

Product Range International 2016

PVDF SYGEF



SYGEF Standard

Piping systems in PVDF

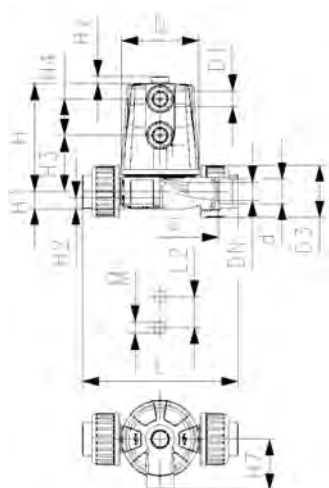


SYGEF Standard

Valves



Type 604 / 605



SYGEF Standard Diaphragm valve type 604 Unions with fusion socket metric

Model:

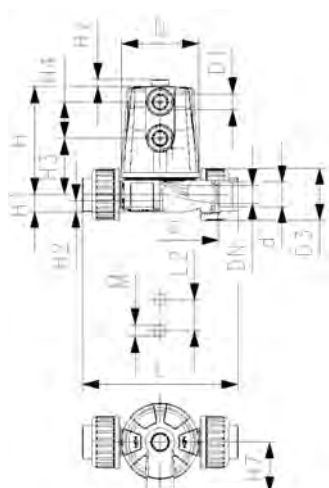
- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

Option:

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	185 604 062	0.45	185 604 032
FO	20	15	6	125	185 604 064	0.42	185 604 034
DA	20	15	6	125	185 604 065	0.40	185 604 035

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	M	z	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6
65	1/4	43	89	14	12	46	30	42	128	25	M6	96	6



SYGEF Standard Diaphragm valve type 604 Unions with butt fusion spigot metric

Model:

- Material: PVDF
- Compact full plastic design without screws
- High flow rate
- Actuator housing with thread for easy maintenance
- Quick opening & closing times
- For easy installation and removal
- Market standard installation length

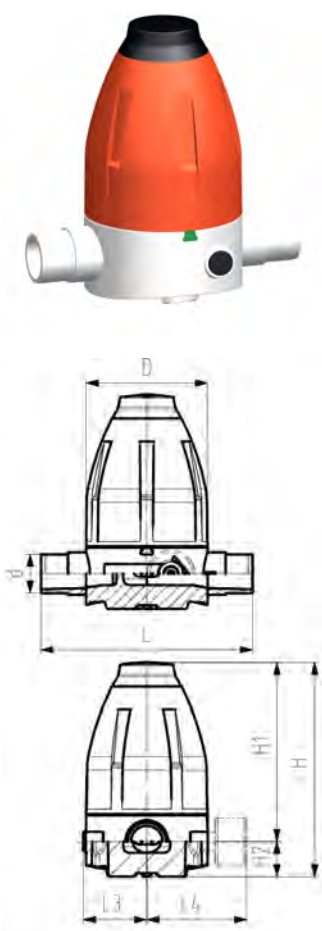
Option:

- Individual configuration of the valve (see diagram)

Actuator	d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)	PTFE/EPDM Code
FC	20	15	6	125	185 604 162	0.45	185 604 132
FO	20	15	6	125	185 604 164	0.42	185 604 134
DA	20	15	6	125	185 604 165	0.40	185 604 135

D	D1_G	D3	H	H1	H2	H3	H4	H7	L	L2	M	z	Lift = Hx
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
65	1/4	43	89	14	12	46	30	42	196	25	M6	100	6
65	1/4	43	89	14	12	46	30	42	196	25	M6	100	6
65	1/4	43	89	14	12	46	30	42	196	25	M6	100	6

Pressure regulating valves



SYGEF Standard
Pressure reducing valve type 582
With butt fusion spigots metric
Without manometer

- Model:**
- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
Manometer on request

d	DN	PN	O-rings	FPM	Weight
(mm)	(mm)	(bar)	Code		(kg)
20	15	10	185 582 012		0.700
25	20	10	185 582 013		1.550
32	25	10	185 582 014		1.560
40	32	10	185 582 015		4.370
50	40	10	185 582 016		4.400
63	50	10	185 582 017		4.520

d	D	H	H1	H2	H3	L	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	132	111	21	14	150	42	40	M6	½
25	100	177	148	29	14	190	53	46	M6	¾
32	100	177	148	29	14	190	53	46	M6	1
40	147	251	207	44	21	240	76	65	M8	1 ¼
50	147	251	207	44	21	240	76	65	M8	1 ½
63	147	251	207	44	21	260	76	65	M8	2



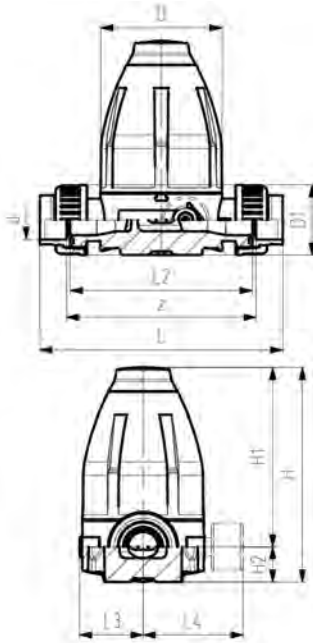
SYGEF Standard
Pressure reducing valve type 582
With fusion sockets metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	185 582 112	0.780
25	20	10	185 582 113	1.650
32	25	10	185 582 114	1.700
40	32	10	185 582 115	4.530
50	40	10	185 582 116	4.750
63	50	10	185 582 117	5.050

d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	43	132	111	21	12	158	120	42	40	M6	130	1/2
25	100	53	177	148	29	14	192	150	53	46	M6	160	3/4
32	100	60	177	148	29	14	196	150	53	46	M6	160	1
40	147	74	251	207	44	21	255	205	76	65	M8	215	1 1/4
50	147	82	251	207	44	21	261	205	76	65	M8	215	1 1/2
63	147	100	251	207	44	21	269	205	76	65	M8	215	2



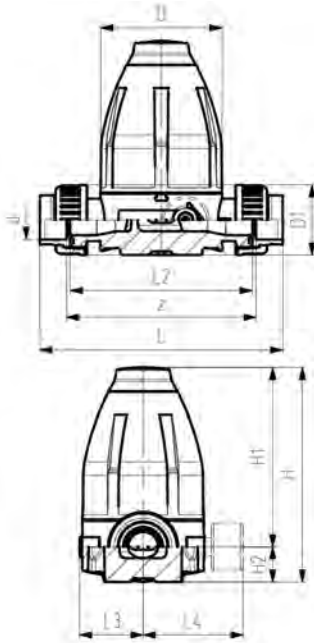
SYGEF Standard
Pressure reducing valve type 582
Unions with butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	185 582 512	0.830
25	20	10	185 582 513	1.710
32	25	10	185 582 514	1.760
40	32	10	185 582 515	4.750
50	40	10	185 582 516	4.840
63	50	10	185 582 517	5.140

d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	43	132	111	21	12	226	120	42	40	M6	½
25	100	53	177	148	29	14	262	150	53	46	M6	¾
32	100	60	177	148	29	14	268	150	53	46	M6	1
40	147	74	251	207	44	21	329	205	76	65	M8	1 ¼
50	147	82	251	207	44	21	335	205	76	65	M8	1 ½
63	147	100	251	207	44	21	341	205	76	65	M8	2



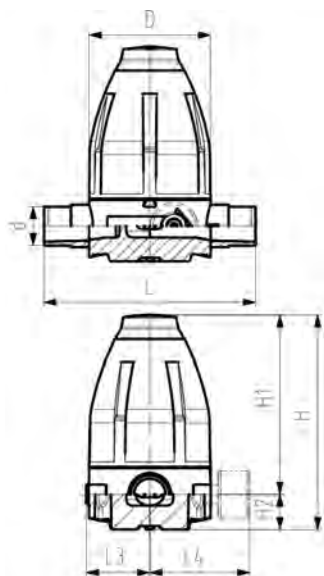
SYGEF Standard
Pressure retaining valve type 586
With butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	185 586 012	0.700
25	20	10	185 586 013	1.570
32	25	10	185 586 014	1.580
40	32	10	185 586 015	4.410
50	40	10	185 586 016	4.430
63	50	10	185 586 017	4.550

d	D	H	H1	H2	H3	L	L3	L5	M	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	79	132	111	21	14	150	42	40	M6	½
25	100	177	148	29	14	190	53	46	M6	¾
32	100	177	148	29	14	190	53	46	M6	1
40	147	251	207	44	21	240	76	65	M8	1 ¼
50	147	251	207	44	21	240	76	65	M8	1 ½
63	147	251	207	44	21	260	76	65	M8	2



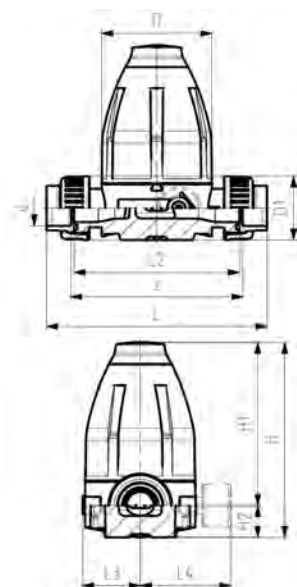
SYGEF Standard
Pressure retaining valve type 586
Unions with fusion sockets metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	185 586 112	0.780
25	20	10	185 586 113	1.670
32	25	10	185 586 114	1.720
40	32	10	185 586 115	4.700
50	40	10	185 586 116	4.790
63	50	10	185 586 117	5.090

d	D	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	132	111	21	12	158	120	42	40	M6	130	½
25	100	177	148	29	14	192	150	53	46	M6	160	¾
32	100	177	148	29	14	196	150	53	46	M6	160	1
40	147	251	207	44	21	255	205	76	65	M8	215	1 ¼
50	147	251	207	44	21	261	205	76	65	M8	215	1 ½
63	147	251	207	44	21	269	205	76	65	M8	215	2



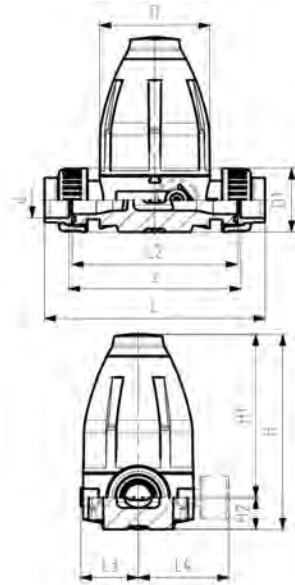
SYGEF Standard
Pressure retaining valve type 586
Unions with butt fusion spigots metric
Without manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d	DN	PN	O-rings FPM	Weight
(mm)	(mm)	(bar)	Code	(kg)
20	15	10	185 586 512	0.820
25	20	10	185 586 513	1.710
32	25	10	185 586 514	1.760
40	32	10	185 586 515	4.740
50	40	10	185 586 516	4.830
63	50	10	185 586 517	5.130

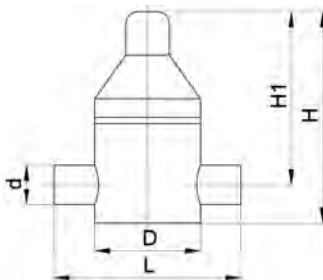
d	D	D1	H	H1	H2	H3	L	L2	L3	L5	M	z	closest inch
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	79	43	132	111	21	12	226	120	42	40	M6	130	1/2
25	100	53	177	148	29	14	262	150	53	46	M6	160	3/4
32	100	60	177	148	29	14	268	150	53	456	M6	160	1
40	147	74	251	207	44	21	329	205	76	65	M8	215	1 1/4
50	147	82	251	207	44	21	335	205	76	65	M8	215	1 1/2
63	147	100	251	207	44	21	341	205	76	65	M8	215	2



SYGEF Standard
Pressure retaining valve type V86
With fusion spigots IR Plus

Model:

- Material: PVDF



Type	d	DN	PTFE	Weight	D	H	H1	L	closest inch	Pressure range	h
	(mm)	(mm)	Code	(kg)	(mm)	(mm)	(mm)	(mm)	(inch)	(bar)	(mm)
V86	75	65	199 041 689	5.600	180	275	230	284	2 1/2	1 - 10	
V86	75	65	199 041 669	5.600	180	275	230	344	2 1/2	1 - 10	



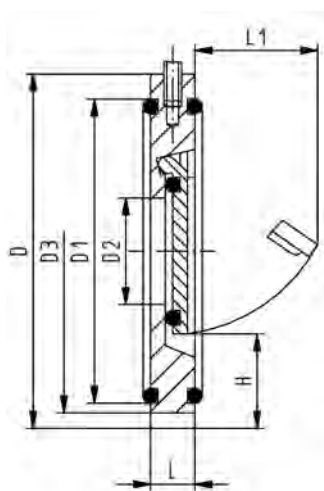
SYGEF Standard
Pressure reducing valve type V82
With fusion spigots IR metric

Model:

- Material: PVDF

Type	d (mm)	DN (mm)	PTFE Code	D (mm)	H (mm)	H1 (mm)	L (mm)	closest inch (inch)	Pressure range (bar)
V82	75	65	199 041 649	200	350	250	300	2 ½	1.0 - 6.0

Check valves



SYGEF Standard Wafer check valve type 369 Without spring

Model:

- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

Note:

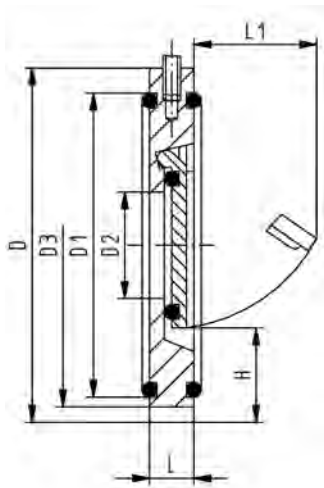
In order to install the wafer check valves properly, Georg Fischer recommends flange adaptors of the next larger diameter of the valve (e.g. wafer check valve d90 with two flange adaptors d110)

d (mm)	DN (mm)	PN (bar)	FPM Code	Weight (kg)
40	32	10	175 369 022	0.133
50	40	10	175 369 023	0.184
63	50	10	175 369 024	0.272
75	65	10	175 369 025	0.410
90	80	10	175 369 026	0.508
110	100	10	175 369 027	0.722
140	125	10	175 369 029	0.991
160	150	6	175 369 030	1.418
225	200	6	175 369 031	2.710
280	250	6	175 369 032	4.520
315	300	6	175 369 033	6.900

d (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	L (mm)	L1 (mm)	Opening pressure vertical (mbar)	Opening pressure horizontal (mbar)	Tightness from water column (m)
40	85	59	18	85	25	15	22	10	1	2
50	105	74	22	95	27	16	27	10	1	2
63	124	90	32	109	29	18	40	10	1	2
75	137	110	40	129	31	20	55	10	1	2
90	175	125	54	144	32	20	67	10	1	2
110	175	150	70	164	31	23	67	10	1	2
140	195	178	92	195	35	23	94	10	1	2
160	222	192	105	220	41	26	100	10	1	2
225	279	256	154	275	38	35	152	18	1	2
280	340	306	192	330	41	40	180	18	1	2
315	410	342	227	380	41	45	215	18	1	2

d (mm)	closest inch (inch)
40	1 ¼
50	1 ½
63	2
75	2 ½
90	3

table continued on the next page



d (mm)	closest inch (inch)
110	4
140	5
160	6
225	8
280	10
315	12

SYGEF Standard

Valves Silicone Free



Actuated valves

Ball valves electric



DN10/15 - 50



DN10/15 - 50

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

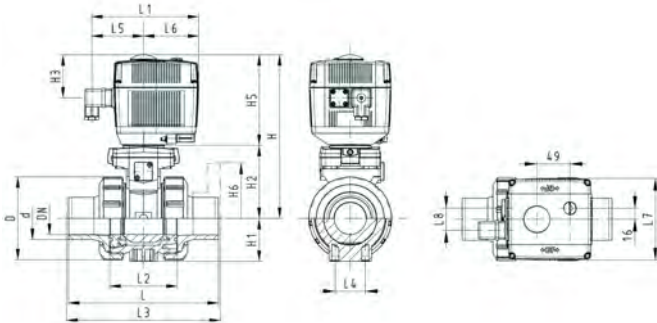
Option:

- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	(Δp=1 bar)	Code	(kg)
			(l/min)		
16	10	10	70	199 107 812	2.100
20	15	10	185	199 107 813	2.100
25	20	10	350	199 107 814	2.200
32	25	10	700	199 107 815	2.300
40	32	10	1000	199 107 816	2.600
50	40	10	1600	199 107 817	3.000
63	50	10	3100	199 107 818	3.800

d	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L6	L7	L8
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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

d	closest
(mm)	inch
	(inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 107 100-230V
With manual emergency override
With butt fusion spigots IR-Plus metric

Model:

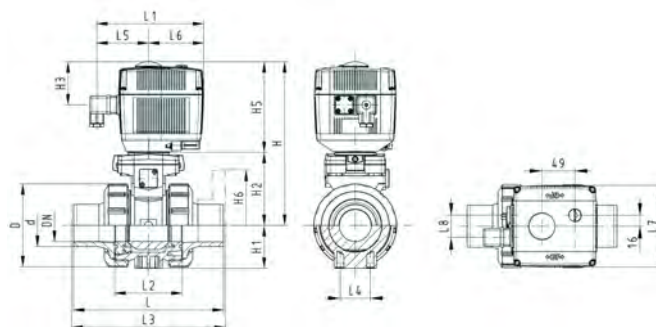
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
20	15	10	185	199 107 423	2.100
25	20	10	350	199 107 424	2.200
32	25	10	700	199 107 425	2.300
40	32	10	1000	199 107 426	2.600
50	40	10	1600	199 107 427	3.000
63	50	10	3100	199 107 428	3.981

d	D	H	H1	H2	H3	H5	L	L1	L2	L4	L5	L6	L7	L8	closest
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	inch
															(inch)
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67	½
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67	¾
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67	1
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67	1 ¼
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67	1 ½
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67	2





DN10/15 - 50

SYGEF Standard
Ball valve type 107 24V
With manual emergency override
With fusion sockets metric

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

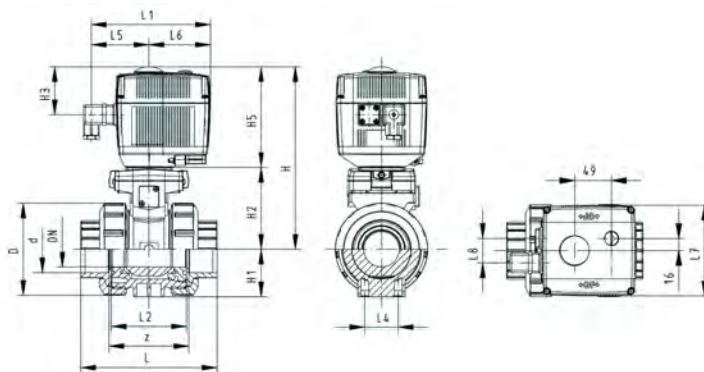
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 107 822	2.100
20	15	10	185	199 107 823	2.100
25	20	10	350	199 107 824	2.200
32	25	10	700	199 107 825	2.414
40	32	10	1000	199 107 826	2.600
50	40	10	1600	199 107 827	2.995
63	50	10	3100	199 107 828	3.800

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	79	83	122	67	67
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	66
25	58	209	30	73	64	137	109	161	65	25	79	83	122	67	77
32	68	209	36	73	64	137	119	161	71	25	79	83	122	67	83
40	84	220	44	84	64	137	135	161	85	45	79	83	122	67	99
50	97	220	51	84	64	137	147	161	89	45	79	83	122	67	105
63	124	243	64	106	64	137	168	161	101	45	79	83	122	67	117

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





SYGEF Standard
Ball valve type 107 24V
With manual emergency override
With fixed flanges PVDF serrated metric

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 dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

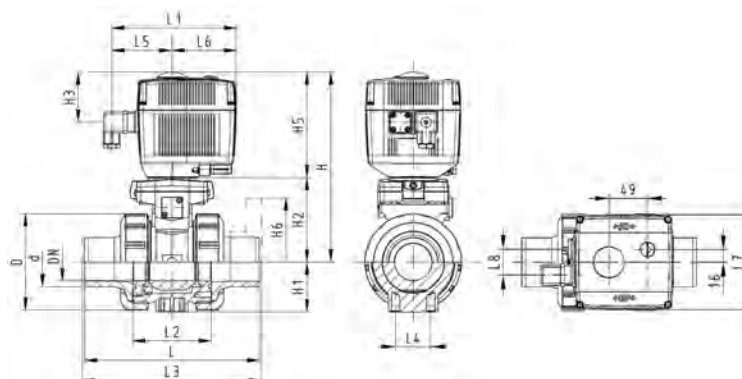
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	199 107 853	2.300
25	20	¾	10	350	199 107 854	2.500
32	25	1	10	700	199 107 855	2.700
40	32	1 ¼	10	1000	199 107 856	3.200
50	40	1 ½	10	1600	199 107 857	3.700
63	50	2	10	3100	199 107 858	4.800

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





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 107 100-230V
With manual emergency override
With fixed flanges PVDF serrated 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
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

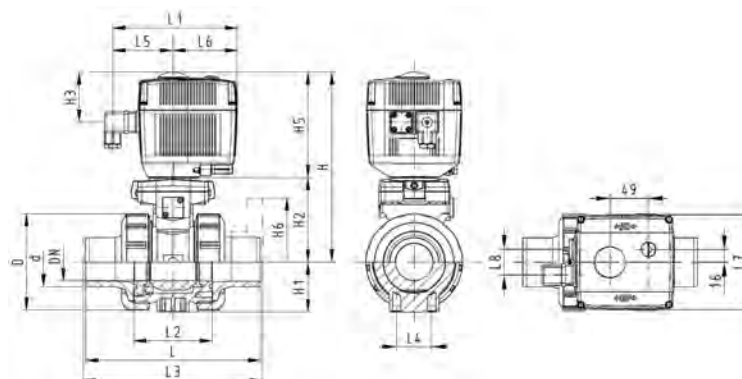
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	199 107 843	2.300
25	20	¾	10	350	199 107 844	2.500
32	25	1	10	700	199 107 845	2.700
40	32	1 ¼	10	1000	199 107 846	3.200
50	40	1 ½	10	1600	199 107 847	3.700
63	50	2	10	3100	199 107 848	4.800

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





DN10/15 - 50

SYGEF Standard
Ball valve type 107 100-230V
With manual emergency override
With fusion sockets 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

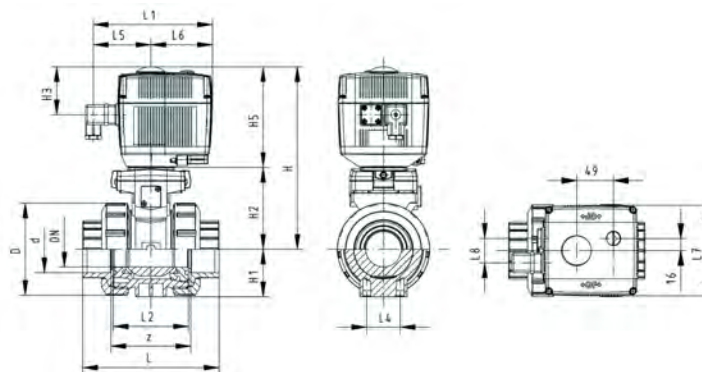
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 107 802	2.100
20	15	10	185	199 107 803	2.100
25	20	10	350	199 107 804	2.200
32	25	10	700	199 107 805	2.300
40	32	10	1000	199 107 806	2.600
50	40	10	1600	199 107 807	3.000
63	50	10	3100	199 107 808	3.800

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	79	83	122	67	67
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	66
25	58	209	30	73	64	137	109	161	65	25	79	83	122	67	77
32	68	209	36	73	64	137	119	161	71	25	79	83	122	67	83
40	84	220	44	84	64	137	135	161	85	45	79	83	122	67	99
50	97	220	51	84	64	137	147	161	89	45	79	83	122	67	105
63	124	243	64	106	64	137	168	161	101	45	79	83	122	67	117

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





SYGEF Standard
Ball valve type 107 24V
With manual emergency override
With butt fusion spigots IR-Plus metric

Model:

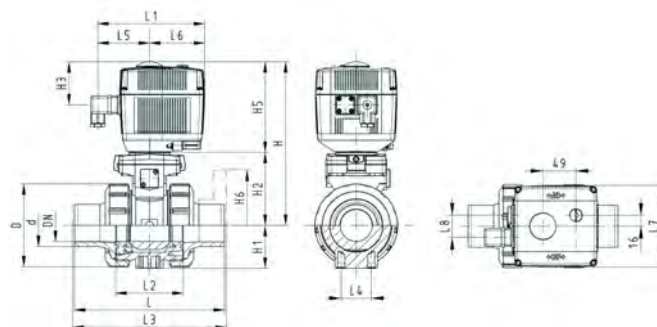
- Material: PVDF
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 107 433	2.100
25	20	10	350	199 107 434	2.200
32	25	10	700	199 107 435	2.300
40	32	10	1000	199 107 436	2.600
50	40	10	1600	199 107 437	3.000
63	50	10	3100	199 107 438	3.800

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)	closest inch (inch)
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67	½
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67	¾
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67	1
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67	1 ¼
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67	1 ½
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67	2





SYGEF Standard
Ball valve type 107 24V
With manual emergency override
With socket fusion spigots metric

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

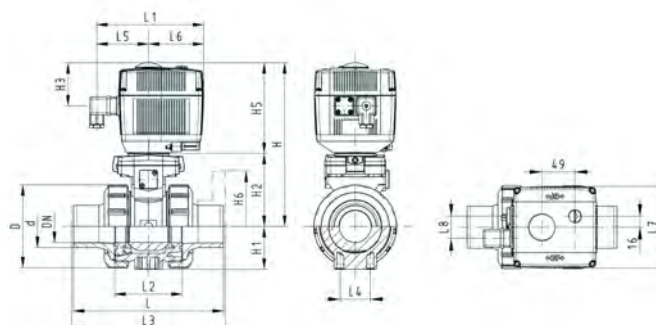
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 107 832	2.100
20	15	10	185	199 107 833	2.100
25	20	10	350	199 107 834	2.200
32	25	10	700	199 107 835	2.300
40	32	10	1000	199 107 836	2.600
50	40	10	1600	199 107 837	3.000
63	50	10	3100	199 107 838	3.800

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

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





SYGEF Standard
Ball valve type 181 100-230V
With manual emergency override
With fusion sockets metric

Model:

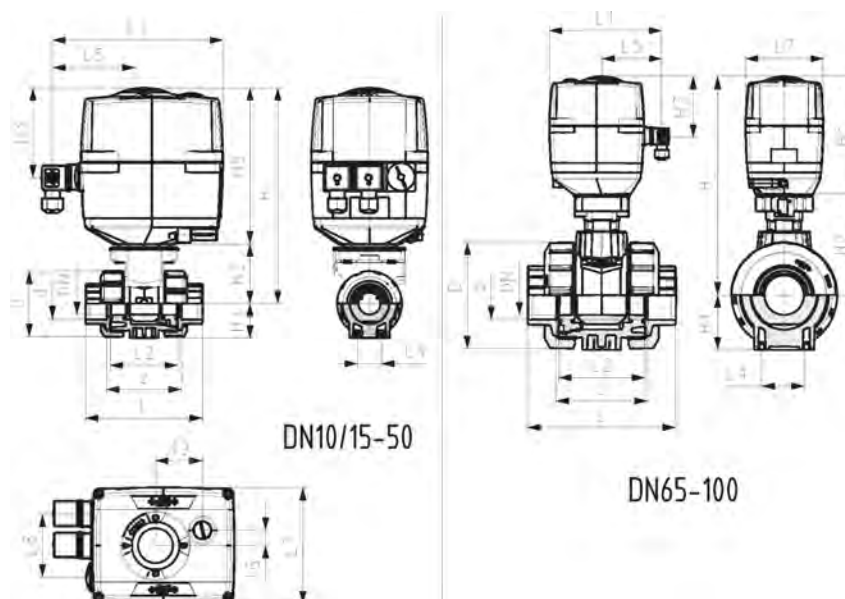
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	DN	PN	kv-value	EA	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)		Code	(kg)
			(l/min)			
16	10	10	70	EA25	199 181 012	2.100
20	15	10	185	EA25	199 181 013	2.100
25	20	10	350	EA25	199 181 014	2.200
32	25	10	700	EA25	199 181 015	2.300
40	32	10	1000	EA25	199 181 016	2.600
50	40	10	1600	EA25	199 181 017	3.000
63	50	10	3100	EA25	199 181 018	3.800
75	65	10	5000	EA45	199 181 019	8.800
90	80	10	7000	EA120	199 181 020	11.900
110	100	10	11000	EA120	199 181 021	17.500

d	D	H	H1	H2	H3	H5	L	L1	L2	L4	L5	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	109	180	65	25	97	122	77
32	68	240	36	73	94	167	119	180	71	25	97	122	83
40	84	251	44	84	94	167	135	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





SYGEF Standard
Ball valve type 181 100-230V
With manual emergency override
With butt fusion spigots IR-Plus metric

Model:

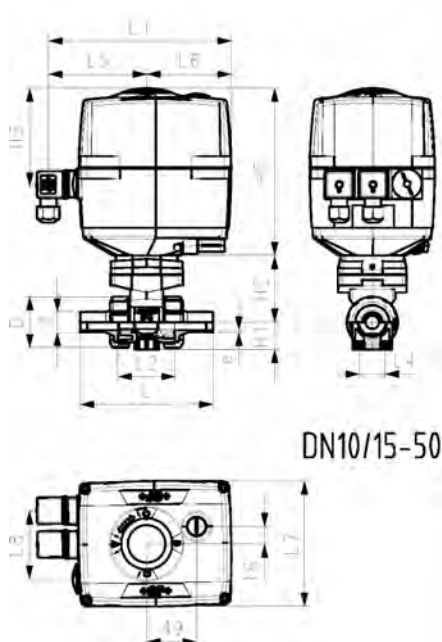
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<->
- Heating element, position feedback (Open/Close/ Middle)
- Integrated stainless steel mounting inserts

Option:

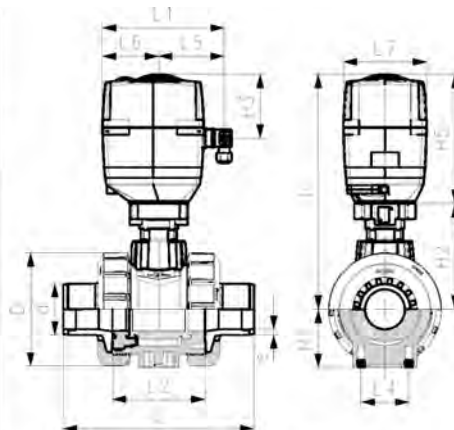
- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	EA	FPM Code	Weight (kg)
20	15	10	185	EA25	199 181 113	2.100
25	20	10	350	EA25	199 181 114	2.200
32	25	10	700	EA25	199 181 115	2.300
40	32	10	1000	EA25	199 181 116	2.600
50	40	10	1600	EA25	199 181 117	3.000
53	50	10	3100	EA25	199 181 118	3.800
63	50	10	5000	EA25	199 181 119	9.100
90	80	10	7000	EA120	199 181 120	12.200
110	100	10	11000	EA120	199 181 121	17.500

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
53	124	273	64	106	94	167	220	108	101	45	97	122	3.0
63	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



DN10/15-50



DN65-100

Ball valves pneumatic



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With fusion Sockets metric

Model:

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

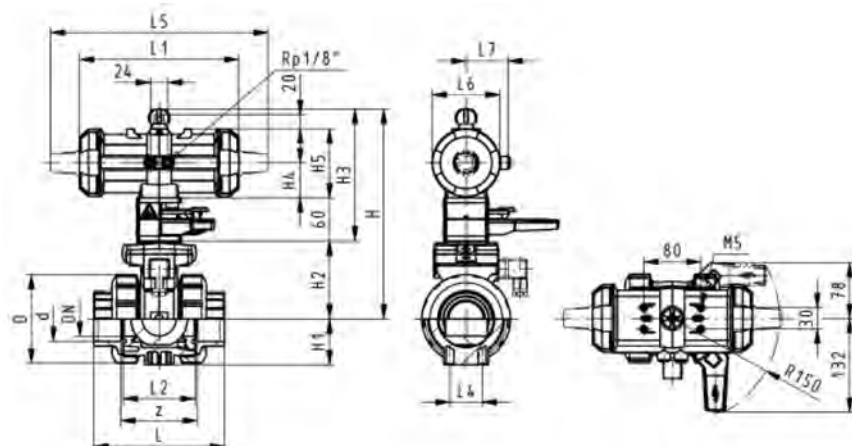
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 012	1.500
20	15	10	185	199 232 013	1.500
25	20	10	350	199 232 014	1.600
32	25	10	700	199 232 015	1.700
40	32	10	1000	199 232 016	2.800
50	40	10	1600	199 232 017	3.100
63	50	10	3100	199 232 018	4.000

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	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With threaded sockets NPT

Model:

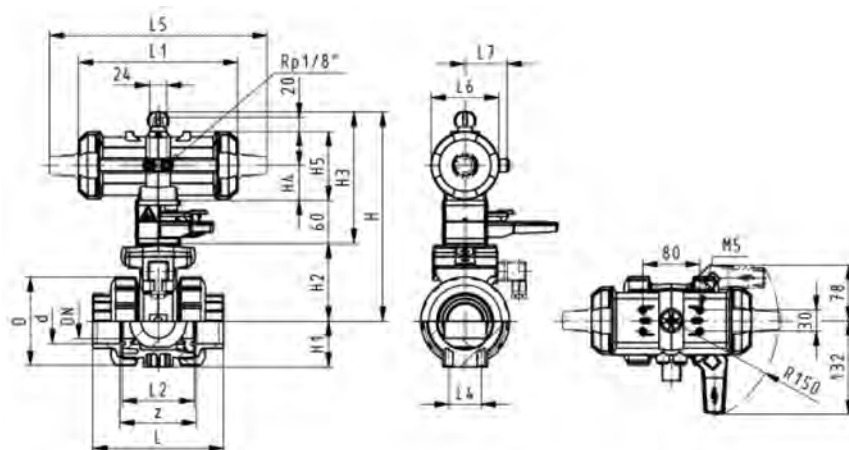
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 512	1.500
1/2	15	10	185	199 232 513	2.275
3/4	20	10	350	199 232 514	1.600
1	25	10	700	199 232 515	1.700
1 1/4	32	10	1000	199 232 516	2.800
1 1/2	40	10	1600	199 232 517	3.100
2	50	10	3100	199 232 518	4.935

Size (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





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
With manual override
With threaded sockets NPT

Model:

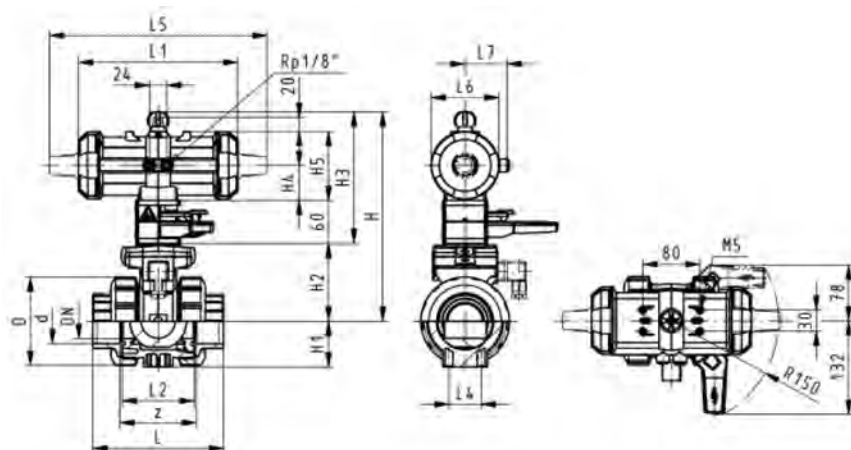
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 532	1.500
1/2	15	10	185	199 232 533	1.500
3/4	20	10	350	199 232 534	1.600
1	25	10	700	199 232 535	1.700
1 1/4	32	10	1000	199 232 536	2.800
1 1/2	40	10	1600	199 232 537	3.100
2	50	10	3100	199 232 538	4.000

Size (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





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With threaded sockets NPT

Model:

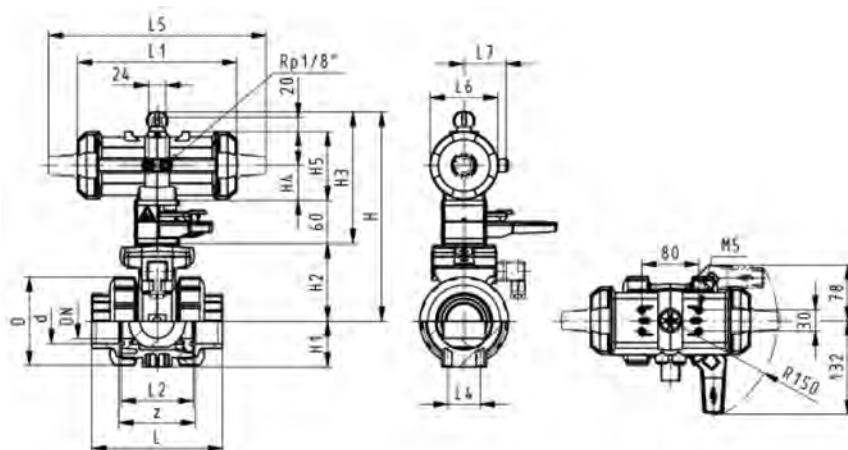
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 552	1.500
1/2	15	10	185	199 232 553	1.500
3/4	20	10	350	199 232 554	1.600
1	25	10	700	199 232 555	1.700
1 1/4	32	10	1000	199 232 556	2.800
1 1/2	40	10	1600	199 232 557	3.100
2	50	10	3100	199 232 558	4.000

Size (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	230	27	62	168	40	77	96	194	56	25	261	76	48	69
1/2	50	230	27	62	168	40	77	99	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	77	111	194	65	25	261	76	48	76
1	68	239	36	71	168	40	77	127	194	71	25	261	76	48	83
1 1/4	84	271	44	84	187	51	99	146	224	85	45	305	95	59	101
1 1/2	97	271	51	84	187	51	99	157	224	89	45	305	95	59	111
2	124	293	64	106	187	51	99	183	224	101	45	305	95	59	135





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With threaded sockets NPT

Model:

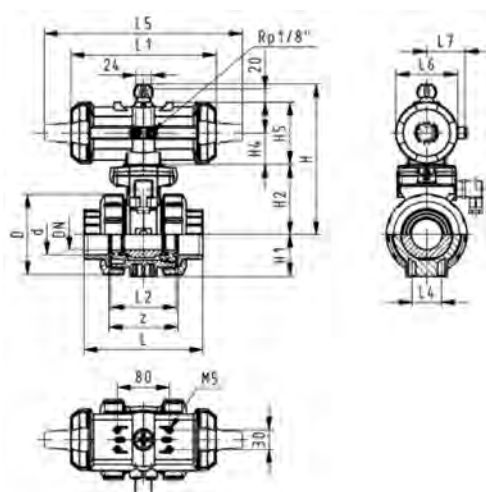
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 572	1.200
1/2	15	10	185	199 232 573	1.975
3/4	20	10	350	199 232 574	1.300
1	25	10	700	199 232 575	2.245
1 1/4	32	10	1000	199 232 576	2.500
1 1/2	40	10	1600	199 232 577	2.800
2	50	10	3100	199 232 578	3.700

Size (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





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
Without manual override
With threaded sockets NPT

Model:

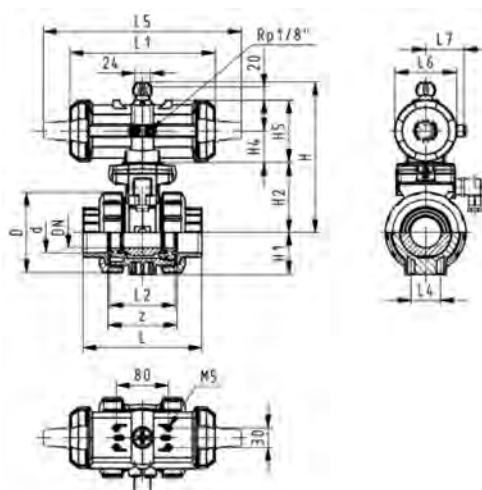
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 592	1.200
1/2	15	10	185	199 232 593	1.200
3/4	20	10	350	199 232 594	1.300
1	25	10	700	199 232 595	1.400
1 1/4	32	10	1000	199 232 596	2.500
1 1/2	40	10	1600	199 232 597	2.800
2	50	10	3100	199 232 598	3.700

Size (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





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With threaded sockets NPT

Model:

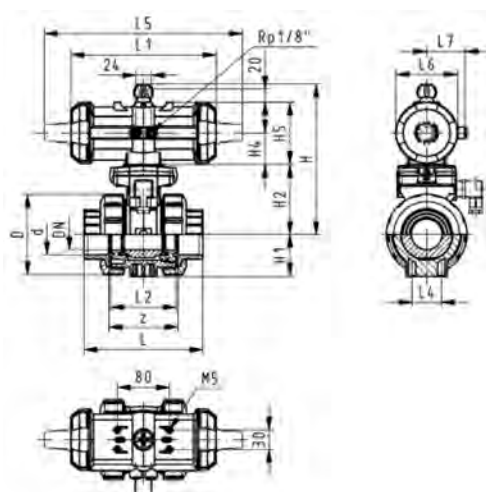
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	70	199 232 612	1.500
1/2	15	10	185	199 232 613	1.500
3/4	20	10	350	199 232 614	1.600
1	25	10	700	199 232 615	1.700
1 1/4	32	10	1000	199 232 616	2.800
1 1/2	40	10	1600	199 232 617	3.100
2	50	10	3100	199 232 618	4.000

Size (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
Ball valve type 232
Function DA (Double acting)
Without manual override
With fixed flanges PVDF serrated metric

Model:

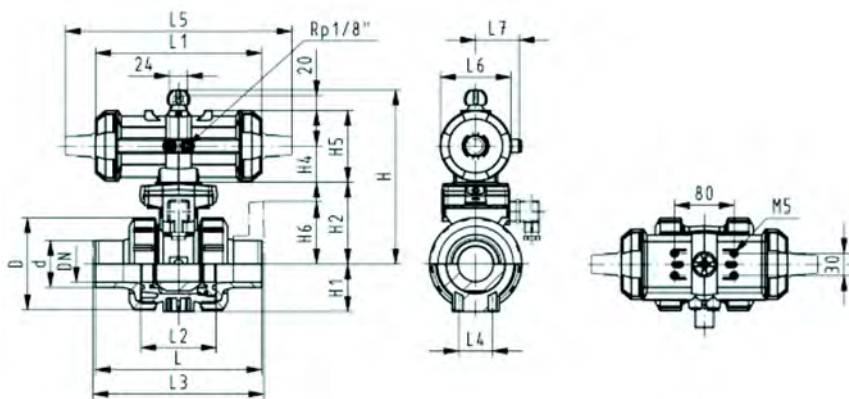
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d	DN	Size	PN	kv-value	FPM	Weight
(mm)	(mm)	(inch)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
20	15	½	10	185	199 232 103	1.400
25	20	¾	10	350	199 232 104	1.600
32	25	1	10	700	199 232 105	1.800
40	32	1 ¼	10	1000	199 232 106	3.100
50	40	1 ½	10	1600	199 232 107	3.600
63	50	2	10	3100	199 232 108	4.700

d	D	H	H1	H2	H4	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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
Ball valve type 232
Function DA (Double acting)
Without manual override
With backing flanges PP-st metric

Model:

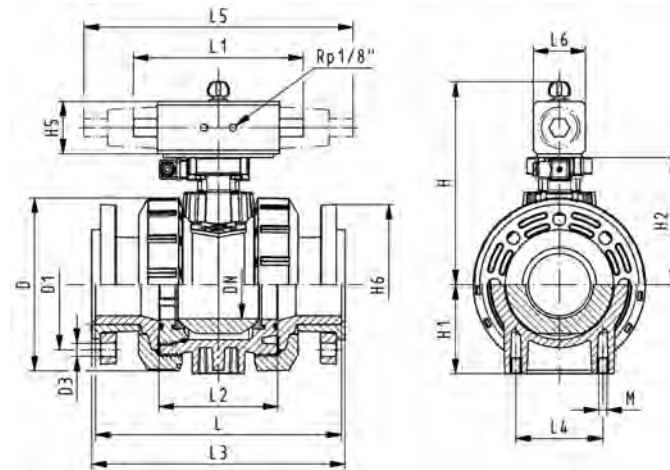
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092,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

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
75	65	2 ½	10	5000	199 232 949	13.400
90	80	3	10	7000	199 232 950	18.200
110	100	4	10	11000	199 232 951	26.000

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
Ball valve type 232
Function DA (Double acting)
Without manual override
With backing flanges PP-st Inch ANSI

Model:

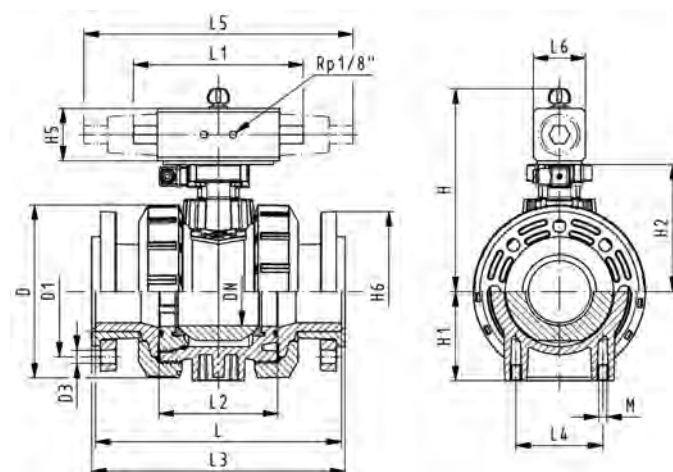
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
75	2 ½	65	10	5000	199 232 979	13.400
90	3	80	10	7000	199 232 980	18.200
110	4	100	10	11000	199 232 981	26.000

d	D	H	H1	H2	H5	H6	L	L1	L2	L3	L4	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	115	336	169	164	350	120	72





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

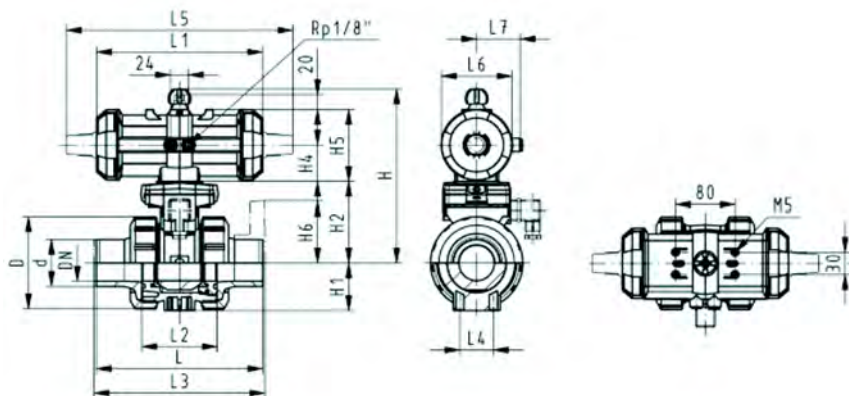
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 913	1.200
25	20	10	350	199 232 914	1.300
32	25	10	700	199 232 915	1.400
40	32	10	1000	199 232 916	2.500
50	40	10	1600	199 232 917	2.800
63	50	10	3100	199 232 918	3.700
75	65	10	5000	199 232 919	8.300
90	80	10	7000	199 232 920	11.900
110	100	10	11000	199 232 921	17.300

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	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	257	85	156		66	266	144	136	70		60		4
90	200	274	105	168		70	264	152	141	70		65		4
110	238	273	123	175		78	301	169	164	120		72		5





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With socket fusion spigots metric

Model:

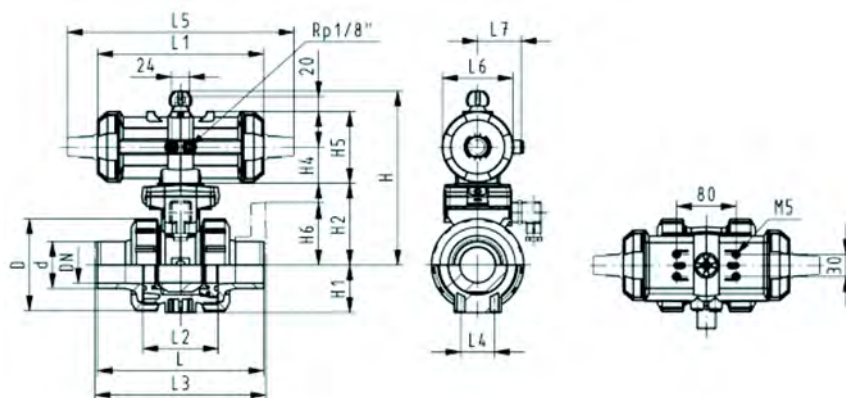
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 232	1.200
20	15	10	185	199 232 233	1.200
25	20	10	350	199 232 234	1.300
32	25	10	700	199 232 235	1.400
40	32	10	1000	199 232 236	2.500
50	40	10	1600	199 232 237	2.800
63	50	10	3100	199 232 238	3.700

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)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	$\frac{3}{8}$
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	$\frac{1}{2}$
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	$\frac{3}{4}$
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 $\frac{1}{4}$
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 $\frac{1}{2}$
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function DA (Double acting)
Without manual override
With fusion sockets metric

Model:

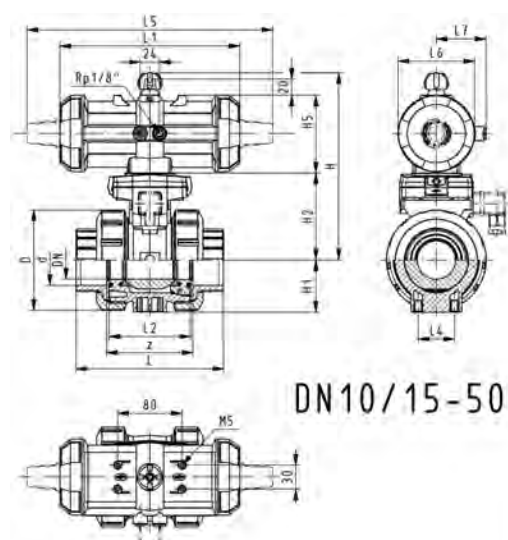
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

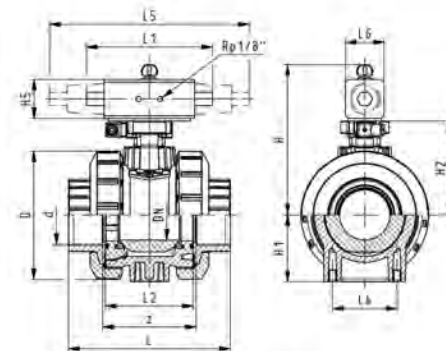
- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	10	70	199 232 212	1.200
20	15	10	185	199 232 213	1.200
25	20	10	350	199 232 214	1.300
32	25	10	700	199 232 215	1.096
40	32	10	1000	199 232 216	1.845
50	40	10	1600	199 232 217	2.800
63	50	10	3100	199 232 218	3.700
75	65	10	5000	199 232 219	8.000
90	80	10	7000	199 232 220	11.600
110	100	10	11000	199 232 221	17.100

d	D	H	H1	H2	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	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



SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With fixed flanges PVDF serrated metric

Model:

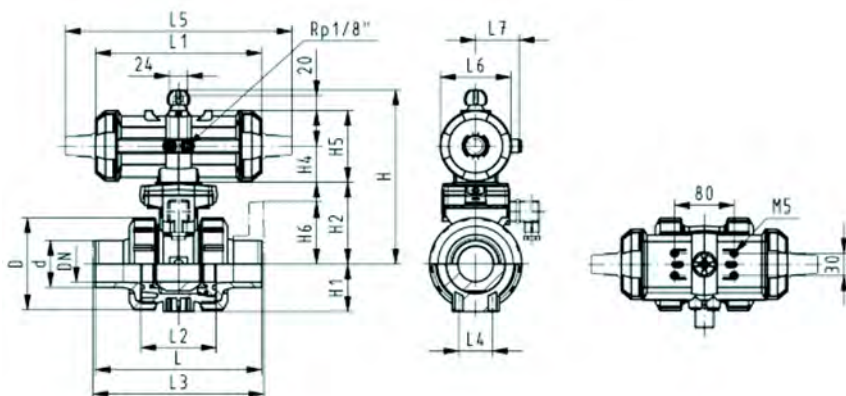
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	199 232 083	1.400
25	20	¾	10	350	199 232 084	1.600
32	25	1	10	700	199 232 085	1.800
40	32	1 ¼	10	1000	199 232 086	3.100
50	40	1 ½	10	1600	199 232 087	3.600
63	50	2	10	3100	199 232 088	4.697

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





SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
Without manual override
With backing flanges PP-st Inch ANSI

Model:

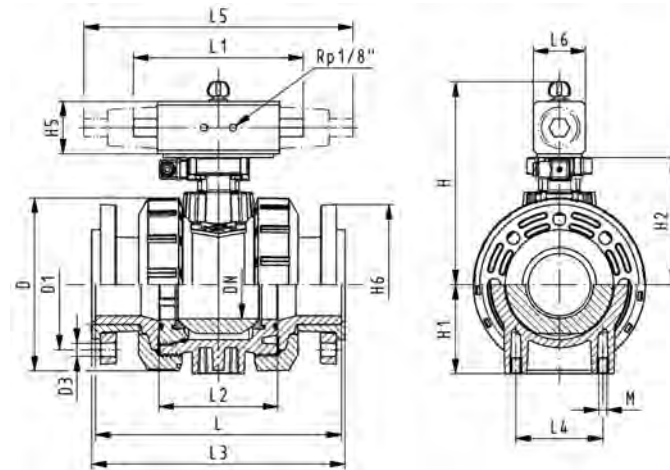
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(L/min)		
75	2 ½	65	10	5000	199 232 969	14.500
90	3	80	10	7000	199 232 970	18.900
110	4	100	10	11000	199 232 971	27.700

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	115	336	164	350	120	369	80





SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
Without manual override
With backing flanges PP-st metric

Model:

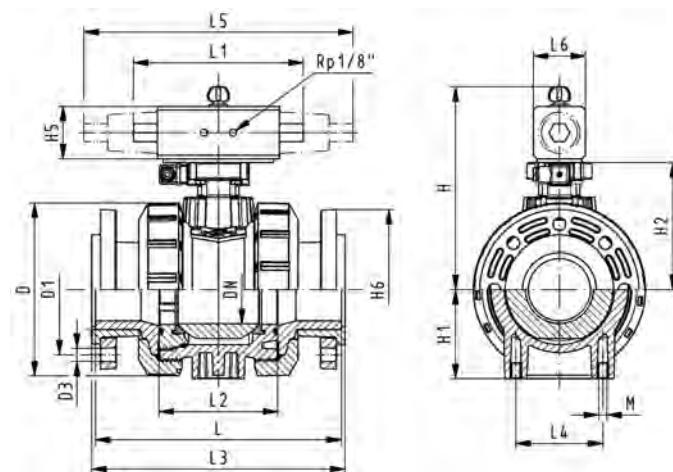
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092,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

Option:

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
75	2 ½	65	10	5000	199 232 939	14.500
90	3	80	10	7000	199 232 940	18.900
110	4	100	10	11000	199 232 941	27.700

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

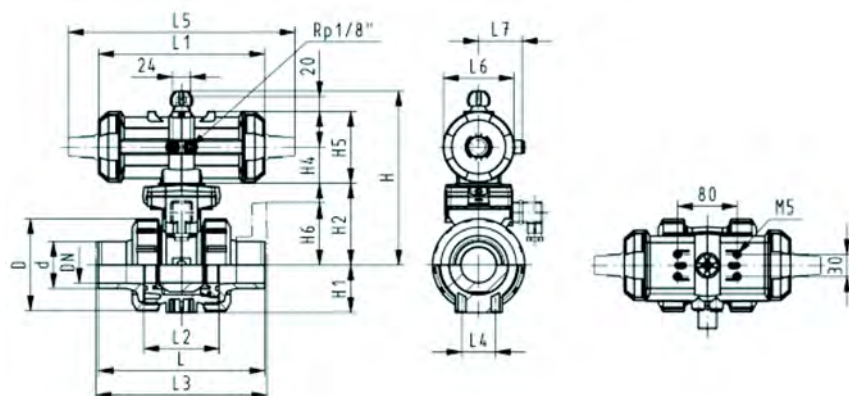
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 873	1.200
25	20	10	350	199 232 874	1.198
32	25	10	700	199 232 875	1.335
40	32	10	1000	199 232 876	2.351
50	40	10	1600	199 232 877	2.800
63	50	10	3100	199 232 878	3.568
75	65	10	5000	199 232 879	9.500
90	80	10	7000	199 232 880	12.600
110	100	10	11000	199 232 881	19.100

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	2
25	58	168	30	71	40	77	130	194	65	25	261	76	48	2
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3
75	166	262	85	156		70	266	218	136	70	276	65		4
90	200	281	105	168		70	264	259	141	70	341	72		4
110	238	292	123	175		70	301	287	164	120	369	80		5





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
Without manual override
With socket fusion spigots metric

Model:

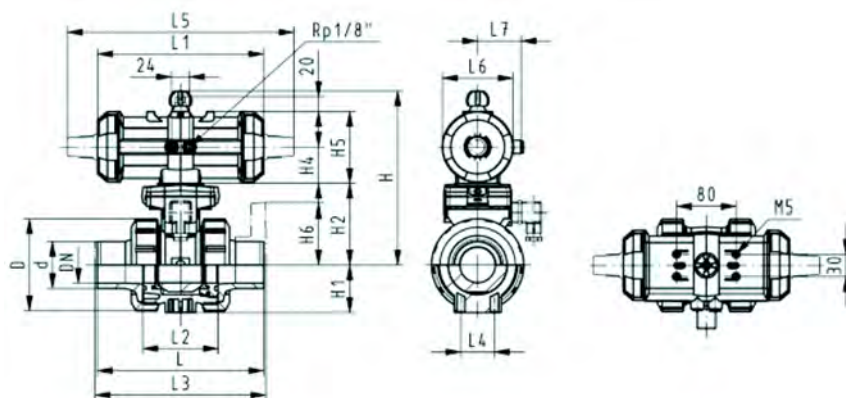
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 192	1.200
20	15	10	185	199 232 193	1.200
25	20	10	350	199 232 194	1.300
32	25	10	700	199 232 195	1.400
40	32	10	1000	199 232 196	2.500
50	40	10	1600	199 232 197	2.800
63	50	10	3100	199 232 198	3.603

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)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	$\frac{3}{8}$
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	$\frac{1}{2}$
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	$\frac{3}{4}$
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 $\frac{1}{4}$
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 $\frac{1}{2}$
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
Without manual override
With fusion sockets metric

Model:

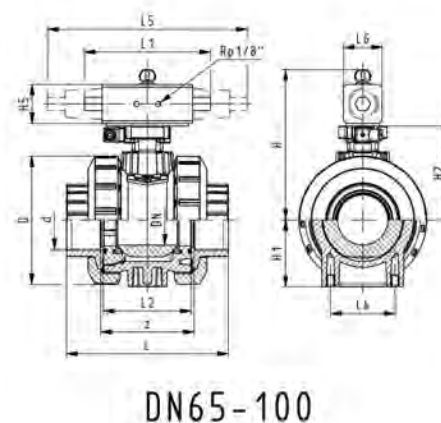
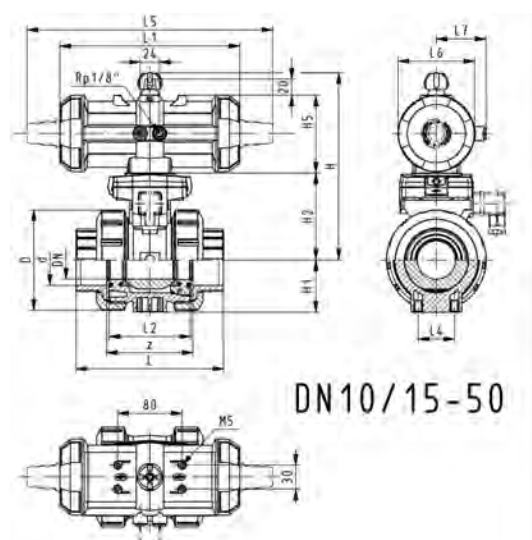
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	10	70	199 232 172	1.200
20	15	10	185	199 232 173	1.200
25	20	10	350	199 232 174	1.300
32	25	10	700	199 232 175	1.400
40	32	10	1000	199 232 176	2.500
50	40	10	1600	199 232 177	2.800
63	50	10	3100	199 232 178	3.700
75	65	10	5000	199 232 179	9.200
90	80	10	7000	199 232 180	12.300
110	100	10	11000	199 232 181	18.900

d	D	H	H1	H2	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	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





SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With fixed flanges PVDF serrated metric

Model:

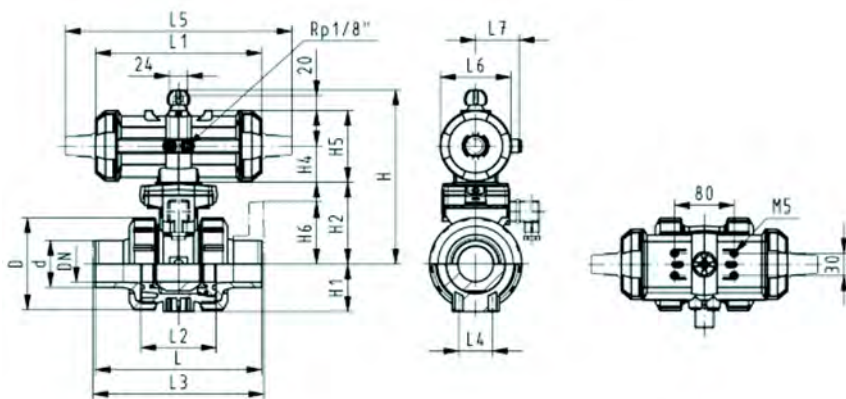
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length EN 558
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d	DN	Size	PN	kv-value	FPM	Weight
(mm)	(mm)	(inch)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
20	15	½	10	185	199 232 063	1.326
25	20	¾	10	350	199 232 064	1.600
32	25	1	10	700	199 232 065	1.804
40	32	1 ¼	10	1000	199 232 066	3.100
50	40	1 ½	10	1600	199 232 067	3.600
63	50	2	10	3100	199 232 068	4.700

d	D	H	H1	H2	H4	H5	H6	L	L1	L2	L3	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With backing flanges PP-st ASTM

Model:

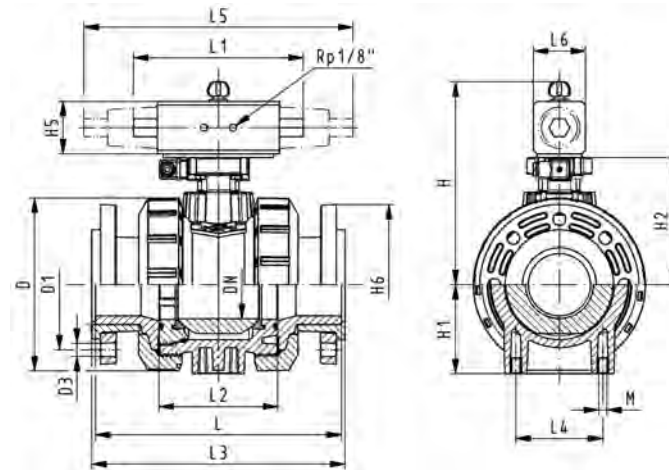
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve (see diagram)

d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(L/min)		
75	2 1/2	65	10	5000	199 232 959	14.500
90	3	80	10	7000	199 232 960	18.900
110	4	100	10	11000	199 232 961	27.700

d	D	H	H1	H2	H5	H6	L	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	115	336	164	350	120	369	80





SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With backing flanges PP-st metric

Model:

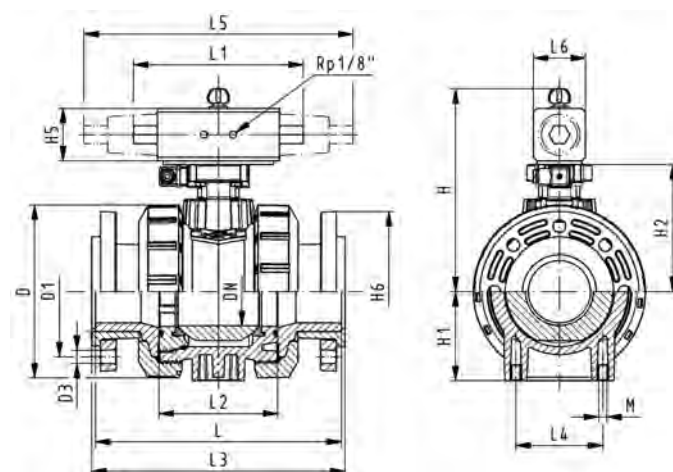
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092,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

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
75	65	2 1/2	10	5000	199 232 929	14.500
90	80	3	10	7000	199 232 930	18.900
110	100	4	10	11000	199 232 931	27.700

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	340	164	350	120	369	80





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With socket fusion spigots metric

Model:

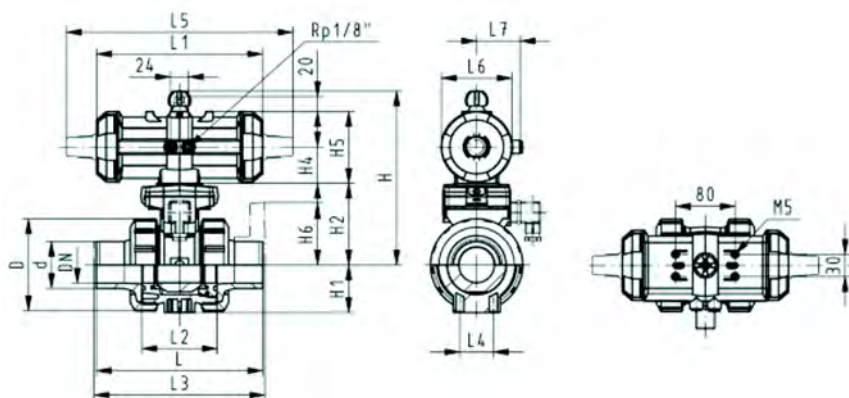
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (L/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 152	1.200
20	15	10	185	199 232 153	1.084
25	20	10	350	199 232 154	1.300
32	25	10	700	199 232 155	1.343
40	32	10	1000	199 232 156	2.500
50	40	10	1600	199 232 157	2.800
63	50	10	3100	199 232 158	3.700

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)	closest inch (inch)
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59	2





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With butt fusion spigots IR-Plus metric

Model:

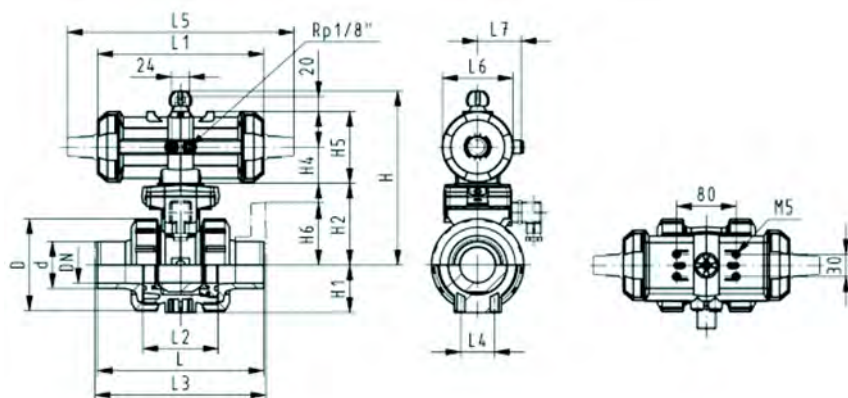
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 833	1.083
25	20	10	350	199 232 834	1.191
32	25	10	700	199 232 835	1.330
40	32	10	1000	199 232 836	2.350
50	40	10	1600	199 232 837	2.639
63	50	10	3100	199 232 838	4.219
75	65	10	5000	199 232 839	9.500
90	80	10	7000	199 232 840	12.600
110	100	10	11000	199 232 841	19.100

D	H	H1	H2	H4	H5	L	L1	L2	L4	L5	L6	L7	e
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
50	159	27	62	40	77	130	194	56	25	261	76	48	2
58	168	30	71	40	77	130	194	65	25	261	76	48	2
68	168	36	71	40	77	130	194	71	25	261	76	48	2
84	202	44	84	51	99	130	224	85	45	305	95	59	2
97	202	51	84	51	99	130	224	89	45	305	95	59	3
124	225	64	106	51	99	130	224	101	45	305	95	59	3
166	262	85	156		70	266	270	136	70	276	65		4
200	281	105	168		78	264	270	141	70	341	72		4
238	292	123	175		86	301	320	164	120	369	80		5





DN10/15 - 50



SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
Without manual override
With fusion sockets metric

Model:

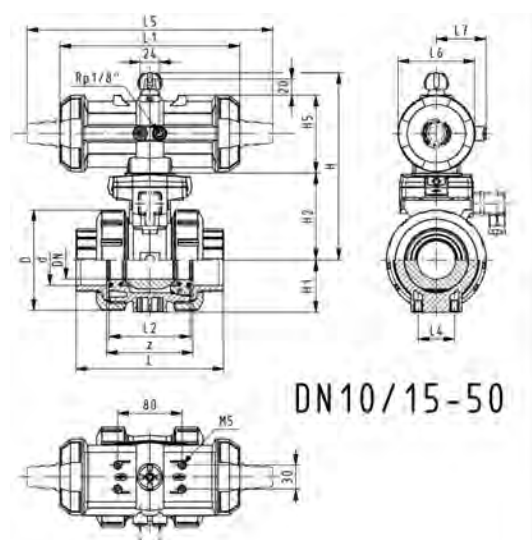
- Material: PVDF
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

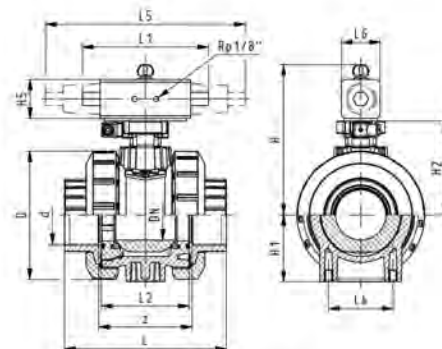
- Individual configuration of the valve (see diagram)

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	10	70	199 232 132	1.200
20	15	10	185	199 232 133	1.079
25	20	10	350	199 232 134	1.300
32	25	10	700	199 232 135	1.322
40	32	10	1000	199 232 136	2.500
50	40	10	1600	199 232 137	3.216
63	50	10	3100	199 232 138	3.473
75	65	10	5000	199 232 139	9.200
90	80	10	7000	199 232 140	12.300
110	100	10	11000	199 232 141	18.900

d	D	H	H1	H2	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	159	27	62	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	40	77	109	194	65	25	261	76	48	77
32	68	168	36	71	40	77	119	194	71	25	261	76	48	83
40	84	202	44	84	51	99	135	224	85	45	305	95	59	99
50	97	202	51	84	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	51	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



DN10/15-50



DN65-100



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With fixed flanges PVDF serrated metric

Model:

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

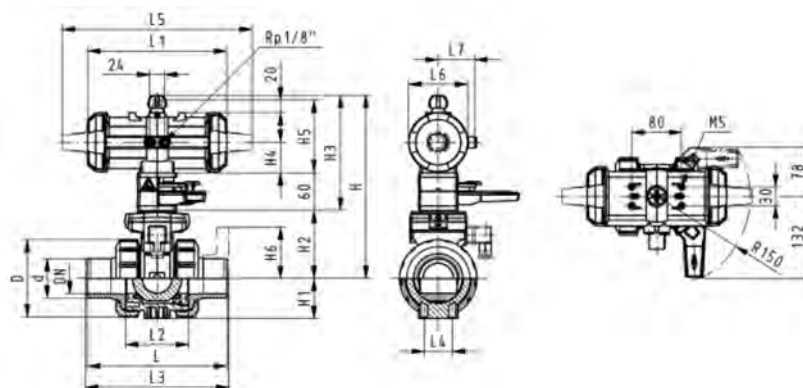
Option:

- Individual configuration of the valve (see diagram)

d	DN	Size	PN	kv-value	FPM	Weight
(mm)	(mm)	(inch)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
20	15	½	10	185	199 232 043	1.700
25	20	¾	10	350	199 232 044	1.900
32	25	1	10	700	199 232 045	2.100
40	32	1 ¼	10	1000	199 232 046	3.400
50	40	1 ½	10	1600	199 232 047	3.900
63	50	2	10	3100	199 232 048	5.000

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	50	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	99	83	224	224	101	230	45	305	95

d	L7
(mm)	(mm)
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With butt fusion spigots IR-Plus metric

Model:

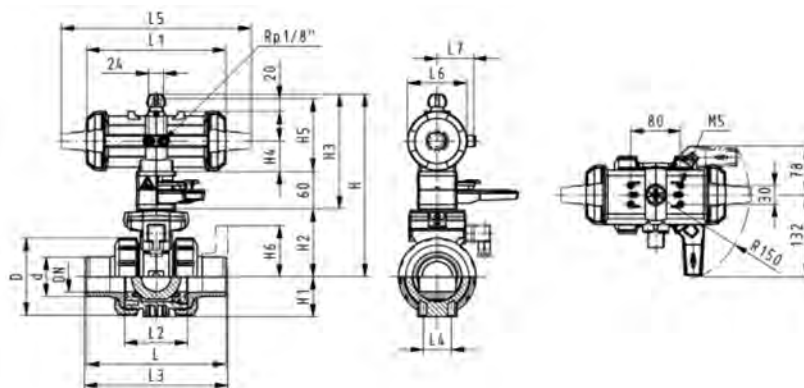
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 793	1.200
25	20	10	350	199 232 794	1.300
32	25	10	700	199 232 795	1.400
40	32	10	1000	199 232 796	2.500
50	40	10	1600	199 232 797	2.800
63	50	10	3100	199 232 798	3.700

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)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	239	30	71	168	40	77	130	194	65	25	261	76	48	¾
32	68	239	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	130	224	85	45	305	95	59	1 ¼
50	97	271	51	84	187	51	99	130	224	89	45	305	95	59	1 ½
63	124	293	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With socket fusion spigots metric

Model:

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

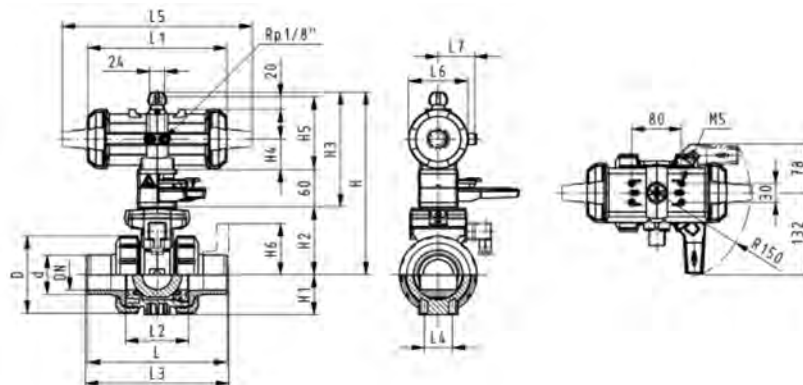
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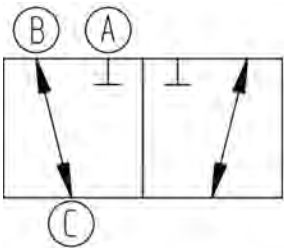
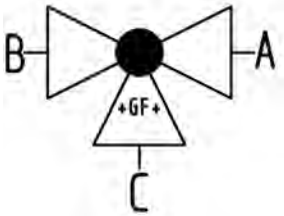
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 112	1.500
20	15	10	185	199 232 113	1.500
25	20	10	350	199 232 114	1.600
32	25	10	700	199 232 115	1.700
40	32	10	1000	199 232 116	2.800
50	40	10	1600	199 232 117	3.100
63	50	10	3100	199 232 118	4.000

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

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With threaded sockets NPT

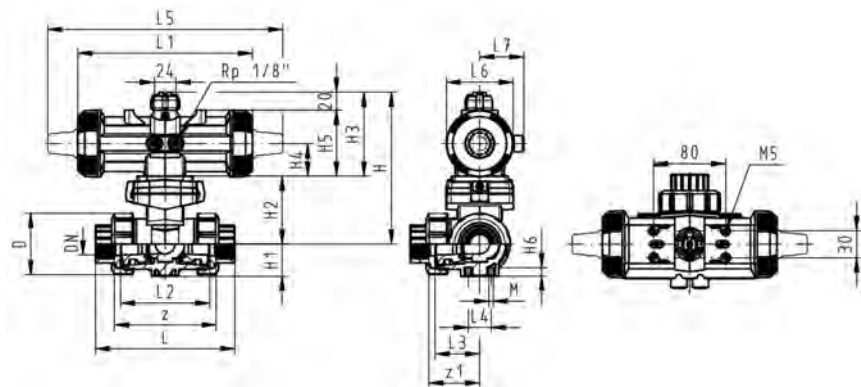
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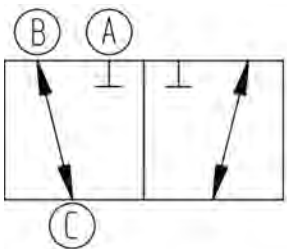
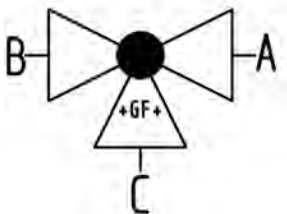
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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

NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	50	199 287 242	1.183
1/2	15	10	75	199 287 243	1.179
3/4	20	10	150	199 287 244	1.349
1	25	10	280	199 287 245	1.593
1 1/4	32	10	480	199 287 246	2.800
1 1/2	40	10	620	199 287 247	3.379
2	50	10	1230	199 287 248	5.109

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 (mm)	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
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With butt fusion spigots IR-Plus metric

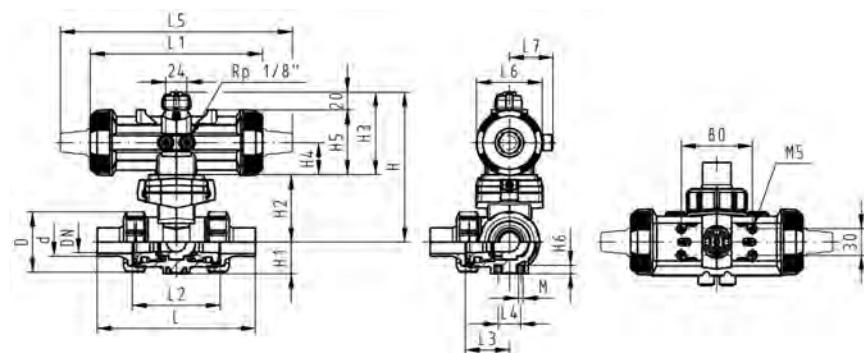
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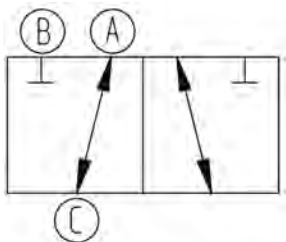
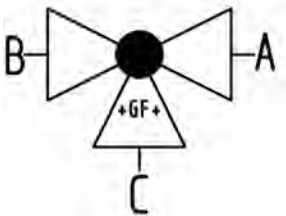
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	75	199 287 053	1.666
25	20	10	150	199 287 054	1.369
32	25	10	280	199 287 055	1.623
40	32	10	480	199 287 056	2.710
50	40	10	620	199 287 057	3.294
63	50	10	1230	199 287 058	4.982

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 (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With threaded sockets NPT

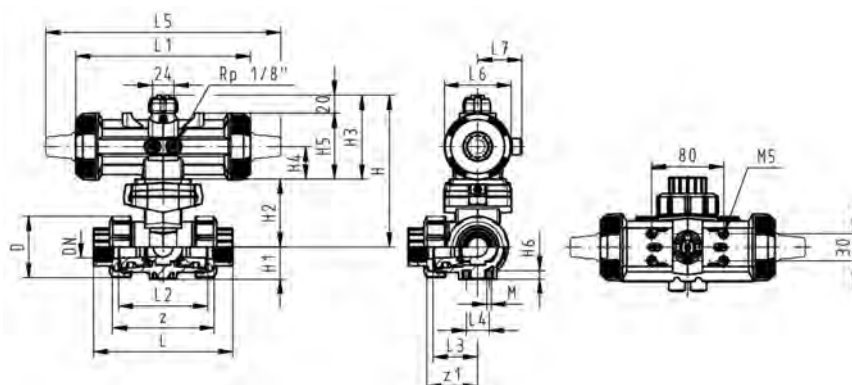
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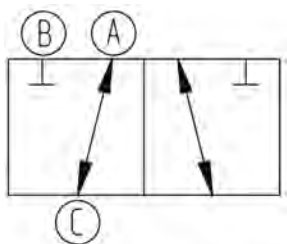
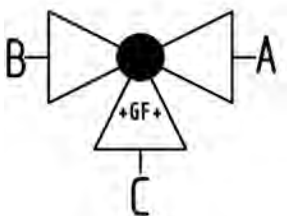
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	50	199 287 262	0.992
1/2	15	10	75	199 287 263	1.001
3/4	20	10	150	199 287 264	1.159
1	25	10	280	199 287 265	1.403
1 1/4	32	10	480	199 287 266	2.376
1 1/2	40	10	620	199 287 267	2.955
2	50	10	1230	199 287 268	4.685

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 (mm)	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
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

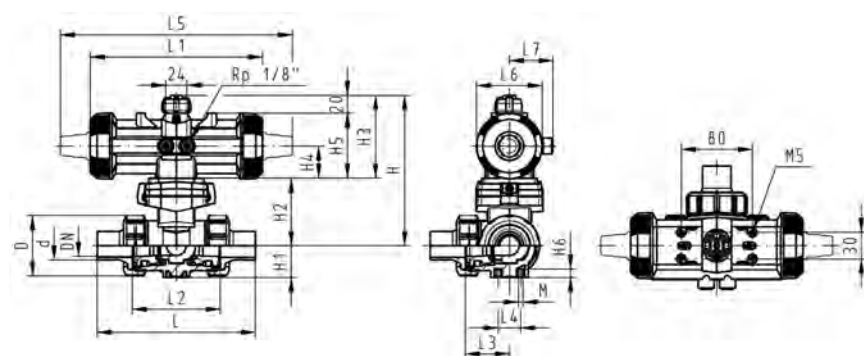
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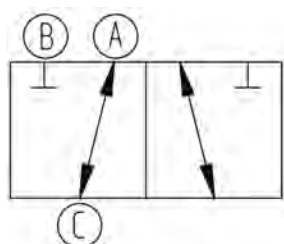
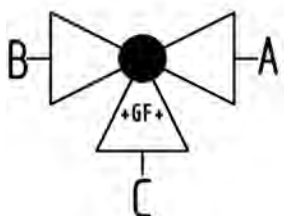
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	75	199 287 173	1.012
25	20	10	150	199 287 174	1.179
32	25	10	280	199 287 175	1.433
40	32	10	480	199 287 176	2.403
50	40	10	620	199 287 177	3.036
63	50	10	1230	199 287 178	4.847

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 (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With socket fusion spigots metric

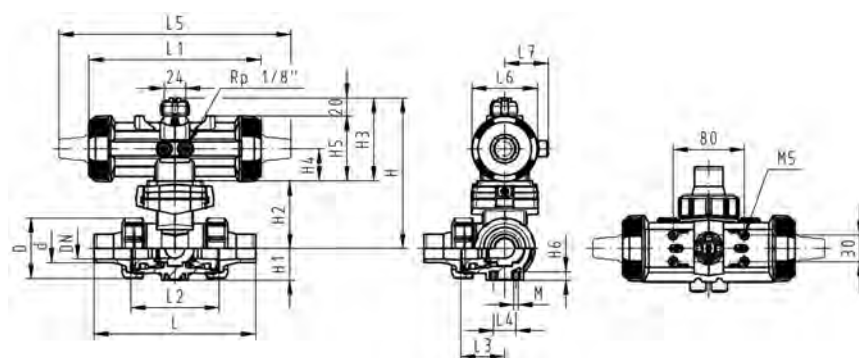
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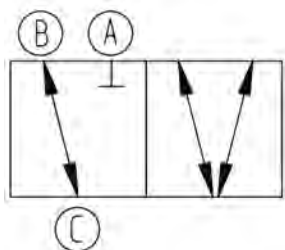
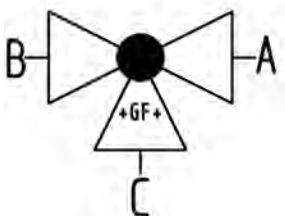
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	199 287 132	1.001
20	15	10	75	199 287 133	1.012
25	20	10	150	199 287 134	1.179
32	25	10	280	199 287 135	1.433
40	32	10	480	199 287 136	2.403
50	40	10	620	199 287 137	3.036
63	50	10	1230	199 287 138	4.847

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 (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With threaded sockets NPT

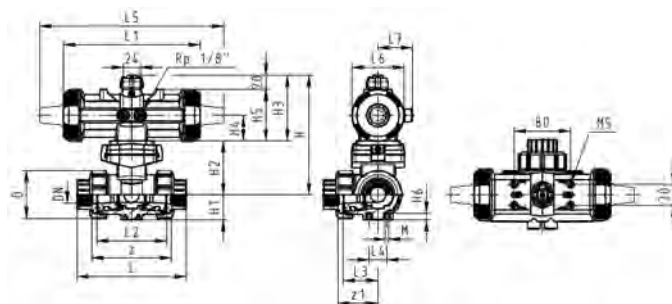
Model:

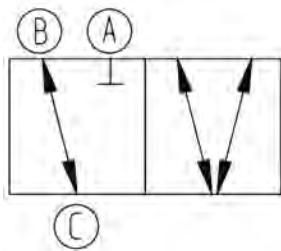
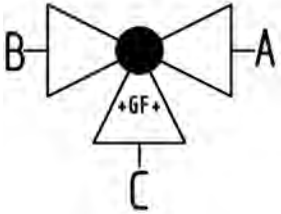
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless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

NPT (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	140	199 287 252	1.182
1/2	15	10	200	199 287 253	1.189
3/4	20	10	470	199 287 254	1.347
1	25	10	793	199 287 255	1.584
1 1/4	32	10	1290	199 287 256	2.786
1 1/2	40	10	1910	199 287 257	3.352
2	50	10	3100	199 287 258	5.052

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 (mm)	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
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With butt fusion spigots IR-Plus metric

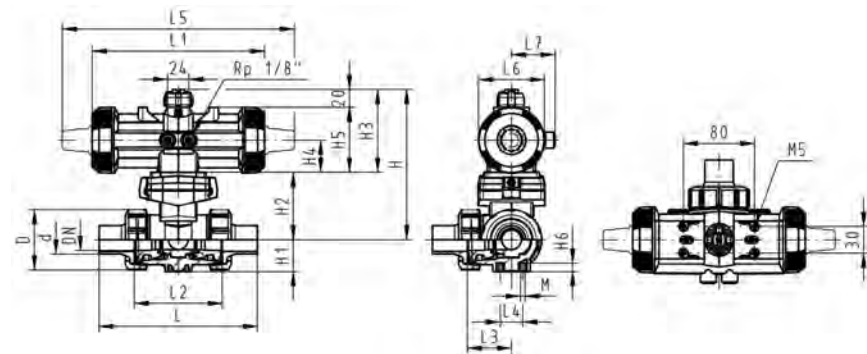
Model:

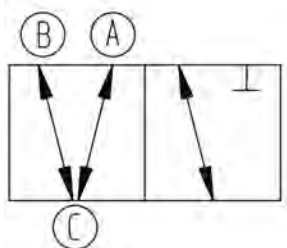
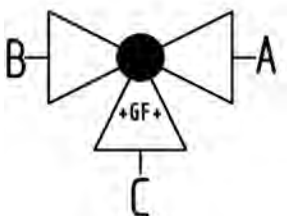
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	200	199 287 073	1.201
25	20	10	470	199 287 074	1.366
32	25	10	793	199 287 075	1.615
40	32	10	1290	199 287 076	2.813
50	40	10	1910	199 287 077	3.433
63	50	10	3100	199 287 078	5.213

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 (mm)	closest inch (inch)
20	48	6	½
25	48	6	¾
32	48	6	1
40	59	8	1 ¼
50	59	8	1 ½
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With threaded sockets NPT

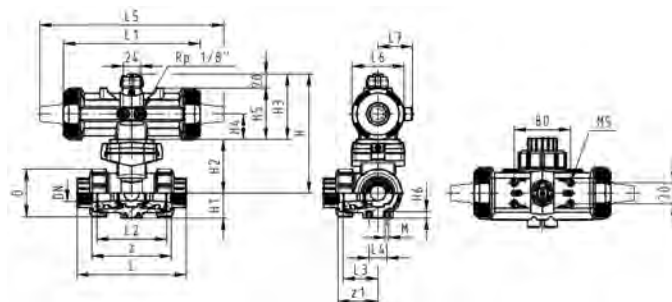
Model:

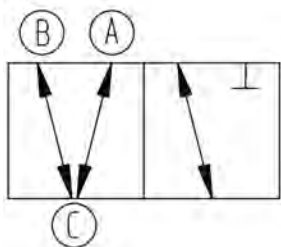
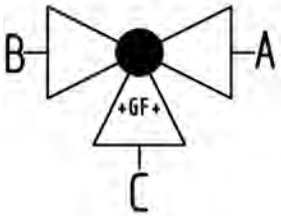
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

NPT (inch)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
3/8	10	10	140	199 287 272	0.991
1/2	15	10	200	199 287 273	0.999
3/4	20	10	470	199 287 274	1.157
1	25	10	793	199 287 275	1.394
1 1/4	32	10	1290	199 287 276	2.362
1 1/2	40	10	1910	199 287 277	2.928
2	50	10	3100	199 287 278	4.628

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 (mm)	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
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With butt fusion spigots IR-Plus metric

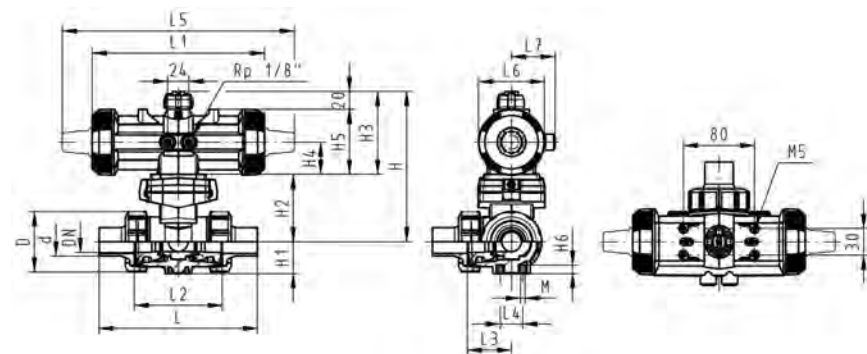
Model:

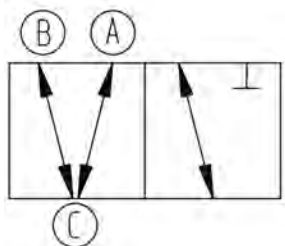
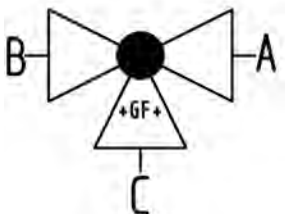
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	140	199 287 193	1.011
25	20	10	200	199 287 194	1.176
32	25	10	470	199 287 195	1.425
40	32	10	793	199 287 196	2.389
50	40	10	1290	199 287 197	3.009
63	50	10	3100	199 287 198	4.789

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 (mm)	closest inch (inch)
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With socket fusion spigots metric

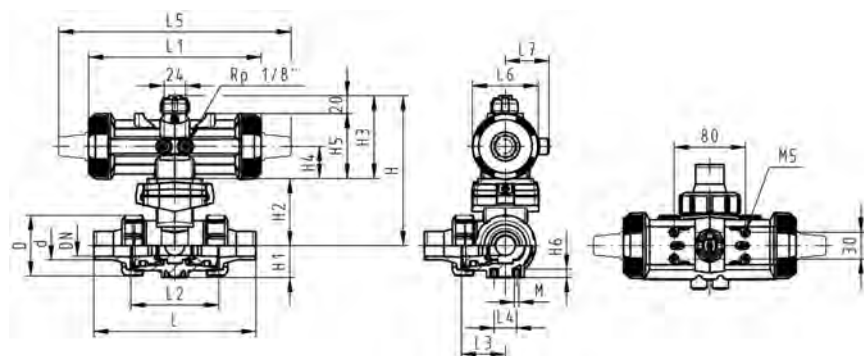
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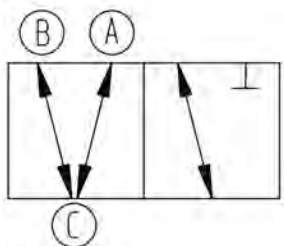
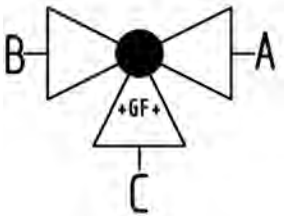
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	199 287 152	0.999
20	15	10	200	199 287 153	1.011
25	20	10	470	199 287 154	1.176
32	25	10	793	199 287 155	1.425
40	32	10	1290	199 287 156	2.389
50	40	10	1910	199 287 157	3.009
63	50	10	3100	199 287 158	4.789

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 (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port DA (Double acting)
Without manual override
With fusion sockets metric

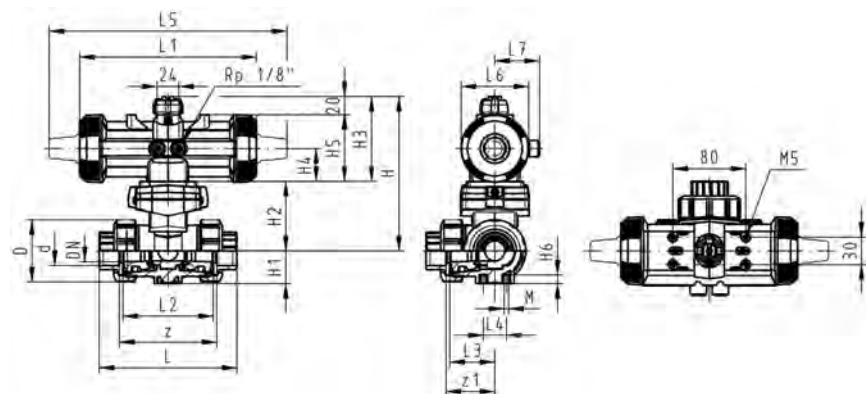
Model:

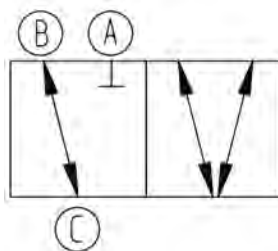
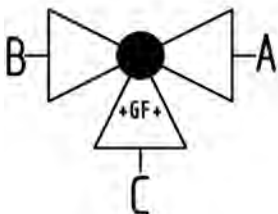
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	199 287 232	0.991
20	15	10	200	199 287 233	0.999
25	20	10	470	199 287 234	1.157
32	25	10	793	199 287 235	1.394
40	32	10	1290	199 287 236	2.362
50	40	10	1910	199 287 237	2.928
63	50	10	3100	199 287 238	4.628

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 (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With socket fusion spigots metric

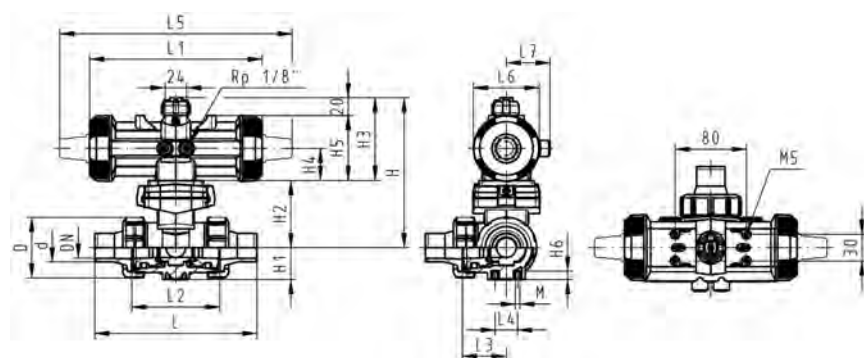
Model:

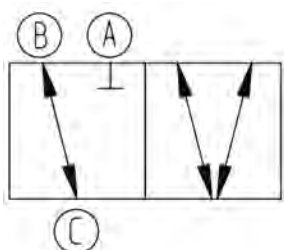
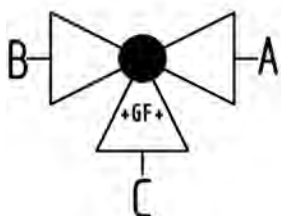
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel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

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	199 287 032	1.189
20	15	10	200	199 287 033	1.201
25	20	10	470	199 287 034	1.366
32	25	10	793	199 287 035	1.615
40	32	10	1290	199 287 036	2.813
50	40	10	1910	199 287 037	3.433
63	50	10	3100	199 287 038	5.213

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 (mm)	closest inch (inch)
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/T-port
Without manual override
With fusion sockets metric

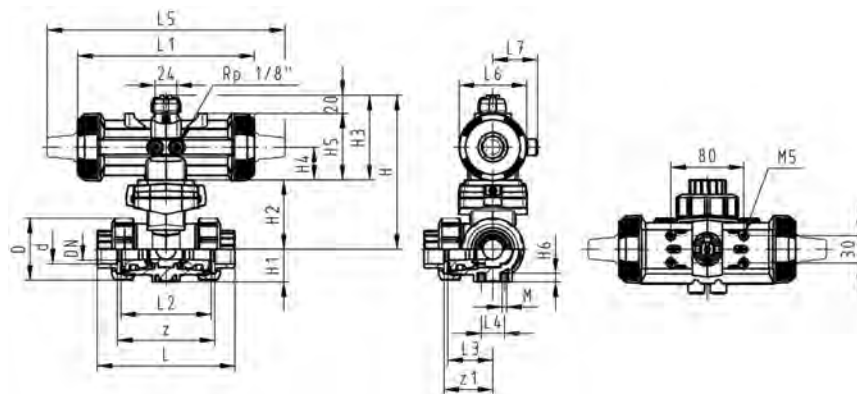
Model:

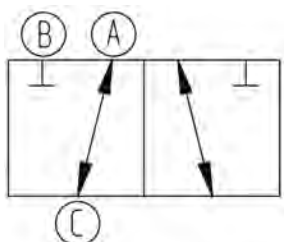
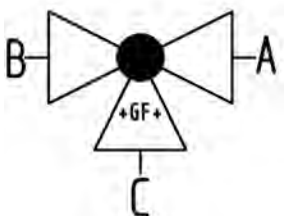
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	140	199 287 112	1.182
20	15	10	200	199 287 113	1.189
25	20	10	470	199 287 114	1.347
32	25	10	793	199 287 115	1.584
40	32	10	1290	199 287 116	2.786
50	40	10	1910	199 287 117	3.154
63	50	10	3100	199 287 118	5.052

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 (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port DA (Double acting)
Without manual override
With fusion sockets metric

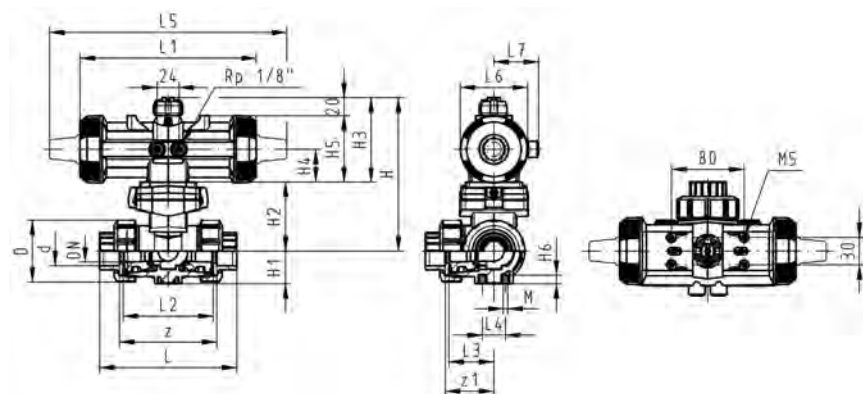
Model:

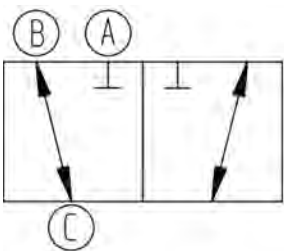
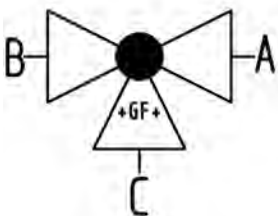
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d	DN	PN	kv-value	FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
16	10	10	50	199 287 212	0.992
20	15	10	75	199 287 213	1.001
25	20	10	150	199 287 214	1.159
32	25	10	280	199 287 215	1.403
40	32	10	480	199 287 216	2.376
50	40	10	620	199 287 217	2.955
63	50	10	1230	199 287 218	4.347

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	L7	M	z	z1	closest
(mm)	(mm)		(mm)	(mm)	inch
					(inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With socket fusion spigots metric

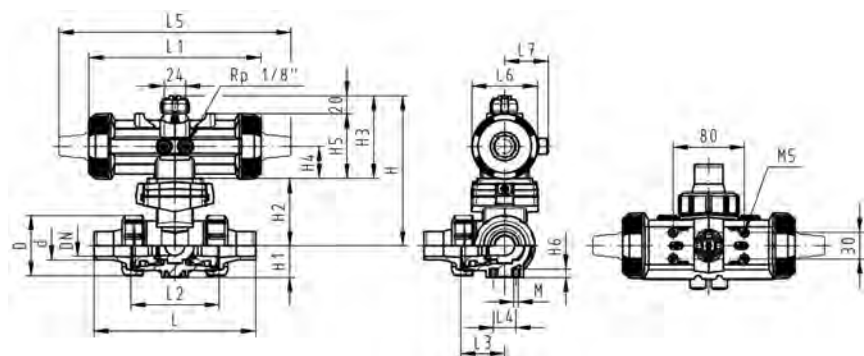
Model:

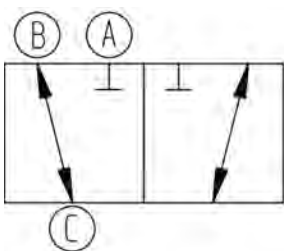
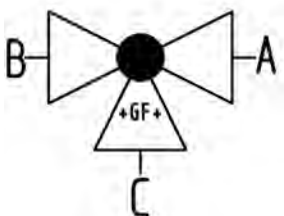
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	199 287 012	1.191
20	15	10	75	199 287 013	1.202
25	20	10	150	199 287 014	1.369
32	25	10	280	199 287 015	1.623
40	32	10	480	199 287 016	2.827
50	40	10	620	199 287 017	3.460
63	50	10	1230	199 287 018	5.271

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 (mm)	closest inch (inch)
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2





SYGEF Standard
3-Way ball valve type 287
Horizontal/L-port
Without manual override
With fusion sockets metric

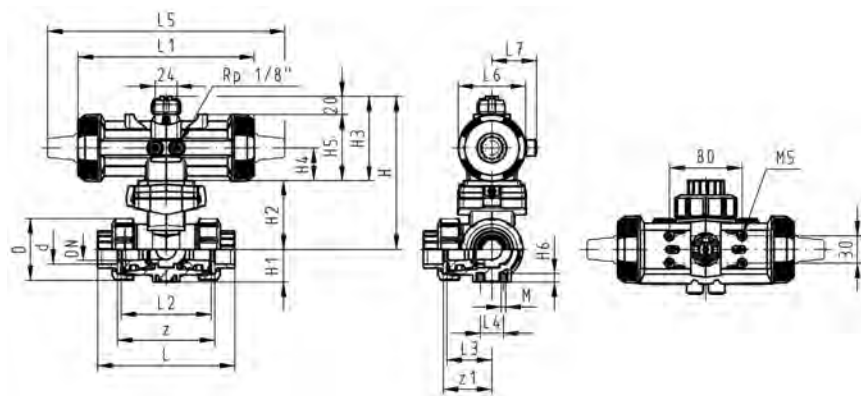
Model:

- 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°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	50	199 287 092	1.183
20	15	10	75	199 287 093	1.191
25	20	10	150	199 287 094	1.349
32	25	10	280	199 287 095	1.593
40	32	10	480	199 287 096	2.800
50	40	10	620	199 287 097	3.379
63	50	10	1230	199 287 098	5.109

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)	closest inch (inch)
16	48	6	82	41	3/8
20	48	6	82	41	1/2
25	48	6	97	49	3/4
32	48	6	110	55	1
40	59	8	132	66	1 1/4
50	59	8	151	76	1 1/2
63	59	8	188	94	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function DA (Double acting)
With manual override
With fusion sockets metric

Model:

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

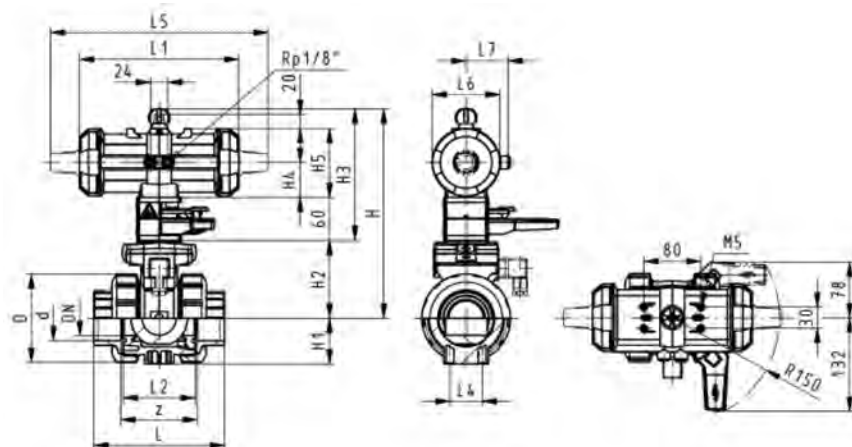
Option:

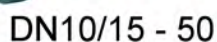
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 092	1.500
20	15	10	185	199 232 093	1.500
25	20	10	350	199 232 094	1.600
32	25	10	700	199 232 095	1.331
40	32	10	1000	199 232 096	2.800
50	40	10	1600	199 232 097	3.100
63	50	10	3100	199 232 098	4.000

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	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2







DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With butt fusion spigots IR-Plus metric

Model:

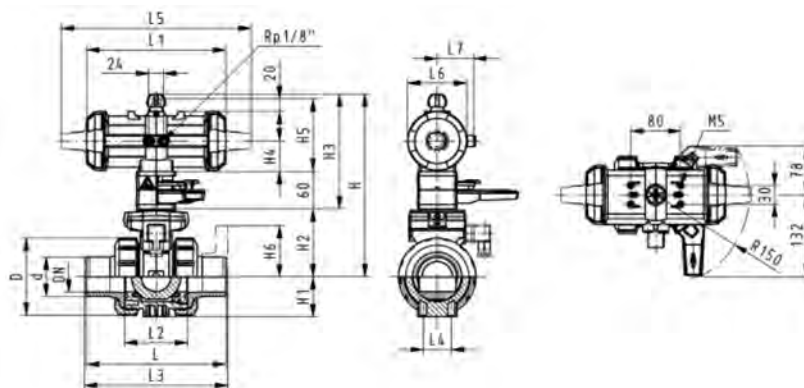
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 753	1.200
25	20	10	350	199 232 754	1.300
32	25	10	700	199 232 755	1.400
40	32	10	1000	199 232 756	2.500
50	40	10	1600	199 232 757	2.800
63	50	10	3100	199 232 758	3.700

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)	closest inch (inch)
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48	¾
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48	1
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59	1 ¼
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59	1 ½
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FO (Fail safe to open)
With manual override
With socket fusion spigots metric

Model:

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

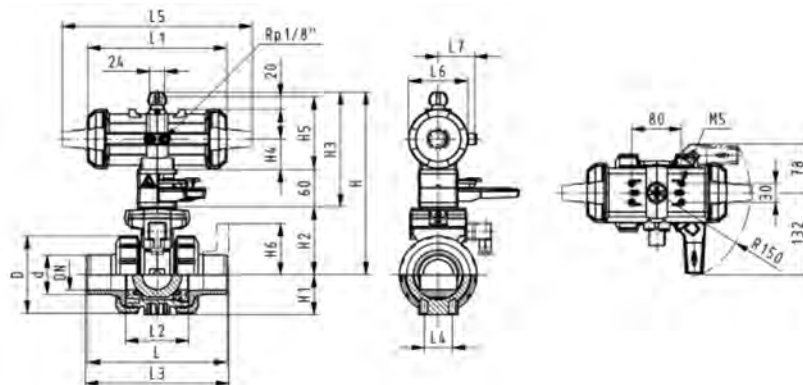
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 072	1.500
20	15	10	185	199 232 073	1.500
25	20	10	350	199 232 074	1.600
32	25	10	700	199 232 075	1.700
40	32	10	1000	199 232 076	2.800
50	40	10	1600	199 232 077	3.100
63	50	10	3100	199 232 078	4.000

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

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function F0 (Fail safe to open)
With manual override
With fusion sockets metric

Model:

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

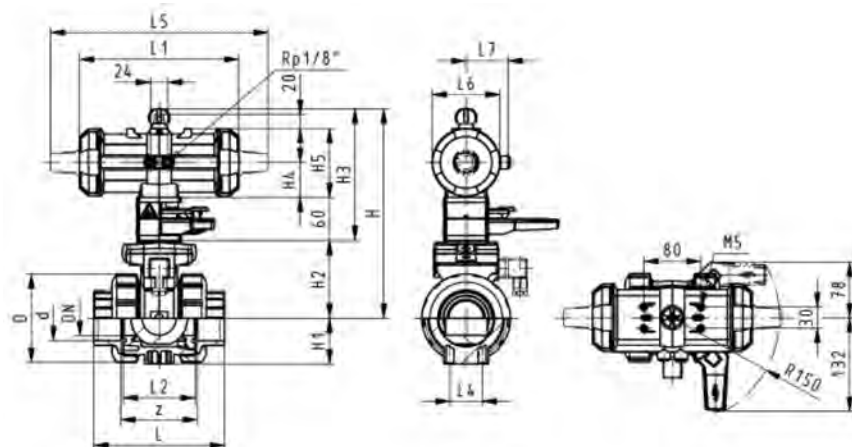
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 052	1.500
20	15	10	185	199 232 053	1.500
25	20	10	350	199 232 054	1.600
32	25	10	700	199 232 055	1.700
40	32	10	1000	199 232 056	2.800
50	40	10	1600	199 232 057	3.100
63	50	10	3100	199 232 058	3.728

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	230	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	77	109	194	65	25	261	76	48	77
32	68	239	36	71	168	40	77	119	194	71	25	261	76	48	83
40	84	271	44	84	187	51	99	135	224	85	45	305	95	59	99
50	97	271	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	99	168	224	101	45	305	95	59	117

d (mm)	closest inch (inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2





DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With fixed flanges PVDF serrated metric

Model:

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

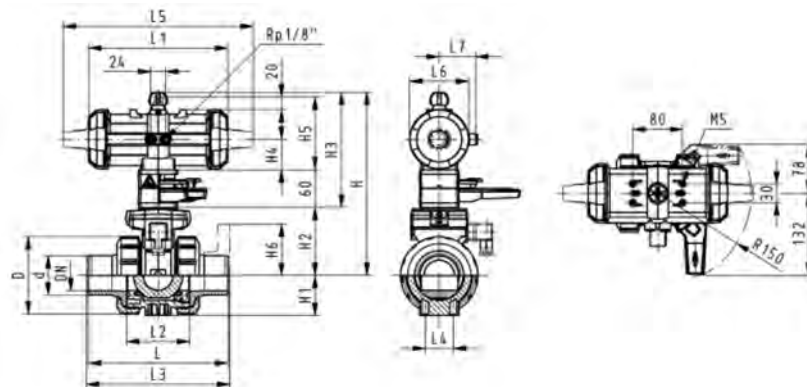
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
20	15	½	10	185	199 232 003	1.700
25	20	¾	10	350	199 232 004	1.900
32	25	1	10	700	199 232 005	2.100
40	32	1 ¼	10	1000	199 232 006	3.400
50	40	1 ½	10	1600	199 232 007	3.900
63	50	2	10	3100	199 232 008	5.000

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	230	27	62	168	40	77	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	77	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	77	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	99	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	99	75	194	224	89	200	45	305	95
63	124	293	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





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With butt fusion spigots IR-Plus metric

Model:

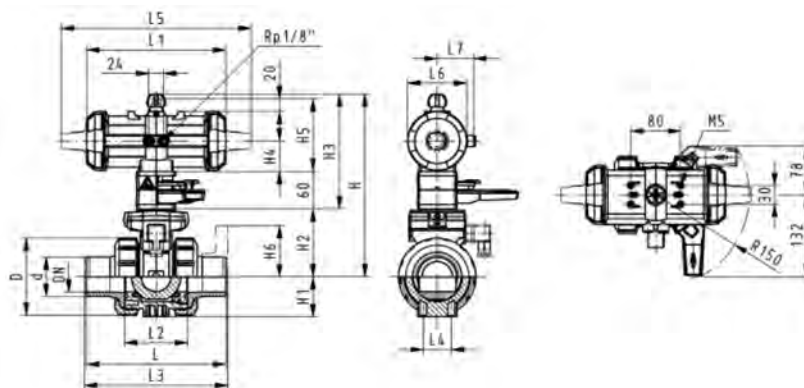
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	FPM Code	Weight (kg)
20	15	10	185	199 232 713	1.200
25	20	10	350	199 232 714	1.300
32	25	10	700	199 232 715	1.566
40	32	10	1000	199 232 716	2.602
50	40	10	1600	199 232 717	2.887
63	50	10	3100	199 232 718	4.000

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)	closest inch (inch)
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48	½
25	58	239	30	71	168	40	77	143	194	65	25	261	76	48	¾
32	68	239	36	71	168	40	77	150	194	71	25	261	76	48	1
40	84	271	44	84	187	51	99	171	224	85	45	305	95	59	1 ¼
50	97	271	51	84	187	51	99	191	224	89	45	305	95	59	1 ½
63	124	293	64	106	187	51	99	220	224	101	45	305	95	59	2





DN10/15 - 50



DN10/15 - 50

SYGEF Standard
Ball valve type 232
Function FC (Fail safe to close)
With manual override
With socket fusion spigots metric

Model:

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

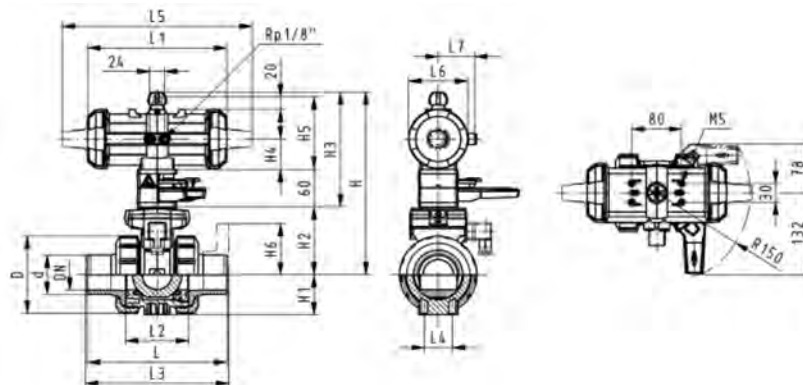
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
16	10	10	70	199 232 032	1.500
20	15	10	185	199 232 033	1.304
25	20	10	350	199 232 034	1.439
32	25	10	700	199 232 035	1.700
40	32	10	1000	199 232 036	3.105
50	40	10	1600	199 232 037	3.100
63	50	10	3100	199 232 038	4.000

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

d (mm)	closest inch (inch)
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



Butterfly valves electric



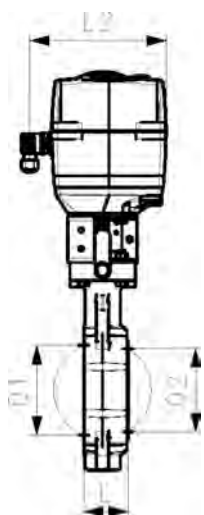
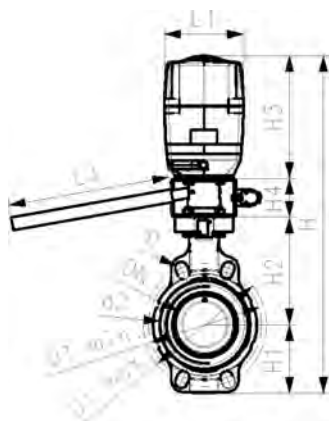
SYGEF Standard Butterfly valve type 145 100-230V With manual override

Model:

- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- 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

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	DN (mm)	Size (inch)	PN (bar)	kv-value (Δp=1 bar) (l/min)	FPM Code	Weight (kg)
63	50	2	10	1470	199 145 562	5.718
75	65	2 ½	10	2200	199 145 563	5.830
90	80	3	10	3000	199 145 564	6.010
110	100	4	10	6500	199 145 565	6.662
140	125	5	10	11500	199 145 566	7.257
160	150	6	10	16600	199 145 567	8.477
225	200	8	10	39600	199 145 568	15.138

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-45	104	19	120	125	475	77	134	188	75	45	122	180	250
75	EA-45	115	19	140	145	488	83	140	188	75	46	122	180	250
90	EA-120	131	19	150	160	488	89	146	188	60	49	122	180	250
110	EA-120	161	19	175	191	520	104	167	188	60	56	122	180	250
140	EA-120	187	23	210	216	547	117	181	188	60	64	122	180	250
160	EA-120	215	24	241	241	568	130	189	188	60	72	122	180	250
225	EA-250	267	23	290	295	635	158	210	208	60	73	122	180	250

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



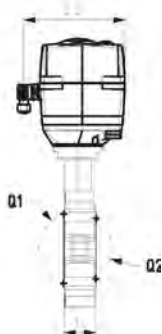
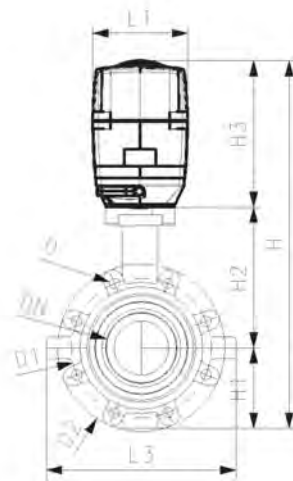
SYGEF Standard
Lugstyle butterfly valve type 146 100-230V
Without manual override

Model:

- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 146 582	4.299
75	2 ½	65	10	2200	199 146 583	4.456
90	3	80	10	3000	199 146 584	4.701
110	4	100	10	6500	199 146 585	5.606
140	5	125	10	11500	199 146 586	7.120
160	6	150	10	16600	199 146 587	8.881
225	8	200	10	39600	199 146 588	13.625
280	10	250	6	55200	199 146 589	24.385
315	12	300	4	80000	199 146 590	30.916

d	Actuator	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	unit type	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	EA-45	160	M16	125	399	77	134	188	45	122	180	165	40	
75	EA-45	180	M16	145	411	83	140	188	46	122	180	182	54	35
90	EA-120	195	M16	160	423	89	146	188	49	122	180	210	67	50
110	EA-120	226	M16	180	461	106	167	188	56	122	180	240	88	74
140	EA-120	258	M16	210	490	121	181	188	64	122	180	272	113	97
160	EA-120	284	M20	240	510	133	189	188	72	122	180	300	139	123
225	EA-120	341	M20	295	577	159	210	208	73	122	180	360	178	169
280	EA-120	412	M20	350	677	205	164	208	113	122	180	440	210	207
315	EA-250	482	M20	400	727	234	285	208	113	122	180	510	256	253



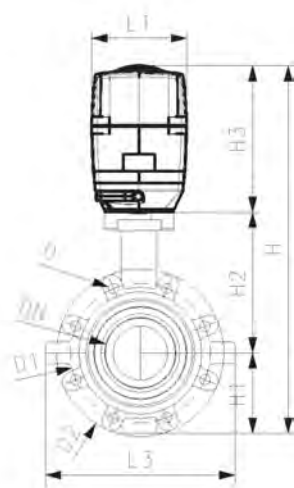
SYGEF Standard
Lugstyle butterfly valve type 147 100-230V
Without manual override

Model:

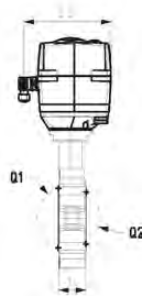
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close/ Middle)
- Overall length according to EN 558, ISO 5752 (DN50-200 line 25, DN250-300 line 16)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Other valve and actuator configurations available
- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d	Size	DN	PN	kv-value	FPM
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code
				(l/min)	
63	2	50	10	1470	199 147 582
75	2 ½	65	10	2200	199 147 583
90	3	80	10	3000	199 147 584
110	4	100	10	6500	199 147 585
140	5	125	10	11500	199 147 586
160	6	150	10	16600	199 147 587
225	8	200	10	39600	199 147 588
280	10	250	6	55200	199 147 589
315	12	300	4	80000	199 147 590



d	Size	Actuator	d2	D	H	H1	H2	H3	D1	L	L1	L2	L3	Q1
(mm)	(inch)	unit type	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	EA-45	150	UNC 5/8	399	77	134	188	139.7	45	122	180	150	40
75	2 ½	EA-45	170	UNC 5/8	411	83	140	188	120.6	46	122	180	160	54
90	3	EA-120	177	UNC 5/8	423	89	146	188	152.4	49	122	180	175	67
110	4	EA-120	216	UNC 5/8	459	104	167	188	190.5	56	122	180	244	88
140	5	EA-120	246	UNC 3/4	486	117	181	188	215.9	64	122	180	272	113
160	6	EA-120	273	UNC 3/4	507	130	189	188	241.3	72	122	180	297	139
225	8	EA-250	334	UNC 3/4	576	158	210	208	298.4	73	122	180	360	178
280	10	EA-250	412	UNC 7/8	677	205	264	208	362.0	113	122	180	440	210
315	12	EA-250	482	UNC 7/8	727	234	285	208	431.8	113	122	180	510	256

d	Size	Q2
(mm)	(inch)	(mm)
63	2	
75	2 ½	35
90	3	50
110	4	74
140	5	97
160	6	123
225	8	169
280	10	207
315	12	253

Butterfly valves pneumatic

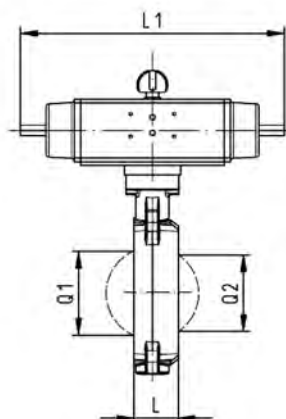
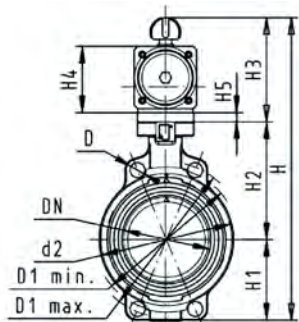


SYGEF Standard Butterfly valve type 240 FC (Fail safe to close) Without manual override

Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- 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

d	Size	DN	PN	kv-value	FPM	Weight	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
				(l/min)				
63	2	50	10	1470	199 240 462	3.758	199 240 522	3.258
75	2 1/2	65	10	2200	199 240 463	3.173	199 240 523	3.370
90	3	80	10	3000	199 240 464	3.550	199 240 524	3.550
110	4	100	10	6500	199 240 465	5.439	199 240 525	5.400
140	5	125	10	11500	199 240 466	6.997	199 240 526	6.997
160	6	150	10	16600	199 240 467	10.538	199 240 527	10.538
225	8	200	10	39600	199 240 468	15.138	199 240 528	15.138
280	10	250	10	55200	199 240 469	29.670	199 240 529	32.529
315	12	300	10	80000	199 240 470	38.156	199 240 530	38.156



d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)								
63	PA-30 FC	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FC	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FC	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FC	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FC	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FC	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FC	267	23	290	295	529	158	210	161	118		73	452
280	PA-65 FC	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FC	379	25	400	432	866	228	285	196	157		113	663

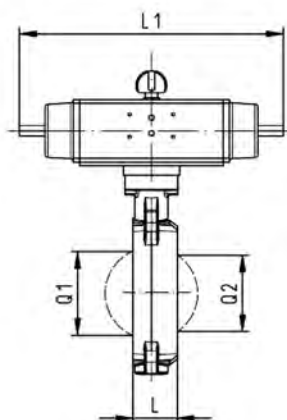
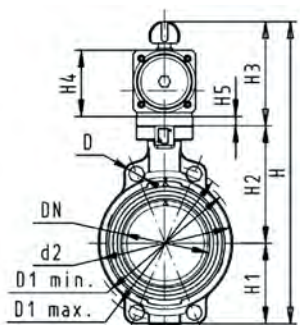
d	L2	Q1	Q2
(mm)	(mm)	(mm)	(mm)
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



SYGEF Standard
Butterfly valve type 240
FO (Fail safe to open)
Without manual override

Model:

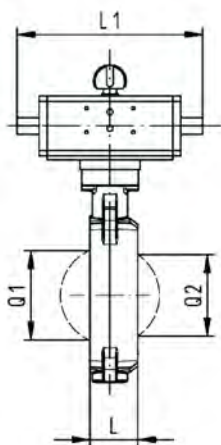
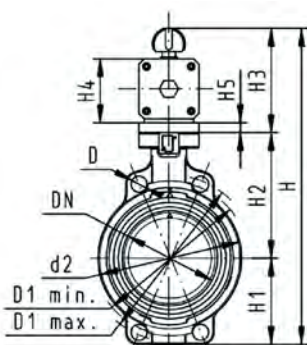
- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d	Size	DN	PN	kv-value	FPM	Weight	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
				(l/min)				
63	2	50	10	1470	199 240 482	3.258	199 240 542	3.258
75	2 1/2	65	10	2200	199 240 483	3.370	199 240 543	3.370
90	3	80	10	3000	199 240 484	3.550	199 240 544	3.550
110	4	100	10	6500	199 240 485	5.422	199 240 545	5.400
140	5	125	10	11500	199 240 486	6.997	199 240 546	6.997
160	6	150	10	16600	199 240 487	10.538	199 240 547	10.538
225	8	200	10	39600	199 240 488	15.138	199 240 548	15.000
280	10	250	10	55200	199 240 489	32.529	199 240 549	32.529
315	12	300	10	80000	199 240 490	37.419	199 240 550	37.419

d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)								
63	PA-30 FO	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FO	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FO	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FO	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FO	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FO	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FO	267	23	290	295	529	158	210	161	118		73	452
280	PA-70 FO	329	25	353	362	808	205	264	191	148		113	648
315	PA-70 FO	379	25	400	432	866	228	285	196	157		113	663

d	L2	Q1	Q2
(mm)	(mm)	(mm)	(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
Butterfly valve type 240
DA (Double acting)
Without manual override

Model:

- Material: PVDF
- Control range 90°<
- Overall length according to EN 558, ISO 5752
- 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

d	Size	DN	PN	kv-value	FPM	Weight	PTFE	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
				(l/min)				
63	2	50	10	1470	199 240 502	2.368	199 240 562	2.108
75	2 ½	65	10	2200	199 240 503	2.488	199 240 563	2.220
90	3	80	10	3000	199 240 504	2.970	199 240 564	2.881
110	4	100	10	6500	199 240 505	3.987	199 240 565	3.652
140	5	125	10	11500	199 240 506	4.247	199 240 566	4.247
160	6	150	10	16600	199 240 507	7.017	199 240 567	7.017
225	8	200	10	39600	199 240 508	9.138	199 240 568	9.138
280	10	250	10	55200	199 240 509	20.233	199 240 569	20.233
315	12	300	10	80000	199 240 510	28.223	199 240 570	28.223

d	Actuator unit	d2	D	D1	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	type	(mm)	(mm)	min.	max.	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
				(mm)	(mm)								
63	PA-35 DA	104	19	120	125	317	77	134	107	60	15	45	177
75	PA-35 DA	115	19	140	145	330	83	140	107	60	15	46	177
90	PA-40 DA	131	19	150	160	348	89	146	113	66	15	49	190
110	PA-45 DA	161	19	175	191	372	104	167	102	71		56	235
140	PA-45 DA	187	23	210	216	408	117	181	111	78		64	235
160	PA-55 DA	215	24	241	241	448	130	189	129	86		72	279
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	279
280	PA-65 DA	329	25	353	362	748	205	264	161	118		113	350
315	PA-70 DA	379	25	400	432	816	228	285	173	130		113	381

d	L2	Q1	Q2
(mm)	(mm)	(mm)	(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



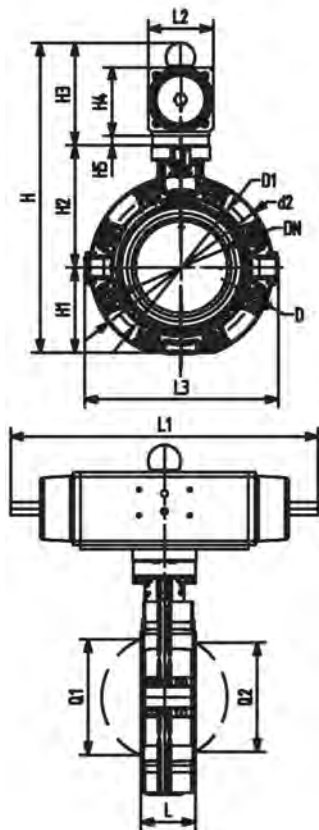
SYGEF Standard
Lugstyle butterfly valve type 243
FC (Fail safe to close)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 243 462	3.499
75	2 ½	65	10	2200	199 243 463	3.656
90	3	80	10	3000	199 243 464	4.692
110	4	100	10	6500	199 243 465	6.406
140	5	125	10	11500	199 243 466	9.222
160	6	150	10	16600	199 243 467	12.902
225	8	200	10	39600	199 243 468	16.691
280	10	250	10	55200	199 243 469	33.880
315	12	300	10	80000	199 243 470	43.985

d	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-30 FC	160	M16	125	399	77	134	117	70	15	45	276	65	165
75	PA-30 FC	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FC	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FC	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FC	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FC	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FC	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-65 FC	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FC	482	M20	400	715	234	285	196	157		113	663	145	510

d	Q1	Q2
(mm)	(mm)	(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



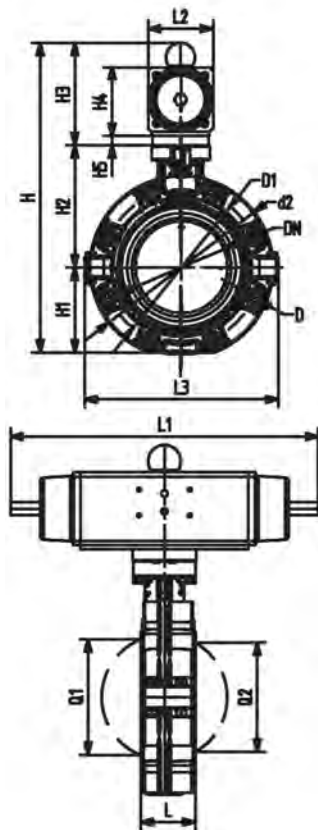
SYGEF Standard
Lugstyle butterfly valve type 243
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 243 482	3.499
75	2 ½	65	10	2200	199 243 483	3.656
90	3	80	10	3000	199 243 484	4.692
110	4	100	10	6500	199 243 485	6.406
140	5	125	10	11500	199 243 486	9.222
160	6	150	10	16600	199 243 487	12.902
225	8	200	10	39600	199 243 488	16.691
280	10	250	10	55200	199 243 489	33.880
315	12	300	10	80000	199 243 490	43.985

d	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-30 FO	160	M16	125	328	77	134	117	70	15	45	276	65	165
75	PA-30 FO	180	M16	145	340	83	140	117	70	15	46	276	65	182
90	PA-35 FO	195	M16	160	361	89	146	126	78	15	49	326	72	210
110	PA-40 FO	226	M16	180	402	106	167	129	86		56	370	80	240
140	PA-45 FO	258	M16	210	441	121	181	139	96		64	411	90	272
160	PA-50 FO	284	M20	240	471	133	189	149	106		72	423	100	300
225	PA-55 FO	341	M20	295	530	159	210	161	118		73	452	112	360
280	PA-70 FO	412	M20	350	660	205	264	191	148		113	648	137	440
315	PA-70 FO	482	M20	400	715	234	285	196	157		113	663	145	510

d	Q1	Q2
(mm)	(mm)	(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



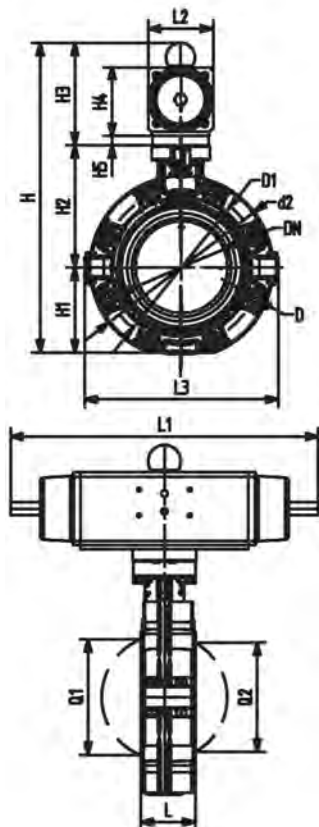
SYGEF Standard
Lugstyle butterfly valve type 243
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	(Δp=1 bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 243 502	3.499
75	2 ½	65	10	2200	199 243 503	3.656
90	3	80	10	3000	199 243 504	4.692
110	4	100	10	6500	199 243 505	6.406
140	5	125	10	11500	199 243 506	9.222
160	6	150	10	16600	199 243 507	12.902
225	8	200	10	39600	199 243 508	16.691
280	10	250	10	55200	199 243 509	33.880
315	12	300	10	80000	199 243 510	43.985

d	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
(mm)	type	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	PA-35 DA	160	M16	125	318	77	134	107	60	15	45	177	55	165
75	PA-35 DA	180	M16	145	330	83	140	107	60	15	46	177	55	182
90	PA-40 DA	195	M16	160	348	89	146	113	66	15	49	190	60	210
110	PA-45 DA	226	M16	180	384	106	167	111	78		56	235	72	240
140	PA-45 DA	258	M16	210	413	121	181	111	78		64	235	72	272
160	PA-55 DA	284	M20	240	461	133	189	139	96		72	279	90	300
225	PA-55 DA	341	M20	295	508	159	210	139	96		73	279	90	360
280	PA-65 DA	412	M20	350	630	205	264	161	118		113	350	112	440
315	PA-70 DA	482	M20	400	692	234	285	173	130		113	381	124	510

d	Q1	Q2
(mm)	(mm)	(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



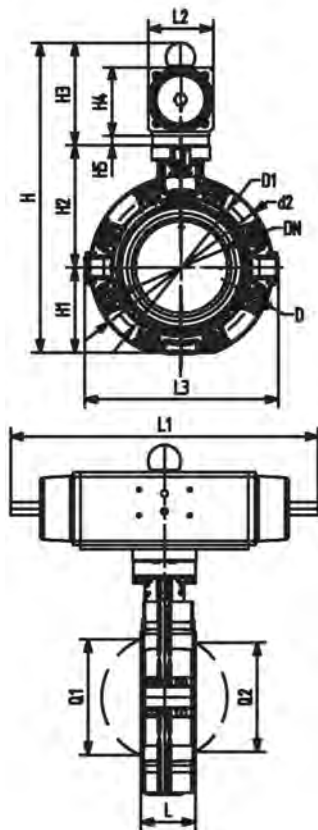
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
FC (Fail safe to close)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 244 462	
75	2 ½	65	10	2200	199 244 463	
90	3	80	10	3000	199 244 464	
110	4	100	10	6500	199 244 465	
140	5	125	10	11500	199 244 466	
160	6	150	10	16600	199 244 467	12.902
225	8	200	10	39600	199 244 468	
280		250	10	55200	199 244 469	
315		300	10	80000	199 244 470	

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-65 FC	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FC	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



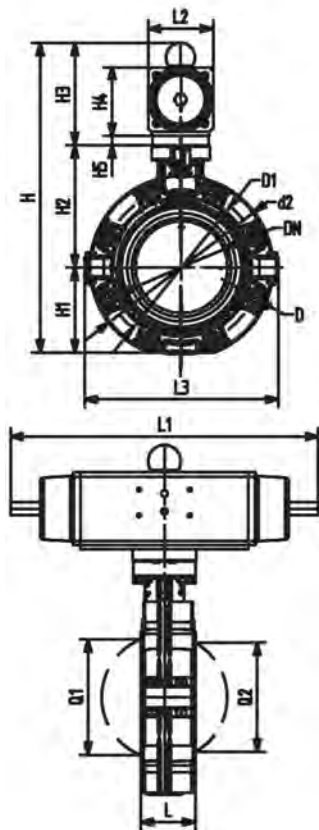
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 244 482	3.499
75	2 ½	65	10	2200	199 244 483	3.656
90	3	80	10	3000	199 244 484	4.692
110	4	100	10	6500	199 244 485	6.406
140	5	125	10	11500	199 244 486	9.222
160	6	150	10	16600	199 244 487	12.902
225	8	200	10	39600	199 244 488	16.691
280	10	250	10	55200	199 244 489	33.880
315	12	300	10	80000	199 244 490	43.985

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65	165
PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65	182
PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72	210
PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80	240
PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90	272
PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100	300
PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112	360
PA-70 FO	412	UNC 3/4	362.0	660	205	264	191	148		113	648	137	440
PA-70 FO	482	UNC 3/4	431.8	715	234	285	196	157		113	663	145	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253



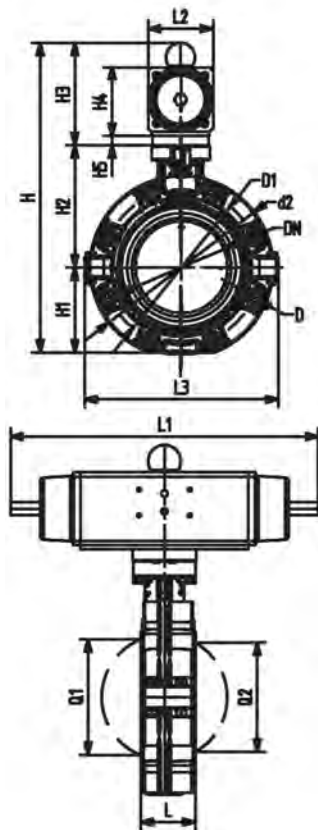
SYGEF Standard
Lugstyle butterfly valve type 244 ANSI
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with SS316 lug-inserts
- Control range 90°<
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension ANSI/ASME B 16.5 Class 150

Option:

- Optional accessory: Valve-Integrated position feedback with limit switches (limit switches have to be ordered separately)



d	Size	DN	PN	kv-value	FPM	Weight
(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
				(l/min)		
63	2	50	10	1470	199 244 502	4.198
75	2 ½	65	10	2200	199 244 503	4.561
90	3	80	10	3000	199 244 504	5.470
110	4	100	10	6500	199 244 505	7.750
140	5	125	10	11500	199 244 506	9.731
160	6	150	10	16600	199 244 507	13.500
225	8	200	10	39600	199 244 508	19.114
280	10	250	10	55200	199 244 509	
315	12	300	10	80000	199 244 510	

Actuator unit type	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1	L2	L3
	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177	55	165
PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177	55	182
PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190	60	210
PA-45 DA	226	UNC 5/8	190.5	384	106	167	111	78		56	235	72	240
PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235	72	272
PA-55 DA	284	UNC 3/4	241.3	461	133	189	139	96		72	279	90	300
PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279	90	360
PA-65 DA	412	UNC 3/4	362.0	630	205	264	161	118		113	350	112	440
PA-70 DA	482	UNC 3/4	431.8	692	234	285	173	130		113	381	124	510

Q1	Q2
(mm)	(mm)
40	
54	35
67	50
88	74
113	97
139	123
178	169
210	207
256	253

Diaphragm valves pneumatic



SYGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with fusion sockets metric

Model:

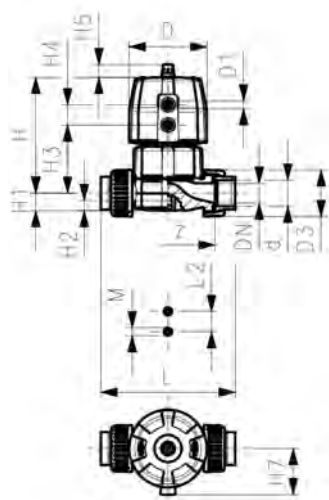
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

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

* PN: PTFE

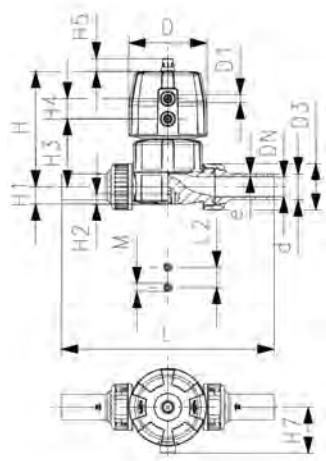
Working Pressure: **one side**



d (mm)	DN (mm)	PN* (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10/10*	125	185 624 032	0.611	185 624 052	0.611
25	20	10/10*	271	185 624 033	1.216	185 624 053	1.216
32	25	10/10*	481	185 624 034	1.565	185 624 054	1.565
40	32	10/10*	759	185 624 035	2.489	185 624 055	2.489
50	40	10/10*	1263	185 624 036	4.266	185 624 056	4.266
63	50	10/6*	1728	185 624 037	5.358	185 624 057	5.358

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/4	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/4	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/4	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/4	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



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

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	185 624 132	0.630	185 624 152	1.100
25	20	10	271	185 624 133	1.405	185 624 153	1.760
32	25	10	481	185 624 134	1.515	185 624 154	2.610
40	32	10	759	185 624 135	2.570	185 624 155	3.760
50	40	10	1263	185 624 136	4.697	185 624 156	6.220
63	50	6	1728	185 624 137	5.327	185 624 157	7.800

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	88	284	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	88	321	45	M8	3	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With backing flanges PP-V Inch ANSI

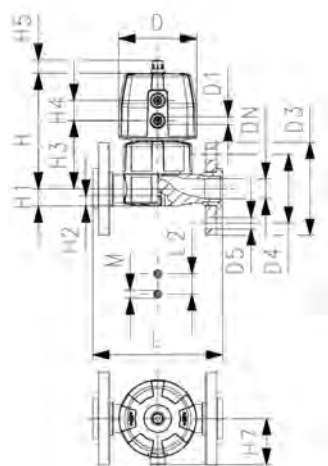
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	10	125	185 627 732	0.870	185 627 752	0.870
3/4	20	10	271	185 627 733	1.473	185 627 753	1.473
1	25	10	481	185 627 734	1.791	185 627 754	1.791
1 1/4	32	10	759	185 627 735	2.854	185 627 755	2.854
1 1/2	40	10	1263	185 627 736	4.481	185 627 756	4.481
2	50	6	1728	185 627 737	5.762	185 627 757	5.762

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	1/8	95	60	16	101	14	12	60	24	16	43	130	25	M6
3/4	96	1/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	1/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	1/8	140	89	16	173	26	15	99	26	26	69	180	45	M8
1 1/2	150	1/4	150	98	16	193	32	15	119	36	26	88	200	45	M8
2	150	1/4	165	121	19	205	39	15	132	36	26	88	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With backing flanges PP-V metric/BS

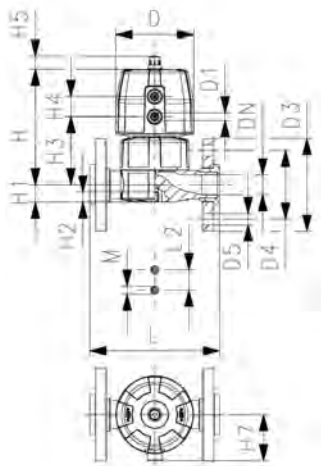
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	185 627 132	0.754	185 627 152	0.754
25	20	10	271	185 627 133	1.473	185 627 153	1.473
32	25	10	481	185 627 134	1.699	185 627 154	1.699
40	32	10	759	185 627 135	2.854	185 627 155	2.854
50	40	10	1263	185 627 136	4.481	185 627 156	4.481
63	50	6	1728	185 627 137	5.686	185 627 157	5.686

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	⅝	95	65	14	101	14	12	60	24	16	43	130	25	M6
25	96	⅝	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅝	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅝	140	100	18	173	26	15	99	26	26	69	180	45	M8
50	150	⅝	150	110	18	193	32	15	119	36	26	88	200	45	M8
63	150	⅝	165	125	18	205	39	15	132	36	26	88	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	⅓
25	10	⅓
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With backing flanges PP-V Inch ANSI

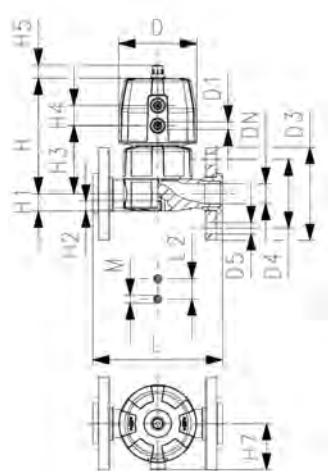
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



Size (inch)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	125	185 647 732	0.820	185 647 752	0.820
3/4	20	271	185 647 733	1.299	185 647 753	1.299
1	25	481	185 647 734	1.611	185 647 754	1.611
1 1/4	32	759	185 647 735	2.494	185 647 755	2.494
1 1/2	40	1263	185 647 736	4.391	185 647 756	4.391
2	50	1728	185 647 737	5.672	185 647 757	5.672

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	1/8	95	60	16	101	14	12	60	24	16	57	130	25	M6
3/4	96	1/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	1/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	1/8	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 1/2	150	1/4	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	1/4	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With backing flanges PP-V metric/BS

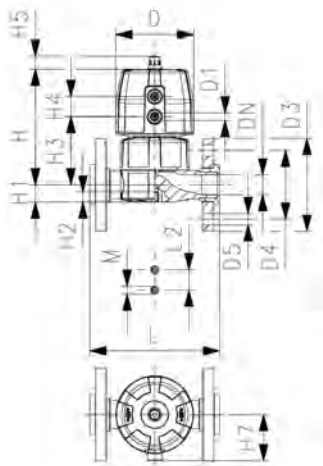
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 647 132	0.820	185 647 152	0.820
25	20	271	185 647 133	1.299	185 647 153	1.299
32	25	481	185 647 134	1.611	185 647 154	1.611
40	32	759	185 647 135	2.494	185 647 155	2.494
50	40	1263	185 647 136	4.391	185 647 156	4.391
63	50	1728	185 647 137	5.040	185 647 157	5.040

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	⅜	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	⅜	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	⅜	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	⅓
25	10	⅜
32	13	1
40	15	1 ⅜
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With backing flanges PP-V Inch ANSI

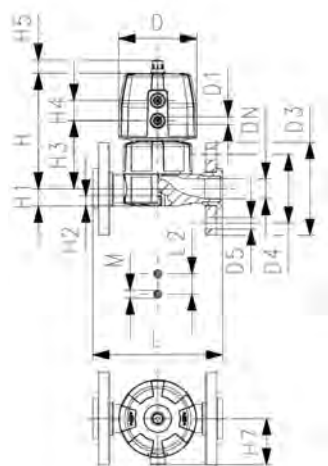
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



Size (inch)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	10	125	185 657 732	0.804	185 657 752	0.804
3/4	20	10	271	185 657 733	1.263	185 657 753	1.263
1	25	10	481	185 657 734	1.581	185 657 754	1.581
1 1/4	32	10	759	185 657 735	2.434	185 657 755	2.434
1 1/2	40	10	1263	185 657 736	3.641	185 657 756	3.641
2	50	6	1728	185 657 737	4.922	185 657 757	4.922

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	68	1/8	95	60	16	101	14	12	60	24	16	57	130	25	M6
3/4	96	1/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	96	1/8	115	79	16	143	22	12	84	25	16	69	160	25	M6
1 1/4	120	1/8	140	89	16	173	26	15	99	26	26	88	180	45	M8
1 1/2	150	1/4	150	98	16	214	32	15	119	36	26	103	200	45	M8
2	150	1/4	165	121	19	226	39	15	132	36	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With backing flanges PP-V metric/BS

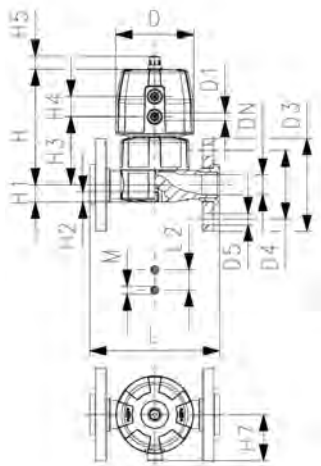
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 657 132	0.804	185 657 152	0.804
25	20	271	185 657 133	1.200	185 657 153	1.200
32	25	481	185 657 134	1.581	185 657 154	1.581
40	32	759	185 657 135	2.434	185 657 155	2.434
50	40	1263	185 657 136	3.937	185 657 156	3.937
63	50	1728	185 657 137	4.922	185 657 157	4.922

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	68	⅜	95	65	14	101	14	12	60	24	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	96	⅜	115	85	14	143	22	12	84	25	16	69	160	25	M6
40	120	⅜	140	100	18	173	26	15	99	26	26	88	180	45	M8
50	150	⅜	150	110	18	214	32	15	119	36	26	103	200	45	M8
63	150	⅜	165	125	18	226	39	15	132	36	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	½
25	10	¾
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With butt fusion spigots metric

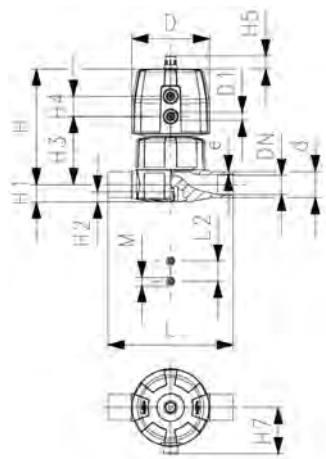
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 655 132	0.603	185 655 152	0.603
25	20	271	185 655 133	0.981	185 655 153	0.981
32	25	481	185 655 134	1.193	185 655 154	1.193
40	32	759	185 655 135	1.823	185 655 155	1.823
50	40	1263	185 655 136	2.986	185 655 156	2.986
63	50	1728	185 655 137	3.796	185 655 157	3.796

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
With socket fusion spigots metric

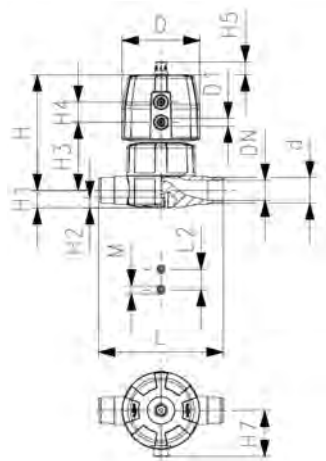
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 655 032	0.604	185 655 052	0.604
25	20	271	185 655 033	0.989	185 655 053	0.989
32	25	481	185 655 034	1.201	185 655 054	1.201
40	32	759	185 655 035	1.848	185 655 055	1.848
50	40	1263	185 655 036	3.031	185 655 056	3.031
63	50	1728	185 655 037	3.878	185 655 057	3.878

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	⅝	101	14	12	60	24	16	43	124	25	M6	7	⅓
25	96	⅞	132	18	12	73	25	16	57	144	25	M6	10	⅜
32	96	⅞	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅞	173	26	15	99	26	26	69	174	45	M8	15	1 ⅛
50	150	⅞	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅞	226	39	15	132	36	26	88	224	45	M8	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With backing flanges PP-V Inch ANSI

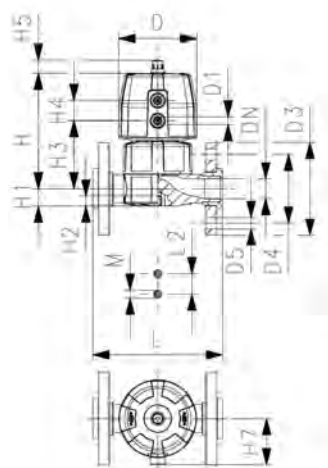
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

Working Pressure: **both sides**



Size (inch)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
1/2	15	125	185 687 732	1.281	185 687 752	1.281
3/4	20	271	185 687 733	1.491	185 687 753	1.491
1	25	481	185 687 734	2.398	185 687 754	2.410
1 1/4	32	759	185 687 735	3.961	185 687 755	3.961
1 1/2	40	1263	185 687 736	5.944	185 687 756	5.944
2	50	1728	185 687 737	7.277	185 687 757	7.277

Size (inch)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
1/2	96	3/8	95	60	16	127	14	12	68	25	16	57	130	25	M6
3/4	96	3/8	105	70	16	132	18	12	73	25	16	57	150	25	M6
1	120	3/8	115	79	16	167	22	12	93	26	26	69	160	25	M6
1 1/4	150	3/4	140	89	16	196	26	15	101	36	26	88	180	45	M8
1 1/2	180	3/4	150	98	16	239	32	15	124	37	26	103	200	45	M8
2	180	3/4	165	121	19	251	39	15	137	37	26	103	230	45	M8

Size (inch)	Lift = Hx (mm)
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With backing flanges PP-V metric/BS

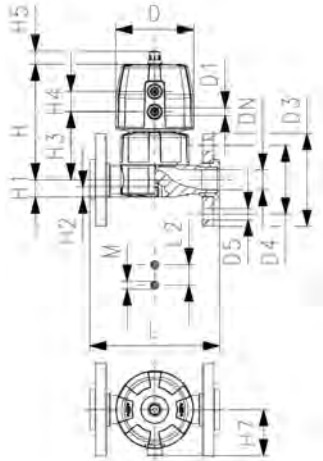
Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Joining faces flat/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

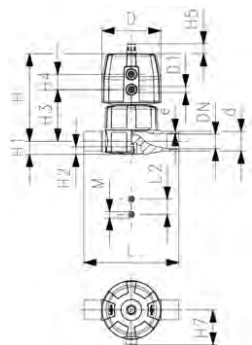
Working Pressure: **both sides**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 687 132	1.281	185 687 152	1.281
25	20	271	185 687 133	1.491	185 687 153	1.491
32	25	481	185 687 134	2.410	185 687 154	2.410
40	32	759	185 687 135	3.961	185 687 155	3.961
50	40	1263	185 687 136	5.944	185 687 156	5.944
63	50	1728	185 687 137	7.277	185 687 157	7.277

d (mm)	D (mm)	D1_G (inch)	D3 (mm)	D4 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M
20	96	⅜	95	65	14	127	14	12	68	25	16	57	130	25	M6
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	M6
32	120	⅜	115	85	14	167	22	12	93	26	26	69	160	25	M6
40	150	⅜	140	100	18	196	26	15	101	36	26	88	180	45	M8
50	180	⅜	150	110	18	239	32	15	124	37	26	103	200	45	M8
63	180	⅜	165	125	18	251	39	15	137	37	26	103	230	45	M8

d (mm)	Lift = Hx (mm)	closest inch (inch)
20	7	⅓
25	10	⅜
32	13	1
40	15	1 ¼
50	19	1 ½
63	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
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

Working Pressure: **both sides**

d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(psi)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	150/150*	125	185 685 132	0.972	185 685 152	0.972
25	20	150/150*	271	185 685 133	1.209	185 685 153	1.209
32	25	150/150*	481	185 685 134	2.022	185 685 154	2.022
40	32	150/150*	759	185 685 135	3.350	185 685 155	3.350
50	40	150/150*	1263	185 685 136	5.289	185 685 156	5.289
63	50	150/150*	1728	185 685 137	6.151	185 685 157	6.151

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	3.0	23

d	closest
(mm)	inch
	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With socket fusion spigots metric

Model:

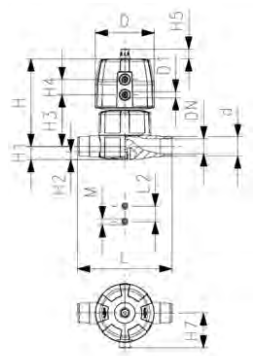
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

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

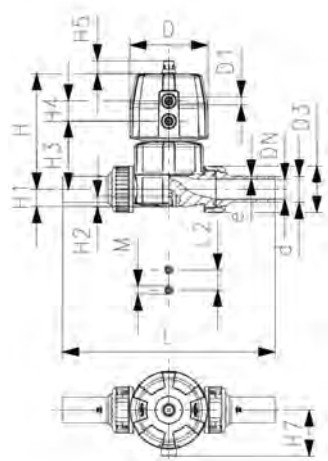
* PN: PTFE

Working Pressure: **both sides**



d	DN	PN	PN*	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(psi)	(bar)	(Δp=1 bar)	Code	(kg)	Code	(kg)
				(l/min)				
20	15	150/150*	10/10*	125	185 685 032	1.081	185 685 052	1.081
25	20	150/150*	10/10*	271	185 685 033	1.217	185 685 053	1.217
32	25	150/150*	10/10*	481	185 685 034	2.030	185 685 054	2.030
40	32	150/150*	10/10*	759	185 685 035	3.375	185 685 055	3.375
50	40	150/150*	10/10*	1263	185 685 036	5.334	185 685 056	5.334
63	50	150/150*	10/10*	1728	185 685 037	6.233	185 685 057	6.233

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	Lift = Hx	closest inch
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(inch)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	7	½
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	¾
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	13	1
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	15	1 ¼
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	19	1 ½
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	23	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
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

Working Pressure: **both sides**

d	DN	PN	PN*	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(psi)	(bar)	(Δp=1 bar)	Code	(kg)	Code	(kg)
				(l/min)				
20	15	150/150*	10/10*	125	185 684 132	1.185	185 684 152	1.185
25	20	150/150*	10/10*	271	185 684 133	1.386	185 684 153	1.386
32	25	150/150*	10/10*	481	185 684 134	2.537	185 684 154	2.537
40	32	150/150*	10/10*	759	185 684 135	3.735	185 684 155	3.735
50	40	150/150*	10/10*	1263	185 684 136	5.757	185 684 156	5.757
63	50	150/150*	10/10*	1728	185 684 137	6.991	185 684 157	6.991

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift =
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	Hx
														(mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	321	45	M8	3.0	23

d	closest
(mm)	inch
	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
Unions with fusion sockets metric

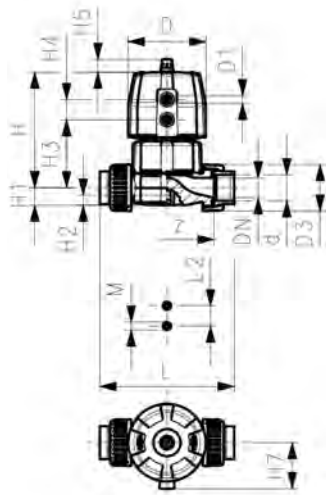
Model:

- 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

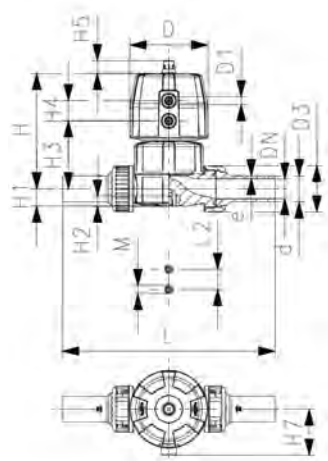
Working Pressure: **both sides**



d (mm)	DN (mm)	PN (psi)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	150/150*	125	185 684 032	0.957	185 684 052	1.147
25	20	150/150*	271	185 684 033	1.233	185 684 053	1.233
32	25	150/150*	481	185 684 034	2.184	185 684 054	2.184
40	32	150/150*	759	185 684 035	3.643	185 684 055	3.643
50	40	150/150*	1263	185 684 036	5.729	185 684 056	5.729
63	50	150/150*	1728	185 684 037	6.873	185 684 057	6.873

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	128	25	M6	100	7
25	96	⅜	132	18	12	73	25	16	57	150	25	M6	118	10
32	120	⅜	167	22	12	93	26	26	69	162	25	M6	126	13
40	150	⅜	196	26	15	101	36	26	88	184	45	M8	144	15
50	180	⅜	239	32	15	124	37	26	103	210	45	M8	164	19
63	180	⅜	251	39	15	137	37	26	103	248	45	M8	194	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ⅜
50	1 ½
63	2



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

Working Pressure: **one side**

d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 654 132	0.708	185 654 152	0.708
25	20	271	185 654 133	1.158	185 654 153	1.158
32	25	481	185 654 134	1.399	185 654 154	1.399
40	32	759	185 654 135	2.208	185 654 155	2.208
50	40	1263	185 654 136	3.454	185 654 156	3.454
63	50	1728	185 654 137	4.636	185 654 157	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	69	321	45	M8	3	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
DA (Double acting)
Unions with fusion sockets metric

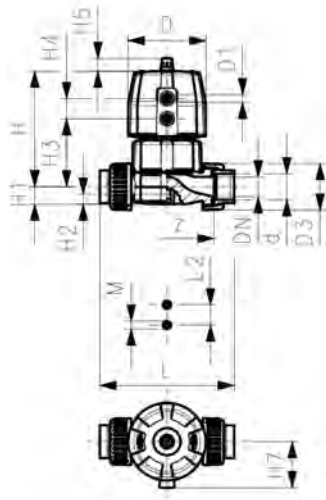
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (L/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	125	185 654 032	0.565	185 654 052	0.565
25	20	271	185 654 033	1.116	185 654 053	1.116
32	25	481	185 654 034	1.328	185 654 054	1.355
40	32	759	185 654 035	2.116	185 654 055	2.116
50	40	1263	185 654 036	3.426	185 654 056	3.426
63	50	1728	185 654 037	4.518	185 654 057	4.518

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	z (mm)	Lift = Hx (mm)
20	68	1/8	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	1/8	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	1/8	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	1/8	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	1/4	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	1/4	226	39	15	132	36	26	88	248	45	M8	194	23

d (mm)	closest inch (inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With butt fusion spigots metric

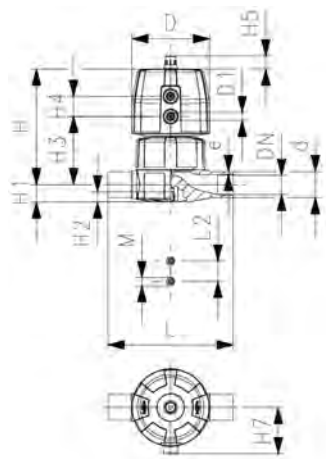
Model:

- 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

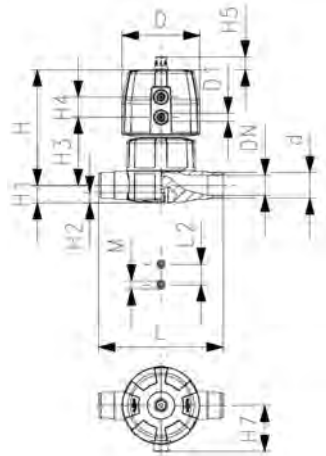
Working Pressure: **one side**



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	125	185 645 132	0.619	185 645 152	0.619
25	20	10	271	185 645 133	1.017	185 645 153	1.017
32	25	10	481	185 645 134	1.223	185 645 154	1.223
40	32	10	759	185 645 135	1.883	185 645 155	1.883
50	40	10	1263	185 645 136	3.701	185 645 156	3.736
63	50	6	1728	185 645 137	4.546	185 645 157	4.546

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	3	23

d	closest
(mm)	inch
	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



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

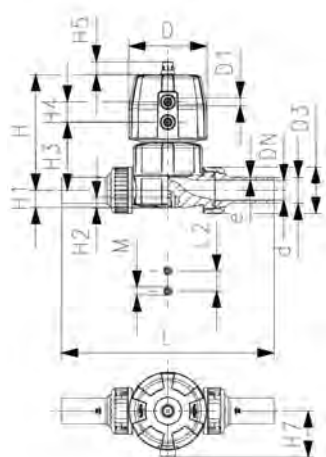
Option:

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

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	185 645 032	0.620	185 645 052	0.620
25	20	10	271	185 645 033	1.025	185 645 053	1.025
32	25	10	481	185 645 034	1.231	185 645 054	1.231
40	32	10	759	185 645 035	1.908	185 645 055	1.908
50	40	10	1263	185 645 036	3.781	185 645 056	3.781
63	50	6	1728	185 645 037	4.628	185 645 057	4.628

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	68	⅝	101	14	12	60	24	16	43	124	25	M6	7	⅜
25	96	⅝	132	18	12	73	25	16	57	144	25	M6	10	⅜
32	96	⅝	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅝	173	26	15	99	26	26	69	174	45	M8	15	1 ⅜
50	150	⅝	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅝	226	39	15	132	36	26	88	224	45	M8	23	2



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

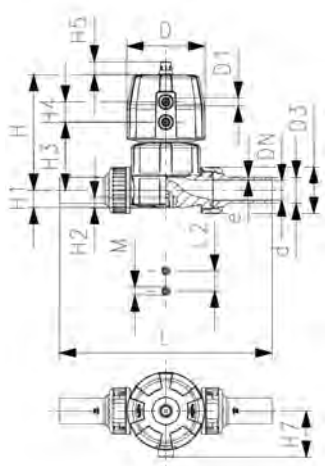
Option:

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

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	185 644 132	0.724	185 644 152	0.600
25	20	10	271	185 644 133	1.194	185 644 153	1.194
32	25	10	481	185 644 134	1.429	185 644 154	1.429
40	32	10	759	185 644 135	2.268	185 644 155	2.268
50	40	10	1263	185 644 136	4.204	185 644 156	4.204
63	50	6	1728	185 644 137	5.386	185 644 157	5.386

table continued on the next page



d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	2	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	2	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	2	15
50	150	⅜	214	32	15	119	36	26	69	284	45	M8	3	19
63	150	⅜	226	39	15	132	36	26	69	321	45	M8	3	23

d	closest inch
(mm)	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Standard
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
Unions with fusion sockets metric

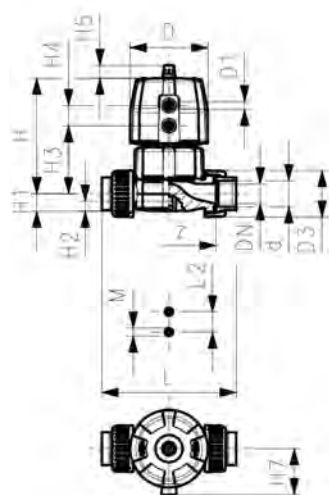
Model:

- 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

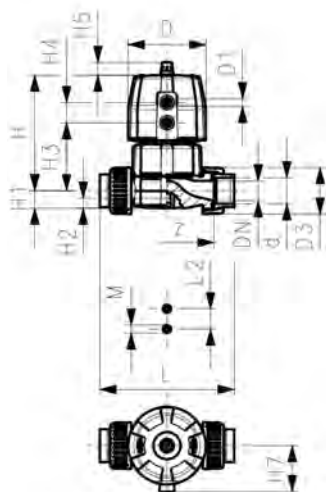
Working Pressure: **one side**



d	DN	kv-value	PN	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(Δp=1 bar)	(bar)	Code	(kg)	Code	(kg)
		(l/min)					
20	15	125	10	185 644 032	0.686	185 644 052	0.686
25	20	271	10	185 644 033	1.152	185 644 053	1.152
32	25	481	10	185 644 034	1.385	185 644 054	1.385
40	32	759	10	185 644 035	2.176	185 644 055	2.176
50	40	1263	10	185 644 036	4.176	185 644 056	4.176
63	50	1728	6	185 644 037	5.268	185 644 057	5.268

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	z	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	⅜	101	14	12	60	24	16	43	128	25	M6	100	7
25	96	⅜	132	18	12	73	25	16	57	150	25	M6	118	10
32	96	⅜	143	22	12	84	25	16	57	162	25	M6	126	13
40	120	⅜	173	26	15	99	26	26	69	184	45	M8	144	15
50	150	⅜	214	32	15	119	36	26	88	210	45	M8	164	19
63	150	⅜	226	39	15	132	36	26	88	248	45	M8	194	23

table continued on the next page



d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ½



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With butt fusion spigots metric

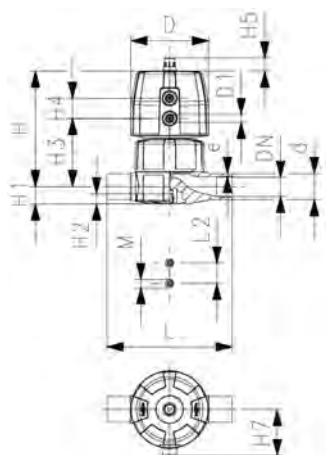
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	185 625 132	0.541	185 625 152	0.541
25	20	10	271	185 625 133	1.191	185 625 153	1.191
32	25	10	481	185 625 134	1.403	185 625 154	1.403
40	32	10	759	185 625 135	2.243	185 625 155	2.243
50	40	10	1263	185 625 136	3.826	185 625 156	3.826
63	50	6	1728	185 625 137	4.636	185 625 157	4.636

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	¾	101	14	12	60	24	16	43	124	25	M6	2	7
25	96	1	132	18	12	73	25	16	57	144	25	M6	2	10
32	96	1	143	22	12	84	25	16	57	154	25	M6	2	13
40	120	1 ¼	173	26	15	99	26	26	69	174	45	M8	2	15
50	150	1 ½	214	32	15	119	36	26	88	194	45	M8	3	19
63	150	2	226	39	15	132	36	26	88	224	45	M8	3	23

d (mm)	closest inch (inch)
20	¾
25	1
32	1 ¼
40	1 ½
50	2
63	2 ½



SYGEF Standard
Diaphragm valve DIASTAR Ten
FC (Fail safe to close)
With socket fusion spigots metric

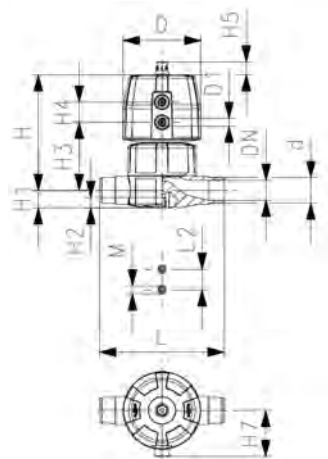
Model:

- 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

Working Pressure: **one side**



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	125	185 625 032	0.670	185 625 052	0.670
25	20	10	271	185 625 033	1.199	185 625 053	1.199
32	25	10	481	185 625 034	1.411	185 625 054	1.411
40	32	10	759	185 625 035	2.268	185 625 055	2.268
50	40	10	1263	185 625 036	3.871	185 625 056	3.871
63	50	6	1728	185 625 037	4.718	185 625 057	4.718

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	Lift = Hx	closest
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	inch
														(inch)
20	68	⅜	101	14	12	60	24	16	43	124	25	M6	7	½
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	10	¾
32	96	⅜	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅜	173	26	15	99	26	26	69	174	45	M8	15	1 ¼
50	150	⅜	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	⅜	226	39	15	132	36	26	88	224	45	M8	23	2

Diaphragm valves pneumatic



SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF Inch ANSI

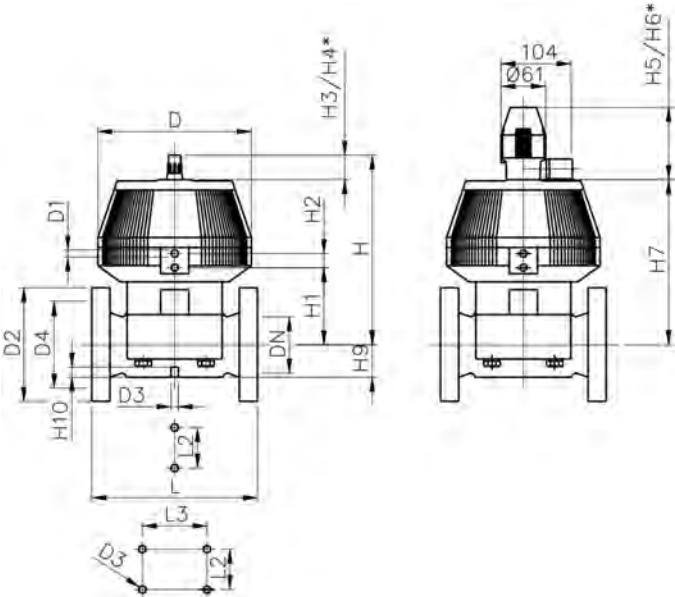
Model:

- 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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 327	14.200
**	90	3	80	10	1700	199 025 358	18.948
		4	100	6	2700	199 025 329	26.500

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20

	L	L2
	(mm)	(mm)
*	290	70
**	310	120
	350	120





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF metric

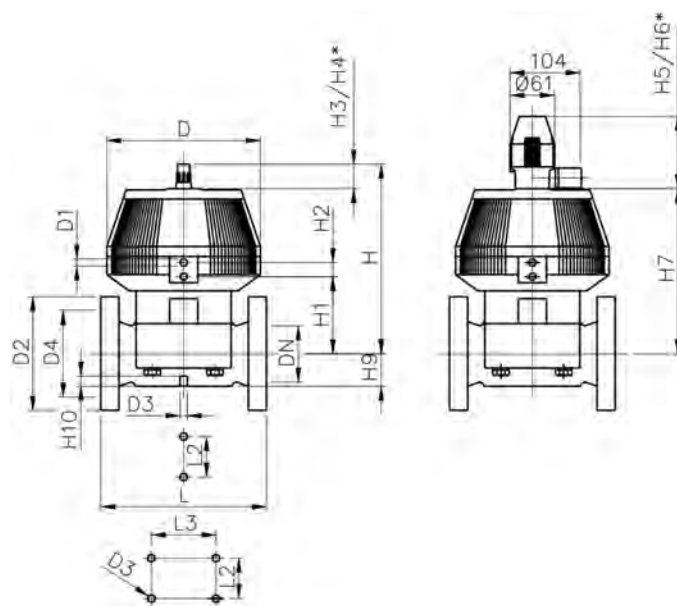
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*	75	2 1/2	65	10	992	199 025 357	13.600
**	90	3	80	10	1700	199 025 358	18.948
	110	4	100	6	2700	199 025 359	32.500

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	1 1/4	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	1 1/4	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	1 3/8	225	12	180	395	176	24	46	100	129	195	349	69

	d	H10	L	L2
	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF metric

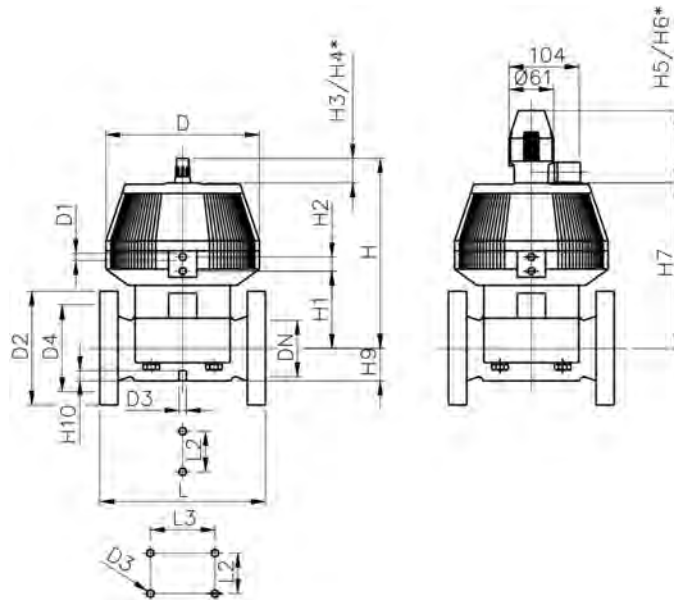
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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	DN	Size	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(mm)	(inch)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*	75	65	2 ½	10	992	199 025 367	13.600
**	90	80	3	10	1700	199 025 368	17.400
	110	100	4	6	2700	199 025 369	24.700
**	160	150	6	6	6033	199 025 370	19.000

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d	H10	L	L2	L3
	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF Inch ANSI

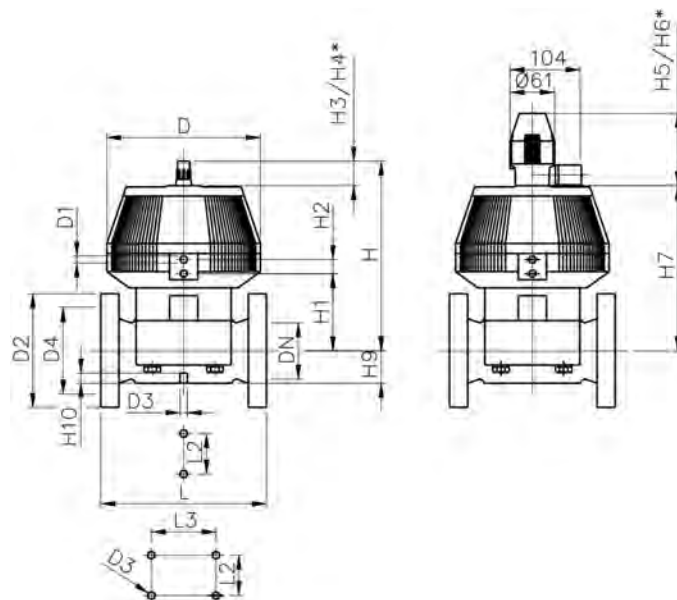
Model:

- 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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 337	12.200
**	90	3	80	10	1700	199 025 368	17.400
		4	100	6	2700	199 025 339	23.400
**	160	6	150	6	6033	199 025 370	19.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF metric

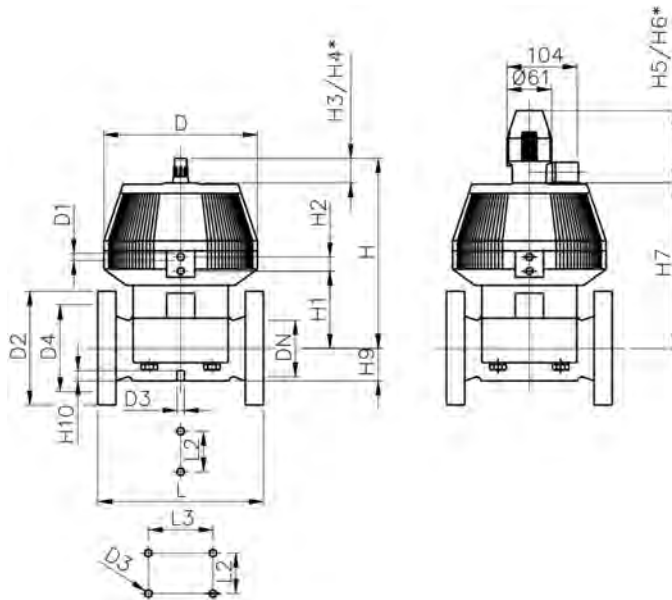
Model:

- Material: PVDF
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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	DN	Size	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(mm)	(inch)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*	75	65	2 ½	10	992	199 025 377	13.600
**	90	80	3	10	1700	199 025 378	17.400
	110	100	4	6	2700	199 025 379	25.534
**	160	150	6	6	6033	199 025 380	35.000

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d	H10	L	L2	L3
	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Standard
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF Inch ANSI

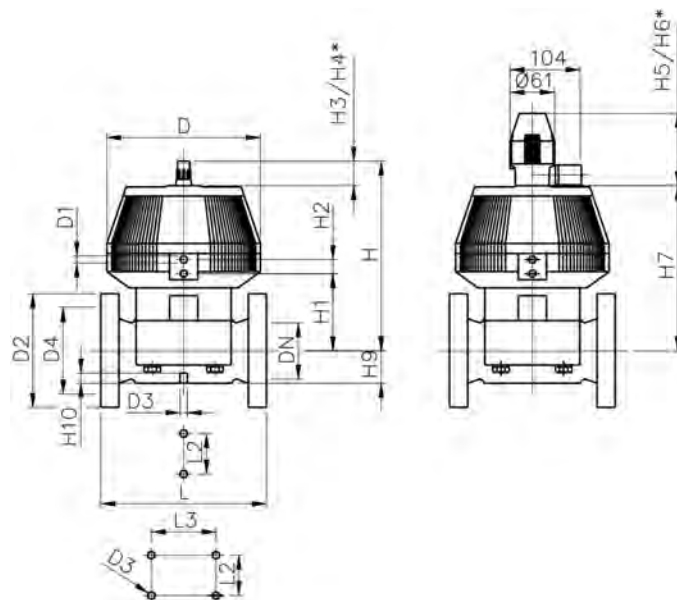
Model:

- 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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 347	13.000
**	90	3	80	10	1700	199 025 378	17.400
		4	100	6	2700	199 025 349	24.100
**	160	6	150	6	6033	199 025 380	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200



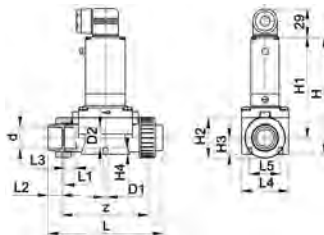
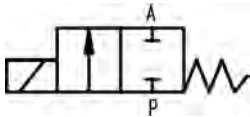
Solenoid valve



Solenoid valve type 165
Straight-through valve 2/2 ways
230V 50Hz

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 012	199 165 002		
25	20	100	199 165 013	199 165 003		
32	25	233	199 165 014	199 165 004		
40	32	267	199 165 015	199 165 005		
50	40	500	199 165 016	199 165 006		
63	50	600	199 165 017	199 165 007		
20	15	83			199 165 412	199 165 402
25	20	100			199 165 413	199 165 403
32	25	233			199 165 414	199 165 404
40	32	500			199 165 415	199 165 405
50	40	500			199 165 416	199 165 406
63	50	600			199 165 417	199 165 407

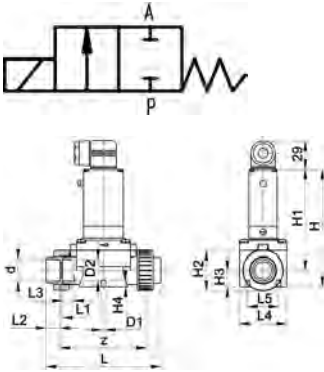
d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115



Solenoid valve type 165
Straight-through valve 2/2 ways
115V 50Hz

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 042	199 165 032		
25	20	100	199 165 043	199 165 033		
32	25	233	199 165 044	199 165 034		
40	32	267	199 165 045	199 165 035		
50	40	500	199 165 046	199 165 036		
63	50	600	199 165 047	199 165 037		
20	15	83			199 165 442	199 165 432
25	20	100			199 165 443	199 165 433
32	25	233			199 165 444	199 165 434
40	32	267			199 165 445	199 165 435
50	40	500			199 165 446	199 165 436
63	50	600			199 165 447	199 165 437

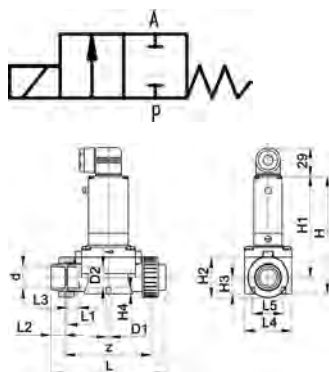
d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115



Solenoid valve type 165
Straight-through valve 2/2 ways
24V DC

Model:

- Function A, PN 0.5-6bar
- Material PVDF: with fusion socket metric
- Material PVC-U: with solvent cement socket metric
- Protection class IP 65
- Electrical connection: cable plug
- With manual override



d (mm)	DN (mm)	kv-value ($\Delta p=1$ bar) (l/min)	PVC-U EPDM Code	PVC-U FPM Code	PVDF EPDM Code	PVDF FPM Code
20	15	83	199 165 022	199 165 072		
25	20	100	199 165 023	199 165 073		
32	25	233	199 165 024	199 165 074		
40	32	267	199 165 025	199 165 075		
50	40	500	199 165 026	199 165 076		
63	50	600	199 165 027	199 165 077		
20	15	83			199 165 422	199 165 452
25	20	100			199 165 423	199 165 453
32	25	233			199 165 424	199 165 454
40	32	267			199 165 425	199 165 455
50	40	500			199 165 426	199 165 456
63	50	600			199 165 427	199 165 457

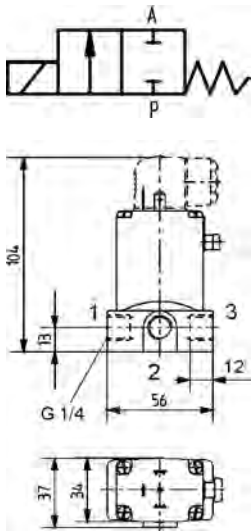
d (mm)	H4 (mm)	L2 (mm)	L5 (mm)	z (mm)	H2 (mm)	L (mm)	L1 (mm)	H (mm)	H3 (mm)	H1 (mm)	L4 (mm)
20	8	16	40	116	53	148	110	148	22	122	63
25	8	19	40	116	53	154	110	148	22	122	62
32	15	22	45	147	76	190	141	175	31	137	85
40	15	26	45	147	76	198	141	175	31	137	85
50	15	31	45	198	105	254	192	212	42	160	115
63	15	38	45	198	105	268	192	212	42	160	115
20	8	16	40	120	53	147	109	148	22	122	63
25	8	18	40	120	53	151	109	148	22	122	62
32	15	20	45	150	76	185	139	175	31	137	85
40	15	22	45	150	76	189	139	175	31	137	85
50	15	25	45	200	105	245	189	212	42	160	115
63	15	29	45	200	105	253	189	212	42	160	115



Solenoid valve type 166 Straight-through valve 2/2 ways

Model:

- Material: PVDF, PP-H
- Function A
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



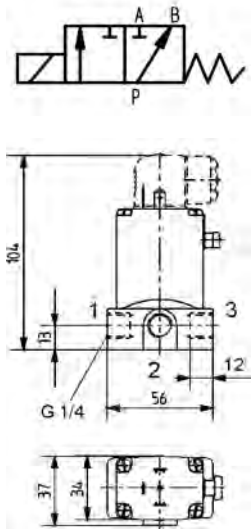
DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
3	1/4	24V DC	0.0 - 8.0	4	199 166 000	199 166 005	199 166 505
4	1/4	24V DC	0.0 - 4.0	5	199 166 001	199 166 006	199 166 506
5	1/4	24V DC	0.0 - 3.0	6	199 166 002	199 166 007	199 166 507
3	1/4	230V 50Hz $\pm 10\%$	0.0 - 10.0	4	199 166 010	199 166 015	199 166 515
4	1/4	230V 50Hz $\pm 10\%$	0.0 - 5.0	5	199 166 011	199 166 016	199 166 516
5	1/4	230V 50Hz $\pm 10\%$	0.0 - 4.5	6	199 166 012	199 166 017	199 166 517



Solenoid valve type 166 Distribution valve 3/2 ways

Model:

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



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	Function	EPDM Code	FPM Code
4	1/4	24V AC/DC	0 - 4	5	F	199 166 201	199 166 206
4	1/4	230V 50Hz $\pm 10\%$	0 - 5	5	A	199 166 011	199 166 016

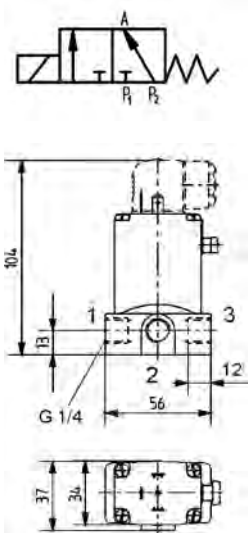


Solenoid valve type 166

Mixing valve 3/2 ways

Model:

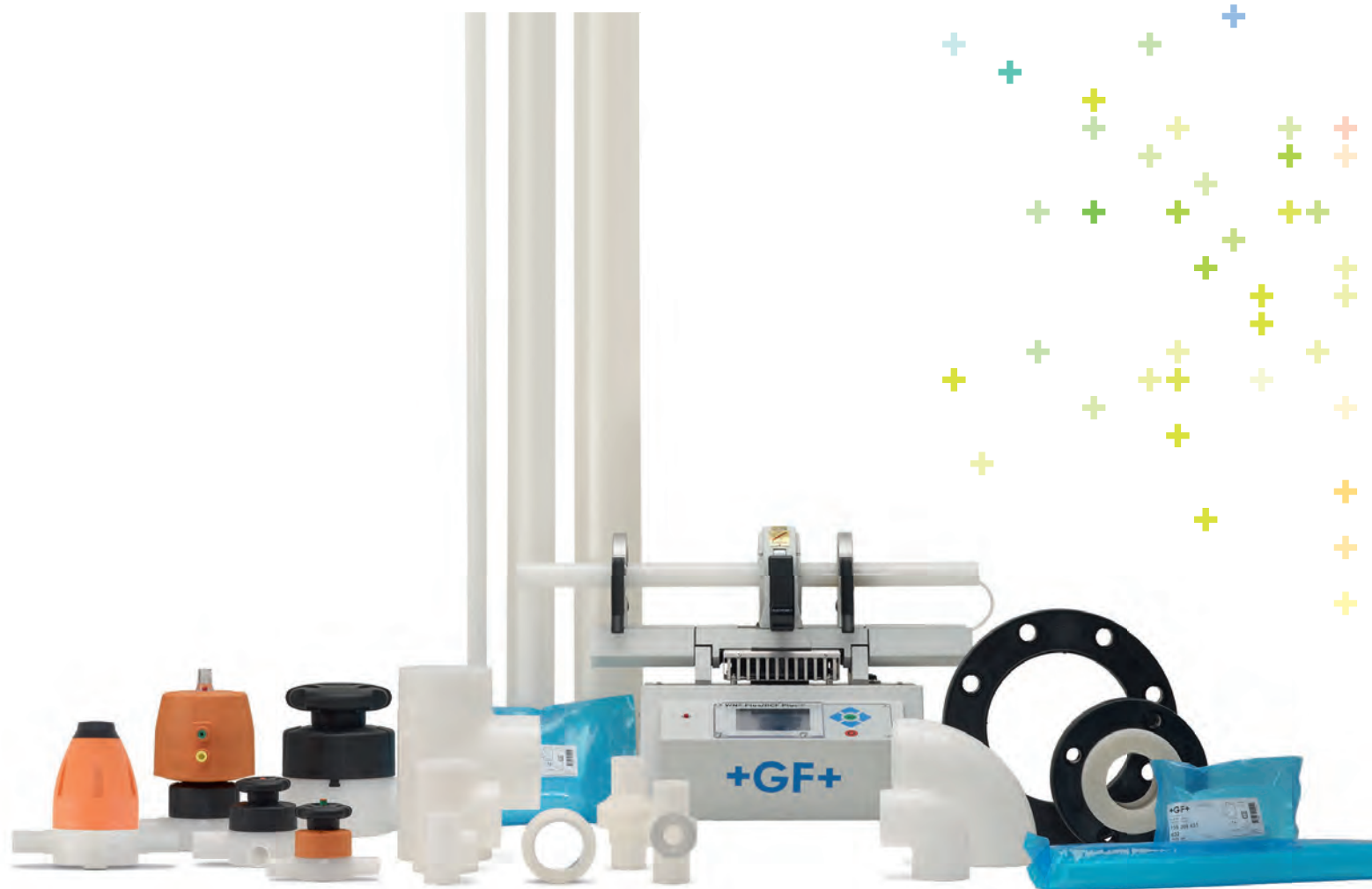
- Material: PVDF, PP-H
- Function E
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN (mm)	D1_G (inch)	Voltage	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code
3	1/4	24V AC/DC	0 - 4	4	199 166 150	199 166 155	
3	1/4	230V 50Hz $\pm$ 10%	0 - 6	4	199 166 160	199 166 165	
4	1/4	24V AC/DC	0 - 2	5	199 166 151	199 166 156	199 166 656
4	1/4	230V 50Hz $\pm$ 10%	0 - 3	5	199 166 161	199 166 166	199 166 666

SYGEF Plus

Piping systems in PVDF-HP

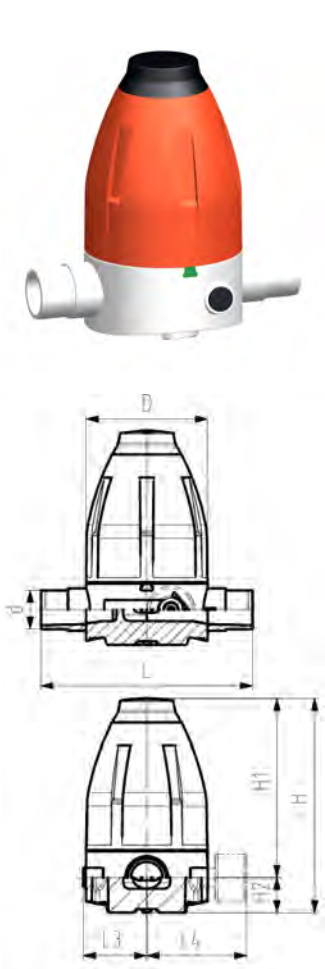


SYGEF Plus

Valves



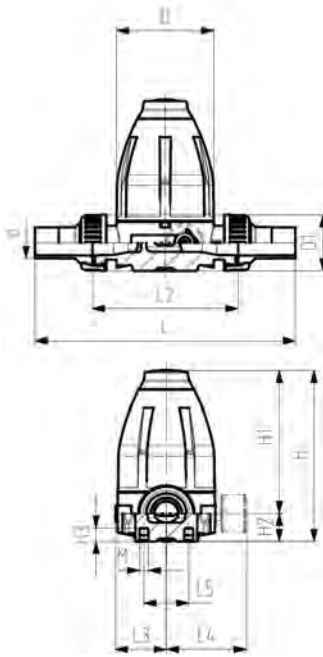
Actuated valves

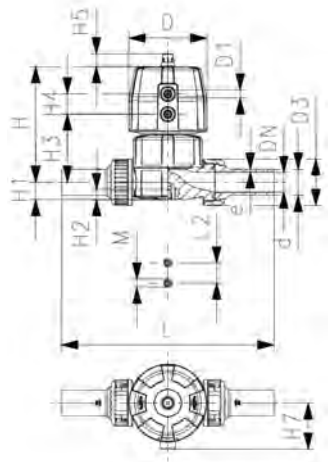


SYGEF Plus
Pressure reducing valve type 582
With butt fusion spigots metric
Without manometer

- Model:**
- Diaphragm PTFE/EPDM
 - Integrated stainless steel mounting inserts
 - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request
 Manometer on request

d	DN	PN	O-rings	FPM	D	H	H1	H2	H3	L	L3	L5	M	closest inch
(mm)	(mm)	(bar)	Code		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(inch)
20	15	10	180	582 012	79	132	111	21	14	150	42	40	M6	½
25	20	10	180	582 013	100	177	148	29	14	190	53	46	M6	¾
32	25	10	180	582 014	100	177	148	29	14	190	53	46	M6	1
40	32	10	180	582 015	147	251	207	44	21	240	76	65	M8	1 ¼
50	40	10	180	582 016	147	251	207	44	21	240	76	65	M8	1 ½
63	50	10	180	582 017	147	251	207	44	21	260	76	65	M8	2





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:

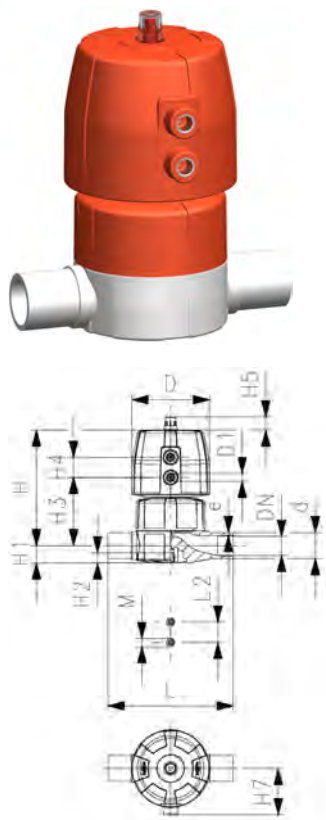
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

Working Pressure: **one side**

d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	180 624 132	0.761	180 624 152	1.100
25	20	10	271	180 624 133	1.201	180 624 153	1.760
32	25	10	481	180 624 134	1.563	180 624 154	2.610
40	32	10	759	180 624 135	2.623	180 624 155	3.760
50	40	10	1263	180 624 136	4.323	180 624 156	6.220
63	50	6	1728	180 624 137	5.365	180 624 157	7.800

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅝	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅝	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	⅝	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	⅝	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	⅝	214	32	15	119	36	26	88	284	45	M8	3.0	19
63	150	⅝	226	39	15	132	36	26	88	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅝
25	⅝
32	1
40	1 ¼
50	1 ½
63	2



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

Working Pressure: **one side**

d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	125	180 625 132	0.668	180 625 152	0.541
25	20	10	271	180 625 133	1.113	180 625 153	1.191
32	25	10	481	180 625 134	1.402	180 625 154	1.403
40	32	10	759	180 625 135	2.242	180 625 155	2.243
50	40	10	1263	180 625 136	4.367	180 625 156	3.826
63	50	6	1728	180 625 137	4.635	180 625 157	4.636

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d	closest
(mm)	inch
	(inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
Unions with butt fusion spigots metric

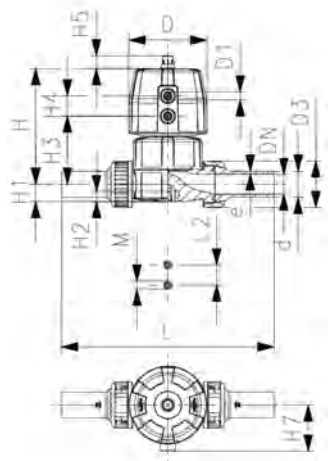
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	180 644 132	0.711
25	20	10	271	180 644 133	1.189
32	25	10	481	180 644 134	1.350
40	32	10	759	180 644 135	2.263
50	40	10	1263	180 644 136	4.233
63	50	10	1728	180 644 137	5.275

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	68	⅝	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅝	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	⅝	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	⅝	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	⅝	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	⅝	226	39	15	132	36	26	69	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅝
32	1
40	1 ⅜
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
FO (Fail safe to open)
With butt fusion spigots metric

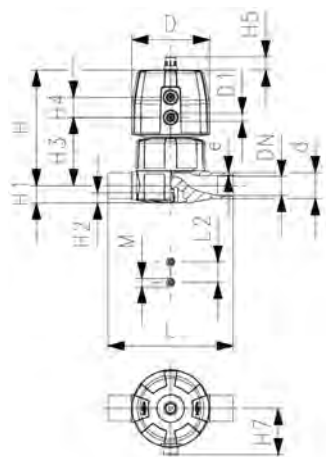
Model:

- 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

Working Pressure: **one side**



d	DN	PN	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
20	15	10	125	180 645 132	0.618
25	20	10	271	180 645 133	1.016
32	25	10	481	180 645 134	1.222
40	32	10	759	180 645 135	1.882
50	40	10	1263	180 645 136	3.735
63	50	10	1728	180 645 137	4.545

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d	closest inch
(mm)	(inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
DA (Double acting)
With butt fusion spigots metric

Model:

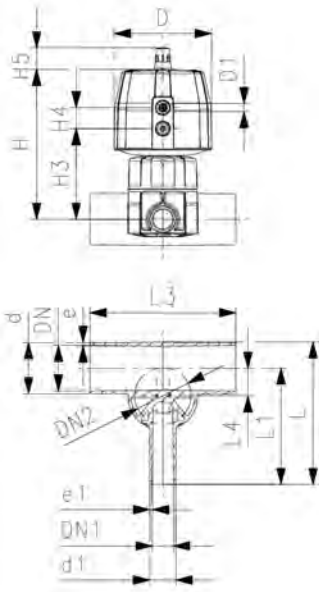
- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

Option:

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

* PN: PTFE

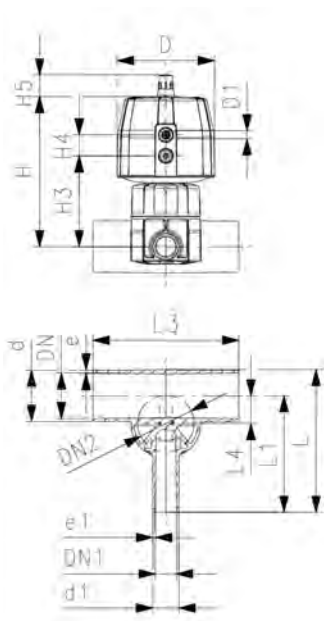
Working Pressure: **one side**



d	DN	PN*	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(L/min)		
20	15	16/10*	57	180 659 301	0.635
25	20	16/10*	89	180 659 303	1.002
25	20	16/10*	118	180 659 304	1.005
32	25	16/10*	80	180 659 307	1.055
32	25	16/10*	105	180 659 308	1.059
32	25	16/10*	231	180 659 309	1.234
40	32	16/10*	85	180 659 312	1.288
40	32	16/10*	119	180 659 313	1.292
40	32	16/10*	153	180 659 314	1.310
40	32	16/10*	187	180 659 315	1.339
50	40	16/10*	86	180 659 318	1.174
50	40	16/10*	160	180 659 319	1.378
50	40	16/10*	206	180 659 320	1.383
50	40	16/10*	524	180 659 321	3.667
50	40	16/10*	667	180 659 322	3.677
63	50	16/10*	84	180 659 325	1.251
63	50	16/10*	150	180 659 326	1.463
63	50	16/10*	184	180 659 327	1.469
63	50	16/10*	471	180 659 328	3.844
63	50	16/10*	610	180 659 329	3.909
63	50	16/10*	747	180 659 330	3.922
90	80	16/10*	82	180 659 341	1.748
90	80	16/10*	103	180 659 342	1.755
90	80	16/10*	129	180 659 343	1.771
90	80	16/10*	623	180 659 345	4.362
90	80	16/10*	696	180 659 346	4.390
110	100	16/10*	78	180 659 351	2.018
110	100	16/10*	103	180 659 352	2.024
110	100	16/10*	131	180 659 353	2.041
110	100	16/10*	604	180 659 355	4.778
110	100	16/10*	661	180 659 356	4.808

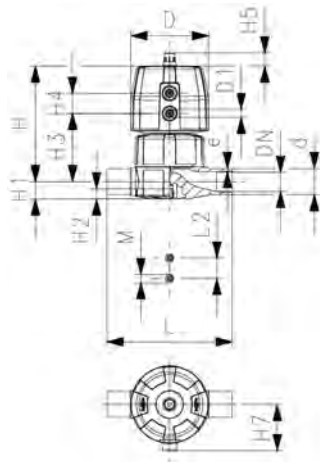
d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	Valve Size d	DN1
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	68	1/8	104	63	24	16	117	96	162	12	2	7	20	15
25	96	1/8	131	73	25	16	133	108	162	16	2	10	25	15
25	96	1/8	131	73	25	16	133	108	162	16	2	10	25	20
32	96	1/8	135	76	25	16	142	120	162	19	3	10	25	15
32	96	1/8	135	76	25	16	142	120	162	19	3	10	25	20
32	96	1/8	143	84	25	16	145	120	160	19	3	13	32	25
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	15
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	20
40	96	1/8	151	92	25	16	149	128	180	23	4	13	32	25
40	96	1/8	151	92	25	16	174	153	180	23	4	13	32	32
50	96	1/8	148	90	25	16	160	134	180	27	5	10	25	15

table continued on the next page



d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	Valve Size d (mm)	DN1 (mm)
50	96	1/4	156	97	25	16	160	134	180	28	5	13	32	20
50	96	1/4	156	97	25	16	160	134	180	28	5	13	32	25
50	150	1/4	224	129	36	26	209	169	209	33	5	23	63	32
50	150	1/4	224	129	36	26	209	169	209	33	5	23	63	40
63	96	1/4	155	96	25	16	177	144	180	33	6	10	25	15
63	96	1/4	163	104	25	16	177	144	180	35	6	13	32	20
63	96	1/4	163	104	25	16	177	144	180	35	6	13	32	25
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	32
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	40
63	150	1/4	230	136	36	26	225	192	220	39	6	23	63	50
90	96	1/4	176	117	25	16	205	159	190	47	8	13	32	15
90	96	1/4	176	117	25	16	205	159	190	47	8	13	32	20
90	96	1/4	176	117	25	16	205	159	190	47	8	13	32	25
90	150	1/4	244	150	36	26	254	207	250	51	8	23	63	40
90	150	1/4	244	150	36	26	254	207	250	51	8	23	63	50
110	96	1/4	185	126	25	16	227	171	190	56	10	13	32	15
110	96	1/4	185	126	25	16	227	171	190	56	10	13	32	20
110	96	1/4	185	126	25	16	227	171	190	56	10	13	32	25
110	150	1/4	254	160	36	26	276	219	250	60	10	23	63	40
110	150	1/4	254	160	36	26	276	219	250	60	10	23	63	50

d (mm)	DN2 (mm)	d1 (mm)	e1 (mm)
20	15	20	2
25	20	20	2
25	20	25	2
32	20	20	2
32	20	25	2
32	25	32	3
40	25	20	2
40	25	25	2
40	25	32	3
40	25	40	4
50	20	20	2
50	25	25	2
50	25	32	3
50	50	40	4
50	50	50	5
63	20	20	2
63	25	25	2
63	25	32	3
63	50	40	4
63	50	50	5
63	50	63	6
90	25	20	2
90	25	25	2
90	25	32	3
90	50	50	5
90	50	63	6
110	25	20	2
110	25	25	2
110	25	32	3
110	50	50	5
110	50	63	6



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

Working Pressure: **one side**

d	DN	PN	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
			(l/min)		
20	15	10	125	180 655 132	0.602
25	20	10	271	180 655 133	0.980
32	25	10	481	180 655 134	1.192
40	32	10	759	180 655 135	1.822
50	40	10	1263	180 655 136	2.985
63	50	10	1728	180 655 137	3.795

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	1.9	7
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	2.4	13
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	2.4	15
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	3.0	19
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	3.0	23

d	closest inch
(mm)	(inch)
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



SYGEF Plus
Diaphragm valve DIASTAR Ten
DA (Double acting)
Unions with butt fusion spigots metric

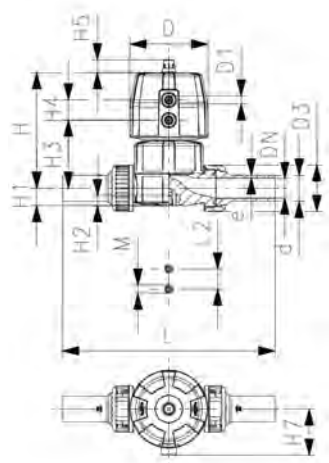
Model:

- 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

Working Pressure: **one side**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	10	125	180 654 132	0.695
25	20	10	271	180 654 133	1.153
32	25	10	481	180 654 134	1.396
40	32	10	759	180 654 135	2.203
50	40	10	1263	180 654 136	3.483
63	50	10	1728	180 654 137	4.525

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M (mm)	e (mm)	Lift = Hx (mm)
20	68	⅜	101	14	12	60	24	16	43	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	96	⅜	143	22	12	84	25	16	57	234	25	M6	2.4	13
40	120	⅜	173	26	15	99	26	26	69	260	45	M8	2.4	15
50	150	⅜	214	32	15	119	36	26	69	284	45	M8	3.0	19
63	150	⅜	226	39	15	132	36	26	69	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



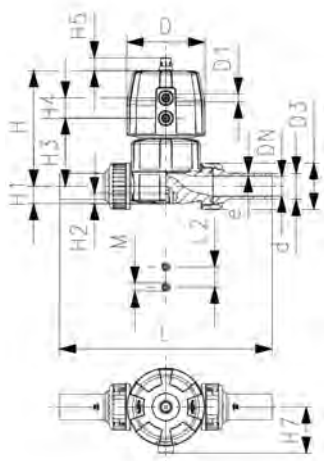
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
Unions with butt fusion spigots metric

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
- Ideally suited for High Purity applications, not recommended for oxidizing acids

Option:

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



d (mm)	DN (mm)	PN (bar)	kv-value (Δp=1 bar) (l/min)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	180 634 132	1.172
25	20	16	271	180 634 133	1.381
32	25	16	481	180 634 134	2.225
40	32	16	759	180 634 135	3.730
50	40	16	1263	180 634 136	5.786
63	50	10	1728	180 634 137	6.880

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M (mm)	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	¼	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	¼	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	¼	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	¾
32	1
40	1 ¼
50	1 ½
63	2



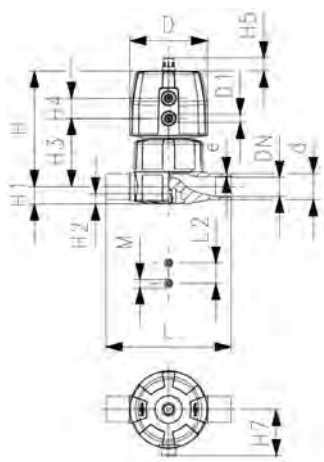
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
With butt fusion spigots metric

Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Ideally suited for High Purity applications, recommended for oxidizing acids.

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)	PTFE/EPDM Code	Weight (kg)
20	15	16	125	180 635 132	1.259
25	20	16	271	180 635 133	1.208
32	25	16	481	180 635 134	2.021
40	32	16	759	180 635 135	3.349
50	40	16	1263	180 635 136	5.288
63	50	10	1728	180 635 137	6.150

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ⅜
50	1 ½
63	2



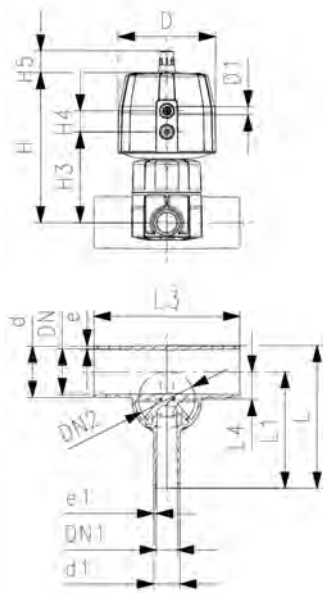
SYGEF Plus
Diaphragm valve DIASTAR Sixteen
FC (Fail safe to close)
With butt fusion spigots metric

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
- Ideally suited for High Purity applications, not recommended for oxidizing acids

Option:

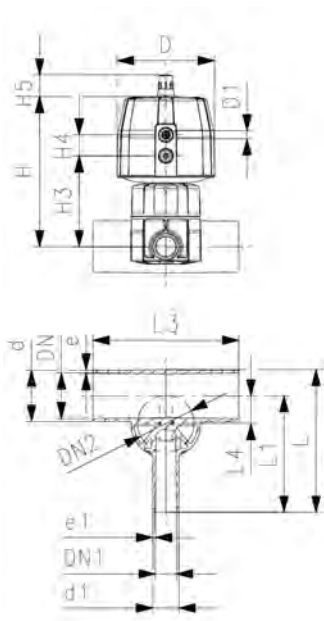
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- * Available on request



d	DN	DN1	DN2	PN	kv-value	PTFE/EPDM	Weight
(mm)	(mm)	(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
20	15	15	15	16	57	180 639 301	1.112
25	20	15	20	16	89	180 639 303	1.230
25	20	20	20	16	118	180 639 304	1.233
32	25	15	20	16	80	180 639 307	1.283
32	25	20	20	16	105	180 639 308	1.287
32	25	25	25	16	231	180 639 309	2.063
40	32	15	25	16	85	180 639 312	2.117
40	32	20	25	16	119	180 639 313	2.121
40	32	25	25	16	153	180 639 314	2.139
40	32	32	25	16	187	180 639 315	2.168
50	40	15	20	16	86	180 639 318	1.402
50	40	20	25	16	160	180 639 319	2.207
50	40	25	25	16	206	180 639 320	2.212
50	40	32	50	10	524	180 639 321	6.022
50	40	40	50	10	667	180 639 322	6.032
63	50	15	20	16	84	180 639 325	1.479
63	50	20	25	16	150	180 639 326	2.292
63	50	25	25	16	184	180 639 327	2.298
63	50	32	50	10	471	180 639 328	6.199
63	50	40	50	10	610	180 639 329	6.264
63	50	50	50	10	747	180 639 330	6.277
90	80	15	25	16	82	180 639 341	2.577
90	80	20	25	16	103	180 639 342	2.584
90	80	25	25	16	129	180 639 343	2.600
90	80	40	50	10	623	180 639 345	6.717
90	80	50	50	10	696	180 639 346	6.745
110	100	15	25	16	78	180 639 351	2.847
110	100	20	25	16	103	180 639 352	2.853
110	100	25	25	16	131	180 639 353	2.870
110	100	40	50	10	604	180 639 355	7.133
110	100	50	50	10	661	180 639 356	7.163

d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	d1	Valve Size d
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	96	1/8	130	71	25	16	117	96	162	12	1.9	7	20	20
25	96	1/8	131	72	25	16	133	108	162	16	1.9	10	20	25
25	96	1/8	131	72	25	16	133	108	162	16	1.9	10	25	25
32	96	1/8	135	76	25	16	142	120	162	19	2.4	10	20	25
32	96	1/8	135	76	25	16	142	120	162	19	2.4	10	25	25
32	120	1/8	167	93	26	26	145	120	160	19	2.4	13	32	32
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	20	32
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	25	32
40	120	1/8	175	101	26	26	149	128	180	23	2.4	13	32	32
40	120	1/8	175	101	26	26	174	153	180	23	2.4	13	40	32
50	96	1/8	148	90	25	16	160	134	180	27	3.0	10	20	25

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d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	d1 (mm)	Valve Size d (mm)
50	120	1/8	180	106	26	26	160	134	180	28	3.0	13	25	32
50	120	1/8	180	106	26	26	160	134	180	28	3.0	13	32	32
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	40	63
50	180	1/4	249	135	37	26	209	169	209	33	3.0	23	50	63
63	96	1/8	155	96	25	16	177	144	180	33	3.0	10	20	25
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	25	32
63	120	1/8	187	113	26	26	177	144	180	35	3.0	13	32	32
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	40	63
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	50	63
63	180	1/4	255	141	37	26	225	192	220	39	3.0	23	63	63
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	20	32
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	25	32
90	120	1/8	200	126	26	26	205	159	190	47	4.3	13	32	32
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	50	63
90	180	1/4	269	155	37	26	254	207	250	51	4.3	23	63	63
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	20	32
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	25	32
110	120	1/8	209	135	26	26	227	171	190	56	5.3	13	32	32
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	50	63
110	180	1/4	279	165	37	26	276	219	250	60	5.3	23	63	63

d (mm)	e1 (mm)
20	2
25	2
25	2
32	2
32	2
32	2
40	2
40	2
40	2
40	2
40	2
50	2
50	2
50	2
50	2
50	2
50	3
63	2
63	2
63	2
63	2
63	3
63	3
90	2
90	2
90	2
90	3
90	3
110	2
110	2
110	2
110	3
110	3



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
Unions with butt fusion spigots metric

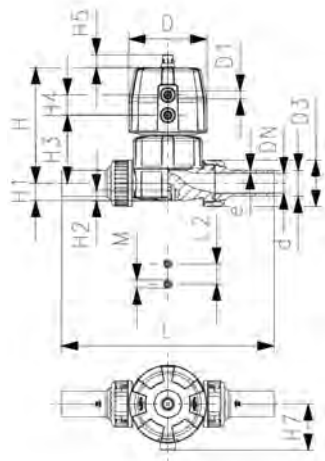
Model:

- 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

Working Pressure: **both sides**



d (mm)	DN (mm)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)	PTFE/FPM Code	Weight (kg)
20	15	10	125	181 684 132	1.172	181 684 152	1.172
25	20	10	271	181 684 133	1.381	181 684 153	1.381
32	25	10	481	181 684 134	2.225	181 684 154	2.225
40	32	10	759	181 684 135	3.730	181 684 155	3.730
50	40	10	1263	181 684 136	5.786	181 684 156	5.786
63	50	10	1728	181 684 137	6.880	181 684 157	6.880

d (mm)	D (mm)	D1_G (inch)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H7 (mm)	L (mm)	L2 (mm)	M	e (mm)	Lift = Hx (mm)
20	96	⅜	127	14	12	68	25	16	57	196	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	221	25	M6	1.9	10
32	120	⅝	167	22	12	93	26	26	69	234	25	M6	2.4	13
40	150	⅝	196	26	15	101	36	26	88	260	45	M8	2.4	15
50	180	⅝	239	32	15	124	37	26	103	284	45	M8	3.0	19
63	180	⅝	251	39	15	137	37	26	103	321	45	M8	3.0	23

d (mm)	closest inch (inch)
20	⅜
25	⅜
32	1
40	1 ⅜
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With butt fusion spigots metric

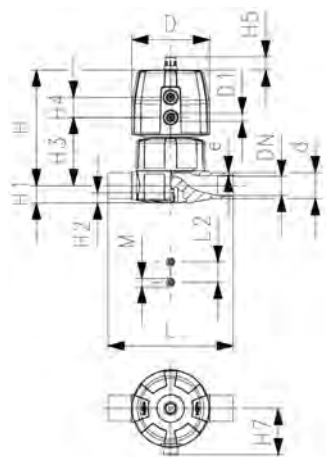
Model:

- 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

Working Pressure: **both sides**



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	125	181 685 132	1.079	181 685 152	1.079
25	20	10	271	181 685 133	1.208	181 685 153	1.208
32	25	10	481	181 685 134	2.021	181 685 154	2.021
40	32	10	759	181 685 135	3.349	181 685 155	3.349
50	40	10	1263	181 685 136	5.288	181 685 156	5.288
63	50	10	1728	181 685 137	6.150	181 685 157	6.150

d	D	D1_G	H	H1	H2	H3	H4	H5	H7	L	L2	M	e	Lift = Hx
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)
20	96	⅜	127	14	12	68	25	16	57	124	25	M6	1.9	7
25	96	⅜	132	18	12	73	25	16	57	144	25	M6	1.9	10
32	120	⅜	167	22	12	93	26	26	69	154	25	M6	2.4	13
40	150	⅜	196	26	15	101	36	26	88	174	45	M8	2.4	15
50	180	⅜	239	32	15	124	37	26	103	194	45	M8	3.0	19
63	180	⅜	251	39	15	137	37	26	103	224	45	M8	3.0	23

d	closest inch
(mm)	(inch)
20	⅜
25	⅜
32	1
40	1 ¼
50	1 ½
63	2



SYGEF Plus
Diaphragm valve DIASTAR TenPlus
FC (Fail safe to close)
With butt fusion spigots metric

Model:

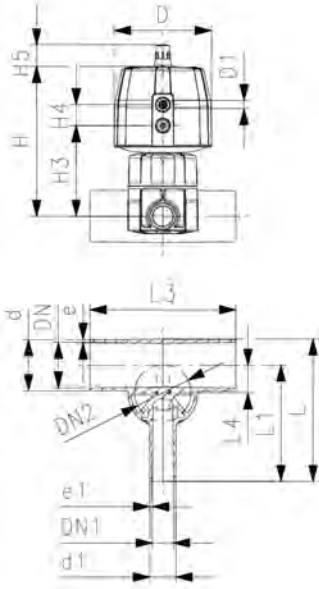
- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

Option:

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

Working Pressure: **both sides**

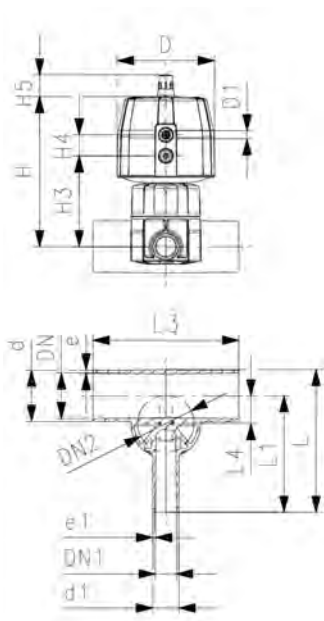
* Available on request



d	DN	PN	kv-value	PTFE/EPDM	Weight	PTFE/FPM	Weight
(mm)	(mm)	(bar)	(Δp=1 bar)	Code	(kg)	Code	(kg)
			(l/min)				
20	15	10	57	181 689 301	1.112	181 689 501	1.112
25	20	10	89	181 689 303	1.230	181 689 503	1.230
25	20	10	118	181 689 304	1.233	181 689 504	1.233
32	25	10	80	181 689 307	1.283	181 689 507	1.283
32	25	10	105	181 689 308	1.287	181 689 508	1.287
32	25	10	231	181 689 309	2.391	181 689 509	2.063
40	32	10	85	181 689 312	2.117	181 689 512	2.117
40	32	10	119	181 689 313	2.121	181 689 513	2.121
40	32	10	153	181 689 314	2.139	181 689 514	2.139
40	32	10	187	181 689 315	2.168	181 689 515	2.168
50	40	10	86	181 689 318	1.402	181 689 518	1.402
50	40	10	160	181 689 319	2.207	181 689 519	2.207
50	40	10	206	181 689 320	2.212	181 689 520	2.212
50	40	10	524	181 689 321	6.022	181 689 521	6.022
50	40	10	667	181 689 322	6.032	181 689 522	6.032
63	50	10	84	181 689 325	1.479	181 689 525	1.479
63	50	10	150	181 689 326	2.292	181 689 526	2.292
63	50	10	184	181 689 327	2.298	181 689 527	2.298
63	50	10	471	181 689 328	6.199	181 689 528	6.199
63	50	10	610	181 689 329	6.264	181 689 529	6.264
63	50	10	747	181 689 330	6.277	181 689 530	6.277
90	80	10	82	181 689 341	2.577	181 689 541	2.577
90	80	10	103	181 689 342	2.584	181 689 542	2.584
90	80	10	129	181 689 343	2.600	181 689 543	2.600
90	80	10	623	181 689 345	6.717	181 689 545	6.717
90	80	10	696	181 689 346	6.745	181 689 546	6.745
110	100	10	78	181 689 351	2.847	181 689 551	2.847
110	100	10	103	181 689 352	2.853	181 689 552	2.853
110	100	10	131	181 689 353	2.870	181 689 553	2.870
110	100	10	604	181 689 355	7.133	181 689 555	7.133
110	100	10	661	181 689 356	7.163	181 689 556	7.163

d	D	D1	H	H3	H4	H5	L	L1	L3	L4	e	Lift = Hx	Valve Size d	d1
(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	96	1/2	130	71	25	16	117	96	162	12	1.9	7	20	20
25	96	1/2	131	72	25	16	133	108	162	16	1.9	10	25	20
25	96	1/2	131	72	25	16	133	108	162	16	1.9	10	25	25
32	96	1/2	135	76	25	16	142	120	162	19	2.4	10	25	20
32	96	1/2	135	76	25	16	142	120	162	19	2.4	10	25	25
32	120	1/2	167	93	26	26	145	120	160	19	2.4	13	32	32
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	32	20
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	32	25
40	120	1/2	175	101	26	26	149	128	180	23	2.4	13	32	32
40	120	1/2	175	101	26	26	174	153	180	23	2.4	13	32	40
50	96	1/2	148	90	25	16	160	134	180	27	3.0	10	25	20

table continued on the next page



d (mm)	D (mm)	D1 (inch)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	e (mm)	Lift = Hx (mm)	Valve Size d (mm)	d1 (mm)
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	32	25
50	120	1/2	180	106	26	26	160	134	180	28	3.0	13	32	32
50	180	1/2	249	135	37	26	209	169	209	33	3.0	23	63	40
50	180	1/2	249	135	37	26	209	169	209	33	3.0	23	63	50
63	96	1/2	155	96	25	16	177	144	180	33	3.0	10	25	20
63	120	1/2	187	113	26	26	177	144	180	35	3.0	13	32	25
63	120	1/2	187	113	26	26	177	144	180	35	3.0	13	32	32
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	40
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	50
63	180	1/2	255	141	37	26	225	192	220	39	3.0	23	63	63
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	20
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	25
90	120	1/2	200	126	26	26	205	159	190	47	4.3	13	32	32
90	180	1/2	269	155	37	26	254	207	250	51	4.3	23	63	50
90	180	1/2	269	155	37	26	254	207	250	51	4.3	23	63	63
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	20
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	25
110	120	1/2	209	135	26	26	227	171	190	56	5.3	13	32	32
110	180	1/2	279	165	37	26	276	219	250	60	5.3	23	63	50
110	180	1/2	279	165	37	26	276	219	250	60	5.3	23	63	63

d (mm)	DN2 (mm)	DN1 (mm)	e1 (mm)
20	15	15	2
25	20	15	2
25	20	20	2
32	20	15	2
32	20	20	2
32	25	25	2
40	25	15	2
40	25	20	2
40	25	25	2
40	25	32	2
50	20	15	2
50	25	20	2
50	25	25	2
50	50	32	2
50	50	40	3
63	20	15	2
63	25	20	2
63	25	25	2
63	50	32	2
63	50	40	3
63	50	50	3
90	25	15	2
90	25	20	2
90	25	25	2
90	50	40	3
90	50	50	3
110	25	15	2
110	25	20	2
110	25	25	2
110	50	40	3
110	50	50	3



SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF metric

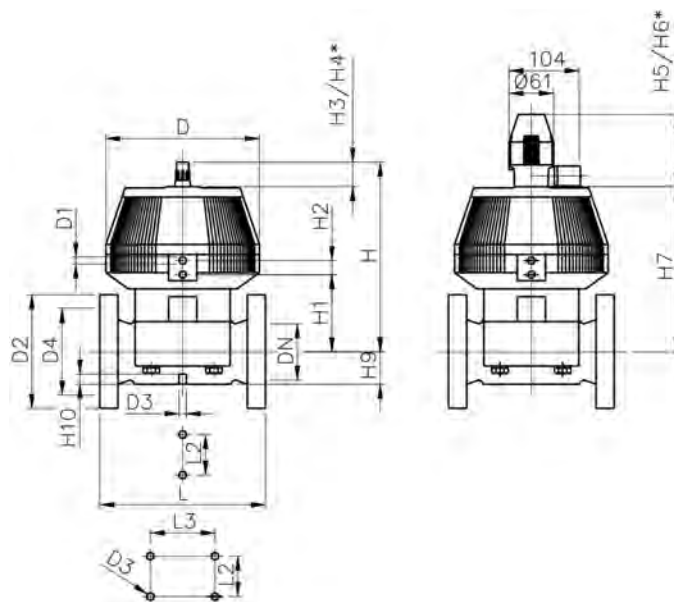
Model:

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*	75	2 ½	65	10	992	199 025 447	13.600
**	90	3	80	10	1700	199 025 448	17.400
	110	4	100	6	2700	199 025 449	24.700

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	¼	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69

	d	H10	L	L2
	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70
**	90	15	310	120
	110	20	350	120





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FC (Fail safe to close)
With fixed flanges PVDF Inch ANSI

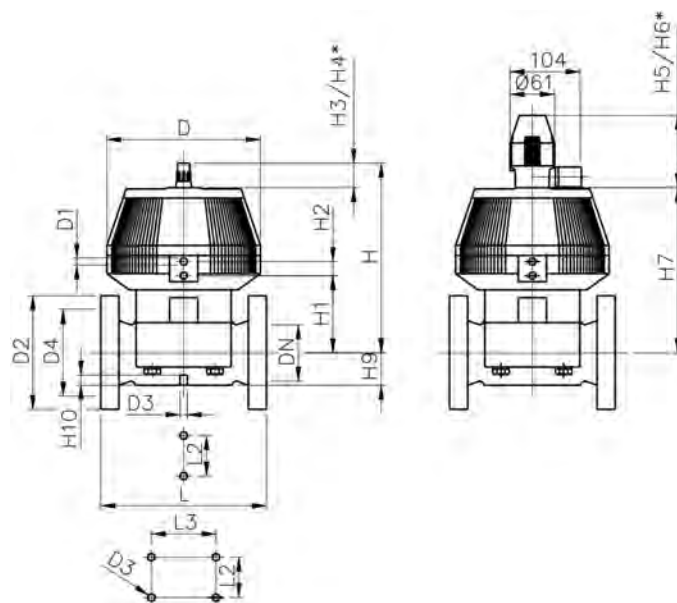
Model:

- 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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 387	14.200
**	90	3	80	10	1700	199 025 448	17.400
		4	100	6	2700	199 025 389	26.500

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20

	L	L2
	(mm)	(mm)
*	290	70
**	310	120
	350	120





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF metric

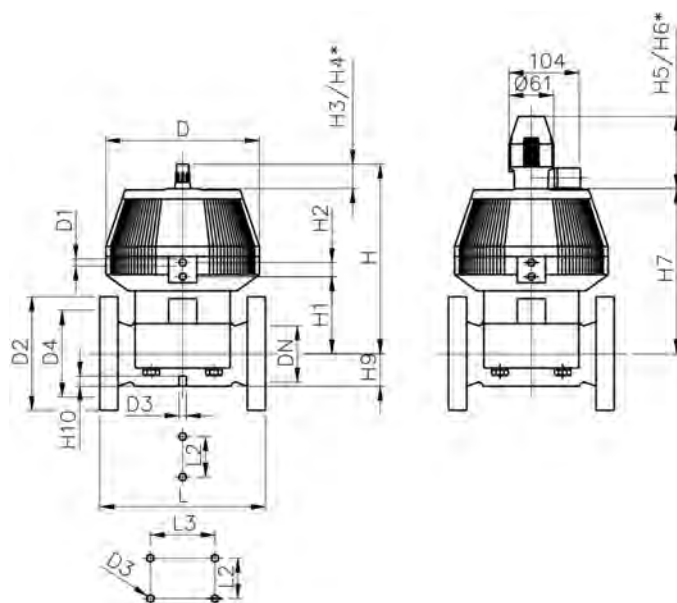
Model:

- Material: PVDF-HP
- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*	75	2 1/2	65	10	992	199 025 457	13.600
**	90	3	80	10	1700	199 025 458	17.400
	110	4	100	6	2700	199 025 459	24.700
**	160	6	150	6	6033	199 025 460	35.000

	d	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9
	(mm)	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	280	1 1/4	185	8	145	344	148	24	46	100	129	195	298	46
**	90	280	1 1/4	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	1 3/8	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	1 3/8	285	12	240	455	237	24	46	100	129	195	409	108

	d	H10	L	L2	L3
	(mm)	(mm)	(mm)	(mm)	(mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function FO (Fail safe to open)
With fixed flanges PVDF Inch ANSI

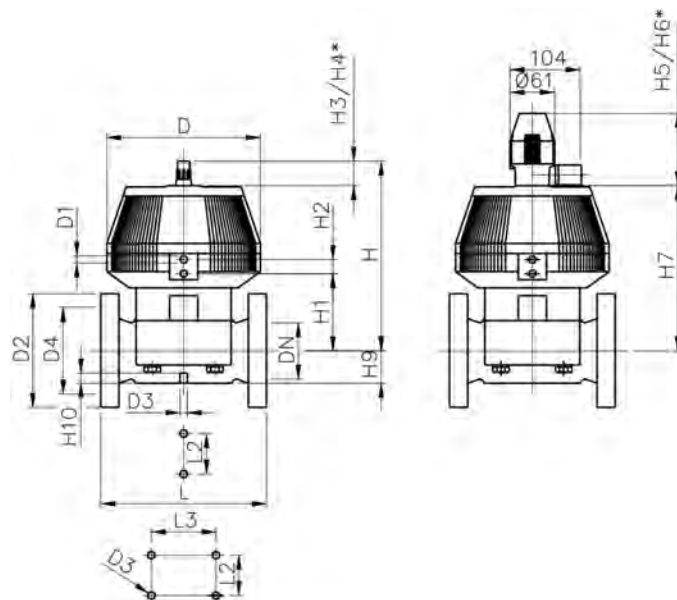
Model:

- 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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 397	12.200
**	90	3	80	10	1700	199 025 458	17.400
		4	100	6	2700	199 025 399	23.400
**	160	6	150	6	6033	199 025 460	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	129	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200





SYGEF Plus
Diaphragm valve type DIASTAR 025
Function DA (Double acting)
With fixed flanges PVDF metric

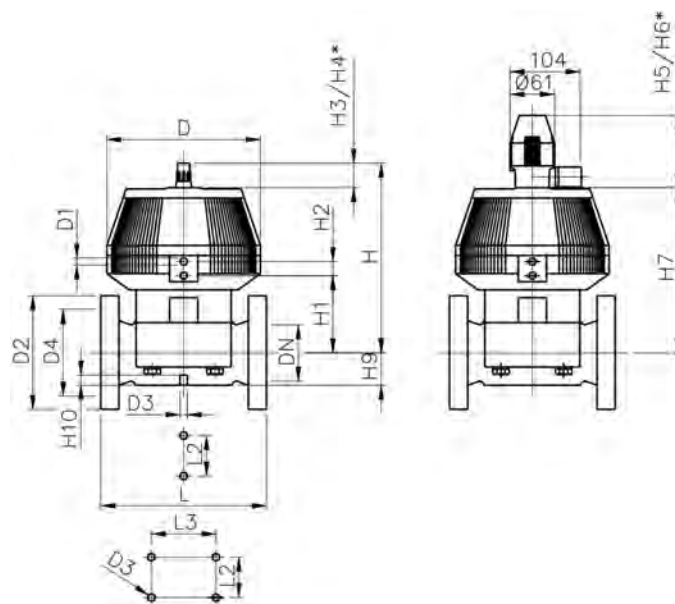
Model:

- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 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)	Size (inch)	PN (bar)	kv-value ($\Delta p=1$ bar) (l/min)	PTFE/EPDM Code	Weight (kg)
*	75	65	2 ½	10	992	199 025 467	13.600
**	90	80	3	10	1700	199 025 468	17.400
	110	100	4	6	2700	199 025 469	24.700
**	160	150	6	6	6033	199 025 470	35.000

	d (mm)	D (mm)	D1_G (inch)	D2 (mm)	D3[M] (mm)	D4 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	H7 (mm)	H9 (mm)
*	75	280	¼	185	8	145	344	148	24	46	100	125	195	298	46
**	90	280	¼	200	12	160	348	150	24	46	100	129	195	302	57
	110	335	¼	225	12	180	395	176	24	46	100	129	195	349	69
**	160	335	¼	285	12	240	455	237	24	46	100	129	195	409	108

	d (mm)	H10 (mm)	L (mm)	L2 (mm)	L3 (mm)
*	75	15	290	70	
**	90	15	310	120	
	110	20	350	120	
**	160	20	480	100	200





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

	d	Size	DN	PN	kv-value	PTFE/EPDM	Weight
	(mm)	(inch)	(mm)	(bar)	($\Delta p=1$ bar)	Code	(kg)
					(l/min)		
*		2 ½	65	10	992	199 025 407	13.600
**	90	3	80	10	1700	199 025 468	17.400
		4	100	6	2700	199 025 409	24.100
**	160	6	150	6	6033	199 025 470	35.000

	D	D1_G	D2	D3[M]	D4	H	H1	H2	H3	H4	H5	H6	H7	H9	H10
	(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
*	280	¼	185	8	145	344	148	24	46	100	125	195	298	46	15
**	280	¼	200	12	160	348	150	24	46	100	129	195	302	57	15
	335	¼	225	12	180	395	176	24	46	100	129	195	349	69	20
**	335	¼	285	12	240	455	237	24	46	100	129	195	409	108	20

	L	L2	L3
	(mm)	(mm)	(mm)
*	290	70	
**	310	120	
	350	120	
**	480	100	200

