759	<b>175 645 035</b>
50	40	10	1263	<b>175 645 036</b>
63	50	10	1728	<b>175 645 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

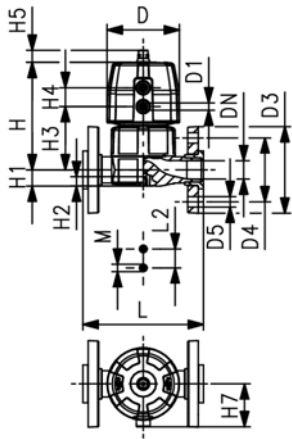
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code											
20	15	10	125	<b>175 645 132</b>											
25	20	10	271	<b>175 645 133</b>											
32	25	10	481	<b>175 645 134</b>											
40	32	10	759	<b>175 645 135</b>											
50	40	10	1263	<b>175 645 136</b>											
63	50	10	1728	<b>175 645 137</b>											

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With backing flanges PP-V metric/BS



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 647 132</b>
25	20	10	271	<b>175 647 133</b>
32	25	10	481	<b>175 647 134</b>
40	32	10	759	<b>175 647 135</b>
50	40	10	1263	<b>175 647 136</b>
63	50	10	1728	<b>175 647 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With backing flanges PP-V Inch ANSI

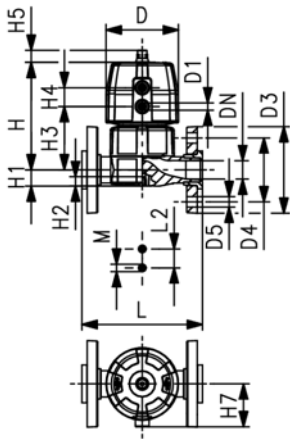


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
1/2	15	10	125	<b>175 647 732</b>
3/4	20	10	271	<b>175 647 733</b>
1	25	10	481	<b>175 647 734</b>
1 1/4	32	10	759	<b>175 647 735</b>
1 1/2	40	10	1263	<b>175 647 736</b>
2	50	10	1728	<b>175 647 737</b>

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	57	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	88	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	103	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with fusion sockets metric

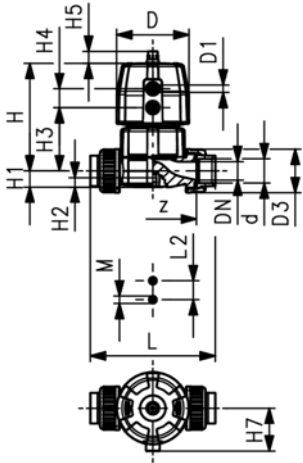


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 654 032</b>
25	20	10	271	<b>175 654 033</b>
32	25	10	481	<b>175 654 034</b>
40	32	10	759	<b>175 654 035</b>
50	40	10	1263	<b>175 654 036</b>
63	50	10	1728	<b>175 654 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23

## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with butt fusion spigots metric

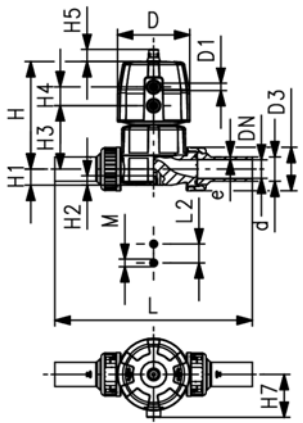


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

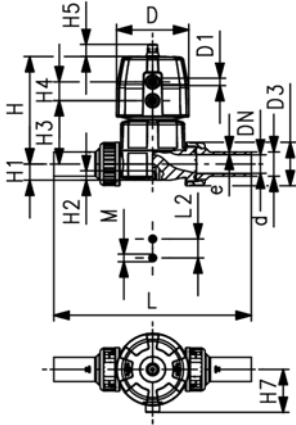
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 654 132</b>
25	20	10	271	<b>175 654 133</b>
32	25	10	481	<b>175 654 134</b>
40	32	10	759	<b>175 654 135</b>
50	40	10	1263	<b>175 654 136</b>
63	50	10	1728	<b>175 654 137</b>

table continued next page

# SYGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0



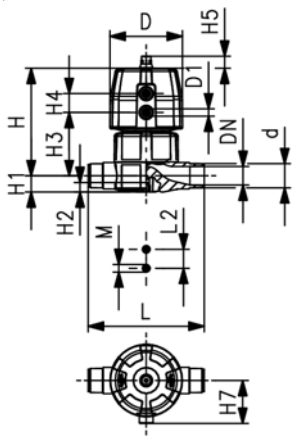
## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With socket fusion spigots metric

### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

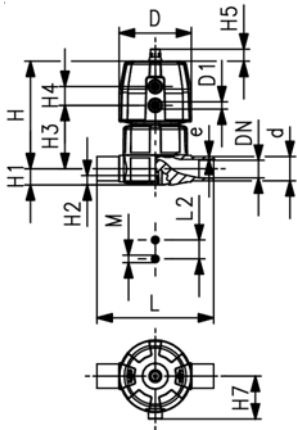


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 655 032</b>
25	20	10	271	<b>175 655 033</b>
32	25	10	481	<b>175 655 034</b>
40	32	10	759	<b>175 655 035</b>
50	40	10	1263	<b>175 655 036</b>
63	50	10	1728	<b>175 655 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	69	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	69	M8	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

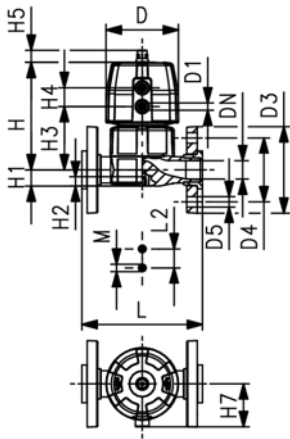
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code										
20	15	10	125	<b>175 655 132</b>										
25	20	10	271	<b>175 655 133</b>										
32	25	10	481	<b>175 655 134</b>										
40	32	10	759	<b>175 655 135</b>										
50	40	10	1263	<b>175 655 136</b>										
63	50	10	1728	<b>175 655 137</b>										

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With backing flanges PP-V metric/BS



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

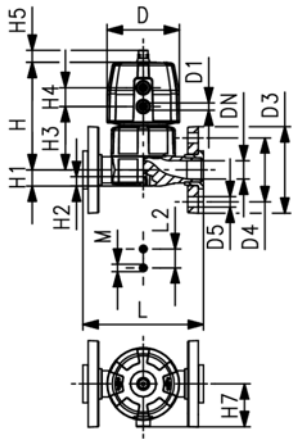
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>175 657 132</b>
25	20	10	271	<b>175 657 133</b>
32	25	10	481	<b>175 657 134</b>
40	32	10	759	<b>175 657 135</b>
50	40	10	1263	<b>175 657 136</b>
63	50	10	1728	<b>175 657 137</b>

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With backing flanges PP-V Inch ANSI



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

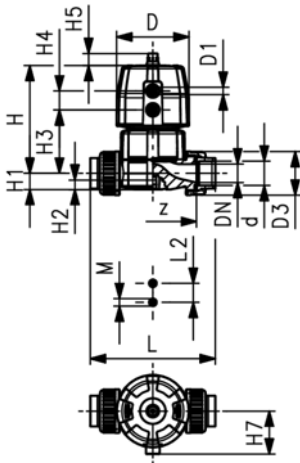
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
1/2	15	10	125	<b>175 657 732</b>
3/4	20	10	271	<b>175 657 733</b>
1	25	10	481	<b>175 657 734</b>
1 1/4	32	10	759	<b>175 657 735</b>
1 1/2	40	10	1263	<b>175 657 736</b>
2	50	10	1728	<b>175 657 737</b>

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	57	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	88	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	103	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with fusion sockets metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

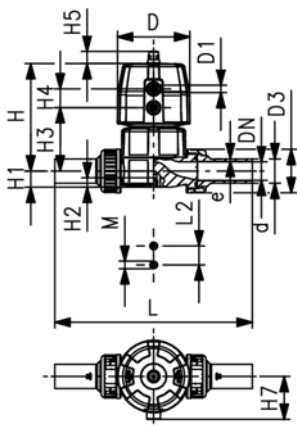
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>175 634 032</b>
25	20	16/16*	271	<b>175 634 033</b>
32	25	16/16*	481	<b>175 634 034</b>
40	32	16/16*	759	<b>175 634 035</b>
50	40	16/16*	1263	<b>175 634 036</b>
63	50	16/10*	1728	<b>175 634 037</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	126	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	144	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	164	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	194	23

## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with butt fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

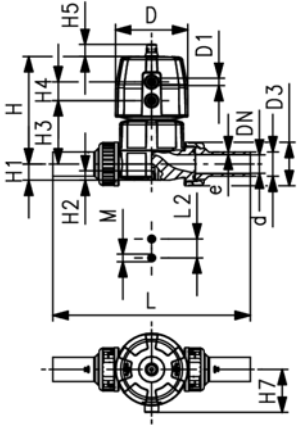
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>175 634 132</b>
25	20	16/16*	271	<b>175 634 133</b>
32	25	16/16*	481	<b>175 634 134</b>

table continued next page

# SYGEF Standard metric



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
40	32	16/16*	759	<b>175 634 135</b>
50	40	16/16*	1263	<b>175 634 136</b>
63	50	16/10*	1728	<b>175 634 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	3.0



## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With socket fusion spigots metric

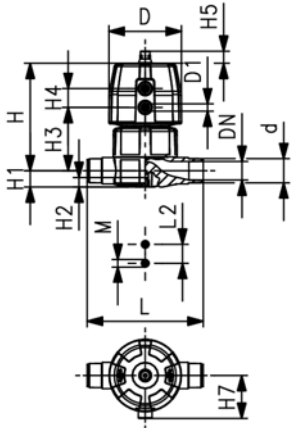
### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>175 635 032</b>
25	20	16/16*	271	<b>175 635 033</b>
32	25	16/16*	481	<b>175 635 034</b>
40	32	16/16*	759	<b>175 635 035</b>
50	40	16/16*	1263	<b>175 635 036</b>
63	50	16/10*	1728	<b>175 635 037</b>

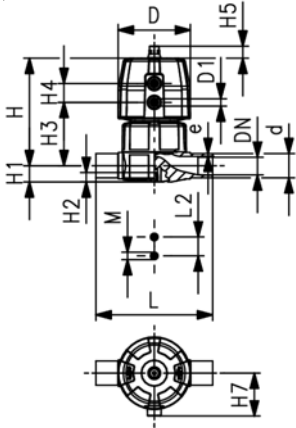
  

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23



# SYGEF Standard metric

## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots metric



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

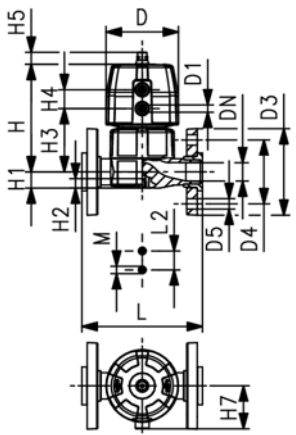
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>175 635 132</b>
25	20	16/16*	271	<b>175 635 133</b>
32	25	16/16*	481	<b>175 635 134</b>
40	32	16/16*	759	<b>175 635 135</b>
50	40	16/16*	1263	<b>175 635 136</b>
63	50	16/10*	1728	<b>175 635 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	3.0

## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With backing flanges PP-V metric/BS



### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

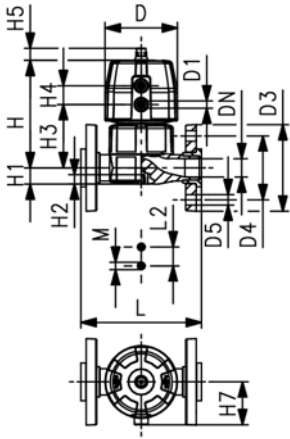
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16	125	<b>175 637 132</b>
25	20	16	271	<b>175 637 133</b>
32	25	16	481	<b>175 637 134</b>
40	32	16	759	<b>175 637 135</b>
50	40	16	1263	<b>175 637 136</b>
63	50	10	1728	<b>175 637 137</b>

table continued next page

# SYGEF Standard metric



d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	96	⅜	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	⅜	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	⅜	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	¼	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	¼	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	¼	165	125	18	230	45	251	39	15	137	37	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23

## SYGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With backing flanges PP-V Inch ANSI

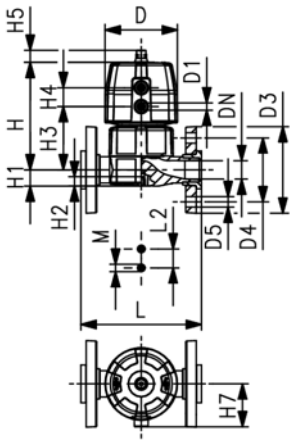


### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



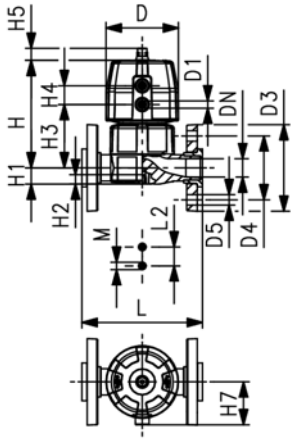
Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	PTFE/EPDM Code
½	15	16	125	<b>175 637 732</b>
¾	20	16	271	<b>175 637 733</b>
1	25	16	481	<b>175 637 734</b>
1 ¼	32	16	759	<b>175 637 735</b>
1 ½	40	16	1263	<b>175 637 736</b>
2	50	16	1728	<b>175 637 737</b>

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
½	96	⅜	95	60	16	130	25	127	14	12	68	25	16	57	M6
¾	96	⅜	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	120	⅜	115	79	16	160	25	167	22	12	93	26	26	69	M6
1 ¼	150	¼	140	89	16	180	45	196	26	15	101	36	26	88	M8
1 ½	180	¼	150	98	16	200	45	239	32	15	124	37	26	103	M8
2	180	¼	165	121	19	230	45	251	39	15	137	37	26	103	M8

Inch	Lift = Hx [mm]
½	7
¾	10
1	13

table continued next page

# SYGEF Standard metric



Inch	Lift = Hx [mm]
1 ¼	15
1 ½	19
2	23

# SYGEF Standard metric

## Diaphragm valves pneumatic



### SYGEF Standard

#### Diaphragm valve type DIASTAR 025

#### Function DA (Double acting)

#### With fixed flanges PVDF metric

##### Model:

- Material: PVDF
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side

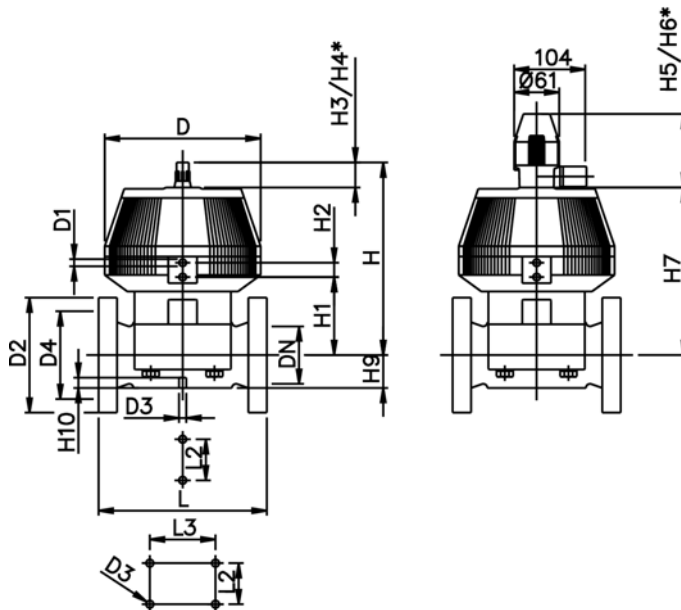
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 377</b>
** 90	80	3	10	1700	<b>199 025 378</b>
110	100	4	6	2700	<b>199 025 379</b>
** 160	150	6	6	6033	<b>199 025 380</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# SYGEF Standard metric

## SYGEF Standard Diaphragm valve type DIASTAR 025 Function DA (Double acting) With fixed flanges PVDF Inch ANSI



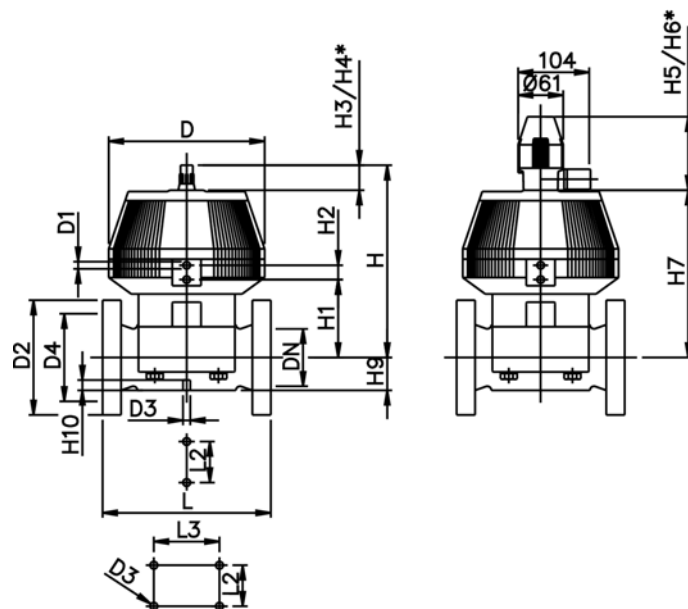
### Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 347</b>
** 3	80	10	1700	<b>199 025 378</b>
4	100	6	2700	<b>199 025 349</b>
** 6	150	6	6033	<b>199 025 380</b>

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



# SYGEF Standard metric

## Diaphragm valves pneumatic



### SYGEF Standard

#### Diaphragm valve type DIASTAR 025

#### Function FC (Fail safe to close)

#### With fixed flanges PVDF metric

**Model:**

- Material: PVDF
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side

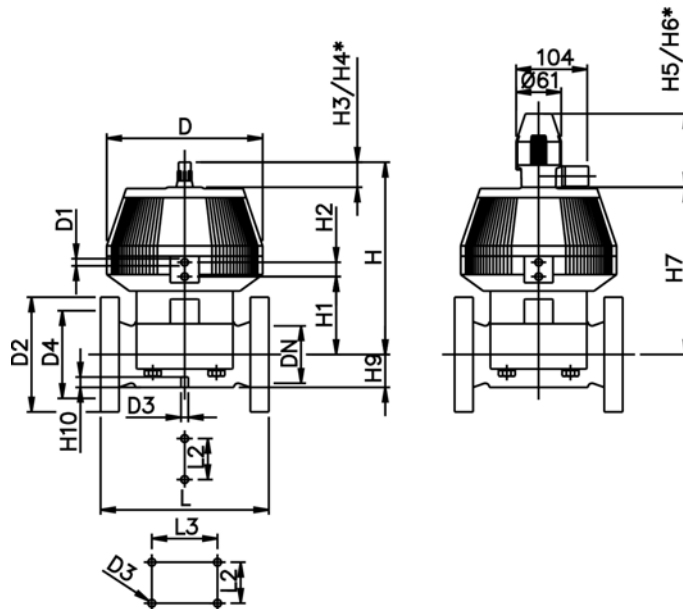
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 357</b>
** 90	80	3	10	1700	<b>199 025 358</b>
110	100	4	6	2700	<b>199 025 359</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



# SYGEF Standard metric

## SYGEF Standard Diaphragm valve type DIASTAR 025 Function FC (Fail safe to close) With fixed flanges PVDF Inch ANSI



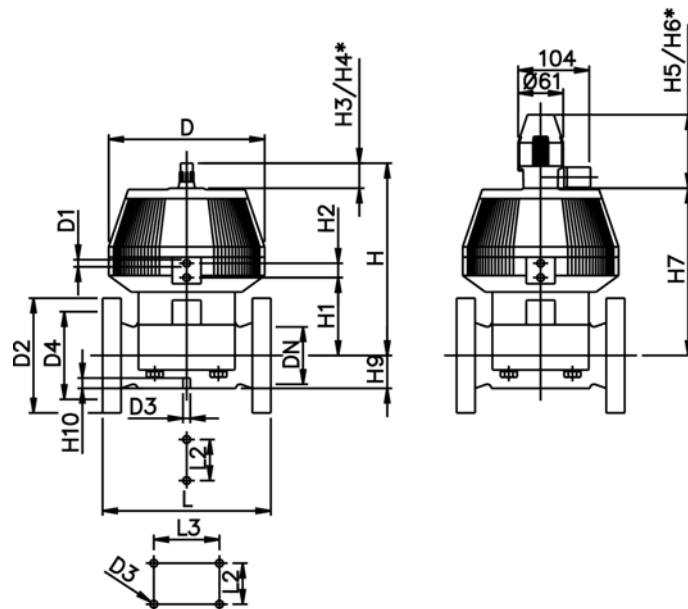
### Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 327</b>
** 3	80	10	1700	<b>199 025 358</b>
4	100	6	2700	<b>199 025 329</b>

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 2 1/2	280	1/4	185	8	145	290	70	344	148	24	46	100	129	195
** 3	280	1/4	200	12	160	310	120	348	150	24	46	100	129	195
4	335	1/4	225	12	180	350	120	395	176	24	46	100	129	195

Inch	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	298	46	15
** 3	302	57	15
4	349	69	20



# SYGEF Standard metric

## SYGEF Standard

### Diaphragm valve type DIASTAR 025

#### Function FO (Fail safe to open)

#### With fixed flanges PVDF metric



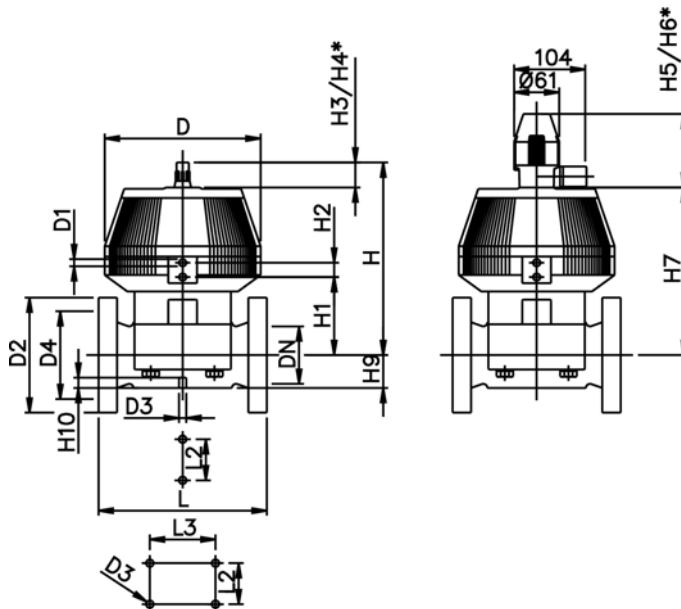
#### Model:

- Material: PVDF
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 367</b>
** 90	80	3	10	1700	<b>199 025 368</b>
110	100	4	6	2700	<b>199 025 369</b>
** 160	150	6	6	6033	<b>199 025 370</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20





# SYGEF Standard metric

## SYGEF Standard Diaphragm valve type DIASTAR 025 Function FO (Fail safe to open) With fixed flanges PVDF Inch ANSI



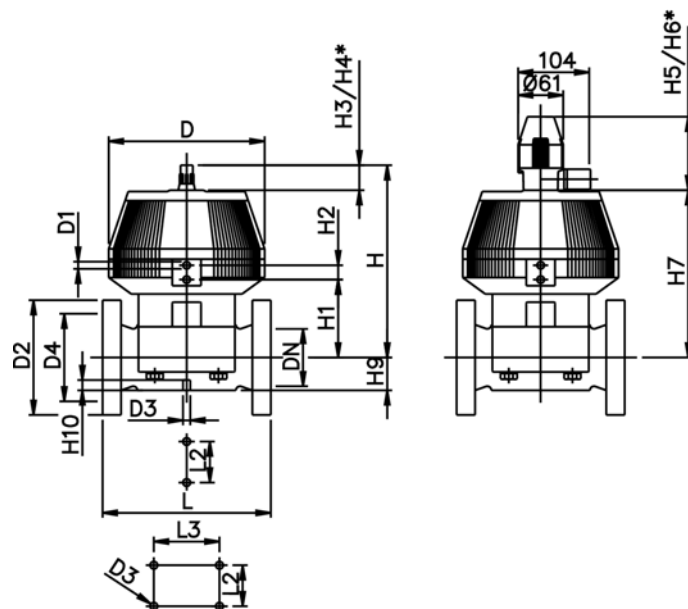
### Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 337</b>
** 3	80	10	1700	<b>199 025 368</b>
4	100	6	2700	<b>199 025 339</b>
** 6	150	6	6033	<b>199 025 370</b>

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



# SYGEF Standard metric

## Solenoid valves

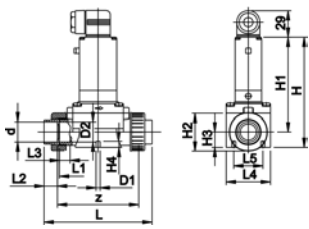
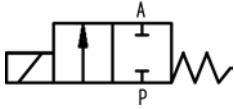
### SYGEF Standard

#### Solenoid valve type 165

Nominal voltage 230V 50 Hz

Function A straight-through valve 2/2 ways

With fusion sockets metric



#### Model:

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

d [mm]	DN [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	0.5 - 6.0	83	199 165 412	199 165 402
25	20	0.5 - 6.0	100	199 165 413	199 165 403
32	25	0.5 - 6.0	233	199 165 414	199 165 404
40	32	0.5 - 6.0	500	199 165 415	199 165 405
50	40	0.5 - 6.0	500	199 165 416	199 165 406
63	50	0.5 - 6.0	600	199 165 417	199 165 407

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
20		120	147	109	16		63	40	148	122	53	22	8
25	25	120	151	109	18	18	62	40	148	122	53	22	8
32		150	185	139	20		85	45	175	137	76	31	15
40	40	150	189	139	22	23	85	45	175	137	76	31	15
50		200	245	189	25		115	45	212	160	105	42	15
63	63	200	253	189	29	33	115	45	212	160	105	42	15

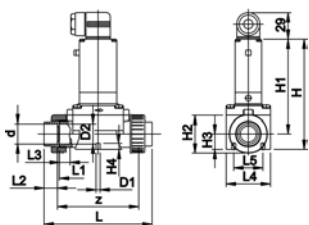
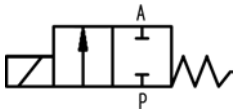
### SYGEF Standard

#### Solenoid valve type 165

Nominal voltage 115V 50 Hz

Function A straight-through valve 2/2 ways

With fusion sockets metric



#### Model:

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

d [mm]	DN [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	0.5 - 6.0	83	199 165 442	199 165 432
25	20	0.5 - 6.0	100	199 165 443	199 165 433
32	25	0.5 - 6.0	233	199 165 444	199 165 434
40	32	0.5 - 6.0	267	199 165 445	199 165 435
50	40	0.5 - 6.0	500	199 165 446	199 165 436
63	50	0.5 - 6.0	600	199 165 447	199 165 437

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
20		120	147	109	16		63	40	148	122	53	22	8
25	25	120	151	109	18	18	62	40	148	122	53	22	8
32		150	185	139	20		85	45	175	137	76	31	15
40	40	150	189	139	22	23	85	45	175	137	76	31	15
50		200	245	189	25		115	45	212	160	105	42	15
63	63	200	253	189	29	33	115	45	212	160	105	42	15

# SYGEF Standard metric

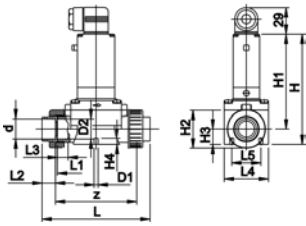
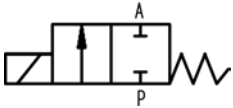
## SYGEF Standard

### Solenoid valve type 165

### Nominal voltage 24V DC

### Function A straight-through valve 2/2 ways

### With fusion sockets metric



#### Model:

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

d [mm]	DN [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
20	15	0.5 - 6.0	83	<b>199 165 422</b>	<b>199 165 452</b>
25	20	0.5 - 6.0	100	<b>199 165 423</b>	<b>199 165 453</b>
32	25	0.5 - 6.0	233	<b>199 165 424</b>	<b>199 165 454</b>
40	32	0.5 - 6.0	267	<b>199 165 425</b>	<b>199 165 455</b>
50	40	0.5 - 6.0	500	<b>199 165 426</b>	<b>199 165 456</b>
63	50	0.5 - 6.0	600	<b>199 165 427</b>	<b>199 165 457</b>

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
20		120	147	109	16		63	40	148	122	53	22	8
25	25	120	151	109	18	18	62	40	148	122	53	22	8
32		150	185	139	20		85	45	175	137	76	31	15
40	40	150	189	139	22	23	85	45	175	137	76	31	15
50		200	245	189	25		115	45	212	160	105	42	15
63	63	200	253	189	29	33	115	45	212	160	105	42	15

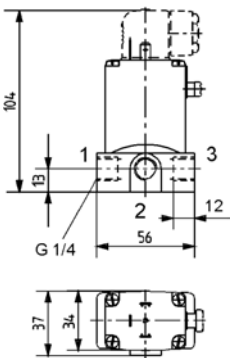
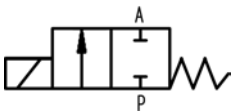
## SYGEF Standard

### Solenoid valve type 166

### Function A straight-through valve 2/2 ways

### Nominal voltage 24V DC

### With G 1/4 line connection



#### Model:

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3	1/4	A	0.0 - 8.0	4	<b>199 166 505</b>
4	1/4	A	0.0 - 4.0	5	<b>199 166 506</b>
5	1/4	A	0.0 - 3.0	6	<b>199 166 507</b>

# SYGEF Standard metric

## SYGEF Standard

### Solenoid valve type 166

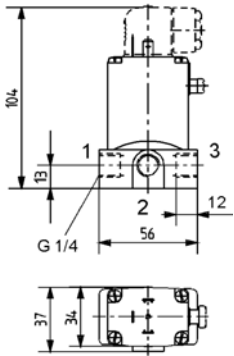
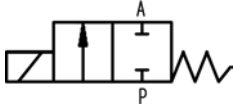
#### Function A straight-through valve 2/2 ways

#### Nominal voltage 230V 50Hz ±10%

#### With G 1/4 line connection

#### Model:

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
3	1/4	A	0.0 - 10.0	4	199 166 515
4	1/4	A	0.0 - 5.0	5	199 166 516
5	1/4	A	0.0 - 4.5	6	199 166 517

## SYGEF Standard

### Solenoid valve type 166

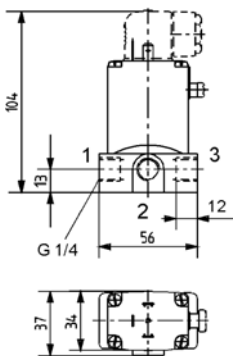
#### Function E mixing valve 3/2 ways

#### Nominal voltage 24V DC

#### With G 1/4 line connection

#### Model:

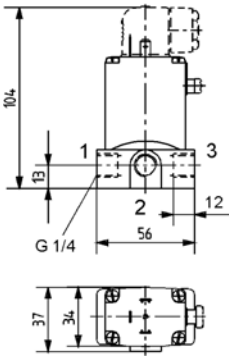
- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
4	1/4	E	0.0 - 2.0	5	199 166 656

# SYGEF Standard metric

**SYGEF Standard**  
**Solenoid valve type 166**  
**Function E mixing valve 3/2 ways**  
**Nominal voltage 230V 50Hz ±10%**  
**With G 1/4 line connection**



**Model:**

- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code
4	1/4	E	0.0 - 3.0	5	199 166 666

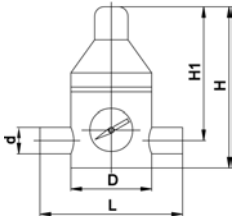
# SYGEF Standard metric

## Process control valves

### SYGEF Standard

### Pressure reducing valve type V82

### With fusion spigots metric



**Model:**

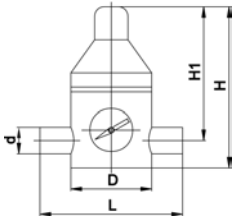
- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 052</b>	70	134	130	100
20	15	0.5 - 10	<b>199 041 053</b>	70	134	130	100
25	20	0.5 - 10	<b>199 041 054</b>	100	174	170	130
32	25	0.5 - 10	<b>199 041 055</b>	100	174	170	130
40	32	0.5 - 10	<b>199 041 056</b>	130	224	230	175
50	40	0.5 - 10	<b>199 041 057</b>	130	224	230	175
63	50	0.5 - 10	<b>199 041 058</b>	155	244	285	210
75	65	0.5 - 6	<b>199 041 059</b>	190	284	350	250

### SYGEF Standard

### Pressure reducing valve type V182

### With fusion spigots metric



**Model:**

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 661</b>	70	134	130	100
20	15	0.5 - 10	<b>199 041 662</b>	70	134	130	100
25	20	0.5 - 10	<b>199 041 663</b>	100	174	170	130
32	25	0.5 - 10	<b>199 041 664</b>	100	174	170	130
40	32	0.5 - 10	<b>199 041 665</b>	130	224	230	175
50	40	0.5 - 10	<b>199 041 666</b>	130	224	230	175

# SYGEF Standard metric

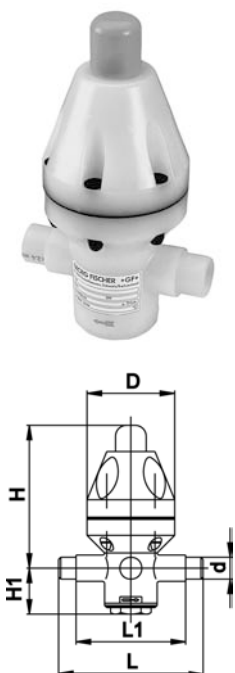
## SYGEF Standard

### Pressure reducing valve type V782

#### With fusion spigots BCF cleaned and double packed

Model:

- Material: PVDF



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 690</b>	83	172	102	195	45
20	15	0.5 - 10	<b>199 041 691</b>	83	182	102	195	45
25	20	0.5 - 10	<b>199 041 692</b>	113	192	110	210	62
32	25	0.5 - 10	<b>199 041 693</b>	113	192	110	210	62
40	32	0.5 - 10	<b>199 041 694</b>	165	262	162	260	96
50	40	0.5 - 10	<b>199 041 695</b>	165	262	162	260	96

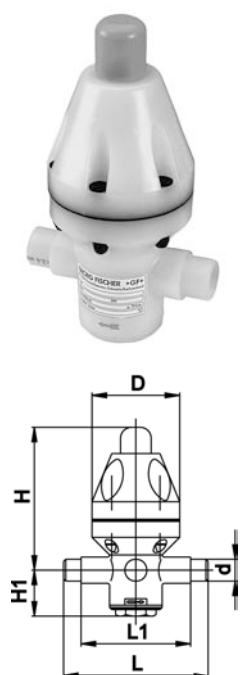
## SYGEF Standard

### Pressure reducing valve type V782

#### With fusion spigots metric

Model:

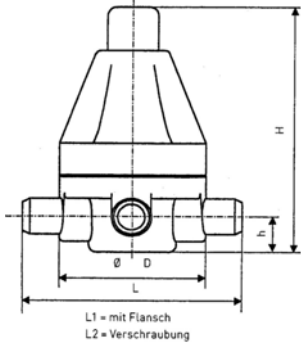
- Material: PVDF



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 084</b>	83	134	102	138	48
20	15	0.5 - 10	<b>199 041 085</b>	83	134	102	138	48
25	20	0.5 - 10	<b>199 041 086</b>	113	154	110	205	65
32	25	0.5 - 10	<b>199 041 087</b>	113	154	110	205	65
40	32	0.5 - 10	<b>199 041 088</b>	165	224	162	248	95
50	40	0.5 - 10	<b>199 041 089</b>	165	224	162	248	95

# SYGEF Standard metric

## SYGEF Standard Pressure relief valve type V185 With fusion spigots metric

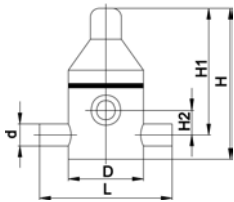


Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 344	83	134	137	20
20	15	0.5 - 10	199 041 345	83	134	137	20
25	20	0.5 - 10	199 041 346	83	134	137	20
32	25	0.5 - 10	199 041 347	112	174	199	27
40	32	0.5 - 10	199 041 348	112	174	199	27
50	40	0.5 - 10	199 041 349	165	224	290	43
63	50	0.5 - 10	199 041 350	165	244	290	43

## SYGEF Standard Pressure relief valve type V85 With fusion spigots metric

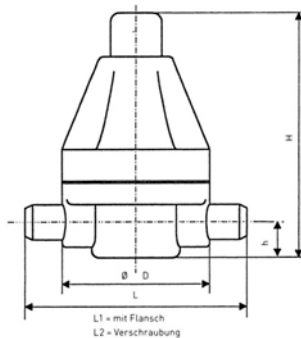


Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]
75	65	1.0 - 6	199 041 898	180	284	295	250	70

## SYGEF Standard Pressure retaining valve type V186 With fusion spigots metric



Model:

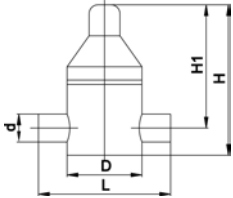
- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 323	83	134	137	20
20	15	0.5 - 10	199 041 324	83	134	137	20
25	20	0.5 - 10	199 041 325	83	134	137	20
32	25	0.5 - 10	199 041 326	112	174	199	27
40	32	0.5 - 10	199 041 327	112	174	199	27
50	40	0.5 - 10	199 041 328	165	224	290	43
63	50	0.5 - 10	199 041 329	165	244	290	43



# SYGEF Standard metric

## SYGEF Standard Pressure retaining valve type V86 With fusion spigots metric

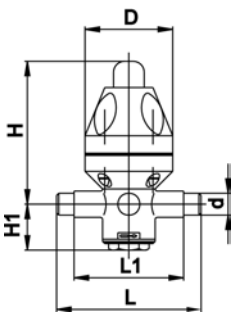


Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	1.0 - 6	199 041 892	180	284	275	230

## SYGEF Standard Pressure retaining valve type V786 With fusion spigots metric



Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 114	83	134	102	138	38
20	15	0.5 - 10	199 041 115	83	134	102	158	38
25	20	0.5 - 10	199 041 116	113	154	110	205	55
32	25	0.5 - 10	199 041 117	113	154	110	205	55
40	32	0.5 - 4	199 041 118	165	224	162	248	85
50	40	0.5 - 4	199 041 119	165	224	162	248	85

# SYGEF Standard metric

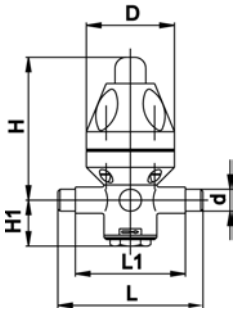
## SYGEF Standard

### Pressure retaining valve type V786

#### With fusion spigots BCF cleaned and double packed

Model:

- Material: PVDF



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 696</b>	83	172	102	145	38
20	15	0.5 - 10	<b>199 041 697</b>	83	172	102	145	38
25	20	0.5 - 10	<b>199 041 698</b>	113	192	110	210	55
32	25	0.5 - 10	<b>199 041 699</b>	113	192	110	210	55
40	32	0.5 - 4	<b>199 041 700</b>	165	262	162	260	85
50	40	0.5 - 4	<b>199 041 701</b>	165	262	162	260	85

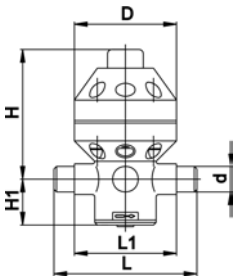
## SYGEF Standard

### Pressure retaining valve type V886

#### With fusion spigots metric

Model:

- Material: PVDF



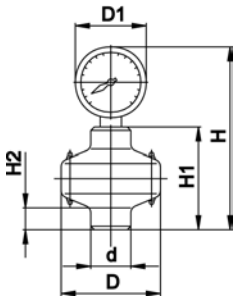
d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
40	32	0.5 - 10	<b>199 041 998</b>	160	224	162	260	85
50	40	0.5 - 10	<b>199 041 999</b>	160	224	162	260	85

# SYGEF Standard metric

## SYGEF Standard Gauge guard type Z700 With manometer 0-10 bar

Model:

- Material: PVDF

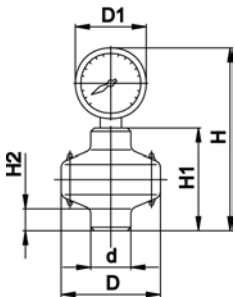


d [mm]	G [inch]	PTFE Code	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	¼	199 041 004	72	63	129	71	15
32	½	199 041 005	100	100	210	90	22

## SYGEF Standard Gauge guard type Z700 With manometer 0-6 bar

Model:

- Material: PVDF

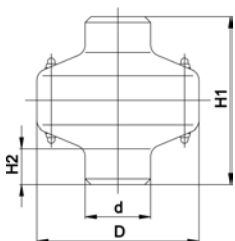


d [mm]	G [inch]	PTFE Code	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	¼	199 041 296	72	63	129	71	15
32	½	199 041 297	100	100	210	90	22

## SYGEF Standard Gauge guard type Z701 Without manometer

Model:

- Material: PVDF



d [mm]	G [inch]	PTFE Code	D [mm]	H1 [mm]	H2 [mm]
25	¼	199 041 010	72	71	15
32	½	199 041 011	100	90	22

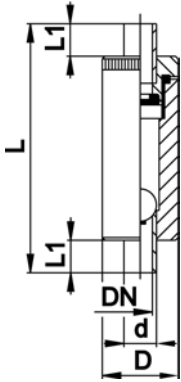
# SYGEF Standard metric

## SYGEF Standard Ventilating and bleed valve type V91 With fusion spigots metric



Model:

- Material: PVDF



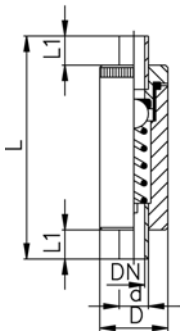
d [mm]	DN [mm]	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	199 041 256	35	114	14
20	15	199 041 257	40	124	16
25	20	199 041 258	45	144	19
32	25	199 041 259	55	154	22
40	32	199 041 260	70	174	26
50	40	199 041 261	80	194	31
63	50	199 041 262	95	224	38
75	65	199 041 263	115	284	44
90	80	199 041 264	150	300	51

## SYGEF Standard Ventilating valve type V95 With fusion spigots metric



Model:

- Material: PVDF



d [mm]	DN [mm]	FPM Code	D [mm]	L [mm]	L1 [mm]
16	10	199 041 283	35	114	14
20	15	199 041 284	40	124	16
25	20	199 041 285	45	144	19
32	25	199 041 286	55	154	22
40	32	199 041 287	70	174	26
50	40	199 041 288	80	194	31
63	50	199 041 289	95	224	38
75	65	199 041 290	115	284	44
90	80	199 041 291	150	300	51

## SYGEF Standard Water jet suction pump type P20



Model:

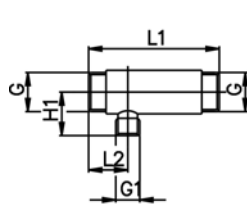
- Material: PVDF
- DN 10-20: BSP parallel female thread
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

d [mm]	DN [mm]	PN	FPM Code	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	10	10	199 041 138	R 3/4	R 3/4		110	40		35
20	15	10	199 041 139	R 1	R 3/4		110	40		35
25	20	10	199 041 140	R 1 1/4	R 3/4		145	45		45
32	25	10	199 041 141	R 1 1/2	R 1 1/2	245	195		96	71
40	32	10	199 041 142	R 2	R 2	297	239		116	87
50	40	10	199 041 143	R 2 1/4	R 2 1/4	369	301		139	105

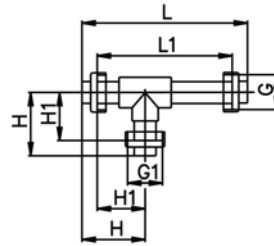
table continued next page

# SYGEF Standard metric

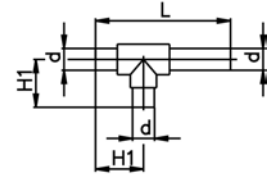
d [mm]	DN [mm]	PN	FPM Code	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
63	50	10	<b>199 041 144</b>	R 2 3/4	R 2 3/4	433	351		169	128
75	65	10	<b>199 041 145</b>	-	-	388				115
90	80	10	<b>199 041 146</b>	-	-	465				149



DN 10 - 20



DN 25 - 50



DN 65 - 80

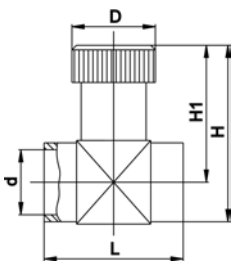


## SYGEF Standard Throttle valve type V251 With fusion sockets metric

**Model:**




- Material: PVDF

d [mm]	DN [mm]	PN	FPM Code	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	10	<b>199 041 231</b>	29	47	57	45
20	15	10	<b>199 041 232</b>	35	55	66	51
25	20	10	<b>199 041 233</b>	40	66	80	63
32	25	10	<b>199 041 234</b>	47	80	96	75
40	32	10	<b>199 041 235</b>	56	100	111	86
50	40	10	<b>199 041 236</b>	70	120	133	101
63	50	10	<b>199 041 237</b>	88	146	158	118





## SYGEF Plus metric

		Page
	Diaphragm valves pneumatic New generation	542
	Diaphragm valves pneumatic	550
	Process control valves	556

# SYGEF Plus metric

## Diaphragm valves pneumatic

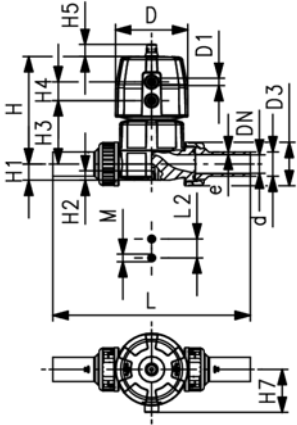
### New generation

#### SYGEF Plus

#### Diaphragm valve DIASTAR Ten

#### FC (Fail safe to close)

#### Unions with butt fusion spigots metric



#### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

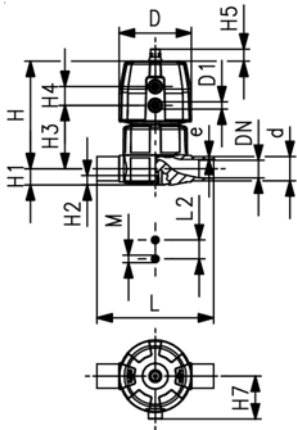
d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10/10*	125	<b>180 624 132</b>
25	20	10/10*	271	<b>180 624 133</b>
32	25	10/10*	481	<b>180 624 134</b>
40	32	10/10*	759	<b>180 624 135</b>
50	40	10/10*	1263	<b>180 624 136</b>
63	50	10/6*	1728	<b>180 624 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	88	M8	23	3.0



# SYGEF Plus metric

## SYGEF Plus Diaphragm valve DIASTAR Ten FC (Fail safe to close) With butt fusion spigots metric



### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

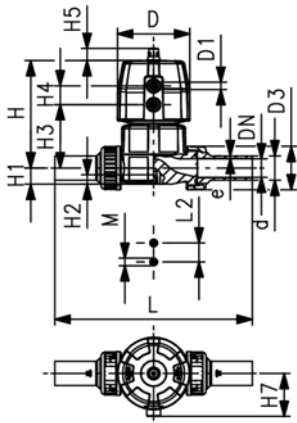
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10/10*	125	<b>180 625 132</b>
25	20	10/10*	271	<b>180 625 133</b>
32	25	10/10*	481	<b>180 625 134</b>
40	32	10/10*	759	<b>180 625 135</b>
50	40	10/10*	1263	<b>180 625 136</b>
63	50	10/6*	1728	<b>180 625 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

## SYGEF Plus Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with butt fusion spigots metric



### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

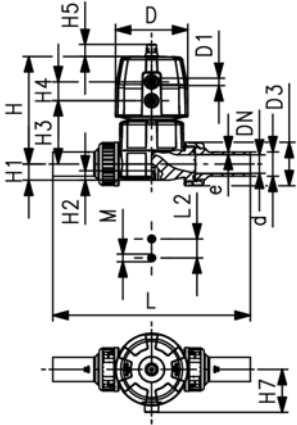
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>180 644 132</b>
25	20	10	271	<b>180 644 133</b>
32	25	10	481	<b>180 644 134</b>
40	32	10	759	<b>180 644 135</b>
50	40	10	1263	<b>180 644 136</b>
63	50	10	1728	<b>180 644 137</b>

table continued next page

# SYGEF Plus metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0



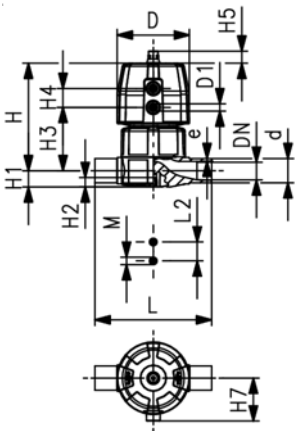
## SYGEF Plus Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots metric

### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>180 645 132</b>
25	20	10	271	<b>180 645 133</b>
32	25	10	481	<b>180 645 134</b>
40	32	10	759	<b>180 645 135</b>
50	40	10	1263	<b>180 645 136</b>
63	50	10	1728	<b>180 645 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

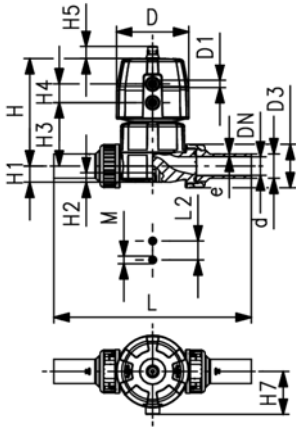
# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve DIASTAR Ten

### DA (Double acting)

### Unions with butt fusion spigots metric



#### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

#### Option:

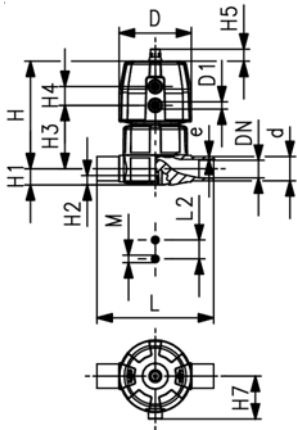
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>180 654 132</b>
25	20	10	271	<b>180 654 133</b>
32	25	10	481	<b>180 654 134</b>
40	32	10	759	<b>180 654 135</b>
50	40	10	1263	<b>180 654 136</b>
63	50	10	1728	<b>180 654 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0

# SYGEF Plus metric

## SYGEF Plus Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots metric



### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

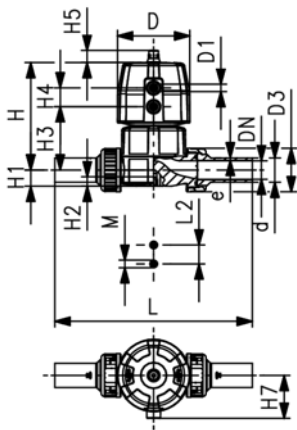
### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	10	125	<b>180 655 132</b>
25	20	10	271	<b>180 655 133</b>
32	25	10	481	<b>180 655 134</b>
40	32	10	759	<b>180 655 135</b>
50	40	10	1263	<b>180 655 136</b>
63	50	10	1728	<b>180 655 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	3.0
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	3.0

## SYGEF Plus Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with butt fusion spigots metric



### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

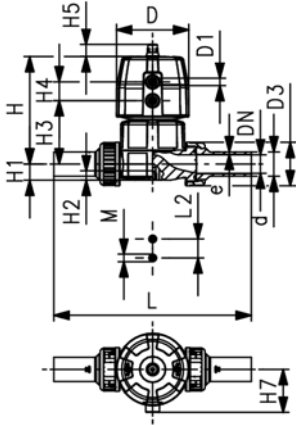
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>180 634 132</b>
25	20	16/16*	271	<b>180 634 133</b>
32	25	16/16*	481	<b>180 634 134</b>
40	32	16/16*	759	<b>180 634 135</b>
50	40	16/16*	1263	<b>180 634 136</b>
63	50	16/10*	1728	<b>180 634 137</b>

table continued next page

# SYGEF Plus metric



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	3.0

## SYGEF Plus Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots metric



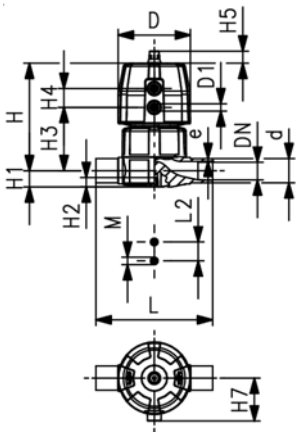
### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE/EPDM

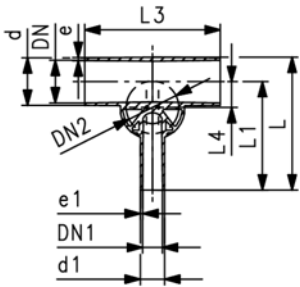
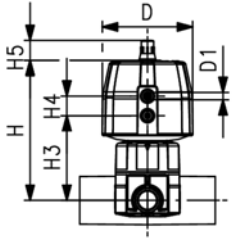


d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	15	16/16*	125	<b>180 635 132</b>
25	20	16/16*	271	<b>180 635 133</b>
32	25	16/16*	481	<b>180 635 134</b>
40	32	16/16*	759	<b>180 635 135</b>
50	40	16/16*	1263	<b>180 635 136</b>
63	50	16/10*	1728	<b>180 635 137</b>

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	3.0

# SYGEF Plus metric

## SYGEF Plus Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots metric



### Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

### Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

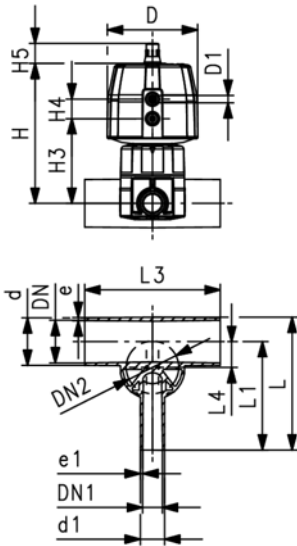
\* Available on request

d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
20	20	15	15	15	16	57	180 639 301
25	20	20	15	20	16	89	180 639 303
25	25	20	20	20	16	118	180 639 304
32	20	25	15	20	16	80	180 639 307
32	25	25	20	20	16	105	180 639 308
32	32	25	25	25	16	231	180 639 309
40	20	32	15	25	16	85	180 639 312
40	25	32	20	25	16	119	180 639 313
40	32	32	25	25	16	153	180 639 314
40	40	32	32	25	16	187	180 639 315
50	20	40	15	20	16	86	180 639 318
50	25	40	20	25	16	160	180 639 319
50	32	40	25	25	16	206	180 639 320
50	40	40	32	50	10	524	180 639 321
50	50	40	40	50	10	667	180 639 322
63	20	50	15	20	16	84	180 639 325
63	25	50	20	25	16	150	180 639 326
63	32	50	25	25	16	184	180 639 327
63	40	50	32	50	10	471	180 639 328
63	50	50	40	50	10	610	180 639 329
63	63	50	50	50	10	747	180 639 330
90	20	80	15	25	16	82	180 639 341
90	25	80	20	25	16	103	180 639 342
90	32	80	25	25	16	129	180 639 343
90	50	80	40	50	10	623	180 639 345
90	63	80	50	50	10	696	180 639 346
110	20	100	15	25	16	78	180 639 351
110	25	100	20	25	16	103	180 639 352
110	32	100	25	25	16	131	180 639 353
110	50	100	40	50	10	604	180 639 355
110	63	100	50	50	10	661	180 639 356

d [mm]	D [mm]	D1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	96	3/8	117	96	162	12	130	71	25	16	7	1.9	1.9
25	96	3/8	133	108	162	16	131	72	25	16	10	1.9	1.9
25	96	3/8	133	108	162	16	131	72	25	16	10	1.9	1.9
32	96	3/8	142	120	162	19	135	76	25	16	10	2.4	1.9
32	96	3/8	142	120	162	19	135	76	25	16	10	2.4	1.9
32	120	3/8	145	120	160	19	167	93	26	26	13	2.4	2.4
40	120	3/8	149	128	180	23	175	101	26	26	13	2.4	1.9
40	120	3/8	149	128	180	23	175	101	26	26	13	2.4	1.9
40	120	3/8	149	128	180	23	175	101	26	26	13	2.4	2.4
40	120	3/8	174	153	180	23	175	101	26	26	13	2.4	2.4

table continued next page

# SYGEF Plus metric



d [mm]	D [mm]	D1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
50	96	1/8	160	134	180	27	148	90	25	16	10	3.0	1.9
50	120	1/8	160	134	180	28	180	106	26	26	13	3.0	1.9
50	120	1/8	160	134	180	28	180	106	26	26	13	3.0	2.4
50	180	1/4	209	169	209	33	249	135	37	26	23	3.0	2.4
50	180	1/4	209	169	209	33	249	135	37	26	23	3.0	3.0
63	96	1/8	177	144	180	33	155	96	25	16	10	3.0	1.9
63	120	1/8	177	144	180	35	187	113	26	26	13	3.0	1.9
63	120	1/8	177	144	180	35	187	113	26	26	13	3.0	2.4
63	180	1/4	225	192	220	39	255	141	37	26	23	3.0	2.4
63	180	1/4	225	192	220	39	255	141	37	26	23	3.0	3.0
63	180	1/4	225	192	220	39	255	141	37	26	23	3.0	3.0
90	120	1/8	205	159	190	47	200	126	26	26	13	4.3	1.9
90	120	1/8	205	159	190	47	200	126	26	26	13	4.3	1.9
90	120	1/8	205	159	190	47	200	126	26	26	13	4.3	2.4
90	180	1/4	254	207	250	51	269	155	37	26	23	4.3	3.0
90	180	1/4	254	207	250	51	269	155	37	26	23	4.3	3.0
110	120	1/8	227	171	190	56	209	135	26	26	13	5.3	1.9
110	120	1/8	227	171	190	56	209	135	26	26	13	5.3	1.9
110	120	1/8	227	171	190	56	209	135	26	26	13	5.3	2.4
110	180	1/4	276	219	250	60	279	165	37	26	23	5.3	3.0
110	180	1/4	276	219	250	60	279	165	37	26	23	5.3	3.0

# SYGEF Plus metric

## Diaphragm valves pneumatic

### SYGEF Plus

#### Diaphragm valve type DIASTAR 025

#### Function FC (Fail safe to close)

#### With fixed flanges PVDF metric



#### Model:

- Material: PVDF-HP
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **both sides**

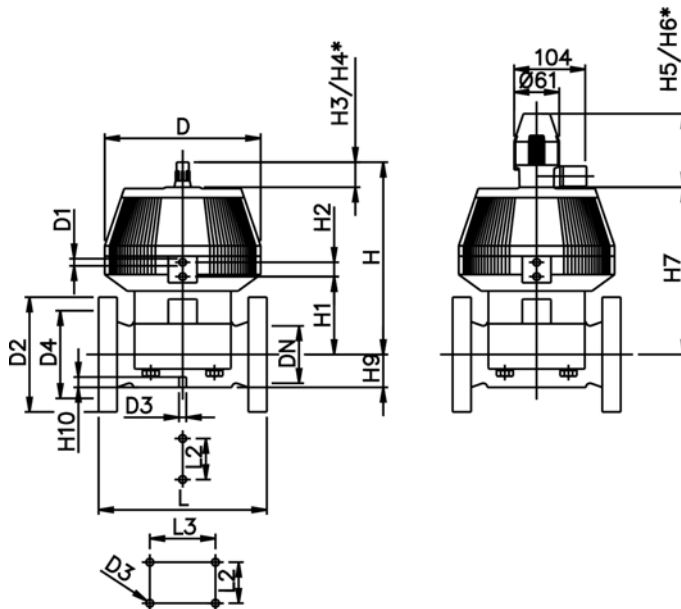
\* With backing flanges PP-V

\*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 447</b>
** 90	80	3	10	1700	<b>199 025 448</b>
110	100	4	6	2700	<b>199 025 449</b>

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	8	185	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	12	200	160	310	120	348	150	24	46	100	129	195
110	335	¼	12	225	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20





# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve type DIASTAR 025

### Function FC (Fail safe to close)

### With fixed flanges PVDF Inch ANSI



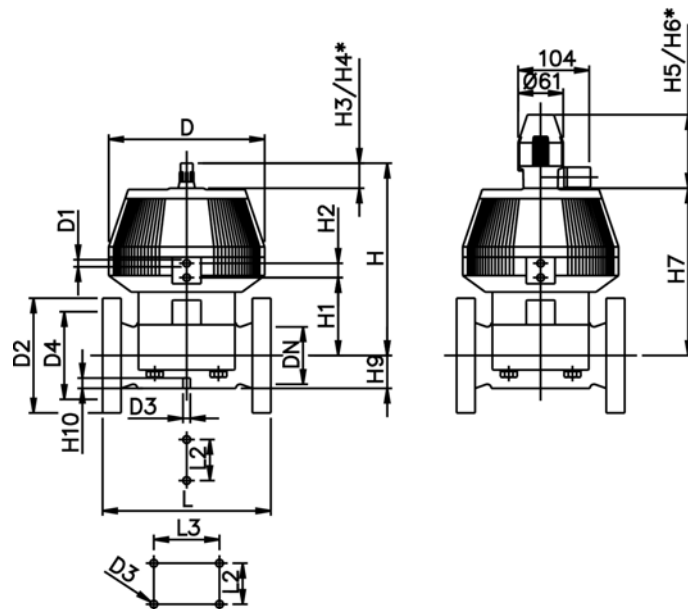
#### Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: **both sides**
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 387</b>
** 3	80	10	1700	<b>199 025 448</b>
4	100	6	2700	<b>199 025 389</b>

Inch	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 2 1/2	280	1/4	8	185	145	290	70	344	148	24	46	100	129	195
** 3	280	1/4	12	200	160	310	120	348	150	24	46	100	129	195
4	335	1/4	12	225	180	350	120	395	176	24	46	100	129	195

Inch	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	298	46	15
** 3	302	57	15
4	349	69	20



# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve type DIASTAR 025

#### Function FO (Fail safe to open)

#### With fixed flanges PVDF metric



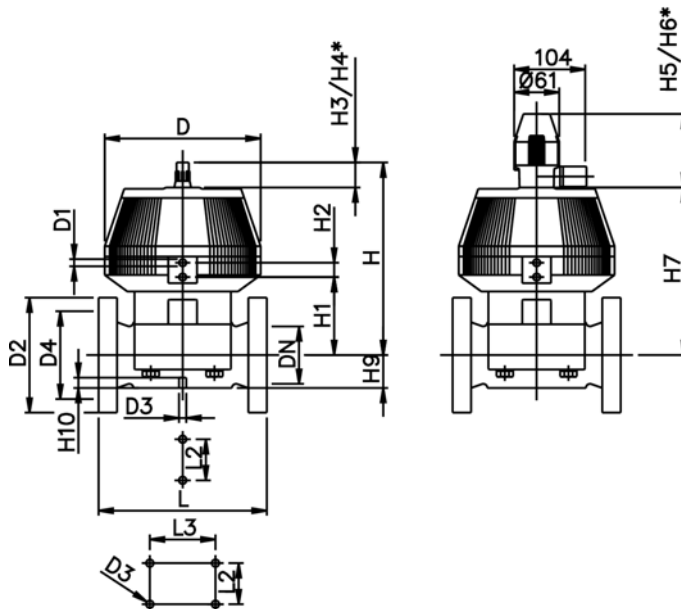
#### Model:

- Material: PVDF-HP
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 457</b>
** 90	80	3	10	1700	<b>199 025 458</b>
110	100	4	6	2700	<b>199 025 459</b>
** 160	150	6	6	6033	<b>199 025 460</b>

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	8	185	145	290	70		344	148	24	46	100	129
** 90	280	¼	12	200	160	310	120		348	150	24	46	100	129
110	335	¼	12	225	180	350	120		395	176	24	46	100	129
** 160	335	¼	12	285	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve type DIASTAR 025

### Function FO (Fail safe to open)

### With fixed flanges PVDF Inch ANSI



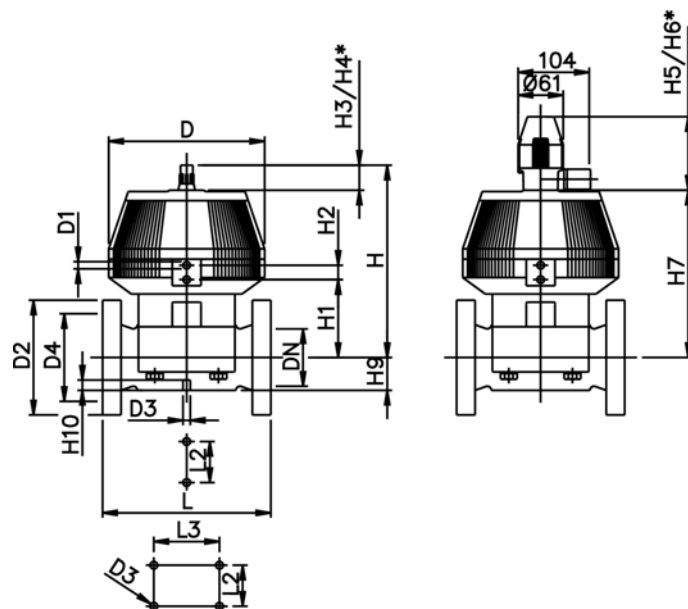
#### Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 397</b>
** 3	80	10	1700	<b>199 025 458</b>
4	100	6	2700	<b>199 025 399</b>
** 6	150	6	6033	<b>199 025 460</b>

Inch	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	8	185	145	290	70		344	148	24	46	100	129
** 3	280	1/4	12	200	160	310	120		348	150	24	46	100	129
4	335	1/4	12	225	180	350	120		395	176	24	46	100	129
** 6	335	1/4	12	285	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve type DIASTAR 025

#### Function DA (Double acting)

#### With fixed flanges PVDF metric



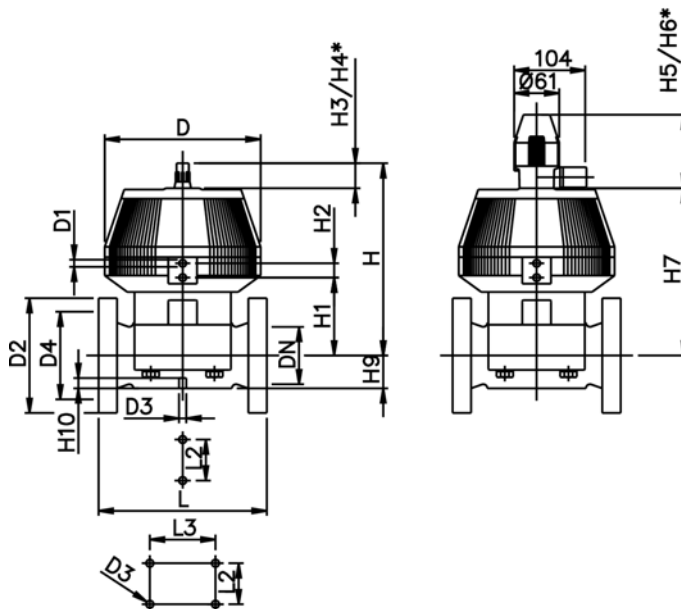
#### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 75	65	2 ½	10	992	<b>199 025 467</b>
** 90	80	3	10	1700	<b>199 025 468</b>
110	100	4	6	2700	<b>199 025 469</b>
** 160	150	6	6	6033	<b>199 025 470</b>

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	125
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# SYGEF Plus metric

## SYGEF Plus

### Diaphragm valve type DIASTAR 025

### Function DA (Double acting)

### With fixed flanges PVDF Inch ANSI



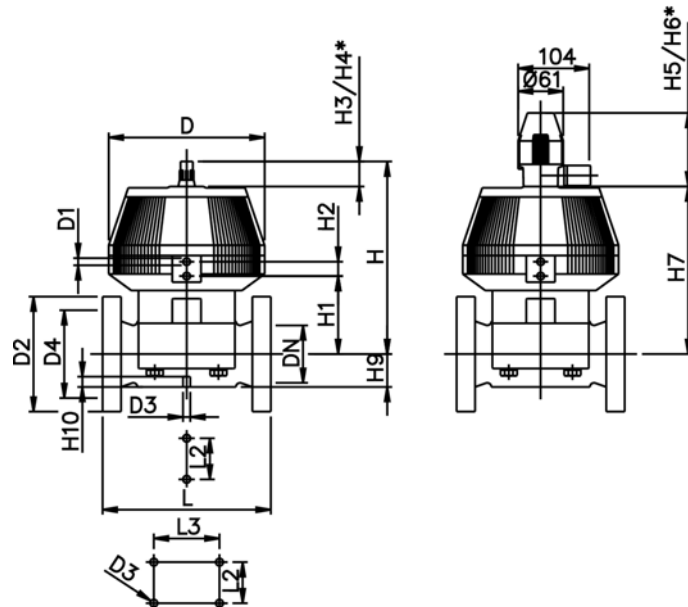
#### Model:

- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side
- \* With backing flanges PP-V
- \*\* Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PTFE/EPDM Code
* 2 1/2	65	10	992	<b>199 025 407</b>
** 3	80	10	1700	<b>199 025 468</b>
4	100	6	2700	<b>199 025 409</b>
** 6	150	6	6033	<b>199 025 470</b>

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	125
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



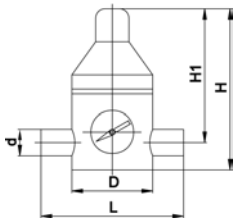
# SYGEF Plus metric

## Process control valves

### SYGEF Plus

#### Pressure reducing valve type V82

#### With fusion spigots BCF



Model:

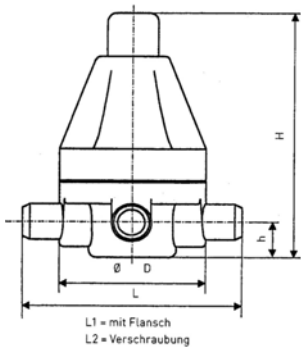
- Material: PVDF-HP

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	<b>199 041 184</b>	70	150	130	100
25	20	0.5 - 10	<b>199 041 185</b>	100	190	180	134
32	25	0.5 - 10	<b>199 041 186</b>	100	190	180	134
40	32	0.5 - 10	<b>199 041 187</b>	130	240	230	175
50	40	0.5 - 10	<b>199 041 188</b>	130	240	230	175
63	50	0.5 - 10	<b>199 041 189</b>	150	260	285	210

### SYGEF Plus

#### Pressure relief valve type V185

#### With butt fusion spigots metric IR



Model:

- Material: PVDF-HP

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	<b>199 041 520</b>	83	158	137	20
25	20	0.5 - 10	<b>199 041 521</b>	83	158	137	20
32	25	0.5 - 10	<b>199 041 522</b>	112	198	199	27
40	32	0.5 - 10	<b>199 041 523</b>	165	202	199	43
50	40	0.5 - 10	<b>199 041 524</b>	165	256	290	43
63	50	0.5 - 10	<b>199 041 525</b>	165	256	290	43

# SYGEF Plus metric

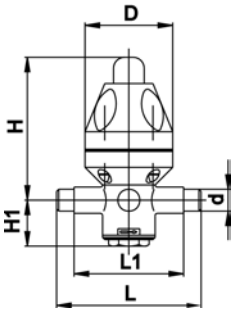
## SYGEF Plus

### Pressure reducing valve type V782

#### With fusion spigots BCF

**Model:**

- Material: PVDF-HP



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	<b>199 041 192</b>	83	182	102	195	48
25	20	0.5 - 10	<b>199 041 193</b>	112	190	110	210	65
32	25	0.5 - 10	<b>199 041 194</b>	112	190	110	210	65
40	32	0.5 - 10	<b>199 041 195</b>	165	262	162	260	95
50	40	0.5 - 10	<b>199 041 196</b>	165	262	162	260	95

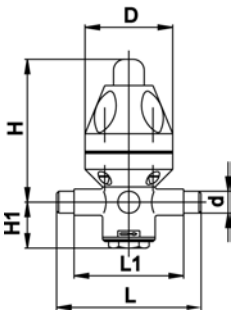
## SYGEF Plus

### Pressure retaining valve type V786

#### With fusion spigots BCF

**Model:**

- Material: PVDF-HP



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	<b>199 041 198</b>	83	172	102	145	38
25	20	0.5 - 10	<b>199 041 199</b>	112	190	110	210	55
32	25	0.5 - 10	<b>199 041 200</b>	112	190	110	210	55
40	32	0.5 - 4	<b>199 041 201</b>	165	262	162	260	85
50	40	0.5 - 4	<b>199 041 202</b>	165	262	162	260	85

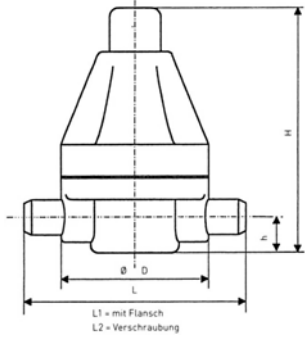
# SYGEF Plus metric

## SYGEF Plus Pressure retaining valve type V186 With butt fusion spigots BCF IR



Model:






- Material: PVDF-HP



d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	D [mm]	L [mm]	H [mm]	H1 [mm]
20	15	0.5 - 10	<b>199 041 395</b>	83	158	137	20
25	20	0.5 - 10	<b>199 041 396</b>	83	158	137	20
32	25	0.5 - 10	<b>199 041 397</b>	112	198	199	27
40	32	0.5 - 10	<b>199 041 398</b>	112	202	199	43
50	40	0.5 - 10	<b>199 041 399</b>	165	256	290	43
63	50	0.5 - 10	<b>199 041 400</b>	165	256	290	43



# Metal - butterfly valves

		Page
	Metal - butterfly valves pneumatic wafer Metric/Inch/ASTM	560
	Metal - butterfly valves pneumatic lug metric	568
	Metal - butterfly valves electric wafer Metric/Inch/ASTM	570
	Metal - butterfly valves electric lug metric	575
	Spare parts	576

# Metal - butterfly valves

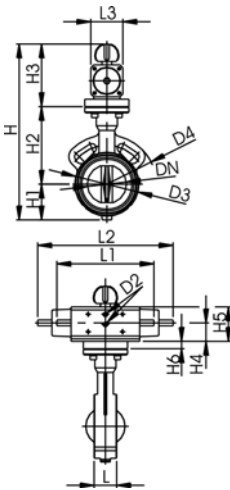
## Metal - butterfly valves pneumatic wafer

### Metric/Inch/ASTM

#### Metal - butterfly valve type 037P FC (Fail safe to close) Without manual override

**Model:**

- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	199 037 052	199 037 065
75	65	2 ½	10	4570	320	199 037 053	199 037 066
90	80	3	10	7140	500	199 037 054	199 037 067
110	100	4	10	11710	820	199 037 055	199 037 068
140	125	5	10	18570	1300	199 037 056	199 037 069
160	150	6	10	27130	1900	199 037 057	199 037 070
225	200	8	10	47130	3330	199 037 058	199 037 071
280	250	10	10	77110	5400	199 037 059	199 037 072
315	300	12	10	114240	8000	199 037 060	199 037 073

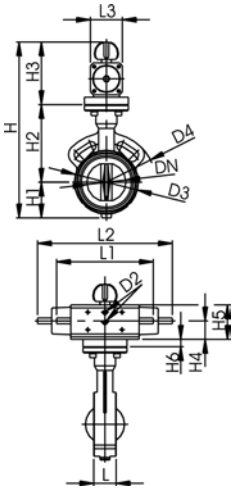
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	199 037 252	199 037 265
75	65	2 ½	10	4570	320	199 037 253	199 037 266
90	80	3	10	7140	500	199 037 254	199 037 267
110	100	4	10	11710	820	199 037 255	199 037 268
140	125	5	10	18570	1300	199 037 256	199 037 269
160	150	6	10	27130	1900	199 037 257	199 037 270
225	200	8	10	47130	3330	199 037 258	199 037 271
280	250	10	10	77110	5400	199 037 259	199 037 272
315	300	12	10	114240	8000	199 037 260	199 037 273

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	199 037 452	199 037 465
75	65	2 ½	10	4570	320	199 037 453	199 037 466
90	80	3	10	7140	500	199 037 454	199 037 467
110	100	4	10	11710	820	199 037 455	199 037 468
140	125	5	10	18570	1300	199 037 456	199 037 469
160	150	6	10	27130	1900	199 037 457	199 037 470
225	200	8	10	47130	3330	199 037 458	199 037 471
280	250	10	10	77110	5400	199 037 459	199 037 472
315	300	12	10	114240	8000	199 037 460	199 037 473

d [mm]	Actuator unit type	d3 [mm]	d4 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
63	PA-30	95	165	65	240	338	55	140	40	103
75	PA-30	114	185	65	240	360	65	152	40	103
90	PA-35	131	190	72	294	391	73	159	46	113
110	PA-40	152	229	80	320	441	87	178	46	130
140	PA-45	182	254	90	357	489	102	191	56	140
160	PA-50	209	285	100	395	527	118	203	56	150

table continued next page

# Metal - butterfly valves



d [mm]	Actuator unit type	d3 [mm]	d4 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
225	PA-60	262	343	124	487	632	149	241	68	174
280	PA-60	331	333	124	487	717	200	275	68	174
315	PA-70	380	353	145	551	823	227	315	83	198



## Metal - butterfly valve type 037P FC (Fail safe to close) Without manual override DN350-1200 metric

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752

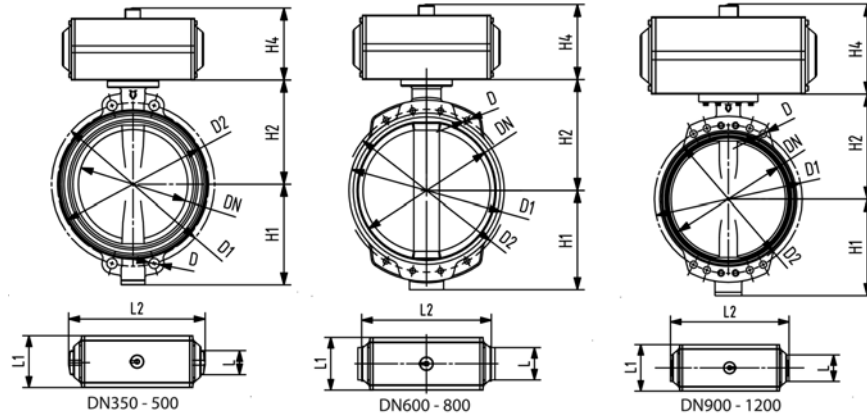
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	<b>198 037 100</b>	<b>198 037 110</b>
400	400	10	186700	<b>198 037 101</b>	<b>198 037 111</b>
450	450	10	258390	<b>198 037 102</b>	<b>198 037 112</b>
500	500	10	316730	<b>198 037 103</b>	<b>198 037 113</b>
630	600	10	431750	<b>198 037 104</b>	<b>198 037 114</b>
700	700	10	618333	<b>198 037 105</b>	<b>198 037 115</b>
800	800	10	675000	<b>198 037 106</b>	<b>198 037 116</b>
900	900	10	1005200	<b>198 037 107</b>	<b>198 037 117</b>
1000	1000	10	1306930	<b>198 037 108</b>	<b>198 037 118</b>
1200	1200	10	1907050	<b>198 037 109</b>	<b>198 037 119</b>

d [mm]	Actuator unit type	M [mm]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H4 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
355	CH-240	20	21	16	460	442	291	307	382	200	590	332
400	CH-270	24	25	16	515	193	325	342	380	350	684	382
450	CH-B270	24	25	20	565	544	357	387	350	281	722	432
500	CH-B350	24	25	20	620	601	381	425	432	349	860	478
630	CH-B400	27	28	20	725	695	488	532	510	450	918	585
700	CH-B500	27	28	24	840	798	506	573	700	640	1550	683
800	CH-B500	30	31	24	950	908	578	650	700	640	1550	755

table continued next page

# Metal - butterfly valves

d [mm]	Actuator unit type	M [mm]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H4 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
900	CH-B500	30	31	28	1050	1004	643	707	700	640	1550	852
1000	CH-B500	33	34	28	1160	1114	729	755	700	640	1550	958
1200	CH-B600	36	37	32	1380	1330	855	900	875	850	2070	1098



## Metal - butterfly valve type 037P FC (Fail safe to close) Without manual override DN350-1200 ANSI

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752



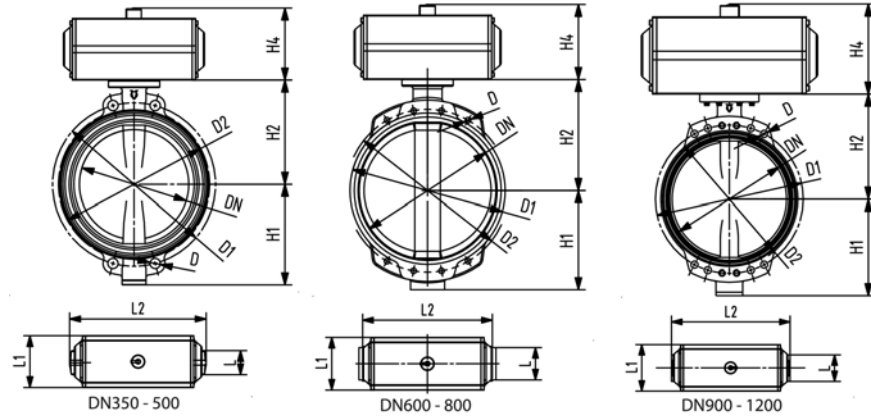
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	<b>198 037 120</b>	<b>198 037 130</b>
400	400	10	186700	<b>198 037 121</b>	<b>198 037 131</b>
450	450	10	258390	<b>198 037 122</b>	<b>198 037 132</b>
500	500	10	316730	<b>198 037 123</b>	<b>198 037 133</b>
630	600	10	431750	<b>198 037 124</b>	<b>198 037 134</b>
700	700	10	618333	<b>198 037 125</b>	<b>198 037 135</b>
800	800	10	675000	<b>198 037 126</b>	<b>198 037 136</b>
900	900	10	1005200	<b>198 037 127</b>	<b>198 037 137</b>
1000	1000	10	1306930	<b>198 037 128</b>	<b>198 037 138</b>
1200	1200	10	1907050	<b>198 037 129</b>	<b>198 037 139</b>

d [mm]	M [inch]	Actuator unit type	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H4 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
355	1	CH-240	26	12	476	442	291	307	382	200	590	332
400	1	CH-270	26	16	540	493	325	342	380	350	684	382
450	1 1/8	CH-B270	29	20	578	544	357	387	350	281	722	432
500	1 1/8	CH-B350	29	20	635	601	381	425	432	349	860	478
630	1 1/4	CH-B400	32	20	749	695	488	532	510	450	918	585
700	1 1/4	CH-B500	32	28	864	798	506	573	700	640	1550	683
800	1 1/2	CH-B500	39	28	978	908	578	650	700	640	1550	755

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# Metal - butterfly valves

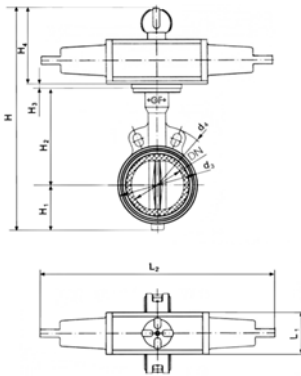
d [mm]	M [inch]	Actuator unit type	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H4 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
900	1 ½	CH-B500	39	28	1086	1004	643	707	700	640	1550	852
1000	1 ½	CH-B500	39	32	1200	1114	729	755	700	640	1550	958
1200	1 ½	CH-B600	39	44	1422	1330	855	900	875	850	2070	1098



## Metal - butterfly valve type 037P FO (Fail safe to open) Without manual override

Model:

- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM

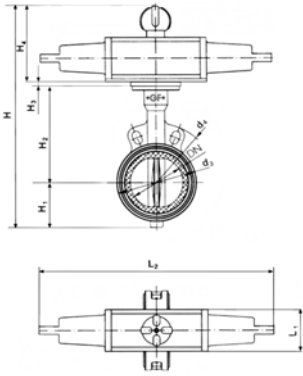


d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	199 037 078	199 037 091
75	65	2 ½	10	4570	320	199 037 079	199 037 092
90	80	3	10	7140	500	199 037 080	199 037 093
110	100	4	10	11710	820	199 037 081	199 037 094
140	125	5	10	18570	1300	199 037 082	199 037 095
160	150	6	10	27130	1900	199 037 083	199 037 096
225	200	8	10	47130	3330	199 037 084	199 037 097
280	250	10	10	77110	5400	199 037 085	199 037 098
315	300	12	10	114240	8000	199 037 086	199 037 099

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	199 037 278	199 037 291
75	65	2 ½	10	4570	320	199 037 279	199 037 292
90	80	3	10	7140	500	199 037 280	199 037 293
110	100	4	10	11710	820	199 037 281	199 037 294
140	125	5	10	18570	1300	199 037 282	199 037 295
160	150	6	10	27130	1900	199 037 283	199 037 296
225	200	8	10	47130	3330	199 037 284	199 037 297
280	250	10	10	77110	5400	199 037 285	199 037 298
315	300	12	10	114240	8000	199 037 286	199 037 299

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# Metal - butterfly valves



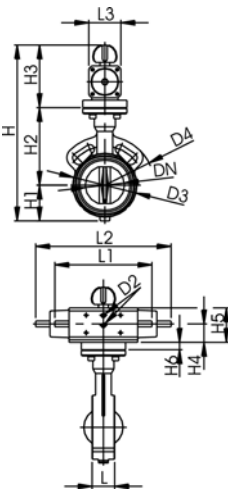
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	199 037 478	199 037 491
75	65	2 1/2	10	4570	320	199 037 479	199 037 492
90	80	3	10	7140	500	199 037 480	199 037 493
110	100	4	10	11710	820	199 037 481	199 037 494
140	125	5	10	18570	1300	199 037 482	199 037 495
160	150	6	10	27130	1900	199 037 483	199 037 496
225	200	8	10	47130	3330	199 037 484	199 037 497
280	250	10	10	77110	5400	199 037 485	199 037 498
315	300	12	10	114240	8000	199 037 486	199 037 499

d [mm]	Actuator unit type	d3 [mm]	d4 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
63	PA-30	95	165	65	240	338	55	140	40	103
75	PA-30	114	185	65	240	360	65	152	40	103
90	PA-35	131	190	72	294	391	73	159	46	113
110	PA-40	152	229	80	320	441	87	178	46	130
140	PA-45	182	254	90	357	489	102	191	56	140
160	PA-50	209	285	100	395	527	118	203	56	150
225	PA-60	262	343	124	487	632	149	241	68	174
280	PA-60	331	333	124	487	717	200	275	68	174
315	PA-60	380	353	145	551	823	227	315	83	198

## Metal - butterfly valve type 037P DA (Double acting) Without manual override

### Model:

- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM

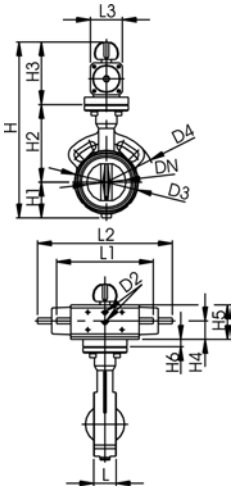


d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	199 037 104	199 037 117
75	65	2 1/2	10	4570	320	199 037 105	199 037 118
90	80	3	10	7140	500	199 037 106	199 037 119
110	100	4	10	11710	820	199 037 107	199 037 120
140	125	5	10	18570	1300	199 037 108	199 037 121
160	150	6	10	27130	1900	199 037 109	199 037 122
225	200	8	10	47130	3330	199 037 110	199 037 123
280	250	10	10	77110	5400	199 037 111	199 037 124
315	300	12	10	114240	8000	199 037 112	199 037 125

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	199 037 304	199 037 317
75	65	2 1/2	10	4570	320	199 037 305	199 037 318
90	80	3	10	7140	500	199 037 306	199 037 319
110	100	4	10	11710	820	199 037 307	199 037 320
140	125	5	10	18570	1300	199 037 308	199 037 321
160	150	6	10	27130	1900	199 037 309	199 037 322
225	200	8	10	47130	3330	199 037 310	199 037 323
280	250	10	10	77110	5400	199 037 311	199 037 324
315	300	12	10	114240	8000	199 037 312	199 037 325

table continued next page

# Metal - butterfly valves



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	<b>199 037 504</b>	<b>199 037 517</b>
75	65	2 ½	10	4570	320	<b>199 037 505</b>	<b>199 037 518</b>
90	80	3	10	7140	500	<b>199 037 506</b>	<b>199 037 519</b>
110	100	4	10	11710	820	<b>199 037 507</b>	<b>199 037 520</b>
140	125	5	10	18570	1300	<b>199 037 508</b>	<b>199 037 521</b>
160	150	6	10	27130	1900	<b>199 037 509</b>	<b>199 037 522</b>
225	200	8	10	47130	3330	<b>199 037 510</b>	<b>199 037 523</b>
280	250	10	10	77110	5400	<b>199 037 511</b>	<b>199 037 524</b>
315	300	12	10	114240	8000	<b>199 037 512</b>	<b>199 037 525</b>

d [mm]	Actuator unit type	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
63	PA-35	95	165	43	190	60	308	55	140	113	35	60	15
75	PA-35	114	185	46	190	60	330	65	152	113	35	60	15
90	PA-35	131	190	46	190	60	345	73	159	113	38	71	15
110	PA-45	152	229	52	235	72	392	87	178	127	38	71	15
140	PA-45	182	254	56	235	72	420	102	191	127	46	86	15
160	PA-55	209	285	56	279	90	476	118	203	155	46	86	15
225	PA-60	262	343	60	341	100	559	149	245	165	56	106	15
280	PA-65	331	333	68	350	112	662	200	275	187	56	106	25
315	PA-70	380	353	78	381	124	741	227	315	199	68	130	25

## Metal - butterfly valve type 037P DA (Double acting) Without manual override DN350-1200 metric

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752



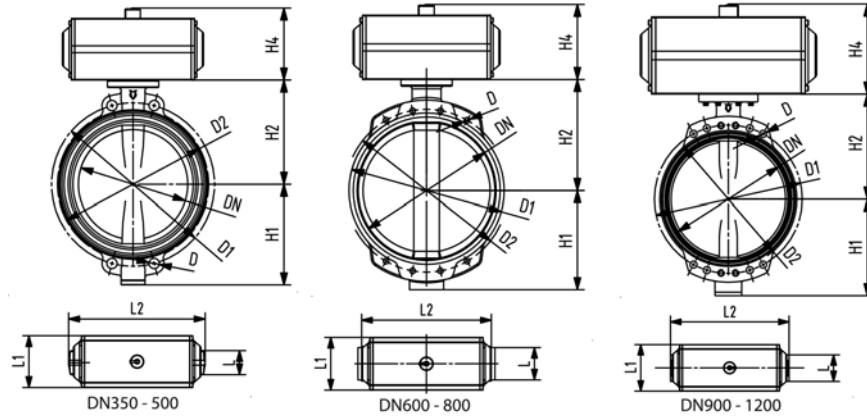
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	<b>198 037 200</b>	<b>198 037 210</b>
400	400	10	186700	<b>198 037 201</b>	<b>198 037 211</b>
450	450	10	258390	<b>198 037 202</b>	<b>198 037 212</b>
500	500	10	316730	<b>198 037 203</b>	<b>198 037 213</b>
630	600	10	431750	<b>198 037 204</b>	<b>198 037 214</b>
700	700	10	618333	<b>198 037 205</b>	<b>198 037 215</b>
800	800	10	675000	<b>198 037 206</b>	<b>198 037 216</b>
900	900	10	1005200	<b>198 037 207</b>	<b>198 037 217</b>
1000	1000	10	1306930	<b>198 037 208</b>	<b>198 037 218</b>
1200	1200	10	1907050	<b>198 037 209</b>	<b>198 037 219</b>

d [mm]	Actuator unit type	M [mm]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
355	CH-B200	20	21	16	460	442	291	307	290	220	575	332
400	CH-B240	24	25	16	515	193	325	342	290	220	575	382
450	CH-B240	24	25	20	565	544	357	387	380	350	684	432
500	CH-B270	24	25	20	620	601	381	425	380	350	684	478
630	CH-B350	27	28	20	725	695	488	532	432	349	860	585
700	CH-B350	27	28	24	840	798	506	573	432	349	860	683
800	CH-B400	30	31	24	950	908	578	650	510	450	918	755

table continued next page

# Metal - butterfly valves

d [mm]	Actuator unit type	M [mm]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
900	CH-B500	30	31	28	1050	1004	643	707	700	640	1550	852
1000	CH-B500	33	34	28	1160	1114	729	755	700	640	1550	958
1200	CH-B500	36	37	32	1380	1330	855	900	700	640	1550	1098



## Metal - butterfly valve type 037P DA (Double acting) Without manual override DN350-1200 ANSI

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	<b>198 037 220</b>	<b>198 037 230</b>
400	400	10	186700	<b>198 037 221</b>	<b>198 037 231</b>
450	450	10	258390	<b>198 037 222</b>	<b>198 037 232</b>
500	500	10	316730	<b>198 037 223</b>	<b>198 037 233</b>
630	600	10	431750	<b>198 037 224</b>	<b>198 037 234</b>
700	700	10	618333	<b>198 037 225</b>	<b>198 037 235</b>
800	800	10	675000	<b>198 037 226</b>	<b>198 037 236</b>
900	900	10	1005200	<b>198 037 227</b>	<b>198 037 237</b>
1000	1000	10	1306930	<b>198 037 228</b>	<b>198 037 238</b>
1200	1200	10	1907050	<b>198 037 229</b>	<b>198 037 239</b>

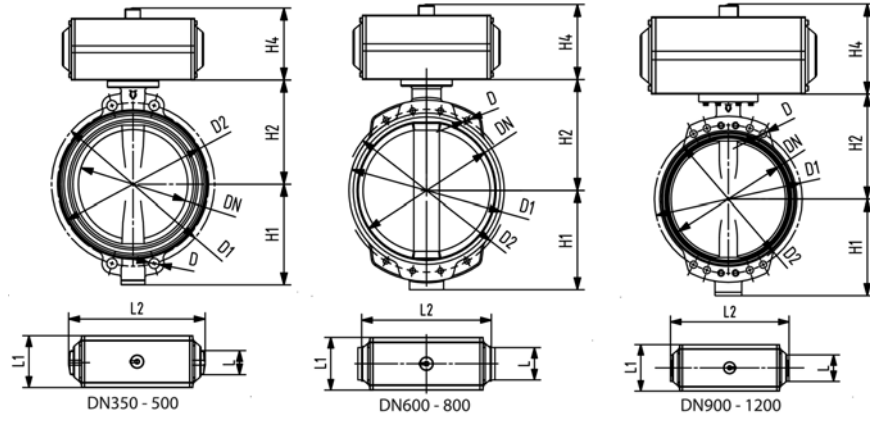
d [mm]	Actuator unit type	M [inch]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
355	CH-B200	1	26	12	476	442	291	307	290	220	575	332
400	CH-B240	1	26	16	540	493	325	342	290	220	575	382
450	CH-B240	1 1/8	29	20	578	544	357	387	380	350	684	432
500	CH-B270	1 1/8	29	20	635	601	381	425	380	350	684	478
630	CH-B350	1 1/4	32	20	749	695	488	532	432	349	860	585
700	CH-B350	1 1/4	32	28	864	798	506	573	432	349	860	683
800	CH-B400	1 1/2	39	28	978	908	578	650	510	450	918	755

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# Metal - butterfly valves

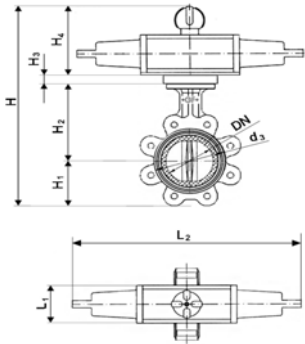
d [mm]	Actuator unit type	M [inch]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
900	CH-B500	1 ½	39	28	1086	1004	643	707	700	640	1550	852
1000	CH-B500	1 ½	39	32	1200	1114	729	755	700	640	1550	958
1200	CH-B500	1 ½	39	44	1422	1330	855	900	700	640	1550	1098



# Metal - butterfly valves

## Metal - butterfly valves pneumatic lug metric

### Metal - butterfly valve type 038P FC (Fail safe to close) Without manual override



**Model:**

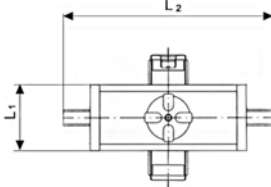
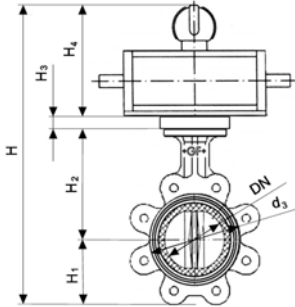
- Seatliner available in EPDM and FPM
- Housing: ductile iron GGG-40/ASTM A536, Rilsan® coated
- Available in ANSI standard upon request
- In case this valve is used at the end of the line, the following pressures must not be exceeded: DN50 to DN150 5,6bar and >DN200 3,5bar

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: stainless steel EPDM Code
63	50	2	10	3140	220	<b>199 038 052</b>	<b>199 038 252</b>
75	65	2 ½	10	4570	320	<b>199 038 053</b>	<b>199 038 253</b>
90	80	3	10	7140	500	<b>199 038 054</b>	<b>199 038 254</b>
110	100	4	10	11710	820	<b>199 038 055</b>	<b>199 038 255</b>
140	125	5	10	18570	1300	<b>199 038 056</b>	<b>199 038 256</b>
160	150	6	10	27130	1900	<b>199 038 057</b>	<b>199 038 257</b>
225	200	8	10	47130	3330	<b>199 038 058</b>	<b>199 038 258</b>
280	250	10	10	77110	5400	<b>199 038 059</b>	<b>199 038 259</b>
315	300	12	10	114240	8000	<b>199 038 060</b>	<b>199 038 260</b>

d [mm]	Actuator unit type	d3 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
63	PA-30	95	65	240	321	63	140	15	103
75	PA-30	114	65	240	343	73	152	15	103
90	PA-35	131	72	294	365	81	159	12	113
110	PA-40	152	80	320	420	97	178	15	130
140	PA-45	182	90	357	455	112	191	12	140
160	PA-50	209	100	395	487	122	203	12	150
225	PA-60	262	124	487	580	149	245	12	174
280	PA-60	331	124	487	672	203	275	20	174
315	PA-70	380	145	551	774	241	315	20	198

# Metal - butterfly valves

## Metal - butterfly valve type 038P DA (Double acting) Without manual override



### Model:

- Seatliner available in EPDM and FPM
- Housing: ductile iron GGG-40/ASTM A536, Rilsan® coated
- Available in ANSI standard upon request
- In case this valve is used at the end of the line, the following pressures must not be exceeded: DN50 to DN150 5,6bar and >DN200 3,5bar

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: stainless steel EPDM Code
63	50	2	10	3140	220	<b>199 038 104</b>	<b>199 038 304</b>
75	65	2 ½	10	4570	320	<b>199 038 105</b>	<b>199 038 305</b>
90	80	3	10	7140	500	<b>199 038 106</b>	<b>199 038 306</b>
110	100	4	10	11710	820	<b>199 038 107</b>	<b>199 038 307</b>
140	125	5	10	18570	1300	<b>199 038 108</b>	<b>199 038 308</b>
160	150	6	10	27130	1900	<b>199 038 109</b>	<b>199 038 309</b>
225	200	8	10	47130	3330	<b>199 038 110</b>	<b>199 038 310</b>
280	250	10	10	77110	5400	<b>199 038 111</b>	<b>199 038 311</b>
315	300	12	10	114240	8000	<b>199 038 112</b>	<b>199 038 312</b>

d [mm]	Actuator unit type	d3 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
63	PA-35	95	60	144	317	63	140	15	99
75	PA-35	114	60	144	339	73	152	15	99
90	PA-35	131	60	144	354	81	159	15	99
110	PA-45	152	72	169	402	97	178	15	112
140	PA-45	182	72	169	430	112	191	15	112
160	PA-55	209	90	212	480	122	203	15	140
225	PA-60	262	100	255	559	149	245	15	150
280	PA-65	331	112	264	665	203	275	25	162
315	PA-70	380	124	295	755	241	315	25	174

# Metal - butterfly valves

## Metal - butterfly valves electric wafer

### Metric/Inch/ASTM

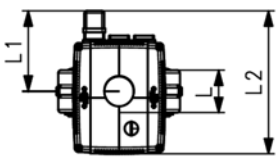
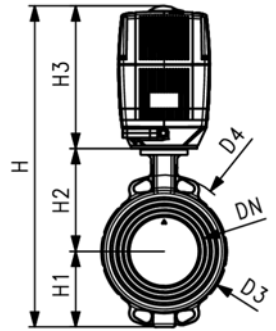
#### Metal - butterfly valve type 037E 100-230V 50-60Hz Without manual override



**Model:**

- Voltage 100-230 V, 50-60 Hz for EA31
- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM

\* Electric actuator for higher nominal pressure on request



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	199 037 130	199 037 143
75	65	2 ½	10	4570	320	199 037 131	199 037 144
90	80	3	10	7140	500	199 037 132	199 037 145
110	100	4	10	11710	820	199 037 133	199 037 146
140	125	5	10	18570	1300	199 037 134	199 037 147
160	150	6	10	27130	1900	199 037 135	199 037 148
225	200	8	10	47130	3330	199 037 136	199 037 149
* 280	250	10	6	77110	5400	199 037 137	199 037 150
* 315	300	12	4	114240	8000	199 037 138	199 037 151

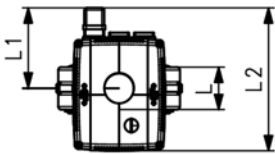
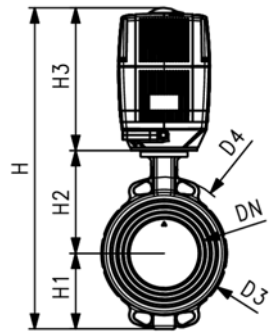
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	199 037 330	199 037 343
75	65	2 ½	10	4570	320	199 037 331	199 037 344
90	80	3	10	7140	500	199 037 332	199 037 345
110	100	4	10	11710	820	199 037 333	199 037 346
140	125	5	10	18570	1300	199 037 334	199 037 347
160	150	6	10	27130	1900	199 037 335	199 037 348
225	200	8	10	47130	3330	199 037 336	199 037 349
* 280	250	10	6	77110	5400	199 037 337	199 037 350
* 315	300	12	4	114240	8000	199 037 338	199 037 351

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	199 037 530	199 037 543
75	65	2 ½	10	4570	320	199 037 531	199 037 544
90	80	3	10	7140	500	199 037 532	199 037 545
110	100	4	10	11710	820	199 037 533	199 037 546
140	125	5	10	18570	1300	199 037 534	199 037 547
160	150	6	10	27130	1900	199 037 535	199 037 548
225	200	8	10	47130	3330	199 037 536	199 037 549
* 280	250	10	6	77110	5400	199 037 537	199 037 550
* 315	300	12	4	114240	8000	199 037 538	199 037 551

d [mm]	Actuator unit type	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]
63	EA-31	96	165	43	28	122	383	53	140	190
75	EA-31	114	185	46	28	122	405	63	152	190
90	EA-31	131	190	46	28	122	420	71	159	190
110	EA-31	152	229	52	64	181	415	87	178	149
140	EA-31	182	254	56	60	220	443	102	191	149

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# Metal - butterfly valves



d [mm]	Actuator unit type	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]
160	EA-42	209	285	56	60	220	475	122	203	149
225	EA-42	262	343	60	60	220	540	149	241	149
* 280	EA-42	323	333	68	70	220	671	201	273	197
* 315	EA-42	373	353	78	70	220	739	231	311	197

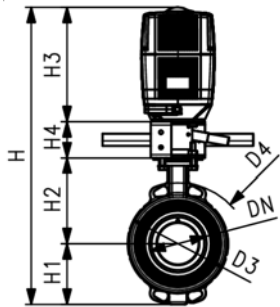
## Metal - butterfly valve type 037E 100-230V 50-60Hz With manual override

### Model:

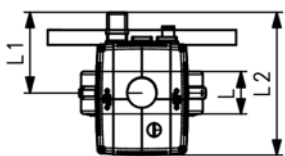
- Voltage 100-230 V, 50-60 Hz for EA31
- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	199 037 156	199 037 169
75	65	2 ½	10	4570	320	199 037 157	199 037 170
90	80	3	10	7140	500	199 037 158	199 037 171
110	100	4	10	11710	820	199 037 159	199 037 172
140	125	5	10	18750	1300	199 037 160	199 037 173
160	150	6	10	27130	1900	199 037 161	199 037 174
225	200	8	10	47130	3330	199 037 162	199 037 175



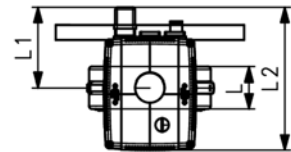
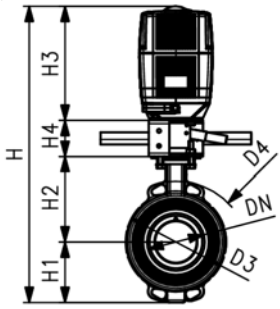
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	199 037 356	199 037 369
75	65	2 ½	10	4570	320	199 037 357	199 037 370
90	80	3	10	7140	500	199 037 358	199 037 371
110	100	4	10	11710	820	199 037 359	199 037 372
140	125	5	10	18750	1300	199 037 360	199 037 373
160	150	6	10	27130	1900	199 037 361	199 037 374
225	200	8	10	47130	3330	199 037 362	199 037 375



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	199 037 556	199 037 569
75	65	2 ½	10	4570	320	199 037 557	199 037 570
90	80	3	10	7140	500	199 037 558	199 037 571
110	100	4	10	11710	820	199 037 559	199 037 572

table continued next page

# Metal - butterfly valves



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
140	125	5	10	18750	1300	<b>199 037 560</b>	<b>199 037 573</b>
160	150	6	10	27130	1900	<b>199 037 561</b>	<b>199 037 574</b>
225	200	8	10	47130	3330	<b>199 037 562</b>	<b>199 037 575</b>

d [mm]	Actuator unit type	D3 [mm]	D4 [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
63	EA-31	96	165	43	28	122	443	53	140	190	60
75	EA-31	114	185	46	28	122	465	63	152	190	60
90	EA-31	131	190	46	28	122	480	71	159	190	60
110	EA-31	152	229	52	60	220	475	87	178	150	60
140	EA-31	182	254	56	60	220	503	102	191	150	60
160	EA-42	209	285	56	60	220	535	122	203	150	60
225	EA-42	262	343	60	60	220	600	149	241	150	60



## Metal - butterfly valve type 037E 100-230V 50-60Hz Without manual override DN350-1200 metric

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	<b>198 037 300</b>	<b>198 037 310</b>
400	400	10	186700	<b>198 037 301</b>	<b>198 037 311</b>
450	450	10	258390	<b>198 037 302</b>	<b>198 037 312</b>
500	500	10	316730	<b>198 037 303</b>	<b>198 037 313</b>
630	600	10	431750	<b>198 037 304</b>	<b>198 037 314</b>
700	700	10	618333	<b>198 037 305</b>	<b>198 037 315</b>
800	800	10	675000	<b>198 037 306</b>	<b>198 037 316</b>
900	900	10	1005200	<b>198 037 307</b>	<b>198 037 317</b>
1000	1000	10	1306930	<b>198 037 308</b>	<b>198 037 318</b>
1200	1200	10	1907050	<b>198 037 309</b>	<b>198 037 319</b>

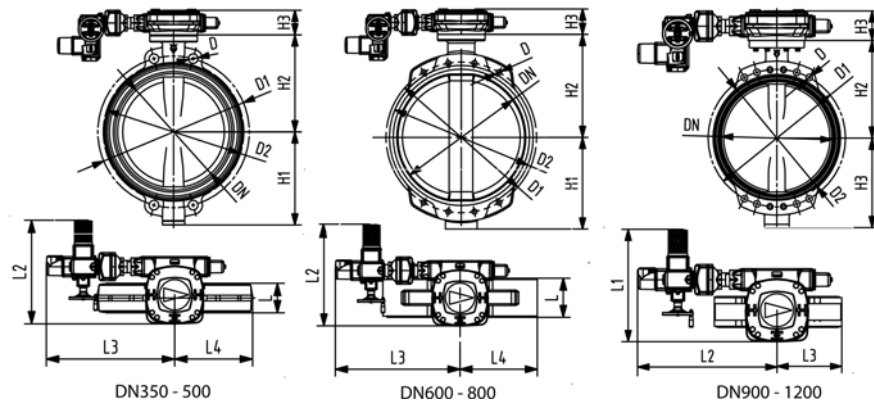
d [mm]	Actuator unit type	M [mm]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]
355	GS 80	20	21	16	460	442	291	307	307	78	130	527	514
400	GS 80	24	25	16	515	493	325	342	307	102	154	527	514
450	GS 100	24	25	20	565	544	357	387	321	113	182	690	514
500	GS 125	24	25	20	620	601	381	425	321	126	182	690	514
630	GS 125	27	28	20	725	695	488	532	330	146	286	710	744
700	GS 125	27	28	24	840	798	506	573	330	175	286	710	744
800	GS 160	30	31	24	950	908	578	650	313	215	286	990	514
900	GS 160	30	31	28	1050	1004	643	707	323	246	370	990	538
1000	GS 160	33	34	28	1160	1114	729	755	323	280	370	990	538
1200	GS 200	36	37	32	1380	1330	855	900	348	360	510	1133	538

d [mm]	Q1 [mm]
355	332
400	382
450	432

table continued next page

# Metal - butterfly valves

d [mm]	Q1 [mm]
500	478
630	585
700	683
800	755
900	852
1000	958
1200	1098



## Metal - butterfly valve type 037E 100-230V 50-60Hz Without manual override DN350-1200 ANSI

### Model:

- Housing: Ductile Iron ASTM A 395, Epoxy coated
- Seatliner available in EPDM, FPM on request
- Disc available in Aluminium Bronze on request
- Connecting dimension: EN 1092 PN10, ANSI B 16.5 Class 150
- Up to DN 500: Overall length according to EN558, line 20, ISO 5752

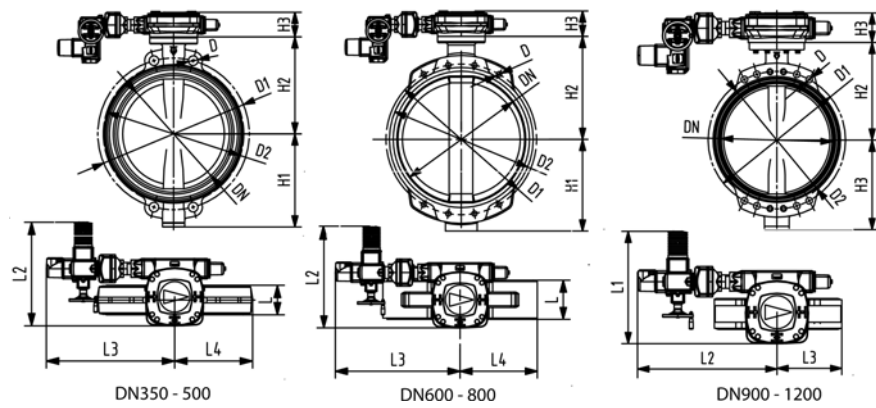
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Disc: ductile iron: EPOXY coated EPDM Code	Disc: stainless steel EPDM Code
355	350	10	143360	198 037 320	198 037 330
400	400	10	186700	198 037 321	198 037 331
450	450	10	258390	198 037 322	198 037 332
500	500	10	316730	198 037 323	198 037 333
630	600	10	431750	198 037 324	198 037 334
700	700	10	618333	198 037 325	198 037 335
800	800	10	675000	198 037 326	198 037 336
900	900	10	1005200	198 037 327	198 037 337
1000	1000	10	1306930	198 037 328	198 037 338
1200	1200	10	1907050	198 037 329	198 037 339

d [mm]	Actuator unit type	M [inch]	D [mm]	N [mm]	D1 [mm]	D2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L2 [mm]	L3 [mm]
355	GS 80	1	26	12	476	442	291	307	307	78	130	527
400	GS 80	1	26	16	540	493	325	342	307	102	154	527
450	GS 100	1 1/8	29	20	578	544	357	387	321	113	182	690
500	GS 125	1 1/8	29	20	635	601	381	425	321	126	182	690
630	GS 125	1 1/4	32	20	749	695	488	532	330	146	286	710
700	GS 125	1 1/4	32	28	864	798	506	573	330	175	286	710
800	GS 160	1 1/2	39	28	978	908	578	650	313	215	286	990
900	GS 160	1 1/2	39	28	1086	1004	643	707	323	246	370	990
1000	GS 160	1 1/2	39	32	1200	1114	729	755	323	280	370	990
1200	GS 200	1 1/2	39	44	1422	1330	855	900	348	360	510	1133

table continued next page

# Metal - butterfly valves

d [mm]	L4 [mm]	Q1 [mm]
355	514	332
400	514	382
450	514	432
500	514	478
630	744	585
700	744	683
800	514	755
900	538	852
1000	538	958
1200	538	1098





# Metal - butterfly valves

## Metal - butterfly valves electric lug metric

### Metal - butterfly valve type 038E 100-230V 50-60Hz Without manual override

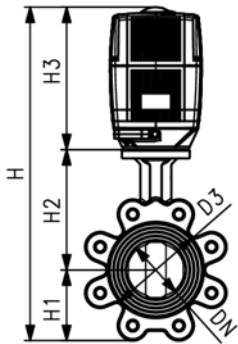


**Model:**

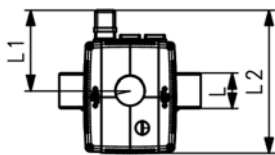
- Voltage 100-230 V, 50-60 Hz for EA31
- Voltage 115/230 V, 50-60 Hz for EA41/EA50
- Seatliner available in EPDM and FPM
- Housing: ductile iron GGG-40/ASTM A536, Rilsan® coated
- Available in 24 V AC/DC and/other in ANSI standard upon request
- In case this valve is used at the end of the line, the following pressures must not be exceeded: DN50 to DN150 5,6bar and >DN200 3,5bar

\* Electric actuator for higher nominal pressure on request

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: stainless steel EPDM Code
63	50	2	10	3140	220	<b>199 038 130</b>	<b>199 038 330</b>
75	65	2 ½	10	4570	320	<b>199 038 131</b>	<b>199 038 331</b>
90	80	3	10	7140	500	<b>199 038 132</b>	<b>199 038 332</b>
110	100	4	10	11710	820	<b>199 038 133</b>	<b>199 038 333</b>
140	125	5	10	18570	1300	<b>199 038 134</b>	<b>199 038 334</b>
160	150	6	10	27130	1900	<b>199 038 135</b>	<b>199 038 335</b>
225	200	8	10	47130	3330	<b>199 038 136</b>	<b>199 038 336</b>
* 280	250	10	6	77110	5400	<b>199 038 137</b>	<b>199 038 337</b>
* 315	300	12	4	114240	8000	<b>199 038 138</b>	<b>199 038 338</b>



d [mm]	Actuator unit type	d3 [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]
63	EA-31	65	43	28	122	393	63	140	190
75	EA-31	114	46	28	122	415	73	152	190
90	EA-31	131	46	28	122	430	81	159	190
110	EA-31	152	52	60	220	333	97	178	58
140	EA-31	182	56	60	220	361	112	191	58
160	EA-42	209	56	60	220	383	122	203	58
225	EA-42	262	60	60	220	452	149	245	58
* 280	EA-42	331	68	70	220	545	203	275	67
* 315	EA-42	380	78	70	220	623	241	315	67



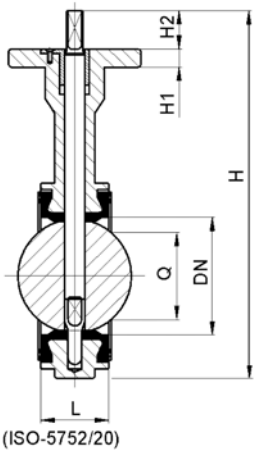
# Metal - butterfly valves

## Spare parts

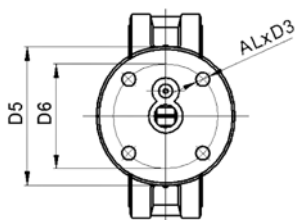
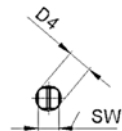
### Bare shaft metal - butterfly valve type 037 Metric/Inch/ASTM

**Model:**

- Housing: Aluminium ASTM S 12A, Rilsan® coated
- Seatliner available in EPDM and FPM



DN 50-300



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	198 150 800	198 150 832
75	65	2 ½	10	4570	320	198 150 801	198 150 833
90	80	3	10	7140	500	198 150 802	198 150 834
110	100	4	10	11710	820	198 150 803	198 150 835
140	125	5	10	18570	1300	198 150 804	198 150 836
160	150	6	10	27130	1900	198 150 805	198 150 837
225	200	8	10	47130	3330	198 150 806	198 150 838
280	250	10	10	77110	5400	198 150 807	198 150 839
315	300	12	10	114240	8000	198 150 808	198 150 840

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	198 150 843	198 150 854
75	65	2 ½	10	4570	320	198 150 844	198 150 855
90	80	3	10	7140	500	198 150 845	198 150 856
110	100	4	10	11710	820	198 150 846	198 150 857
140	125	5	10	18570	1300	198 150 847	198 150 858
160	150	6	10	27130	1900	198 150 848	198 150 859
225	200	8	10	47130	3330	198 150 849	198 150 860
280	250	10	10	77110	5400	198 150 850	198 150 861
315	300	12	10	114240	8000	198 150 851	198 150 862

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv value ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	198 151 000	198 151 011
75	65	2 ½	10	4570	320	198 151 001	198 151 012
90	80	3	10	7140	500	198 151 002	198 151 013
110	100	4	10	11710	820	198 151 003	198 151 014
140	125	5	10	18570	1300	198 151 004	198 151 015
160	150	6	10	27130	1900	198 151 005	198 151 016
225	200	8	10	47130	3330	198 151 006	198 151 017
280	250	10	10	77110	5400	198 151 007	198 151 018
315	300	12	10	114240	8000	198 151 008	198 151 019

d [mm]	Q [mm]	L [mm]		AL	D3 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	H [mm]	H1 [mm]	H2 [mm]	SW [mm]
63	32	43	F-07	4	9	14	90	70	221	13	26	11
75	51	46	F-07	4	9	14	90	70	243	13	26	11
90	69	46	F-07	4	9	14	90	70	258	13	26	11
110	89	52	F-07	4	9	18	90	70	295	16	30	14
140	115	56	F-07	4	9	18	90	70	323	16	30	14
160	143	56	F-07	4	9	22	90	70	354	17	33	17
225	194	60	F-07	4	9	22	90	70	427	17	33	17
280	243	68	F-10	4	11	28	125	102	522	17	47	22
315	293	78	F-10	4	11	28	125	102	589	17	47	22

# Metal - butterfly valves

## Bare shaft metal - butterfly valve type 038 metric

### Model:

- Seatliner available in EPDM and FPM
- Housing: ductile iron GGG-40/ASTM A536, Rilsan® coated
- Available in ANSI standard upon request
- In case this valve is used at the end of the line, the following pressures must not be exceeded: DN50 to DN150 5,6bar and >DN200 3,5bar



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: ductile iron/ Rilsan® coated EPDM Code	Disc: ductile iron/ Rilsan® coated FPM Code
63	50	2	10	3140	220	198 150 811	198 151 022
75	65	2 ½	10	4570	320	198 150 812	198 151 023
90	80	3	10	7140	500	198 150 813	198 151 024
110	100	4	10	11710	820	198 150 814	198 151 025
140	125	5	10	18570	1300	198 150 815	198 151 026
160	150	6	10	27130	1900	198 150 816	198 151 027
225	200	8	10	47130	3330	198 150 817	198 151 028
280	250	10	10	77110	5400	198 150 818	198 151 029
315	300	12	10	114240	8000	198 150 819	198 151 030

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: stainless steel EPDM Code	Disc: stainless steel FPM Code
63	50	2	10	3140	220	198 151 031	198 151 040
75	65	2 ½	10	4570	320	198 151 032	198 151 041
90	80	3	10	7140	500	198 151 033	198 151 042
110	100	4	10	11710	820	198 151 034	198 151 043
140	125	5	10	18570	1300	198 151 035	198 151 044
160	150	6	10	27130	1900	198 151 036	198 151 045
225	200	8	10	47130	3330	198 151 037	198 151 046
280	250	10	10	77110	5400	198 151 038	198 151 047
315	300	12	10	114240	8000	198 151 039	198 151 048

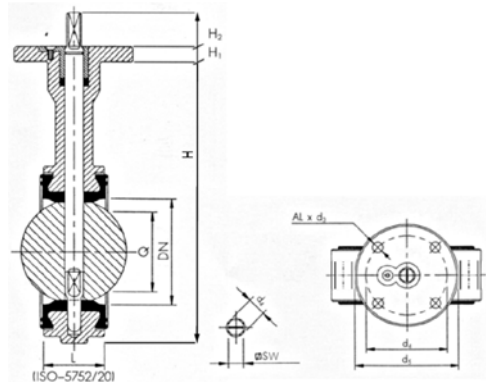
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	Cv val- ue ( $\Delta p=1$ psi) [gal (US) / min]	Disc: Alu-bronze EPDM Code	Disc: Alu-bronze FPM Code
63	50	2	10	3140	220	198 151 049	198 151 058
75	65	2 ½	10	4570	320	198 151 050	198 151 059
90	80	3	10	7140	500	198 151 051	198 151 060
110	100	4	10	11710	820	198 151 052	198 151 061
140	125	5	10	18570	1300	198 151 053	198 151 062
160	150	6	10	27130	1900	198 151 054	198 151 063
225	200	8	10	47130	3330	198 151 055	198 151 064
280	250	10	10	77110	5400	198 151 056	198 151 065
315	300	12	10	114240	8000	198 151 057	198 151 066

d [mm]	Q [mm]	L [mm]		AL	D3 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	H [mm]	H1 [mm]	H2 [mm]	SW [mm]
63	32	43	F-07	4	9	14	90	70	229	13	26	11
75	51	46	F-07	4	9	14	90	70	251	13	26	11
90	69	46	F-07	4	9	14	90	70	266	13	26	11
110	89	52	F-07	4	9	18	90	70	305	16	30	14
140	115	56	F-07	4	9	18	90	70	333	16	30	14
160	143	56	F-07	4	9	22	90	70	358	17	33	17

table continued next page

# Metal - butterfly valves

d [mm]	Q [mm]	L [mm]		AL	D3 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	H [mm]	H1 [mm]	H2 [mm]	SW [mm]
225	194	60	F-07	4	9	22	90	70	427	17	33	17
280	243	68	F-10	4	11	28	125	102	525	17	47	22
315	293	78	F-10	4	11	28	125	102	603	17	47	22



## Seat liner for type 037/038



d [mm]	DN [mm]	Inch	EPDM Code	FPM Code	CSM Code	NBR Code
63	50	2	198 806 726	198 806 713	198 806 854	198 806 937
75	65	2 ½	198 806 727	198 806 714	198 806 855	198 806 938
90	80	3	198 806 728	198 806 715	198 806 856	198 806 939
110	100	4	198 806 729	198 806 716	198 806 857	198 806 940
140	125	5	198 806 730	198 806 717	198 806 858	198 806 941
160	150	6	198 806 731	198 806 718	198 806 859	198 806 942
225	200	8	198 806 732	198 806 719	198 806 860	198 806 943
280	250	10	198 806 733	198 806 720	198 806 861	198 806 944
315	300	12	198 806 734	198 806 721	198 806 862	198 806 945

## Disc for type 037/038



d [mm]	DN [mm]	Inch	Ductile iron (GGG40)/ Rilsan® Code	Stainless steel (ASTM A351 - CF8M - 1.4408) Code	Aluminium- bronze (ASTM B- 148) Code
63	50	2	198 806 740	198 806 700	198 806 920
75	65	2 ½	198 806 741	198 806 701	198 806 921
90	80	3	198 806 742	198 806 702	198 806 922
110	100	4	198 806 743	198 806 703	198 806 923
140	125	5	198 806 744	198 806 704	198 806 924
160	150	6	198 806 745	198 806 705	198 806 925
225	200	8	198 806 746	198 806 706	198 806 926
280	250	10	198 806 747	198 806 707	198 806 927
315	300	12	198 806 748	198 806 708	198 806 928

## Shaft for type 037/038



d [mm]	DN [mm]	Inch	Stainless steel AISI 420 / V2A Code	Stainless steel AISI 316 / V4A Code
63	50	2	198 806 780	198 806 790
75	65	2 ½	198 806 781	198 806 791
90	80	3	198 806 782	198 806 792
110	100	4	198 806 783	198 806 793
140	125	5	198 806 784	198 806 794
160	150	6	198 806 785	198 806 795

table continued next page

## Metal - butterfly valves

<b>d</b> [mm]	<b>DN</b> [mm]	<b>Inch</b>	<b>Stainless steel</b> <b>AISI 420 / V2A</b> <b>Code</b>	<b>Stainless steel</b> <b>AISI 316 / V4A</b> <b>Code</b>	
225	200	8	<b>198 806 786</b>	<b>198 806 796</b>	
280	250	10	<b>198 806 787</b>	<b>198 806 797</b>	
315	300	12	<b>198 806 788</b>	<b>198 806 798</b>	



# Variable area flow meters



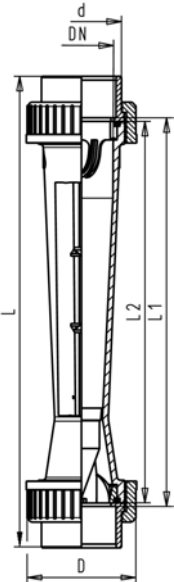
# Variable area flow meters

## Variable area flow meters

### Variable area flow meter type 335

Float in PVDF without magnet

With solvent cement sockets PVC-U metric



Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O- rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O- rings in EPDM Code
50 - 500	32	25	198 335 000	198 335 020	198 335 040
100 - 1000	32	25	198 335 001	198 335 021	198 335 041
150 - 1500	40	32	198 335 002	198 335 022	198 335 042
250 - 2500	40	32	198 335 003	198 335 023	198 335 043
200 - 2000	50	40	198 335 004	198 335 024	198 335 044
300 - 3000	50	40	198 335 005	198 335 025	198 335 045
600 - 6000	50	40	198 335 006	198 335 026	198 335 046
600 - 6000	63	50	198 335 007	198 335 027	198 335 047
1000 - 10000	63	50	198 335 008	198 335 028	198 335 048
1500 - 15000	63	50	198 335 009	198 335 029	198 335 049
2000 - 20000	75	65	198 335 010	198 335 030	198 335 050
3000 - 30000	75	65	198 335 011	198 335 031	198 335 051
8000 - 60000	75	65	198 335 012	198 335 032	198 335 052

Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	385	341	335	1 ½
100 - 1000	58	385	341	335	1 ½
150 - 1500	72	393	341	335	2
250 - 2500	72	393	341	335	2
200 - 2000	83	403	341	335	2 ¼
300 - 3000	83	403	341	335	2 ¼
600 - 6000	83	403	341	335	2 ¼
600 - 6000	101	417	341	335	2 ¾
1000 - 10000	101	417	341	335	2 ¾
1500 - 15000	101	417	341	335	2 ¾
2000 - 20000	135	429	341	335	3 ½
3000 - 30000	135	429	341	335	3 ½
8000 - 60000	135	429	341	335	3 ½



# Variable area flow meters

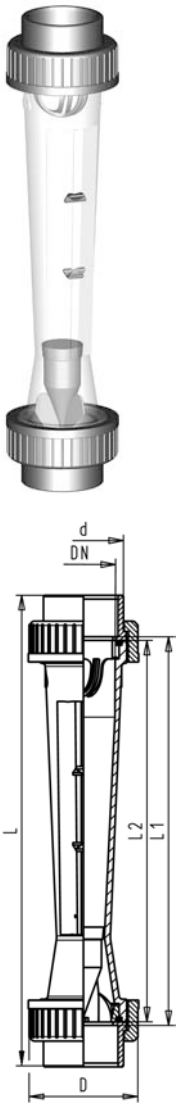
## Variable area flow meter type 335

Float in PVDF with magnet

With solvent cement sockets PVC-U metric

Model:

- Suitable limit switches see accessories for variable area flow meters



Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O- Rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O- rings in EPDM Code
50 - 500	32	25	<b>198 335 100</b>	<b>198 335 120</b>	<b>198 335 140</b>
100 - 1000	32	25	<b>198 335 101</b>	<b>198 335 121</b>	<b>198 335 141</b>
150 - 1500	40	32	<b>198 335 102</b>	<b>198 335 122</b>	<b>198 335 142</b>
250 - 2500	40	32	<b>198 335 103</b>	<b>198 335 123</b>	<b>198 335 143</b>
200 - 2000	50	40	<b>198 335 104</b>	<b>198 335 124</b>	<b>198 335 144</b>
300 - 3000	50	40	<b>198 335 105</b>	<b>198 335 125</b>	<b>198 335 145</b>
600 - 6000	50	40	<b>198 335 106</b>	<b>198 335 126</b>	<b>198 335 146</b>
600 - 6000	63	50	<b>198 335 107</b>	<b>198 335 127</b>	<b>198 335 147</b>
1000 - 10000	63	50	<b>198 335 108</b>	<b>198 335 128</b>	<b>198 335 148</b>
1500 - 15000	63	50	<b>198 335 109</b>	<b>198 335 129</b>	<b>198 335 149</b>
2000 - 20000	75	65	<b>198 335 110</b>	<b>198 335 130</b>	<b>198 335 150</b>
3000 - 30000	75	65	<b>198 335 111</b>	<b>198 335 131</b>	<b>198 335 151</b>
8000 - 60000	75	65	<b>198 335 112</b>	<b>198 335 132</b>	<b>198 335 152</b>

Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	385	341	335	1 ½
100 - 1000	58	385	341	335	1 ½
150 - 1500	72	393	341	335	2
250 - 2500	72	393	341	335	2
200 - 2000	83	403	341	335	2 ¼
300 - 3000	83	403	341	335	2 ¼
600 - 6000	83	403	341	335	2 ¼
600 - 6000	101	417	341	335	2 ¾
1000 - 10000	101	417	341	335	2 ¾
1500 - 15000	101	417	341	335	2 ¾
2000 - 20000	135	429	341	335	3 ½
3000 - 30000	135	429	341	335	3 ½
8000 - 60000	135	429	341	335	3 ½

# Variable area flow meters

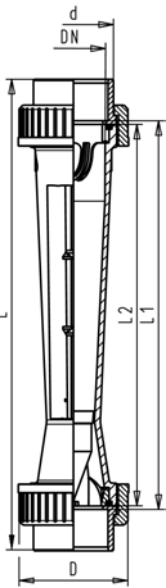
## Variable area flow meter type 350

### Float in PVDF with magnet

### With solvent cement sockets PVC-U metric

#### Model:

- Suitable limit switches see accessories for variable area flow meters



Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O- Rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O- rings in EPDM Code
50 - 500	32	25	<b>198 350 100</b>	<b>198 350 120</b>	<b>198 350 140</b>
100 - 1000	32	25	<b>198 350 101</b>	<b>198 350 121</b>	<b>198 350 141</b>
150 - 1500	40	32	<b>198 350 102</b>	<b>198 350 122</b>	<b>198 350 142</b>
250 - 2500	40	32	<b>198 350 103</b>	<b>198 350 123</b>	<b>198 350 143</b>
200 - 2000	50	40	<b>198 350 104</b>	<b>198 350 124</b>	<b>198 350 144</b>
300 - 3000	50	40	<b>198 350 105</b>	<b>198 350 125</b>	<b>198 350 145</b>
600 - 6000	50	40	<b>198 350 106</b>	<b>198 350 126</b>	<b>198 350 146</b>
600 - 6000	63	50	<b>198 350 107</b>	<b>198 350 127</b>	<b>198 350 147</b>
1000 - 10000	63	50	<b>198 350 108</b>	<b>198 350 128</b>	<b>198 350 148</b>
1500 - 15000	63	50	<b>198 350 109</b>	<b>198 350 129</b>	<b>198 350 149</b>
2000 - 20000	75	65	<b>198 350 110</b>	<b>198 350 130</b>	<b>198 350 150</b>
3000 - 30000	75	65	<b>198 350 111</b>	<b>198 350 131</b>	<b>198 350 151</b>
8000 - 60000	75	65	<b>198 350 112</b>	<b>198 350 132</b>	<b>198 350 152</b>

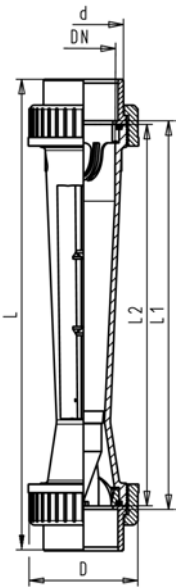
Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	400	356	350	1 ½
100 - 1000	58	400	356	350	1 ½
150 - 1500	72	408	356	350	2
250 - 2500	72	408	356	350	2
200 - 2000	83	418	356	350	2 ¼
300 - 3000	83	418	356	350	2 ¼
600 - 6000	83	418	356	350	2 ¼
600 - 6000	101	432	356	350	2 ¾
1000 - 10000	101	432	356	350	2 ¾
1500 - 15000	101	432	356	350	2 ¾
2000 - 20000	135	444	356	350	3 ½
3000 - 30000	135	444	356	350	3 ½
8000 - 60000	135	444	356	350	3 ½

# Variable area flow meters

## Variable area flow meter type 350

Float in PVDF without magnet

With solvent cement sockets PVC-U metric



Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O- rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O- rings in EPDM Code
50 - 500	32	25	<b>198 350 000</b>	<b>198 350 020</b>	<b>198 350 040</b>
100 - 1000	32	25	<b>198 350 001</b>	<b>198 350 021</b>	<b>198 350 041</b>
150 - 1500	40	32	<b>198 350 002</b>	<b>198 350 022</b>	<b>198 350 042</b>
250 - 2500	40	32	<b>198 350 003</b>	<b>198 350 023</b>	<b>198 350 043</b>
200 - 2000	50	40	<b>198 350 004</b>	<b>198 350 024</b>	<b>198 350 044</b>
300 - 3000	50	40	<b>198 350 005</b>	<b>198 350 025</b>	<b>198 350 045</b>
600 - 6000	50	40	<b>198 350 006</b>	<b>198 350 026</b>	<b>198 350 046</b>
600 - 6000	63	50	<b>198 350 007</b>	<b>198 350 027</b>	<b>198 350 047</b>
1000 - 10000	63	50	<b>198 350 008</b>	<b>198 350 028</b>	<b>198 350 048</b>
1500 - 15000	63	50	<b>198 350 009</b>	<b>198 350 029</b>	<b>198 350 049</b>
2000 - 20000	75	65	<b>198 350 010</b>	<b>198 350 030</b>	<b>198 350 050</b>
3000 - 30000	75	65	<b>198 350 011</b>	<b>198 350 031</b>	<b>198 350 051</b>
8000 - 60000	75	65	<b>198 350 012</b>	<b>198 350 032</b>	<b>198 350 052</b>

Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	400	356	350	1 ½
100 - 1000	58	400	356	350	1 ½
150 - 1500	72	408	356	350	2
250 - 2500	72	408	356	350	2
200 - 2000	83	418	356	350	2 ¼
300 - 3000	83	418	356	350	2 ¼
600 - 6000	83	418	356	350	2 ¼
600 - 6000	101	432	356	350	2 ¾
1000 - 10000	101	432	356	350	2 ¾
1500 - 15000	101	432	356	350	2 ¾
2000 - 20000	135	444	356	350	3 ½
3000 - 30000	135	444	356	350	3 ½
8000 - 60000	135	444	356	350	3 ½

# Variable area flow meters

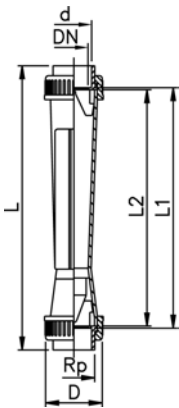
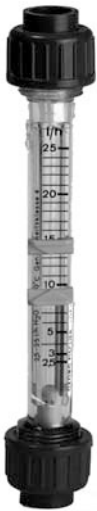
## Short version

### Float in PVDF without magnet

### With solvent cement sockets PVC-U metric

#### Model:

- Union nuts and valve ends in other materials on request



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-rings in EPDM Code
SK 50	16	10	2.5 - 25	198 801 880	198 803 310
SK 51	16	10	5 - 50	198 801 881	198 803 311
SK 52	16	10	10 - 100	198 801 882	198 803 312
SK 60	20	15	8 - 80	198 801 883	198 803 313
SK 61	20	15	15 - 150	198 801 884	198 803 314
SK 62	20	15	20 - 200	198 801 885	198 803 315
SK 70	32	25	15 - 150	198 801 886	198 803 316
SK 71	32	25	30 - 300	198 801 887	198 803 317
SK 72	32	25	50 - 500	198 801 888	198 803 318
SK 73	32	25	100 - 1000	198 801 889	198 803 319

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 50	35	199	171	165	3/8
SK 51	35	199	171	165	3/8
SK 52	35	199	171	165	3/8
SK 60	43	223	191	185	1/2
SK 61	43	223	191	185	1/2
SK 62	43	223	191	185	1/2
SK 70	60	250	206	200	1
SK 71	60	250	206	200	1
SK 72	60	250	206	200	1
SK 73	60	250	206	200	1

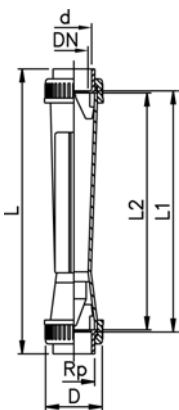
## Short version

### Float in PVDF with magnet

### With solvent cement sockets PVC-U metric

#### Model:

- Union nuts and valve ends in other materials on request
- Suitable limit switches see accessories for variable area flow meters

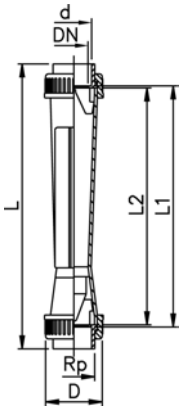


Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-rings in EPDM Code
SK 500	16	10	2.5 - 25	198 801 890	198 803 320
SK 510	16	10	5 - 50	198 801 891	198 803 321
SK 520	16	10	10 - 100	198 801 892	198 803 322
SK 600	20	15	8 - 80	198 801 893	198 803 323
SK 610	20	15	15 - 150	198 801 894	198 803 324
SK 620	20	15	20 - 200	198 801 895	198 803 325
SK 700	32	25	15 - 150	198 801 896	198 803 326
SK 710	32	25	30 - 300	198 801 897	198 803 327
SK 720	32	25	50 - 500	198 801 898	198 803 328
SK 730	32	25	100 - 1000	198 801 899	198 803 329

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 500	35	199	171	165	3/8
SK 510	35	199	171	165	3/8
SK 520	35	199	171	165	3/8
SK 600	43	223	191	185	1/2
SK 610	43	223	191	185	1/2

table continued next page

# Variable area flow meters

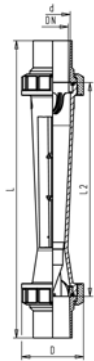


Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 620	43	223	191	185	½
SK 700	60	250	206	200	1
SK 710	60	250	206	200	1
SK 720	60	250	206	200	1
SK 730	60	250	206	200	1

## Special version PVDF-HP Float in PTFE without magnet With fusion spigots BCF/IR



Type	d [mm]	DN [mm]	Scale range [l/h]	Scale range [gal/min]	Taper tube in Polysulfone O- rings in FPM Code
SK 70	32	25	68 - 204	0.3-0.9	<b>198 807 209</b>
SK 71	32	25	90 - 295	0.4-1.3	<b>198 807 210</b>
SK 73	32	25	136 - 795	0.6-3.5	<b>198 807 202</b>
SK 20	50	40	568 - 2273	2.5-10.0	<b>198 807 203</b>
SK 21	50	40	909 - 4091	4.0-18.0	<b>198 807 204</b>
SK 30	63	50	1000 - 8142	4.4-36.0	<b>198 807 205</b>
SK 31	63	50	1000 - 9091	4.4-40.0	<b>198 807 206</b>
SK 40	75	65	1848 - 11364	8.0-50.0	<b>198 807 207</b>
SK 41	75	65	2273 - 16364	10.0-72.0	<b>198 807 208</b>

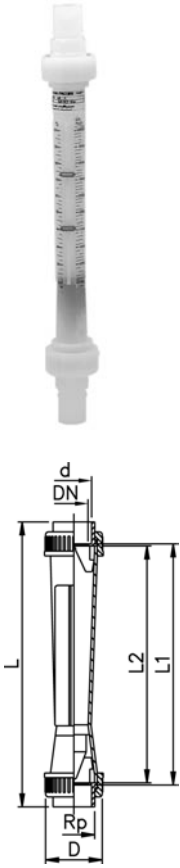


Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 70	60	318		200	1
SK 71	60	318		200	1
SK 73	60	318		200	1
SK 20	83	466		335	1 ½
SK 21	83	466		335	1 ½
SK 30	103	472		335	2
SK 31	103	472		335	2
SK 40	122	495		335	2 ½
SK 41	122	495		335	2 ½

# Variable area flow meters

## Special version PVDF Float in PVDF (red) without magnet

Dimension L and L1 only valid for socket connection  
Dimension L2 describes taper tube length



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in PVDF O-rings in FPM fusion sock- et Code	Taper tube in PVDF O-rings in FPM IR fusion spigot Code
SK 10	32	25	50 - 500	<b>198 806 466</b>	<b>198 803 905</b>
SK 11	32	25	100 - 1000	<b>198 806 467</b>	<b>198 803 906</b>
SK 20	50	40	200 - 2000	<b>198 806 468</b>	<b>198 803 907</b>
SK 21	50	40	300 - 3000	<b>198 806 469</b>	<b>198 803 908</b>
SK 30	63	50	600 - 6000	<b>198 806 470</b>	<b>198 803 909</b>
SK 31	63	50	1200 - 12000	<b>198 806 471</b>	<b>198 803 910</b>
SK 40	75	65	2000 - 20000	-	<b>198 803 911</b>
SK 41	75	65	3000 - 30000	-	<b>198 803 912</b>

Type	D [mm]	L [mm]	L (IR-SS) [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 10	60	385	443	341	335	1
SK 11	60	385	443	341	335	1
SK 20	83	403	459	341	335	1 ½
SK 21	83	403	459	341	335	1 ½
SK 30	103	417	461	339	335	2
SK 31	103	417	461	339	335	2
SK 40	122	429	453	341	335	2 ½
SK 41	122	429	453	341	335	2 ½

## Accessories 4-20 mA sensor For type 335 and type 350



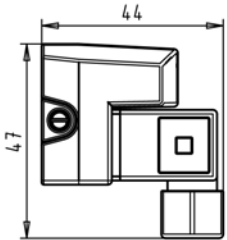
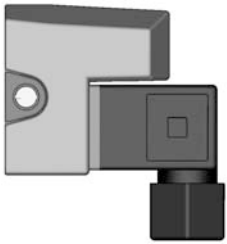
Type	d [mm]	DN [mm]	Corresponds to water scale [l/h]	Code
GK 15	32	25	50-500	<b>198 335 962</b>
GK 15	32	25	100-1000	<b>198 335 963</b>
GK 15	40	32	150-1500	<b>198 335 964</b>
GK 15	40	32	250-2500	<b>198 335 965</b>
GK 15	50	40	200-2000	<b>198 335 966</b>
GK 15	50	40	300-3000	<b>198 335 967</b>
GK 15	50	40	600-6000	<b>198 335 968</b>
GK 15	63	50	600-6000	<b>198 335 969</b>
GK 15	63	50	1000-10000	<b>198 335 991</b>
GK 15	63	50	1500-15000	<b>198 335 992</b>
GK 15	75	65	2000-20000	<b>198 335 993</b>
GK 15	75	65	3000-30000	<b>198 335 994</b>
GK 15	75	65	8000-60000	<b>198 335 995</b>

# Variable area flow meters

## Accessories

### Limit contacts GK10/GK11

#### For type 335/350 and short version



Type	Code
GK10 (min.)	<b>198 335 960</b>
GK11 (max.)	<b>198 335 961</b>

### Special scale for type 335/350 % for H<sub>2</sub>O

d [mm]	DN [mm]	Scale range	Corresponds to water scale [l/h]	Code
32	25	10-100 %	50-500	<b>198 335 084</b>
32	25	10-100 %	100-1000	<b>198 335 083</b>
40	32	10-100 %	150-1500	<b>198 335 069</b>
40	32	10-100 %	250-2500	<b>198 335 068</b>
50	40	10-100 %	200-2000	<b>198 335 054</b>
50	40	10-100 %	300-3000	<b>198 335 053</b>
50	40	10-100 %	600-6000	<b>198 335 039</b>
63	50	10-100 %	600-6000	<b>198 335 038</b>
63	50	10-100 %	1000-10000	<b>198 335 037</b>
63	50	10-100 %	1500-15000	<b>198 335 036</b>
75	65	10-100 %	2000-20000	<b>198 335 035</b>
75	65	10-100 %	3000-30000	<b>198 335 034</b>
75	65	13.3-100 %	8000-60000	<b>198 335 033</b>

### Special scale for type 335/350 m<sup>3</sup>/h

d [mm]	DN [mm]	Scale range [m <sup>3</sup> /h]	Corresponds to wa- ter scale [l/h]	Code
32	25	0.05 - 0.5	50 - 500	<b>198 335 655</b>
32	25	0.1 - 1	100 - 1000	<b>198 335 656</b>
40	32	0.15 - 1.5	150 - 1500	<b>198 335 657</b>
40	32	0.25 - 2.5	250 - 2500	<b>198 335 658</b>
50	40	0.2 - 2.0	200 - 2000	<b>198 335 659</b>
50	40	0.3 - 3	300 - 3000	<b>198 335 660</b>
50	40	0.6 - 6	600 - 6000	<b>198 335 661</b>
63	50	0.6 - 6	600 - 6000	<b>198 335 662</b>
63	50	1 - 10	1000 - 10000	<b>198 335 663</b>
63	50	1.5 - 15	1500 - 15000	<b>198 335 664</b>
75	65	2 - 20	2000 - 20000	<b>198 335 665</b>
75	65	3 - 30	3000 - 30000	<b>198 335 666</b>
75	65	8 - 60	8000 - 60000	<b>198 335 667</b>

# Variable area flow meters

## Special scale for type 335/350

### Imp. GPM

d [mm]	DN [mm]	Scale range [gal/min]	Corresponds to water scale [l/h]	Code
32	25	0,183 - 1,83	50-500	<b>198 335 670</b>
32	25	0,366 - 3,66	100-1000	<b>198 335 671</b>
40	32	0,55 - 5,5	150-1500	<b>198 335 672</b>
40	32	0,916 - 9,16	250-2500	<b>198 335 673</b>
50	40	0,733 - 7,33	200-2000	<b>198 335 674</b>
50	40	1,09 - 10,9	300-3000	<b>198 335 675</b>
50	40	2,19 - 21,9	600-6000	<b>198 335 676</b>
63	50	2,2 - 22	600-6000	<b>198 335 677</b>
63	50	3,66 - 36,6	1000-10000	<b>198 335 678</b>
63	50	5,49 - 54,9	1500-15000	<b>198 335 679</b>
75	65	7,32 - 73,2	2000-20000	<b>198 335 680</b>
75	65	10,98 - 109,8	3000-30000	<b>198 335 681</b>
75	65	29,28 - 219,6	8000-60000	<b>198 335 682</b>

## Special scale for type 335/350

### US GPM

d [mm]	DN [mm]	Scale range [gal/min]	Corresponds to wa- ter scale [l/h]	Code
32	25	0.22 - 2.2	50 - 500	<b>198 335 685</b>
32	25	0.44 - 4.4	100 - 1000	<b>198 335 686</b>
40	32	0.66 - 6.6	150 - 1500	<b>198 335 687</b>
40	32	1.1 - 11	250 - 2500	<b>198 335 688</b>
50	40	0.66 - 6.6	200 - 2000	<b>198 335 689</b>
50	40	1.32 - 13.2	300 - 3000	<b>198 335 690</b>
50	40	2.64 - 26.4	600 - 6000	<b>198 335 691</b>
63	50	2.64 - 26.4	600 - 6000	<b>198 335 692</b>
63	50	4.40 - 44.02	1000 - 10000	<b>198 335 693</b>
63	50	6.60 - 66.04	1500 - 15000	<b>198 335 694</b>
75	65	8.80 - 88	2000 - 20000	<b>198 335 695</b>
75	65	13.20 - 132	3000 - 30000	<b>198 335 696</b>
75	65	35.2 - 264	8000 - 60000	<b>198 335 697</b>

## Special scale for type 335/350

### Air/0bar/Nm<sup>3</sup>/h

d [mm]	DN [mm]	Scale range [m <sup>3</sup> /h]	Corresponds to wa- ter scale [l/h]	Code
32	25	1.5 - 14	50 - 500	<b>198 350 655</b>
32	25	2.5 - 29	100 - 1000	<b>198 350 656</b>
40	32	4 - 45	150 - 1500	<b>198 350 657</b>
40	32	7 - 79	250 - 2500	<b>198 350 658</b>
50	40	6 - 58	200 - 2000	<b>198 350 659</b>
50	40	9 - 108	300 - 3000	<b>198 350 660</b>
50	40	17 - 174	600 - 6000	<b>198 350 661</b>
63	50	17 - 175	600 - 6000	<b>198 350 662</b>
63	50	29 - 301	1000 - 10000	<b>198 350 663</b>
63	50	53 - 405	1500 - 15000	<b>198 350 664</b>
75	65	55 - 545	2000 - 20000	<b>198 350 665</b>
75	65	80 - 758	3000 - 30000	<b>198 350 666</b>
75	65	-	8000 - 60000	<b>198 350 667</b>



# Variable area flow meters

## Special scale for type 335/350

### HCl 30-33% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code
32	25	20 - 405	50-500	<b>198 350 670</b>
32	25	55 - 866	100-1000	<b>198 350 671</b>
40	32	90 - 1340	150-1500	<b>198 350 672</b>
40	32	165 - 2310	250-2500	<b>198 350 673</b>
50	40	115 - 1660	200-2000	<b>198 350 674</b>
50	40	190 - 3050	300-3000	<b>198 350 675</b>
50	40	420 - 4900	600-6000	<b>198 350 676</b>
63	50	430 - 5090	600-6000	<b>198 350 677</b>
63	50	750 - 9460	1000-10000	<b>198 350 678</b>
63	50	1415 - 11570	1500-15000	<b>198 350 679</b>
75	65	1500 - 17300	2000-20000	<b>198 350 680</b>
75	65	2175 - 24120	3000-30000	<b>198 350 681</b>
75	65	-	8000-60000	<b>198 350 682</b>

## Special scale for type 335/350

### NaOH 30% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code
32	25	4 - 226	50-500	<b>198 350 685</b>
32	25	15 - 600	100-1000	<b>198 350 686</b>
40	32	30 - 970	150-1500	<b>198 350 687</b>
40	32	70 - 1800	250-2500	<b>198 350 688</b>
50	40	35 - 1240	200-2000	<b>198 350 689</b>
50	40	75 - 2370	300-3000	<b>198 350 690</b>
50	40	230 - 4000	600-6000	<b>198 350 691</b>
63	50	240 - 4700	600-6000	<b>198 350 692</b>
63	50	475 - 7340	1000-10000	<b>198 350 693</b>
63	50	1030 - 10330	1500-15000	<b>198 350 694</b>
75	65	915 - 11720	2000-20000	<b>198 350 695</b>
75	65	1195 - 16040	3000-30000	<b>198 350 696</b>
75	65	-	8000-60000	<b>198 350 697</b>

## Special scale for type 335/350

### NaOH 50% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code
32	25	1 - 55	50-500	<b>198 350 755</b>
32	25	3 - 192	100-1000	<b>198 350 756</b>
40	32	6 - 365	150-1500	<b>198 350 757</b>
40	32	15 - 770	250-2500	<b>198 350 758</b>
50	40	8 - 520	200-2000	<b>198 350 759</b>
50	40	15 - 1170	300-3000	<b>198 350 760</b>
50	40	50 - 2270	600-6000	<b>198 350 761</b>
63	50	55 - 2300	600-6000	<b>198 350 762</b>
63	50	140 - 4340	1000-10000	<b>198 350 763</b>
63	50	420 - 5820	1500-15000	<b>198 350 764</b>
75	65	245 - 7590	2000-20000	<b>198 350 765</b>
75	65	400 - 11120	3000-30000	<b>198 350 766</b>
75	65	-	8000-60000	<b>198 350 767</b>

# Variable area flow meters

## Special scale for short version Water l/h

Type	Scale range [l/h]	Code	
SK 50 / 500	2.5 - 25.0	<b>198 801 386</b>	
SK 51 / 510	5.0 - 50.0	<b>198 801 387</b>	
SK 52 / 520	10.0 - 100.0	<b>198 801 388</b>	
SK 60 / 600	8.0 - 80.0	<b>198 801 389</b>	
SK 61 / 610	15.0 - 150.0	<b>198 801 390</b>	
SK 62 / 620	20.0 - 200.0	<b>198 801 391</b>	
SK 70 / 700	15.0 - 150.0	<b>198 801 392</b>	
SK 71 / 710	30.0 - 300.0	<b>198 801 393</b>	
SK 72 / 720	50.0 - 500.0	<b>198 801 394</b>	
SK 73 / 730	100.0 - 1000.0	<b>198 801 395</b>	

## Special scale for short version US GPM

Type	Scale range [gal/min]	Code	
SK 50 / 500	0,01 - 0,11	<b>198 801 961</b>	
SK 51 / 510	0,02 - 0,22	<b>198 801 962</b>	
SK 52 / 520	0,04 - 0,44	<b>198 801 963</b>	
SK 60 / 600	0,03 - 0,35	<b>198 801 964</b>	
SK 61 / 610	0,06 - 0,66	<b>198 801 965</b>	
SK 62 / 620	0,08 - 0,88	<b>198 801 966</b>	
SK 70 / 700	0,06 - 0,66	<b>198 801 967</b>	
SK 71 / 710	0,13 - 1,32	<b>198 801 968</b>	
SK 72 / 720	0,22 - 2,20	<b>198 801 969</b>	
SK 73 / 730	0,44 - 4,40	<b>198 801 970</b>	

## Special scale for short version Air/0bar/Nm<sup>3</sup>/h

Type	Scale range [m <sup>3</sup> /h]	Code	
SK 50 / 500	0,5 - 0,95	<b>198 801 308</b>	
SK 51 / 510	0,5 - 1,9	<b>198 801 309</b>	
SK 52 / 520	0,8 - 3,0	<b>198 801 310</b>	
SK 60 / 600	0,6 - 2,8	<b>198 801 311</b>	
SK 61 / 610	1,4 - 5,6	<b>198 801 312</b>	
SK 62 / 620	1,5 - 7,0	<b>198 801 313</b>	
SK 70 / 700	1,0 - 6,5	<b>198 801 314</b>	
SK 71 / 710	1,5 - 11,0	<b>198 801 315</b>	
SK 72 / 720	3,0 - 18,0	<b>198 801 316</b>	
SK 73 / 730	6,0 - 30,0	<b>198 801 317</b>	

## Special scale for short version HCl 30 - 33% l/h

Type	Scale range [l/h]	Code	
SK 50 / 500	2,5 - 20	<b>198 806 511</b>	
SK 51 / 510	5 - 40	<b>198 806 512</b>	
SK 52 / 520	10 - 85	<b>198 806 513</b>	
SK 60 / 600	8 - 70	<b>198 806 514</b>	
SK 61 / 610	15 - 125	<b>198 806 515</b>	
SK 62 / 620	20 - 170	<b>198 806 516</b>	
SK 70 / 700	5 - 125	<b>198 806 517</b>	

table continued next page

## Variable area flow meters

Type	Scale range [l/h]	Code
SK 71 / 710	30 - 260	<b>198 806 518</b>
SK 72 / 720	50 - 425	<b>198 806 519</b>
SK 73 / 730	100 - 850	<b>198 806 520</b>

### Special scale for short version NaOH 30% l/h







Type	Scale range [l/h]	Code
SK 50 / 500	0.2 - 5	<b>198 806 521</b>
SK 51 / 510	1 - 14	<b>198 806 522</b>
SK 52 / 520	3 - 35	<b>198 806 523</b>
SK 60 / 600	2 - 23	<b>198 806 524</b>
SK 61 / 610	3 - 55	<b>198 806 525</b>
SK 62 / 620	5 - 80	<b>198 806 526</b>
SK 70 / 700	3 - 55	<b>198 806 527</b>
SK 71 / 710	6 - 130	<b>198 806 528</b>
SK 72 / 720	10 - 250	<b>198 806 529</b>
SK 73 / 730	40 - 590	<b>198 806 530</b>

### Special scale for short version NaOH 50% l/h

Type	Scale range [l/h]	Code
SK 60 / 600	0,2 - 3,5	<b>198 806 531</b>
SK 61 / 610	0,5 - 10	<b>198 806 532</b>
SK 62 / 620	0,5 - 16	<b>198 806 533</b>
SK 70 / 700	0,5 - 11	<b>198 806 534</b>
SK 71 / 710	1 - 33	<b>198 806 535</b>
SK 72 / 720	2 - 80	<b>198 806 536</b>
SK 73 / 730	10 - 220	<b>198 806 537</b>



# Overall products

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 <small>DN10/15 - 50</small>	621
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# Overall products

## Electrical feedback module (I33)

### With limit switches Ag Ni or AU



**Model:**

- Accessory to hand operated diaphragm valve 514 - 519
- No height increase
- Easy, fast and safe installation
- Self adjusting mechanism
- Including Plug 3P+E / Protection: IP65

d-d [mm]	DN-DN [mm]	Size	Ag Ni Code	AU Code	
10 - 25	10 - 20	1	<b>198 151 335</b>	<b>198 151 336</b>	
32 - 40	25 - 32	2	<b>198 151 337</b>	<b>198 151 338</b>	
50 - 63	40 - 50	3	<b>198 151 339</b>	<b>198 151 340</b>	

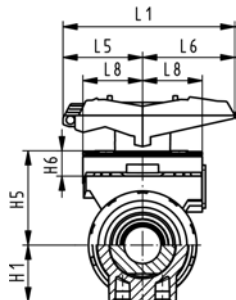
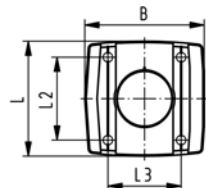
# Overall products

## Multifunctional modules

### Multifunctional module (I02) PP-GF Module empty



DN10/15 - 50

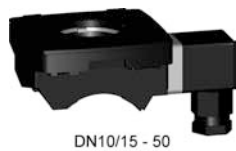


#### Model:

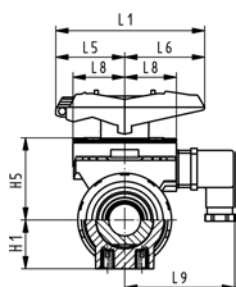
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module from d75 - d110 has a master gauge F07 according to EN ISO 5211.

d-d [mm]	Inch [inch]	DN-DN [mm]	Code
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 680</b>
25 - 32	3/4 - 1	20 - 25	<b>167 482 681</b>
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 682</b>
- 63	2	- 50	<b>167 482 683</b>
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 684</b>
- 110	4	- 100	<b>167 482 685</b>

d-d [mm]	B [mm]	H1 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L5 [mm]	L6 [mm]	L8 [mm]
16 - 20	67	27	50	17	72	87	54	40	42	45	34
25 - 32	75	30	53	16	72	108	52	46	50	58	38
40 - 50	81	44	72	16	80	140	60	50	66	75	41
- 63	91	64	94	19	93	165	68	65	78	87	46
75 - 90	90	85	157	23	85	270			64	206	
- 110	106	123	175	23	97	320			64	256	



DN10/15 - 50



### Multifunctional module (I03) PP-GF With mechanical limit switches Ag Ni

#### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

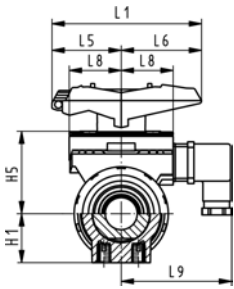
d-d [mm]	Inch [inch]	DN-DN [mm]	Code	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 626</b>	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 627</b>	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 628</b>	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 629</b>	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 630</b>	85	157	270	64	206		
- 110	4	- 100	<b>167 482 631</b>	123	175	320	64	256		

# Overall products

## Multifunctional module (I04) PP-GF With mechanical limit switches Au



DN10/15 - 50



### Model:

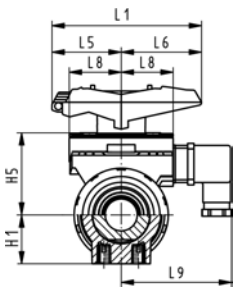
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 635</b>	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 636</b>	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 637</b>	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 638</b>	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 639</b>	85	157	270	64	206		
- 110	4	- 100	<b>167 482 640</b>	123	175	320	64	256		

## Multifunctional module (I05) PP-GF With inductive limit switches Namur



DN10/15 - 50



### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 671</b>	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 672</b>	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 673</b>	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 674</b>	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 675</b>	85	157	270	64	206		
- 110	4	- 100	<b>167 482 676</b>	123	175	320	64	256		



# Overall products

## Multifunctional module (I06) PP-GF With inductive limit switches PNP

### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100



d-d [mm]	Inch [inch]	DN-DN [mm]	Code	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 662</b>	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 663</b>	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 664</b>	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 665</b>	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 666</b>	85	157	270	64	206		
- 110	4	- 100	<b>167 482 667</b>	123	175	320	64	256		

## Multifunctional module (I07) PP-GF With inductive limit switches NPN

### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100



d-d [mm]	Inch [inch]	DN-DN [mm]	Code	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 653</b>	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 654</b>	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 655</b>	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 656</b>	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 657</b>	85	157	270	64	206		
- 110	4	- 100	<b>167 482 658</b>	123	175	320	64	256		

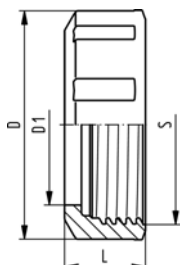
# Overall products

## Union nuts

### PROGEF Standard Union nut 546 and 543

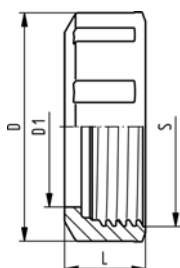
Model:

- Material: PP-H



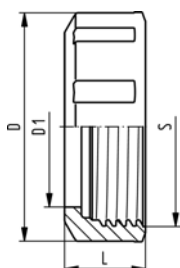
d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>167 482 712</b>	50	34	19	42
25	20	<b>167 482 713</b>	58	39	20	48
32	25	<b>167 482 714</b>	68	47	24	58
40	32	<b>167 482 715</b>	84	57	27	71
50	40	<b>167 482 716</b>	97	65	30	84
63	50	<b>167 482 717</b>	124	79	36	106
75	65	<b>167 482 718</b>	166	94	48	135
90	80	<b>167 482 719</b>	200	113	54	135
110	100	<b>167 482 720</b>	238	137	60	198

### Union nut 546 and 543 PVC-U



d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>161 490 538</b>	50	34	19	42
25	20	<b>161 490 539</b>	58	39	20	48
32	25	<b>161 490 540</b>	68	47	24	58
40	32	<b>161 490 541</b>	84	57	27	71
50	40	<b>161 490 542</b>	97	65	30	84
63	50	<b>161 490 543</b>	124	79	36	106
75	65	<b>161 490 544</b>	166	94	48	135
90	80	<b>161 490 545</b>	200	113	54	135
110	100	<b>161 490 546</b>	238	137	60	198

### Union nut 546 and 543 ABS



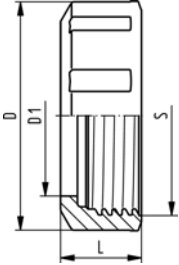
d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>169 480 713</b>	50	34	19	42
25	20	<b>169 480 714</b>	58	39	20	48
32	25	<b>169 480 715</b>	68	47	24	58
40	32	<b>169 480 716</b>	84	57	27	71
50	40	<b>169 480 717</b>	97	65	30	84
63	50	<b>169 480 718</b>	124	79	36	106
75	65	<b>169 480 719</b>	166	94	48	135
90	80	<b>169 480 720</b>	200	113	54	135
110	100	<b>169 480 721</b>	238	137	60	198

# Overall products

## SYGEF Standard Union nut 546 and 543

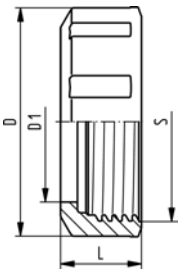
Model:

- Material: PVDF



d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>175 482 937</b>	50	34	19	42
25	20	<b>175 482 938</b>	58	39	20	48
32	25	<b>175 482 939</b>	68	47	24	58
40	32	<b>175 482 940</b>	84	57	27	71
50	40	<b>175 482 941</b>	94	65	30	84
63	50	<b>175 482 942</b>	120	79	36	106

## Union nut 546 and 543 PVC-C

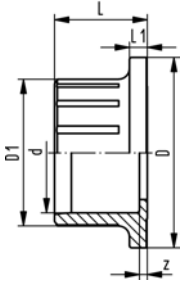


d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>163 481 226</b>	50	34	19	42
25	20	<b>163 481 227</b>	58	39	20	48
32	25	<b>163 481 228</b>	68	47	24	58
40	32	<b>163 481 229</b>	84	57	27	71
50	40	<b>163 481 230</b>	97	65	30	84
63	50	<b>163 481 231</b>	124	79	36	106
75	65	<b>163 481 232</b>	166	94	48	135
90	80	<b>163 481 233</b>	200	113	54	135
110	100	<b>163 481 234</b>	238	137	60	198

## Overall products

### Valve ends ball valve type 546 and 543

#### Valve end 546 and 543 PVC-U (G01) With solvent cement socket metric

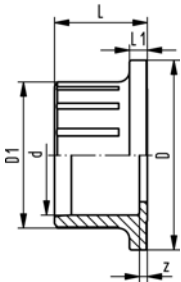


d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>161 490 666</b>	38	23	18	4	4
20	16	<b>161 490 667</b>	38	27	20	4	4
25	16	<b>161 490 668</b>	44	33	23	5	4
32	16	<b>161 490 669</b>	53	41	26	5	4
40	16	<b>161 490 670</b>	65	51	31	5	5
50	16	<b>161 490 671</b>	77	62	34	6	3
63	16	<b>161 490 672</b>	99	77	41	7	3
75	16	<b>161 490 673</b>	125	92	49	9	4
90	16	<b>161 490 674</b>	150	110	57	10	5
110	16	<b>161 490 675</b>	180	134	69	11	5

#### Valve end 546 PVC-U With solvent cement socket metric

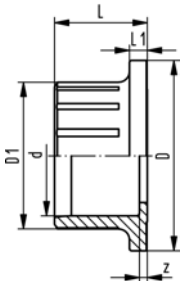
##### Model:

- Valve end 546 PVC-U to retrofit the ball valve 546 according the same z-dimension as for type 370 with nuts



d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
75	16	<b>161 490 673</b>	125	92	49	9	4
90	16	<b>161 491 084</b>	150	110	64	10	12
110	16	<b>161 491 085</b>	180	134	80	11	16

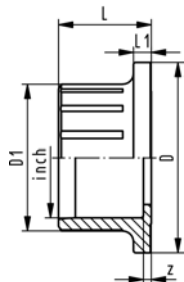
#### Valve end 546 PVC-U (G02) With solvent cement socket JIS



Inch	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
½	16	<b>161 490 745</b>	38	27	20	4	4
¾	16	<b>161 490 746</b>	44	33	23	5	4
1	16	<b>161 490 747</b>	53	41	26	5	4
1 ¼	16	<b>161 490 748</b>	65	51	31	5	5
1 ½	16	<b>161 490 749</b>	77	62	34	6	3
2	16	<b>161 490 750</b>	99	77	41	7	3
2 ½	16	<b>161 490 751</b>	125	92	49	9	4
3	16	<b>161 490 752</b>	150	110	57	10	5
4	16	<b>161 490 753</b>	180	134	69	11	5

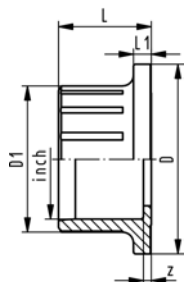
## Overall products

### Valve end 546 and 543 PVC-U (G03) With solvent cement socket Inch ASTM



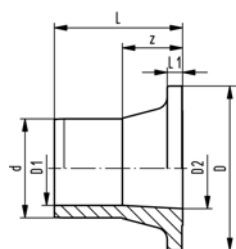
Inch	d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	16	161 490 712	38	24	25	4	6
1/2	20	16	161 490 713	38	30	25	4	2
3/4	25	16	161 490 714	44	35	28	5	3
1	32	16	161 490 715	53	43	31	5	3
1 1/4	40	16	161 490 716	65	53	34	5	3
1 1/2	50	16	161 490 717	77	60	38	6	3
2	63	16	161 490 718	99	73	41	7	3
2 1/2	75	16	161 490 719	125	92	49	9	4
3	90	16	161 490 720	150	110	57	10	9
4	110	16	161 490 721	180	134	69	11	11

### Valve end 546 and 543 PVC-U (G04) With solvent cement socket Inch BS



Inch	d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	16	161 490 734	38	23	18	4	2
1/2	20	16	161 490 735	38	27	20	4	2
3/4	25	16	161 490 736	44	33	23	5	2
1	32	16	161 490 737	53	41	26	5	2
1 1/4	40	16	161 490 738	65	51	31	5	2
1 1/2	50	16	161 490 739	77	62	34	6	4
2	63	16	161 490 740	99	77	41	7	5
	75	16	161 490 673	125	92	49	9	4
3	90	16	161 490 742	150	110	57	10	6
4	110	16	161 490 743	180	134	69	11	5

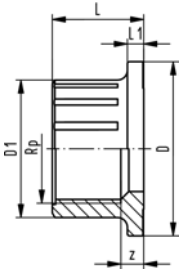
### Valve end 546 and 543 PVC-U (G05) With solvent cement spigot metric



d [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	161 490 701	38	10	16	29	4	15
20	16	161 490 702	38	14	16	34	4	18
25	16	161 490 703	44	19	20	39	5	20
32	16	161 490 704	53	24	26	42	5	20
40	16	161 490 705	65	31	33	45	5	19
50	16	161 490 706	77	39	41	53	6	22
63	16	161 490 707	99	49	51	62	7	24
75	16	161 490 708	125	58	65	74	9	30
90	16	161 490 709	150	70	90	80	10	28
110	16	161 490 710	180	86	100	88	11	27

# Overall products

## Valve end 546 and 543 PVC-U (G06) With threaded socket Rp

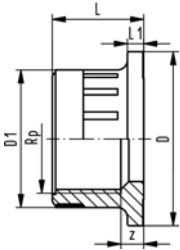


### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>161 490 690</b>	38	24	20	4	7
1/2	10	<b>161 490 691</b>	38	28	22	4	6
3/4	10	<b>161 490 692</b>	44	34	25	5	7
1	10	<b>161 490 693</b>	53	42	28	5	7
1 1/4	10	<b>161 490 694</b>	65	52	30	5	7
1 1/2	10	<b>161 490 695</b>	77	63	32	6	9
2	10	<b>161 490 696</b>	99	78	38	7	10
2 1/2	10	<b>161 490 697</b>	125	58	49	9	18
3	10	<b>161 490 698</b>	150	110	57	10	23
4	10	<b>161 490 699</b>	180	134	69	11	29

## Valve end 546 and 543 PVC-U (G07) With threaded socket Rp reinforced

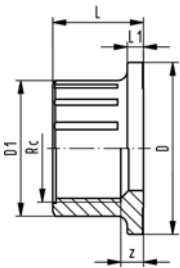


### Model:

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PVC-U

Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>161 490 825</b>	38	24	20	4	7
1/2	16	<b>161 490 826</b>	38	28	22	4	6
3/4	16	<b>161 490 827</b>	44	34	25	5	7
1	16	<b>161 490 828</b>	53	42	28	5	7
1 1/4	16	<b>161 490 829</b>	65	52	30	5	7
1 1/2	16	<b>161 490 830</b>	77	63	32	6	9
2	16	<b>161 490 831</b>	99	78	38	7	10

## Valve end 546 and 543 PVC-U (G08) With threaded socket Rc



### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

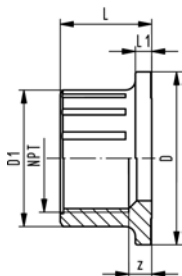
Rc [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
1/2	10	<b>161 490 755</b>	38	28	22	4	5
3/4	10	<b>161 490 756</b>	44	34	25	5	7
1	10	<b>161 490 757</b>	53	42	28	5	7
1 1/4	10	<b>161 490 758</b>	65	52	30	5	6
1 1/2	10	<b>161 490 759</b>	77	63	32	6	8
2	10	<b>161 490 760</b>	99	78	38	7	9
2 1/2	10	<b>161 490 761</b>	125	58	49	9	18
3	10	<b>161 490 762</b>	150	110	57	10	23
4	10	<b>161 490 763</b>	180	134	69	11	29

## Overall products

### Valve end 546 and 543 PVC-U (G09) With threaded socket NPT

#### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

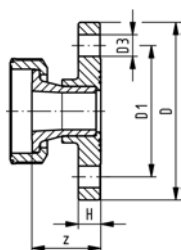


NPT [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>161 490 723</b>	38	26	21	4	7
1/2	10	<b>161 490 724</b>	38	33	21	4	4
3/4	10	<b>161 490 725</b>	44	39	23	5	5
1	10	<b>161 490 726</b>	53	47	28	5	6
1 1/4	10	<b>161 490 727</b>	65	57	31	5	7
1 1/2	10	<b>161 490 728</b>	77	65	34	6	11
2	10	<b>161 490 729</b>	99	77	41	7	17
2 1/2	10	<b>161 490 730</b>	125	58	49	9	15
3	10	<b>161 490 731</b>	150	110	57	10	21
4	10	<b>161 490 732</b>	180	134	69	11	31

### Valve end 546 PVC-U (G60) Assembly with fixed flange PVC-U metric

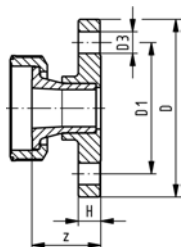
#### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- Combined jointing face: flat and serrated



d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	<b>161 486 360</b>	95	65	14	12	37
25	20	16	<b>161 486 361</b>	105	75	14	13	42
32	25	16	<b>161 486 362</b>	115	85	14	15	45
40	32	16	<b>161 486 363</b>	140	100	18	17	48
50	40	16	<b>161 486 364</b>	150	110	18	18	56
63	50	16	<b>161 486 365</b>	165	125	18	20	65

### Valve end 546 PVC-U (G62) Assembly with fixed flange flat PVC-U Inch JIS



Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
1/2	15	16	<b>161 486 350</b>	95	60	14	11	37.0
3/4	20	16	<b>161 486 351</b>	105	70	14	12	42.0
1	25	16	<b>161 486 352</b>	115	79	14	14	45.0
1 1/4	32	16	<b>161 486 353</b>	140	89	18	15	48.0
1 1/2	40	16	<b>161 486 354</b>	140	105	18	18	61.5
2	50	16	<b>161 486 355</b>	165	121	18	18	65.0

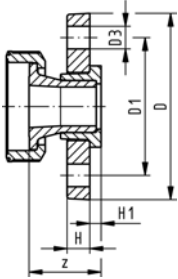
# Overall products

## Valve end 546 PVC-U (G70)

### Assembly with backing flange PVC-U metric

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



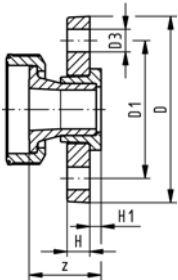
d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	<b>161 486 265</b>	95	65	14	11	6	37
25	20	16	<b>161 486 266</b>	105	75	14	12	7	42
32	25	16	<b>161 486 267</b>	115	85	14	14	7	45
40	32	16	<b>161 486 268</b>	140	100	18	15	8	48
50	40	16	<b>161 486 269</b>	150	110	18	16	8	56
63	50	16	<b>161 486 270</b>	165	125	18	18	9	65
75	65	10	<b>161 486 271</b>	185	145	18	19	10	77
90	80	10	<b>161 486 272</b>	200	160	18	20	11	85
110	100	10	<b>161 486 273</b>	220	180	18	22	12	93

## Valve end 546 PVC-U (G71)

### Assembly with backing flange PVC-U Inch ANSI

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)



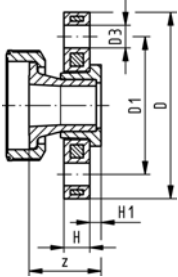
Inch	d [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	20	16	<b>161 486 275</b>	95	60	14	11	6	37
¾	25	16	<b>161 486 276</b>	105	70	14	12	7	42
1	32	16	<b>161 486 277</b>	115	79	14	14	7	45
1 ¼	40	16	<b>161 486 278</b>	140	89	18	15	8	48
1 ½	50	16	<b>161 486 279</b>	150	98	18	16	8	56
2	63	16	<b>161 486 280</b>	165	121	18	18	9	65
2 ½	75	10	<b>161 486 281</b>	185	140	19	19	10	77
3	90	10	<b>161 486 282</b>	200	152	19	20	11	85
4	110	10	<b>161 486 283</b>	220	190	19	22	12	93

## Valve end 546 PVC-U (G72)

### Assembly with backing flange PP-st metric

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	<b>161 486 285</b>	95	65	14	12	6	37
25	20	16	<b>161 486 286</b>	105	75	14	12	7	42
32	25	16	<b>161 486 287</b>	115	85	14	16	7	45
40	32	16	<b>161 486 288</b>	140	100	18	16	8	48
50	40	16	<b>161 486 289</b>	150	110	18	18	8	56
63	50	16	<b>161 486 290</b>	165	125	18	18	9	65
75	65	16	<b>161 486 291</b>	185	145	18	18	10	77
90	80	16	<b>161 486 292</b>	200	160	18	20	11	85
110	100	16	<b>161 486 293</b>	220	180	18	20	12	93

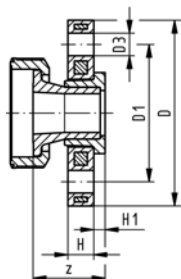


## Overall products

### Valve end 546 PVC-U (G73) Assembly with backing flange PP-st inch

**Model:**

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)

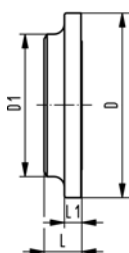


Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	15	16	<b>161 486 425</b>	95	60	16	12	6	37
¾	20	16	<b>161 486 426</b>	105	70	16	12	7	42
1	25	16	<b>161 486 427</b>	115	79	16	16	7	45
1 ¼	32	16	<b>161 486 428</b>	140	89	16	16	8	48
1 ½	40	16	<b>161 486 429</b>	150	98	16	18	8	56
2	50	16	<b>161 486 430</b>	165	121	19	18	9	65
2 ½	65	16	<b>161 486 431</b>	185	140	19	18	10	77
3	80	16	<b>161 486 432</b>	200	152	19	20	11	85
4	100	16	<b>161 486 433</b>	229	190	19	20	12	93

### Valve end blank 546 and 543 PVC-U (G80)

**Model:**

- Flat sealing faces

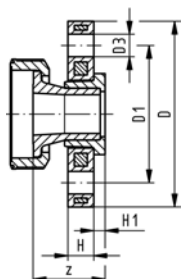


d [mm]	DN [mm]	Inch	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]
20	15	½	16	<b>161 490 837</b>	38	23	8	4
25	20	¾	16	<b>161 490 838</b>	44	33	10	5
32	25	1	16	<b>161 490 839</b>	53	41	11	5
40	32	1 ¼	16	<b>161 490 840</b>	65	51	11	5
50	40	1 ½	16	<b>161 490 841</b>	77	62	14	6
63	50	2	16	<b>161 490 842</b>	99	77	17	7

### Valve end 546 PVC-U (G78) Assembly with backing flange PVC-U JIS

**Model:**

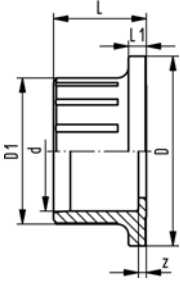
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K



Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
2 ½	65	10	<b>161 486 201</b>	185	140	19	21	1.5	63
3	80	10	<b>161 486 202</b>	185	150	19	31	1.0	82
4	100	10	<b>161 486 203</b>	210	175	19	34	1.0	105

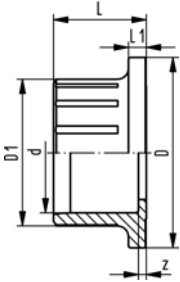
# Overall products

## Valve end 546 and 543 PVC-C (G11) With solvent cement socket metric



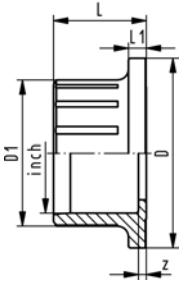
d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>163 481 275</b>	38	23	18	4	4
20	16	<b>163 481 276</b>	38	27	20	4	4
25	16	<b>163 481 277</b>	44	33	23	5	4
32	16	<b>163 481 278</b>	53	41	26	5	4
40	16	<b>163 481 279</b>	65	51	31	5	5
50	16	<b>163 481 280</b>	77	62	34	6	3
63	16	<b>163 481 281</b>	99	77	41	7	3
75	16	<b>163 481 282</b>	125	92	49	9	4
90	16	<b>163 481 283</b>	150	110	57	10	5
110	16	<b>163 481 284</b>	180	134	69	11	5

## Valve end 546 PVC-C (G12) With solvent cement socket JIS



Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
½	15	16	<b>163 481 333</b>	38	27	16	20	4	4
¾	20	16	<b>163 481 334</b>	44	33	20	23	4	4
1	25	16	<b>163 481 335</b>	53	41	26	26	5	4
1 ¼	32	16	<b>163 481 336</b>	65	51	33	30	4	4
1 ½	40	16	<b>163 481 337</b>	77	62	41	34	6	3
2	50	16	<b>163 481 338</b>	99	77	51	41	6	3
2 ½	65	16	<b>163 481 339</b>	125	92	65	49	9	4
3	80	16	<b>163 481 340</b>	150	110	82	57	10	5
4	100	16	<b>163 481 341</b>	180	134	100	69	11	5

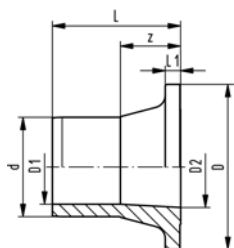
## Valve end 546 and 543 PVC-C (G13) With solvent cement socket Inch ASTM



Inch	d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
¾	16	16	<b>163 481 311</b>	38	24	25	4	6
½	20	16	<b>163 481 312</b>	38	30	25	4	2
¾	25	16	<b>163 481 313</b>	44	35	28	5	3
1	32	16	<b>163 481 314</b>	53	43	31	5	3
1 ¼	40	16	<b>163 481 315</b>	65	53	34	5	3
1 ½	50	16	<b>163 481 316</b>	77	60	38	6	3
2	63	16	<b>163 481 317</b>	99	73	41	7	3
2 ½	75	16	<b>163 481 318</b>	125	92	49	9	4
3	90	16	<b>163 481 319</b>	150	110	57	10	8
4	110	16	<b>163 481 320</b>	180	134	69	11	11

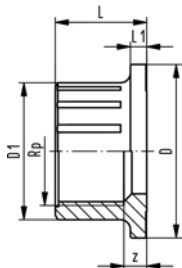
## Overall products

### Valve end 546 and 543 PVC-C (G14) With solvent cement spigot metric



d [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>163 481 300</b>	38	10	16	29	4	15
20	16	<b>163 481 301</b>	38	14	16	34	4	18
25	16	<b>163 481 302</b>	44	19	20	39	5	20
32	16	<b>163 481 303</b>	53	24	26	42	5	20
40	16	<b>163 481 304</b>	65	31	33	45	5	19
50	16	<b>163 481 305</b>	77	39	41	53	6	22
63	16	<b>163 481 306</b>	99	49	51	62	7	24
75	16	<b>163 481 307</b>	125	58	65	74	9	30
90	16	<b>163 481 308</b>	150	70	90	80	10	28
110	16	<b>163 481 309</b>	180	86	100	88	11	27

### Valve end 546 and 543 PVC-C (G15) With threaded socket Rp

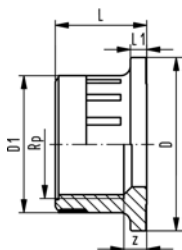


#### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-C

Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>163 481 286</b>	38	24	20	4	7
1/2	10	<b>163 481 287</b>	38	28	22	4	6
3/4	10	<b>163 481 288</b>	44	34	25	5	7
1	10	<b>163 481 289</b>	53	42	28	5	7
1 1/4	10	<b>163 481 290</b>	65	52	30	5	7
1 1/2	10	<b>163 481 291</b>	77	63	32	6	9
2	10	<b>163 481 292</b>	99	78	38	7	10
2 1/2	10	<b>163 481 293</b>	125	58	49	9	19
3	10	<b>163 481 294</b>	150	110	57	10	23
4	10	<b>163 481 295</b>	180	134	69	11	29

### Valve end 546 and 543 PVC-C (G16) With threaded socket Rp reinforced



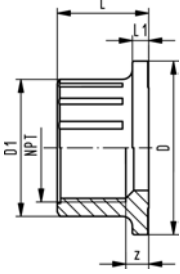
#### Model:

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PVC-C

Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>163 481 400</b>	38	24	20	4	7
1/2	16	<b>163 481 401</b>	38	28	22	4	6
3/4	16	<b>163 481 402</b>	44	34	25	5	7
1	16	<b>163 481 403</b>	53	42	28	5	7
1 1/4	16	<b>163 481 404</b>	65	52	30	5	7
1 1/2	16	<b>163 481 405</b>	77	63	32	6	9
2	16	<b>163 481 406</b>	99	78	38	7	10

# Overall products

## Valve end 546 and 543 PVC-C (G17) With threaded socket NPT

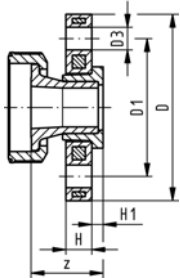


**Model:**

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-C

NPT [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/4	10	<b>163 481 322</b>	38	26	21	4	7
1/2	10	<b>163 481 323</b>	38	33	21	4	4
3/4	10	<b>163 481 324</b>	44	39	23	5	5
1	10	<b>163 481 325</b>	53	47	28	5	6
1 1/4	10	<b>163 481 326</b>	65	57	31	5	7
1 1/2	10	<b>163 481 327</b>	77	65	34	6	11
2	10	<b>163 481 328</b>	99	77	41	7	17
2 1/2	10	<b>163 481 329</b>	125	58	49	9	15
3	10	<b>163 481 330</b>	150	110	57	10	21
4	10	<b>163 481 331</b>	180	134	69	11	31

## Valve end 546 PVC-C (G72) Assembly with backing flange PP-St metric

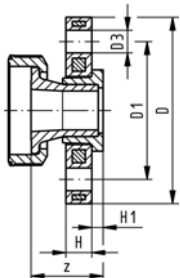


**Model:**

- Joint made with special adhesive Tangit for PVC-C
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	<b>163 481 412</b>	95	65	14	12	6	37
25	20	16	<b>163 481 413</b>	105	75	14	12	7	42
32	25	16	<b>163 481 414</b>	115	85	14	16	7	45
40	32	16	<b>163 481 415</b>	140	100	18	16	8	48
50	40	16	<b>163 481 416</b>	150	110	18	18	8	56
63	50	16	<b>163 481 417</b>	165	125	18	18	9	65
75	65	16	<b>163 481 418</b>	185	145	18	18	10	77
90	80	16	<b>163 481 419</b>	200	160	18	20	11	85
110	100	16	<b>163 481 420</b>	220	180	18	20	12	93

## Valve end 546 PVC-C (G73) Assembly with backing flange PP-St Inch ANSI



**Model:**

- Joint made with special adhesive Tangit for PVC-C
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)

Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
1/2	15	16	<b>163 481 425</b>	95	60	16	12	6	37
3/4	20	16	<b>163 481 426</b>	105	70	16	12	7	42
1	25	16	<b>163 481 427</b>	115	79	16	16	7	45
1 1/4	32	16	<b>163 481 428</b>	140	89	16	16	8	47
1 1/2	40	16	<b>163 481 429</b>	150	98	16	18	8	56
2	50	16	<b>163 481 430</b>	165	121	19	18	9	65
2 1/2	65	16	<b>163 481 431</b>	185	140	19	18	10	77
3	80	16	<b>163 481 432</b>	200	152	19	20	11	85
4	100	16	<b>163 481 433</b>	229	190	19	20	12	93

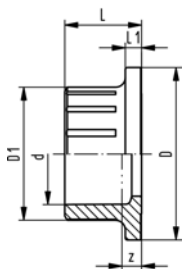
## Overall products

### PROGEF Standard Valve end 546 and 543 (G30) With fusion socket metric



Model:

- Material: PP-H



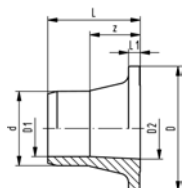
d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	10	<b>167 482 900</b>	38	23	19	4	5
20	10	<b>167 482 901</b>	38	27	20	4	5
25	10	<b>167 482 902</b>	44	33	22	5	6
32	10	<b>167 482 903</b>	53	41	24	5	6
40	10	<b>167 482 904</b>	65	51	26	5	7
50	10	<b>167 482 905</b>	77	62	29	6	8
63	10	<b>167 482 906</b>	99	77	34	7	6
75	10	<b>167 482 907</b>	125	92	49	9	20
90	10	<b>167 482 908</b>	150	110	57	10	24
110	10	<b>167 482 909</b>	180	134	69	11	30

### PROGEF Standard Valve end 546 and 543 (G32) With socket fusion spigot metric



Model:

- Material: PP-H



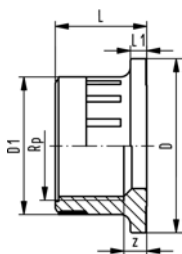
d [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	10	<b>167 482 922</b>	38	10	16	27	4	13	14
20	10	<b>167 482 923</b>	38	14	16	32	4	14	18
25	10	<b>167 482 924</b>	44	19	20	37	5	16	21
32	10	<b>167 482 925</b>	53	24	26	40	5	18	22
40	10	<b>167 482 926</b>	65	31	33	43	5	20	23
50	10	<b>167 482 927</b>	77	39	41	51	6	23	28
63	10	<b>167 482 928</b>	99	49	51	60	7	27	33
75	10	<b>167 482 929</b>	125	58	65	72	9	48	24
90	10	<b>167 482 930</b>	150	70	90	78	10	48	29
110	10	<b>167 482 931</b>	180	86	100	86	11	54	32

### PROGEF Standard Valve end 546 and 543 (G33) With threaded socket Rp reinforced



Model:

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>167 482 911</b>	38	24	20	4	7
1/2	16	<b>167 482 912</b>	38	28	21	4	6
3/4	16	<b>167 482 913</b>	44	34	23	5	7
1	16	<b>167 482 914</b>	53	42	28	5	7
1 1/4	16	<b>167 482 915</b>	65	52	31	5	7
1 1/2	16	<b>167 482 916</b>	77	63	34	6	9
2	16	<b>167 482 917</b>	99	78	41	7	10

## Overall products

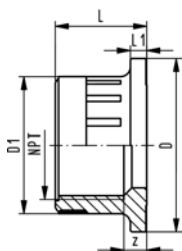
### PROGEF Standard

#### Valve end 546 and 543 (G34)

#### With threaded socket NPT reinforced

##### Model:

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



NPT [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>167 482 966</b>	38	26	20	4	7
1/2	16	<b>167 482 967</b>	38	33	21	4	4
3/4	16	<b>167 482 968</b>	44	39	23	5	5
1	16	<b>167 482 969</b>	53	47	28	5	6
1 1/4	16	<b>167 482 970</b>	65	57	31	5	7
1 1/2	16	<b>167 482 971</b>	77	65	34	6	11
2	16	<b>167 482 972</b>	99	77	41	7	17

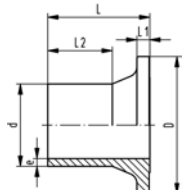
### PROGEF Standard

#### Valve end 546 and 543 (G35)

#### With butt fusion spigot IR-Plus® SDR11 metric

##### Model:

- Material: PP-H



d [mm]	FM	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	10	<b>167 482 945</b>	38	1,9	37	4	25
25	IR	10	<b>167 482 946</b>	44	2,3	39	5	25
32	IR	10	<b>167 482 947</b>	53	2,9	40	5	25
40	IR	10	<b>167 482 948</b>	65	3,7	43	5	25
50	IR	10	<b>167 482 949</b>	77	4,6	51	6	25
63	IR	10	<b>167 482 950</b>	99	5,8	60	7	28
75	IR	10	<b>167 482 951</b>	125	6,8	65	9	41
90	IR	10	<b>167 482 952</b>	150	8,2	62	10	33
110	IR	10	<b>167 482 953</b>	180	10,0	69	11	37

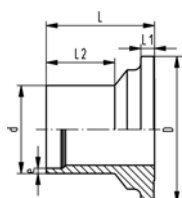
### PROGEF Standard

#### Valve end 546 and 543 (G36)

#### With butt fusion spigot IR-Plus® SDR17,6 metric

##### Model:

- Material: PP-H



d [mm]	FM	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	IR	6	<b>167 482 937</b>	65	2,3	43	5	25
50	IR	6	<b>167 482 938</b>	77	2,9	51	6	25
63	IR	6	<b>167 482 939</b>	99	3,6	60	7	28
75	IR	6	<b>167 482 940</b>	125	4,3	65	9	41
90	IR	6	<b>167 482 941</b>	150	5,1	62	10	33
110	IR	6	<b>167 482 942</b>	180	6,3	69	11	37

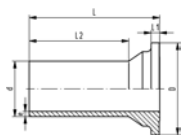
## Overall products



### PROGEF Standard Valve end 546 and 543 (G37) With butt fusion spigot long SDR11 metric

Model:

- Material: PP-H



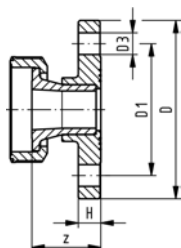
d [mm]	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	10	<b>167 482 956</b>	38	2,3	69	4	53
25	10	<b>167 482 957</b>	44	2,3	76	5	58
32	10	<b>167 482 958</b>	53	2,9	76	5	58
40	10	<b>167 482 959</b>	65	3,7	82	5	61
50	10	<b>167 482 960</b>	77	4,6	91	6	63
63	10	<b>167 482 961</b>	99	5,8	110	7	77



### PROGEF Standard Valve end 546 (G63) With fixed flange PP-H metric

Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated



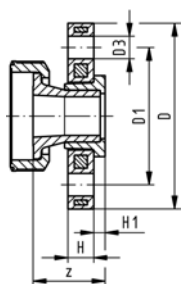
d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	10	<b>167 484 160</b>	94	65	14	12	37
25	20	10	<b>167 484 161</b>	103	75	14	13	42
32	25	10	<b>167 484 162</b>	115	85	14	14	45
40	32	10	<b>167 484 163</b>	138	100	18	15	48
50	40	10	<b>167 484 164</b>	148	110	18	16	56
63	50	10	<b>167 484 165</b>	163	125	18	18	65



### PROGEF Standard Valve end 546 (G72) Assembly with backing flange PP-St metric

Model:

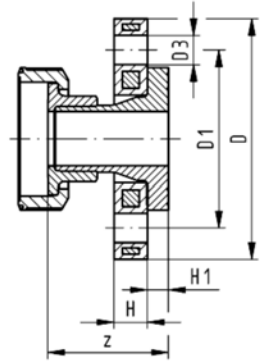
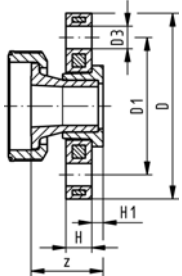
- Material: PP-H
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
75	65	10	<b>167 484 418</b>	185	145	18	18	16	77
90	80	10	<b>167 484 419</b>	200	160	18	20	17	85
110	100	10	<b>167 484 420</b>	220	180	18	20	18	93

# Overall products

## PROGEF Standard Valve end 546 (G73) With backing flange PP-St inch ANSI

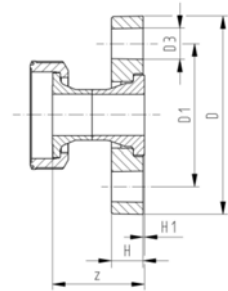
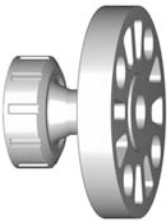


**Model:**

- Material: PP-H
- DN15-50 overall length **NOT** according to EN 558
- DN 65-100 overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	15	10	<b>167 484 065</b>	95	60	16	12	7	54
¾	20	10	<b>167 484 066</b>	105	70	16	12	9	55
1	25	10	<b>167 484 067</b>	115	79	16	16	10	58
1 ¼	32	10	<b>167 484 068</b>	140	89	16	16	11	60
1 ½	40	10	<b>167 484 069</b>	150	98	19	18	12	66
2	50	10	<b>167 484 070</b>	165	121	19	18	14	68
2 ½	65	10	<b>167 484 071</b>	185	140	19	18	16	77
3	80	10	<b>167 484 072</b>	200	152	19	20	17	85
4	100	10	<b>167 484 073</b>	229	190	19	20	18	93

## PROGEF Standard Valve end 546 (G77) Assembly with backing flange PP JIS



**Model:**

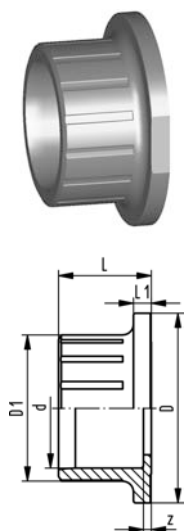
- Material: PP-H
- Overall length according to EN 558
- Connecting dimensions: JIS B 2220, 10K

Inch	DN [mm]	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	15	<b>167 484 019</b>	95	70	15	16	1	44
¾	20	<b>167 484 020</b>	100	75	15	18	1	53
1	25	<b>167 484 021</b>	125	90	19	20	1	58
1 ¼	32	<b>167 484 022</b>	135	100	19	21	1	53
1 ½	40	<b>167 484 023</b>	140	105	19	21	1	62
2	50	<b>167 484 024</b>	155	120	19	21	1	67
2 ½	65	<b>167 484 481</b>	175	140	19	29	1	77
3	80	<b>167 484 482</b>	185	150	19	30	1	85
4	100	<b>167 484 483</b>	210	175	19	34	1	93



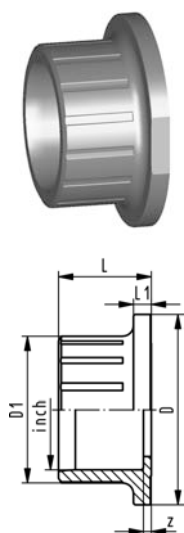
## Overall products

### Valve end 546 and 543 ABS (G20) With solvent cement socket metric



d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	10	<b>169 480 775</b>	38	23	18	4	4
20	10	<b>169 480 776</b>	38	27	20	4	4
25	10	<b>169 480 777</b>	44	33	22	5	4
32	10	<b>169 480 778</b>	53	41	26	5	4
40	10	<b>169 480 779</b>	65	51	31	5	5
50	10	<b>169 480 780</b>	77	62	34	6	3
63	10	<b>169 480 781</b>	99	77	41	7	3
75	10	<b>169 480 782</b>	125	92	49	9	4
90	10	<b>169 480 783</b>	150	110	57	10	5
110	10	<b>169 480 784</b>	180	134	69	11	5

### Valve end 546 and 543 ABS (G21) With solvent cement socket Inch BS

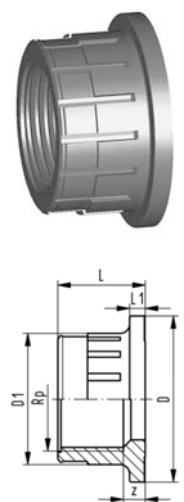


Inch	d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	10	<b>169 480 800</b>	38	23	18	4	2
1/2	20	10	<b>169 480 801</b>	38	27	20	4	2
3/4	25	10	<b>169 480 802</b>	44	33	23	5	2
1	32	10	<b>169 480 803</b>	53	41	26	5	2
1 1/4	40	10	<b>169 480 804</b>	65	51	31	5	2
1 1/2	50	10	<b>169 480 805</b>	77	62	34	6	4
2	63	10	<b>169 480 806</b>	99	77	41	7	5
	75	10	<b>169 480 782</b>	125	92	49	9	4
3	90	10	<b>169 480 808</b>	150	110	57	10	6
4	110	10	<b>169 480 809</b>	180	134	69	11	5

### Valve end 546 and 543 ABS (G22) With threaded socket Rp

#### Model:

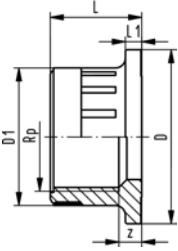
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to ABS



Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>169 480 786</b>	38	24	20	4	7
1/2	10	<b>169 480 787</b>	38	28	22	4	6
3/4	10	<b>169 480 788</b>	44	34	25	5	7
1	10	<b>169 480 789</b>	53	42	28	5	7
1 1/4	10	<b>169 480 790</b>	65	52	30	5	7
1 1/2	10	<b>169 480 791</b>	77	63	32	6	9
2	10	<b>169 480 792</b>	99	78	38	7	10

## Overall products

### Valve end 546 and 543 ABS (G23) With threaded socket Rp reinforced

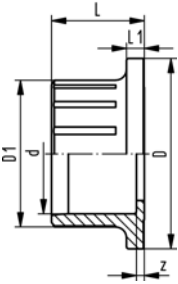


#### Model:

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to ABS

Rp [inch]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>169 480 925</b>	38	24	20	4	7
1/2	16	<b>169 480 926</b>	38	28	22	4	6
3/4	16	<b>169 480 927</b>	44	34	25	5	7
1	16	<b>169 480 928</b>	53	42	28	5	7
1 1/4	16	<b>169 480 929</b>	65	52	30	5	7
1 1/2	16	<b>169 480 930</b>	77	63	32	6	9
2	16	<b>169 480 931</b>	99	78	38	7	10

### SYGEF Standard Valve end 546 and 543 (G50) With fusion socket metric

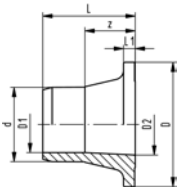


#### Model:

- Material: PVDF

d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>175 483 025</b>	38	23	19	4	5
20	16	<b>175 483 026</b>	38	27	20	4	5
25	16	<b>175 483 027</b>	44	33	22	5	6
32	16	<b>175 483 028</b>	53	41	24	5	6
40	16	<b>175 483 029</b>	65	51	26	5	7
50	16	<b>175 483 030</b>	77	62	29	6	8
63	16	<b>175 483 031</b>	99	77	34	7	8

### SYGEF Standard Valve end 546 and 543 (G51) With socket fusion pigot metric



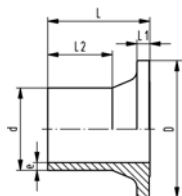
#### Model:

- Material: PVDF

d [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	16	<b>175 483 036</b>	38	10	16	27	4	13	14
20	16	<b>175 483 037</b>	38	14	16	32	4	14	18
25	16	<b>175 483 038</b>	44	19	20	37	5	16	21
32	16	<b>175 483 039</b>	53	24	26	40	5	18	22
40	16	<b>175 483 040</b>	65	31	33	43	5	20	23
50	16	<b>175 483 041</b>	77	39	41	51	6	23	28
63	16	<b>175 483 042</b>	99	49	51	60	7	27	33

## Overall products

### SYGEF Standard Valve end 546 and 543 (G52) With butt fusion spigot IR-Plus® metric

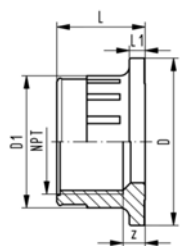


**Model:**

- Material: PVDF

d [mm]	FM	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	16	<b>175 483 048</b>	38	1.9	37	4	25
25	IR	16	<b>175 483 049</b>	44	1.9	39	5	25
32	IR	16	<b>175 483 050</b>	53	2.4	40	5	25
40	IR	16	<b>175 483 051</b>	65	2.4	43	5	25
50	IR	16	<b>175 483 052</b>	77	3.0	51	6	25
63	IR	16	<b>175 483 053</b>	99	3.0	60	7	28

### SYGEF Standard Valve end 546 and 543 (G53) With threaded socket NPT

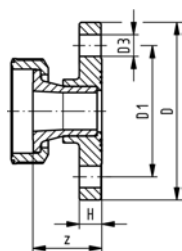


**Model:**

- Material: PVDF
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF

NPT [inch]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>175 483 058</b>	38	26	14	20	4	6
1/2	10	<b>175 483 059</b>	38	33	16	21	4	4
3/4	10	<b>175 483 060</b>	44	39	20	23	5	5
1	10	<b>175 483 061</b>	53	47	26	28	5	6
1 1/4	10	<b>175 483 062</b>	65	55	33	31	5	8
1 1/2	10	<b>175 483 063</b>	77	65	41	34	6	11
2	10	<b>175 483 064</b>	99	77	51	41	7	17

### SYGEF Standard Valve end 546 (G64) With fixed flange PVDF metric



**Model:**

- Material: PVDF
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated

d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	<b>175 483 285</b>	93	65	14	12	37
25	20	16	<b>175 483 286</b>	103	75	14	13	42
32	25	16	<b>175 483 287</b>	115	85	14	14	45
40	32	16	<b>175 483 288</b>	137	100	18	15	48
50	40	16	<b>175 483 289</b>	147	110	18	16	56
63	50	16	<b>175 483 290</b>	162	125	18	18	65

# Overall products

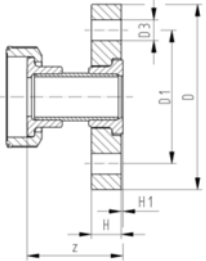
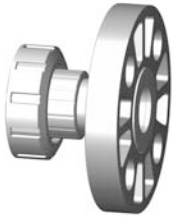
## SYGEF Standard

### Valve end 546 (G76)

### Assembly with backing flange PP JIS

Model:

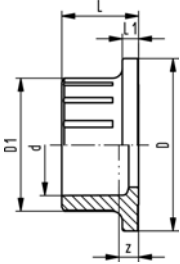
- Material: PVDF



Inch	DN [mm]	Code	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
1/2	15	<b>175 483 124</b>	95	70	15	16	1	52
3/4	20	<b>175 483 125</b>	100	75	15	18	1	57
1	25	<b>175 483 126</b>	125	90	19	20	1	65
1 1/4	32	<b>175 483 127</b>	135	100	19	21	1	68
1 1/2	40	<b>175 483 128</b>	140	105	19	21	1	81
2	50	<b>175 483 129</b>	155	120	19	21	1	85

## Valve end 546 and 543 PE 100 (G40)

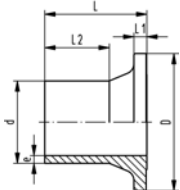
### With fusion socket metric



d [mm]	PN	Code	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>193 480 175</b>	38	23	19	4	5
20	16	<b>193 480 176</b>	38	27	20	4	5
25	16	<b>193 480 177</b>	44	33	22	5	6
32	16	<b>193 480 178</b>	53	41	24	5	6
40	16	<b>193 480 179</b>	65	51	26	5	7
50	16	<b>193 480 180</b>	77	62	29	6	8
63	16	<b>193 480 181</b>	99	77	34	7	8

## Valve end 546 and 543 PE 100 (G41)

### With butt fusion spigot IR-Plus® SDR11 metric

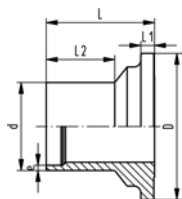


d [mm]	FM	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	16	<b>193 480 102</b>	38	1,9	37	4	25
25	IR	16	<b>193 480 103</b>	44	2,3	39	5	25
32	IR	16	<b>193 480 104</b>	53	2,9	40	5	25
40	IR	16	<b>193 480 105</b>	65	3,7	43	5	25
50	IR	16	<b>193 480 106</b>	77	4,6	51	6	25
63	IR	16	<b>193 480 107</b>	99	5,8	60	7	28

## Overall products

### Valve end 546 and 543 PE 100 (G42)

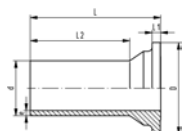
With butt fusion spigot IR-Plus® SDR17,6 metric



d [mm]	FM	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	IR	10	<b>193 480 086</b>	65	2,3	43	5	25
50	IR	10	<b>193 480 087</b>	77	2,9	51	6	25
63	IR	10	<b>193 480 088</b>	99	3,6	60	7	28

### Valve end 546 and 543 PE 100 (G43)

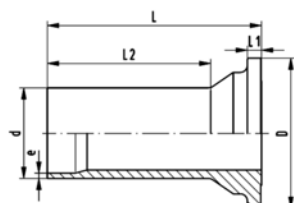
With butt fusion spigot long SDR11 metric



d [mm]	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	<b>193 480 152</b>	38	2,25	69	4	53
25	16	<b>193 480 153</b>	44	2,3	76	5	58
32	16	<b>193 480 154</b>	53	2,9	76	5	58
40	16	<b>193 480 155</b>	65	3,7	82	5	61
50	16	<b>193 480 156</b>	77	4,6	91	6	63
63	16	<b>193 480 157</b>	99	5,8	110	7	77
75	16	<b>193 480 158</b>	125	6,8	125	9	89
90	16	<b>193 480 159</b>	150	8,2	140	10	103
110	16	<b>193 480 160</b>	180	10,0	160	11	117

### Valve end 546 and 543 PE 100 (G44)

With butt fusion spigot long SDR17,6 metric



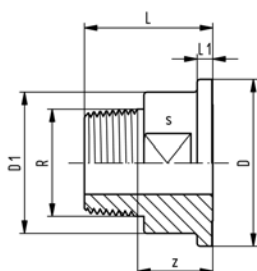
d [mm]	PN	Code	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
75	16	<b>193 480 168</b>	125	4.3	125	9	89
90	16	<b>193 480 169</b>	150	5.1	140	10	103
110	16	<b>193 480 170</b>	180	6.3	160	11	117

### Valve end 546 and 543 brass

With threaded spigot R

Model:

- Connection to metal threads



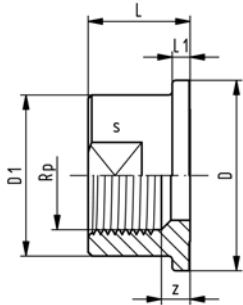
Inch	Code	D [mm]	D1 [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	s [mm]
1/2	<b>161 486 640</b>	38	32	13	23	36	4	30
3/4	<b>161 486 641</b>	44	38	16	22	36	5	36
1	<b>161 486 642</b>	53	45	20	24	41	5	41

# Overall products

## Valve end 546 and 543 brass With threaded socket Rp

### Model:

- Connection to metal threads



Inch	Code	D [mm]	D1 [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	s [mm]
½	<b>161 486 651</b>	38	32	15	5	20	4	30
¾	<b>161 486 652</b>	44	38	20	8	25	5	36
1	<b>161 486 653</b>	53	45	25	10	29	5	41

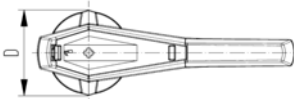
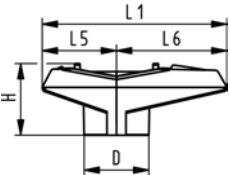
# Overall products

## Handle and handle extensions

### Standard handle 546



DN10/15 - 50



d [mm]	DN [mm]	red (K01) Code	black (K02) Code	L1 [mm]	L5 [mm]	L6 [mm]	H [mm]	D [mm]
16 - 20	10 - 15	<b>167 484 088</b>	<b>167 484 076</b>	77	32	45	31	26
25	20	<b>167 484 089</b>	<b>167 484 077</b>	97	39	58	37	34
32	25	<b>167 484 090</b>	<b>167 484 078</b>	97	39	58	37	34
40	32	<b>167 484 091</b>	<b>167 484 079</b>	128	54	74	46	40
50	40	<b>167 484 092</b>	<b>167 484 080</b>	128	54	74	46	40
63	50	<b>167 484 093</b>	<b>167 484 081</b>	152	66	87	54	44
75	65	<b>167 484 094</b>	<b>167 484 082</b>	270	64	206	58	106
90	80	<b>167 484 095</b>	<b>167 484 083</b>	270	64	206	58	106
110	100	<b>167 484 096</b>	<b>167 484 084</b>	320	64	256	60	106

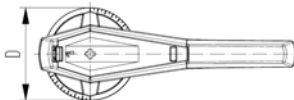
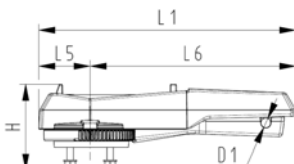
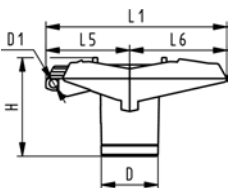
### Multifunctional handle 546 red (K11) With ratchet settings lockable

**Note:**

To retrofit the ball valve 546 with the multifunctional handle a multifunction module is necessary in the dimensions DN65-100



DN10/15 - 50



d-d [mm]	DN-DN [mm]	Code	D [mm]	D1 [mm]	H [mm]	L1 [mm]	L5 [mm]	L6 [mm]
16 - 20	10 - 15	<b>167 484 100</b>	26	5	53	87	42	45
- 25	- 20	<b>167 484 101</b>	34	5	59	108	50	58
- 32	- 25	<b>167 484 102</b>	34	5	59	108	50	58
- 40	- 32	<b>167 484 103</b>	40	5	69	140	66	75
- 50	- 40	<b>167 484 104</b>	40	5	69	140	66	75
- 63	- 50	<b>167 484 105</b>	44	5	80	165	78	87
- 75	- 65	<b>161 486 689</b>	115	12	105	270	64	206
- 90	- 80	<b>161 486 690</b>	115	12	105	270	64	206
110 - 140	100 - 125	<b>161 486 691</b>	115	12	107	320	64	256

# Overall products

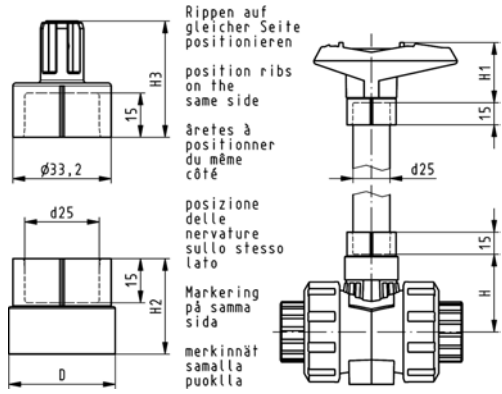
## Handle extension 546 and 543 PVC-U metric

### Model:

- For ball valve type 546 and 543
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site



d-d [mm]	DN-DN [mm]	Code	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]
16 - 20	10 - 15	<b>161 486 435</b>	41	52	29	36	26
25 - 32	20 - 25	<b>161 486 436</b>	50	62	32	39	36
40 - 50	32 - 40	<b>161 486 437</b>	65	76	34	44	40
- 63	- 50	<b>161 486 438</b>	84	87	37	48	44



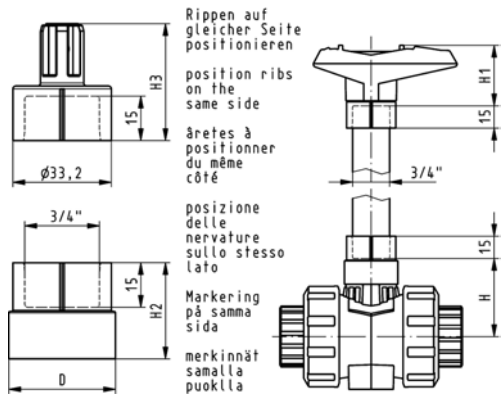
## Handle extension 546 PVC-U inch BS/ASTM

### Model:

- For Ball Valve Type 546



DN-DN [mm]	Inch	Code	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]
10 - 15	3/8-1/2	<b>161 486 443</b>	41	52	29	36	26
20 - 25	3/4-1	<b>161 486 444</b>	50	62	32	39	36
32 - 40	1 1/4-1 1/2	<b>161 486 445</b>	65	76	34	44	40
50 -	2	<b>161 486 446</b>	84	87	37	48	44



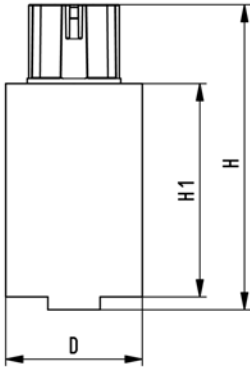


# Overall products

## Handle extension for ball valve type 546 PVC-U DN65 - DN100

### Model:

- Multiple use in succession possible
- Height variable



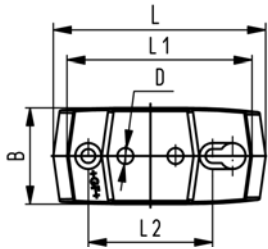
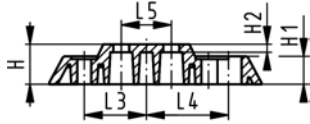
d-d [mm]	DN-DN [mm]	Code	D [mm]	H [mm]	H1 [mm]
75 - 90	65 - 80	<b>161 490 920</b>	58	143	100
- 110	- 100	<b>161 490 921</b>	64	143	100

# Overall products

## Mounting plates

### Mounting plate 546 and 543 PP-GF (L02)

- 2 mounting screws inclusive



d-d [mm]	Inch [inch]	DN-DN [mm]	Code
16 - 32	3/8 - 1	10 - 25	<b>167 484 110</b>
40 - 63	1 1/4 - 2	32 - 50	<b>167 484 111</b>

d-d [mm]	B [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]
16 - 32	48	8	20	14	4	106	92	62	31	41	25
40 - 63	54	9	20	14	4	149	134	104	52	62	45

# Overall products

## Mounting inserts

### Mounting insert

**Model:**

- \* 1 bag with 10 piece
- Material: A2
- to retrofit the fixing: ball valve type 546

<b>d-d</b> [mm]	<b>Code</b>	<b>A</b> [mm]	<b>E</b> [mm]	<b>L</b> [mm]
16 - 32	<b>161 486 014</b>	6	10	12
* 16 - 32	<b>161 486 538</b>	6	10	12
40 - 90	<b>161 481 448</b>	8	12	15
* 40 - 90	<b>161 486 539</b>	8	12	15
* - 110	<b>161 486 540</b>			


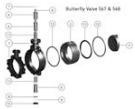

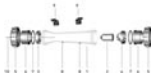
# Overall products

## Face seals

### Face seal

<b>d</b> [mm]	<b>DN</b> [mm]	<b>EPDM</b> <b>Code</b>	<b>FPM</b> <b>Code</b>	
16	10	<b>748 410 059</b>	<b>749 410 059</b>	
32	25	<b>748 410 151</b>	<b>749 410 151</b>	
40	32	<b>748 410 062</b>	<b>749 410 062</b>	
63	50	<b>748 410 231</b>	<b>749 410 231</b>	

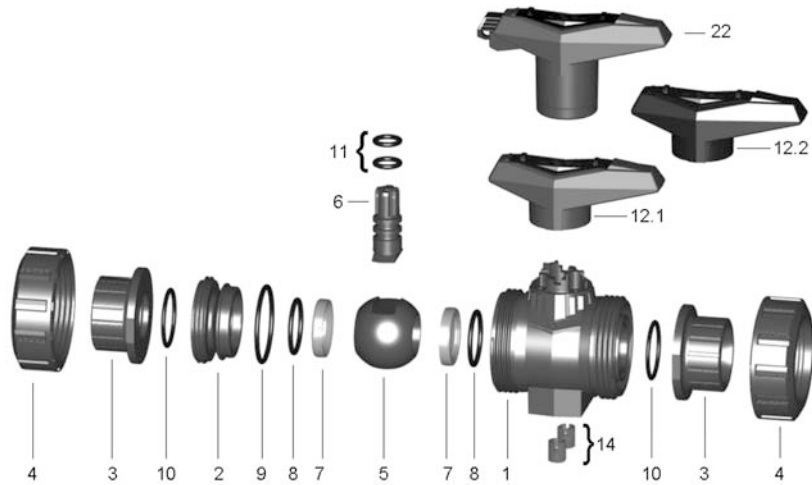
# Spare parts

	Page
	Spare parts ball valves 628
	Spare parts butterfly valves 639
	Spare parts diaphragm valves new generation 645
	Spare parts solenoid valves 653
	Spare parts variable area flow meters 655

# Spare parts

## Spare parts ball valves

### Spare parts ball valve type 546



### Central part

#### Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
20	1/2	15	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
25	3/4	20	161 486 152	161 486 164	163 481 252	163 481 264	169 480 752
32	1	25	161 486 153	161 486 165	163 481 253	163 481 265	169 480 753
40	1 1/4	32	161 486 154	161 486 166	163 481 254	163 481 266	169 480 754
50	1 1/2	40	161 486 155	161 486 167	163 481 255	163 481 267	169 480 755
63	2	50	161 486 156	161 486 168	163 481 256	163 481 268	169 480 756
75	2 1/2	65	161 486 157	161 486 169	163 481 257	163 481 269	169 480 757
90	3	80	161 486 158	161 486 170	163 481 258	163 481 270	169 480 758
110	4	100	161 486 159	161 486 171	163 481 259	163 481 271	169 480 759

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	3/8	10	167 482 876	167 482 888	175 482 963
20	1/2	15	167 482 876	167 482 888	175 482 963
25	3/4	20	167 482 877	167 482 889	175 482 964
32	1	25	167 482 878	167 482 890	175 482 965
40	1 1/4	32	167 482 879	167 482 891	175 482 966
50	1 1/2	40	167 482 880	167 482 892	175 482 967
63	2	50	167 482 881	167 482 893	175 482 968
75	2 1/2	65	167 482 882	167 482 894	175 482 969
90	3	80	167 482 883	167 482 895	175 482 970
110	4	100	167 482 884	167 482 896	175 482 971

# Spare parts

## Ball set

### Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
20	1/2	15	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
25	3/4	20	161 486 376	161 486 386	163 481 376	163 481 386	169 480 901
32	1	25	161 486 377	161 486 387	163 481 377	163 481 387	169 480 902
40	1 1/4	32	161 486 378	161 486 388	163 481 378	163 481 388	169 480 903
50	1 1/2	40	161 486 379	161 486 389	163 481 379	163 481 389	169 480 904
63	2	50	161 486 380	161 486 390	163 481 380	163 481 390	169 480 905
75	2 1/2	65	161 486 381	161 486 391	163 481 381	163 481 391	169 480 906
90	3	80	161 486 382	161 486 392	163 481 382	163 481 392	169 480 907
110	4	100	161 486 383	161 486 393	163 481 383	163 481 393	169 480 908

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	3/8	10	167 484 125	167 484 135	175 483 275
20	1/2	15	167 484 125	167 484 135	175 483 275
25	3/4	20	167 484 126	167 484 136	175 483 276
32	1	25	167 484 127	167 484 137	175 483 277
40	1 1/4	32	167 484 128	167 484 138	175 483 278
50	1 1/2	40	167 484 129	167 484 139	175 483 279
63	2	50	167 484 130	167 484 140	175 483 280
75	2 1/2	65	167 484 131	167 484 141	175 483 281
90	3	80	167 484 132	167 484 142	175 483 282
110	4	100	167 484 133	167 484 143	175 483 283

## Lever



DN10/15 - 50



DN10/15 - 50



d [mm]	Inch	DN [mm]	Standard lever red Code	Standard lever black Code	Multifunctional lever Code
16	3/8	10	167 484 088	167 484 076	167 484 100
20	1/2	15	167 484 088	167 484 076	167 484 100
25	3/4	20	167 484 089	167 484 077	167 484 101
32	1	25	167 484 090	167 484 078	167 484 102
40	1 1/4	32	167 484 091	167 484 079	167 484 103
50	1 1/2	40	167 484 092	167 484 080	167 484 104
63	2	50	167 484 093	167 484 081	167 484 105
75	2 1/2	65	167 484 094	167 484 082	161 486 689
90	3	80	167 484 095	167 484 083	161 486 690
110	4	100	167 484 096	167 484 084	161 486 691

## Face seal

### Model:

- Face seal no. 10



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	3/8	10	748 410 059	749 410 059
20	1/2	15	748 410 059	749 410 059
25	3/4	20	748 410 106	749 410 106
32	1	25	748 410 151	749 410 151
40	1 1/4	32	748 410 062	749 410 062

table continued next page

## Spare parts

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
50	1 ½	40	748 410 003	749 410 003
63	2	50	748 410 231	749 410 231
75	2 ½	65	748 410 119	749 410 119
90	3	80	748 410 023	749 410 023
110	4	100	748 410 254	749 410 254

## Seal set

### Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	¾	10	161 486 400	161 486 410
20	½	15	161 486 400	161 486 410
25	¾	20	161 486 401	161 486 411
32	1	25	161 486 402	161 486 412
40	1 ¼	32	161 486 403	161 486 413
50	1 ½	40	161 486 404	161 486 414
63	2	50	161 486 405	161 486 415
75	2 ½	65	161 486 406	161 486 416
90	3	80	161 486 407	161 486 417
110	4	100	161 486 408	161 486 418





## Spare parts

### Spare parts shipbuilding ball valve type 547

#### Service housing end connector kit with iFIT connector



d [mm]	Inch	DN [mm]	Code
20	½	15	167 547 902

#### Service housing end connector kit With threaded socket Rp brass



Rp [inch]	DN [mm]	Code
½	15	167 547 952

#### Service housing end connector kit With fusion socket PB



d [mm]	Inch	DN [mm]	Code
16	¾	10	167 547 931
20	½	15	167 547 932

#### Valve end iFIT



D [mm]	Inch	DN [mm]	Code
20	½	15	167 547 112

#### Valve end fusion socket PB



d [mm]	Inch	DN [mm]	Code
16	¾	10	167 547 441
20	½	15	167 547 442

#### Service housing kit

##### Model:

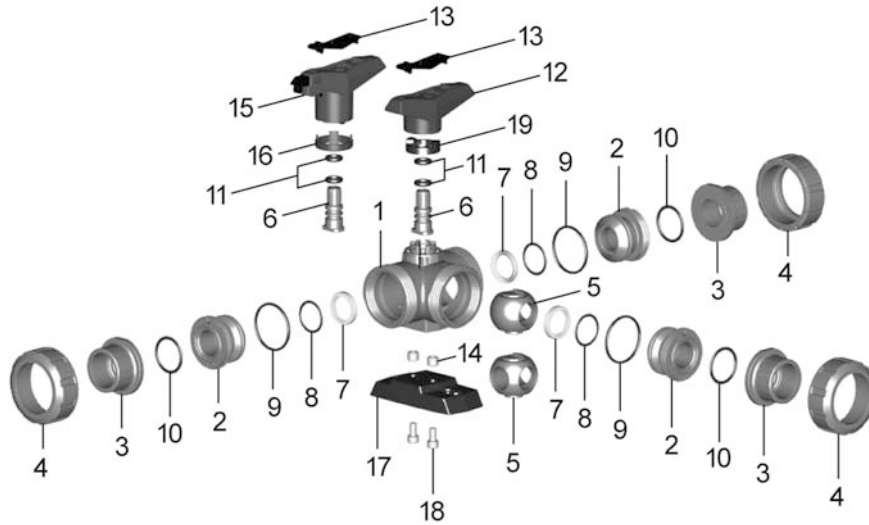
- With integrated check valve and filter



D [mm]	Inch	DN [mm]	Code
16	¾	10	167 547 905

# Spare parts

## Spare parts ball valve type 543 horizontal



### Central part L-port

#### Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202
20	1/2	15	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202
25	3/4	20	161 488 003	161 488 013	163 481 903	163 481 913	169 481 203
32	1	25	161 488 004	161 488 014	163 481 904	163 481 914	169 481 204
40	1 1/4	32	161 488 005	161 488 015	163 481 905	163 481 915	169 481 205
50	1 1/2	40	161 488 006	161 488 016	163 481 906	163 481 916	169 481 206
63	2	50	161 488 007	161 488 017	163 481 907	163 481 917	169 481 207

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	3/8	10	167 484 802	167 484 812	175 483 602
20	1/2	15	167 484 802	167 484 812	175 483 602
25	3/4	20	167 484 803	167 484 813	175 483 603
32	1	25	167 484 804	167 484 814	175 483 604
40	1 1/4	32	167 484 805	167 484 815	175 483 605
50	1 1/2	40	167 484 806	167 484 816	175 483 606
63	2	50	167 484 807	167 484 817	175 483 607



### Central part T-port

#### Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

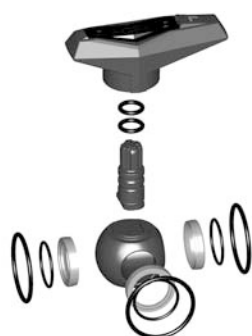
d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212
20	1/2	15	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212
25	3/4	20	161 488 023	161 488 033	163 481 923	163 481 933	169 481 213
32	1	25	161 488 024	161 488 034	163 481 924	163 481 934	169 481 214

table continued next page

# Spare parts

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
40	1 ¼	32	161 488 025	161 488 035	163 481 925	163 481 935	169 481 215
50	1 ½	40	161 488 026	161 488 036	163 481 926	163 481 936	169 481 216
63	2	50	161 488 027	161 488 037	163 481 927	163 481 937	169 481 217

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	¾	10	167 484 822	167 484 832	175 483 612
20	½	15	167 484 822	167 484 832	175 483 612
25	¾	20	167 484 823	167 484 833	175 483 613
32	1	25	167 484 824	167 484 834	175 483 614
40	1 ¼	32	167 484 825	167 484 835	175 483 615
50	1 ½	40	167 484 826	167 484 836	175 483 616
63	2	50	167 484 827	167 484 837	175 483 617



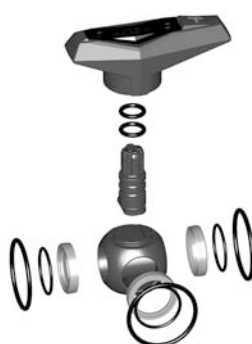
## Ball set L-port

### Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	¾	10	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282
20	½	15	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282
25	¾	20	161 488 163	161 488 173	163 481 983	163 481 993	169 481 283
32	1	25	161 488 164	161 488 174	163 481 984	163 481 994	169 481 284
40	1 ¼	32	161 488 165	161 488 175	163 481 985	163 481 995	169 481 285
50	1 ½	40	161 488 166	161 488 176	163 481 986	163 481 996	169 481 286
63	2	50	161 488 167	161 488 177	163 481 987	163 481 997	169 481 287

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	¾	10	167 484 882	167 484 892	175 483 642
20	½	15	167 484 882	167 484 892	175 483 642
25	¾	20	167 484 883	167 484 893	175 483 643
32	1	25	167 484 884	167 484 894	175 483 644
40	1 ¼	32	167 484 885	167 484 895	175 483 645
50	1 ½	40	167 484 886	167 484 896	175 483 646
63	2	50	167 484 887	167 484 897	175 483 647



## Ball set T-port

### Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	¾	10	161 488 182	161 488 192	163 482 002	163 482 012	169 481 292
20	½	15	161 488 182	161 488 192	163 482 002	163 482 012	169 481 292
25	¾	20	161 488 183	161 488 193	163 482 003	163 482 013	169 481 293
32	1	25	161 488 184	161 488 194	163 482 004	163 482 014	169 481 294
40	1 ¼	32	161 488 185	161 488 195	163 482 005	163 482 015	169 481 295
50	1 ½	40	161 488 186	161 488 196	163 482 006	163 482 016	169 481 296
63	2	50	161 488 187	161 488 197	163 482 007	163 482 017	169 481 297

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
16	¾	10	167 484 902	167 484 912	175 483 652
20	½	15	167 484 902	167 484 912	175 483 652
25	¾	20	167 484 903	167 484 913	175 483 653

table continued next page

# Spare parts

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
32	1	25	167 484 904	167 484 914	175 483 654
40	1 ¼	32	167 484 905	167 484 915	175 483 655
50	1 ½	40	167 484 906	167 484 916	175 483 656
63	2	50	167 484 907	167 484 917	175 483 657

## Lever



d [mm]	Inch	DN [mm]	Standard lever L- port red Code	Standard lever L- port black Code	Standard lever T- port red Code
16	¾	10	167 484 488	167 484 376	167 484 588
20	½	15	167 484 488	167 484 376	167 484 588
25	¾	20	167 484 489	167 484 377	167 484 589
32	1	25	167 484 490	167 484 378	167 484 590
40	1 ¼	32	167 484 491	167 484 379	167 484 591
50	1 ½	40	167 484 492	167 484 380	167 484 592
63	2	50	167 484 493	167 484 381	167 484 593

d [mm]	Inch	DN [mm]	Standard lever T- port black Code	Multifunctional- lever L-port red Code	Multifunctional- lever T-port red Code
16	¾	10	167 484 576	167 484 442	167 484 542
20	½	15	167 484 576	167 484 442	167 484 542
25	¾	20	167 484 577	167 484 443	167 484 543
32	1	25	167 484 578	167 484 444	167 484 544
40	1 ¼	32	167 484 579	167 484 445	167 484 545
50	1 ½	40	167 484 580	167 484 446	167 484 546
63	2	50	167 484 581	167 484 447	167 484 547



## Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	¾	10	748 410 059	749 410 059
20	½	15	748 410 059	749 410 059
25	¾	20	748 410 106	749 410 106
32	1	25	748 410 151	749 410 151
40	1 ¼	32	748 410 062	749 410 062
50	1 ½	40	748 410 003	749 410 003
63	2	50	748 410 231	749 410 231

## Seal set

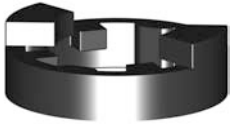
Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

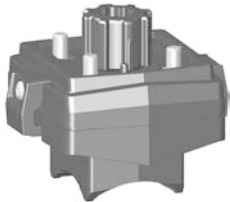
d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	¾	10	161 488 242	161 488 248
20	½	15	161 488 242	161 488 248
25	¾	20	161 488 243	161 488 249
32	1	25	161 488 244	161 488 250
40	1 ¼	32	161 488 245	161 488 251
50	1 ½	40	161 488 246	161 488 252
63	2	50	161 488 247	161 488 253

## Spare parts

### Turn limiter 90°



d [mm]	Inch	DN [mm]	Code
16	3/8	10	<b>167 482 479</b>
20	1/2	15	<b>167 482 479</b>
25	3/4	20	<b>167 482 480</b>
32	1	25	<b>167 482 480</b>
40	1 1/4	32	<b>167 482 481</b>
50	1 1/2	40	<b>167 482 481</b>
63	2	50	<b>167 482 482</b>



### Assembly kit

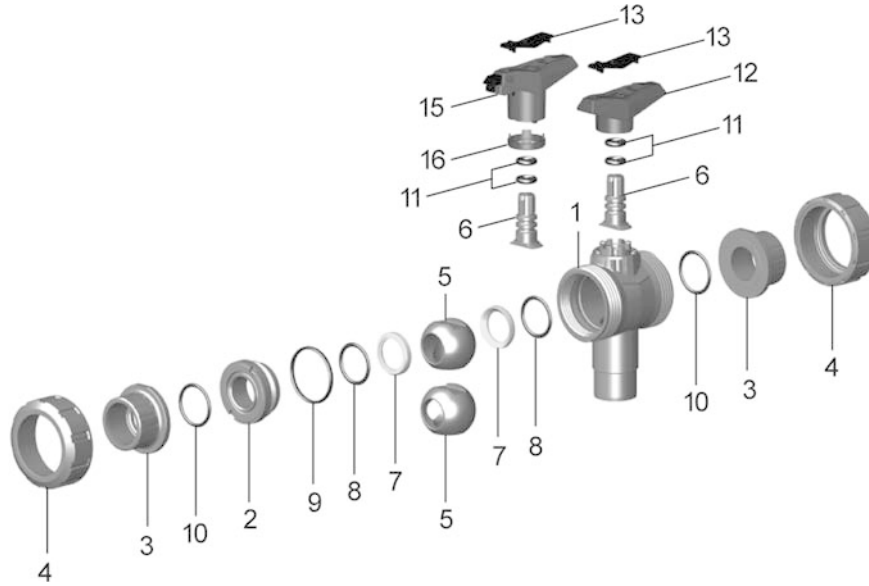
#### Model:

- Intermediate element for ball valve type 543 horizontal and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d [mm]	Inch [inch]	DN [mm]	Code
16 - 20	3/8 - 1/2	10 - 15	<b>167 484 941</b>
25 - 32	3/4 - 1	20 - 25	<b>167 484 942</b>
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 484 943</b>
63	2	50	<b>167 484 944</b>

# Spare parts

## Spare parts ball valve type 543 vertical



### Central part L-port



#### Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11) and standard lever (12)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code
16	3/8	10	161 488 041	161 488 051	169 481 221
20	3/8	15	161 488 042	161 488 052	169 481 222
25	3/4	20	161 488 043	161 488 053	169 481 223
32	1	25	161 488 044	161 488 054	169 481 224
40	1 1/4	32	161 488 045	161 488 055	169 481 225
50	1 1/2	40	161 488 046	161 488 056	169 481 226
63	2	50	161 488 047	161 488 057	169 481 227

### Central part diverter ball



#### Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11) and standard lever (12)

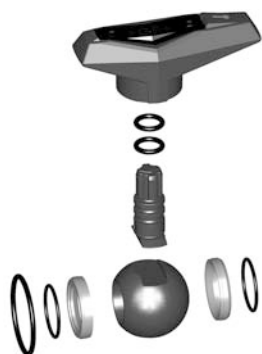
d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code
16	3/8	10	161 488 061	161 488 071	169 481 231
20	1/2	15	161 488 062	161 488 072	169 481 232
25	3/4	20	161 488 063	161 488 073	169 481 233
32	1	25	161 488 064	161 488 074	169 481 234
40	1 1/4	32	161 488 065	161 488 075	169 481 235
50	1 1/2	40	161 488 066	161 488 076	169 481 236
63	2	50	161 488 067	161 488 077	169 481 237

# Spare parts

## Ball set L-port

### Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

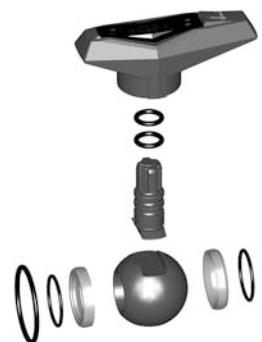


d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code
16	3/8	10	161 488 202	161 488 212	169 481 302
20	1/2	15	161 488 202	161 488 212	169 481 302
25	3/4	20	161 488 203	161 488 213	169 481 303
32	1	25	161 488 204	161 488 214	169 481 304
40	1 1/4	32	161 488 205	161 488 215	169 481 305
50	1 1/2	40	161 488 206	161 488 216	169 481 306
63	2	50	161 488 207	161 488 217	169 481 307

## Ball set diverter ball

### Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code
16	3/8	10	161 488 222	161 488 232	169 481 312
20	1/2	15	161 488 222	161 488 232	169 481 312
25	3/4	20	161 488 223	161 488 233	169 481 313
32	1	25	161 488 224	161 488 234	169 481 314
40	1 1/4	32	161 488 225	161 488 235	169 481 315
50	1 1/2	40	161 488 226	161 488 236	169 481 316
63	2	50	161 488 227	161 488 237	169 481 317

## Lever



d [mm]	Inch	DN [mm]	Standard lever L- port red Code	Standard lever di- verter ball red Code	Multifunctional- lever L-port red Code
16	3/8	10	167 484 688	167 484 788	167 484 642
20	1/2	15	167 484 688	167 484 788	167 484 642
25	3/4	20	167 484 689	167 484 789	167 484 643
32	1	25	167 484 690	167 484 790	167 484 644
40	1 1/4	32	167 484 691	167 484 791	167 484 645
50	1 1/2	40	167 484 692	167 484 792	167 484 646
63	2	50	167 484 693	167 484 793	167 484 647

d [mm]	Inch	DN [mm]	Multifunctional- lever diverter ball red Code
16	3/8	10	167 484 742
20	1/2	15	167 484 742
25	3/4	20	167 484 743
32	1	25	167 484 744
40	1 1/4	32	167 484 745
50	1 1/2	40	167 484 746
63	2	50	167 484 747

# Spare parts



## Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	3/8	10	<b>748 410 059</b>	<b>749 410 059</b>
20	1/2	15	<b>748 410 059</b>	<b>749 410 059</b>
25	3/4	20	<b>748 410 106</b>	<b>749 410 106</b>
32	1	25	<b>748 410 151</b>	<b>749 410 151</b>
40	1 1/4	32	<b>748 410 062</b>	<b>749 410 062</b>
50	1 1/2	40	<b>748 410 003</b>	<b>749 410 003</b>
63	2	50	<b>748 410 231</b>	<b>749 410 231</b>

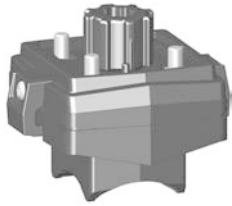


## Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
16	3/8	10	<b>161 486 400</b>	<b>161 486 410</b>
20	1/2	15	<b>161 486 400</b>	<b>161 486 410</b>
25	3/4	20	<b>161 486 401</b>	<b>161 486 411</b>
32	1	25	<b>161 486 402</b>	<b>161 486 412</b>
40	1 1/4	32	<b>161 486 403</b>	<b>161 486 413</b>
50	1 1/2	40	<b>161 486 404</b>	<b>161 486 414</b>
63	2	50	<b>161 486 405</b>	<b>161 486 415</b>



## Assembly kit

Model:

- Intermediate element for ball valve type 543 vertical and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

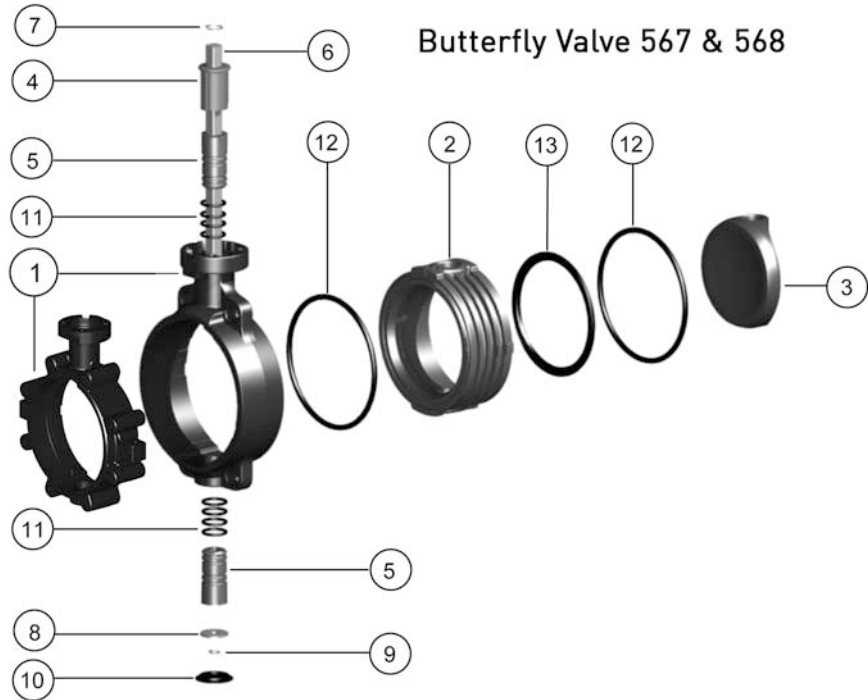
d [mm]	Inch [inch]	DN [mm]	Code
16 - 20	3/8 - 1/2	10 - 15	<b>167 484 945</b>
25 - 32	3/4 - 1	20 - 25	<b>167 484 946</b>
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 484 947</b>
63	2	50	<b>167 484 948</b>



# Spare parts

## Spare parts butterfly valves

### Spare parts butterfly valve type 567/568



### Inner body

#### Model:

- Inner body consisting of: inner body (2) and profile seal (13)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
63	2	50	161 486 861	161 486 873	163 481 591	163 481 603	169 481 067
75	2 ½	65	161 486 862	161 486 874	163 481 592	163 481 604	169 481 068
90	3	80	161 486 863	161 486 875	163 481 593	163 481 605	169 481 069
110	4	100	161 486 864	161 486 876	163 481 594	163 481 606	169 481 070
140	5	125	161 486 865	161 486 877	163 481 595	163 481 607	169 481 071
160	6	150	161 486 866	161 486 878	163 481 596	163 481 608	169 481 072
225	8	200	161 486 867	161 486 879	163 481 597	163 481 609	169 481 073
280	10	250	161 486 868	161 486 880			
315	12	300	161 486 869	161 486 881			

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	PVDF PTFE Code
63	2	50	167 484 271	167 484 286	175 483 413	175 483 752
75	2 ½	65	167 484 272	167 484 287	175 483 414	175 483 753
90	3	80	167 484 273	167 484 288	175 483 415	175 483 754
110	4	100	167 484 274	167 484 289	175 483 416	175 483 755
140	5	125	167 484 275	167 484 290	175 483 417	175 483 756
160	6	150	167 484 276	167 484 291	175 483 418	175 483 757
225	8	200	167 484 277	167 484 292	175 483 419	175 483 758
280	10	250	167 484 278	167 484 293	175 483 420	175 483 759
315	12	300	167 484 279	167 484 294	175 483 421	175 483 760

# Spare parts

## Flange seal (12)

Model:

- included in delivery 1 pcs.



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
63	2	50	161 486 959	161 486 979
75	2 ½	65	161 486 960	161 486 980
90	3	80	161 486 961	161 486 981
110	4	100	161 486 962	161 486 982
125	5	125	161 486 963	161 486 983
160	6	150	161 486 964	161 486 984
225	8	200	161 486 965	161 486 985
280	10	250	161 486 966	161 486 986
315	12	300	161 486 967	161 486 987
355	14	350	748 410 318	749 410 318
400	16	400	748 410 319	749 410 319
450	18	450	748 410 320	749 410 320
500	20	500	748 410 321	749 410 321
630	24	600	748 410 322	749 410 322

## Disc (3)



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
63	2	50	161 490 889	163 481 451	169 480 951	167 483 226	175 483 251
75	2 ½	65	161 490 890	163 481 452	169 480 952	167 483 227	175 483 252
90	3	80	161 490 891	163 481 453	169 480 953	167 483 228	175 483 253
110	4	100	161 490 892	163 481 454	169 480 954	167 483 229	175 483 254
140	5	125	161 490 893	163 481 455	169 480 955	167 483 230	175 483 255
160	6	150	161 490 894	163 481 456	169 480 956	167 483 231	175 483 256
225	8	200	161 490 895	163 481 457	169 480 957	167 483 232	175 483 257
280	10	250	161 490 896			167 483 233	175 483 258
315	12	300	161 490 897			167 483 234	175 483 259
355	14	350	-			167 483 235	
400	16	400	-			167 483 236	
450	18	450	-			167 483 237	
500	20	500	-			167 483 238	
630	24	600	-			167 483 239	

## Bearing bush (5, 11)

Model:

- included in delivery 2 pcs.
- With O-ring
- Bearing bushes in PP-H are used in PP-H and ABS butterfly valves



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	PP-H EPDM Code
63	2	50	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
75	2 ½	65	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
90	3	80	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
110	4	100	161 486 887	161 486 893	163 481 577	163 481 583	167 484 260
140	5	125	161 486 887	161 486 893	163 481 577	163 481 583	167 484 260
160	6	150	161 486 888	161 486 894	163 481 578	163 481 584	167 484 261
225	8	200	161 486 888	161 486 894	163 481 578	163 481 584	167 484 261
280	10	250	161 486 889	161 486 895			167 484 262
315	12	300	161 486 889	161 486 895			167 484 262
355	14	350					167 484 263
400	16	400					167 484 264
450	18	450					167 484 280
500	20	500					167 484 281
630	24	600					167 484 282

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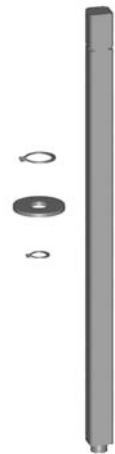
# Spare parts

d [mm]	Inch	DN [mm]	PP-H FPM Code	PVDF FPM Code
63	2	50	167 484 265	175 483 426
75	2 ½	65	167 484 265	175 483 426
90	3	80	167 484 265	175 483 426
110	4	100	167 484 266	175 483 427
140	5	125	167 484 266	175 483 427
160	6	150	167 484 267	175 483 428
225	8	200	167 484 267	175 483 428
280	10	250	167 484 268	175 483 429
315	12	300	167 484 268	175 483 429
355	14	350	167 484 269	
400	16	400	167 484 270	
450	18	450	167 484 283	
500	20	500	167 484 284	
630	24	600	167 484 285	



## End stop PP glasfiber reinforced (4)

d [mm]	Inch	DN [mm]	Code
63	2	50	167 483 251
75	2 ½	65	167 483 251
90	3	80	167 483 251
110	4	100	167 483 252
140	5	125	167 483 252
160	6	150	167 483 253
225	8	200	167 483 253
280	10	250	167 483 254
315	12	300	167 483 254



## Shaft set

### Model:

- Shaft set consisting of: shaft chrom steel 1.4301 AISI 304 (6), retention ring (7, 9) and washer (8)

d [mm]	Inch	DN [mm]	Code
63	2	50	161 486 899
75	2 ½	65	161 486 900
90	3	80	161 486 901
110	4	100	161 486 902
140	5	125	161 486 903
160	6	150	161 486 904
225	8	200	161 486 905
280	10	250	161 486 906
315	12	300	161 486 907
355	14	350	161 486 908
400	16	400	161 486 909
450	18	450	161 486 926
500	20	500	161 486 927
630	24	600	161 486 928



## Hand lever

d [mm]	Inch	DN [mm]	with index plate Code	with fine adjust- ment Code
63	2	50	161 486 690	161 486 325
75	2 ½	65	161 486 690	161 486 325
90	3	80	161 486 690	161 486 325
110	4	100	161 486 691	161 486 326
140	5	125	161 486 691	161 486 326

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## Spare parts

d [mm]	Inch	DN [mm]	with index plate Code	with fine adjust- ment Code
160	6	150	<b>161 486 694</b>	<b>161 486 327</b>
225	8	200	<b>161 486 695</b>	<b>161 486 328</b>
280	10	250	<b>161 486 697</b>	
315	12	300	<b>161 486 697</b>	

## Profile seal (13) DN350-600

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
355	14	350	<b>748 440 018</b>	<b>749 440 028</b>
400	16	400	<b>748 440 019</b>	<b>749 440 029</b>
450	18	450	<b>748 440 020</b>	<b>749 440 030</b>
500	20	500	<b>748 440 021</b>	<b>749 440 031</b>
630	24	600	<b>748 440 022</b>	<b>749 440 032</b>

## Snap ring DN350-600

- For fixation of profile seal in body

d [mm]	Inch	DN [mm]	PP-H Code
355	14	350	<b>167 484 295</b>
400	16	400	<b>167 484 296</b>
450	18	450	<b>167 484 297</b>
500	20	500	<b>167 484 298</b>
630	24	600	<b>167 484 299</b>

# Spare parts

## Intermediate element

### Pneumatic type 240 / 241 / 242 Without manual override

d [mm]	DN [mm]	Type of actuator	Code
63	50	PA30 FC/FO	<b>198 000 595</b>
63	50	PA35 DA	<b>198 000 595</b>
75	65	PA30 FC/FO	<b>198 000 595</b>
75	65	PA35 DA	<b>198 000 595</b>
90	80	PA40 DA	<b>198 000 595</b>
90	80	PA35 FC/FO	<b>198 000 596</b>
110	100	PA40 FC/FO	<b>198 000 600</b>
110	100	PA45 DA	<b>198 000 600</b>
140	125	PA45 DA	<b>198 000 600</b>
140	125	PA45 FC/FO	<b>198 000 597</b>
160	150	PA55 DA	<b>198 000 600</b>
160	150	PA50 FC	<b>198 000 599</b>
225	200	PA55 FC/FO	<b>198 000 598</b>
225	200	PA55 DA	<b>198 000 600</b>
280	250	FA65 FC/FO	<b>198 000 730</b>
280	250	PA65 DA	<b>198 000 731</b>
315	300	PA70 FC/FO	<b>198 000 730</b>
315	300	PA70 DA	<b>198 000 731</b>

### Electric type 140 / 141 / 142 Without manual override

d [mm]	DN [mm]	Type of actuator	Code
63	50	EA31	<b>198 000 601</b>
75	65	EA31	<b>198 000 601</b>
90	80	EA31	<b>198 000 601</b>
110	100	EA31	<b>198 000 602</b>
140	125	EA31	<b>198 000 602</b>
160	150	EA31	<b>198 000 599</b>
225	200	EA42	<b>198 000 603</b>
280	250	EA42	<b>198 000 732</b>
315	300	EA42	<b>198 000 732</b>

### Electric type 140 / 141 / 142 With manual override

d-d [mm]	DN-DN [mm]	Type of actuator	Code
63 - 90	50 - 80	EA31	<b>198 000 623</b>
110 - 140	100 - 125	EA31	<b>198 000 624</b>
- 160	- 150	EA31	<b>198 000 625</b>
- 225	- 200	EA42	<b>198 000 627</b>

### Gear operated with handwheel 567 / 568

d [mm]	DN [mm]	Code
63	50	<b>198 000 621</b>
75	65	<b>198 000 621</b>
90	80	<b>198 000 621</b>
110	100	<b>198 000 622</b>
140	125	<b>198 000 622</b>
160	150	<b>198 000 599</b>

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## Spare parts

d [mm]	DN [mm]	Code
225	200	<b>198 000 599</b>
280	250	<b>198 000 880</b>
315	300	<b>198 000 880</b>

## Reduction gear with handwheel



d [mm]	Inch	DN [mm]	Code
75	2 ½	65	<b>161 482 408</b>
90	3	80	<b>161 482 408</b>
110	4	100	<b>161 482 408</b>
125	4 ½	125	<b>161 482 408</b>
160	6	150	<b>161 482 408</b>
225	8	200	<b>161 482 408</b>
280	10	250	<b>161 483 462</b>
315	12	300	<b>161 483 462</b>

## Spare parts

### Spare parts diaphragm valves new generation

Spare parts for hand-operated valves  
Type 514/515/517/519



### Bonnet complete



d [mm]	Inch	DN [mm]	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code
20	½	15	198 151 742	198 151 752	198 151 842
25	¾	20	198 151 743	198 151 753	198 151 843
32	1	25	198 151 744	198 151 754	198 151 844
40	1 ¼	32	198 151 745	198 151 755	198 151 845
50	1 ½	40	198 151 746	198 151 756	198 151 846
63	2	50	198 151 747	198 151 757	198 151 847

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code
20	½	15	198 151 852
25	¾	20	198 151 853
32	1	25	198 151 854
40	1 ¼	32	198 151 855
50	1 ½	40	198 151 856
63	2	50	198 151 857

### Hand wheel

Model:

- Without position indicator



DN [mm]	Code
15 - 20	198 204 162
25 - 32	198 204 164
40 - 50	198 104 166

# Spare parts

## Position indicator



d [mm]	Inch	DN [mm]	Code
20	1/2	15	<b>167 484 992</b>
25	3/4	20	<b>167 484 993</b>
32	1	25	<b>167 484 994</b>
40	1 1/4	32	<b>167 484 995</b>
50	1 1/2	40	<b>167 484 996</b>
63	2	50	<b>167 484 997</b>

## Spindle assembly

### Model:

- Incl. position indicator and compressor



DN-DN [mm]	Code
15 - 20	<b>198 204 327</b>
25 - 32	<b>198 204 328</b>
40 - 50	<b>198 204 329</b>

## Seal set

### Model:

- For manual valve - pressure tight housing
- Incl. position indicator



d [mm]	Inch	DN [mm]	EPDM Code
20	1/2	15	<b>198 000 892</b>
25	3/4	20	<b>198 000 893</b>
32	1	25	<b>198 000 894</b>
40	1 1/4	32	<b>198 000 895</b>
50	1 1/2	40	<b>198 000 896</b>
63	2	50	<b>198 000 897</b>



# Spare parts

## Spare parts for automatic valves Diastar Six/Ten/Sixteen



### Actuators



d [mm]	Inch	DN [mm]	Diastar Six Code	Diastar Ten Code	Diastar Sixteen FC Code	Diastar Ten FO Code
20	1/2	15	198 151 762	198 151 772	198 151 782	198 151 792
25	3/4	20	198 151 763	198 151 773	198 151 783	198 151 793
32	1	25	198 151 764	198 151 774	198 151 784	198 151 794
40	1 1/4	32	198 151 765	198 151 775	198 151 785	198 151 795
50	1 1/2	40	198 151 766	198 151 776	198 151 786	198 151 796
63	2	50	198 151 767	198 151 777	198 151 787	198 151 797

d [mm]	Inch	DN [mm]	Diastar Ten DA Code
20	1/2	15	198 151 802
25	3/4	20	198 151 803
32	1	25	198 151 804
40	1 1/4	32	198 151 805
50	1 1/2	40	198 151 806
63	2	50	198 151 807

### Indicator cap



Size	Code
1-2	198 806 639
3-5	198 806 640

# Spare parts

## Compressor set



**Model:**

- Incl. diaphragm holder

d [mm]	Inch	DN [mm]	Code
20	1/2	15	198 000 872
25	3/4	20	198 000 873
32	1	25	198 000 874
40	1 1/4	32	198 000 875
50	1 1/2	40	198 000 876
63	2	50	198 000 877

## Seal set



**Model:**

- Spindle seal and piston seal

Size	Diastar Six/Ten/ Sixteen Code	Only for Diastar Six DN40/DN50 Code
Gr. 1	198 000 881	-
Gr. 2	198 000 882	-
Gr. 3	198 000 883	198 000 886
Gr. 4	198 000 884	-
Gr. 5	198 000 885	-

## Spare parts diaphragm

### For type 514/515/517/519



d [mm]	Inch	DN [mm]	NBR Code	EPDM Code	FPM Code	PTFE/EPDM Code	PTFE/EPDM HP Code
20	1/2	15	745 500 012	748 500 012	749 500 012	747 502 012	747 502 032
25	3/4	20	745 500 013	748 500 013	749 500 013	747 502 013	747 502 033
32	1	25	745 500 014	748 500 014	749 500 014	747 502 014	747 502 034
40	1 1/4	32	745 500 015	748 500 015	749 500 015	747 502 015	747 502 035
50	1 1/2	40	745 500 016	748 500 016	749 500 016	747 502 016	747 502 036
63	2	50	745 500 017	748 500 017	749 500 017	747 502 017	747 502 037

d [mm]	Inch	DN [mm]	PTFE/FPM Code
20	1/2	15	747 503 012
25	3/4	20	747 503 013
32	1	25	747 503 014
40	1 1/4	32	747 503 015
50	1 1/2	40	747 503 016
63	2	50	747 503 017

## Spare parts for valve body type 514

### Valve body with true union

**Model:**

- Without connection parts



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
20	1/2	15	161 492 062	163 482 052	169 481 322	167 483 522	175 483 682
25	3/4	20	161 492 063	163 482 053	169 481 323	167 483 523	175 483 683
32	1	25	161 492 064	163 482 054	169 481 324	167 483 524	175 483 684
40	1 1/4	32	161 492 065	163 482 055	169 481 325	167 483 525	175 483 685
50	1 1/2	40	161 492 066	163 482 056	169 481 326	167 483 526	175 483 686
63	2	50	161 492 067	163 482 057	169 481 327	167 483 527	175 483 687

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## Spare parts

d [mm]	Inch	DN [mm]	PVDF HP Code
20	½	15	180 001 002
25	¾	20	180 001 003
32	1	25	180 001 004
40	1 ¼	32	180 001 005
50	1 ½	40	180 001 006
63	2	50	180 001 007



### Union end

d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U JIS Code	PVC-U BS Code	PVC-U ASTM Code	PP-H metric Code
20	½	15	721 600 106	721 605 106	721 601 106	721 602 006	727 600 106
25	¾	20	721 600 107	721 605 107	721 601 107	721 602 007	727 600 107
32	1	25	721 600 108	721 605 108	721 601 108	721 602 008	727 600 108
40	1 ¼	32	721 600 109	721 605 109	721 601 109	721 602 009	727 600 109
50	1 ½	40	721 600 110	721 605 110	721 601 110	721 602 010	727 600 110
63	2	50	721 600 111	721 605 111	721 601 111	721 602 011	727 600 111

d [mm]	Inch	DN [mm]	PVDF metric Code
20	½	15	735 600 106
25	¾	20	735 600 107
32	1	25	735 600 108
40	1 ¼	32	735 600 109
50	1 ½	40	735 600 110
63	2	50	735 600 111



### Union nut

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
20	½	15	721 690 006	723 690 006	729 690 406	727 690 406	735 690 406
25	¾	20	721 690 007	723 690 007	729 690 407	727 690 407	735 690 407
32	1	25	721 690 008	723 690 008	729 690 408	727 690 408	735 690 408
40	1 ¼	32	721 690 009	723 690 009	729 690 409	727 690 409	735 690 409
50	1 ½	40	721 690 010	723 690 010	729 690 410	727 690 410	735 690 410
63	2	50	721 690 011	723 690 011	729 690 411	727 690 411	735 690 411



### O-ring

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
20	½	15	748 410 006	749 410 006
25	¾	20	748 410 007	749 410 007
32	1	25	748 410 008	749 410 008
40	1 ¼	32	748 410 009	749 410 009
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011

# Spare parts

## Spare parts for valve body type 515

### Valve body with spigot ends



d [mm]	Inch	DN [mm]	PVC-U solvent ce- ment spigot Code	PVC-C solvent ce- ment spigot Code	ABS solvent ce- ment spigot Code	
20	½	15	161 492 072	163 482 062	169 481 862	
25	¾	20	161 492 073	163 482 063	169 481 863	
32	1	25	161 492 074	163 482 064	169 481 864	
40	1 ¼	32	161 492 075	163 482 065	169 481 865	
50	1 ½	40	161 492 076	163 482 066	169 481 866	
63	2	50	161 492 077	163 482 067	169 481 867	



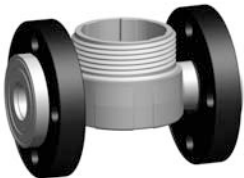
d [mm]	Inch	DN [mm]	PP-H socket fu- sion spigot Code	PP-H butt fusion spigot IR Code	PP-N butt fusion spigot IR Code	
20	½	15	167 483 342	167 483 882	168 480 462	
25	¾	20	167 483 343	167 483 883	168 480 463	
32	1	25	167 483 344	167 483 884	168 480 464	
40	1 ¼	32	167 483 345	167 483 885	168 480 465	
50	1 ½	40	167 483 346	167 483 886	168 480 466	
63	2	50	167 483 347	167 483 887	168 480 467	



d [mm]	Inch	DN [mm]	PVDF socket fu- sion spigot Code	PVDF butt fusion spigot IR Code	PVDF-HP butt fu- sion spigot IR Code	
20	½	15	175 483 692	175 483 742	180 001 012	
25	¾	20	175 483 693	175 483 743	180 001 013	
32	1	25	175 483 694	175 483 744	180 001 014	
40	1 ¼	32	175 483 695	175 483 745	180 001 015	
50	1 ½	40	175 483 696	175 483 746	180 001 016	
63	2	50	175 483 697	175 483 747	180 001 017	

## Spare parts for valve body type 517

### Valve body with flange connection



d [mm]	Inch	DN [mm]	PVC-U JIS Code	PP-H JIS Code	PVDF JIS Code	
20	½	15	161 480 282	167 484 402	175 483 532	
25	¾	20	161 480 283	167 484 403	175 483 533	
32	1	25	161 480 284	167 484 404	175 483 534	
40	1 ¼	32	161 480 285	167 484 405	175 483 535	
50	1 ½	40	161 480 286	167 484 406	175 483 536	
63	2	50	161 480 287	167 484 407	175 483 537	

### Flange adaptor flat



d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-C metric Code	ABS metric Code	PP-H metric Code	
20	½	15	721 800 106	723 790 106	729 790 106	727 790 206	
25	¾	20	721 800 107	723 790 107	729 790 107	727 790 207	
32	1	25	721 800 108	723 790 108	729 790 108	727 790 208	
40	1 ¼	32	721 800 109	723 790 109	729 790 109	727 790 209	
50	1 ½	40	721 800 110	723 790 110	729 790 110	727 790 210	
63	2	50	721 790 111	723 790 111	729 790 111	727 790 211	

table continued next page

## Spare parts

d [mm]	Inch	DN [mm]	PVDF metric Code
20	½	15	735 790 206
25	¾	20	735 790 207
32	1	25	735 790 208
40	1 ¼	32	735 790 209
50	1 ½	40	735 790 210
63	2	50	735 790 211

## Flange



d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U ASTM Code	PP-V metric Code	PP-V ASTM Code	PP-ST metric Code
20	½	15	721 700 006	721 702 206	727 700 406	727 701 406	727 700 206
25	¾	20	721 700 007	721 702 207	727 700 407	727 701 407	727 700 207
32	1	25	721 700 008	721 702 208	727 700 408	727 701 408	727 700 208
40	1 ¼	32	721 700 009	721 702 209	727 700 409	727 701 409	727 700 209
50	1 ½	40	721 700 010	721 702 210	727 700 410	727 701 410	727 700 210
63	2	50	721 700 011	721 702 211	727 700 411	727 701 411	727 700 211

d [mm]	Inch	DN [mm]	PP-ST ASTM Code
20	½	15	727 701 206
25	¾	20	727 701 207
32	1	25	727 701 208
40	1 ¼	32	727 701 209
50	1 ½	40	727 701 210
63	2	50	727 701 211

## Flat gasket



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
20	½	15	748 400 006	749 400 006
25	¾	20	748 400 007	749 400 007
32	1	25	748 400 008	749 400 008
40	1 ¼	32	748 400 009	749 400 009
50	1 ½	40	748 400 010	749 400 010
63	2	50	748 400 011	749 400 011

## Spare parts for valve body type 519

### Valve body with butt fusion spigot



d [mm]	Inch	PP-H Code	PP-Natur Code	PVDF-HP Code
20 - 20	½	167 485 911	168 480 601	180 001 101
25 - 20	¾	167 485 912	168 480 602	180 001 102
25 - 25	¾	167 485 913	168 480 603	180 001 103
32 - 20	1	167 485 914	168 480 604	180 001 104
32 - 25	1	167 485 915	168 480 605	180 001 105
32 - 32	1	167 485 916	168 480 606	180 001 106
40 - 20	1 ¼	167 485 917	168 480 607	180 001 107
40 - 25	1 ¼	-	-	180 001 108
40 - 32	1 ¼	-	-	180 001 109
40 - 40	1 ¼	-	-	180 001 110
50 - 20	1 ½	167 485 922	168 480 611	180 001 111
50 - 25	1 ½	167 485 923	168 480 612	180 001 112
50 - 32	1 ½	167 485 924	168 480 613	180 001 113
50 - 40	1 ½	-	-	180 001 114
50 - 50	1 ½	-	-	180 001 115
63 - 20	2	167 485 927	168 480 616	180 001 116
63 - 25	2	167 485 928	168 480 617	180 001 117
63 - 32	2	167 485 929	168 480 618	180 001 118

table continued next page

# Spare parts

<b>d</b> [mm]	<b>Inch</b>	<b>PP-H</b> <b>Code</b>	<b>PP-Natur</b> <b>Code</b>	<b>PVDF-HP</b> <b>Code</b>	
63 - 40	2	-	-	<b>180 001 119</b>	
63 - 50	2	-	-	<b>180 001 120</b>	
63 - 63	2	-	-	<b>180 001 121</b>	
90 - 25	3	-		<b>180 001 126</b>	
90 - 32	3	-		<b>180 001 127</b>	
90 - 50	3	-		<b>180 001 128</b>	
90 - 63	3	-		<b>180 001 129</b>	
110 - 20	4	-		<b>180 001 130</b>	
110 - 25	4	-		<b>180 001 131</b>	
110 - 32	4	-		<b>180 001 132</b>	
110 - 50	4	-		<b>180 001 133</b>	
110 - 63	4	-		<b>180 001 134</b>	

## Spare parts

### Spare parts solenoid valves

#### Spare parts solenoid valve type 157 coil set

Voltage	Function	EPDM Code	FPM Code	
24V DC	A	198 808 000	198 808 006	
24V DC	B	198 808 001	198 808 007	
24V UC	A	198 808 002	198 808 008	
24V UC	B	198 808 003	198 808 009	
230V AC	A	198 808 004	198 808 010	
230V AC	B	198 808 005	198 808 011	

#### wear part set

	EPDM Code	FPM Code	
e.g. o-rings	198 808 012	198 808 013	

#### Spare parts solenoid valve type 160/161 coil set

24V UC Code	230 V UC Code	230 V/ 50Hz Code	
198 808 014	198 808 015	198 808 016	

#### spare part kit

Function	UC Code	50Hz Code	
A	198 808 017	198 808 021	
B	198 808 018	-	
E	198 808 019	-	
F	198 808 020	198 808 022	

#### wear part set

d [mm]	DN [mm]	EPDM Code	FPM Code	
16	10	198 808 023	198 808 026	
20	15	198 808 024	198 808 027	
25	20	198 808 025	198 808 028	

#### Spare parts solenoid valve type 165 coil set

Voltage	EPDM Code	FPM Code	
24V DC	198 808 029	198 808 032	
230V AC	198 808 030	198 808 033	
110V AC	198 808 031	198 808 034	

# Spare parts

## wear part set

d-d [mm]	DN-DN [mm]	EPDM Code	FPM Code	
20 - 25	15 - 20	198 808 035	198 808 038	
32 - 40	25 - 32	198 808 036	198 808 039	
50 - 63	40 - 50	198 808 037	198 808 040	

## Spare parts solenoid valve type 166

### coil set

Voltage	Function	EPDM Code	FPM Code	
24V DC	A	198 808 041	198 808 047	
230V AC	A	198 808 042	198 808 048	
24V DC	C	198 808 043	-	
24V UC	C	-	198 808 049	
230V AC	C	198 808 044	198 808 050	
24V DC	E	198 808 045	198 808 051	
230V AC	E	198 808 046	198 808 052	

### wear part set

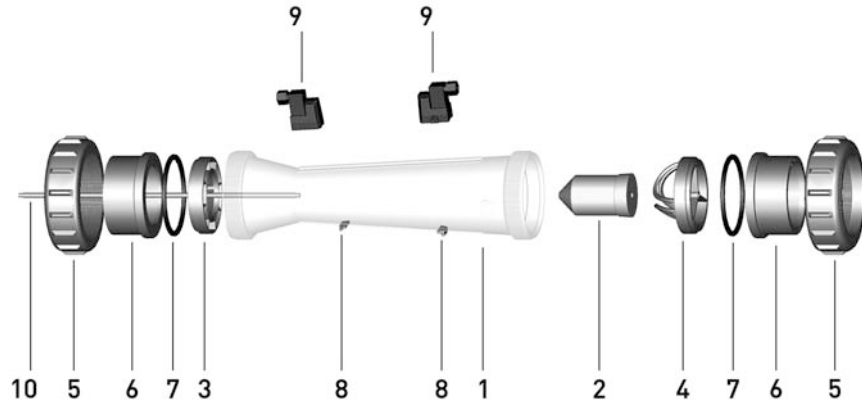
	EPDM Code	FPM Code	
e.g. o-rings	198 808 053	198 808 054	



# Spare parts

## Spare parts variable area flow meters

### Variable area flow meter type 335



### Taper tube with water scale (1)

- PVC-U transparent



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code
50 - 500	32	1	25	198 335 055	198 335 070	198 335 085
100 - 1000	32	1	25	198 335 056	198 335 071	198 335 086
150 - 1500	40	1 ¼	32	198 335 057	198 335 072	198 335 087
250 - 2500	40	1 ¼	32	198 335 058	198 335 073	198 335 088
200 - 2000	50	1 ½	40	198 335 059	198 335 074	198 335 089
300 - 3000	50	1 ½	40	198 335 060	198 335 075	198 335 090
600 - 6000	50	1 ½	40	198 335 061	198 335 076	198 335 091
600 - 6000	63	2	50	198335062*	198 335 077	198 335 092
1000 - 10000	63	2	50	198335063*	198 335 078	198 335 093
1500 - 15000	63	2	50	198335064*	198 335 079	198 335 094
2000 - 20000	75	2 ½	65	198335065*	198 335 080	198 335 095
3000 - 30000	75	2 ½	65	198335066*	198 335 081	198 335 096
8000 - 60000	75	2 ½	65	198335067*	198 335 082	198 335 097

### Taper tube without scale (1)

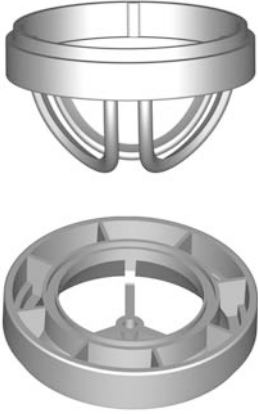
- PVC-U transparent



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code
50 - 500	32	1	25	198 335 255	198 335 270	198 335 285
100 - 1000	32	1	25	198 335 256	198 335 271	198 335 286
150 - 1500	40	1 ¼	32	198 335 257	198 335 272	198 335 287
250 - 2500	40	1 ¼	32	198 335 258	198 335 273	198 335 288
200 - 2000	50	1 ½	40	198 335 259	198 335 274	198 335 289
300 - 3000	50	1 ½	40	198 335 260	198 335 275	198 335 290
600 - 6000	50	1 ½	40	198 335 261	198 335 276	198 335 291
600 - 6000	63	2	50	198335262*	198 335 277	198 335 292
1000 - 10000	63	2	50	198335263*	198 335 278	198 335 293
1500 - 15000	63	2	50	198335264*	198 335 279	198 335 294
2000 - 20000	75	2 ½	65	198335265*	198 335 280	198 335 295
3000 - 30000	75	2 ½	65	198335266*	198 335 281	198 335 296
8000 - 60000	75	2 ½	65	198335267*	198 335 282	198 335 297

# Spare parts

## Insert PVDF (3,4)



Scale range [l/h]	d [mm]	Inch	DN [mm]	top (4) Code	bottom (3) Code
50 - 500	32	1	25	198 335 970	198 335 977
100 - 1000	32	1	25	198 335 970	198 335 977
150 - 1500	40	1 ¼	32	198 335 971	198 335 978
250 - 2500	40	1 ¼	32	198 335 971	198 335 978
200 - 2000	50	1 ½	40	198 335 972	198 335 979
300 - 3000	50	1 ½	40	198 335 972	198 335 979
600 - 6000	50	1 ½	40	198 335 972	198 335 979
600 - 6000	63	2	50	198 335 973	198 335 980
1000 - 10000	63	2	50	198 335 973	198 335 980
1500 - 15000	63	2	50	198 335 974	198 335 982
2000 - 20000	75	2 ½	65	198 335 975	198 335 981
3000 - 30000	75	2 ½	65	198 335 975	198 335 981
8000 - 60000	75	2 ½	65	198 335 975	198 335 981

## Float PVDF (2)



Scale range [l/h]	d [mm]	Inch	DN [mm]	Without magnet Code	With magnet (bistabil) Code
50 - 500	32	1	25	198 335 455	198 335 470
100 - 1000	32	1	25	198 335 455	198 335 470
150 - 1500	40	1 ¼	32	198 335 455	198 335 470
250 - 2500	40	1 ¼	32	198 335 455	198 335 470
200 - 2000	50	1 ½	40	198 335 456	198 335 471
300 - 3000	50	1 ½	40	198 335 457	198 335 471
600 - 6000	50	1 ½	40	198 335 457	198 335 471
600 - 6000	63	2	50	198 335 457	198 335 471
1000 - 10000	63	2	50	198 335 457	198 335 471
1500 - 15000	63	2	50	198 335 458	198 335 472
2000 - 20000	75	2 ½	65	198 335 459	198 335 473
3000 - 30000	75	2 ½	65	198 335 459	198 335 473
8000 - 60000	75	2 ½	65	198 335 460	198 335 474

## Guiding rod (10)

Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)



Scale range [l/h]	d [mm]	Inch	DN [mm]	Peek Code	Stainless steel Code
1500 - 15000	63	2	50	198 335 985	198 335 098
2000 - 20000	75	2 ½	65	198 335 985	198 335 098
3000 - 30000	75	2 ½	65	198 335 985	198 335 098
8000 - 80000	75	2 ½	65	198 335 985	198 335 098

## Insert guiding rod PVDF (for 10)

Model:

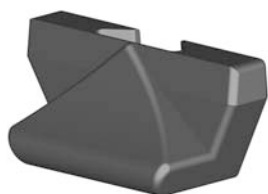
- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)



Scale range [l/h]	d [mm]	Inch	DN [mm]	Insert guiding rod Code
1500 - 15000	63	2	50	198 335 986
2000 - 20000	75	2 ½	65	198 335 987
3000 - 30000	75	2 ½	65	198 335 987
8000 - 80000	75	2 ½	65	198 335 987

## Spare parts

### Flow value indicator PS (8)



**Model:**

- For all dimensions type 335/350

d [mm]	Inch	DN [mm]	Flow value indicator Code
32	1	25	198 335 990
40	1 ¼	32	198 335 990
50	1 ½	40	198 335 990
63	2	50	198 335 990
75	2 ½	65	198 335 990

### O-rings (7)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
32	1	25	748 410 008	749 410 008
40	1 ¼	32	748 410 009	749 410 009
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011
75	2 ½	65	748 410 014	749 410 014

### Union nut (5)

Union nut not useable for the special version with taper tube in PVDF



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
32	1	25	721 690 008	723 690 008	729 690 408	727 690 408	735 690 408
40	1 ¼	32	721 690 009	723 690 009	729 690 409	727 690 409	735 690 409
50	1 ½	40	721 690 010	723 690 010	729 690 410	727 690 410	735 690 410
63	2	50	721 690 011	723 690 011	729 690 411	727 690 411	735 690 411
75	2 ½	65	198 806 423	-	-	198 806 421	198 806 422

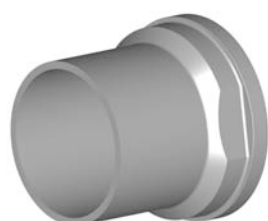
### Union end / Socket (6)

For DN65 PVDF only spigot



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
32	1	25	721 600 108	723 600 108	729 600 108	727 600 108	735 600 108
40	1 ¼	32	721 600 109	723 600 109	729 600 109	727 600 109	735 600 109
50	1 ½	40	721 600 110	723 600 110	729 600 110	727 600 110	735 600 110
63	2	50	721 600 111	723 600 111	729 600 111	727 600 111	735 600 111
75	2 ½	65	721 600 112	700 253 867	700 246 112	700 253 866	-

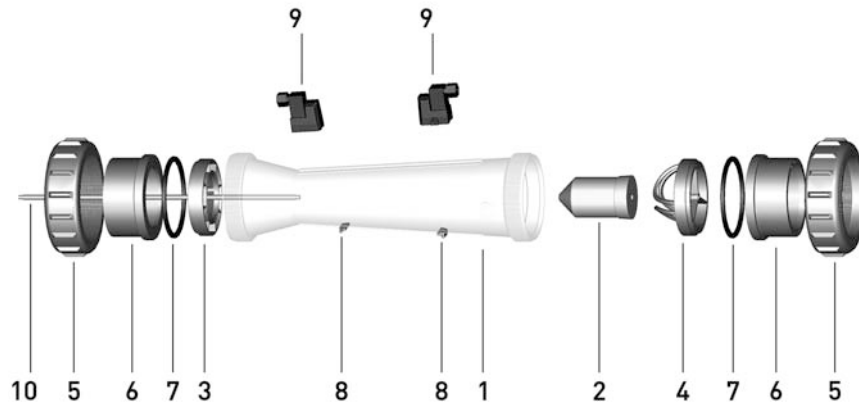
### Union end / Spigot (6)



d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code
32	1	25	727 608 508	735 608 608
40	1 ¼	32	727 608 509	735 608 609
50	1 ½	40	727 608 510	735 608 610
63	2	50	727 608 511	735 608 611
75	2 ½	65	700 256 401	175 483 013

# Spare parts

## Variable area flow meter type 350



### Taper tube with water scale (1)

- PVC-U transparent



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code
50 - 500	32	1	25	198 350 055	198 350 070	198 350 085
100 - 1000	32	1	25	198 350 056	198 350 071	198 350 086
150 - 1500	40	1 ¼	32	198 350 057	198 350 072	198 350 087
250 - 2500	40	1 ¼	32	198 350 058	198 350 073	198 350 088
200 - 2000	50	1 ½	40	198 350 059	198 350 074	198 350 089
300 - 3000	50	1 ½	40	198 350 060	198 350 075	198 350 090
600 - 6000	50	1 ½	40	198 350 061	198 350 076	198 350 091
600 - 6000	63	2	50	198350062*	198 350 077	198 350 092
1000 - 10000	63	2	50	198350063*	198 350 078	198 350 093
1500 - 15000	63	2	50	198350064*	198 350 079	198 350 094
2000 - 20000	75	2 ½	65	198350065*	198 350 080	198 350 095
3000 - 30000	75	2 ½	65	198350066*	198 350 081	198 350 096
8000 - 60000	75	2 ½	65	198350067*	198 350 082	198 350 097

### Taper tube without scale (1)

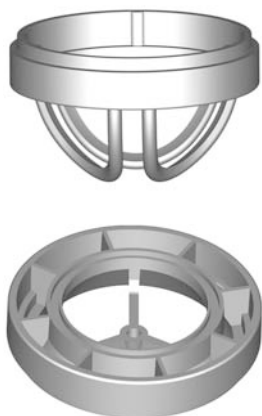
- PVC-U transparent



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code
50 - 500	32	1	25	198 350 255	198 350 270	198 350 285
100 - 1000	32	1	25	198 350 256	198 350 271	198 350 286
150 - 1500	40	1 ¼	32	198 350 257	198 350 272	198 350 287
250 - 2500	40	1 ¼	32	198 350 258	198 350 273	198 350 288
200 - 2000	50	1 ½	40	198 350 259	198 350 274	198 350 289
300 - 3000	50	1 ½	40	198 350 260	198 350 275	198 350 290
600 - 6000	50	1 ½	40	198 350 261	198 350 276	198 350 291
600 - 6000	63	2	50	198350262*	198 350 277	198 350 292
1000 - 10000	63	2	50	198350263*	198 350 278	198 350 293
1500 - 15000	63	2	50	198350264*	198 350 279	198 350 294
2000 - 20000	75	2 ½	65	198350265*	198 350 280	198 350 295
3000 - 30000	75	2 ½	65	198350266*	198 350 281	198 350 296
8000 - 60000	75	2 ½	65	198350267*	198 350 282	198 350 297

## Spare parts

### Insert PVDF (3,4)



Scale range [l/h]	d [mm]	Inch	DN [mm]	top (4) Code	bottom (3) Code
50 - 500	32	1	25	198 335 970	198 335 977
100 - 1000	32	1	25	198 335 970	198 335 977
150 - 1500	40	1 ¼	32	198 335 971	198 335 978
250 - 2500	40	1 ¼	32	198 335 971	198 335 978
200 - 2000	50	1 ½	40	198 335 972	198 335 979
300 - 3000	50	1 ½	40	198 335 972	198 335 979
600 - 6000	50	1 ½	40	198 335 972	198 335 979
600 - 6000	63	2	50	198 335 973	198 335 980
1000 - 10000	63	2	50	198 335 973	198 335 980
1500 - 15000	63	2	50	198 335 974	198 335 982
2000 - 20000	75	2 ½	65	198 335 975	198 335 981
3000 - 30000	75	2 ½	65	198 335 975	198 335 981
8000 - 60000	75	2 ½	65	198 335 975	198 335 981

### Float PVDF (2)



Scale range [l/h]	d [mm]	Inch	DN [mm]	Without magnet Code	With magnet Code
50 - 500	32	1	25	198 335 455	198 335 470
100 - 1000	32	1	25	198 335 455	198 335 470
150 - 1500	40	1 ¼	32	198 335 455	198 335 470
250 - 2500	40	1 ¼	32	198 335 455	198 335 470
200 - 2000	50	1 ½	40	198 335 456	198 335 471
300 - 3000	50	1 ½	40	198 335 457	198 335 471
600 - 6000	50	1 ½	40	198 335 457	198 335 471
600 - 6000	63	2	50	198 335 457	198 335 471
1000 - 10000	63	2	50	198 335 457	198 335 471
1500 - 15000	63	2	50	198 335 458	198 335 472
2000 - 20000	75	2 ½	65	198 335 459	198 335 473
3000 - 30000	75	2 ½	65	198 335 459	198 335 473
8000 - 60000	75	2 ½	65	198 335 460	198 335 474

### Guiding rod (10)



#### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

Scale range [l/h]	d [mm]	Inch	DN [mm]	Peek Code	Stainless steel Code
1500 - 15000	63	2	50	198 350 980	198 350 098
2000 - 20000	75	2 ½	65	198 350 980	198 350 098
3000 - 30000	75	2 ½	65	198 350 980	198 350 098
8000 - 60000	75	2 ½	65	198 350 980	198 350 098

### Insert guiding rod PVDF (for 10)



#### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

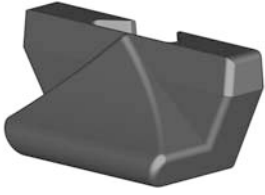
Scale range [l/h]	d [mm]	Inch	DN [mm]	Insert guiding rod Code
1500 - 15000	63	2	50	198 335 986
2000 - 20000	75	2 ½	65	198 335 987
3000 - 30000	75	2 ½	65	198 335 987
8000 - 60000	75	2 ½	65	198 335 987

## Spare parts

### Flow value indicator PS (8)

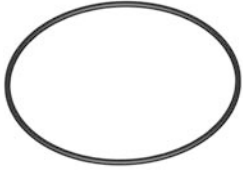
Model:

- For all dimensions type 335/350



d [mm]	Inch	DN [mm]	Flow value indicator Code
32	1	25	198 335 990
40	1 ¼	32	198 335 990
50	1 ½	40	198 335 990
63	2	50	198 335 990
75	2 ½	65	198 335 990

### O-rings (7)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code
32	1	25	748 410 008	749 410 008
40	1 ¼	32	748 410 009	749 410 009
50	1 ½	40	748 410 010	749 410 010
63	2	50	748 410 011	749 410 011
75	2 ½	65	748 410 014	749 410 014

### Union nut (5)

Union nut not useable for the special version with taper tube in PVDF



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
32	1	25	721 690 008	723 690 008	729 690 408	727 690 408	735 690 408
40	1 ¼	32	721 690 009	723 690 009	729 690 409	727 690 409	735 690 409
50	1 ½	40	721 690 010	723 690 010	729 690 410	727 690 410	735 690 410
63	2	50	721 690 011	723 690 011	729 690 411	727 690 411	735 690 411
75	2 ½	65	198 806 423	-	-	198 806 421	198 806 422

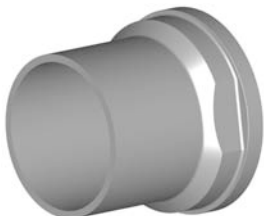
### Union end / Socket (6)

For DN65 PVDF only spigot



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
32	1	25	721 600 108	723 600 108	729 600 108	727 600 108	735 600 108
40	1 ¼	32	721 600 109	723 600 109	729 600 109	727 600 109	735 600 109
50	1 ½	40	721 600 110	723 600 110	729 600 110	727 600 110	735 600 110
63	2	50	721 600 111	723 600 111	729 600 111	727 600 111	735 600 111
75	2 ½	65	721 600 112	700 253 867	700 246 112	700 253 866	-

### Union end / Spigot (6)



d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code
32	1	25	727 608 508	735 608 608
40	1 ¼	32	727 608 509	735 608 609
50	1 ½	40	727 608 510	735 608 610
63	2	50	727 608 511	735 608 611
75	2 ½	65	700 256 401	175 483 013

### Spare part for variable area flow meter

table continued next page

# Spare parts

## SK50-SK73/SK500-SK730

### Short version taper tube Polysulfone

Type	d [mm]	DN [mm]	Code
SK 50 / 500	16	10	198 801 341
SK 51 / 510	16	10	198 801 342
SK 52 / 520	16	10	198 801 343
SK 60 / 600	20	15	198 801 449
SK 61 / 610	20	15	198 801 450
SK 62 / 620	20	15	198 801 451
SK 70 / 700	32	25	198 801 445
SK 71 / 710	32	25	198 801 338
SK 72 / 720	32	25	198 801 339
SK 73 / 730	32	25	198 801 340

### Short version taper tube PVC-U transparent

Type	d [mm]	DN [mm]	Code
SK 50 / 500	16	10	198 803 790
SK 51 / 510	16	10	198 803 791
SK 52 / 520	16	10	198 803 792
SK 60 / 600	20	15	198 803 793
SK 61 / 610	20	15	198 803 794
SK 62 / 620	20	15	198 803 795
SK 70 / 700	32	25	198 803 796
SK 71 / 710	32	25	198 803 797
SK 72 / 720	32	25	198 803 798
SK 73 / 730	32	25	198 803 799

### Short version float PVDF Without magnet

Type	d [mm]	DN [mm]	Code
SK 50 / 51 / 52	16	10	198 806 219
SK 60 / 61 / 62	20	15	198 806 220
SK 70 / 71 / 72 / 73	32	25	198 806 221

### Short version float PVDF With magnet bistable

Type	d [mm]	DN [mm]	Code
SK 500 / 510 / 520	16	10	198 806 222
SK 600 / 610 / 620	20	15	198 806 223
SK 700 / 710 / 720 / 730	32	25	198 806 224

### Short version float PTFE Without magnet

Type	d [mm]	DN [mm]	Code
SK 73	32	25	198 807 166













# Spare parts

## Short version top insert PVDF

Type	d [mm]	DN [mm]	Code	
SK 50 / 500; 51 / 510; 52 / 520	16	10	<b>198 807 188</b>	
SK 60 / 600; 61 / 610; 62 / 620	20	15	<b>198 807 187</b>	
SK 70 / 700; 71 / 710; 72 / 720; 73 / 730	32	25	<b>198 807 182</b>	



# Automation and actuators

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# Automation and actuators

## Pneumatic rotary actuators PA

### Pneumatic actuator type PA11/PA21

#### Fail safe to close (FC)



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 FC	10 - 25	3/8 - 1	<b>198 150 127</b>
PA 21 FC	32 - 50	1 1/4 - 2	<b>198 150 130</b>

#### Fail safe to open (FO)



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 FO	10 - 25	3/8 - 1	<b>198 150 128</b>
PA 21 FO	32 - 50	1 1/4 - 2	<b>198 150 131</b>

#### Double action (DA)



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 DA	10 - 25	3/8 - 1	<b>198 150 129</b>
PA 21 DA	32 - 50	1 1/4 - 2	<b>198 150 132</b>

#### Fail safe to close (FC) with stroke limiter



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 FC	10 - 25	3/8 - 1	<b>198 150 144</b>
PA 21 FC	32 - 50	1 1/4 - 2	<b>198 150 147</b>

#### Fail safe to open (FO) with stroke limiter



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 FO	10 - 25	3/8 - 1	<b>198 150 145</b>
PA 21 FO	32 - 50	1 1/4 - 2	<b>198 150 148</b>

#### Double action (DA) with stroke limiter



Type	DN-DN [mm]	Inch [inch]	Code
PA 11 DA	10 - 25	3/8 - 1	<b>198 150 146</b>
PA 21 DA	32 - 50	1 1/4 - 2	<b>198 150 149</b>

### Pneumatic actuator type PA30 PA90

#### Fail safe to close/fail safe to open (FC/FO)



\* Only valid for butterfly valve type 240, 241, 242 and ball valve type 230 - 235

Type	hard anodized Code	nickel plated Code	hard anodized with stroke limiter Code	epoxy coated Code
PA 30 FC/FO	<b>198 800 757</b>	<b>198 800 034</b>	-	<b>198 811 194</b>
* PA 30 FO	<b>198 811 025</b>	-	-	-
PA 35 FC/FO	<b>198 800 037</b>	<b>198 800 052</b>	-	<b>198 800 029</b>
* PA 35 FO	<b>198 811 026</b>	-	-	-
PA 40 FC/FO	<b>198 800 728</b>	<b>198 800 004</b>	<b>198 800 017</b>	<b>198 800 025</b>
* PA 40 FO	<b>198 811 027</b>	-	-	-

table continued next page

# Automation and actuators

Type	hard anodized Code	nickel plated Code	hard anodized with stroke limiter Code	epoxy coated Code
PA 45 FC/FO	<b>198 800 039</b>	<b>198 800 054</b>	-	-
* PA45 FO	<b>198 811 028</b>	-	-	-
PA 50 FC/FO	<b>198 800 729</b>	<b>198 800 005</b>	<b>198 800 018</b>	<b>198 800 026</b>
* PA50 FO	<b>198 811 029</b>	-	-	-
PA 55 FC/FO	<b>198 800 041</b>	<b>198 800 056</b>	-	<b>198 811 190</b>
* PA 55 FO	<b>198 811 030</b>	-	-	-
PA 60 FC/FO	<b>198 800 730</b>	<b>198 800 006</b>	<b>198 800 019</b>	-
PA 65 FC/FO	<b>198 800 043</b>	<b>198 800 058</b>	-	-
PA 70 FC/FO	<b>198 800 731</b>	<b>198 800 007</b>	<b>198 800 020</b>	<b>198 800 028</b>
PA 70 FO	<b>198 811 198</b>	-	-	-
PA 75 FC/FO	<b>198 800 045</b>	<b>198 800 060</b>	-	-
PA 80 FC/FO	<b>198 800 047</b>	<b>198 800 062</b>	-	-

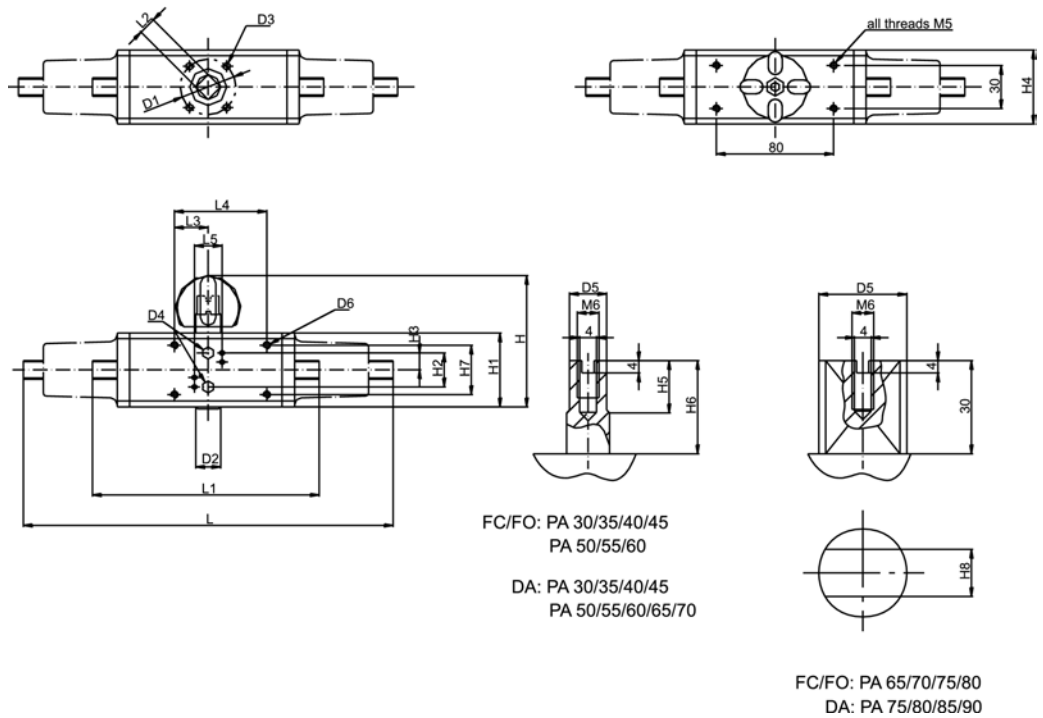
Type		D1 [mm]	D2 [mm]	D3[M] [mm]	D4 [inch]	D5 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]
PA 30 FC/FO	F04	42	30	M5x9		10	276	11	35	70	32	102	70
* PA 30 FO	F04	42	30	M5x9	1/8	10	276	11	35	70	32	102	70
PA 35 FC/FO	F05	50	35	M6x11		12	326	14	35	70	32	111	78
* PA 35 FO	F05	50	35	M6x11	1/8	12	326	14	35	70	32	111	78
PA 40 FC/FO	F05	50	35	M6x11		12	370	14	35	70	32	129	86
* PA 40 FO	F05	50	35	M6x11	1/8	12	370	14	35	70	32	129	86
PA 45 FC/FO	F07	70	55	M8x15	1/8	15	411	17	35	70	32	139	96
* PA45 FO	F07	70	55	M8x15	1/8	15	411	17	35	70	32	139	96
PA 50 FC/FO	F07	70	55	M8x15		15	423	17	35	70	32	149	106
* PA50 FO	F07	70	55	M8x15	1/8	15	423	17	35	70	32	149	106
PA 55 FC/FO	F10	102	70	M10x17		19	452	22	35	70	32	161	118
* PA 55 FO	F10	102	70	M10x17	1/8	19	452	22	35	70	32	161	118
PA 60 FC/FO	F10	102	70	M10x17	1/8	19	503	22	35	70	32	173	130
PA 65 FC/FO	F12	125	85	M12x21	1/4		648	27			32	191	148
PA 70 FC/FO	F12	125	85	M12x21			663	27			32	196	153
PA 70 FO	F12	125	85	M12x21	1/4		663	27			32	196	153
PA 75 FC/FO	F14	140	100	M16x25	1/4		824	36			32	229	186
PA 80 FC/FO	F14	140	100	M16x25	1/4		918	36			32	241	198

Type	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H8 [mm]
PA 30 FC/FO	21	18	65	13	20	36	
* PA 30 FO	21	18	65	13	20	36	
PA 35 FC/FO	21	18	72	13	20	36	
* PA 35 FO	21	18	72	13	20	36	
PA 40 FC/FO	25	21	80	13	30	36	
* PA 40 FO	25	21	80	13	30	36	
PA 45 FC/FO	25	21	90	16	30	36	
* PA45 FO	25	21	90	16	30	36	
PA 50 FC/FO	25	26	100	17	30	36	
* PA50 FO	25	26	100	17	30	36	
PA 55 FC/FO	25	25	112	19	30	36	
* PA 55 FO	25	25	112	19	30	36	
PA 60 FC/FO	25	32	124	19	30	36	
PA 65 FC/FO	24	34	137				22
PA 70 FC/FO	24	38	145				24

table continued next page

# Automation and actuators

Type	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H8 [mm]
PA 70 FO	24	38	145				24
PA 75 FC/FO	24	43	166				27
PA 80 FC/FO	24	44	180				32



## Double acting (DA)

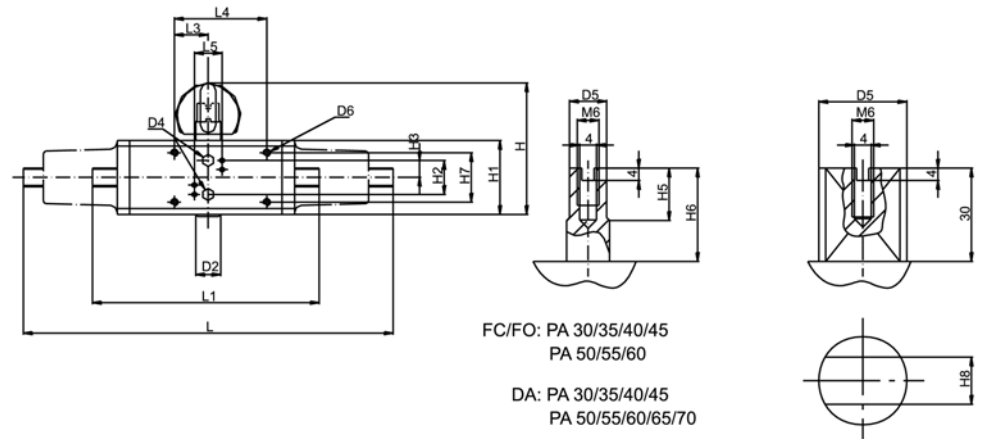
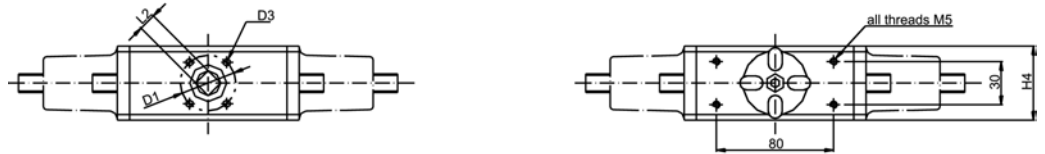
Type	hard anodized Code
PA 30 DA	<b>198 800 737</b>
PA 35 DA	<b>198 800 758</b>
PA 40 DA	<b>198 800 759</b>
PA 45 DA	<b>198 800 040</b>
PA 50 DA	<b>198 800 733</b>
PA 55 DA	<b>198 800 042</b>
PA 60 DA	<b>198 800 734</b>
PA 65 DA	<b>198 800 044</b>
PA 70 DA	<b>198 800 735</b>
PA 75 DA	<b>198 800 046</b>
PA 80 DA	<b>198 800 048</b>
PA 85 DA	<b>198 800 050</b>
PA 90 DA	<b>198 800 051</b>

Type		D1 [mm]	D2 [mm]	D3[M] [mm]	D4 [inch]	D5 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]
PA 30 DA	F03	36	25	M5x9	1/8	9	177	9	35	70		92	60
PA 35 DA	F03	42	30	M5x9	1/8	10	190	11	35	70		98	66
PA 40 DA	F05	42	30	M5x9	1/8	10	198	11	35	70		102	70
PA 45 DA	F05	50	35	M6x11	1/8	12	235	14	35	70		111	78
PA 50 DA	F05	50	35	M6x11	1/8	12	250	14	35	70		129	86
PA 55 DA	F07	70	55	M8x15	1/8	15	279	17	35	70		139	96
PA 60 DA	F07	70	55	M8x15	1/8	15	341	17	35	70		149	106
PA 65 DA	F10	102	70	M10x17	1/8	19	350	22	35	70		161	118
PA 70 DA	F10	102	70	M10x17	1/8	19	381	22	35	70		173	130
PA 75 DA	F12	125	85	M12x21	1/4		416	27			32	191	148
PA 80 DA	F12	125	85	M12x21	1/4		466	27			32	197	153
PA 85 DA	F14	140	100	M16x25	1/4		555	36			32	229	186
PA 90 DA	F14	140	100	M16x25	1/4		581	36			32	241	198

table continued next page

# Automation and actuators

Type	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H8 [mm]
PA 30 DA	25	12	55	10	20	36	
PA 35 DA	25	13	60	13	20	36	
PA 40 DA	21	18	65	13	20	36	
PA 45 DA	21	18	72	13	20	36	
PA 50 DA	25	21	80	13	30	36	
PA 55 DA	25	21	90	16	30	36	
PA 60 DA	25	26	100	17	30	36	
PA 65 DA	25	25	112	19	30	36	
PA 70 DA	25	32	124	19	30	36	
PA 75 DA	24	34	137				22
PA 80 DA	24	38	145				24
PA 85 DA	24	43	166				27
PA 90 DA	24	44	180				32



FC/FO: PA 65/70/75/80  
DA: PA 75/80/85/90

# Automation and actuators

## Accessories for pneumatic rotary actuators

For pneumatic actuators type PA30-PA55 and PA11/21

### Namur connecting plate

- PA30 - PA55 FC/FO, PA30 - PA65 DA



DN [mm]	Series PA11/21 Code	Series PA30-55 Code	
15	199 190 378	199 190 275	
20	199 190 378	199 190 275	
25	199 190 378	199 190 275	
32	199 190 378	199 190 275	
40	199 190 378	199 190 275	
50	199 190 378	199 190 275	

For pneumatic actuators type PA11 - PA90

### Namur mounting flange



No	Code	
3	199 190 281	

# Automation and actuators

## Electric actuators

### Electric actuator type EA11



**Note:**

F05 (WS11/14) per EN ISO 5211 with adapter 198.000.587

Voltage	Code	
100-230 V~ 24 V= / ~	<b>198 150 180</b> <b>198 150 181</b>	

### Electric actuator type EA21



**Note:**

F05 (WS11/14) per EN ISO 5211 with adapter 198.000.587

Voltage	Code	
100-230 V~ 24 V= / ~	<b>198 150 182</b> <b>198 150 183</b>	

### Electric actuator type EA31



**Note:**

F07 (WS 17) per EN ISO 5211

Voltage	Code	
100-230 V~ 24 V= / ~	<b>198 150 184</b> <b>198 150 185</b>	

### Electric actuator type EA42



**Note:**

F07 (WS 22) per EN ISO 5211

Voltage	Code	
100-230 V~ 24 V= / ~	<b>198 150 186</b> <b>198 150 187</b>	

# Automation and actuators

## Accessories for electric actuators

For electric actuators

Type EA11/EA21/EA31/EA42

### Heating element



Voltage	Code	
24 V=	199 190 086	

### Fail safe return incl. battery kit



Voltage	Code	
24 V=	199 190 085	

### Heating element + fail safe return incl. battery kit



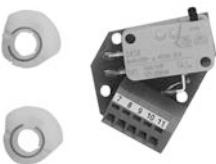
Voltage	Code	
24 V=	199 190 087	

### Battery kit (spare)



Voltage	Code	
24 V=	198 151 317	

### Limit switch kit with mechanical limit switches AgNi



Voltage	Code	
250 V ~6 A	199 190 092	

For electric actuators  
Type EA21/EA31/EA42

### Testing adapter kit



Code	
198 151 426	



# Automation and actuators

## Monitoring print



Code

199 190 099



## Cycle time extension

Model:

- Monitoring print required

Code

199 190 080



## Cycle time monitoring

Model:

- Monitoring print required

Code

199 190 082



## Cycle counter

Model:

- Monitoring print required

Code

199 190 083



## Motor current monitoring

Model:

- Monitoring print required

Code

199 190 081



## Position signalization

Model:

- Enables a 4... 20mA feedback signal
- Must be used with either the PE25 positioner or the monitoring print

Code

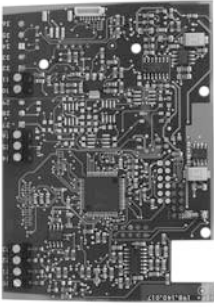
199 190 084

# Automation and actuators

## Positioner PE25

**Model:**

- Positioner must use position signalization
- \*\* galvanic isolated set value inputs
- \* not galvanic isolated set value inputs



Voltage	Code	
* 24 V=	199 190 100	
** 24 V=	199 190 101	

## Limit switch kit with gold contacts Au



Voltage	Code	
30 V=, 100mA	199 190 093	

## Limit switch kit with inductive switches PNP



Voltage	Code	
5-30 V= 0,1 A	199 190 095	

## Assembly kit for 4 limit switches

**Model:**

- Limit switches need to be ordered separately



Code	
199 190 097	

## Limit switch kit with inductive switches NPN



Voltage	Code	
5-30 V= 0,1 A	199 190 096	

## Limit switch kit with mechanical limit switches Middle position



Voltage	Code	
4-30 V= 1-100 mA	199 190 094	

# Automation and actuators

## Accessories for pneumatic stroke actuators

For diaphragm valve type DIASTAR

Min./max. stroke limiter/manual override



DN-DN [mm]	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO/DA Code	
- 15	199 190 381	199 190 382	199 190 381	
- 20	199 190 382	199 190 382	199 190 382	
- 25	199 190 382	199 190 383	199 190 382	
- 32	199 190 383	199 190 384	199 190 383	
- 40	199 190 384	199 190 385	199 190 384	
- 50	199 190 384	199 190 385	199 190 384	
65 - 80		199 190 318	199 190 318	
* 100 - 150		199 190 319	199 190 319	

# Automation and actuators

## Pilot valves

### Solenoid pilot valve type PV2000

- Version for 3/2-way and 5/2-way valves
- Electrical control over multiple and field bus connector

#### 2 x 3/2-way valve

Model:

- lockable manual override



No	Voltage	Code	
1	24V/DC 100%	199 190 435	

#### 1 x 5/2-way valve



No	Voltage	Code	
2	24 V/DC 100%	199 190 436	

#### Connection module with D-sub connector



No	Code	
3	199 190 424	

#### End module



No	Code	
4	199 190 426	

#### Connection module AS-interface



No	Code	
1	199 190 430	

#### Connection module profibus



No	Code	
1	199 190 431	

# Automation and actuators

## Connection module with bus interface



No	Code
2	199 190 425

## Accessories to type PV2000

### Silencer 8mm

Code
199 190 427

### Plug (white)

d [mm]	Code
8	199 190 428
6	199 190 429

## D-Sub connector 25 poles With connection cable

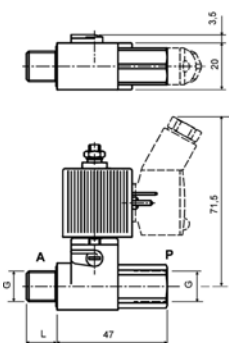
Cable length [m]	Code
1.50	199 190 432
3.00	199 190 433
5.00	199 190 434

## Solenoid pilot valve type PV94

### Pilot valve 3/2-ways

#### Model:

- For direct installation (including valve body and hollow screw)
- Port P compressed air connection G 1/8
- Port A actuator connection G 1/8
- With connector plug form C
- With adapter G1/8 to G1/4
- To pneumatic actuators FC/FO (single acting)
- Circuit function C: de-energized closed
- Valve material polyamid / brass



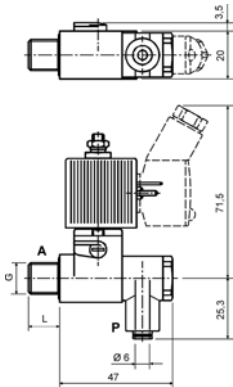
Voltage	DN [mm]	Com-pressed air con-nection P	Actuator connec-tion	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code
24 V=	1.2	G 1/8	G 1/8	10	48	199 190 498
24 V, 50-60 Hz	1.2	G 1/8	G 1/8	10	48	199 190 499
110 V, 50-60 Hz	1.2	G 1/8	G 1/8	10	48	199 190 500
230 V, 50-60 Hz	1.2	G 1/8	G 1/8	10	48	199 190 501

# Automation and actuators

## Pilot valve 3/2-ways

### Model:

- For direct installation (including valve body and hollow screw)
- Port P compressed air connection tube push-in 6mm
- Port A actuator connection G 1/8
- With connector plug form C
- With adapter G1/8 to G1/4
- To pneumatic actuators FC/FO (single acting)
- Circuit function C: de-energized closed
- Valve material polyamid / brass

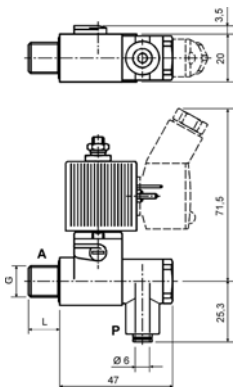


Voltage	DN [mm]	Com-pressed air con-nection P	Actuator connec-tion	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code
24 V=	1.2	push-in	G 1/8	10	48	<b>199 190 510</b>
24 V, 50-60 Hz	1.2	push-in	G 1/8	10	48	<b>199 190 511</b>
110 V, 50-60 Hz	1.2	push-in	G 1/8	10	48	<b>199 190 512</b>
230 V, 50-60 Hz	1.2	push-in	G 1/8	10	48	<b>199 190 513</b>

## Pilot valve 3/2-ways

### Model:

- For direct installation (including valve body and hollow screw)
- Port P compressed air connection NPT 1/8
- Port A actuator connection G 1/8
- With connector plug form C
- With adapter G1/8 to G1/4
- To pneumatic actuators FC/FO (single acting)
- Circuit function C: de-energized closed
- Valve material polyamid / brass



Voltage	DN [mm]	Com-pressed air con-nection P	Actuator connec-tion	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code
24 V=	1.2	NPT 1/8	G 1/8	10	48	<b>199 190 546</b>
24 V AC	1.2	NPT 1/8	G 1/8	10	48	<b>199 190 561</b>
110 V, 50-60 Hz	1.2	NPT 1/8	G 1/8	10	48	<b>199 190 547</b>

## Accessory

### Model:

- Cable plug to DIN EN 175301-803 (DIN 43 650) form C

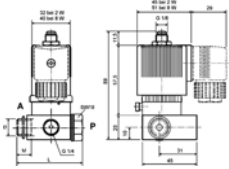


Voltage	Version	NBR Code
0-250 V	no circuitry	<b>199 190 518</b>
0-24 V	with LED	<b>199 190 519</b>
0-24 V	with LED and varistor	<b>199 190 520</b>
0-24 V	with rectifier LED and varistor	<b>199 190 521</b>
200-240 V	with LED	<b>199 190 522</b>
200-240 V	with LED and varistor	<b>199 190 523</b>

# Automation and actuators

## Solenoid pilot valve type PV95

### Pilot valve 3/2-ways

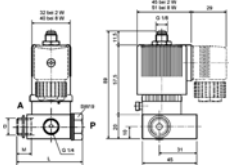


**Model:**

- For direct installation (including valve body and hollow screw)
- Port P compressed air connection G 1/4
- Port A actuator connection G 1/8
- With connector plug form A
- With adapter G1/8 to G1/4
- To pneumatic actuators FC/FO (single acting)
- Circuit function C: de-energized closed
- Valve material: brass
- Power consumption: 24VA at AC inrush; 17VA/8W at AC hold; 8W at DC

Voltage	DN [mm]	Com-pressed air con-nection P	Actuator connec-tion	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code
24 V=	2.0	G 1/4	G 1/8	10	120	<b>199 190 532</b>
24 V, 50-60 Hz	2.0	G 1/4	G 1/8	10	120	<b>199 190 533</b>
110 V, 50-60 Hz	2.0	G 1/4	G 1/8	10	120	<b>199 190 534</b>
230 V, 50-60 Hz	2.0	G 1/4	G 1/8	10	120	<b>199 190 535</b>

### Pilot valve 3/2-ways



**Model:**

- For direct installation (including valve body and hollow screw)
- Port P compressed air connection NPT 1/8
- Port A actuator connection G 1/4
- With connector plug form A
- With adapter G1/8 to G1/4
- To pneumatic actuators FC/FO (single acting)
- Circuit function C: de-energized closed
- Valve material: brass
- Power consumption: 24VA at AC inrush; 17VA/8W at AC hold; 8W at DC

Voltage	DN [mm]	Com-pressed air con-nection P	Actuator connec-tion	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code
24 V=	1.5	NPT 1/8	G 1/4	10	120	<b>199 190 554</b>
110 V, 50-60 Hz	1.5	NPT 1/8	G 1/4	10	120	<b>199 190 555</b>

## Accessory

**Model:**

- Cable plug to DIN EN 175301-803 (DIN 43 650) form A

Voltage	Version	NBR Code
0-250 V	no circuitry	<b>199 190 540</b>
0-24 V	with LED	<b>199 190 541</b>
0-24 V	with LED and varistor	<b>199 190 542</b>
0-24 V	with rectifier LED and varistor	<b>199 190 543</b>
200-240 V	with LED	<b>199 190 544</b>
200-240 V	with LED and varistor	<b>199 190 545</b>

### Pilot valve type 5470

- to pneumatic actuators DA (Double acting)
- Version with NAMUR connection
- Circuit function: 4/2-way valve, in rest position pressure inlet 1 connected to outlet 2, outlet 4 exhausted
- Valve material: polyamid

table continued next page

# Automation and actuators

- Electrical connection: cable plug

## Pilot valve 4/2-ways

- For AC 50-60 Hz and DC



Voltage	DN [mm]	NBR Code	
230 V, AC/DC	4	<b>199 190 302</b>	
115 V, AC/DC	4	<b>199 190 303</b>	
24 V, AC/DC	4	<b>199 190 304</b>	

## Pilot valve type MNL532

**Model:**

- With NAMUR connection and two silencers/throttle screws

**Mode of action:**

- 3/2-way valve, in rest position pressure inlet 1 closed, outlet 3 exhausted
- 5/2-way valve, in rest position pressure inlet 1 connected to outlet 4, outlet 3 exhausted
- Material of body: Aluminum
- **to pneumatic actuators**
- Electrical connection: cable plug

## Pilot valve 3/2-5/2-ways



Voltage	DN [mm]	Inch	NBR Code	
230 V, AC	5	1/8	<b>199 190 360</b>	
110 V, AC	5	1/8	<b>199 190 359</b>	
48 V, AC	5	1/8	<b>199 190 361</b>	
24 V, AC	5	1/8	<b>199 190 358</b>	
24 V, DC	5	1/8	<b>199 190 357</b>	



# Automation and actuators

## Position indicator

For butterfly valve type 037M/038M

With electric position indicator

- Limit switch box and hand lever included



### Limit switch box with 2 auxiliary switches

- Solution for PNP, NPN, NAMUR on request

d-d [mm]	DN-DN [mm]	Inch	Code
63 - 90	50 - 80	2-3	<b>198 151 341</b>
110 - 110	100 - 100	4	<b>198 151 342</b>
140 - 140	125 - 125	5	<b>198 151 343</b>
160 - 225	150 - 200	6-8	<b>198 151 344</b>

For actuator units pneumatic type PA11 - PA90

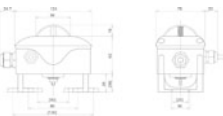
### Namur mounting flange



No	Code
3	<b>199 190 281</b>

### Limit switch box with 2 auxiliary switches

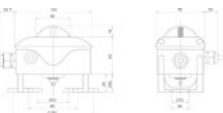
- Including namur mounting flange



Voltage	Code
250 V ~/10 A	<b>199 190 282</b>

### Limit switch box with 2 inductive auxiliary switches NPN With luminous diode

- Including namur mounting flange



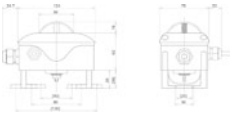
Voltage	Code
10...30 V/ 0.1 A	<b>199 190 283</b>

## Automation and actuators

### Limit switch box with 2 inductive auxiliary switches PNP With luminous diode

- Including namur mounting flange

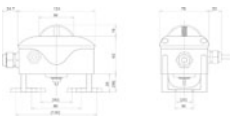
Voltage	Code	
10...30 V/ 0.1 A	<b>199 190 284</b>	



### Limit switch box with 2 inductive auxiliary switches Namur Exei (intrinsically safe)

- Including namur mounting flange

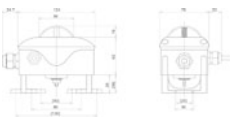
Voltage	Code	
5-15 V	<b>199 190 285</b>	



### Limit switch box with 2 auxiliary switches Eexd

- Including namur mounting flange

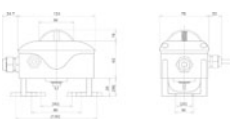
Voltage	Code	
250 V ~/5 A	<b>199 190 286</b>	



### Limit switch box with 2 auxiliary switches With gold contact

- Including namur mounting flange

Voltage	Code	
30 V =/ 1-100 mA	<b>199 190 287</b>	



### For diaphragm valve type DIASTAR

### Electric position indicator with 2 auxiliary switches Ag Ni

- Connection: Plug

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-1	250 V~ 6 A	<b>199 190 305</b>	
65 - 150	2 ½ - 6	ER 53-1	250 V~ 6 A	<b>199 190 293</b>	



# Automation and actuators

## Electric position indicator with 2 auxiliary switches With gold contact



- Connection: Plug

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-2	4-30 V= 1-100 mA	<b>199 190 306</b>	
65 - 150	2 ½ - 6	ER 53-2	4-30 V= 1-100 mA	<b>199 190 297</b>	

## Electric position indicator with 2 inductive switches NPN



- Connection: Plug

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-3	5-30 V= 100 mA	<b>199 190 307</b>	
65 - 150	2 ½ - 6	ER 53-3	10-30 V= 100 mA	<b>199 190 294</b>	

## Electric position indicator with 2 inductive switches PNP



- Connection: Plug

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-4	5-30 V= 100 mA	<b>199 190 308</b>	
65 - 150	2 ½ - 6	ER 53-4	10-30 V= 100 mA	<b>199 190 295</b>	

## Electric position indicator with 2 inductive switches Namur Exei (intrinsically safe)



- Connection: Plug

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-5	8 V=	<b>199 190 309</b>	
65 - 150	2 ½ - 6	ER 53-5	8 V=	<b>199 190 296</b>	

## Electric position indicator with 2 auxiliary switches Eexd



- Connection: Cable, 2 m

DN-DN [mm]	Inch [inch]	Type	Voltage	Code	
15 - 50	½ - 2	ER 52-6	250 V ~ 5 A	<b>199 190 405</b>	
65 - 150	2 ½ - 6	ER 53-6	250 V ~ 5 A	<b>199 190 298</b>	

## Adapter complete

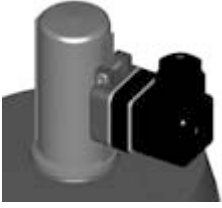
- For combination Electric Position Indicator / Lift limiter / Manual override



DN-DN [mm]	Type	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO/DA Code	
- 15	ER 52	<b>199 190 387</b>	<b>199 190 387</b>	<b>199 190 387</b>	
- 20	ER 52	<b>199 190 387</b>	<b>199 190 387</b>	<b>199 190 387</b>	
- 25	ER 52	<b>199 190 387</b>	<b>199 190 388</b>	<b>199 190 387</b>	
- 32	ER 52	<b>199 190 388</b>	<b>199 190 389</b>	<b>199 190 388</b>	
- 40	ER 52	<b>199 190 389</b>	<b>199 190 389</b>	<b>199 190 389</b>	
- 50	ER 52	<b>199 190 389</b>	<b>199 190 389</b>	<b>199 190 389</b>	
65 - 150	ER 53		<b>199 190 310</b>	<b>199 190 310</b>	

# Automation and actuators

## Electric position indicator with reed contact Type ER-55 for Diastar DN 15-150



For one position open or closed  
Further position indicator with limit contact (198 804 875)  
Connection: plug  
Voltage: 250V ~ 200 mA

DN [mm]	Type	Ten/028 FC Code	Ten/Sixteen/025 FC/FO/DA Code
15	ER 55-1	199 190 462	199 190 462
20	ER 55-1	199 190 462	199 190 462
25	ER 55-1	199 190 462	199 190 462
32	ER 55-1	199 190 462	199 190 462
40	ER 55-1	199 190 462	199 190 462
50	ER 55-1	199 190 462	199 190 462
65	ER 55-2		199 190 464
80	ER 55-2		199 190 464
100	ER 55-2		199 190 464
150	ER 55-2		199 190 464

## Limit contact to ER55



Code
198 804 875

# Automation and actuators

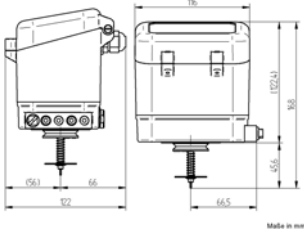
## Controllers

### Digital electro-pneumatic positioner

- Other versions and accessories on request

#### Without feedback signal

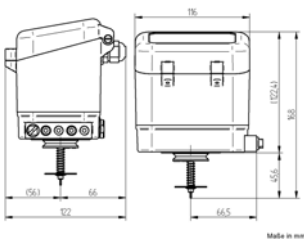
- For actuators function FC
- For actuators function FO only possible by assembly in the factory



No	DSR 500-1 for Diastar DN 15-50 FC Code	DSR 500-2 for Diastar DN 65-150 FC Code	DSR 500-3 for pneumatic rotary actuator Code	
1	199 190 001	199 190 029	199 190 108	

#### With feedback signal 4-20mA

- For actuators function FC
- For actuators function FO only possible by assembly in the factory



No	DSR 500-1 for Diastar DN 15-50 FC Code	DSR 500-2 for Diastar DN 65-150 FC Code	DSR 500-3 for pneumatic rotary actuator Code	Feedback module 4-20mA Code	
1	199 190 575	199 190 576	199 190 577	199 190 109	

### Accessories for digital electro-pneumatic positioner

#### Attachment kit to type DSR 500-1

#### With optical position indicator for Diastar DN 15-50



Pos	DN [mm]	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO Code	
2	15		199 190 417		
2	20	199 190 417	199 190 417	199 190 417	
2	25	199 190 417	199 190 418	199 190 417	

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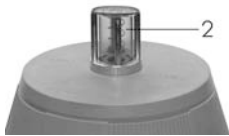
## Automation and actuators

Pos	DN [mm]	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO Code
2	32	199 190 418	199 190 418	199 190 418
2	40	199 190 418	199 190 418	199 190 418
2	50	199 190 418	199 190 418	199 190 418



### Attachment kit to type DSR 500-1 Without optical position indicator for Diastar DN 15-50

No	DN [mm]	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO Code
3	15		199 190 414	
3	20	199 190 414	199 190 414	199 190 414
3	25	199 190 414	199 190 415	199 190 414
3	32	199 190 415	199 190 415	199 190 415
3	40	199 190 415	199 190 415	199 190 415
3	50	199 190 415	199 190 415	199 190 415



### Attachment kit to type DSR 500-2 For Diastar DN 65-150

Part No.	with optical position indicator Code	without optical position indicator Code
2	199 190 419	
3		199 190 416



### Attachement kit to type DSR 500-3 For rotary actuators

Code
199 190 281

## Electro-pneumatic positioner Positioner type Eckardt SRI 986



No	single acting (FC/ FO) Code	double acting (DA) Code
1	199 190 348	199 190 349

# Automation and actuators

## Accessories for electro-pneumatic positioner

### Attachment kit for type Eckardt SRI 986



No	Typ DIASTAR DN 15-150 Code	Type PA 30 - PA 90 Code	Electr. pos. trans-former with 4-20mA output Code
2	199 190 350	199 190 351	199 190 395

### Positioner mounting flange for type DIASTAR



No	DN-DN [mm]	Ten/028 FC Code	Sixteen/025 FC Code	Ten/025 FO Code
3	- 15		199 190 372	199 190 372
3	- 20	199 190 372	199 190 372	199 190 372
3	- 25	199 190 372	199 190 373	199 190 373
3	- 32	199 190 373	199 190 373	199 190 373
3	- 40	199 190 373	199 190 373	199 190 373
3	- 50	199 190 373	199 190 373	199 190 373
3	65 - 150		199 190 311	199 190 311

### Industrial controller type PE70

#### For single loop only

**Model:**

- 1 sensor input
- Continuous control
- 3-point control
- L/W/H: 128/48/96



Type	Voltage	Code
PE70-3	90..250 V ~	199 192 162
PE70-4	24 V ~/ 18..30 V=	199 192 163

#### For ratio and single loop control

**Model:**

- 2 sensor inputs
- Ratio control
- Continuous control
- 3-point control
- L/W/H: 128/48/96



Type	Voltage	Code
PE70-1	90..250 V ~	199 192 160
PE70-2	24 V ~/ 18..30 V=	199 192 161

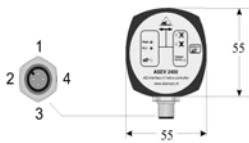
# Automation and actuators

## AS-Interface

### AS-Interface type ASEV 2400

#### For electric rotary actuators

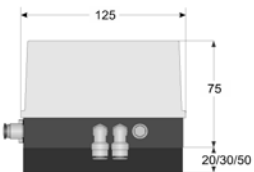
- Without accessories



Code	
199 190 562	

### AS-Interface set type ASVC 2300

#### For pneumatic rotary actuators



Type of actuator	Code	
PA11/21 (FC/FO); PA30/35 (FC/FO)	199 190 560	
PA >35 (FC/FO)	199 190 565	
PA11/21 (DA); PA30-45 (DA)	199 190 566	
PA >45 (DA)	199 190 567	

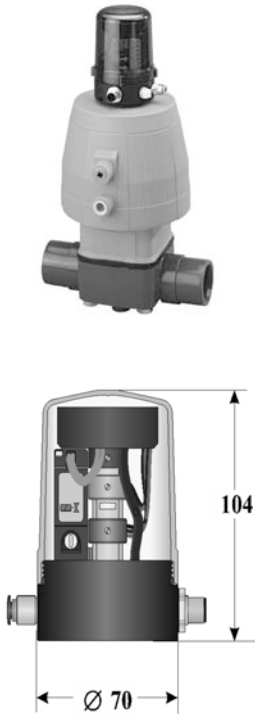


# Automation and actuators

## AS-Interface set type Topmatic For Diastar

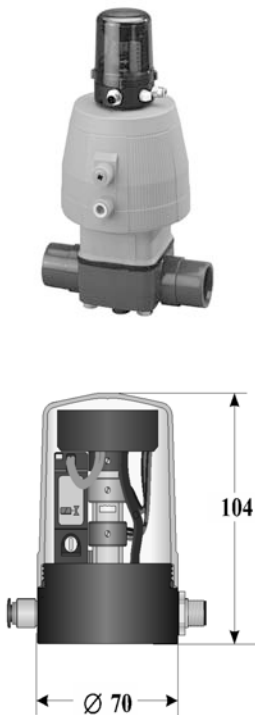
- Without accessories

### Series Ten/028 FC/025 FO



DN-DN [mm]	Code	
15 - 25	<b>199 190 456</b>	
32 - 50	<b>199 190 457</b>	

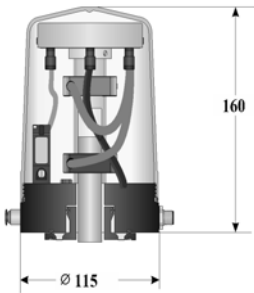
### Series Sixteen/025-FC



DN-DN [mm]	Code	
15 - 20	<b>199 190 456</b>	
25 - 32	<b>199 190 467</b>	
40 - 50	<b>199 190 468</b>	

# Automation and actuators

## Series 025 FC/FO



DN-DN [mm]	Code	
65 - 150	199 190 458	

## AS-Interface type ASIM 2010

- Without accessories

### For manual valves with integrated feedback

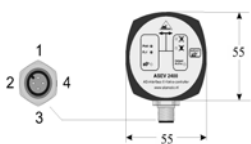


Code	
199 190 568	

## AS-Interface type ASIM 2400

- Without accessories

### For sensors with switching-output



Code	
199 190 569	

# Automation and actuators

## Assembly parts for butterfly valves

### Hand lever kit for type 037M/038M



d-d [mm]	DN-DN [mm]	Inch	Code
63 - 90	50 - 80	2-3	<b>198 803 049</b>
110 - 110	100 - 100	4-5	<b>198 803 050</b>
140 - 140	125 - 125	6	<b>198 803 051</b>
160 - 225	150 - 200	8	<b>198 803 052</b>
280 - 315	250 - 300	10-12	<b>198 803 645</b>

### Intermediate element

#### Pneumatic type 240 / 241 / 242

#### Without manual override

d [mm]	DN [mm]	Type of actuator	Code
63	50	PA30 FC/FO	<b>198 000 595</b>
63	50	PA35 DA	<b>198 000 595</b>
75	65	PA30 FC/FO	<b>198 000 595</b>
75	65	PA35 DA	<b>198 000 595</b>
90	80	PA40 DA	<b>198 000 595</b>
90	80	PA35 FC/FO	<b>198 000 595</b>
110	100	PA40 FC/FO	<b>198 000 600</b>
110	100	PA45 DA	<b>198 000 600</b>
140	125	PA45 DA	<b>198 000 600</b>
140	125	PA45 FC/FO	<b>198 000 597</b>
160	150	PA55 DA	<b>198 000 600</b>
160	150	PA50 FC	<b>198 000 599</b>
225	200	PA55 FC/FO	<b>198 000 598</b>
225	200	PA55 DA	<b>198 000 600</b>
280	250	PA65 FC/FO	<b>198 000 730</b>
280	250	PA65 DA	<b>198 000 731</b>
315	300	PA70 FC/FO	<b>198 000 730</b>
315	300	PA70 DA	<b>198 000 731</b>

#### Electric type 140 / 141 / 142

#### Without manual override

d [mm]	DN [mm]	Type of actuator	Code
63	50	EA31	<b>198 000 601</b>
75	65	EA31	<b>198 000 601</b>
90	80	EA31	<b>198 000 601</b>
110	100	EA31	<b>198 000 602</b>
140	125	EA31	<b>198 000 602</b>
160	150	EA31	<b>198 000 599</b>
225	200	EA42	<b>198 000 603</b>
280	250	EA42	<b>198 000 732</b>
315	300	EA42	<b>198 000 732</b>

#### Electric type 140 / 141 / 142

#### With manual override

d-d [mm]	DN-DN [mm]	Type of actuator	Code
63 - 90	50 - 80	EA31	<b>198 000 623</b>
110 - 140	100 - 125	EA31	<b>198 000 624</b>
160 -	150 -	EA31	<b>198 000 625</b>
225 -	200 -	EA42	<b>198 000 627</b>

# Automation and actuators

## Gear operated with handwheel 567 / 568

d [mm]	DN [mm]	Code
63	50	<b>198 000 621</b>
75	65	<b>198 000 621</b>
90	80	<b>198 000 621</b>
110	100	<b>198 000 622</b>
140	125	<b>198 000 622</b>
160	150	<b>198 000 599</b>
225	200	<b>198 000 599</b>
280	250	<b>198 000 880</b>
315	300	<b>198 000 880</b>

## Hand lever kit with fine adjustment For type 037M/038M



d-d [mm]	DN-DN [mm]	Inch	Code
63 - 90	50 - 80	2-3	<b>198 803 384</b>
110 - 110	100 - 100	4	<b>198 803 385</b>
140 - 140	125 - 125	5	<b>198 803 386</b>
160 - 225	150 - 200	6-8	<b>198 803 387</b>

## Reduction gear with handwheel for type 037G/038G

- Including assembly kit



d-d [mm]	DN-DN [mm]	Inch	Code
63 - 90	50 - 80	2-3	<b>198 806 690</b>
110 - 140	100 - 125	4-5	<b>198 806 691</b>
160 - 225	150 - 200	6-8	<b>198 806 692</b>
225 - 315	200 - 300	8-12	<b>198 806 693</b>

## Intermediate element to type 037E/038E

### Without manual override

d-d [mm]	DN-DN [mm]	Inch	Type	Code
63 - 90	50 - 80	2-3	EA 31	<b>198 000 411</b>
110 - 140	100 - 125	4-5	EA 31	<b>198 000 412</b>
160 - 225	150 - 200	6-8	EA 42	<b>198 000 415</b>
- 280	- 250	10	EA 42	<b>198 000 416</b>

### With manual override

#### Model:

- EA30/41 no longer available, replacement by EA31/42
- EA50 will soon be phased out

d-d [mm]	DN-DN [mm]	Inch	Type	Code
63 - 90	50 - 80	2-3	EA 31	<b>198 000 338</b>
110 - 140	100 - 125	4-5	EA 42	<b>198 000 339</b>
160 - 225	150 - 200	6-8	EA 42	<b>198 000 340</b>
- 280	- 250	10	EA 50	-

# Automation and actuators

## Intermediate element to type 037P/038P

### Without manual override

<b>d</b> [mm]	<b>DN</b> [mm]	<b>Inch</b>	<b>Type of actuator</b>	<b>Code</b>	
63	50	2	PA30 FC/FO	<b>198 000 382</b>	
63	50	2	PA35 DA	<b>198 000 382</b>	
75	65	2 ½	PA30 FC/FO	<b>198 000 382</b>	
75	65	2 ½	PA35 DA	<b>198 000 382</b>	
90	80	3	PA35 FC/FO	<b>198 000 383</b>	
90	80	3	PA35 DA	<b>198 000 384</b>	
110	100	4	PA40 FC/FO	<b>198 000 385</b>	
110	100	4	PA45 DA	<b>198 000 385</b>	
140	125	5	PA45 FC/FO	<b>198 000 386</b>	
140	125	5	PA45 DA	<b>198 000 387</b>	
160	150	6	PA50 FC/FO	<b>198 000 388</b>	
160	150	6	PA55 DA	<b>198 000 388</b>	
225	200	8	PA60 FC/FO	<b>198 000 389</b>	
225	200	8	PA60 DA	<b>198 000 390</b>	
280	250	10	PA60 FC/FO	<b>198 000 391</b>	
280	250	10	PA65 DA	<b>198 000 391</b>	
315	300	12	PA70 FC/FO	<b>198 000 392</b>	
315	300	12	PA70 DA	<b>198 000 393</b>	

# Automation and actuators

## Assembly parts for ball valves

### Retrofit ball valve bracket

#### For EA11/21 PA11/21 to ball valve 346

Type of actuator	d-d [mm]	Inch [inch]	DN-DN [mm]	Master gauge	Code
PA11	- 20	1/2	- 15	F04	<b>198 000 608</b>
PA11 / EA11/21	16 - 20	3/8 - 1/2	10 - 15	F05	<b>198 000 580</b>
PA11	- 25	3/4	- 20	F04	<b>198 000 609</b>
EA11/21	- 25	3/4	- 20	F05	<b>198 000 604</b>
PA11	- 32	1	- 25	F04	<b>198 000 610</b>
PA11 / EA11/21	- 32	1	- 25	F05	<b>198 000 582</b>
PA21 EA11/21	- 40	1 1/4	- 32	F05	<b>198 000 605</b>
PA21 EA11/21	- 50	1 1/2	- 40	F05	<b>198 000 606</b>
PA21 EA11/21	- 63	2	- 50	F05	<b>198 000 607</b>

### Ball valve bracket type 175-7/275-7

#### Model:

- For EA21 and PA11/21 to ball valve 343

Type of actuator	d-d [mm]	Inch [inch]	DN-DN [mm]	Master gauge	EPDM Code
EA21 / PA11	16 - 20	3/8 - 1/2	10 - 15	F04 / F05	<b>198 000 570</b>
EA21 / PA11	- 25	3/4	- 20	F04 / F05	<b>198 000 571</b>
EA21 / PA11	- 32	1	- 25	F04 / F05	<b>198 000 572</b>
EA21 / PA21	- 40	1 1/4	- 32	F05	<b>198 000 573</b>
EA21 / PA21	- 50	1 1/2	- 40	F05	<b>198 000 574</b>
EA21 / PA21	- 63	2	- 50	F05	<b>198 000 575</b>

### Ball valve bracket type 178/278

#### Model:

- For EA21 and PA11/21 to ball valve 343 vertical
- 3-way ball valve only with EA21

Type of actuator	d-d [mm]	Inch [inch]	DN-DN [mm]	Master gauge	EPDM Code
PA11 / EA11/21	16 - 20	3/8 - 1/2	10 - 15	F05	<b>198 000 580</b>
PA11 / EA21	- 25	3/4	- 20	F05	<b>198 000 581</b>
PA11 / EA11/21	- 32	1	- 25	F05	<b>198 000 582</b>
PA21 / EA21	- 40	1 1/4	- 32	F05	<b>198 000 583</b>
PA21 / EA21	- 50	1 1/2	- 40	F05	<b>198 000 584</b>
PA21 / EA21	- 63	2	- 50	F05	<b>198 000 585</b>

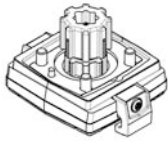
### Intermediate element to type 230-235 with manual override



DN-DN [mm]	Inch [inch]	Code
10 - 25	3/8 - 1	<b>198 000 500</b>
32 - 50	1 1/4 - 2	<b>198 000 501</b>

# Automation and actuators

## Adapter plate incl. coupling



For actuator units electric type EA11/EA21  
Pneumatic type PA11/PA21  
To type 546

d-d [mm]	Inch [inch]	DN-DN [mm]	Code
16 - 20	3/8 - 1/2	10 - 15	<b>198 150 556</b>
25 - 32	3/4 - 1	20 - 25	<b>198 150 557</b>
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>198 150 558</b>
- 63	- 2	- 50	<b>198 150 559</b>

## Intermediate element

(screws/distance pieces/reducing bush)

For actuator units pneumatic PA30-45  
To type 546

d [mm]	DN [mm]	Type of actuator	Code
75	65	PA30 FC/FO	<b>198 000 595</b>
75	65	PA35 DA	<b>198 000 595</b>
90	80	PA35 FC/FO	<b>198 000 596</b>
90	80	PA40 DA	<b>198 000 595</b>
110	100	PA40 FC/FO	<b>198 000 599</b>
110	100	PA45 DA	<b>198 000 599</b>

## Intermediate element

(screws/distance pieces/reducing bush)

For actuator unit EA31  
To type 546

d-d [mm]	DN-DN [mm]	Code
75 - 90	65 - 80	<b>198 000 601</b>
- 110	- 100	<b>198 000 602</b>

## Intermediate element to type 108

With manual override

d [mm]	d-d [mm]	DN [mm]	DN-DN [mm]	Inch	Type	Code
75	-	65	-	2 1/2	EA 31	<b>198 000 132</b>
90	-	80	-	3	EA 31	<b>198 000 133</b>
	110 - 160		100 - 150	4 / 6	EA 31 / EA 41	<b>198 000 134</b>

## Intermediate element to type 208

Without manual override (with flanges)

d [mm]	DN [mm]	Inch [inch]	Type	Code
75	65	2 1/2	PA 40 FC/FO	<b>198 000 236</b>
75	65	2 1/2	PA 40 DA	<b>198 000 237</b>
90	80	3	PA 50 FC/FO	<b>198 000 238</b>
90	80	3	PA 50 DA	<b>198 000 239</b>
110 - 160	100 - 150	4 - 6	PA 50 FC/FO	<b>198 000 240</b>
110 - 160	100 - 150	4 - 6	PA 50 DA	<b>198 000 241</b>

# Automation and actuators

## Without manual override (with unions)

d [mm]	DN [mm]	Inch	Type	Code	
75	65	2 1/2	PA 40 FC/FO	<b>198 000 276</b>	
75	65	2 1/2	PA 40 DA	<b>198 000 277</b>	
90	80	3	PA 50 FC/FO	<b>198 000 278</b>	
90	80	3	PA 50 DA	<b>198 000 279</b>	
110	100	4	PA 50 FC/FO	<b>198 000 280</b>	
110	100	4	PA 50 DA	<b>198 000 281</b>	



# Automation and actuators

## Assembly parts for actuators

### Adapter set for PA11

#### F04 (WS11) per EN ISO 5211



Code
198 000 586

### Adapter set for PA21 EA11 EA21

#### F05 (WS11/14) per EN ISO 5211



Code
198 000 587







# General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

## 1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

- Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

## 5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

## 6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

## 7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms of the ICC, latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
  - a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
  - b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith. Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
  - c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one month which equally is not met. The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.

- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved. Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

## 11 Packing

- If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms ICC, latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible. In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the Products.

## 14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within 7 working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice. In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com). Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if also a second attempt to repair or replace the Products has failed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities  
- Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.  
- the statute of limitations for warranty or damage claims - contrary to Section 15.6 - will be 5 years from the date of installation.

## 16 Limitation of Liability

- The rights and remedies of the customer are exclusively governed by these General Conditions of Supply. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages. This limitation of liability, however, does not apply in case unlawful intent or gross negligence on the part of Georg Fischer's management and in case of strict liability, in particular under applicable product liability statutes.

## 17 Severability

- Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

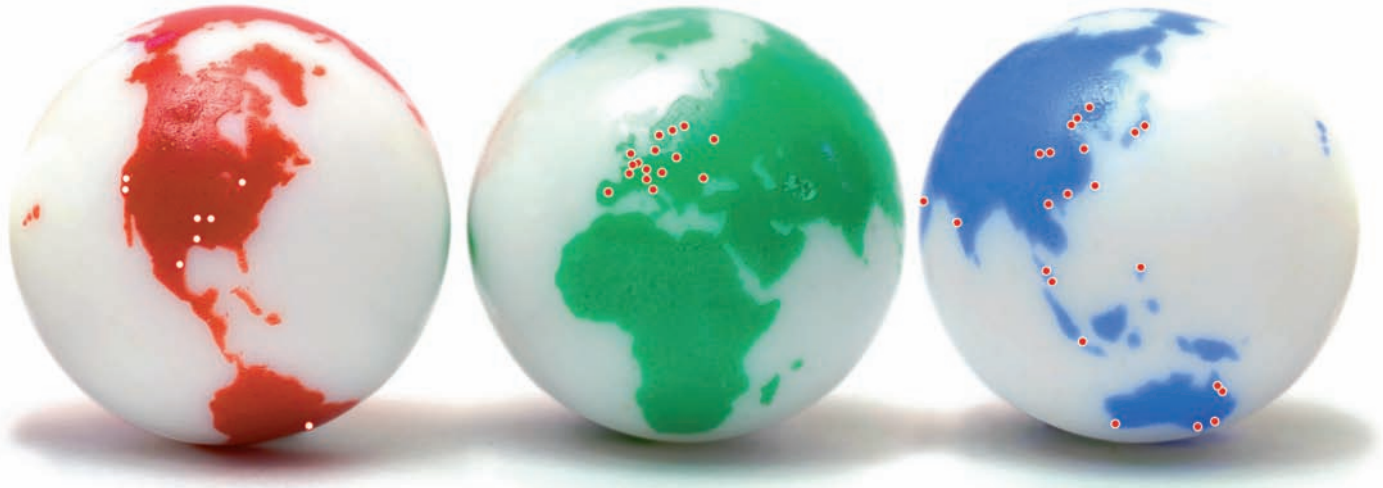
## 18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland. Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

# GF Piping Systems → worldwide at home

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[www.piping.georgfischer.com](http://www.piping.georgfischer.com)



The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

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