

**Product Range
International
2011**

SYGEF PVDF

Pipe, Fittings,
Valves and Accessories



List of Abbreviations

AL	Number of bolt holes	PN	Nominal pressure at 20°C, water
ANSI	American National Standard Institute	PP	Polypropylene, heat stabilised
d	Pipe outside diameter	PTFE	Polytetrafluorethylene, e.g. Teflon®
DIN	Deutsche Industrie-Normen	PVDF	Polyvinylidene fluoride
DN	Nominal bore	R	Taper male thread, pressure tight in the thread to ISO 7
e	Wall thickness	Rp	Parallel female thread, pressure tight in the thread to ISO 7
EPDM	Ethylene Propylene Rubber	®	Registered trade-mark
FPM	Fluorine Rubber, e.g. Viton®	s	A/F
g	Weight in grams	SC	Size of hexagon bolts
G	Pipe thread, not pressure tight in the thread to ISO 288	SDR	Standard Dimension Ratio
HP	High Purity	SP	Standard pack. The figure given indicates the quantity of fittings contained in a standard pack
HTR	High Temperature Resistant	St	Steel
ISO	International Standardization Organisation	™	Trade-mark
NBR	Nitrile Rubber	Tr	Trapezoid thread
NPT	Taper male thread pressure tight in the thread to ANSI B 1.20.1		
PBTP	Polybutylene terephthalate		

General Information

Dimensions

All dimensions are given in mm and are intended as nominal or average sizes. Subject to alteration resulting from modifications in design.

Orders

Always quote the Georg Fischer code number when placing orders.

Ordering example

Pipe	d32	PVDF HP	175 481 669
Elbow	45° d140	PVDF Standard	735 158 516

SYGEF is a registered trade-mark for Georg Fischer plastic piping systems as well as the system-oriented fusion machines.

Detailed technical information is given in our handbook «Planning Fundamentals» and also available under [www. piping.georgfischer.com](http://www.piping.georgfischer.com)

Content - Fluoropolymers Product Range 2011

	Page
GF Piping Systems quality is no co-incidence	4
SYGEF Standard	9
SYGEF Plus	263
SYGEF Exhaust	325
System-Oriented Fusion Jointing Machines	329
Index	358
AGB	379

GF Piping Systems quality is no coincidence!

GF Piping systems has not only taken a pioneering role in the past for the range of PVC fittings and equipment, but also in the sector of fusible plastics. GF Piping Systems developed the socket fusion jointing process 30 years ago, and in

later years also the BCF and IR-Plus fusion methods. More than 9 million IR & BCF fusion joints in the past 15 years world-wide has proven GF Piping Systems performance in jointing technology.

GF Piping Systems jointing technology for fluoropolymers

Jointing Method	SYGEF-Plus	SYGEF-Standard	SYGEF-Exhaust	SYGEF-PFA	FUSEAL 25/50
Heated Element Socket Fusion	-	X	-	-	-
Heated Element Butt Fusion	X ¹	X	-	-	X ²
Infrared (IR-Plus) Fusion	X	X	-	X ²	-
Bead-and-Crevice-Free (BCF) Fusion	X	X	-	-	-
Electrofusion with Integral Heating	-	-	-	-	X
Hot Air / Hot Gas Manual Fusion	X	X	X	X	X
Mechanical Jointing	X	X	X	X	X

X = Standard range
X² = On request only

X¹ = Technically possible, but not recommended
- = Not available

Hot Air / Hot Gas Manual Fusion is the standard jointing method for SYGEF-Exhaust, however it can be implemented on other systems as a repair method &/or for the processing of semifinished materials.

Component selection basis

SYGEF Plus and SYGEF Standard are system products, pipes and fittings are matched to each other, when selecting SYGEF PVDF fusion components to produce a system; the only consideration needs to be the fusion dimension; PN16 or PN10.

Mechanical joints such as flanges & threaded components are available in various industry standards:

- Flange connections to EN ISO 1092 or ANSI B16.5 #150 (JIS available on request)
- Threaded connections to ISO 7/1 & 228/1 (BSP) or NPT (JIS Rc available on request)
- Sanitary clamp connections to all standards worldwide
- Union connections to GF specification

Design Factors and derived operating pressures

In various standards for PVDF we find design factors (formerly called safety factors) stated, these are for water.

They are lower than the design factors recommended by GF Piping Systems for industrial applications. In order to protect human beings and the environment, those safety factors cannot be applied for industrial applications. We therefore recommend to use safety factors for SYGEF piping systems as published in the following graph, for the calculation of piping system pressures for industrial applications.

For chemical applications, special considerations must be taken in determining appropriate safety factors, please consult GF for further information.

Size comparison – SS Tube to PVDF Pipe

DN, d, inch, nominal bore, o.d. – which is which?

Plastic piping in Inch sizes is typically sized on the nominal bore (DN) which is designated in inches. The outside diameter is fixed but is not mentioned.

Metric piping systems are sized on their outside diameter, with occasional mention of the DN size, when referring to valves or flanges.

Existing comparisons of metric sized pipes to Inch sizes pipes are well known, and generally the variation between Inch and Metric sizes (OD & ID) for the same DN is only a few millimetres.

e.g. The closest size to 1" Sch80 is d32 Metric, with both pipes being «DN25»

However, the sizing for SS tubes is often based on the outside diameter, and this does lead to some confusion. The table below demonstrates which PVDF size pipe is the closest match to SS Tubes in Inch & DIN, and to IPS / BS Inch pipe.

SS Tube Inch	SS Tube ISO/DIN	PVDF Pipe	IPS / BS Pipe
¾"	DN20	d20	½"
1"	DN25	d25	¾"
1½" ^A	DN32	d32	1"
1½"	DN40	d40	1¼"
2"	DN50	d50	1½"
2½"	DN65	d63	2"
3"	DN80	d75	2½"
4" ^B	DN100 ^B	d90 d110	3" 4"
5"	DN125	d125 ^C / d140 ^C	5"
6"	DN125	d160	6"
8"	-	d200	-
-	DN200	d200 or d225	8"

A = There is no 1¼" SS Tube Size in Inch dimensions; 3A, ASME-BPE or BS

B = 4" & DN100 SS Tube could transitioned to either d110 or d90 PVDF

C = 5" & DN125 Tube is closest to d125 PVDF, 5" IPS/BS is closest to d140 PVDF

8" SS tube is equivalent to d200 PVDF – DN200 SS Tube could be transitioned to either d200 or d225 PVDF

Further examples of this size comparison can be seen in the SYGEF Plus Sanitary Clamp adaptors for transition to SS Tubes. As a «rule of thumb», the DN value of SS tube should be matched to the d value of PVDF pipe, but there are some exceptions depending upon which standard of SS Tube is employed.

→ In short, DN value is often not a clear indication of the required dimension.

SYGEF PVDF General Information



- Standard and High-Purity Pipes
- Socket Fusion System
- Butt Fusion (IR/BCF) System
- High-Purity Butt Fusion (IR/BCF) System

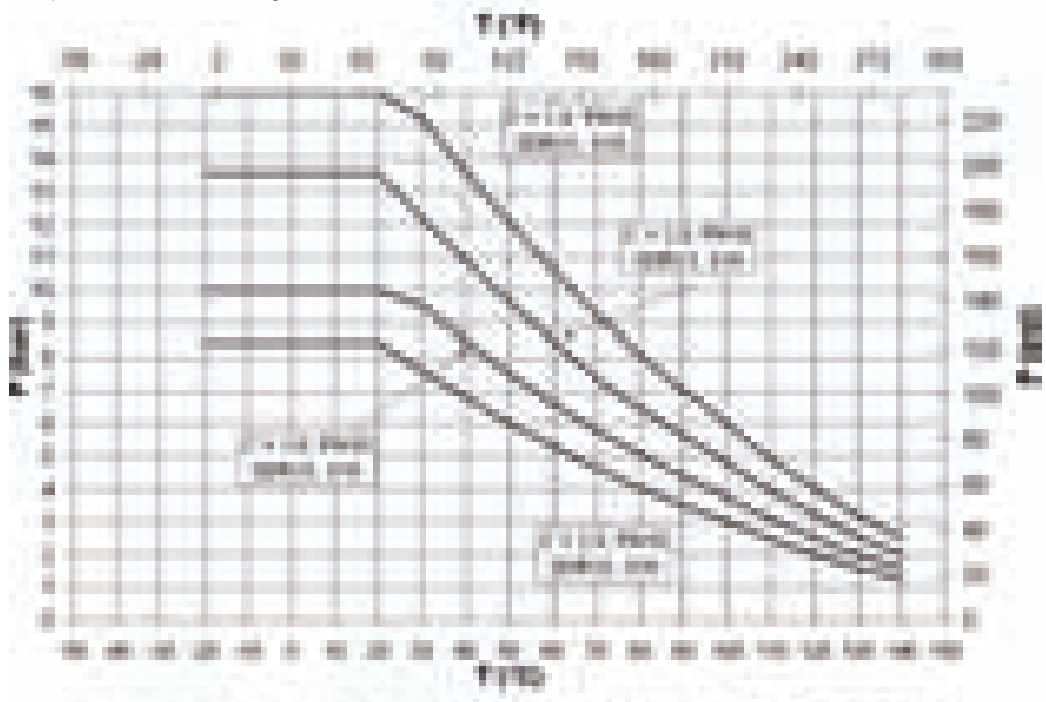
SYGEF Polyvinylidene fluoride (PVDF) virgin fluoropolymer

PVDF is a thermoplastic fluoropolymer with a melt point of 178°C and a wide service temperature range from -20°C to 140°C. The PVDF polymer chain is very linear and similar to PTFE Teflon except it is not fully fluorinated and contains 3% hydrogen by weight. PVDF materials are ideal for use in aggressive

chemical or ultrapure water systems since they are basically inert, have high strength, and are readily weldable into system components. PVDF raw material is commonly available under the trade names Kynar, supplied by Arkema Chemicals, and Solef, supplied by Solvay Fluoropolymers.

Application limit of SYGEF pipes and fittings

(25-year values with design factor C included in the calculation = 2.0 & 1.6)



Dedicated Fluoropolymer Production

GF Piping Systems produces SYGEF PVDF piping system components under cleanroom conditions in our state of the art high purity manufacturing facilities in Switzerland and Germany. The entire production process is designed, dedicated and operated to produce high quality PVDF components in both Standard and High-Purity grades. GF IR-Plus™ & BCF Plus fusion technologies are substantial improvements over existing joining methods such as contact butt fusion and socket fusion.

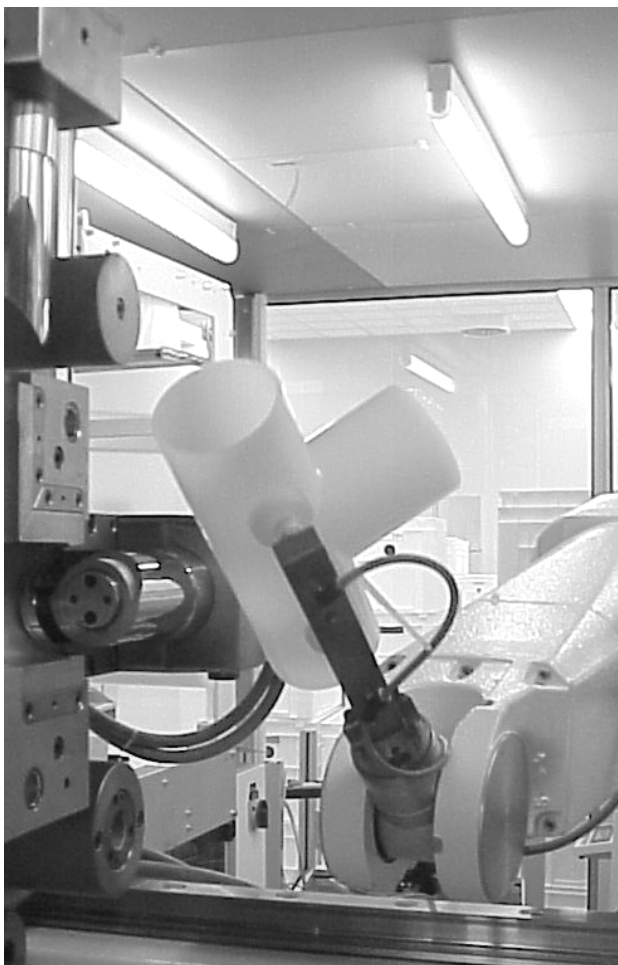
Completing the system are SYGEF PVDF butt fusion fittings and valves specifically designed for use with IR-63 Plus, IR-225 Plus and IR-315 Plus fusion machines, and the BCF-Plus «Bead-&-Crevice-Free» Fusion machine.

For less demanding applications, GF also offers a comprehensive range of Fittings and Valves for Socket Fusion jointing up to the dimension d63.

GF Piping Systems Fluoropolymer Production – Ettenheim, Germany



Extrusion of Pipes & Tubes d16 - d450



Injection Moulding



100% Visual Inspection

	Pipes	12
	Fittings for butt fusion	13
	Unions for butt fusion	18
	Transition fittings for butt fusion	22
	Flange Adaptors, Flanges and Gaskets for butt fusion	24
	Fittings for socket fusion	30
	Unions for socket fusion	33
	Transition fittings for socket fusion	37
	Flange Adaptors, Flanges and Gaskets for socket fusion	39
	Installation fittings	46
	Ball valves	50
	Diaphragm valves new generation	83
	Butterfly valves	95

		Page
	Cone check valves	108
	Check valves	116
	AQUATAP	121
	Ball valves silicone free/paint compatible	125
	Cone check valves silicone free	135
	Ball valves electric	138
	Ball valves pneumatic	169
	Diaphragm valves pneumatic New generation	219
	Butterfly valves electric	230
	Butterfly valves pneumatic	242
	Solenoid valves	251
	Process control valves	255
	Variable area flow meters	262

SYGEF Standard – System Specification

Material	Polyvinylidene fluoride (PVDF)
Colour	translucent
Density	~1.78g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35mJ/m ²
Linear expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1800 N/mm ² (ISO 527/ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5x10 ¹⁴ Ωcm (IEC 60093)
Dimension	d 20 (½")–d 225 (8") in accordance to ISO 10931
Pressure rating	Pipes/fittings: PN 16 (d 20–d 225), PN 10 (d 90–d 225) Valves: separate specification
Temperature rating	from –20 °C to 140 °C (–4 °F–284 °F)
Production	Fittings/valves: injection moulded Pipes: extruded Valves: injection moulded (additional available oil free treated and paint compatible /silicon free)
Surface finish	Inner surface Ra ≤0.5µm (20µin) for injection moulded and extruded components
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
Testing and inspection (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
Approvals/conformance⁽¹⁾	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) FM-4910 listing
Welding technology	BCF Plus, bead and crevice free fusion, size d 20 (½")–d 110 (4") IR Plus, infrared fusion (DVS 2207-6), size d 20 (½")–d 225 (8") BF, butt fusion (DVS 2207-15)
Documentation⁽²⁾	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
Packing⁽³⁾	Multiple components single bagged in specified bag
Labeling	Brand Name Product Description Code Number Material Dimension
Main applications	Uses include delivery of pharmaceutical grade purified water (PW) and DI water, using hot water, steam chemical or ozone sanitisation. Due to its excellent chemical resistance it is widely used in chemical distribution systems.

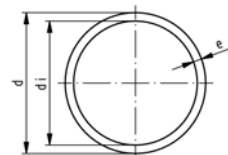
⁽¹⁾ For thermoplastic material only

⁽²⁾ on request

⁽³⁾ not for socket fusion products

Pipes

75 48 02



PF 2 35 188 001

SYGEF Standard pipes PN16

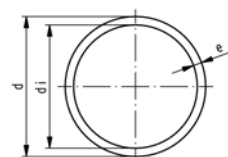
Model:

- Material: PVDF
- Length: Lengths of 5 m

* on request

d [mm]	PN	FM	Code	kg/m	e [mm]	di [mm]	
16	16	BCF, IR	175 480 202	0.171	1.9	12.2	
20	16	BCF, IR	175 480 203	0.210	1.9	16.2	
25	16	BCF, IR	175 480 204	0.269	1.9	21.2	
32	16	BCF, IR	175 480 205	0.435	2.4	27.2	
40	16	BCF, IR	175 480 206	0.563	2.4	35.2	
50	16	BCF, IR	175 480 207	0.850	3.0	44.0	
63	16	BCF, IR	175 480 208	1.090	3.0	57.0	
75	16	BCF, IR	175 480 209	1.550	3.6	67.8	
90	16	BCF, IR	175 480 210	2.230	4.3	81.4	
110	16	BCF, IR	175 480 211	3.330	5.3	99.4	
140	16	IR	175 480 213	5.312	6.7	126.6	
160	16	IR	175 480 214	6.961	7.7	144.6	
200	16	IR	175 480 216	10.862	9.6	180.8	
225	16	IR	175 480 217	13.700	10.8	203.4	

75 48 06



PF 2 35 188 002

SYGEF Standard pipes PN10

Model:

- Material: PVDF
- Length: Lengths of 5 m

* on request

d [mm]	PN	FM	Code	kg/m	e [mm]	di [mm]	
90	10	BCF, IR	175 480 665	1.480	2.8	84.4	
110	10	BCF, IR	175 480 666	2.200	3.4	103.2	
* 125	10	IR	175 480 667	2.840	3.9	117.2	
140	10	IR	175 480 673	3.520	4.3	131.4	
160	10	IR	175 480 668	4.540	4.9	150.2	
200	10	IR	175 480 669	7.190	6.2	187.6	
225	10	IR	175 480 670	8.950	6.9	211.2	
250	10	IR	175 480 671	11.100	7.7	235.4	
280	10	IR	175 480 656	13.900	8.6	261.8	
315	10	IR	175 480 674	17.600	9.7	296.4	

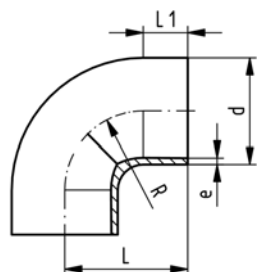
Fittings for butt fusion

SYGEF Standard bend 90° PN16

Model:

- Material: PVDF

35 01 87



PF 2 35 190 006

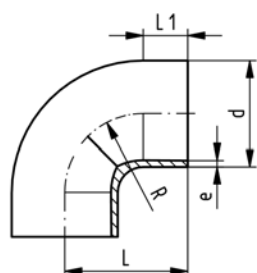
d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	R [mm]	
20	16	BCF, IR	735 018 706	0.016	1.9	38	23	15	
25	16	BCF, IR	735 018 707	0.022	1.9	42	23	19	
32	16	BCF, IR	735 018 708	0.038	2.4	46	22	24	
40	16	BCF, IR	735 018 709	0.051	2.4	51	21	30	
50	16	BCF, IR	735 018 710	0.088	3.0	58	21	37	
63	16	BCF, IR	735 018 711	0.128	3.0	66	21	45	
75	16	BCF, IR	735 018 712	0.285	3.6	75	23	62	
90	16	BCF, IR	735 018 713	0.449	4.3	90	23	77	
110	16	BCF, IR	735 018 714	0.736	5.3	110	23	98	
140	16	IR	735 018 716	1.584	6.7	140	33	121	
160	16	IR	735 018 717	2.258	7.7	160	33	141	
200	16	IR	735 018 719	3.798	9.6	200	33	181	
225	16	IR	735 018 720	5.726	10.8	220	33	200	

35 01 85

SYGEF Standard bend 90° PN10

Model:

- Material: PVDF



PF 2 35 190 002

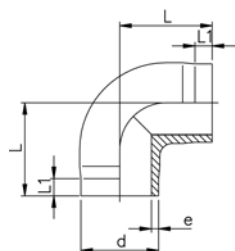
d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	R [mm]	
90	10	BCF, IR	735 018 513	0.352	2.8	90	23	77	
110	10	BCF, IR	735 018 514	0.605	3.4	110	23	98	
125	10	IR	735 018 515	0.670	3.9	125	28	112	
140	10	IR	735 018 516	1.238	4.3	140	33	121	
160	10	IR	735 018 517	1.731	4.9	160	33	141	
200	10	IR	735 018 519	2.730	6.2	200	33	181	
225	10	IR	735 018 520	4.094	6.9	220	33	200	

35 10 86

SYGEF Standard elbow 90° PN16

Model:

- Material: PVDF



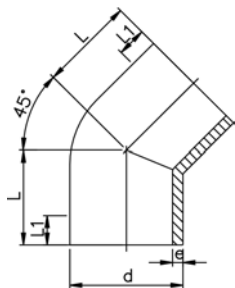
PF 2 35 190 007

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 108 606	0.022	1.9	38	25	
25	16	BCF, IR	735 108 607	0.030	1.9	42	26	
32	16	BCF, IR	735 108 608	0.049	2.4	46	26	
40	16	BCF, IR	735 108 609	0.069	2.4	51	28	
50	16	BCF, IR	735 108 610	0.119	3.0	58	28	
63	16	BCF, IR	735 108 611	0.198	3.0	66	28	

35 15 86

SYGEF Standard elbow 45° PN16**Model:**

- Material: PVDF



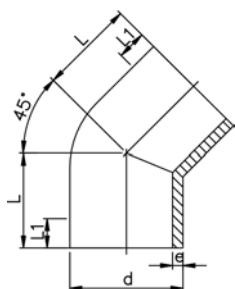
PF 2 35 190 008

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 158 606	0.019	1.9	32	25	
25	16	BCF, IR	735 158 607	0.025	1.9	34	26	
32	16	BCF, IR	735 158 608	0.038	2.4	36	26	
40	16	BCF, IR	735 158 609	0.054	2.4	39	28	
50	16	BCF, IR	735 158 610	0.084	3.0	42	30	
63	16	BCF, IR	735 158 611	0.121	3.0	47	31	
75	16	BCF, IR	735 158 612	0.160	3.6	49	32	
90	16	BCF, IR	735 158 613	0.294	4.3	57	37	
110	16	BCF, IR	735 158 614	0.480	5.3	70	46	
140	16	IR	735 158 616	1.000	6.7	88	57	
160	16	IR	735 158 617	1.470	7.7	100	62	
200	16	IR	735 158 619	2.800	9.6	124	77	
225	16	IR	735 158 620	4.000	10.8	140	88	

35 15 85

SYGEF Standard elbow 45° PN10**Model:**

- Material: PVDF



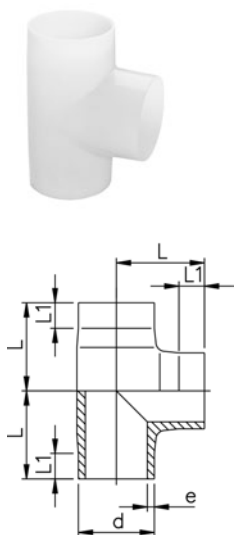
PF 2 35 190 003

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
90	10	BCF, IR	735 158 513	0.219	2.8	57	37	
110	10	BCF, IR	735 158 514	0.379	3.4	70	46	
125	10	IR	735 158 515	0.490	3.9	79	51	
140	10	IR	735 158 516	0.680	4.3	88	57	
160	10	IR	735 158 517	0.990	4.9	100	62	
200	10	IR	735 158 519	2.060	6.2	124	77	
225	10	IR	735 158 520	2.923	6.9	140	88	

35 20 86

SYGEF Standard T 90° equal PN16**Model:**

• Material: PVDF



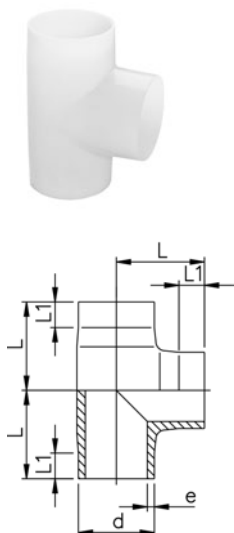
PF 2 35 190 001

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]
20	16	BCF, IR	735 208 606	0.028	1.9	38	25
25	16	BCF, IR	735 208 607	0.040	1.9	42	27
32	16	BCF, IR	735 208 608	0.065	2.4	46	27
40	16	BCF, IR	735 208 609	0.095	2.4	51	28
50	16	BCF, IR	735 208 610	0.156	3.0	58	28
63	16	BCF, IR	735 208 611	0.270	3.0	66	28
75	16	BCF, IR	735 208 612	0.364	3.6	75	32
90	16	BCF, IR	735 208 613	0.628	4.3	90	39
110	16	BCF, IR	735 208 614	1.122	5.3	110	48
140	16	IR	735 208 616	2.600	6.7	140	62
160	16	IR	735 208 617	3.500	7.7	160	71
200	16	IR	735 208 619	6.725	9.6	200	80
225	16	IR	735 208 620	8.986	10.8	220	86

35 20 85

SYGEF Standard T 90° equal PN10**Model:**

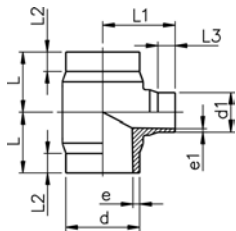
• Material: PVDF



PF 2 35 190 009

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]
90	10	BCF, IR	735 208 513	0.397	2.8	90	39
110	10	BCF, IR	735 208 514	0.714	3.4	110	48
125	10	IR	735 208 515	1.280	3.9	125	56
140	10	IR	735 208 516	1.611	4.3	140	62
160	10	IR	735 208 517	2.385	4.9	160	71
200	10	IR	735 208 519	4.297	6.2	200	80
225	10	IR	735 208 520	6.900	6.9	220	86

35 20 86



PF 2 35 426 001

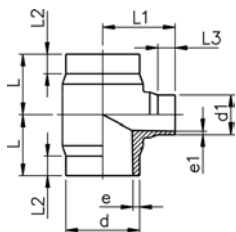
SYGEF Standard T 90° reduced PN16

Model:

- Material: PVDF

d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	
160 - 90	16	IR	735 208 662	3.200	7.7	4.3	155	130	60	25	
160 - 110	16	IR	735 208 661	3.300	7.7	5.3	155	130	60	25	
225 - 90	16	IR	735 208 670	6.000	10.8	4.3	155	160	60	25	
225 - 110	16	IR	735 208 669	6.100	10.8	5.3	155	160	60	25	

35 20 85



PF 2 35 426 001

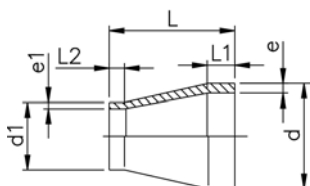
SYGEF Standard T 90° reduced PN10

Model:

- Material: PVDF

d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	
160 - 90	10	IR	735 208 562	2.300	4.9	4.3	155	130	60	25	
160 - 110	10	IR	735 208 561	2.300	4.9	5.3	155	130	60	25	
225 - 90	10	IR	735 208 570	4.400	6.9	4.3	155	160	60	25	
225 - 110	10	IR	735 208 569	4.286	6.9	5.3	155	160	60	25	

35 90 86



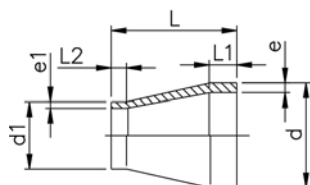
SYGEF Standard reducer PN16

Model:

- Material: PVDF

d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	
25 - 20	16	BCF, IR	735 908 637	0.017	1.9	1.9	50	22	22	
32 - 20	16	BCF, IR	735 908 642	0.022	2.4	1.9	50	22	22	
32 - 25	16	BCF, IR	735 908 641	0.024	2.4	1.9	50	22	22	
40 - 20	16	BCF, IR	735 908 648	0.029	2.4	1.9	58	22	24	
40 - 25	16	BCF, IR	735 908 647	0.030	2.4	1.9	55	22	24	
40 - 32	16	BCF, IR	735 908 646	0.034	2.4	2.4	55	22	24	
50 - 25	16	BCF, IR	735 908 654	0.046	3.0	1.9	60	22	25	
50 - 32	16	BCF, IR	735 908 653	0.050	3.0	2.4	60	22	25	
50 - 40	16	BCF, IR	735 908 652	0.040	3.0	2.4	60	22	25	
63 - 32	16	BCF, IR	735 908 660	0.066	3.0	2.4	65	22	25	
63 - 40	16	BCF, IR	735 908 659	0.078	3.0	2.4	65	22	25	
75 - 50	16	BCF, IR	735 908 658	0.077	3.0	3.0	65	22	25	
75 - 40	16	BCF, IR	735 908 666	0.096	3.6	2.4	68	24	25	
75 - 50	16	BCF, IR	735 908 665	0.100	3.6	3.0	65	24	25	
75 - 63	16	BCF, IR	735 908 664	0.080	3.6	3.0	65	24	25	
90 - 63	16	BCF, IR	735 908 671	0.150	4.3	3.0	75	25	30	
90 - 75	16	BCF, IR	735 908 670	0.164	4.3	3.6	75	25	35	
110 - 63	16	BCF, IR	735 908 678	0.257	5.3	3.0	90	30	30	
110 - 75	16	BCF, IR	735 908 677	0.213	5.3	3.6	90	30	35	
110 - 90	16	BCF, IR	735 908 676	0.282	5.3	4.3	90	30	35	
140 - 110	16	IR	735 908 685	0.450	6.7	5.3	110	40	40	
160 - 110	16	IR	735 908 690	0.650	7.7	5.3	160	40	40	
160 - 140	16	IR	735 908 688	0.450	7.7	5.3	120	40	40	
200 - 160	16	IR	735 908 692	1.340	9.6	7.7	120	40	35	

table continued next page



PF 2 35 190 011

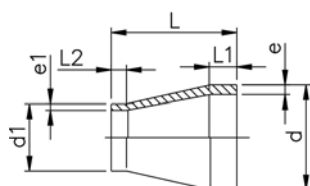
d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	
225 - 110	16	IR	735 908 695	1.540	10.8	5.3	160	50	40	
225 - 160	16	IR	735 908 696	1.730	10.8	7.7	160	50	40	
225 - 200	16	IR	735 908 697	1.980	10.8	9.6	160	55	50	

35 90 85

SYGEF Standard reducer PN10

Model:

- Material: PVDF



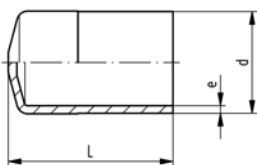
d - d1 [mm]	PN [bar]	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	
90 - 63	10 / 16	BCF, IR	735 908 551	0.124	2.8	3.0	75	25	30	
110 - 63	10 / 16	BCF, IR	735 908 553	0.196	3.4	3.0	90	30	30	
110 - 90	10 / 10	BCF, IR	735 908 555	0.197	3.4	2.8	90	30	35	
125 - 110	10 / 16	IR	735 908 580	0.270	3.9	5.3	100	35	40	
140 - 110	10 / 16	IR	735 908 585	0.385	4.3	5.3	110	40	40	
140 - 125	10 / 10	IR	735 908 584	0.340	4.3	3.9	110	40	40	
160 - 110	10 / 10	IR	735 908 561	0.516	4.9	3.4	120	40	40	
160 - 110	10 / 16	IR	735 908 590	0.573	4.9	5.3	120	40	40	
160 - 140	10 / 10	IR	735 908 588	0.568	4.9	4.3	120	40	40	
200 - 160	10 / 10	IR	735 908 592	0.830	6.2	4.9	145	50	40	
225 - 110	10 / 10	IR	735 908 566	1.120	6.9	3.4	160	55	35	
225 - 110	10 / 16	IR	735 908 595	0.940	6.9	5.3	160	55	35	
225 - 160	10 / 10	IR	735 908 596	1.140	6.9	4.9	160	55	40	
225 - 200	10 / 10	IR	735 908 597	1.200	6.9	6.2	160	55	50	

PF 2 35 190 005

SYGEF Standard cap PN16

Model:

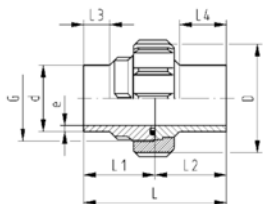
- Material: PVDF



d [mm]	PN	FM	Code	SP	kg	e [mm]	L [mm]	
20	16	BCF, IR	735 968 006	1	0.009	1.9	47	
25	16	BCF, IR	735 968 007	1	0.012	1.9	47	
32	16	BCF, IR	735 968 008	1	0.022	2.4	52	

PF 2 35 190 017

35 52 86



Model:

- Material: PVDF
- d75, d90 and d110 with buttress shaped thread

Note:

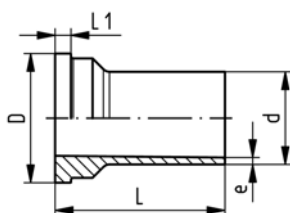
For the dimensions d75-110 please see instructions for the installation

d [mm]	PN	FM	Code	kg	
20	16	BCF, IR	735 528 606	0.074	
25	16	BCF, IR	735 528 607	0.110	
32	16	BCF, IR	735 528 608	0.153	
40	16	BCF, IR	735 528 609	0.235	
50	16	BCF, IR	735 528 610	0.293	
63	16	BCF, IR	735 528 611	0.465	
75	16	BCF, IR	735 528 612	0.740	
90	16	BCF, IR	735 528 613	0.730	
110	16	BCF, IR	735 528 614	1.020	

d [mm]	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	G [inch]	
20	43	1.9	106	53	53	25	37	1	
25	53	1.9	112	56	56	25	38	1 1/4	
32	60	2.4	118	59	59	25	40	1 1/2	
40	74	2.4	124	62	62	25	41	2	
50	82	3.0	130	65	65	25	43	2 1/4	
63	100	3.0	136	68	68	25	44	2 3/4	
75	133	3.6	132	66	66	24	34	S107.5x3.6	
90	133	4.3	130	65	65	24	48	S107.5x3.6	
110	155	5.3	130	65	65	25	45	S127.5x3.6	

PF 2 35 421 040

35 60 86



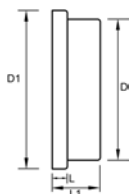
SYGEF Standard union end PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion
- Suitable for Diaphragm Valves Type 314 and 514
- Suitable for Vortex Sensor

d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 608 606	0.020	30	1.9	53	5	
25	16	BCF, IR	735 608 607	0.030	39	1.9	56	5	
32	16	BCF, IR	735 608 608	0.044	45	2.4	59	6	
40	16	BCF, IR	735 608 609	0.069	57	2.4	62	6	
50	16	BCF, IR	735 608 610	0.082	63	3.0	65	7	
63	16	BCF, IR	735 608 611	0.127	78	3.0	68	8	
75	16	BCF, IR	735 608 612	0.194	101	3.6	66	9	
90	16	BCF, IR	735 608 613	0.187	101	4.3	65	9	
110	16	BCF, IR	735 608 614	0.263	121	5.3	65	10	

PF 2 35 421 999

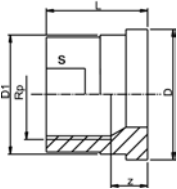


Blanking Union End

d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	
20	10	155 482 101	-	0.007	28	30	5	13	
25	10	155 482 102	-	0.015	36	38	6	15	
32	10	155 482 103	-	0.025	36	38	6	16	
40	10	155 482 104	-	0.043	42	45	6	17	
50	10	155 482 105	-	0.060	59	63	7	20	
63	10	155 482 106	-	0.110	74	78	8	22	

PF 2 65 434 001

24 60 06



PF 2 30 153 999

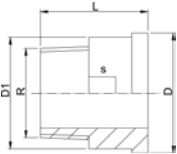
Union end stainless steel Rp

Model:

- Material: Stainless Steel 1.4404 (316L)
- Parallel female thread Rp

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	s [mm]	
3/8	16	724 600 655	10	0.030	9	24	22	19	19	
1/2	16	724 600 656	10	0.060	11	30	28	24	24	
3/4	16	724 600 657	10	0.092	11	39	36	26	29	
1	16	724 600 658	10	0.137	12	45	42	29	36	
1 1/4	16	724 600 659	10	0.226	14	57	53	33	45	
1 1/2	16	724 600 660	10	0.314	15	63	59	34	54	
2	16	724 600 661	10	0.450	15	78	74	39	63	

24 60 07



PF 2 30 153 999

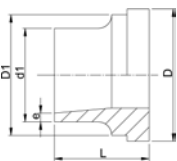
Union end stainless steel R

Model:

- Material: Stainless Steel 1.4404 (316L)
- Taper male thread R

R [inch]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	s [mm]	
3/8	16	724 600 705	10	0.052	24	22	30	19	
1/2	16	724 600 706	10	0.083	30	28	34	24	
3/4	16	724 600 707	10	0.125	39	36	36	32	
1	16	724 600 708	10	0.189	45	42	40	37	
1 1/4	16	724 600 709	10	0.356	57	53	46	48	
1 1/2	16	724 600 710	10	0.407	63	59	48	54	
2	16	724 600 711	10	0.668	78	74	55	69	

24 60 55



PF 2 30 153 999

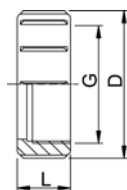
Union end stainless steel Welding end

Model:

- Material: Stainless Steel 1.4404 (316L)

d [mm]	d1 [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	e [mm]	
16	17	16	724 605 505	10	0.029	24	22	18	1.6	
20	21	16	724 605 506	10	0.046	30	28	22	2.0	
25	26	16	724 605 507	10	0.080	39	36	23	2.0	
32	33	16	724 605 508	10	0.112	45	42	26	2.0	
40	42	16	724 605 509	10	0.188	57	53	26	2.0	
50	48	16	724 605 510	10	0.222	63	59	28	2.0	
63	60	16	724 605 511	10	0.361	78	74	32	2.6	

35 69 04



PF 2 35 191 999

SYGEF Standard union nut PN16

Model:

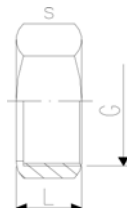
- Material: PVDF
- d75, d90 and d110 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d [mm]	Butt Fusion d [mm]	PN	Code	kg	D [mm]	G [inch]	L [mm]	
16	16	16	735 690 405	0.011	35	3/4	21	
20	20	16	735 690 406	0.021	43	1	22	
25	25	16	735 690 407	0.032	53	1 1/4	24	
32	32	16	735 690 408	0.044	60	1 1/2	26	
40	40	16	735 690 409	0.065	74	2	29	
50	50	16	735 690 410	0.093	82	2 1/4	33	
63	63	16	735 690 411	0.143	100	2 3/4	35	
	75 - 90	16	735 690 422	0.289	133	S 107,5x3,6	40	
	110	16	735 690 423	0.403	155	S 127,5x3,6	42	

24 69 01



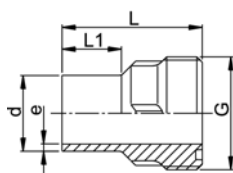
PF 2 30 153 999

Union nut stainless steel 1.4404 (316L)

* Octagon union nut

d [mm]	PN	Code	SP	kg	L [mm]	G [inch]	s [mm]	closest inch	
16	16	724 690 105	10	0.060	19	3/4	32	3/8	
20	16	724 690 106	10	0.105	21	1	41	1/2	
25	16	724 690 107	10	0.091	23	1 1/4	46	3/4	
32	16	724 690 108	10	0.170	24	1 1/2	55	1	
* 40	16	724 690 109	10	0.218	27	2	68	1 1/4	
* 50	16	724 690 110	10	0.316	31	2 1/4	74	1 1/2	
* 63	16	724 690 111	10	0.364	35	2 3/4	88	2	

35 64 86



PF 2 35 421 999

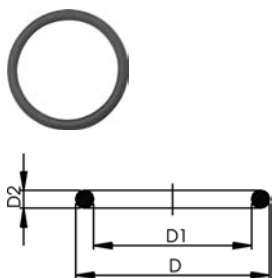
SYGEF Standard union bush PN16

Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Butt Fusion
- d75, d90 and d110 with buttress shaped thread

d [mm]	PN	FM	Code	kg	G [inch]	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 648 606	0.025	1	1.9	53	25	
25	16	BCF, IR	735 648 607	0.038	1 1/4	1.9	56	25	
32	16	BCF, IR	735 648 608	0.055	1 1/2	2.4	59	25	
40	16	BCF, IR	735 648 609	0.081	2	2.4	62	25	
50	16	BCF, IR	735 648 610	0.111	2 1/4	3.0	65	25	
63	16	BCF, IR	735 648 611	0.167	2 3/4	3.0	68	25	
75	16	BCF, IR	735 648 612	0.260	S 107.5 x 3.6	3.6	66	24	
90	16	BCF, IR	735 648 613	0.277	S 107.5 x 3.6	4.3	65	24	
110	16	BCF, IR	735 648 614	0.343	S 127.5 x 3.6	5.3	65	25	

EPDM 48 41 00
FPM 49 41 00



PF 2 31 800 999

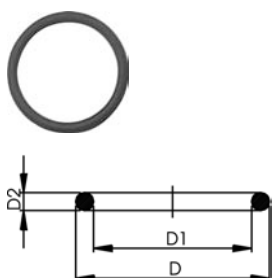
O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch	
20	15	748 410 006	749 410 006	-	0.001	27	20	3.53	½	
25	20	748 410 007	749 410 007	100	0.002	35	28	3.53	¾	
32	25	748 410 008	749 410 008	100	0.002	40	33	3.53	1	
40	32	748 410 009	749 410 009	-	0.007	51	41	5.34	1 ¼	
50	40	748 410 010	749 410 010	-	0.001	58	47	5.34	1 ½	
63	50	748 410 011	749 410 011	100	0.010	70	60	5.34	2	



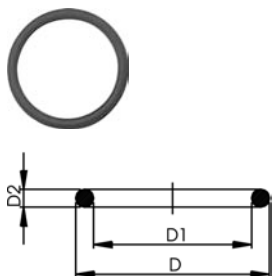
PF 2 30 162 008

O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 75° Shore
- FFPM minimum temperature -20°C

d [mm]	DN [mm]	FFPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	
20	15	700 245 481	1	0.002	27	20	4	
25	20	700 245 482	1	0.002	35	28	4	
32	25	700 245 483	1	0.002	40	33	4	
40	32	700 245 484	1	0.006	51	41	5	
50	40	700 245 485	1	0.007	58	47	5	
63	50	700 245 486	1	0.010	70	60	5	



O-ring black d75 - d110

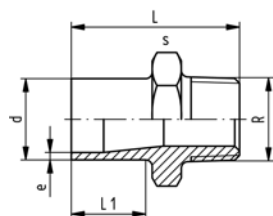
Model:

- Hardness approx. 65° Shore
- FPM minimum temperature -15°C
- d75 749 410 013
- d90 749 410 014
- d110 749 410 015

Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	
749 410 013	100	0.011	80	69	5.34	
749 410 014	100	0.012	93	82	5.34	
749 410 015	100	0.015	112	101	5.34	

Transition fittings for butt fusion

35 91 05



PF 2 35 421 021

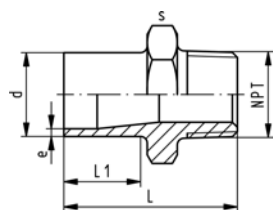
SYGEF Standard adaptor nipple male thread R PN16

Model:

- Material: PVDF
- With butt fusion spigot and BSP tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	R [inch]	PN	FM	Code	kg	e [mm]	L [mm]	s [mm]	L1 [mm]
20	3/8	16	BCF, IR	735 910 555	0.023	1.9	50	32	26
20	1/2	16	BCF, IR	735 910 556	0.032	1.9	53	32	26
25	3/4	16	BCF, IR	735 910 557	0.032	1.9	55	36	26
32	1	16	BCF, IR	735 910 558	0.051	2.4	57	46	26
40	1 1/4	16	BCF, IR	735 910 559	0.075	2.4	60	55	26
50	1 1/2	16	BCF, IR	735 910 560	0.123	3.0	63	65	26
63	2	16	BCF, IR	735 910 561	0.175	3.0	69	75	27

35 91 45



PF 2 35 421 022

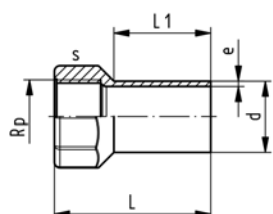
SYGEF Standard adaptor nipple male thread NPT PN16

Model:

- Material: PVDF
- With butt fusion spigot and tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	NPT [inch]	PN	FM	Code	kg	e [mm]	L [mm]	s [mm]	L1 [mm]
20	3/8	16	BCF, IR	735 914 555	0.023	1.9	50	32	26
20	1/2	16	BCF, IR	735 914 556	0.030	1.9	53	32	26
25	3/4	16	BCF, IR	735 914 557	0.032	1.9	55	36	26
32	1	16	BCF, IR	735 914 558	0.052	2.4	57	46	26
40	1 1/4	16	BCF, IR	735 914 559	0.075	2.4	60	55	26
50	1 1/2	16	BCF, IR	735 914 560	0.123	3.0	63	65	26
63	2	16	BCF, IR	735 914 561	0.176	3.0	69	75	27

35 91 07



PF 2 35 421 011

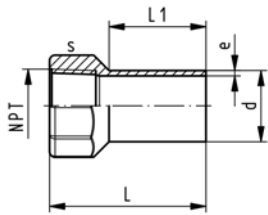
SYGEF Standard adaptor socket female thread Rp PN10

Model:

- Material: PVDF
- Welding dimension: PN16
- With butt fusion spigot and parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	Rp [inch]	PN	FM	Code	e [mm]	L [mm]	s [mm]	L1 [mm]
20	3/8	10	BCF, IR	735 910 285	1.9	58	30	37
20	1/2	10	BCF, IR	735 910 286	1.9	58	30	37
25	3/4	10	BCF, IR	735 910 287	1.9	63	36	40
32	1	10	BCF, IR	735 910 288	2.4	71	46	44
40	1 1/4	10	BCF, IR	735 910 289	2.4	79	55	49
50	1 1/2	10	BCF, IR	735 910 290	3.0	84	60	55
63	2	10	BCF, IR	735 910 291	3.0	97	75	63

35 91 07



PF 2 35 421 012

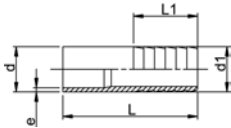
SYGEF Standard adaptor socket female thread NPT PN10

Model:

- Material: PVDF
- Welding dimension: PN16
- With butt fusion spigot and taper female thread NPT
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	NPT [inch]	PN	FM	Code	e [mm]	L [mm]	s [mm]	L1 [mm]
20	3/8	10	BCF, IR	735 914 285	1.9	58	30	37
20	1/2	10	BCF, IR	735 914 286	1.9	58	30	37
25	3/4	10	BCF, IR	735 914 287	1.9	63	36	40
32	1	10	BCF, IR	735 914 288	2.4	71	46	44
40	1 1/4	10	BCF, IR	735 914 289	2.4	79	55	49
50	1 1/2	10	BCF, IR	735 914 290	3.0	84	60	55
63	2	10	BCF, IR	735 914 291	3.0	97	75	63

35 96 86



PF 2 35 421 050

SYGEF Standard hose adapter PN16

Model:

- Material: PVDF
- With butt fusion spigot **SDR11** and parallel hose connection

d - d1 [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]
20 - 20	16	BCF, IR	735 968 606	0.015	1.9	64	27
25 - 25	16	BCF, IR	735 968 607	0.024	1.9	75	36
32 - 32	16	BCF, IR	735 968 608	0.042	2.4	82	36
40 - 40	16	BCF, IR	735 968 609	0.063	2.4	84	42
50 - 50	16	BCF, IR	735 968 610	0.084	3.0	90	48
63 - 60	16	BCF, IR	735 968 611	0.118	3.0	100	50

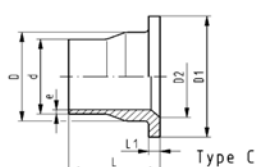
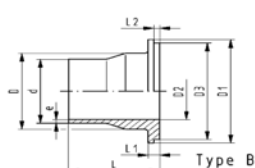
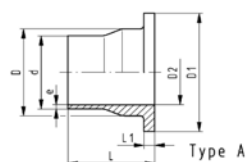
Flange Adaptors, Flanges and Gaskets for butt fusion

35 79 88

SYGEF Standard flange adaptor Jointing face serrated PN16

Model:

- Material: PVDF



d [mm]	DN [mm]	PN	FM	Code	kg	
20	15	16	BCF, IR	735 798 806	0.029	
25	20	16	BCF, IR	735 798 807	0.047	
32	25	16	BCF, IR	735 798 808	0.080	
40	32	16	BCF, IR	735 798 809	0.110	
50	40	16	BCF, IR	735 798 810	0.146	
63	50	16	BCF, IR	735 798 811	0.215	
75	65	16	BCF, IR	735 798 812	0.318	
90	80	16	BCF, IR	735 798 813	0.406	
110	100	16	BCF, IR	735 798 814	0.573	
140	125	16	IR	735 798 816	0.906	
160	150	16	IR	735 798 817	1.200	
200	200	16	IR	735 798 819	1.900	
225	200	16	IR	735 798 820	2.000	

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	Type	
20	26	45	15		1.9	54	6		A	
25	32	58	20	54	1.9	56	7	4	B	
32	40	68	26	63	2.4	58	7	4	B	
40	49	78	34	73	2.4	68	8	4	B	
50	60	88	43	82	3.0	69	8	4	B	
63	75	102	56		3.0	72	9		A	
75	89	122	66		3.6	80	10		A	
90	105	138	78	133	4.3	81	12	4	B	
110	125	158	100		5.3	81	13		C	
140	155	188	127		6.7	90	16		C	
160	175	212	151		7.7	93	17		C	
200	232	268	207		9.6	102	22		C	
225	235	268	207		10.8	102	22		C	

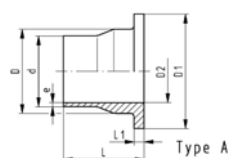
PF 2 35 190 010

35 79 88

SYGEF Standard flange adaptor ANSI Jointing face serrated PN16

Model:

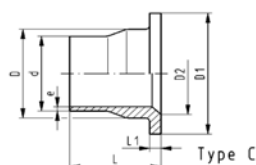
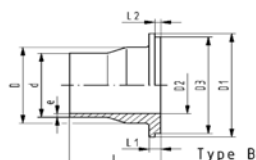
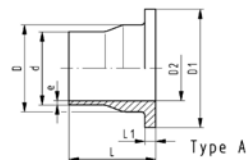
- Material: PVDF
- Other dimensions identical with metric version



d [mm]	d [inch]	PN	FM	Code	kg	D [mm]	D1 [mm]	D2 [mm]	e [mm]	L [mm]	L1 [mm]	Type	
25	3/4	16	BCF, IR	735 798 857	0.043	32	54	20	1.9	56	7	A	
32	1	16	BCF, IR	735 798 858	0.063	40	63	26	2.4	58	7	A	
40	1 1/4	16	BCF, IR	735 798 859	0.105	49	73	34	2.4	68	8	A	
50	1 1/2	16	BCF, IR	735 798 860	0.140	60	82	43	3.0	69	8	A	
90	3	16	BCF, IR	735 798 861	0.389	105	133	78	4.3	81	12	A	

PF 2 35 190 010

35 79 88



PF 2 35 190 010

SYGEF Standard flange adaptor Joining face serrated PN10

Model:

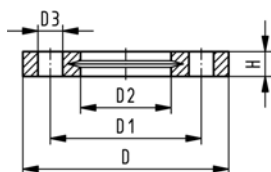
- Material: PVDF

d [mm]	DN [mm]	PN	FM	Code	kg	
90	80	10	BCF, IR	735 798 863	0.380	
110	100	10	BCF, IR	735 798 864	0.493	
125	100	10	IR	735 798 865	0.453	
140	125	10	IR	735 798 866	0.733	
160	150	10	IR	735 798 867	0.972	
200	200	10	IR	735 798 869	1.682	
225	200	10	IR	735 798 870	1.687	

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	Type	
90	105	138	78	133	2.8	81	12	4	B	
110	125	158	100		3.4	81	13		A	
125	132	158	114		3.9	82	14		A	
140	155	188	127		4.3	90	16		A	
160	175	212	151		4.9	93	17		C	
200	232	268	207		6.2	102	22		C	
225	235	268	207		6.9	102	22		A	

27 70 04

27 70 05



PF 2 34 238 031

Backing Flanges, PP-V For butt fusion systems metric

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Bolt circle PN 10**

AL: number of holes

* Combined version, metric-ANSI

d [mm]	Inch	DN [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	56	0.093	95	65.0	28	14	16	4	M12
25		20	16	727 700 407	38	0.120	105	75.0	34	14	17	4	M12
32		25	16	727 700 408	80	0.151	115	85.0	42	14	18	4	M12
40		32	16	727 700 409	40	0.244	140	100.0	51	18	20	4	M16
50		40	16	727 700 410	30	0.297	150	110.0	62	18	22	4	M16
63		50	16	727 700 411	25	0.362	165	125.0	78	18	24	4	M16
75		65	16	727 700 412	19	0.487	185	145.0	92	18	26	4	M16
90		80	16	727 700 513	15	0.544	200	160.0	108	18	27	8	M16
110		100	16	727 700 514	13	0.643	220	180.0	128	18	28	8	M16
125		100	16	727 700 515	13	0.635	220	180.0	135	18	28	8	M16
140		125	16	727 700 516	10	0.842	250	210.0	158	18	30	8	M16
160	6	150	16	727 700 517	-	1.200	285	241.0	178	22	32	8	M20
180		150	16	727 700 518	-	1.200	285	240.0	188	22	32	8	M20
* 200	8	200	16	727 700 519	-	1.400	340	296.5	235	22	34	8	M20
* 225	9	200	16	727 700 520	-	1.400	340	296.5	238	22	34	8	M20
250		250	16	727 700 521	-	2.052	395	350.0	288	22	38	12	M20
280		250	16	727 700 522	-	1.700	395	350.0	294	22	38	12	M20
315		300	16	727 700 523	-	2.400	445	400.0	338	22	42	12	M20

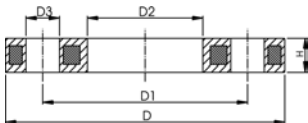
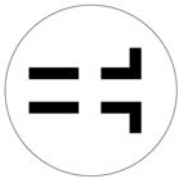
27 70 02
27 70 03

Backing flange PP-Steel For butt fusion systems metric

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	d [inch]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 206	0.216	95	65	28	14	12	4	M12
25		20	16	727 700 207	0.279	105	75	34	14	12	4	M12
32		25	16	727 700 208	0.429	115	85	42	14	16	4	M12
40		32	16	727 700 209	0.621	140	100	51	18	16	4	M16
50		40	16	727 700 210	0.722	150	110	62	18	20	4	M16
63		50	16	727 700 211	1.084	165	125	78	18	20	4	M16
75		65	16	727 700 212	1.349	185	145	92	18	20	4	M16
90		80	16	727 700 313	1.390	200	160	108	18	20	8	M16
110		100	16	727 700 314	1.407	220	180	128	18	20	8	M16
125		100	16	727 700 315	1.408	220	180	135	18	20	8	M16
140		125	16	727 700 316	2.318	250	210	158	18	24	8	M16
160		150	16	727 700 317	3.491	285	240	178	22	24	8	M20
180		150	16	727 700 318	3.108	285	240	188	22	24	8	M20
200		200	16	727 700 319	5.600	340	295	235	22	27	8	M20
225		200	16	727 700 320	5.533	340	295	238	22	27	8	M20
250		250	16	727 700 321	6.632	395	350	288	22	30	12	M20
280		250	16	727 700 322	6.573	395	350	294	22	30	12	M20
315		300	16	727 700 323	7.903	445	400	338	22	34	12	M20
355		350	16	727 700 324	14.587	515	460	376	22	40	16	M20
400		400	16	727 700 325	20.034	574	515	430	26	40	16	M24

PF 2 34 238 022

27 70 14
27 70 15

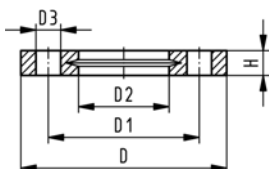
Backing Flanges, PP-V For butt fusion systems Inch ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

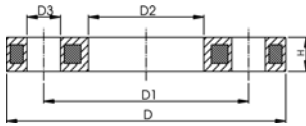
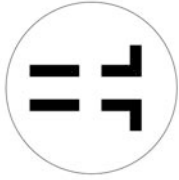
AL: number of holes



Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.091	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.120	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.147	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.246	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.299	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.361	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.492	185	140	92	19	26	4	M16
3	80	16	727 701 513	0.607	200	152	108	19	27	4	M16
4	100	16	727 701 514	0.736	229	190	128	19	28	8	M16
6	150	16	727 700 517	1.200	285		178	22	32	8	M20
* 8	200	16	727 700 519	1.400	340		235	22	34	8	M20
* 9	200	16	727 700 520	1.400	340		238	22	34	8	M20
10	250	16	727 701 521	2.241	406	362	288	26	38	12	M20
10	250	16	727 701 522	2.173	406	362	294	26	38	12	M20
12	300	16	727 701 523	3.627	483	432	338	26	42	12	M20

PF 2 34 238 033

27 70 12



PF 2 34 238 023

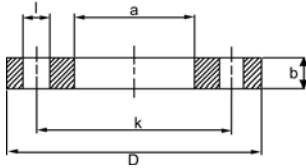
Backing flange PP-Steel For butt fusion systems Inch ANSI

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

AL: number of holes

d [inch]	DN [mm]	d [mm]	PN	Code	SP	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
1/2	15	20	16	727 701 206	72	0.213	60	28	16	95	12	4
3/4	20	25	16	727 701 207	45	0.260	70	34	16	105	12	4
1	25	32	16	727 701 208	34	0.416	79	42	16	115	16	4
1 1/4	32	40	16	727 701 209	20	0.730	89	51	16	140	16	4
1 1/2	40	50	16	727 701 210	17	0.809	98	62	16	150	18	4
2	50	63	16	727 701 211	15	0.866	121	78	19	165	18	4
2 1/2	65	75	16	727 701 212	11	1.117	140	92	19	185	18	4
3	80	90	16	727 701 313	9	1.499	152	108	19	200	20	4
4	100	110	16	727 701 314	13	1.739	190	128	19	229	20	8
8	200	200	16	727 701 319	-	5.440	298	235	22	340	27	8
8	200	225	16	727 701 320	-	5.621	298	238	22	340	27	8



PF 2 34 238 007

Backing Flange PVDF-Steel ANSI Flange Ring blue coated steel

Material: PVDF blue coated steel

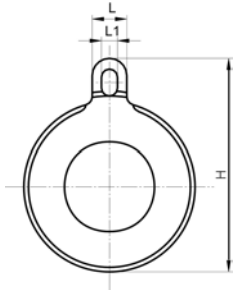
Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

d [mm]	Inch	Code	Weight [lb]	D [inch]	a [inch]	k [inch]	b [inch]	l [inch]	Bolt Holes
20	1/2	155 701 806	0.50	3.50	1.10	2.36	0.28	0.63	4
25	3/4	155 701 807	0.75	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	0.75	4.25	1.65	3.11	0.28	0.63	4
40	1 1/4	155 701 809	1.13	4.61	2.01	3.50	0.32	0.63	4
50	1 1/2	155 701 810	1.31	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	2.13	5.98	3.07	4.76	0.39	0.75	4
75	2 1/2	155 701 812	2.94	7.01	3.62	5.51	0.39	0.75	4
90	3	155 701 813	3.19	7.48	4.33	5.98	0.39	0.75	4
110	4	155 703 814	4.56	9.02	5.24	7.48	0.39	0.75	8
160	6	155 701 917	7.34	10.98	7.05	9.48	0.50	0.88	8
200	8	155 701 919	13.12	13.50	9.30	11.73	0.63	0.88	8
225	9	155 701 920	12.64	13.50	9.42	11.73	0.63	0.88	8
250	10	155 701 921	16.76	16.00	11.35	14.25	0.88	0.88	12
315	12	155 701 923	23.00	19.00	13.31	17.00	1.00	1.00	12

SYGEF Plus Gasket

Model:

- For Use with Steel Flange Rings
- * Non-Returnable/Non-Cancelable



PF 2 37 344 001

d [mm]	Pipe Size [inch]	Code	SP	kg	H [inch]	L [inch]	L1 [inch]
25	3/4	731 400 753	1	0.035	2.99	0.79	0.51
32	1	731 400 755	1	0.040	3.58	0.98	0.63
40	1 1/4	731 400 757	1	0.030	3.98	0.98	0.63
50	1 1/2	731 400 759	1	0.055	4.33	0.98	0.63
63	2	731 400 760	1	0.080	5.04	0.98	0.63
75	2 1/2	731 400 761	1	0.100	5.83	0.98	0.63
90	3	731 400 763	1	0.110	6.34	0.98	0.63
110	4	731 400 764	1	0.165	7.44	0.98	0.63
160	6	731 400 667	1	0.200	9.61	1.18	0.79
200/225	8/9	731 400 670	1	0.305	11.81	1.18	0.79
250	10	731 400 671	-	0.000	14.17	1.38	0.87
315	12	731 400 672	-	0.000	16.50	1.38	0.87

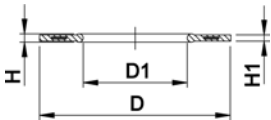
EPDM 48 44 07
FPM 49 44 07

Profile flange gasket metric

Model:

- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

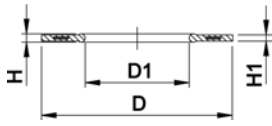
di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	16	748 440 705	749 440 705	0.012
20	15	16	748 440 706	749 440 706	0.013
25	20	16	748 440 707	749 440 707	0.014
32	25	16	748 440 708	749 440 708	0.019
40	32	16	748 440 709	749 440 709	0.026
50	40	16	748 440 710	749 440 710	0.039
63	50	16	748 440 711	749 440 711	0.050
75	65	16	748 440 712	749 440 712	0.082
90	80	16	748 440 713	749 440 713	0.083
110	100	16	748 440 714	749 440 714	0.127
125	100	16	748 440 715	749 440 715	0.105
140	125	16	748 440 716	749 440 716	0.173
160 / 180	150	16	748 440 717	749 440 717	0.207
200	200	16	748 440 719	749 440 719	0.263
225	200	16	748 440 720	749 440 720	0.255
250	250	16	748 440 721	749 440 721	0.482
280	250	16	748 440 722	749 440 722	0.323
315	300	16	748 440 723	749 440 723	0.549

d [mm]	DN [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]	Closest inch
16	10	46	16	4	3	6 - 16	
20	15	51	20	4	3	10 - 20	
25	20	61	22	4	3	12 - 22	
32	25	71	28	4	3	18 - 28	
40	32	82	40	4	3	30 - 40	
50	40	92	46	4	3	36 - 46	
63	50	107	58	5	4	48 - 58	
75	65	127	69	5	4	59 - 69	
90	80	142	84	5	4	73 - 84	
110	100	162	104	6	5	94 - 104	

table continued next page



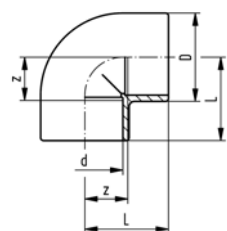
PF 2 30 162 037

d [mm]	DN [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]	Closest inch	
125	100	162	123	6	5	113 - 123		
140	125	192	137	6	5	127 - 137		
160 / 180	150	218	160	8	6	150 - 160	6	
200	200	273	203	8	6	192 - 203		
225	200	273	220	8	6	207 - 220	8 - 9	
250	250	328	252	8	6	238 - 252		
280	250	328	274	8	6	264 - 274		
315	300	378	306	8	6	296 - 306		

Fittings for socket fusion

SYGEF Standard elbow 90° PN16

35 10 01



Model:

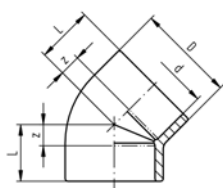
- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	L [mm]	z [mm]	
16	16	735 100 105	0.029	26	25	12	
20	16	735 100 106	0.026	27	28	14	
25	16	735 100 107	0.039	32	32	16	
32	16	735 100 108	0.066	40	38	20	
40	16	735 100 109	0.105	49	44	24	
50	16	735 100 110	0.164	60	51	28	
63	16	735 100 111	0.287	75	62	35	

PF 2 35 189 001

SYGEF Standard elbow 45° PN16

35 15 01



Model:

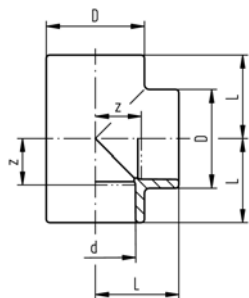
- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	L [mm]	z [mm]	
16	16	735 150 105	0.017	23	20	7	
20	16	735 150 106	0.020	27	21	7	
25	16	735 150 107	0.032	32	24	8	
32	16	735 150 108	0.050	40	28	10	
40	16	735 150 109	0.081	49	33	13	
50	16	735 150 110	0.119	60	36	13	
63	16	735 150 111	0.211	75	43	16	

PF 2 35 189 002

SYGEF Standard T 90° equal PN16

35 20 01



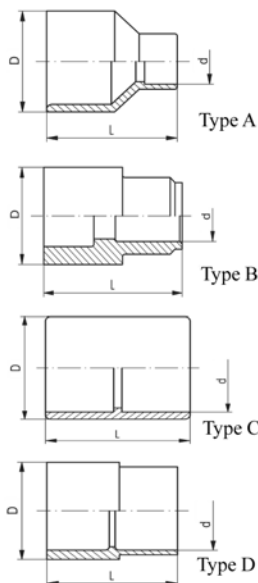
Model:

- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	L [mm]	z [mm]	
16	16	735 200 105	0.039	26	25	12	
20	16	735 200 106	0.034	27	28	14	
25	16	735 200 107	0.052	32	32	16	
32	16	735 200 108	0.090	40	38	20	
40	16	735 200 109	0.136	49	44	24	
50	16	735 200 110	0.210	60	51	28	
63	16	735 200 111	0.373	75	62	35	

PF 2 35 189 003

35 91 03



SYGEF Standard reducing bush PN16

Model:

- Material: PVDF

Attention:

- to determine the z-measure please consider the overview of functionality

PN	D-d [mm]	Code	kg	L [mm]	Type
16	20 - 16	735 910 334	0.017	35	B
16	25 - 20	735 910 337	0.016	37	A
16	32 - 20	735 910 342	0.023	43	A
16	32 - 25	735 910 107	0.023	39	C
16	40 - 20	735 910 348	0.034	48	A
16	40 - 25	735 910 347	0.035	48	A
16	40 - 32	735 910 108	0.038	43	C
16	50 - 20	735 910 355	0.059	54	A
16	50 - 25	735 910 354	0.059	54	A
16	50 - 32	735 910 353	0.061	54	A
16	50 - 40	735 910 109	0.062	48	C
16	63 - 20	735 910 362	0.102	64	A
16	63 - 25	735 910 361	0.105	64	A
16	63 - 32	735 910 360	0.108	64	A
16	63 - 40	735 910 359	0.118	64	A
16	63 - 50	735 910 110	0.102	54	D

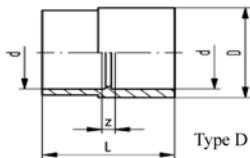
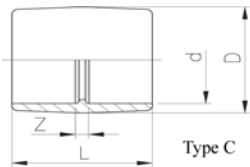
overview about functionality

main function							additional functions											
reduction spigot - socket							reduction socket - socket				reduction spigot - spigot				reduction socket - spigot			
Code	PN	L	spigot D	- socket d	L	Z	socket D	- socket d	L	Z	spigot D	- spigot d	L	Z	socket D	- spigot d	L	Z
735 910 334	16	35	20	- 16	35	22												
735 910 337	16	37	25	- 20	37	23												
735 910 342	16	43	32	- 20	43	29	25	- 20	43	13								
735 910 107	16	39	32	- 25	39	23												
735 910 348	16	48	40	- 20	48	34	32	- 20	48	16								
735 910 347	16	48	40	- 25	48	32	32	- 25	48	14	40	- 32	48	48				
735 910 108	16	43	40	- 32	43	25												
735 910 355	16	54	50	- 20	54	40	40	- 20	54	20								
735 910 354	16	54	50	- 25	54	38	40	- 25	54	18	50	- 32	54	54	40	- 32	54	34
735 910 353	16	54	50	- 32	54	36	40	- 32	54	16	50	- 40	54	54				
735 910 109	16	48	50	- 40	48	28												
735 910 362	16	64	63	- 20	64	50	50	- 20	64	27								
735 910 361	16	64	63	- 25	64	48	50	- 25	64	25	63	- 32	64	64	50	- 32	64	41
735 910 360	16	64	63	- 32	64	46	50	- 32	64	23	63	- 40	64	64	50	- 40	64	41
735 910 359	16	64	63	- 40	64	44	50	- 40	64	21	63	- 50	64	64				
735 910 110	16	54	63	- 50	54	31												

PF 2 35 189 005

please note: illustration of the functions not inevitably conform to respective type!

35 91 01



PF 2 35 189 004

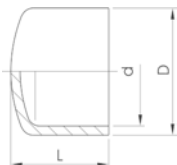
SYGEF Standard socket equal PN16

Model:

- Material: PVDF
- d25 - d50: combination type reducing bush / socket equal

d [mm]	PN	D-d [mm]	Code	kg	D [mm]	L [mm]	z [mm]	Type
16	16	-	735 910 105	0.020	26	33	7	C
20	16	-	735 910 106	0.013	27	35	7	C
25	16	32 - 25	735 910 107	0.023	32	39	7	C
32	16	40 - 32	735 910 108	0.038	40	43	7	C
40	16	50 - 40	735 910 109	0.062	50	48	8	C
50	16	63 - 50	735 910 110	0.102	63	54	8	D
63	16	-	735 910 111	0.147	75	62	8	D

35 96 01



PF 2 35 189 006

SYGEF Standard cap PN16

Model:

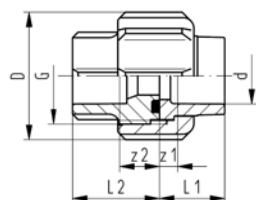
- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	L [mm]
16	16	735 960 105	0.013	25	24
20	16	735 960 106	0.010	27	23
25	16	735 960 107	0.017	32	26
32	16	735 960 108	0.029	40	30
40	16	735 960 109	0.045	49	34
50	16	735 960 110	0.073	60	39
63	16	735 960 111	0.126	75	46

Unions for socket fusion

SYGEF Standard union (FPM black) PN16

35 51 01



PF 2 35 191 002

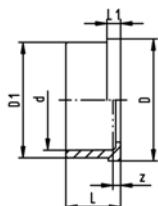
Model:

- Material: PVDF
- With fusion socket metric
- Jointing face: With O-ring groove
- **Supplied with:** O-Ring No. 49 41 00 FPM (e.g. Viton A®)
- Please see installation instruction

d [mm]	PN	Code	kg	D [mm]	G [inch]	L1 [mm]	L2 [mm]	z1 [mm]	z [mm]
16	16	735 510 105	0.025	35	3/4	18	24	5	11
20	16	735 510 106	0.057	43	1	19	26	5	12
25	16	735 510 107	0.090	53	1 1/4	21	28	5	12
32	16	735 510 108	0.118	60	1 1/2	23	30	5	12
40	16	735 510 109	0.195	74	2	25	34	5	14
50	16	735 510 110	0.244	82	2 1/4	28	39	5	16
63	16	735 510 111	0.403	100	2 3/4	32	47	5	20

35 60 01

SYGEF Standard union end PN16



PF 2 35 191 999

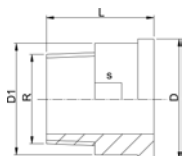
Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion
- Suitable for Diaphragm Valves Type 314 and 514
- Suitable for Vortex Sensor

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	735 600 105	0.006	24	22	18	4	5
20	16	735 600 106	0.006	30	28	19	5	5
25	16	735 600 107	0.022	39	36	21	5	5
32	16	735 600 108	0.022	45	42	23	6	5
40	16	735 600 109	0.055	57	53	25	6	5
50	16	735 600 110	0.054	63	59	28	7	5
63	16	735 600 111	0.079	78	74	32	7	5

24 60 07

Union end stainless steel R



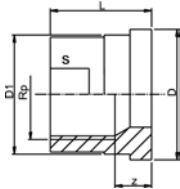
PF 2 30 153 999

Model:

- Material: Stainless Steel 1.4404 (316L)
- Taper male thread R

R [inch]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	s [mm]
3/8	16	724 600 705	10	0.052	24	22	30	19
1/2	16	724 600 706	10	0.083	30	28	34	24
3/4	16	724 600 707	10	0.125	39	36	36	32
1	16	724 600 708	10	0.189	45	42	40	37
1 1/4	16	724 600 709	10	0.356	57	53	46	48
1 1/2	16	724 600 710	10	0.407	63	59	48	54
2	16	724 600 711	10	0.668	78	74	55	69

24 60 06



PF 2 30 153 999

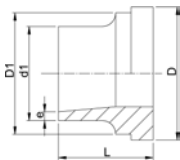
Union end stainless steel Rp

Model:

- Material: Stainless Steel 1.4404 (316L)
- Parallel female thread Rp

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	s [mm]	
3/8	16	724 600 655	10	0.030	9	24	22	19	19	
1/2	16	724 600 656	10	0.060	11	30	28	24	24	
3/4	16	724 600 657	10	0.092	11	39	36	26	29	
1	16	724 600 658	10	0.137	12	45	42	29	36	
1 1/4	16	724 600 659	10	0.226	14	57	53	33	45	
1 1/2	16	724 600 660	10	0.314	15	63	59	34	54	
2	16	724 600 661	10	0.450	15	78	74	39	63	

24 60 55



PF 2 30 153 999

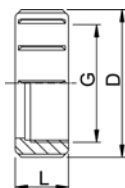
Union end stainless steel Welding end

Model:

- Material: Stainless Steel 1.4404 (316L)

d [mm]	d1 [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	e [mm]	
16	17	16	724 605 505	10	0.029	24	22	18	1.6	
20	21	16	724 605 506	10	0.046	30	28	22	2.0	
25	26	16	724 605 507	10	0.080	39	36	23	2.0	
32	33	16	724 605 508	10	0.112	45	42	26	2.0	
40	42	16	724 605 509	10	0.188	57	53	26	2.0	
50	48	16	724 605 510	10	0.222	63	59	28	2.0	
63	60	16	724 605 511	10	0.361	78	74	32	2.6	

35 69 04



PF 2 35 191 999

SYGEF Standard union nut PN16

Model:

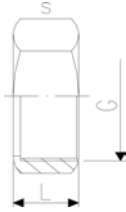
- Material: PVDF
- d75, d90 and d110 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fu- sion d [mm]	Butt Fusion d [mm]	PN	Code	kg	D [mm]	G [inch]	L [mm]	
16	16	16	735 690 405	0.011	35	3/4	21	
20	20	16	735 690 406	0.021	43	1	22	
25	25	16	735 690 407	0.032	53	1 1/4	24	
32	32	16	735 690 408	0.044	60	1 1/2	26	
40	40	16	735 690 409	0.065	74	2	29	
50	50	16	735 690 410	0.093	82	2 1/4	33	
63	63	16	735 690 411	0.143	100	2 3/4	35	

24 69 01



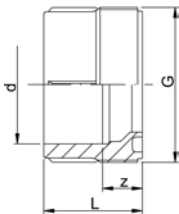
PF 2 30 153 999

Union nut stainless steel 1.4404 (316L)

* Octagon union nut

d [mm]	PN	Code	SP	kg	L [mm]	G [inch]	s [mm]	closest inch	
16	16	724 690 105	10	0.060	19	¾	32	¾	
20	16	724 690 106	10	0.105	21	1	41	½	
25	16	724 690 107	10	0.091	23	1 ¼	46	¾	
32	16	724 690 108	10	0.170	24	1 ½	55	1	
* 40	16	724 690 109	10	0.218	27	2	68	1 ¼	
* 50	16	724 690 110	10	0.316	31	2 ¼	74	1 ½	
* 63	16	724 690 111	10	0.364	35	2 ¾	88	2	

35 64 01



PF 2 35 191 999

SYGEF Standard union bush PN16

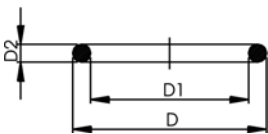
Model:

- Material: PVDF
- Suitable for SYGEF Standard Union Socket Fusion

d [mm]	PN	Code	kg	G [inch]	L [mm]	z [mm]	
16	16	735 640 105	0.011	3/4	24	11	
20	16	735 640 106	0.019	1	26	12	
25	16	735 640 107	0.031	1 1/4	28	12	
32	16	735 640 108	0.042	1 1/2	30	12	
40	16	735 640 109	0.068	2	34	14	
50	16	735 640 110	0.090	2 1/4	39	16	
63	16	735 640 111	0.161	2 3/4	47	20	

EPDM 48 41 00

FPM 49 41 00



PF 2 31 800 999

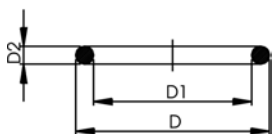
O-Ring gasket

Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch	
16	10	748 410 005	749 410 005	-	0.001	21	16	2.62	¾	
20	15	748 410 006	749 410 006	-	0.001	27	20	3.53	½	
25	20	748 410 007	749 410 007	100	0.002	35	28	3.53	¾	
32	25	748 410 008	749 410 008	100	0.002	40	33	3.53	1	
40	32	748 410 009	749 410 009	-	0.007	51	41	5.34	1 ¼	
50	40	748 410 010	749 410 010	-	0.001	58	47	5.34	1 ½	
63	50	748 410 011	749 410 011	100	0.010	70	60	5.34	2	



O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 75° Shore
- FFPM minimum temperature -20°C

d [mm]	DN [mm]	FFPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	
20	15	700 245 481	1	0.002	27	20	4	
25	20	700 245 482	1	0.002	35	28	4	
32	25	700 245 483	1	0.002	40	33	4	
40	32	700 245 484	1	0.006	51	41	5	
50	40	700 245 485	1	0.007	58	47	5	
63	50	700 245 486	1	0.010	70	60	5	

PF 2 30 162 008

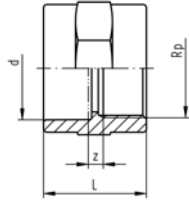
Transition fittings for socket fusion

SYGEF Standard adaptor socket female thread Rp PN16

Model:

- Material: PVDF
- With socket fusion end and parallel female thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

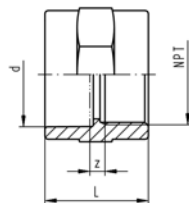
35 91 02



PF 2 35 191 001

d [mm]	Rp [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]	
20	¾	16	735 910 206	0.031	34	32	5	
25	¾	16	735 910 207	0.036	38	36	6	
32	1	16	735 910 208	0.067	43	46	7	
40	1 ¼	16	735 910 209	0.100	47	55	7	
50	1 ½	16	735 910 210	0.135	54	65	9	
63	2	16	735 910 211	0.217	62	80	9	

35 91 42



PF 2 35 191 006

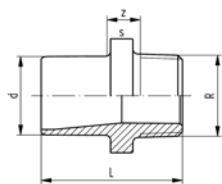
SYGEF Standard adaptor socket female thread metric NPT PN16

Model:

- Material: PVDF
- With socket fusion end and taper female thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	NPT [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]	
16	¾	16	735 914 205	0.016	29	27	3	
20	½	16	735 914 206	0.030	34	32	5	
25	¾	16	735 914 207	0.036	38	36	6	
32	1	16	735 914 208	0.067	43	46	7	
40	1 ¼	16	735 914 209	0.100	47	55	7	
50	1 ½	16	735 914 210	0.140	54	65	9	
63	2	16	735 914 211	0.220	62	80	9	

35 91 05



PF 2 35 191 008

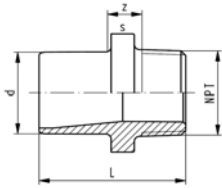
SYGEF Standard adaptor nipple male thread metric R PN16

Model:

- Material: PVDF
- With socket fusion spigot metric and BSP tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	R [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]	
16	¾	16	735 910 505	0.015	37	27	12	
20	½	16	735 910 506	0.025	53	32	25	
25	¾	16	735 910 507	0.033	55	36	24	
32	1	16	735 910 508	0.056	57	46	22	
40	1 ¼	16	735 910 509	0.082	60	55	21	
50	1 ½	16	735 910 510	0.113	63	65	19	
63	2	16	735 910 511	0.166	69	75	18	

35 91 45



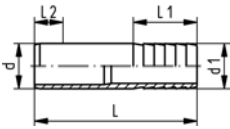
PF 2 35 191 007

SYGEF Standard adaptor nipple male thread NPT PN 16

Model:

- Material: PVDF
- With socket fusion spigot and taper male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature

d [mm]	NPT [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]	
16	3/8	16	735 914 505	0.014	37	27	12	
20	1/2	16	735 914 506	0.024	53	32	25	
25	3/4	16	735 914 507	0.032	55	36	24	
32	1	16	735 914 508	0.052	57	46	22	
40	1 1/4	16	735 914 509	0.075	60	55	21	
50	1 1/2	16	735 914 510	0.120	63	65	19	
63	2	16	735 914 511	0.163	69	75	18	



PF 2 35 191 009

SYGEF Standard hose adapter PN16

Model:

- Material: PVDF
- With socket fusion spigot metric and parallel hose connection

d - d1 [mm]	PN	Code	kg	L [mm]	L1 [mm]	L2 [mm]	
16 - 16	16	735 960 405	0.001	50	27	13	
20 - 20	16	735 960 406	0.018	78	27	14	
25 - 25	16	735 960 407	0.028	91	36	16	
32 - 32	16	735 960 408	0.050	100	36	18	
40 - 40	16	735 960 409	0.078	104	42	20	
50 - 50	16	735 960 410	0.089	90	48	23	
63 - 60	16	735 960 411	0.126	100	50	27	

Flange Adaptors, Flanges and Gaskets for socket fusion

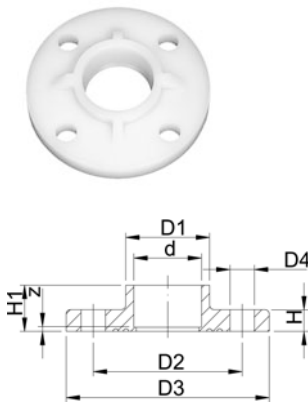
Fixed Flanges, socket fusion

Combined jointing face: flat and serrated

Model:

- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

AL: number of holes



PF 2 35 446 001

d [mm]	DN [mm]	Inch	PN	Code	SP	kg	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL	z [mm]
20	15	1/2	16	735 740 106	-	0.121	27	65	93	14	12	19	4	5
25	20	3/4	16	735 740 107	-	0.162	33	75	103	14	13	21	4	4
32	25	1	16	735 740 108	-	0.229	40	85	115	14	14	23	4	4
40	32	1 1/4	16	735 740 109	-	0.340	50	100	137	18	15	25	4	4
50	40	1 1/2	16	735 740 110	-	0.409	61	110	147	18	16	27	4	4
63	50	2	16	735 740 111	-	0.551	76	125	162	18	18	31	4	4

SYGEF Standard flange adaptor Metric jointing face serrated PN16

Model:

- Material: PVDF
- Suitable for Flange Adaptor with groove
- Gasket: Profile Flange Gaskets **FPM** or **EPDM**



PF 2 35 191 003

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	15	16	735 790 206	0.019	27	45	19	6	3
25	20	16	735 790 207	0.037	33	58	21	7	3
32	25	16	735 790 208	0.047	41	68	23	7	3
40	32	16	735 790 209	0.073	50	78	25	8	3
50	40	16	735 790 210	0.096	61	88	28	8	3
63	50	16	735 790 211	0.142	76	102	32	9	3

SYGEF Standard flange adaptor ANSI Jointing face serrated PN16

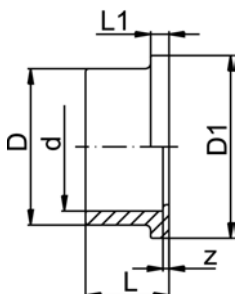
Model:

- Material: PVDF
- Suitable for Flange Adaptor with groove
- Face dimension ANSI
- Gasket: Flat Gasket **FPM** or **EPDM**
- Gasket: Profile Flange Gaskets **FPM** or **EPDM**
- Dimensions d20 and d63 are identical to metric version



PF 2 35 191 003

d [mm]	d [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
25	3/4	16	735 790 257	0.037	33	54	21	7	3
32	1	16	735 790 258	0.051	41	63	23	7	3
40	1 1/4	16	735 790 259	0.073	50	73	25	8	3
50	1 1/2	16	735 790 260	0.095	61	82	28	8	3



PF 2 35 191 004

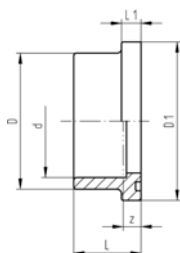
SYGEF Standard flange adaptor JIS Jointing face flat PN16

Model:

- Material: PVDF

d [mm]	Code	kg	D [mm]	D1 [mm]	L [mm]	z [mm]	
20	735 800 106	0.013	27	34	19	3	
25	735 800 107	0.020	33	41	21	3	
32	735 800 108	0.030	41	50	23	3	
40	735 800 109	0.047	50	60	25	3	
50	735 800 110	0.070	61	72	28	3	
63	735 800 111	0.115	75	89	32	3	

35 81 01



PF 2 35 191 005

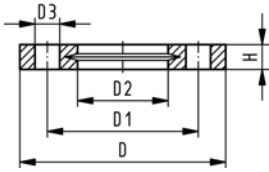
SYGEF Standard flange adaptor with groove PN16

Model:

- Material: PVDF
- Jointing face: With O-ring groove
- Counterpart: Flange Adaptor metric or ANSI
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
20	15	16	735 810 106	0.015	27	34	22	9	8	
25	20	16	735 810 107	0.022	33	41	24	10	8	
32	25	16	735 810 108	0.035	41	50	26	10	8	
40	32	16	735 810 109	0.055	50	61	30	13	10	
50	40	16	735 810 110	0.080	61	73	33	13	10	
63	50	16	735 810 111	0.134	76	90	37	14	10	

27 70 04
27 70 05



PF 2 34 238 030

Backing Flanges, PP-V For socket systems metric

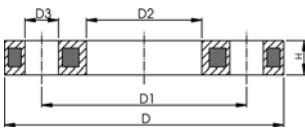
Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	Inch	DN [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	56	0.093	95	65.0	28	14	16	4	M12
25		20	16	727 700 407	38	0.120	105	75.0	34	14	17	4	M12
32		25	16	727 700 408	80	0.151	115	85.0	42	14	18	4	M12
40		32	16	727 700 409	40	0.244	140	100.0	51	18	20	4	M16
50		40	16	727 700 410	30	0.297	150	110.0	62	18	22	4	M16
63		50	16	727 700 411	25	0.362	165	125.0	78	18	24	4	M16

27 70 02



PF 2 34 238 020

Backing Flanges, PP/Steel For socket systems metric

Model:

- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

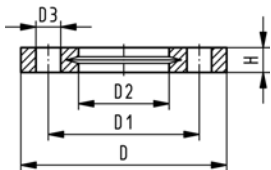
¹ Connecting dimension: ISO 2536, bolt circle acc. DN125, suitable for flange adaptor d125/DN100

² Connecting dimension: ISO 2536, bolt circle acc. DN225, suitable for flange adaptor d250/DN250

AL: number of holes

d [mm]	d [inch]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 206	0.216	95	65	28	14	12	4	M12
25		20	16	727 700 207	0.279	105	75	34	14	12	4	M12
32		25	16	727 700 208	0.429	115	85	42	14	16	4	M12
40		32	16	727 700 209	0.621	140	100	51	18	16	4	M16
50		40	16	727 700 210	0.722	150	110	62	18	20	4	M16
63		50	16	727 700 211	1.084	165	125	78	18	20	4	M16

27 70 14
27 70 15



PF 2 34 238 032

Backing Flanges, PP-V For socket systems Inch ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

• Bolt circle class 150

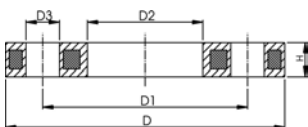
- DN100 and DN150: only for use with original metric flange adaptors

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
1 1/2	15	16	727 701 406	0.091	95	60	28	16	16	4	M12	
3/4	20	16	727 701 407	0.120	105	70	34	16	17	4	M12	
1	25	16	727 701 408	0.147	115	79	42	16	18	4	M12	
1 1/4	32	16	727 701 409	0.246	140	89	51	16	20	4	M16	
1 1/2	40	16	727 701 410	0.299	150	98	62	16	22	4	M16	
2	50	16	727 701 411	0.361	165	121	78	19	24	4	M16	

27 70 12



PF 2 34 238 021

Backing Flanges, PP/Steel For socket systems Inch/ANSI

Model:

- For Flange Adaptors BS/ANSI
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

• Bolt circle class 150

- DN100 and DN150: only for use with original metric flange adaptors

AL: number of holes

d [inch]	DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	SC
1/2	15	20	16	727 701 206	0.213	60	28	16	95	12	4	
3/4	20	25	16	727 701 207	0.260	70	34	16	105	12	4	
1	25	32	16	727 701 208	0.416	79	42	16	115	16	4	
1 1/4	32	40	16	727 701 209	0.730	89	51	16	140	16	4	
1 1/2	40	50	16	727 701 210	0.809	98	62	16	150	18	4	
2	50	63	16	727 701 211	0.866	121	78	19	165	18	4	

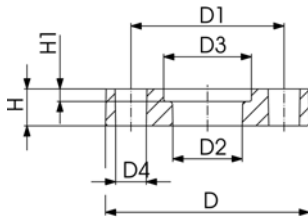


Backing flange PP-GF JIS

Model:

- PP-GF (30% glass-fibre reinforced)
- Connecting dimensions: JIS B 2220, 10K
- Only use with flange adaptor JIS 27 80 02

AL: number of holes



PF 2 34 238 006

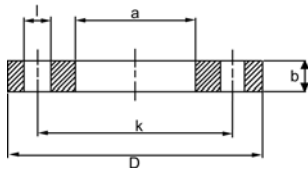
DN [mm]	Inch	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL	SC
15	1/2	727 705 006	-	0.083	95	70	28	36	15	16	5	4	M12
20	3/4	727 705 007	-	0.101	100	75	34	43	15	18	6	4	M12
25	1	727 705 008	-	0.168	125	90	42	52	19	20	6	4	M16
32	1 1/4	727 705 009	-	0.195	135	100	51	63	19	21	7	4	M16
40	1 1/2	727 705 010	-	0.196	140	105	62	76	19	21	7	4	M16
50	2	727 705 011	-	0.228	155	120	78	92	19	21	8	4	M16



Backing Flange PVDF-Steel ANSI Flange Ring blue coated steel

Material: PVDF blue coated steel

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern



PF 2 34 238 007

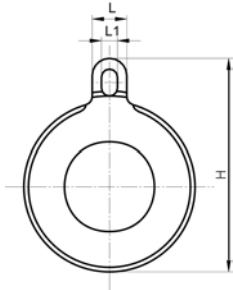
d [mm]	Inch	Code	Weight [lb]	D [inch]	a [inch]	k [inch]	b [inch]	l [inch]	Bolt Holes
20	1/2	155 701 806	0.50	3.50	1.10	2.36	0.28	0.63	4
25	3/4	155 701 807	0.75	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	0.75	4.25	1.65	3.11	0.28	0.63	4
40	1 1/4	155 701 809	1.13	4.61	2.01	3.50	0.32	0.63	4
50	1 1/2	155 701 810	1.31	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	2.13	5.98	3.07	4.76	0.39	0.75	4

SYGEF Plus Gasket

Model:

- For Use with Steel Flange Rings
- * Non-Returnable/Non-Cancelable

d [mm]	Pipe Size [inch]	Code	SP	kg	H [inch]	L [inch]	L1 [inch]	
25	3/4	731 400 753	1	0.035	2.99	0.79	0.51	
32	1	731 400 755	1	0.040	3.58	0.98	0.63	
40	1 1/4	731 400 757	1	0.030	3.98	0.98	0.63	
50	1 1/2	731 400 759	1	0.055	4.33	0.98	0.63	
63	2	731 400 760	1	0.080	5.04	0.98	0.63	



PF 2 37 344 001

EPDM 48 44 07
FPM 49 44 07

Profile flange gasket metric

Model:

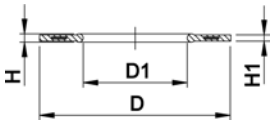
- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors

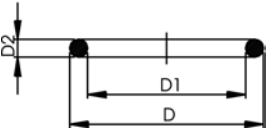
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	
16	10	16	748 440 705	749 440 705	0.012	
20	15	16	748 440 706	749 440 706	0.013	
25	20	16	748 440 707	749 440 707	0.014	
32	25	16	748 440 708	749 440 708	0.019	
40	32	16	748 440 709	749 440 709	0.026	
50	40	16	748 440 710	749 440 710	0.039	
63	50	16	748 440 711	749 440 711	0.050	

d [mm]	DN [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]	Closest inch	
16	10	46	16	4	3	6 - 16		
20	15	51	20	4	3	10 - 20		
25	20	61	22	4	3	12 - 22		
32	25	71	28	4	3	18 - 28		
40	32	82	40	4	3	30 - 40		
50	40	92	46	4	3	36 - 46		
63	50	107	58	5	4	48 - 58		

PF 2 30 162 037



EPDM 48 41 01
FPM 49 41 01



PF 2 31 800 999

O-Ring gasket

Model:

- For Flange Adaptors
- Hardness approx. 65° Shore

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch	
20	15	748 410 001	749 410 001	100	0.002	31	23	3.53	½	
25	20	748 410 007	749 410 007	100	0.002	35	28	3.53	¾	
32	25	748 410 002	749 410 002	100	0.003	43	36	3.53	1	
40	32	748 410 003	749 410 003	-	0.001	55	44	5.34	1 ¼	
50	40	748 410 012	749 410 012	100	0.008	64	53	5.34	1 ½	
63	50	748 410 013	749 410 013	100	0.011	80	69	5.34	2	

Installation fittings

SYGEF Standard installation fitting type 310 (FPM black) PN16 for socket fusion systems

Model:

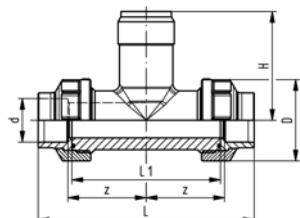
- Material: PVDF
- Threaded outlet 1 1/4" NPSM
- Union end with fusion socket PVDF

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- sensor length depends on installation fitting
- supplied with sealing



PF 2 98 930 006

d [mm]	PN	Code	SP	kg	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
20	16	735 310 036	-	0.250	45	50	128	90	76	flow X0, pH XX
25	16	735 310 037	1	0.355	55	55	142	100	78	flow X0, pH XX
32	16	735 310 038	-	0.427	62	60	156	110	81	flow X0, pH XX
40	16	735 310 039	1	0.540	75	60	160	110	85	flow X0, pH XX
50	16	735 310 040	-	0.850	84	65	176	120	89	flow X0, pH XX
63	16	735 310 041	1	1.182	101	70	194	130	95	flow X0, pH XX

SYGEF Standard installation fitting type 311 (FPM black)

Model:

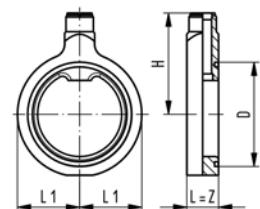
- Material: PVDF
- Threaded outlet 1 1/4" NPSM
- Suitable for backing flanges metric and inch
- Delivered with profile O-ring

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

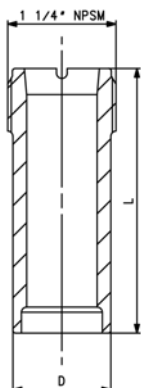
Attention:

- sensor length depends on installation fitting



PF 2 98 930 006

d [mm]	DN [mm]	d [inch]	PN [bar]	Code	kg	H [mm]	D [mm]	L [mm]	L1 [mm]	Sensor Type
75	65	2 1/2	10 / 16	735 311 042	0.845	135	88	48	61	flow X1
90	80	3	10 / 16	735 311 043	1.020	141	102	48	69	flow X1
110	100	4	10 / 16	735 311 044	1.192	152	132	48	79	flow X1
125	100		10 / 16	735 311 045	0.990	147	132	48	79	flow X1
140	125	5	10 / 16	735 311 046	1.473	153	157	48	94	flow X1
160	150	6	10 / 16	735 311 047	1.742	161	482	48	106	flow X1
200	200	8	10 / 16	735 311 049	2.643	175	236	48	134	flow X1
225	200	8	10 / 16	735 311 050	2.074	185	236	48	134	flow X1



PF 2 98 931 006

SYGEF Standard installation fitting type 314

Model:

- Material: PVDF
- for conventional hot gas back welding according to DVS 2207 part 3
- Threaded outlet 1 1/4" NPSM

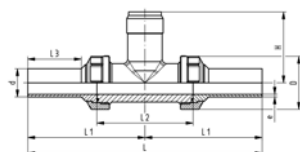
Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- only for pressureless or low pressure application
- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only

d [mm]	DN	PN* [bar]	Code	SP	kg	D [mm]	L [mm]	Sensor Type
75 - 180	65 - 150	-	735 314 000	1	0.069	37.5	68	flow X0, pH XX
200 - 355	200 - 350	-	735 314 001	1	0.100	37.5	102	flow X1
400 - 630	350 - 600	-	735 314 002	1	0.173	37.5	178	flow X2



PF 2 98 930 006

SYGEF Standard installation fitting type 318 (FPM black) PN16 for butt fusion systems

Model:

- Material: PVDF
- Threaded outlet 1 1/4" NPSM
- Union end with butt fusion spigot PVDF

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- sensor length depends on installation fitting
- supplied with sealing

d [mm]	DN [mm]	PN	FM	Code	SP	kg
20	15	16	BCF, IR	735 318 036	1	0.240
25	20	16	BCF, IR	735 318 037	1	0.318
32	25	16	BCF, IR	735 318 038	1	0.427
40	32	16	BCF, IR	735 318 039	1	0.700
50	40	16	BCF, IR	735 318 040	1	0.719
63	50	16	BCF, IR	735 318 041	1	1.088

d [mm]	e [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	Sensor Type
20	1.9	45	196	98	90	37	76	flow X0, pH XX
25	1.9	55	212	106	100	37	78	flow X0, pH XX
32	2.4	62	228	114	110	40	81	flow X0, pH XX
40	2.4	75	234	117	110	40	85	flow X0, pH XX
50	3.0	84	250	125	120	43	89	flow X0, pH XX
63	3.0	101	266	133	130	43	95	flow X0, pH XX

Copiable
Configurator GF Ball Valve Type 546 PVDF

Ball valve

A01 Ball valve 546

Material

B15 PVDF

Dimension

C05	d 16	DN 10	3/8"
C06	d 20	DN 15	1/2"
C07	d 25	DN 20	3/4"
C08	d 32	DN 25	1"
C09	d 40	DN 32	1 1/4"
C10	d 50	DN 40	1 1/2"
C11	d 63	DN 50	2"
C12	DN 65	2 1/2"	
C13	DN 80	3"	
C14	DN 100	4"	

Version

D01	Standard, PTFE ball seal
D02	oilfree, PTFE ball seal (only with specific connecting parts)
D03	silicon-free, PTFE ball seal (only with specific connecting parts)
D04	silicon-free, PVDF ball seal for metric (only with specific connecting parts)

Seals

E01 EPDM seals
E02 FPM seals
E03 FFPM/KALREZ® seals

Threaded inserts

F01 without threaded inserts
F02 with threaded inserts

Connecting parts

G50	PVDF Fusion socket metric
G51	PVDF Socket fusion spigot metric
G52	PVDF Butt fusion spigot IR Plus metric
G53	PVDF Threaded socket NPT
G64	PVDF Fixed flange PVDF serrated metric
G72	backing flange PP-St metric
G73	backing flange PP-St ANS
G76	backing flange PPGF JIS

Multi-functional module

I01	No multi-functional module
I02	Empty module
I03	Module with 2 limit switches Ag, Ni
I04	Module with 2 limit switches Au
I05	Module with 2 inductive switches Namur
I06	Module with 2 inductive switches PNP
I07	Module with 2 inductive switches NPN

Lever

K01	Standard handle red
K02	Standard handle black
K11	Multi-functional handle red

■ Mounting plate

L01 without mounting plate
L02 with mounting plate

A01

B15

C

D

E

F

G

G

1

K

L

left

right

48

Copiable

GF ball valve type 546 with pneumatic actuator

**It's so easy to configure
the type 546:**

With the configurator, you have a choice of new pneumatic actuators PA11 and PA21 in 2 optimized sizes including a large range of accessories.

We supply what you put together.



Pneumatic actuators PA11/PA21

- P01 Fail safe to close PA11/PA21
- P02 Fail safe to open PA11/21
- P03 Double acting PA11/21
- P30 Fail safe to close PA30/90
- P31 Fail safe to open PA30/90
- P32 Double acting PA30/90

Manual override

- Q01 without manual override
- Q02 with manual override

Stroke limiter

- R01 without stroke limiter
- R02 with stroke limiter

P	Q	R	
---	---	---	--

Ball valves

SYGEF Standard

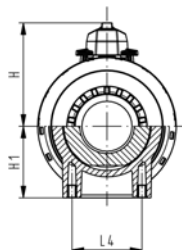
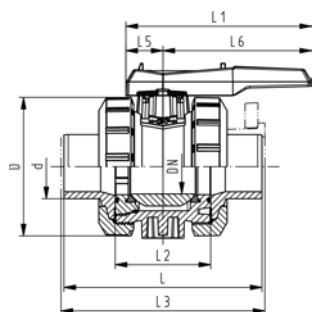
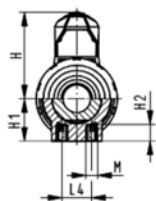
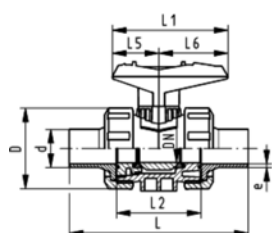
Ball valve type 546

With mounting inserts

With butt fusion spigots IR-Plus metric



DN10/15 - 50



PF 2 35 540 801

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

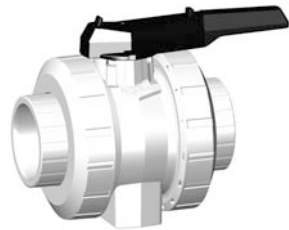
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	16	185	175 546 272	0.201
25	20	16	350	175 546 273	0.301
32	25	16	700	175 546 274	0.440
40	32	16	1000	175 546 275	0.780
50	40	16	1600	175 546 276	1.110
63	50	16	3100	175 546 277	1.958
75	65	16	5000	175 546 278	7.600
90	80	16	7000	175 546 279	7.457
110	100	16	11000	175 546 280	17.400

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4



DN10/15 - 50



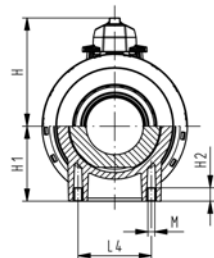
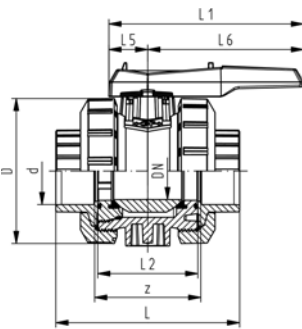
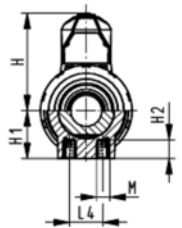
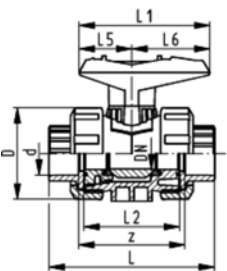
SYGEF Standard Ball valve type 546 With mounting inserts With fusion sockets metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



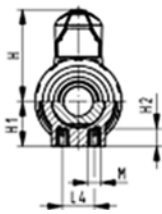
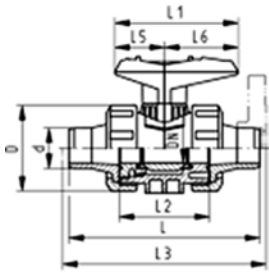
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	16	71	175 546 411	0.195
20	15	16	185	175 546 412	0.197
25	20	16	350	175 546 413	0.302
32	25	16	700	175 546 414	0.431
40	32	16	1000	175 546 415	0.760
50	40	16	1600	175 546 416	1.011
63	50	16	3100	175 546 417	1.856
75	65	16	5000	175 546 418	6.300
90	80	16	7000	175 546 419	9.500
110	100	16	11000	175 546 420	15.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4

PF 2 35 540 801



DN10/15 - 50



SYGEF Standard Ball valve type 546 With mounting inserts With socket fusion spigots metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

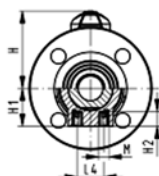
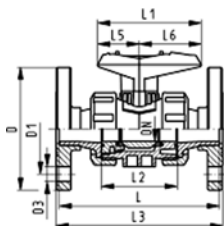
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	16	71	175 546 051	0.200
20	15	16	185	175 546 052	0.205
25	20	16	350	175 546 053	0.310
32	25	16	700	175 546 054	0.460
40	32	16	1000	175 546 055	0.780
50	40	16	1600	175 546 056	1.110
63	50	16	3100	175 546 057	2.150

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	closest inch
16	50	57	27	12	110	77	56		25	32	45	M6	$\frac{3}{8}$
20	50	57	27	12	120	77	56	130	25	32	45	M6	$\frac{1}{2}$
25	58	67	30	12	139	97	65	150	25	39	58	M6	$\frac{3}{4}$
32	68	73	36	12	150	97	71	160	25	39	58	M6	1
40	84	90	44	15	170	128	85	180	45	54	74	M8	$1 \frac{1}{4}$
50	97	97	51	15	190	128	89	200	45	54	74	M8	$1 \frac{1}{2}$
63	124	116	64	15	220	152	101	230	45	66	87	M8	2

PF 2 35 540 801



SYGEF Standard Ball valve type 546 With mounting inserts With fixed flanges PVDF serrated metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346
- Overall length EN 558

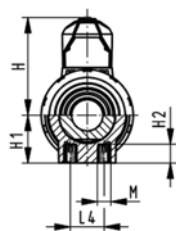
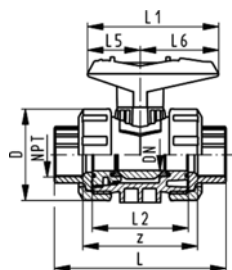
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	16	185	175 546 192	0.470
25	20	16	350	175 546 193	0.650
32	25	16	700	175 546 194	0.940
40	32	16	1000	175 546 195	1.489
50	40	16	1600	175 546 196	1.889
63	50	16	3100	175 546 197	3.097

d [mm]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	closest inch
20	93	65	14	57	27	12	120	77	56	130	25	32	45	M6	½
25	103	75	14	67	30	12	140	97	65	150	25	39	58	M6	¾
32	115	85	14	73	36	12	150	97	71	160	25	39	58	M6	1
40	137	100	18	90	44	15	170	128	85	180	45	54	74	M8	1 ¼
50	147	110	18	97	51	15	190	128	89	200	45	54	74	M8	1 ½
63	162	125	18	116	64	15	220	152	101	230	45	66	87	M8	2

PF 2 35 540 801



SYGEF Standard Ball valve type 546 With mounting inserts With threaded sockets NPT

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

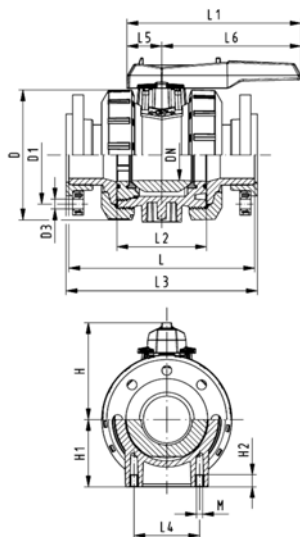
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/4	10	10	71	175 546 331	0.205
1/2	15	10	185	175 546 332	0.205
3/4	20	10	350	175 546 333	0.325
1	25	10	700	175 546 334	0.490
1 1/4	32	10	1000	175 546 335	0.820
1 1/2	40	10	1600	175 546 336	1.135
2	50	10	3100	175 546 337	2.150

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/4	50	57	27	12	96	77	56	25	32	45	M6	69
1/2	50	57	27	12	99	77	56	25	32	45	M6	64
3/4	58	67	30	12	111	97	65	25	39	58	M6	76
1	68	73	36	12	127	97	71	25	39	58	M6	83
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	101
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	111
2	124	116	64	15	183	152	101	45	66	87	M8	135

PF 2 35 540 803



SYGEF Standard Ball valve type 546 With mounting inserts With backing flanges PP-st metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

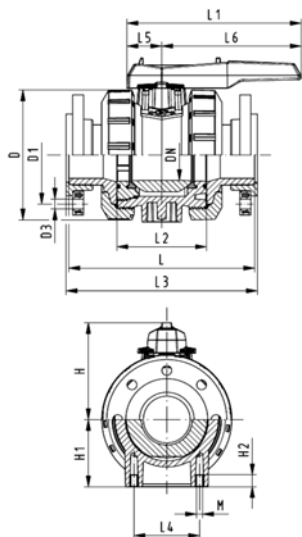
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
75	65	16	5000	175 546 808	11.700										
90	80	16	7000	175 546 809	16.000										
110	100	16	11000	175 546 810	23.900										

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M	closest inch	
75	166	145	18	280	270	136	290	70	64	206	149	85	8	2 ½	
90	200	160	18	296	270	141	310	70	64	206	161	105	8	3	
110	238	180	18	336	320	164	350	120	64	256	178	123	12	4	

PF 2 35 540 801



SYGEF Standard

Ball valve type 546

With mounting inserts

With backing flanges PP-st Inch ANSI

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
2 ½	65	10	5000	175 546 818	11.700										
3	80	10	7000	175 546 819	16.000										
4	100	10	11000	175 546 820	23.900										

Inch	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M	closest inch	
2 ½	166	145	18	280	270	136	290	70	64	206	149	85	8	2 ½	
3	200	160	18	296	270	141	310	70	64	206	161	105	8	3	
4	238	180	18	336	320	164	350	120	64	256	178	123	12	4	

PF 2 35 540 803



DN10/15 - 50



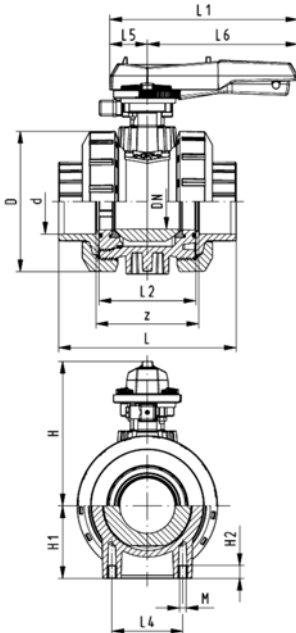
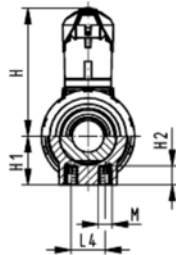
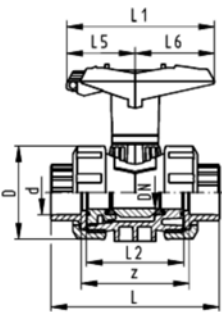
SYGEF Standard Ball valve type 546 With lockable handle With fusion sockets metric

Model:

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Lockable hand lever with ratchet settings
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	16	71	175 546 431	0.206
20	15	16	185	175 546 432	0.210
25	20	16	350	175 546 433	0.315
32	25	16	700	175 546 434	0.455
40	32	16	1000	175 546 435	0.785
50	40	16	1600	175 546 436	1.085
63	50	16	3100	175 546 437	1.903
75	65	16	5000	175 546 438	6.800
90	80	16	7000	175 546 439	10.000
110	100	16	11000	175 546 440	15.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	79	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	88	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	94	36	12	119	97	71	25	39	58	M6	83	1
40	84	113	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	119	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	141	64	15	168	152	101	45	66	87	M8	117	2
75	166	224	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	235	105	15	254	270	141	70	64	206	M8	180	3
110	238	245	123	22	301	320	164	120	64	256	M12	215	4

PF 2 35 540 801

SYGEF Standard

Ball valve type 546

With lockable handle

With butt fusion spigots IR-Plus metric

Model:

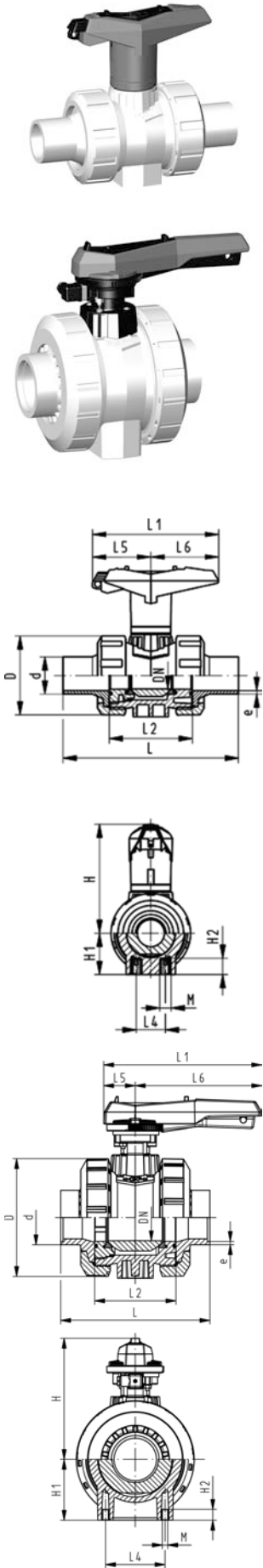
- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Lockable hand lever with ratchet settings

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	16	185	175 546 442	0.205
25	20	16	350	175 546 443	0.310
32	25	16	700	175 546 444	0.460
40	32	16	1000	175 546 445	0.780
50	40	16	1600	175 546 446	1.110
63	50	16	3100	175 546 447	2.150
75	65	16	5000	175 546 448	7.000
90	80	16	7000	175 546 449	10.200
110	100	16	11000	175 546 450	15.800

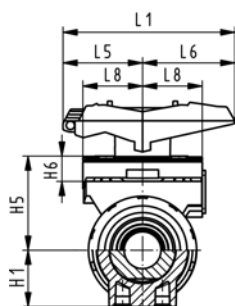
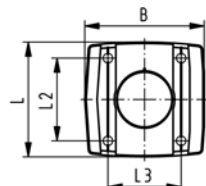
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
20	50	79	27	12	130	87	56	25	42	45	M6	1.9	1/2
25	58	88	30	12	143	108	65	25	50	58	M6	1.9	3/4
32	68	94	36	12	150	108	71	25	50	58	M6	2.4	1
40	84	113	44	15	171	140	85	45	66	75	M8	2.4	1 1/4
50	97	119	51	15	191	140	89	45	66	75	M8	3.0	1 1/2
63	124	141	64	15	220	165	101	45	78	87	M8	3.0	2
75	166	224	85	15	266	270	136	70	64	206	M8	3.6	2 1/2
90	200	235	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	245	123	22	301	320	164	120	64	256	M12	5.3	4



PF 2 35 540 801



DN10/15 - 50



PF 2 31 798 999

Multifunctional module (I02) PP-GF Module empty

Model:

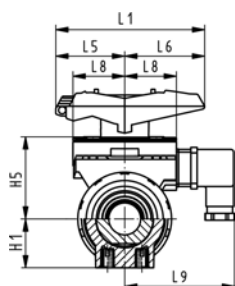
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module from d75 - d110 has a master gauge F07 according to EN ISO 5211.

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg
16 - 20	¾ - ½	10 - 15	167 482 680	0.069
25 - 32	¾ - 1	20 - 25	167 482 681	0.149
40 - 50	1 ¼ - 1 ½	32 - 40	167 482 682	0.168
- 63	2	- 50	167 482 683	0.209
75 - 90	2 ½ - 3	65 - 80	167 482 684	0.379
- 110	4	- 100	167 482 685	0.607

d-d [mm]	B [mm]	H1 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L5 [mm]	L6 [mm]	L8 [mm]
16 - 20	67	27	50	17	72	87	54	40	42	45	34
25 - 32	75	30	53	16	72	108	52	46	50	58	38
40 - 50	81	44	72	16	80	140	60	50	66	75	41
- 63	91	64	94	19	93	165	68	65	78	87	46
75 - 90	90	85	157	23	85	270			64	206	
- 110	106	123	175	23	97	320			64	256	



DN10/15 - 50



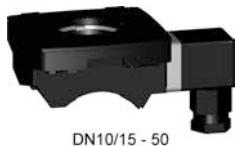
PF 2 31 798 999

Multifunctional module (I03) PP-GF With mechanical limit switches Ag Ni

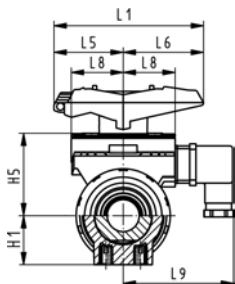
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	¾ - ½	10 - 15	167 482 626	0.104	27	50	87	42	45	34	73
25 - 32	¾ - 1	20 - 25	167 482 627	0.118	30	53	108	50	58	38	77
40 - 50	1 ¼ - 1 ½	32 - 40	167 482 628	0.140	44	72	140	66	75	41	80
- 63	2	- 50	167 482 629	0.257	64	94	165	78	87	46	85
75 - 90	2 ½ - 3	65 - 80	167 482 630	0.478	85	157	270	64	206		
- 110	4	- 100	167 482 631	0.480	123	175	320	64	256		



DN10/15 - 50



PF 2 31 798 999

Multifunctional module (I04) PP-GF With mechanical limit switches Au

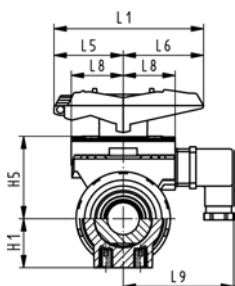
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 635	0.103	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 636	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 637	0.138	44	72	140	66	75	41	80
- 63	2	- 50	167 482 638	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 639	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 640	0.480	123	175	320	64	256		



DN10/15 - 50



PF 2 31 798 999

Multifunctional module (I05) PP-GF With inductive limit switches Namur

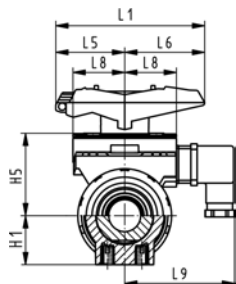
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 671	0.097	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 672	0.107	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 673	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 674	0.257	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 675	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 676	0.480	123	175	320	64	256		



DN10/15 - 50



PF 2 31 798 999

Multifunctional module (I06) PP-GF With inductive limit switches PNP

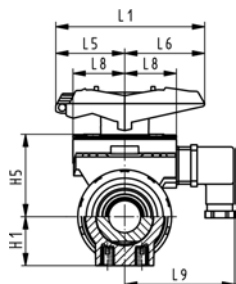
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 662	0.182	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 663	0.197	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 664	0.215	44	72	140	66	75	41	80
- 63	2	- 50	167 482 665	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 666	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 667	0.480	123	175	320	64	256		



DN10/15 - 50



PF 2 31 798 999

Multifunctional module (I07) PP-GF With inductive limit switches NPN

Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

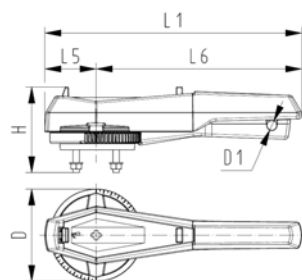
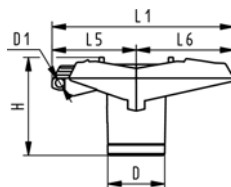
d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 653	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 654	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 655	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 656	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 657	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 658	0.480	123	175	320	64	256		



Multifunctional handle 546 red (K11) With ratchet settings lockable

Note:

To retrofit the ball valve 546 with the multifunctional handle a multifunction module is necessary in the dimensions DN65-100



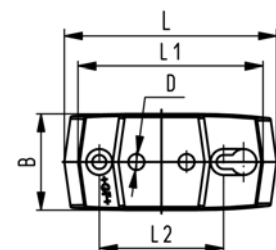
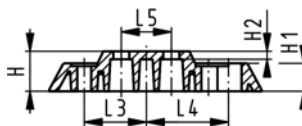
PF 2 31 798 999

d-d [mm]	DN-DN [mm]	Code	kg	D [mm]	D1 [mm]	H [mm]	L1 [mm]	L5 [mm]	L6 [mm]	
16 - 20	10 - 15	167 484 100	0.026	26	5	53	87	42	45	
- 25	- 20	167 484 101	0.045	34	5	59	108	50	58	
- 32	- 25	167 484 102	0.047	34	5	59	108	50	58	
- 40	- 32	167 484 103	0.091	40	5	69	140	66	75	
- 50	- 40	167 484 104	0.080	40	5	69	140	66	75	
- 63	- 50	167 484 105	0.124	44	5	80	165	78	87	
- 75	- 65	161 486 689	0.468	115	12	105	270	64	206	
- 90	- 80	161 486 690	0.467	115	12	105	270	64	206	
110 - 140	100 - 125	161 486 691	0.543	115	12	107	320	64	256	



Mounting plate 546 and 543 PP-GF (L02)

- 2 mounting screws inclusive



PF 2 31 798 999

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	
16 - 32	3/8 - 1	10 - 25	167 484 110	0.054	
40 - 63	1 1/4 - 2	32 - 50	167 484 111	0.066	

d-d [mm]	B [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	
16 - 32	48	8	20	14	4	106	92	62	31	41	25	
40 - 63	54	9	20	14	4	149	134	104	52	62	45	

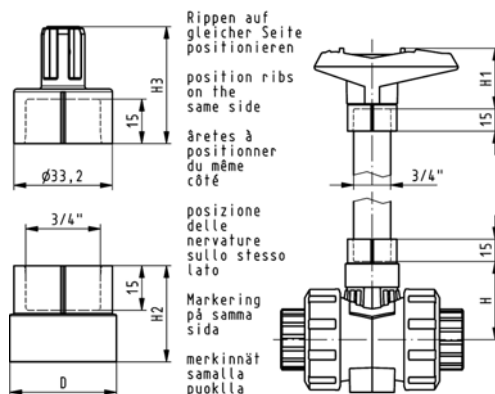


Handle extension 546 PVC-U inch BS/ASTM

Model:

- For Ball Valve Type 546

DN-DN [mm]	Inch	Code	kg	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]	
10 - 15	3/8-1/2	161 486 443	0.032	41	52	29	36	26	
20 - 25	3/4-1	161 486 444	0.030	50	62	32	39	36	
32 - 40	1 1/4-1 1/2	161 486 445	0.047	65	76	34	44	40	
50 -	2	161 486 446	0.058	84	87	37	48	44	



PF 2 31 798 999

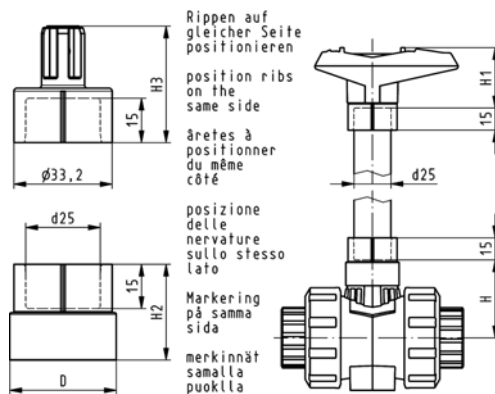


Handle extension 546 and 543 PVC-U metric

Model:

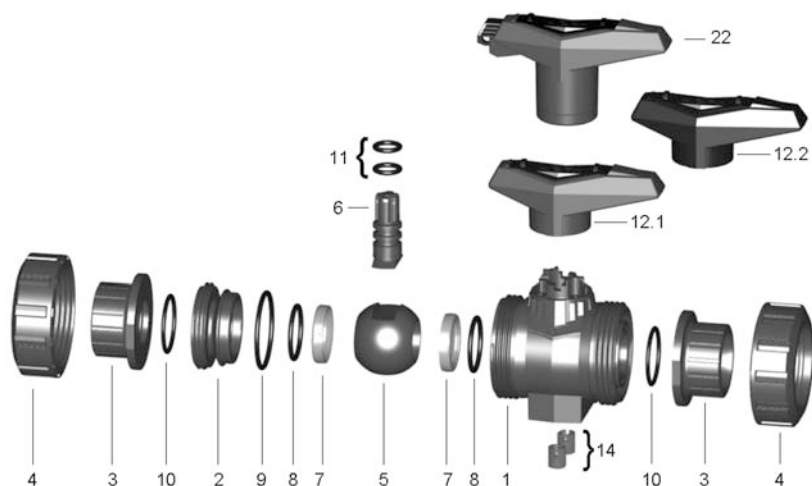
- For ball valve type 546 and 543
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site

d-d [mm]	DN-DN [mm]	Code	kg	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]	
16 - 20	10 - 15	161 486 435	0.030	41	52	29	36	26	
25 - 32	20 - 25	161 486 436	0.029	50	62	32	39	36	
40 - 50	32 - 40	161 486 437	0.045	65	76	34	44	40	
- 63	- 50	161 486 438	0.059	84	87	37	48	44	



PF 2 31 798 999

Spare parts ball valve type 546



Central part

Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 482 963	0.120	
20	1/2	15	175 482 963	0.120	
25	3/4	20	175 482 964	0.185	
32	1	25	175 482 965	0.260	
40	1 1/4	32	175 482 966	0.480	
50	1 1/2	40	175 482 967	0.610	
63	2	50	175 482 968	1.115	
75	2 1/2	65	175 482 969	4.793	
90	3	80	175 482 970	6.905	
110	4	100	175 482 971	10.915	

PF 2 35 540 998

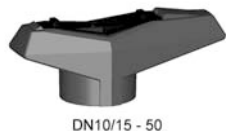
Ball set

Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 483 275	0.020	
20	1/2	15	175 483 275	0.020	
25	3/4	20	175 483 276	0.030	
32	1	25	175 483 277	0.055	
40	1 1/4	32	175 483 278	0.105	
50	1 1/2	40	175 483 279	0.160	
63	2	50	175 483 280	0.310	
75	2 1/2	65	175 483 281	0.675	
90	3	80	175 483 282	1.055	
110	4	100	175 483 283	1.747	

PF 2 35 540 998



DN10/15 - 50



DN10/15 - 50



PF 2 31 798 999

Lever

d [mm]	Inch	DN [mm]	Standard lever red Code	Standard lever black Code	Multifunctional lever Code	kg	
16	$\frac{3}{8}$	10	167 484 088	167 484 076	167 484 100	0.026	
20	$\frac{1}{2}$	15	167 484 088	167 484 076	167 484 100	0.026	
25	$\frac{3}{4}$	20	167 484 089	167 484 077	167 484 101	0.045	
32	1	25	167 484 090	167 484 078	167 484 102	0.047	
40	1 $\frac{1}{4}$	32	167 484 091	167 484 079	167 484 103	0.091	
50	1 $\frac{1}{2}$	40	167 484 092	167 484 080	167 484 104	0.080	
63	2	50	167 484 093	167 484 081	167 484 105	0.124	
75	2 $\frac{1}{2}$	65	167 484 094	167 484 082	161 486 689	0.468	
90	3	80	167 484 095	167 484 083	161 486 690	0.467	
110	4	100	167 484 096	167 484 084	161 486 691	0.543	



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	$\frac{3}{8}$	10	749 410 059	0.001	
20	$\frac{1}{2}$	15	749 410 059	0.001	
25	$\frac{3}{4}$	20	749 410 106	0.001	
32	1	25	749 410 151	0.002	
40	1 $\frac{1}{4}$	32	749 410 062	0.005	
50	1 $\frac{1}{2}$	40	749 410 003	0.001	
63	2	50	749 410 231	0.008	
75	2 $\frac{1}{2}$	65	749 410 119	0.010	
90	3	80	749 410 023	0.012	
110	4	100	749 410 254	0.030	

PF 2 31 800 999



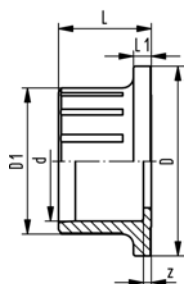
Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	$\frac{3}{8}$	10	161 486 410	0.006	
20	$\frac{1}{2}$	15	161 486 410	0.006	
25	$\frac{3}{4}$	20	161 486 411	0.015	
32	1	25	161 486 412	0.008	
40	1 $\frac{1}{4}$	32	161 486 413	0.010	
50	1 $\frac{1}{2}$	40	161 486 414	0.023	
63	2	50	161 486 415	0.031	
75	2 $\frac{1}{2}$	65	161 486 416	0.051	
90	3	80	161 486 417	0.034	
110	4	100	161 486 418	0.058	

PF 2 31 800 999



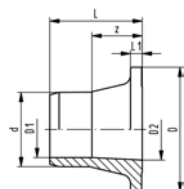
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G50) With fusion socket metric

Model:

- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
16	16	175 483 025	0.013	38	23	19	4	5	
20	16	175 483 026	0.013	38	27	20	4	5	
25	16	175 483 027	0.014	44	33	22	5	6	
32	16	175 483 028	0.032	53	41	24	5	6	
40	16	175 483 029	0.052	65	51	26	5	7	
50	16	175 483 030	0.094	77	62	29	6	8	
63	16	175 483 031	0.180	99	77	34	7	8	
75	16	175 483 032	0.324	125	92	49	9	20	
90	16	175 483 033	0.527	150	110	57	10	24	
110	16	175 483 034	0.909	180	134	69	11	30	



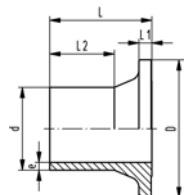
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G51) With socket fusion spigot metric

Model:

- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	
16	16	175 483 036	0.014	38	10	16	27	4	13	14	
20	16	175 483 037	0.018	38	14	16	32	4	14	18	
25	16	175 483 038	0.025	44	19	20	37	5	16	21	
32	16	175 483 039	0.047	53	24	26	40	5	18	22	
40	16	175 483 040	0.065	65	31	33	43	5	20	23	
50	16	175 483 041	0.112	77	39	41	51	6	23	28	
63	16	175 483 042	0.210	99	49	51	60	7	27	33	



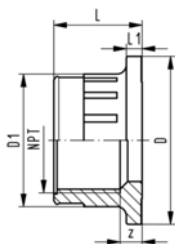
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G52) With butt fusion spigot IR-Plus® metric

Model:

- Material: PVDF

d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	
20	IR	16	175 483 048	0.016	38	1.9	37	4	25	
25	IR	16	175 483 049	0.021	44	1.9	39	5	25	
32	IR	16	175 483 050	0.035	53	2.4	40	5	25	
40	IR	16	175 483 051	0.058	65	2.4	43	5	25	
50	IR	16	175 483 052	0.101	77	3.0	51	6	25	
63	IR	16	175 483 053	0.187	99	3.0	60	7	28	
75	IR	16	175 483 054	0.348	125	3.6	65	9	41	
90	IR	16	175 483 055	0.507	150	4.3	62	10	33	
110	IR	16	175 483 056	0.820	180	5.3	69	11	37	



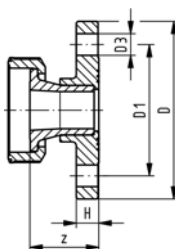
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G53) With threaded socket NPT

Model:

- Material: PVDF
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF

NPT [inch]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	175 483 058	0.010	38	26	14	20	4	6
1/2	10	175 483 059	0.017	38	33	16	21	4	4
3/4	10	175 483 060	0.022	44	39	20	23	5	5
1	10	175 483 061	0.040	53	47	26	28	5	6
1 1/4	10	175 483 062	0.070	65	55	33	31	5	8
1 1/2	10	175 483 063	0.100	77	65	41	34	6	11
2	10	175 483 064	0.180	99	77	51	41	7	17



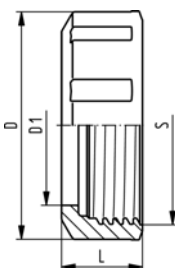
PF 2 35 540 999

SYGEF Standard Valve end 546 (G64) With fixed flange PVDF metric

Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	175 483 285	0.170	93	65	14	12	37
25	20	16	175 483 286	0.230	103	75	14	13	42
32	25	16	175 483 287	0.330	115	85	14	14	45
40	32	16	175 483 288	0.540	137	100	18	15	48
50	40	16	175 483 289	0.710	147	110	18	16	56
63	50	16	175 483 290	1.120	162	125	18	18	65



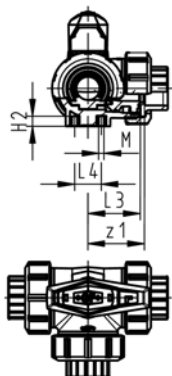
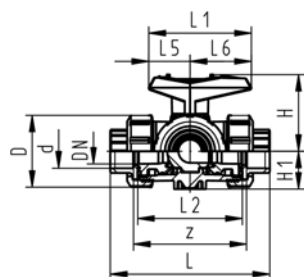
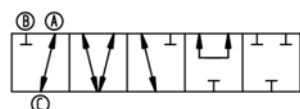
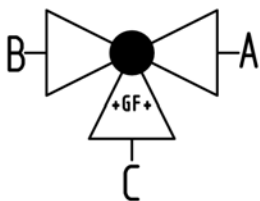
PF 2 35 538 999

SYGEF Standard Union nut 546 and 543

Model:

- Material: PVDF

d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	175 482 937	0.022	50	34	19	42
25	20	175 482 938	0.033	58	39	20	48
32	25	175 482 939	0.053	68	47	24	58
40	32	175 482 940	0.099	84	57	27	71
50	40	175 482 941	0.095	94	65	30	84
63	50	175 482 942	0.200	120	79	36	106
75	65	175 482 943	0.463	124	79	36	106
90	80	175 482 944	0.728	166	94	48	135
110	100	175 482 945	1.117	238	137	60	198



SYGEF Standard 3-Way ball valve type 543 Horizontal/L-port With fusion sockets metric

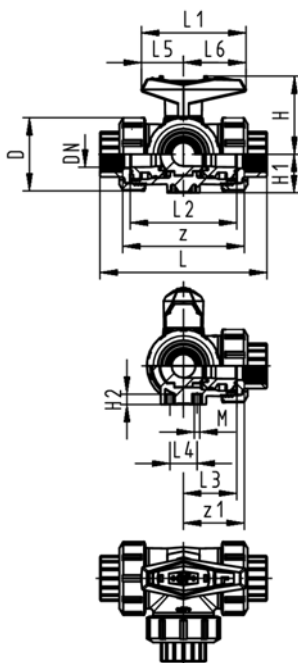
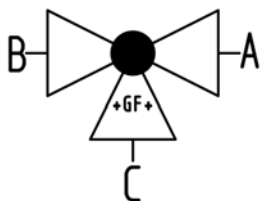
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	175 543 011	0.281
20	15	10	75	175 543 012	0.290
25	20	10	150	175 543 013	0.461
32	25	10	280	175 543 014	0.654
40	32	10	480	175 543 015	1.199
50	40	10	620	175 543 016	1.647
63	50	10	1230	175 543 017	3.227

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/L-port With threaded sockets NPT

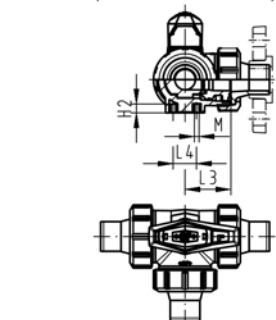
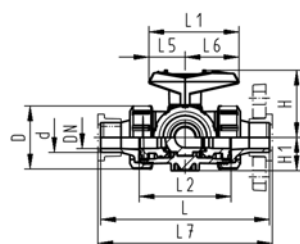
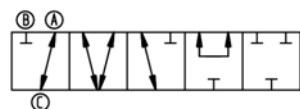
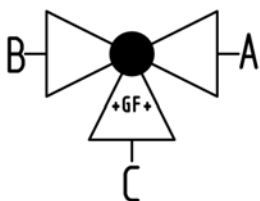
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
3/8	10	10	50	175 543 071	0.312										
1/2	15	10	75	175 543 072	0.320										
3/4	20	10	150	175 543 073	0.461										
1	25	10	280	175 543 074	0.704										
1 1/4	32	10	480	175 543 075	1.199										
1 1/2	40	10	620	175 543 076	1.778										
2	50	10	1230	175 543 077	3.462										

NPT [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	
3/8	50	112	77	72	36	25	32	45	57	28	8	6	86	43	
1/2	50	114	77	72	36	25	32	45	57	28	8	6	80	40	
3/4	58	131	97	85	43	25	39	58	67	32	8	6	95	48	
1	68	154	97	98	49	25	39	58	73	36	8	6	110	55	
1 1/4	84	180	128	118	59	45	54	74	90	45	9	8	132	66	
1 1/2	97	203	128	135	68	45	54	74	97	51	9	8	157	79	
2	124	258	152	176	88	45	66	87	116	65	9	8	210	105	

PF 2 35 735 803



SYGEF Standard 3-Way ball valve type 543 Horizontal/L-port With socket fusion spigots metric

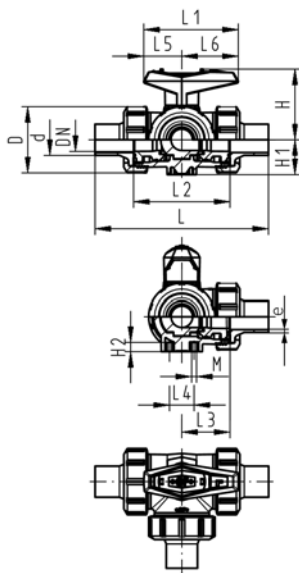
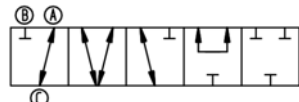
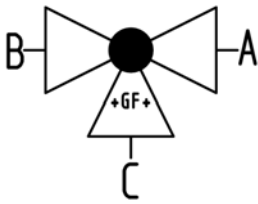
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	175 543 031	0.320
20	15	10	75	175 543 032	0.296
25	20	10	150	175 543 033	0.480
32	25	10	280	175 543 034	0.735
40	32	10	480	175 543 035	1.226
50	40	10	620	175 543 036	1.859
63	50	10	1230	175 543 037	3.624

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	closest inch
16	50	126	77	72	36	25	32	45	133	57	28	8	6	3/8
20	50	136	77	72	36	25	32	45	144	57	28	8	6	1/2
25	58	159	97	85	43	25	39	58	170	67	32	8	6	3/4
32	68	178	97	98	49	25	39	58	191	73	36	8	6	1
40	84	204	128	118	59	45	54	74	223	90	45	9	8	1 1/4
50	97	237	128	135	68	45	54	74	256	97	51	9	8	1 1/2
63	124	296	152	176	88	45	66	87	319	116	65	9	8	2

PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/L-port With butt fusion spigots IR-Plus metric

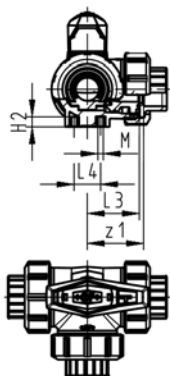
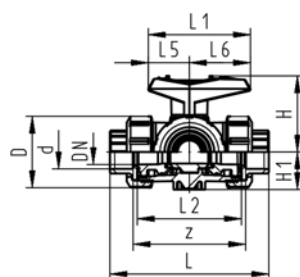
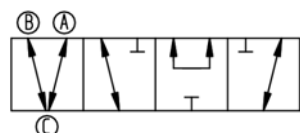
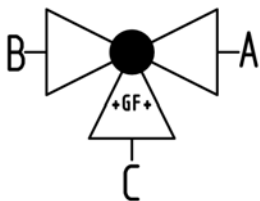
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	75	175 543 052	0.332
25	20	10	150	175 543 053	0.480
32	25	10	280	175 543 054	0.735
40	32	10	480	175 543 055	1.226
50	40	10	620	175 543 056	1.859
63	50	10	1230	175 543 057	3.370

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]	closest inch
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	1/2
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	3/4
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 1/4
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 1/2
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2

PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/T-port With fusion sockets metric

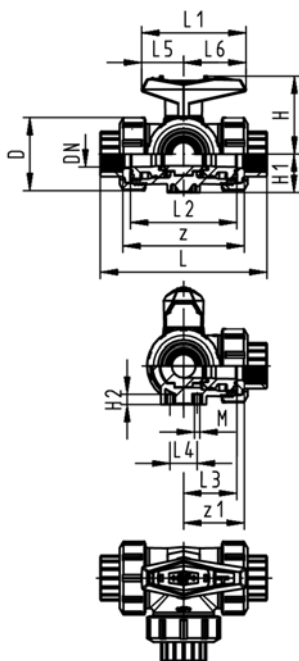
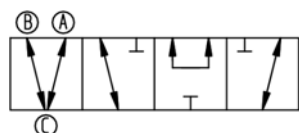
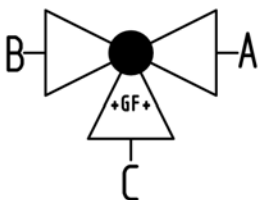
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	140	175 543 111	0.283
20	15	10	200	175 543 112	0.288
25	20	10	470	175 543 113	0.417
32	25	10	793	175 543 114	0.644
40	32	10	1290	175 543 115	1.185
50	40	10	1910	175 543 116	1.613
63	50	10	3100	175 543 117	3.405

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/T-port With threaded sockets NPT

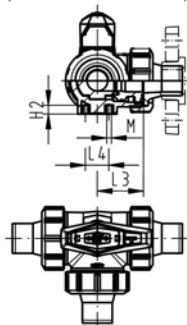
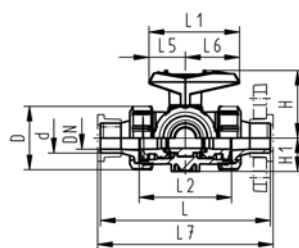
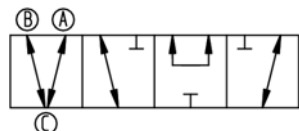
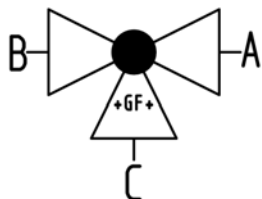
Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/8	10	10	140	175 543 171	0.311
1/2	15	10	200	175 543 172	0.319
3/4	20	10	470	175 543 173	0.458
1	25	10	793	175 543 174	0.695
1 1/4	32	10	1290	175 543 175	1.185
1 1/2	40	10	1910	175 543 176	1.751
2	50	10	3100	175 543 177	3.405

NPT [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	112	77	72	36	25	32	45	57	28	8	6	86	43
1/2	50	114	77	72	36	25	32	45	57	28	8	6	80	40
3/4	58	131	97	85	43	25	39	58	67	32	8	6	95	48
1	68	154	97	98	49	25	39	58	73	36	8	6	110	55
1 1/4	84	180	128	118	59	45	54	74	90	45	9	8	132	66
1 1/2	97	203	128	135	68	45	54	74	97	51	9	8	157	79
2	124	258	152	176	88	45	66	87	116	65	9	8	210	105

PF 2 35 735 803



SYGEF Standard 3-Way ball valve type 543 Horizontal/T-port With socket fusion spigots metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	140	175 543 131	0.287
20	15	10	200	175 543 132	0.330
25	20	10	470	175 543 133	0.478
32	25	10	793	175 543 134	0.726
40	32	10	1290	175 543 135	1.212
50	40	10	1910	175 543 136	1.832
63	50	10	3100	175 543 137	3.566

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	closest inch
16	50	126	77	72	36	25	32	45	133	57	28	8	6	3/8
20	50	136	77	72	36	25	32	45	144	57	28	8	6	1/2
25	58	159	97	85	43	25	39	58	170	67	32	8	6	3/4
32	68	178	97	98	49	25	39	58	191	73	36	8	6	1
40	84	204	128	118	59	45	54	74	223	90	45	9	8	1 1/4
50	97	237	128	135	68	45	54	74	256	97	51	9	8	1 1/2
63	124	296	152	176	88	45	66	87	319	116	65	9	8	2

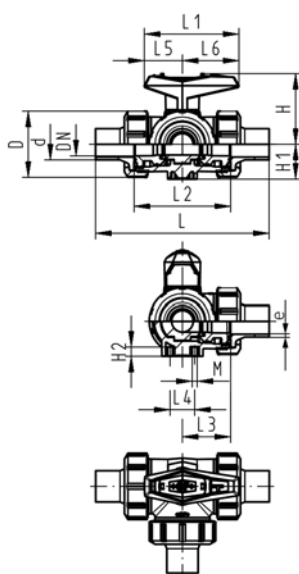
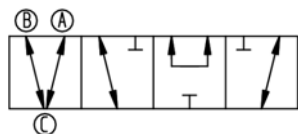
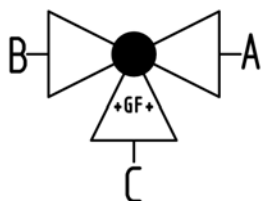
PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/T-port With butt fusion spigots IR-Plus metric

Model:

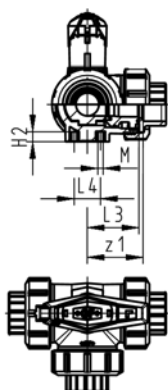
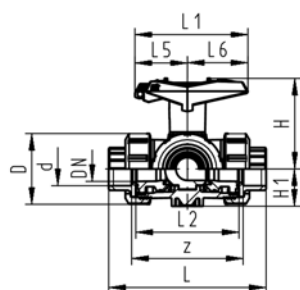
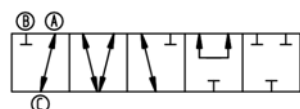
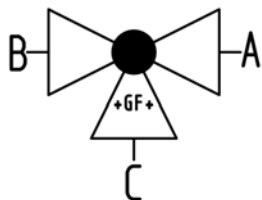
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	200	175 543 152	0.321
25	20	10	470	175 543 153	0.478
32	25	10	793	175 543 154	0.655
40	32	10	1290	175 543 155	1.212
50	40	10	1910	175 543 156	1.832
63	50	10	3100	175 543 157	3.566

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]	closest inch
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	1/2
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	3/4
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 1/4
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 1/2
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2

PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/L-port With lockable handle With fusion sockets metric

Model:

- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	175 543 641	0.330
20	15	10	75	175 543 642	0.338
25	20	10	150	175 543 643	0.483
32	25	10	280	175 543 644	0.726
40	32	10	480	175 543 645	1.229
50	40	10	620	175 543 646	1.808
63	50	10	1230	175 543 647	3.502

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	87	72	36	25	42	45	79	28	8	6	82	41	3/8
20	50	112	87	72	36	25	42	45	79	28	8	6	82	41	1/2
25	58	129	108	85	43	25	50	58	88	32	8	6	97	49	3/4
32	68	146	108	98	49	25	50	58	94	36	8	6	110	55	1
40	84	170	141	118	59	45	66	75	113	45	9	8	132	66	1 1/4
50	97	193	141	135	68	45	66	75	119	51	9	8	151	76	1 1/2
63	124	244	165	176	88	45	78	87	141	65	9	8	188	94	2

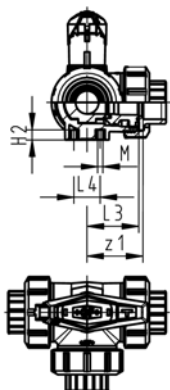
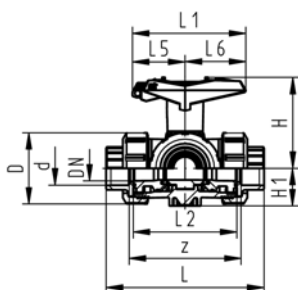
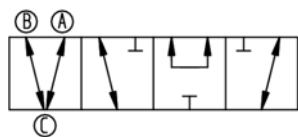
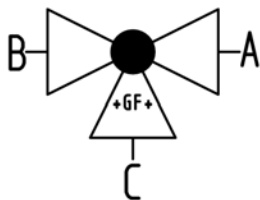
PF 2 35 735 801



SYGEF Standard 3-Way ball valve type 543 Horizontal/T-port With lockable handle With fusion sockets metric

Model:

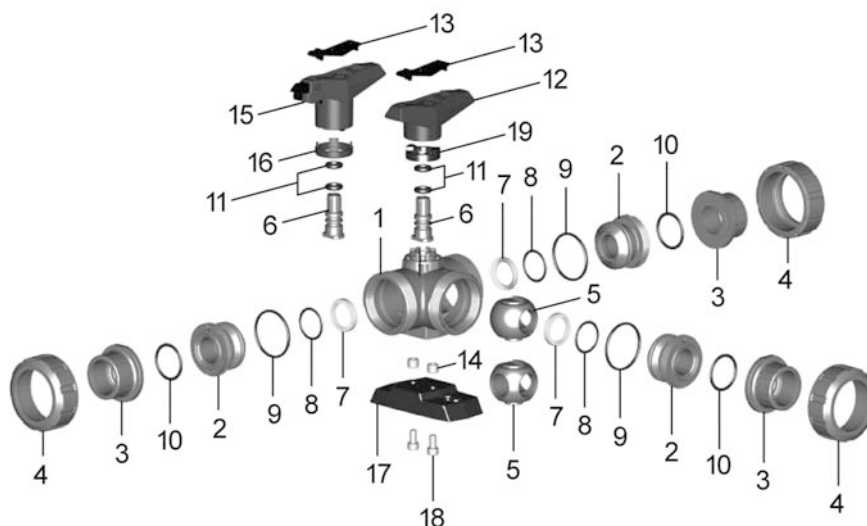
- Material: PVDF
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
16	10	10	140	175 543 651	0.329										
20	15	10	200	175 543 652	0.337										
25	20	10	470	175 543 653	0.480										
32	25	10	793	175 543 654	0.717										
40	32	10	1290	175 543 655	1.215										
50	40	10	1910	175 543 656	1.781										
63	50	10	3100	175 543 657	3.444										
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	87	72	36	25	42	45	79	28	8	6	82	41	3/8
20	50	112	87	72	36	25	42	45	79	28	8	6	82	41	1/2
25	58	129	108	85	43	25	50	58	88	32	8	6	97	49	3/4
32	68	146	108	98	49	25	50	58	94	36	8	6	110	55	1
40	84	170	141	118	59	45	66	75	113	45	9	8	132	66	1 1/4
50	97	193	141	135	68	45	66	75	119	51	9	8	151	76	1 1/2
63	124	244	165	176	88	45	78	87	141	65	9	8	188	94	2

PF 2 35 735 801

Spare parts ball valve type 543 horizontal



Central part L-port

Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 483 602	0.000	
20	1/2	15	175 483 602	0.000	
25	3/4	20	175 483 603	0.000	
32	1	25	175 483 604	0.000	
40	1 1/4	32	175 483 605	0.000	
50	1 1/2	40	175 483 606	0.000	
63	2	50	175 483 607	0.000	

PF 2 35 735 999



Central part T-port

Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 483 612	0.000	
20	1/2	15	175 483 612	0.000	
25	3/4	20	175 483 613	0.295	
32	1	25	175 483 614	0.000	
40	1 1/4	32	175 483 615	0.000	
50	1 1/2	40	175 483 616	0.000	
63	2	50	175 483 617	0.000	

PF 2 35 735 999



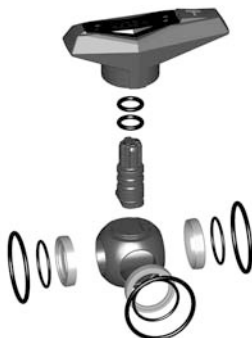
Ball set L-port

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 483 642	0.032	
20	1/2	15	175 483 642	0.032	
25	3/4	20	175 483 643	0.061	
32	1	25	175 483 644	0.088	
40	1 1/4	32	175 483 645	0.152	
50	1 1/2	40	175 483 646	0.237	
63	2	50	175 483 647	0.403	

PF 2 35 735 999



Ball set T-port

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 483 652	0.030	
20	1/2	15	175 483 652	0.030	
25	3/4	20	175 483 653	0.059	
32	1	25	175 483 654	0.079	
40	1 1/4	32	175 483 655	0.138	
50	1 1/2	40	175 483 656	0.210	
63	2	50	175 483 657	0.346	

PF 2 35 735 999



Lever

d [mm]	Inch	DN [mm]	Standard lever L-port red Code	Standard lever L-port black Code	Standard lever T-port red Code	
16	3/8	10	167 484 488	167 484 376	167 484 588	
20	1/2	15	167 484 488	167 484 376	167 484 588	
25	3/4	20	167 484 489	167 484 377	167 484 589	
32	1	25	167 484 490	167 484 378	167 484 590	
40	1 1/4	32	167 484 491	167 484 379	167 484 591	
50	1 1/2	40	167 484 492	167 484 380	167 484 592	
63	2	50	167 484 493	167 484 381	167 484 593	

d [mm]	Inch	DN [mm]	Standard lever T-port black Code	Multifunctional-lever L-port red Code	Multifunctional-lever T-port red Code	kg	
16	3/8	10	167 484 576	167 484 442	167 484 542	0.026	
20	1/2	15	167 484 576	167 484 442	167 484 542	0.026	
25	3/4	20	167 484 577	167 484 443	167 484 543	0.045	
32	1	25	167 484 578	167 484 444	167 484 544	0.045	
40	1 1/4	32	167 484 579	167 484 445	167 484 545	0.082	
50	1 1/2	40	167 484 580	167 484 446	167 484 546	0.082	
63	2	50	167 484 581	167 484 447	167 484 547	0.104	

PF 2 31 001 999



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	3/8	10	749 410 059	0.001	
20	1/2	15	749 410 059	0.001	
25	3/4	20	749 410 106	0.001	
32	1	25	749 410 151	0.002	

table continued next page

d [mm]	Inch	DN [mm]	FPM Code	kg	
40	1 ¼	32	749 410 062	0.005	
50	1 ½	40	749 410 003	0.001	
63	2	50	749 410 231	0.008	

PF 2 31 800 999



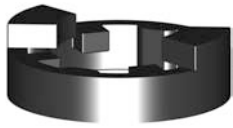
Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	¾	10	161 488 248	0.011	
20	½	15	161 488 248	0.011	
25	¾	20	161 488 249	0.011	
32	1	25	161 488 250	0.014	
40	1 ¼	32	161 488 251	0.014	
50	1 ½	40	161 488 252	0.070	
63	2	50	161 488 253	0.032	

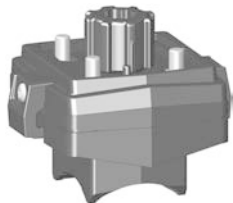
PF 2 31 001 999



Turn limiter 90°

d [mm]	Inch	DN [mm]	Code	kg	
16	¾	10	167 482 479	0.001	
20	½	15	167 482 479	0.001	
25	¾	20	167 482 480	0.002	
32	1	25	167 482 480	0.002	
40	1 ¼	32	167 482 481	0.004	
50	1 ½	40	167 482 481	0.004	
63	2	50	167 482 482	0.004	

PF 2 31 001 999



Assembly kit

Model:

- Intermediate element for ball valve type 543 horizontal and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d [mm]	Inch [inch]	DN [mm]	Code	kg	
16 - 20	¾ - ½	10 - 15	167 484 941	0.156	
25 - 32	¾ - 1	20 - 25	167 484 942	0.188	
40 - 50	1 ¼ - 1 ½	32 - 40	167 484 943	0.211	
63	2	50	167 484 944	0.270	

PF 3 39 980 999



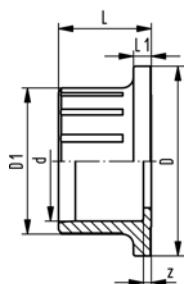
SYGEF Standard Valve end 546 and 543 (G50) With fusion socket metric

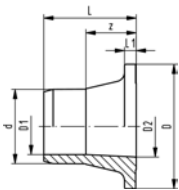
Model:

- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
16	16	175 483 025	0.013	38	23	19	4	5	
20	16	175 483 026	0.013	38	27	20	4	5	
25	16	175 483 027	0.014	44	33	22	5	6	
32	16	175 483 028	0.032	53	41	24	5	6	
40	16	175 483 029	0.052	65	51	26	5	7	
50	16	175 483 030	0.094	77	62	29	6	8	
63	16	175 483 031	0.180	99	77	34	7	8	
75	16	175 483 032	0.324	125	92	49	9	20	
90	16	175 483 033	0.527	150	110	57	10	24	
110	16	175 483 034	0.909	180	134	69	11	30	

PF 2 35 540 999





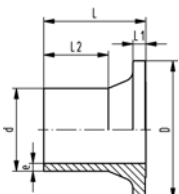
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G51) With socket fusion spigot metric

Model:

- Material: PVDF

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	16	175 483 036	0.014	38	10	16	27	4	13	14
20	16	175 483 037	0.018	38	14	16	32	4	14	18
25	16	175 483 038	0.025	44	19	20	37	5	16	21
32	16	175 483 039	0.047	53	24	26	40	5	18	22
40	16	175 483 040	0.065	65	31	33	43	5	20	23
50	16	175 483 041	0.112	77	39	41	51	6	23	28
63	16	175 483 042	0.210	99	49	51	60	7	27	33



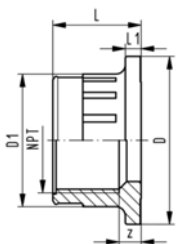
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G52) With butt fusion spigot IR-Plus® metric

Model:

- Material: PVDF

d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	16	175 483 048	0.016	38	1.9	37	4	25
25	IR	16	175 483 049	0.021	44	1.9	39	5	25
32	IR	16	175 483 050	0.035	53	2.4	40	5	25
40	IR	16	175 483 051	0.058	65	2.4	43	5	25
50	IR	16	175 483 052	0.101	77	3.0	51	6	25
63	IR	16	175 483 053	0.187	99	3.0	60	7	28
75	IR	16	175 483 054	0.348	125	3.6	65	9	41
90	IR	16	175 483 055	0.507	150	4.3	62	10	33
110	IR	16	175 483 056	0.820	180	5.3	69	11	37



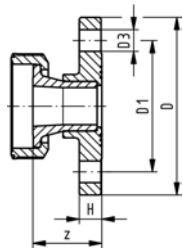
PF 2 35 540 999

SYGEF Standard Valve end 546 and 543 (G53) With threaded socket NPT

Model:

- Material: PVDF
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF

NPT [inch]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	175 483 058	0.010	38	26	14	20	4	6
1/2	10	175 483 059	0.017	38	33	16	21	4	4
3/4	10	175 483 060	0.022	44	39	20	23	5	5
1	10	175 483 061	0.040	53	47	26	28	5	6
1 1/4	10	175 483 062	0.070	65	55	33	31	5	8
1 1/2	10	175 483 063	0.100	77	65	41	34	6	11
2	10	175 483 064	0.180	99	77	51	41	7	17



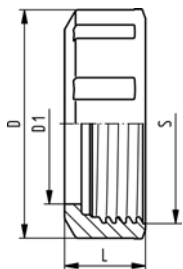
PF 2 35 540 999

SYGEF Standard Valve end 546 (G64) With fixed flange PVDF metric

Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Combined jointing face: flat and serrated

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]	
20	15	16	175 483 285	0.170	93	65	14	12	37	
25	20	16	175 483 286	0.230	103	75	14	13	42	
32	25	16	175 483 287	0.330	115	85	14	14	45	
40	32	16	175 483 288	0.540	137	100	18	15	48	
50	40	16	175 483 289	0.710	147	110	18	16	56	
63	50	16	175 483 290	1.120	162	125	18	18	65	



PF 2 35 538 999

SYGEF Standard Union nut 546 and 543

Model:

- Material: PVDF

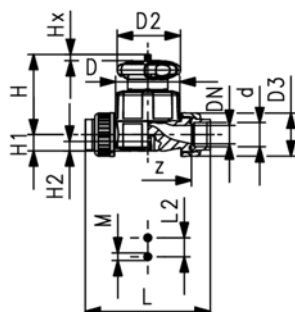
d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	L [mm]	S [mm]	
16 - 20	10 - 15	175 482 937	0.022	50	34	19	42	
25	20	175 482 938	0.033	58	39	20	48	
32	25	175 482 939	0.053	68	47	24	58	
40	32	175 482 940	0.099	84	57	27	71	
50	40	175 482 941	0.095	94	65	30	84	
63	50	175 482 942	0.200	120	79	36	106	
75	65	175 482 943	0.463	124	79	36	106	
90	80	175 482 944	0.728	166	94	48	135	
110	100	175 482 945	1.117	238	137	60	198	

Diaphragm valves new generation

SYGEF Standard

Diaphragm valve type 514

With fusion sockets metric



Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg
20	15	10	125	185 514 032	185 514 052	0.358
25	20	10	271	185 514 033	185 514 053	0.546
32	25	10	481	185 514 034	185 514 054	0.969
40	32	10	759	185 514 035	185 514 055	1.683
50	40	10	1263	185 514 036	185 514 056	2.932
63	50	10	1728	185 514 037	185 514 057	2.995

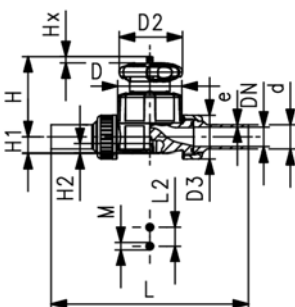
d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch
20	65	65	43	128	25	73	14	12	M6	100	7	1/2
25	80	65	53	150	25	81	18	12	M6	118	10	3/4
32	88	87	60	162	25	107	22	12	M6	126	13	1
40	101	87	74	184	45	115	26	15	M8	144	15	1 1/4
50	117	135	82	210	45	148	32	15	M8	164	19	1 1/2
63	144	135	100	248	45	166	39	15	M8	194	25	2

PF 2 35 774 020

SYGEF Standard

Diaphragm valve type 514

With butt fusion spigots metric



Model:

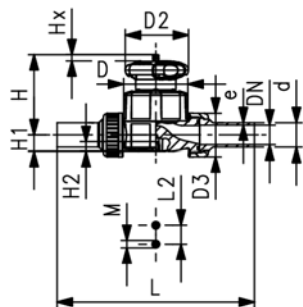
- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg
20	15	10	125	185 514 132	185 514 152	0.500
25	20	10	271	185 514 133	185 514 153	0.700
32	25	10	481	185 514 134	185 514 154	1.400
40	32	10	759	185 514 135	185 514 155	1.780
50	40	10	1263	185 514 136	185 514 156	2.960
63	50	10	1728	185 514 137	185 514 157	4.190

table continued next page



PF 2 35 774 020

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch
20	65	65	43	196	25	73	14	12	M6	7	1.9	½
25	80	65	53	221	25	81	18	12	M6	10	1.9	¾
32	88	87	60	234	25	107	22	12	M6	13	2.4	1
40	101	87	74	260	45	115	26	15	M8	15	2.4	1 ¼
50	117	135	82	284	45	148	32	15	M8	19	3.0	1 ½
63	144	135	100	321	45	166	39	15	M8	25	3.0	2



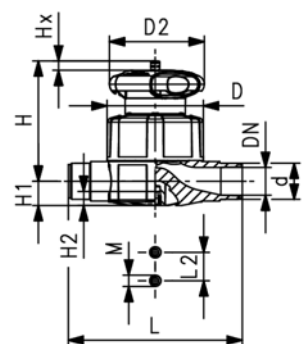
SYGEF Standard Diaphragm valve type 515 With socket fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

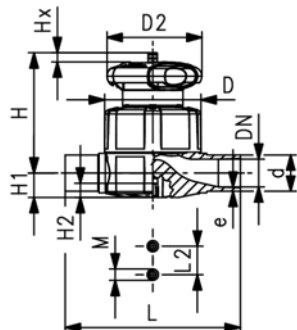
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg
20	15	10	125	185 515 032	185 515 052	0.289
25	20	10	271	185 515 033	185 515 053	0.426
32	25	10	481	185 515 034	185 515 054	0.684
40	32	10	759	185 515 035	185 515 055	1.415
50	40	10	1263	185 515 036	185 515 056	1.652
63	50	10	1728	185 515 037	185 515 057	2.569

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	closest inch
20	65	65	124	25	73	14	12	M6	7	½
25	80	65	144	25	81	18	12	M6	10	¾
32	88	87	154	25	107	22	12	M6	13	1
40	101	87	174	45	115	26	15	M8	15	1 ¼
50	117	135	194	45	148	32	15	M8	19	1 ½
63	144	135	223	45	166	39	15	M8	25	2

PF 2 35 774 010



SYGEF Standard Diaphragm valve type 515 With butt fusion spigots metric

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

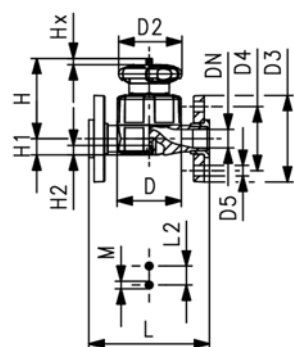
Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
20	15	10	125	185 515 132	185 515 152	0.280	
25	20	10	271	185 515 133	185 515 153	0.514	
32	25	10	481	185 515 134	185 515 154	0.677	
40	32	10	759	185 515 135	185 515 155	1.390	
50	40	10	1263	185 515 136	185 515 156	2.492	
63	50	10	1728	185 515 137	185 515 157	2.465	

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch	
20	65	65	124	25	73	14	12	M6	7	1.9	½	
25	80	65	144	25	81	18	12	M6	10	1.9	¾	
32	88	87	155	25	107	22	12	M6	13	2.4	1	
40	101	87	176	45	115	26	15	M8	15	2.4	1 ¼	
50	117	135	193	45	148	32	15	M8	19	3.0	1 ½	
63	144	135	223	45	166	39	15	M8	25	3.0	2	

PF 2 35 774 010



SYGEF Standard Diaphragm valve type 517 With backing flanges PP-V metric/BS

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Flat sealing faces/serrated
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

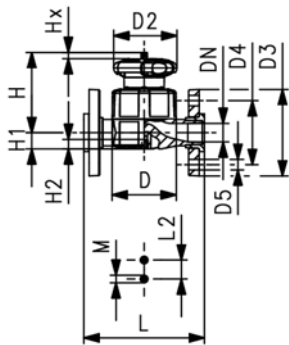
Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
½	15	10	125	185 517 132	185 517 152	0.586	
¾	20	10	271	185 517 133	185 517 153	0.796	
1	25	10	481	185 517 134	185 517 154	1.064	
1 ¼	32	10	759	185 517 135	185 517 155	2.001	
1 ½	40	10	1263	185 517 136	185 517 156	2.369	
2	50	10	1728	185 517 137	185 517 157	3.586	

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	
½	65	65	95	65	14	130	25	73	14	12	M6	7	
¾	80	65	105	75	14	150	25	81	18	12	M6	10	
1	88	87	115	85	14	160	25	107	22	12	M6	13	

table continued next page



PF 2 35 774 030

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	
1 ¼	101	87	140	100	18	180	45	115	26	15	M8	15	
1 ½	117	135	150	110	18	200	45	148	32	15	M8	19	
2	144	135	165	125	18	230	45	166	39	15	M8	25	



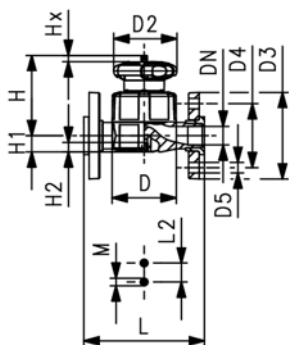
SYGEF Standard Diaphragm valve type 517 With backing flanges PP-V Inch ANSI

Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Flat sealing faces/serrated
- 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)
- Self adjusting multifunctional module with integrated limit switches



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
½	15	10	125	185 517 732	185 517 752	0.586	
¾	20	10	271	185 517 733	185 517 753	0.796	
1	25	10	481	185 517 734	185 517 754	1.050	
1 ¼	32	10	759	185 517 735	185 517 755	2.001	
1 ½	40	10	1263	185 517 736	185 517 756	3.147	
2	50	10	1728	185 517 737	185 517 757	3.514	

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	
½	65	65	95	60	16	130	25	73	14	12	M6	7	
¾	80	65	105	70	16	150	25	81	18	12	M6	10	
1	88	87	115	79	16	160	25	107	22	12	M6	13	
1 ¼	101	87	140	89	16	180	45	115	26	15	M8	15	
1 ½	117	135	150	98	16	200	45	148	32	15	M8	19	
2	144	135	165	121	19	230	45	166	39	15	M8	25	

PF 2 35 774 030



SYGEF Standard Diaphragm valve type 317 With flanges metric

Model:

- Material: PVDF
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm PTFE with EPDM backing diaphragm (FDA compliant)

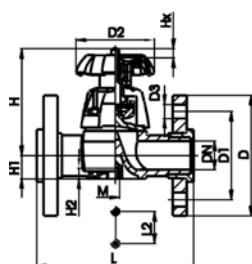
Option:

- Handwheel with built-in locking mechanism (standard version is nonlockable)

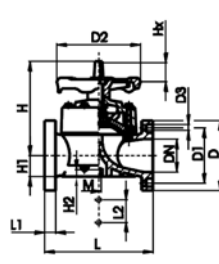
* DN80 and DN150 fixed flanges metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE with EPDM supp. diaphragm Code	kg	
75	65	2 ½	10	992	175 317 438	5.821	
* 90	80	3	10	1700	175 317 009	1.745	
110	100	4	10	2700	175 317 010	15.456	
* 160	150	6	7	6033	175 317 012	31.500	

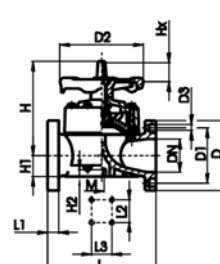
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	Lift = Hx [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	M	AL	
75	185	145	152	18	201	46	15	30	290		70		M8	4	
* 90	200	160	270	18	265	57	23	40	310	35	120		M12	8	
110	225	180	270	18	302	68	23	50	350	35	120		M12	8	
* 160	285	240	400	22	437	108	23	70	480	26	100	200	M12	8	



DN 15-65



DN 80-100



DN 150

PF 2 35 193 002



SYGEF Standard Diaphragm valve type 317 With flanges Inch ANSI

Model:

- Material: PVDF
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm PTFE with EPDM backing diaphragm (FDA compliant)

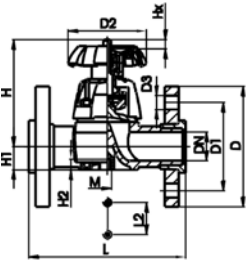
Option:

- Handwheel with built-in locking mechanism (standard version is nonlockable)

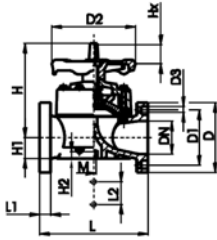
* DN80 and DN150 fixed flanges metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE with EPDM supp. diaphragm Code	kg
75	65	2 1/2	10	992	175 317 538	5.718
* 90	80	3	10	1700	175 317 009	1.745
110	100	4	10	2700	175 317 340	15.406
* 160	150	6	7	6033	175 317 012	31.500

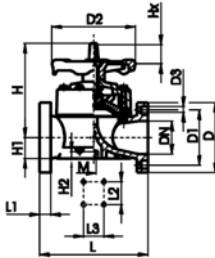
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	Lift = Hx [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	M	AL
75	185	140	152	18	201	46	15	30	290		70		M8	4
* 90	200	160	270	18	265	57	23	40	310	35	120		M12	8
110	225	191	270	18	304	69	23	50	350	35	120		M12	8
* 160	285	240	400	22	437	108	23	70	480	26	100	200	M12	8



DN 15-65



DN 80-100



DN 150

PF 2 35 193 003

Spare parts for hand-operated valves Type 514/515/517



Bonnet complete



d [mm]	Inch	DN [mm]	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code	
20	½	15	198 151 742	198 151 752	198 151 842	
25	¾	20	198 151 743	198 151 753	198 151 843	
32	1	25	198 151 744	198 151 754	198 151 844	
40	1 ¼	32	198 151 745	198 151 755	198 151 845	
50	1 ½	40	198 151 746	198 151 756	198 151 846	
63	2	50	198 151 747	198 151 757	198 151 847	

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code	kg	
20	½	15	198 151 852	0.137	
25	¾	20	198 151 853	0.177	
32	1	25	198 151 854	0.366	
40	1 ¼	32	198 151 855	0.390	
50	1 ½	40	198 151 856	0.746	
63	2	50	198 151 857	1.016	

PF 2 31 780 998

Hand wheel

Model:

- Without position indicator



DN [mm]	Code	kg	
15 - 20	198 204 162	0.024	
25 - 32	198 204 164	0.056	
40 - 50	198 104 166	0.190	

PF 2 31 780 998

Position indicator



PF 2 31 780 998

d [mm]	Inch	DN [mm]	Code	kg	
20	¾	15	167 484 992	0.011	
25	¾	20	167 484 993	0.011	
32	1	25	167 484 994	0.013	
40	1 ¼	32	167 484 995	0.012	
50	1 ½	40	167 484 996	0.014	
63	2	50	167 484 997	0.015	

Spindle assembly

Model:

- Incl. position indicator and compressor



PF 2 31 780 998

DN-DN [mm]	Code	kg	
15 - 20	198 204 327	0.049	
25 - 32	198 204 328	0.135	
40 - 50	198 204 329	0.251	

Seal set

Model:

- For manual valve - pressure tight housing
- Incl. position indicator



PF 2 31 780 998

d [mm]	Inch	DN [mm]	EPDM Code	kg	
20	¾	15	198 000 892	0.004	
25	¾	20	198 000 893	0.004	
32	1	25	198 000 894	0.007	
40	1 ¼	32	198 000 895	0.006	
50	1 ½	40	198 000 896	0.008	
63	2	50	198 000 897	0.009	

Spare parts diaphragm

For type 514/515/517/519



PF 2 31 780 997

d [mm]	Inch	DN [mm]	PTFE/EPDM Code	PTFE/EPDM HP Code	PTFE/FPM Code	kg	
20	¾	15	747 502 012	747 502 032	747 503 012	0.013	
25	¾	20	747 502 013	747 502 033	747 503 013	0.021	
32	1	25	747 502 014	747 502 034	747 503 014	0.044	
40	1 ¼	32	747 502 015	747 502 035	747 503 015	0.045	
50	1 ½	40	747 502 016	747 502 036	747 503 016	0.069	
63	2	50	747 502 017	747 502 037	747 503 017	0.118	

Spare parts for valve body type 514

Valve body with true union

Model:

- Without connection parts



PF 2 37 773 998

d [mm]	Inch	DN [mm]	PVDF Code	kg	
20	½	15	175 483 682	0.145	
25	¾	20	175 483 683	0.231	
32	1	25	175 483 684	0.310	
40	1 ¼	32	175 483 685	0.492	
50	1 ½	40	175 483 686	0.737	
63	2	50	175 483 687	1.301	

Union end



PF 2 35 191 999

d [mm]	Inch	DN [mm]	PVDF metric Code	kg	
20	½	15	735 600 106	0.006	
25	¾	20	735 600 107	0.022	
32	1	25	735 600 108	0.022	
40	1 ¼	32	735 600 109	0.055	
50	1 ½	40	735 600 110	0.054	
63	2	50	735 600 111	0.079	

Union nut



PF 2 35 191 999

d [mm]	Inch	DN [mm]	PVDF Code	kg	
20	½	15	735 690 406	0.021	
25	¾	20	735 690 407	0.032	
32	1	25	735 690 408	0.044	
40	1 ¼	32	735 690 409	0.065	
50	1 ½	40	735 690 410	0.093	
63	2	50	735 690 411	0.143	

O-ring



PF 2 31 156 999

d [mm]	Inch	DN [mm]	FPM for PVDF standard Code	kg	
20	½	15	749 410 005	0.001	
25	¾	20	749 410 006	0.001	
32	1	25	749 410 120	0.002	
40	1 ¼	32	749 410 062	0.005	
50	1 ½	40	749 410 172	0.003	
63	2	50	749 410 054	0.005	

Spare parts for valve body type 515

Valve body with spigot ends

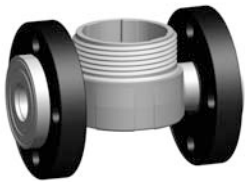


PF 2 37 773 998

d [mm]	Inch	DN [mm]	PVDF socket fu- sion spigot Code	PVDF butt fusion spigot IR Code	kg	
20	½	15	175 483 692	175 483 742	0.138	
25	¾	20	175 483 693	175 483 743	0.214	
32	1	25	175 483 694	175 483 744	0.292	
40	1 ¼	32	175 483 695	175 483 745	0.449	
50	1 ½	40	175 483 696	175 483 746	0.703	
63	2	50	175 483 697	175 483 747	1.231	

Spare parts for valve body type 517

Valve body with flange connection



PF 2 35 774 998

d [mm]	Inch	DN [mm]	PVDF JIS Code	kg	
20	½	15	175 483 532	0.694	
25	¾	20	175 483 533		
32	1	25	175 483 534		
40	1 ¼	32	175 483 535		
50	1 ½	40	175 483 536		
63	2	50	175 483 537		

Flange adaptor flat



PF 2 35 191 003

d [mm]	Inch	DN [mm]	PVDF metric Code	kg	
20	½	15	735 790 206	0.019	
25	¾	20	735 790 207	0.037	
32	1	25	735 790 208	0.047	
40	1 ¼	32	735 790 209	0.073	
50	1 ½	40	735 790 210	0.096	
63	2	50	735 790 211	0.142	

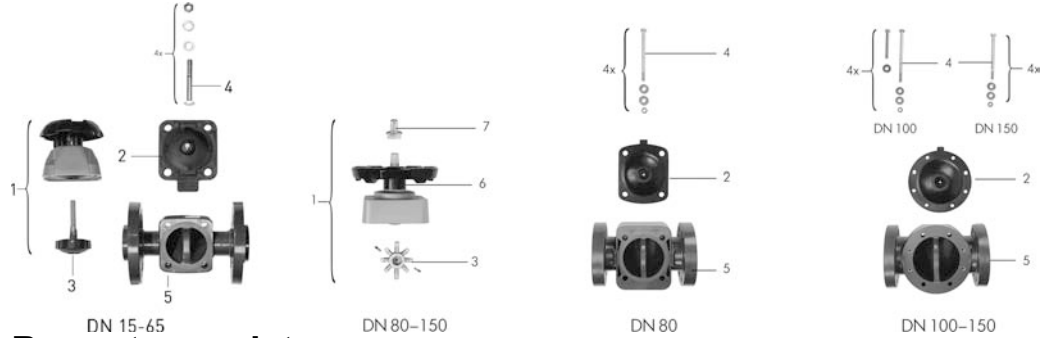


PF 2 34 238 020

Flange

d [mm]	Inch	DN [mm]	PP-V metric Code	PP-V ASTM Code	PP-ST metric Code	PP-ST ASTM Code	kg	
20	½	15	727 700 406	727 701 406	727 700 206	727 701 206	0.213	
25	¾	20	727 700 407	727 701 407	727 700 207	727 701 207	0.260	
32	1	25	727 700 408	727 701 408	727 700 208	727 701 208	0.416	
40	1 ¼	32	727 700 409	727 701 409	727 700 209	727 701 209	0.730	
50	1 ½	40	727 700 410	727 701 410	727 700 210	727 701 210	0.809	
63	2	50	727 700 411	727 701 411	727 700 211	727 701 211	0.866	

Spare parts diaphragm valve type 317



Bonnet complete

Model:

- Without diaphragm (1, 3)



PF 2 31 158 997

d [mm]	Inch	DN [mm]	PTFE diaphragm Code	kg	
75	2 ½	65	161 484 638	1.526	
90	3	80	161 482 516	3.967	
110	4	100	161 482 517	5.700	
160	6	150	161 482 906	14.040	



PF 2 37 206 999

Diaphragm (2)

d [mm]	Inch	DN [mm]	PTFE/EPDM Code	kg	
75	2 ½	65	161 480 240	0.252	
90	3	80	161 480 241	0.394	
110	4	100	161 480 242	0.637	
160	6	150	161 482 760	1.421	

Pressure spindle (3)



PF 2 31 158 998

d [mm]	Inch	DN [mm]	PTFE diaphragm Code	kg	
75	2 ½	65	161 484 702	0.134	
90	3	80	161 483 020	0.335	
110	4	100	161 483 021	0.495	
125	6	150	161 483 023	4.500	



Fastening set (4)

Model:

- * with support plate

d [mm]	Inch	DN [mm]	for PP PVDF *	
			Code	

PF 2 34 236 999



Valve body with backing/fixed flange (5)

Inch	d [mm]	DN [mm]	PVDF metric Code	PVDF ANSI Code	PVDF JIS Code	kg	
2 1/2	75	65	175 482 981	-	175 481 949	3.103	
3	90	80	175 480 189	-	175 480 737	4.745	
4	110	100	175 480 190	175 480 748	175 480 738	7.466	
6	160	150	175 481 002	175 481 002	175 481 002	14.733	

PF 2 35 193 999



O-ring seal (6)

d [mm]	Inch	DN [mm]	EPDM Code	NBR Code	kg	
90	3	80	-	745 410 107	0.001	
110	4	100	-	745 410 107	0.001	
160	6	150	748 410 212	-		

PF 2 31 158 999

Indicator cap (7)

d [mm]	Inch	DN [mm]	PVC-U SAN Code	kg	
90	3	80	161 481 759	0.032	
110	4	100	161 481 760	0.035	
160	6	150	161 482 744	0.010	

PF 2 31 158 999

Butterfly valves

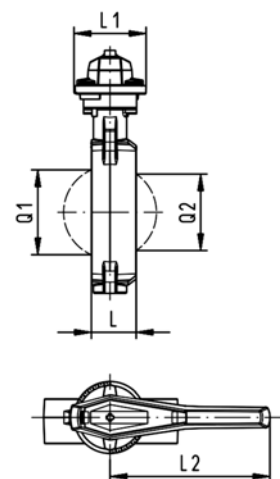
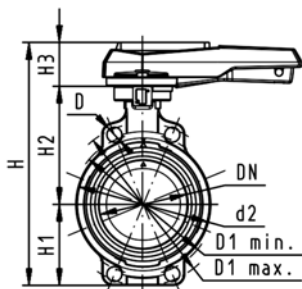
SYGEF Standard Butterfly valve type 567 Hand lever with ratchet settings



Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

Model with PTFE seal in DN250 and DN300 available from June 2009



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	175 567 002	175 567 202	1.080
75	65	2 ½	10	2200	175 567 003	175 567 203	1.192
90	80	3	10	3000	175 567 004	175 567 204	1.992
110	100	4	10	6500	175 567 005	175 567 205	2.072
140	125	5	10	11500	175 567 006	175 567 206	2.667
160	150	6	10	16600	175 567 007	175 567 207	3.887
225	200	8	10	39600	175 567 008	175 567 208	7.242
280	250	10	10	55200	175 567 009	175 567 209	14.623
315	300	12	10	80000	175 567 010	175 567 210	19.513

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325	104	167	55	56	106	255	88	74
140	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169
280	25	353.0	362.0	329	554	205	264	85	113	149	408	210	207
315	25	400.0	432.0	379	598	228	285	85	113	149	408	256	253

PF 2 35 767 001

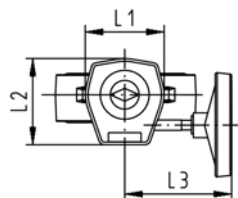
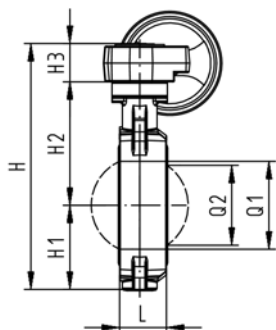
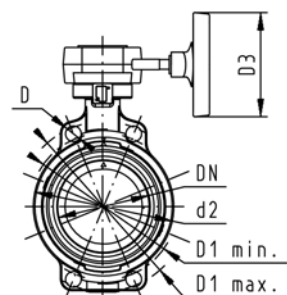


SYGEF Standard Butterfly valve type 567 Reduction gear with handwheel

Model:

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

Model with PTFE seal in DN250 and DN300 available from June 2009



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	175 567 022	175 567 222	3.118
75	65	2 ½	10	2200	175 567 023	175 567 223	3.230
90	80	3	10	3000	175 567 024	175 567 224	3.534
110	100	4	10	6500	175 567 025	175 567 225	4.062
140	125	5	10	11500	175 567 026	175 567 226	4.657
160	150	6	10	16600	175 567 027	175 567 227	5.877
225	200	8	10	39600	175 567 028	175 567 228	7.810
280	250	10	10	55200	175 567 029	175 567 229	15.410
315	300	12	10	80000	175 567 030	175 567 230	20.763

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	19	120.0	125.0	104	150	278	77	134	50	45	110	120	155	40
75	19	139.7	145.0	115	150	291	83	140	50	46	110	120	155	54
90	19	150.0	160.0	131	150	303	89	146	50	49	110	120	155	67
110	19	175.0	190.5	160	150	339	104	167	50	56	110	120	155	88
140	23	210.0	215.9	187	150	365	117	181	50	64	110	120	155	113
160	24	241.3	241.3	215	150	387	130	189	50	72	110	120	155	139
225	23	290.0	295.0	267	150	436	158	210	50	73	110	120	155	178
280	25	353.0	362.0	329	200	529	205	264	55	113	130	140	200	210
315	25	400.0	432.0	379	200	573	228	285	55	113	130	140	200	256

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

PF 2 35 767 001

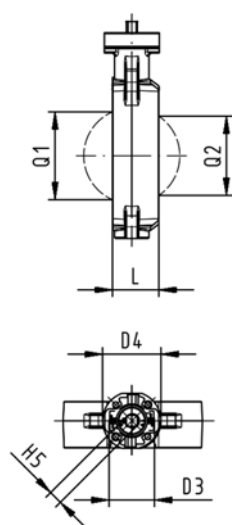
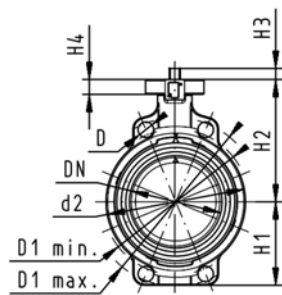


SYGEF Standard Butterfly valve type 567 Bare shaft

Model:

- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211

Model with PTFE seal in DN250 and DN300 available from June 2009



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	175 567 822	175 567 842	0.858
75	65	2 1/2	10	2200	175 567 823	175 567 843	0.970
90	80	3	10	3000	175 567 824	175 567 844	1.150
110	100	4	10	6500	175 567 825	175 567 845	1.802
140	125	5	10	11500	175 567 826	175 567 846	2.397
160	150	6	10	16600	175 567 827	175 567 847	3.617
225	200	8	10	39600	175 567 828	175 567 848	5.738
280	250	10	10	55200	175 567 829	175 567 849	12.673
315	300	12	10	80000	175 567 830	175 567 850	17.563

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	Q1 [mm]
63	19	120.0	125.0	104	70	90	222	77	134	27	23	11	45	40
75	19	139.7	145.0	115	70	90	235	83	140	27	23	11	46	54
90	19	150.0	160.0	131	70	90	247	89	146	27	23	11	49	67
110	19	175.0	190.5	161	70	90	287	104	167	16	23	14	56	88
140	23	210.0	215.9	187	70	90	313	117	181	16	23	14	64	113
160	24	241.3	241.3	215	70	90	335	130	189	19	23	17	72	139
225	23	290.0	295.0	267	70	90	387	158	210	19	23	17	73	178
280	25	353.0	362.0	329	102	125	509	205	264	40	23	22	113	210
315	25	400.0	432.0	379	102	125	553	228	285	40	23	22	113	256

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

PF 2 35 566 998

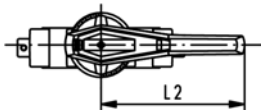
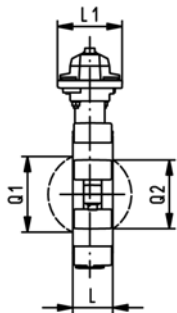
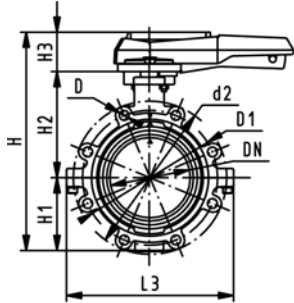


SYGEF Standard Lugstyle butterfly valve type 568 Hand lever with ratchet settings

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752

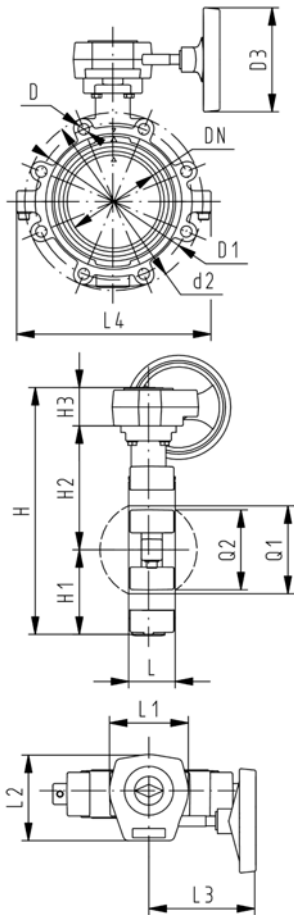
Model with PTFE seal in DN50 - DN80 on request



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg	
63	50	2	10	1470	175 568 002	175 568 202	3.170	
75	65	2 ½	10	2200	175 568 003	175 568 203	3.533	
90	80	3	10	3000	175 568 004	175 568 204	4.590	
110	100	4	10	6500	175 568 005	175 568 205	6.170	
140	125	5	10	11500	175 568 006	175 568 206	8.151	
160	150	6	10	16600	175 568 007	175 568 207	10.370	
225	200	8	10	39600	175 568 008	175 568 208	16.521	

d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]	
63	150	M16	125	265	77	134	54	45	106	205	150	40		
75	170	M16	145	277	83	140	54	46	106	205	160	54	35	
90	184	M16	160	289	89	146	54	49	106	205	205	67	50	
110	216	M16	180	326	104	167	55	56	106	255	244	88	74	
140	246	M16	210	353	117	181	55	64	106	255	272	113	97	
160	273	M20	240	374	130	189	55	72	106	255	297	139	123	
225	334	M20	295	435	158	210	67	73	140	408	360	178	169	

PF 2 35 768 001



SYGEF Standard Lugstyle butterfly valve type 568 Reduction gear with handwheel

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752

Model with PTFE seal in DN50 - DN80 on request

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	175 568 022	175 568 222	5.208
75	65	2 1/2	10	2200	175 568 023	175 568 223	5.571
90	80	3	10	3000	175 568 024	175 568 224	6.628
110	100	4	10	6500	175 568 025	175 568 225	8.160
140	125	5	10	11500	175 568 026	175 568 226	10.141
160	150	6	10	16600	175 568 027	175 568 227	12.360
225	200	8	10	39600	175 568 028	175 568 228	17.974

d [mm]	d2 [mm]	D	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Q1 [mm]
63	150	M16	125	150	279	77	134	50	45	110	120	155	150	40
75	170	M16	145	150	291	83	140	50	46	110	120	155	160	54
90	184	M16	160	150	303	89	146	50	49	110	120	155	205	67
110	216	M16	180	150	339	104	167	50	56	110	120	155	244	88
140	246	M16	210	150	366	117	181	50	64	110	120	155	272	113
160	273	M20	240	150	387	130	189	50	72	110	120	155	297	139
225	334	M20	295	150	436	158	210	50	73	110	120	155	360	178

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

PF 2 35 768 001

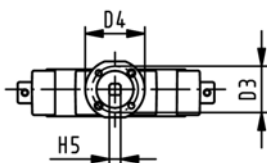
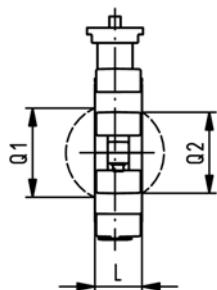
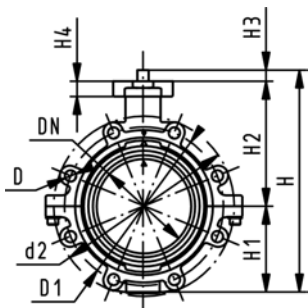


SYGEF Standard Lugstyle butterfly valve type 568 Bare shaft

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Interface F07 according to DIN/ISO 5211

Model with PTFE seal in DN50 - DN80 on request



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg	
63	50	2	10	1470	175 568 822	175 568 842	2.948	
75	65	2 ½	10	2200	175 568 823	175 568 843	3.311	
90	80	3	10	3000	175 568 824	175 568 844	4.368	
110	100	4	10	6500	175 568 825	175 568 845	5.900	
140	125	5	10	11500	175 568 826	175 568 846	7.881	
160	150	6	10	16600	175 568 827	175 568 847	10.100	
225	200	8	10	39600	175 568 828	175 568 848	15.714	

d [mm]	d2 [mm]	D	D1 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	Q1 [mm]	Q2 [mm]	
63	150	M16	125	70	90	222	77	134	27	23	45	40		
75	170	M16	145	70	90	235	83	140	27	23	46	54	35	
90	184	M16	160	70	90	247	89	146	27	23	49	67	50	
110	216	M16	180	70	90	287	104	167	16	23	56	88	74	
140	246	M16	210	70	90	313	117	181	16	23	64	113	97	
160	273	M20	240	70	90	335	130	189	19	23	72	139	123	
225	334	M20	295	70	90	387	158	210	19	23	73	178	169	

PF 2 35 768 998

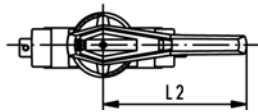
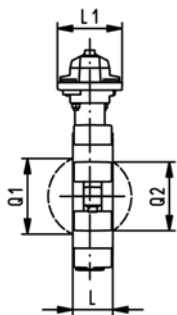
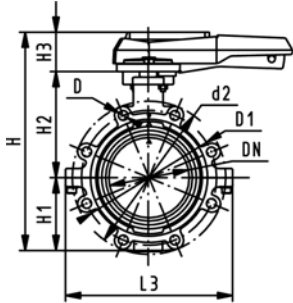


SYGEF Standard Lugstyle butterfly valve 568 ANSI Hand lever with ratchet settings

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752

Model with PTFE seal in DN50 - DN80 on request



Inch	d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg							
2	63	50	10	1470	175 568 102	175 568 302	3.170							
2 ½	75	65	10	2200	175 568 103	175 568 303	3.533							
3	90	80	10	3000	175 568 104	175 568 304	3.961							
4	110	100	10	6500	175 568 105	175 568 305	6.170							
5	140	125	10	11500	175 568 106	175 568 306	8.151							
6	160	150	10	16600	175 568 107	175 568 307	10.370							
8	225	200	10	39600	175 568 108	175 568 308	16.521							

Inch	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]	
2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40		
2 ½	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35	
3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50	
4	216	UNC 5/8	191	326	104	167	55	56	106	255	244	88	74	
5	246	UNC 3/4	216	353	117	181	55	64	106	255	272	113	97	
6	273	UNC 3/4	241	374	130	189	55	72	106	255	297	139	123	
8	334	UNC 3/4	298	435	158	210	67	73	140	408	360	178	169	

PF 2 35 768 001

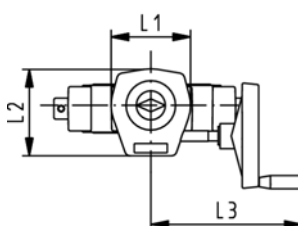
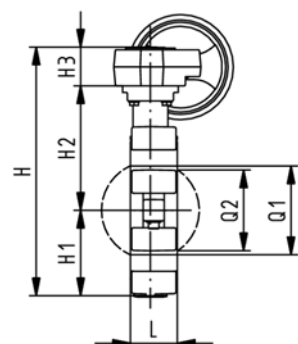
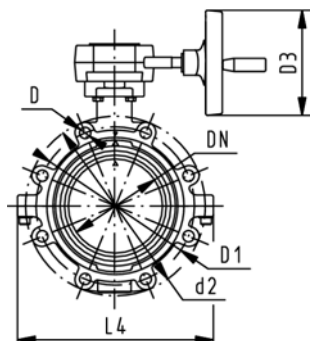


SYGEF Standard Lugstyle butterfly valve 568 ANSI Reduction gear with handwheel

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752

Model with PTFE seal in DN50 - DN80 on request



Inch	d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
2	63	50	10	1470	175 568 122	175 568 322	5.208
2 ½	75	65	10	2200	175 568 123	175 568 323	5.571
3	90	80	10	3000	175 568 124	175 568 324	5.999
4	110	100	10	6500	175 568 125	175 568 325	8.160
5	140	125	10	11500	175 568 126	175 568 326	10.141
6	160	150	10	16600	175 568 127	175 568 327	12.360
8	225	200	10	39600	175 568 128	175 568 328	17.974

Inch	d2 [mm]	D	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Q1 [mm]
2	150	UNC 5/8	121	150	279	77	134	50	45	110	120	155	150	40
2 ½	170	UNC 5/8	138	150	291	83	140	50	46	110	120	155	160	54
3	177	UNC 5/8	152	150	303	89	146	50	49	110	120	155	175	67
4	216	UNC 5/8	191	150	339	104	167	50	56	110	120	155	244	88
5	246	UNC 3/4	216	150	366	117	181	50	64	110	120	155	272	113
6	273	UNC 3/4	241	150	387	130	189	50	72	110	120	155	297	139
8	334	UNC 3/4	298	150	436	158	210	50	73	110	120	155	360	178

Inch	Q2 [mm]
2	
2 ½	35
3	50
4	74
5	97
6	123
8	169

PF 2 35 768 001

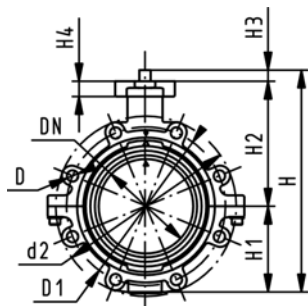


SYGEF Standard Lugstyle butterfly valve 568 ANSI Bare shaft

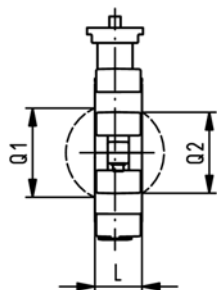
Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Interface F07 according to DIN/ISO 5211

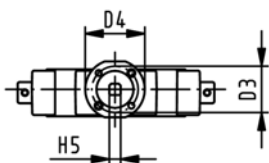
Model with PTFE seal in DN50 - DN80 on request



Inch	d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg	
2	63	50	10	1470	175 568 922	175 568 942	2.948	
2 ½	75	65	10	2200	175 568 923	175 568 943	3.311	
3	90	80	10	3000	175 568 924	175 568 944	3.739	
4	110	100	10	6500	175 568 925	175 568 945	5.900	
5	140	125	10	11500	175 568 926	175 568 946	7.881	
6	160	150	10	16600	175 568 927	175 568 947	10.100	
8	225	200	10	39600	175 568 928	175 568 948	15.714	

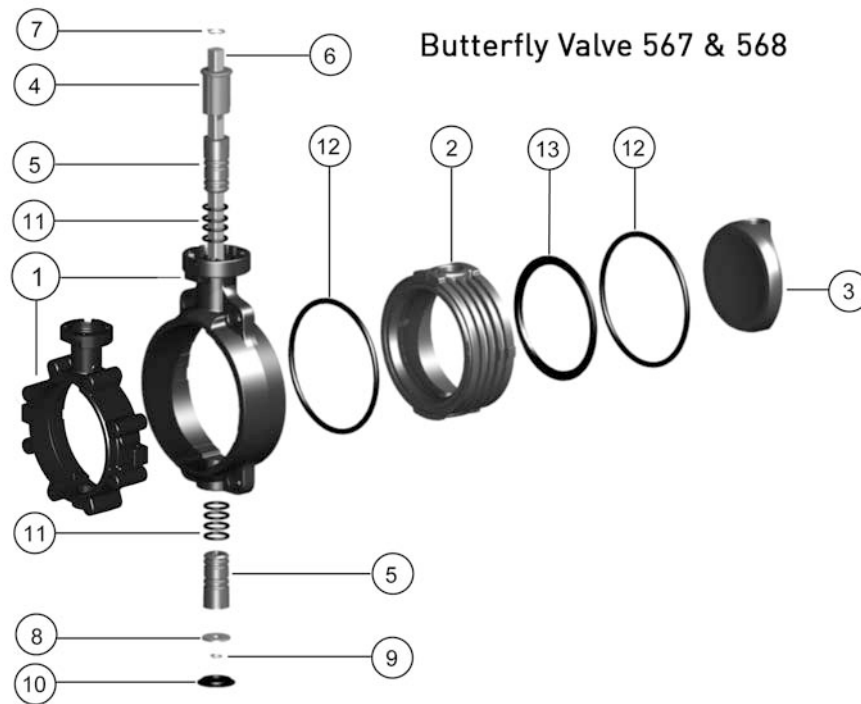


Inch	d2 [mm]	D	D1 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	Q1 [mm]	Q2 [mm]	
2	150	UNC 5/8	121	70	90	222	77	134	27	23	45	40		
2 ½	170	UNC 5/8	138	70	90	235	83	140	27	23	46	54	35	
3	177	UNC 5/8	152	70	90	247	89	146	27	23	49	67	50	
4	216	UNC 5/8	191	70	90	287	104	167	16	23	56	88	74	
5	246	UNC 3/4	216	70	90	313	117	181	16	23	64	113	97	
6	273	UNC 3/4	241	70	90	335	130	189	19	23	72	139	123	
8	334	UNC 3/4	298	70	90	387	158	210	19	23	73	178	169	



PF 2 35 768 998

Spare parts butterfly valve type 567/568



Inner body

Model:

- Inner body consisting of: inner body (2) and profile seal (13)



PF 2 35 566 998

d [mm]	Inch	DN [mm]	PVDF FPM Code	PVDF PTFE Code	kg	
63	2	50	175 483 413	175 483 752	0.190	
75	2 ½	65	175 483 414	175 483 753	0.230	
90	3	80	175 483 415	175 483 754	0.326	
110	4	100	175 483 416	175 483 755	0.581	
140	5	125	175 483 417	175 483 756	0.858	
160	6	150	175 483 418	175 483 757	1.063	
225	8	200	175 483 419	175 483 758	1.823	
280	10	250	175 483 420	175 483 759	4.368	
315	12	300	175 483 421	175 483 760	5.691	

Flange seal (12)

Model:

- included in delivery 1 pcs.



PF 2 31 567 999

d [mm]	Inch	DN [mm]	FPM Code	kg	
63	2	50	161 486 979	0.012	
75	2 ½	65	161 486 980	0.014	
90	3	80	161 486 981	0.016	
110	4	100	161 486 982	0.036	
125	5	125	161 486 983	0.043	
160	6	150	161 486 984	0.050	
225	8	200	161 486 985	0.064	
280	10	250	161 486 986	0.091	
315	12	300	161 486 987	0.104	



Disc (3)

d [mm]	Inch	DN [mm]	PVDF Code	kg	
63	2	50	175 483 251	0.045	
75	2 ½	65	175 483 252	0.082	
90	3	80	175 483 253	0.132	
110	4	100	175 483 254	0.254	
140	5	125	175 483 255	0.456	
160	6	150	175 483 256	0.590	
225	8	200	175 483 257	2.029	
280	10	250	175 483 258	6.068	
315	12	300	175 483 259	9.442	

PF 2 35 566 999



Bearing bush (5, 11)

Model:

- included in delivery 2 pcs.
- With O-ring
- Bearing bushes in PP-H are used in PP-H and ABS butterfly valves

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
63	2	50	175 483 426	0.038	
75	2 ½	65	175 483 426	0.038	
90	3	80	175 483 426	0.038	
110	4	100	175 483 427	0.069	
140	5	125	175 483 427	0.069	
160	6	150	175 483 428	0.145	
225	8	200	175 483 428	0.145	
280	10	250	175 483 429	0.360	
315	12	300	175 483 429	0.360	

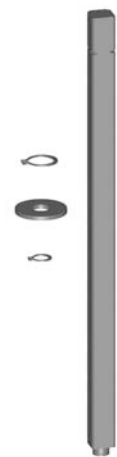
PF 2 35 566 998



End stopp PP glasfiber reinforced (4)

d [mm]	Inch	DN [mm]	Code	kg	
63	2	50	167 483 251	0.022	
75	2 ½	65	167 483 251	0.022	
90	3	80	167 483 251	0.022	
110	4	100	167 483 252	0.145	
140	5	125	167 483 252	0.145	
160	6	150	167 483 253	0.049	
225	8	200	167 483 253	0.049	
280	10	250	167 483 254	0.096	
315	12	300	167 483 254	0.096	

PF 2 34 637 999



Shaft set

Model:

- Shaft set consisting of: shaft chrom steel 1.4301 AISI 304 (6), retention ring (7, 9) and washer (8)

d [mm]	Inch	DN [mm]	Code	kg	
63	2	50	161 486 899	0.225	
75	2 ½	65	161 486 900	0.237	
90	3	80	161 486 901	0.227	
110	4	100	161 486 902	0.407	
140	5	125	161 486 903	0.469	
160	6	150	161 486 904	0.749	
225	8	200	161 486 905	0.844	
280	10	250	161 486 906	2.335	
315	12	300	161 486 907	2.536	

PF 2 31 567 998



Hand lever

d [mm]	Inch	DN [mm]	with index plate Code	with fine adjust- ment Code	kg	
63	2	50	161 486 690	161 486 325	0.479	
75	2 ½	65	161 486 690	161 486 325	0.479	
90	3	80	161 486 690	161 486 325	0.479	
110	4	100	161 486 691	161 486 326	0.540	
140	5	125	161 486 691	161 486 326	0.540	
160	6	150	161 486 694	161 486 327	0.537	
225	8	200	161 486 695	161 486 328	1.375	
280	10	250	161 486 697		0.330	
315	12	300	161 486 697		0.330	

PF 2 31 567 998

Reduction gear with handwheel



d [mm]	Inch	DN [mm]	Code	kg	
75	2 ½	65	161 482 408	1.920	
90	3	80	161 482 408	1.920	
110	4	100	161 482 408	1.920	
125	4 ½	125	161 482 408	1.920	
160	6	150	161 482 408	1.920	
225	8	200	161 482 408	1.920	
280	10	250	161 483 462	3.322	
315	12	300	161 483 462	3.322	

PF 2 31 159 998

Integrated position indicator Automatic AU



Size	DN-DN [mm]	Code	kg	
1	50 - 80	161 486 858	0.072	
2	100 - 125	161 486 304	0.055	
3	150 - 200	161 486 009	0.063	

PF 3 39 643 999

Integrated position indicator Automatic AG NI



Size	DN-DN [mm]	Code	kg	
1	50 - 80	161 486 859	0.063	
2	100 - 125	161 486 305	0.068	
3	150 - 200	161 486 010	0.063	

PF 3 39 643 999



Integrated position indicator Electric Namur

PF 3 39 643 999

Size	DN-DN [mm]	Code	kg	
1	50 - 80	161 486 855	0.050	
2	100 - 125	161 486 301	0.050	
3	150 - 200	161 486 006	0.050	



Integrated position indicator Electric PNP

PF 3 39 643 999

Size	DN-DN [mm]	Code	kg	
1	50 - 80	161 486 856	0.056	
2	100 - 125	161 486 302	0.056	
3	150 - 200	161 486 007	0.056	



Integrated position indicator Electric NPN

PF 3 39 643 999

Size	DN-DN [mm]	Code	kg	
1	50 - 80	161 486 857	0.056	
2	100 - 125	161 486 303	0.056	
3	150 - 200	161 486 008	0.056	

Cone check valves

SYGEF Standard

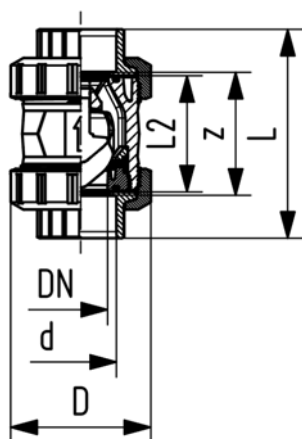
Check valve type 561

With fusion sockets metric

Model:

- Material: PVDF
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch	
16	10	16	190	175 561 011	0.160	50	93	56	67	3/8	
20	15	16	180	175 561 012	0.160	50	95	56	66	1/2	
25	20	16	380	175 561 013	0.340	58	109	65	77	3/4	
32	25	16	460	175 561 014	0.360	68	119	71	83	1	
40	32	16	850	175 561 015	0.670	84	135	85	99	1 1/4	
50	40	16	1080	175 561 016	0.990	97	147	89	105	1 1/2	
63	50	16	1670	175 561 017	1.770	124	168	101	117	2	
75	65	16	2950	175 561 018	3.630	166	235	136	167	2 1/2	
90	80	16	3600	175 561 019	5.800	200	255	141	180	3	
110	100	16	4150	175 561 020	9.450	238	305	164	215	4	

SYGEF Standard

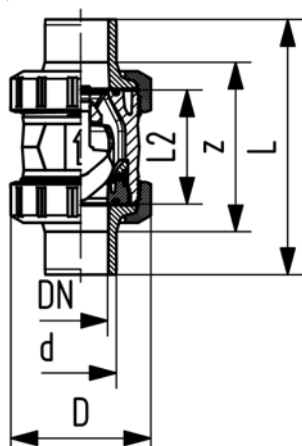
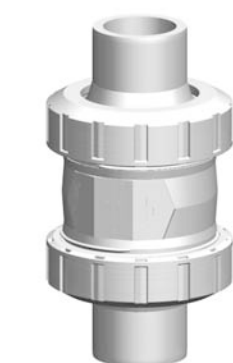
Check valve type 561

With socket fusion spigots metric

Model:

- Material: PVDF
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch	
16	10	16	190	175 561 051	0.160	50	110	56	3/8	
20	15	16	180	175 561 052	0.170	50	120	56	1/2	
25	20	16	380	175 561 053	0.370	58	139	65	3/4	
32	25	16	460	175 561 054	0.400	68	150	71	1	
40	32	16	850	175 561 055	0.670	84	170	85	1 1/4	
50	40	16	1080	175 561 056	1.030	97	190	89	1 1/2	
63	50	16	1670	175 561 057	1.830	124	220	101	2	

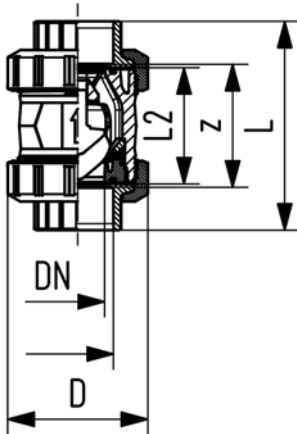


SYGEF Standard Check valve type 561 With threaded sockets NPT

Model:

- Material: PVDF
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 213

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	
3/8	10	10	190	175 561 111	0.150	50	96	56	69	
1/2	15	10	180	175 561 112	0.160	50	99	56	64	
3/4	20	10	380	175 561 113	0.350	58	111	65	76	
1	25	10	460	175 561 114	0.390	68	127	71	83	
1 1/4	32	10	850	175 561 115	0.680	84	146	85	101	
1 1/2	40	10	1080	175 561 116	1.000	97	157	89	111	
2	50	10	1670	175 561 117	1.770	124	183	101	135	

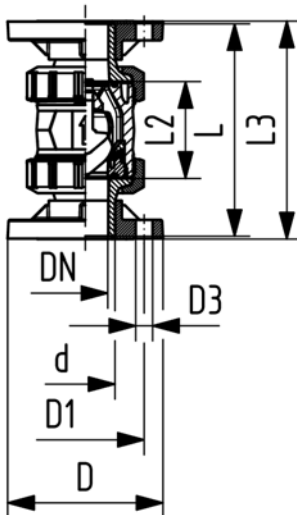


SYGEF Standard Check valve type 561 With fixed flanges metric

Model:

- Material: PVDF
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Installation length according to EN 558-1
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]	closest inch
20	15	16	180	175 561 192	0.420	93	65	14	120	56	130	1/2
25	20	16	380	175 561 193	0.700	103	75	14	140	65	150	3/4
32	25	16	460	175 561 194	0.860	115	85	14	150	71	160	1
40	32	16	850	175 561 195	1.430	137	100	18	170	85	180	1 1/4
50	40	16	1080	175 561 196	1.940	147	110	18	190	89	200	1 1/2
63	50	16	1670	175 561 197	3.160	162	125	18	220	101	230	2

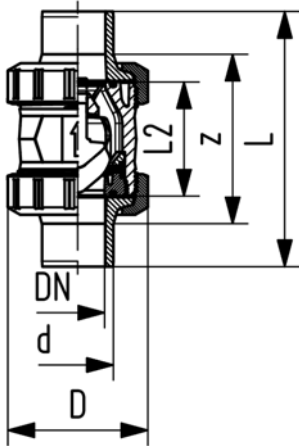


SYGEF Standard Check valve type 561 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

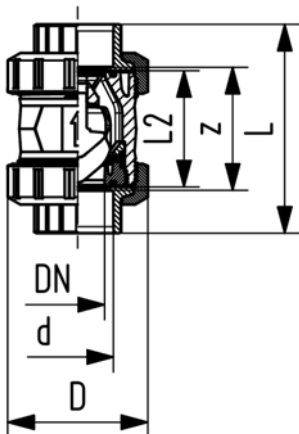
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch	
20	15	16	180	175 561 092	0.160	50	130	56	1.9	½	
25	20	16	380	175 561 093	0.350	58	143	65	1.9	¾	
32	25	16	460	175 561 094	0.380	68	150	71	2.4	1	
40	32	16	850	175 561 095	0.660	84	171	85	2.4	1 ¼	
50	40	16	1080	175 561 096	1.000	97	191	89	3.0	1 ½	
63	50	16	1670	175 561 097	1.790	124	220	101	3.0	2	
75	65	16	2950	175 561 098	3.680	166	270	136	3.6	2 ½	
90	80	16	3600	175 561 099	5.760	200	265	141	4.3	3	
110	100	16	4150	175 561 100	9.270	238	305	164	5.3	4	

SYGEF Standard Check valve type 562 With fusion sockets metric

Model:

- Material: PVDF
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch	
16	10	16	190	175 562 011	0.160	50	93	56	67	¾	
20	15	16	180	175 562 012	0.160	50	95	56	66	½	
25	20	16	380	175 562 013	0.340	58	109	65	77	¾	
32	25	16	460	175 562 014	0.360	68	119	71	83	1	
40	32	16	850	175 562 015	0.670	84	135	85	99	1 ¼	
50	40	16	1080	175 562 016	0.990	97	147	89	105	1 ½	
63	50	16	1670	175 562 017	1.770	124	168	101	117	2	
75	65	16	2950	175 562 018	3.630	166	235	136	167	2 ½	
90	80	16	3600	175 562 019	5.800	200	255	141	180	3	
110	100	16	4150	175 562 020	9.450	238	305	164	215	4	

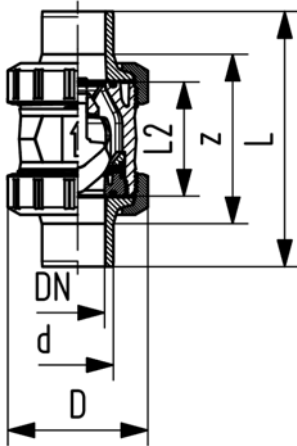


SYGEF Standard Check valve type 562 With socket fusion spigots metric

Model:

- Material: PVDF
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch
16	10	16	190	175 562 051	0.160	50	110	56	3/8
20	15	16	180	175 562 052	0.170	50	120	56	1/2
25	20	16	380	175 562 053	0.370	58	139	65	3/4
32	25	16	460	175 562 054	0.400	68	150	71	1
40	32	16	850	175 562 055	0.670	84	170	85	1 1/4
50	40	16	1080	175 562 056	1.030	97	190	89	1 1/2
63	50	16	1670	175 562 057	1.830	124	220	101	2

PF 2 35 990 111

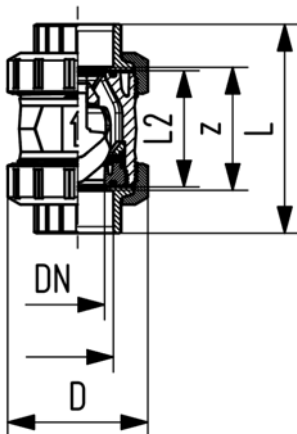


SYGEF Standard Check valve type 562 With threaded sockets NPT

Model:

- Material: PVDF
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	10	190	175 562 111	0.150	50	96	56	69
1/2	15	10	180	175 562 112	0.160	50	99	56	64
3/4	20	10	380	175 562 113	0.350	58	111	65	76
1	25	10	460	175 562 114	0.390	68	127	71	83
1 1/4	32	10	850	175 562 115	0.680	84	146	85	101
1 1/2	40	10	1080	175 562 116	1.000	97	157	89	111
2	50	10	1670	175 562 117	1.770	124	183	101	135

PF 2 35 990 113

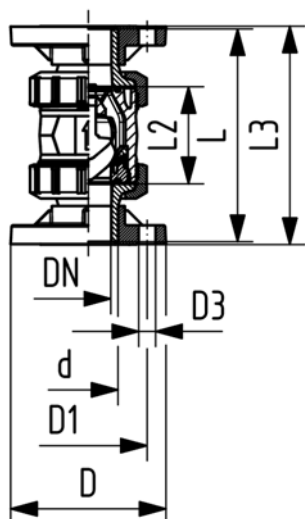


SYGEF Standard Check valve type 562 With fixed flanges metric

Model:

- Material: PVDF
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Installation length according to EN 558-1
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

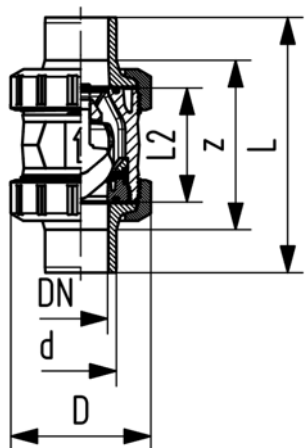
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]	closest inch
20	15	16	180	175 562 192	0.420	93	65	14	120	56	130	½
25	20	16	380	175 562 193	0.700	103	75	14	140	65	150	¾
32	25	16	460	175 562 194	0.860	115	85	14	150	71	160	1
40	32	16	850	175 562 195	1.430	137	100	18	170	85	180	1 ¼
50	40	16	1080	175 562 196	1.940	147	110	18	190	89	200	1 ½
63	50	16	1670	175 562 197	3.160	162	125	18	220	101	230	2

SYGEF Standard Check valve type 562 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

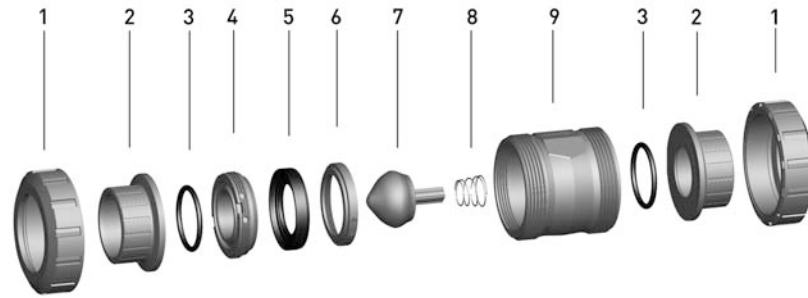
Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch
20	15	16	180	175 562 092	0.160	50	130	56	1.9	½
25	20	16	380	175 562 093	0.350	58	143	65	1.9	¾
32	25	16	460	175 562 094	0.380	68	150	71	2.4	1
40	32	16	850	175 562 095	0.660	84	171	85	2.4	1 ¼
50	40	16	1080	175 562 096	1.000	97	191	89	3.0	1 ½
63	50	16	1670	175 562 097	1.790	124	220	101	3.0	2
75	65	16	2950	175 562 098	3.680	166	270	136	3.6	2 ½
90	80	16	3600	175 562 099	5.760	200	265	141	4.3	3
110	100	16	4150	175 562 100	9.270	238	305	164	5.3	4

Spare parts cone check valve type 561/562



Central part without spring

Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), cone (7), profile seal ring (5) and face seal (3)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 485 211	0.080	
20	1/2	15	175 485 211	0.080	
25	3/4	20	175 485 212	0.220	
32	1	25	175 485 213	0.200	
40	1 1/4	32	175 485 214	0.350	
50	1 1/2	40	175 485 215	0.520	
63	2	50	175 485 216	0.920	
75	2 1/2	65	175 485 217	1.130	
90	3	80	175 485 218	1.800	
110	4	100	175 485 219	2.960	

PF 2 35 990 999



Central part with spring

Model:

- Central body consisting of: housing (9), union bush (4), support ring (6), cone (7), spring V2A (8), profile seal ring (5) and face seal (3)

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
16	3/8	10	175 485 231	0.050	
20	1/2	15	175 485 231	0.050	
25	3/4	20	175 485 232	0.130	
32	1	25	175 485 233	0.110	
40	1 1/4	32	175 485 234	0.190	
50	1 1/2	40	175 485 235	0.280	
63	2	50	175 485 236	0.510	
75	2 1/2	65	175 485 237	1.130	
90	3	80	175 485 238	1.800	
110	4	100	175 485 239	2.960	

PF 2 35 990 999

Cone (7)



d [mm]	Inch	DN [mm]	PVDF Code	kg	
16	3/8	10	175 484 151	0.007	
20	1/2	15	175 484 151	0.007	
25	3/4	20	175 484 152	0.011	
32	1	25	175 484 153	0.024	
40	1 1/4	32	175 484 154	0.047	
50	1 1/2	40	175 484 155	0.086	
63	2	50	175 484 156	0.136	

table continued next page

PF 2 35 990 999

d [mm]	Inch	DN [mm]	PVDF Code	kg	
75	2 ½	65	175 484 157	0.296	
90	3	80	175 484 158	0.520	
110	4	100	175 484 159	0.860	

Profile seal ring (5)

PF 2 31 986 999

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	⅜	10	749 436 001	0.005	
20	½	15	749 436 001	0.005	
25	¾	20	749 436 002	0.006	
32	1	25	749 436 003	0.011	
40	1 ¼	32	749 436 004	0.016	
50	1 ½	40	749 436 005	0.025	
63	2	50	749 436 006	0.045	
75	2 ½	65	749 436 007	0.121	
90	3	80	749 436 008	0.177	
110	4	100	749 436 009	0.261	

Seal set

Model:

- Seal set consisting of: profile seal ring (5) and face seal (3)

PF 2 31 986 999

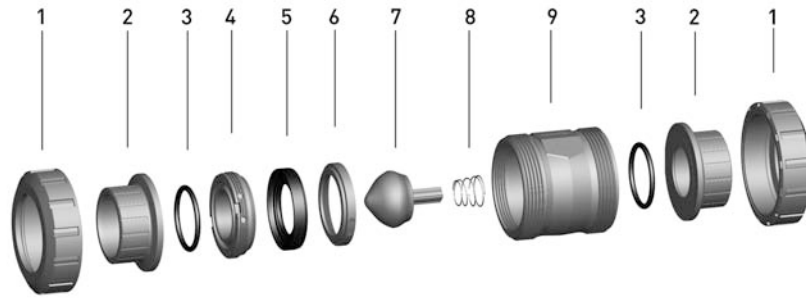
d [mm]	Inch	DN [mm]	FPM Code	kg	
16	⅜	10	161 485 251	0.009	
20	½	15	161 485 251	0.009	
25	¾	20	161 485 252	0.010	
32	1	25	161 485 253	0.015	
40	1 ¼	32	161 485 254	0.020	
50	1 ½	40	161 485 255	0.039	
63	2	50	161 485 256	0.052	
75	2 ½	65	161 485 257	0.128	
90	3	80	161 485 258	0.184	
110	4	100	161 485 259	0.318	

Face seal (3)

PF 2 31 800 999

d [mm]	Inch	DN [mm]	FPM Code	kg	
16	⅜	10	749 410 059	0.001	
20	½	15	749 410 059	0.001	
25	¾	20	749 410 106	0.001	
32	1	25	749 410 151	0.002	
40	1 ¼	32	749 410 062	0.005	
50	1 ½	40	749 410 003	0.001	
63	2	50	749 410 231	0.008	
75	2 ½	65	749 410 119	0.010	
90	3	80	749 410 023	0.012	
110	4	100	749 410 254	0.030	

Spare parts cone check valve type 561/562



Spring (8)

Model:

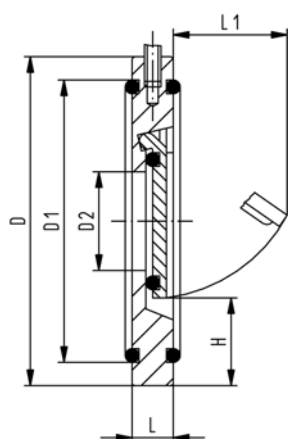
- Material: V2A, code: 1.4310
- Material: NIMONIC 90, code: 2.4632
- Material: NIMONIC 90, code: 2.4632, HALAR® coated

d [mm]	Inch	DN [mm]	Stainless steel Code	NIMONIC 90 HALAR coated Code	NIMONIC 90 Code	kg	
16	3/8	10	161 485 102	161 485 112	161 485 122	0.001	
20	1/2	15	161 485 102	161 485 112	161 485 122	0.001	
25	3/4	20	161 485 102	161 485 112	161 485 122	0.001	
32	1	25	161 485 103	161 485 113	161 485 123	0.001	
40	1 1/4	32	161 485 104	161 485 114	161 485 124	0.002	
50	1 1/2	40	161 485 105	161 485 115	161 485 125	0.002	
63	2	50	161 485 106	161 485 116	161 485 126	0.003	
75	2 1/2	65	161 485 107	161 485 117	161 485 127	0.003	
90	3	80	161 485 108	161 485 118	161 485 128	0.004	
110	4	100	161 485 109	161 485 119	161 485 129	0.004	

PF 2 31 986 999

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 metric flange adaptors
- Centering by body diameter
- 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)

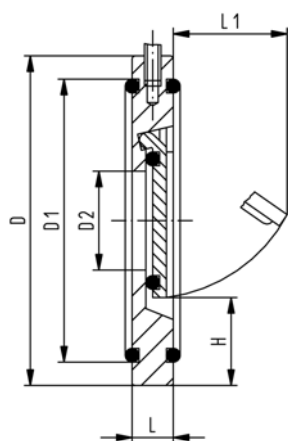
Note:

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	FPM Code	kg
40	32	6	175 369 022	0.133
50	40	6	175 369 023	0.184
63	50	6	175 369 024	0.272
75	65	6	175 369 025	0.410
90	80	6	175 369 026	0.508
110	100	6	175 369 027	0.722
140	125	6	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]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure hor- izontal [mbar]	Tightness from water column [m]	closest inch
40	85	59	18	15	22	25	10	1	2.0	1 ¼
50	95	74	22	16	27	27	10	1	2.0	1 ½
63	109	90	32	18	40	29	10	1	2.0	2
75	129	110	40	20	55	31	10	1	2.0	2 ½
90	144	125	54	20	67	32	10	1	2.0	3
110	164	150	70	23	67	31	10	1	2.0	4
140	195	178	92	23	94	35	10	1	2.0	5
160	220	192	105	26	100	41	10	1	2.0	6
225	275	256	154	35	152	38	18	1	2.0	8
280	330	306	192	40	180	41	18	1	2.0	10
315	380	342	227	45	215	41	18	1	2.0	12

PF 2 35 195 006



SYGEF Standard Wafer check valve type 369 With V4A spring (stainless steel 316)

Model:

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

Installation instruction:

- Installation between metric flange adaptors
- Centering by body diameter
- 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

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	FPM Code	kg
40	32	6	175 369 062	0.170
50	40	6	175 369 063	0.210
63	50	6	175 369 064	0.274
75	65	6	175 369 065	0.410
90	80	6	175 369 066	0.508
110	100	6	175 369 067	0.724
140	125	6	175 369 069	0.993
160	150	6	175 369 070	1.422
225	200	6	175 369 071	2.708
280	250	6	175 369 072	4.423
315	300	6	175 369 073	6.900

d [mm]	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure hor- izontal [mbar]	Tightness from water column [m]	closest inch
40	85	59	18	15	22	25	30	20	2.0	1 ¼
50	95	74	22	16	27	27	30	20	2.0	1 ½
63	109	90	32	18	40	29	30	20	2.0	2
75	129	110	40	20	55	31	30	20	2.0	2 ½
90	144	125	54	20	67	32	30	20	2.0	3
110	164	150	70	23	67	31	30	20	2.0	4
140	195	178	92	23	94	35	30	20	2.0	5
160	220	192	105	26	100	41	30	20	2.0	6
225	275	256	154	35	152	38	38	20	2.0	8
280	330	306	192	40	180	41	38	20	2.0	10
315	380	342	227	45	215	41	38	20	2.0	12

PF 2 35 195 006



SYGEF Standard Wafer check valve type 369 With Hastelloy C spring

Model:

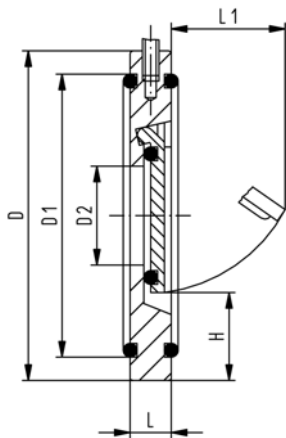
- Material: PVDF
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between metric flange adaptors
- Centering by body diameter
- 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

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	FPM Code	kg
40	32	6	175 369 102	0.170
50	40	6	175 369 103	0.210
63	50	6	175 369 104	0.330
75	65	6	175 369 105	0.420
90	80	6	175 369 106	0.510
110	100	6	175 369 107	0.710
140	125	6	175 369 109	0.970
160	150	6	175 369 110	1.420
225	200	6	175 369 111	2.710
280	250	6	175 369 112	4.520
315	300	6	175 369 113	6.900

d [mm]	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure hor- izontal [mbar]	Tightness from water column [m]	closest inch
40	85	59	18	15	22	25	30	20	2.0	1 ¼
50	95	74	22	16	27	27	30	20	2.0	1 ½
63	109	90	32	18	40	29	30	20	2.0	2
75	129	110	40	20	55	31	30	20	2.0	2 ½
90	144	125	54	20	67	32	30	20	2.0	3
110	164	150	70	23	67	31	30	20	2.0	4
140	195	178	92	23	94	35	30	20	2.0	5
160	220	192	105	26	100	41	30	20	2.0	6
225	275	256	154	35	152	38	38	20	2.0	8
280	330	306	192	40	180	41	38	20	2.0	10
315	380	342	227	45	215	41	38	20	2.0	12

PF 2 35 195 006

Spare parts wafer check valve type 369



Seal set (1)



PF 2 31 161 999

d [mm]	Inch	DN [mm]	FPM Code	kg	
40	1 ¼	32	161 484 887	0.004	
50	1 ½	40	161 484 888	0.006	
63	2	50	161 484 889	0.020	
75	2 ½	65	161 484 890	0.012	
90	3	80	161 484 891	0.020	
110	4	100	161 484 892	0.026	
140	5	125	161 484 893	0.033	
160	6	150	161 484 894	0.034	
225	8	200	161 484 895	0.070	
280	10	250	161 484 896	0.119	
315	12	300	161 484 897	0.130	

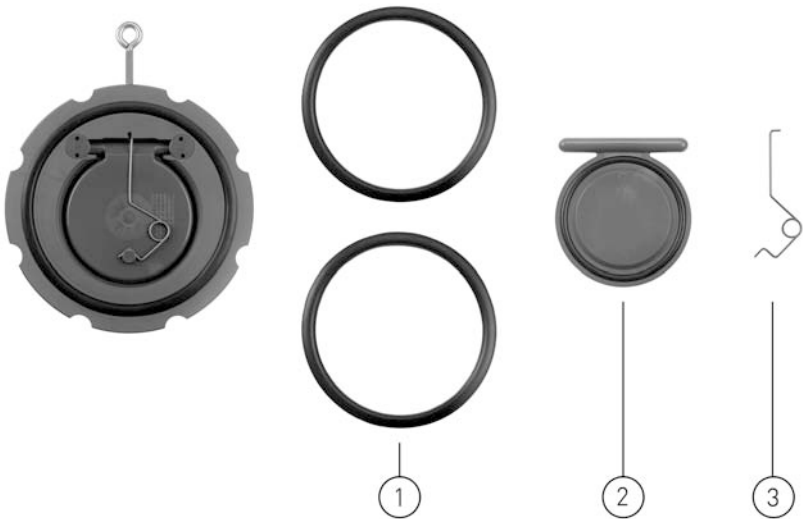
Disc set (2)



PF 2 35 195 999

d [mm]	Inch	DN [mm]	PVDF FPM Code	kg	
40	1 ¼	32	175 369 142	0.005	
50	1 ½	40	175 369 143	0.010	
63	2	50	175 369 144	0.022	
75	2 ½	65	175 369 145	0.041	
90	3	80	175 369 146	0.055	
110	4	100	175 369 147	0.114	
140	5	125	175 369 148	0.168	
160	6	150	175 369 149	0.250	
225	8	200	175 369 150	0.615	
280	10	250	175 369 151	1.081	
315	12	300	175 369 152	1.628	

Spare parts wafer check valve type 369



Spring (3)



d [mm]	Inch	DN [mm]	V4A Code	Hastelloy C Code	kg	
40	1 ¼	32	161 484 900	161 484 912	0.100	
50	1 ½	40	161 484 901	161 484 913	0.001	
63	2	50	161 484 902	161 484 914	0.002	
75	2 ½	65	161 484 903	161 484 915	0.011	
90	3	80	161 484 904	161 484 916	0.001	
110	4	100	161 484 905	161 484 917	0.005	
140	5	125	161 484 905	161 484 917	0.005	
160	6	150	161 484 907	161 484 919	0.002	
225	8	200	161 484 908	161 484 920	0.023	
280	10	250	161 484 909	161 484 921	0.032	
315	12	300	161 484 910	161 484 922	0.035	

PF 2 31 161 999

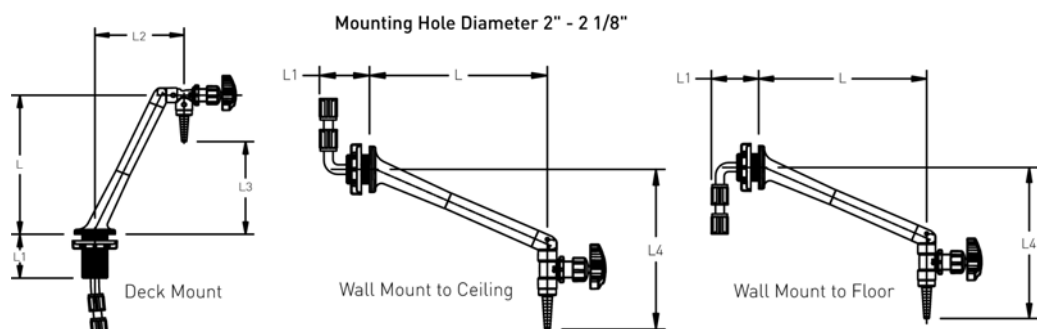
AQUATAP

Type 530 AquaTap Recirculating Laboratory Faucet Made of SYGEF PVDF with 5/8" PFA Tubing and Flare Connections



- The faucet is made from high purity PVDF
- Mounting hole diameter 2" - 2 1/8"

description	PN* [bar]	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]
Deck Mount	6	175 530 001	0.850	270	89	152	183	
Wall Mount to Ceiling	6	175 530 002	0.850	270	80			239
Wall Mount to Floor	6	175 530 003	0.850	270	80			239



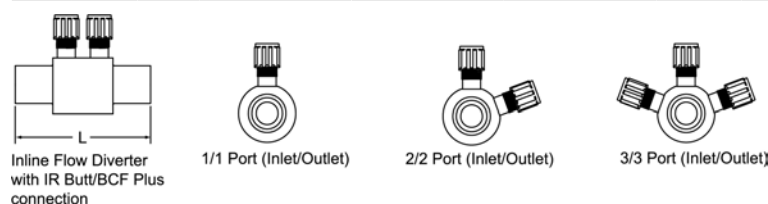
PF 2 76 760 001

PROGEF Standard PP Inline Flow Diverter IR Plus Fusion



- Shipped with nuts and tube blankoffs
- Other dimension available upon request
- NOTE: Inline Flow Diverter is designed to be used with a Georg Fischer Aquatap Faucet and is not sold separately.

d [mm]	L [mm]	PN* [bar]	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code	kg
25	180	10	167 530 123			
32	180	10	167 530 124	167 530 144	167 530 164	0.001
40	180	10	167 530 125	167 530 145	167 530 165	0.001
50	180	10	167 530 126	167 530 146	167 530 166	0.001
63	180	10	167 530 127	167 530 147	167 530 167	0.001
75	180	10	167 530 128	167 530 148	167 530 168	0.001



PF 2 76 755 001

SYGEF PVDF Inline Flow Diverter IR Plus / BCF Plus Fusion

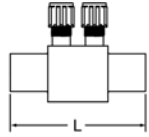


- Shipped with nuts and tube blankoffs
- Other dimension available upon request
- NOTE: Inline Flow Diverter is designed to be used with a Georg Fischer Aquatap Faucet and is not sold separately.

d [mm]	L [mm]	PN* [bar]	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code	kg
25	180	10	175 530 123			
32	180	10	175 530 124	175 530 144	175 530 164	0.001
40	180	10	175 530 125	175 530 145	175 530 165	0.001

table continued next page

d [mm]	L [mm]	PN* [bar]	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code	kg	
50	180	10	175 530 126	175 530 146	175 530 166	0.001	
63	180	10	175 530 127	175 530 147	175 530 167	0.001	
75	180	10	175 530 128	175 530 148	175 530 168		



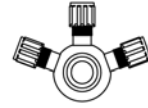
Inline Flow Diverter
with IR Butt/BCF Plus
connection



1/1 Port (Inlet/Outlet)



2/2 Port (Inlet/Outlet)



3/3 Port (Inlet/Outlet)

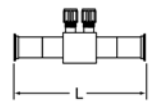
PF 2 76 760 001

SYGEF PVDF Inline Flow Diverter Sanitary Tri-Clamp



- Shipped with nuts and tube blankoffs
- NOTE: Inline Flow Diverter is designed to be used with a Georg Fischer Aquatap Faucet and is not sold separately.

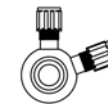
Sanitary [inch]	PN* [bar]	L [mm]	Ports 1/1 Code	Ports 2/2 Code	Ports 3/3 Code	kg	
1 1/2"	10	294	175 530 225	175 530 245	175 530 265	0.001	
2"	10	316	175 530 226	175 530 246	175 530 266	0.001	
2 1/2"	10	314	175 530 227	175 530 247	175 530 267	0.001	



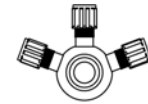
Inline with sanitary tri-
clamp connections
flow diverter



1/1 Port (Inlet/Outlet)



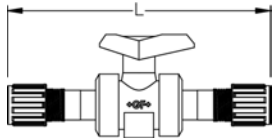
2/2 Port (Inlet/Outlet)



3/3 Port (Inlet/Outlet)

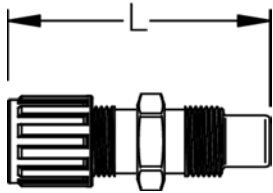
PF 2 76 760 001

Isolation Ball Valve, Flare Adapter



PF 2 76 760 001

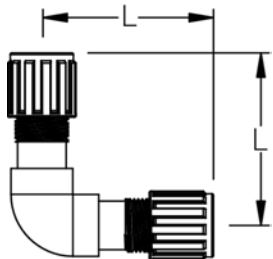
Size	PN* [bar]	L [mm]	PVDF Code	Natural PP Code	kg	
5/8" Flare Adapters	6	214	175 530 032	168 530 032	0.001	



PF 2 76 760 001

Straight Coupler, Flare Adapter

Size	PN* [bar]	L [mm]	PVDF Code	kg	
5/8" Flare Adapters	6	75	175 530 011	0.045	



PF 2 76 760 001

90° Elbow, Flare Adapter

Size	PN* [bar]	L [mm]	PVDF Code	Natural PP Code	kg	
5/8" Flare Adapters	6	85	175 530 012	168 530 012	0.001	

5/8" Compression Fittings

	description	PN*	PVDF	Natural PP	kg	
		[bar]	Code	Code		
PF 2 76 760 001	5/8" Tube x 5/8" Tube Straight Coupler	6	175 530 013	168 530 013	0.001	
	5/8" Tube x 5/8" Tube 90 Elbow	6	175 530 014	168 530 014	0.001	
	5/8" Tube x 1/2" Tube MNPT Tee	6	175 530 015	168 530 015	0.001	
	5/8" Tube x 1/2" Tube NPT Male Adapter	6	175 530 016	168 530 016	0.001	
	5/8" Tube x 1/2" Tube NPT Female Adapter	6	175 530 017	168 530 017	0.001	

Flexible 5/8" Tubing

	description	PN*	Material	Code	
		[bar]			
PF 2 76 760 001	5/8" dia x 0.65 wall Tubing (Plain)	6	PFA	178 530 001	
	5/8" dia x 0.65 wall Tubing (Plain)	6	PE	193 530 001	

Accessories

	description	Code	kg	
PF 2 76 760 001	90 Bend Tube Protector	150 530 002	0.001	
	Tube Clip	150 530 003	0.001	
	5/8" Flare Nut	175 530 010	0.001	
	5/8" Tube Blankoff	193 530 010	0.001	
	Faucet Isolation Clamp	150 530 001		

General information, SYGEF PVDF Piping systems for Silicon-Free or Oil-Free requirements

Silicon Free & Oil Free

Whilst the typical demand for Silicon Free piping systems has come from Surface Finish (paint & varnish) applications, there is an increasing demand for specially cleaned valves in other fields. Further to this we see a demand for specific Oil Free products in microelectronics & other critical areas.

High Purity

The SYGEF Plus range of PVDF-HP pipes, fittings and valves effectively fulfils the typical Silicon Free and Oil Free requirements, due to the clean room production, cleaning of fittings & valves, and the double-bag packing under clean room conditions.

Ball Valves, Check Valves

By their nature, Ball Valves and Check Valves are not a High-Purity design. However for demanding requirements we offer a limited range of specially cleaned & packed Silicon Free or Oil Free Ball Valves and Check valves.

Diaphragm Valves

For applications requiring Silicon Free or Oil Free, we advise to use SYGEF Plus diaphragm valves only.

Unions

We advise to use SYGEF Plus unions only. If socket-fusion unions are required, specially cleaned versions are available on request.

Flange Gaskets

We advise to use SYGEF Plus flange gaskets, Silicon Free cleaned Profile flange gaskets, or commercially available High-Purity ePTFE flange gaskets depending on the application.

Cleaning process

The individual parts are cleaned with Deionised Water (14-18M) in a specified process. They are assembled in a dedicated clean working area by hand, with Silicon Free gloves.

Silicon Free Lubricant

Static seals are not lubricated. Seals which are subject to movement will be lightly smeared with a specified Silicon Free lubricant e.g. Synthese PRO AA4.

Oil-Free Lubricant

Static seals are not lubricated. Seals which are subject to movement will be lightly smeared with a specified Perfluoropolyether, Oil Free lubricant e.g. Krytox GPL 105.

Packaging & Labelling

All specially cleaned Silicon Free or Oil Free products are single-packed in sealed bags. The products are labelled.

A rectangular label with a thin black border and the text "SILICON FREE" in bold, black, sans-serif capital letters.A rectangular label with a thin black border and the text "OIL FREE" in bold, black, sans-serif capital letters.

Maintenance

For reasons of safety & cleanliness, we recommend changing the entire valve body when maintenance is required, & therefore do not offer Silicon Free or Oil Free spare parts.

Ball valves silicone free/paint compatible

SYGEF Standard silicone free

Ball valve type 546

With mounting inserts

With butt fusion spigots IR-Plus metric



DN10/15 - 50

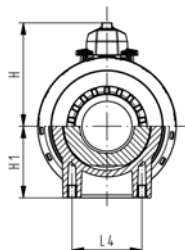
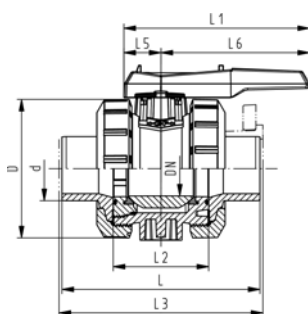
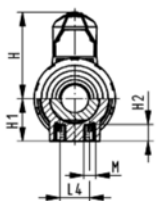
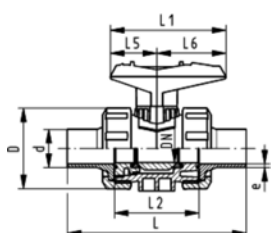


Model:

- Material: PVDF / silicone free cleaned
- Ball seals PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



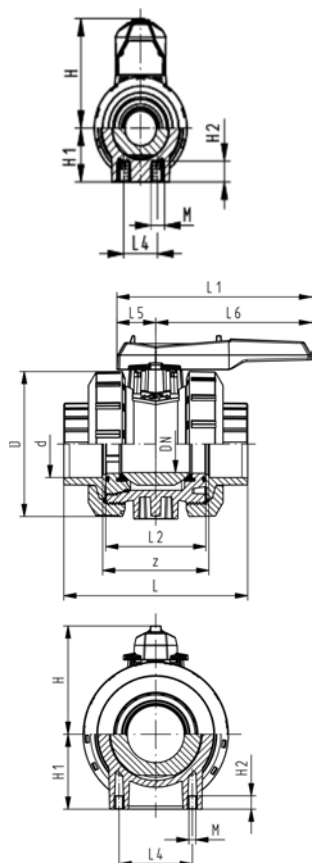
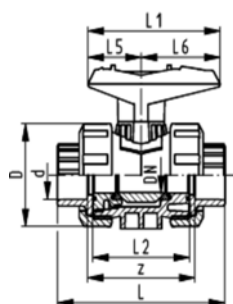
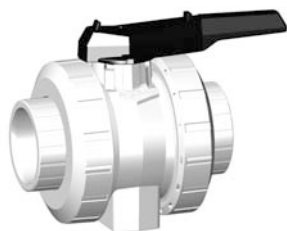
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
20	15	16	185	175 546 752	0.201	
25	20	16	350	175 546 753	0.310	
32	25	16	700	175 546 754	0.460	
40	32	16	1000	175 546 755	0.780	
50	40	16	1600	175 546 756	1.110	
63	50	16	3100	175 546 757	2.150	
75	65	16	5000	175 546 758	6.600	
90	80	16	7000	175 546 759	9.700	
110	100	16	11000	175 546 760	15.300	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch	
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	½	
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	¾	
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1	
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 ¼	
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 ½	
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2	
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 ½	
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3	
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4	

PF 2 35 540 801



DN10/15 - 50



SYGEF Standard oil free Ball valve type 546 With mounting inserts With fusion sockets metric

Model:

- Material: PVDF / oil free cleaned
- Ball seals PTFE
- For easy installation and removal
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

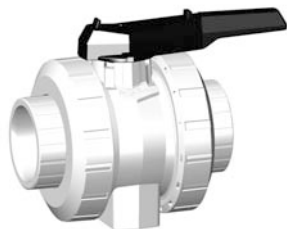
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	16	71	175 546 471	0.195
20	15	16	185	175 546 472	0.200
25	20	16	350	175 546 473	0.298
32	25	16	700	175 546 474	0.429
40	32	16	1000	175 546 475	0.754
50	40	16	1600	175 546 476	1.009
63	50	16	3100	175 546 477	2.055
75	65	16	5000	175 546 478	6.300
90	80	16	7000	175 546 479	9.500
110	100	16	11000	175 546 480	15.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	57	27	12	93	77	56	25	32	45	M6	67	$\frac{3}{8}$
20	50	57	27	12	95	77	56	25	32	45	M6	66	$\frac{1}{2}$
25	58	67	30	12	109	97	65	25	39	58	M6	77	$\frac{3}{4}$
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 $\frac{1}{4}$
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 $\frac{1}{2}$
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 $\frac{1}{2}$
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4

PF 2 35 540 801



DN10/15 - 50



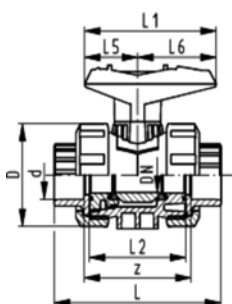
SYGEF Standard silicone free Ball valve type 546 With mounting inserts With fusion sockets metric

Model:

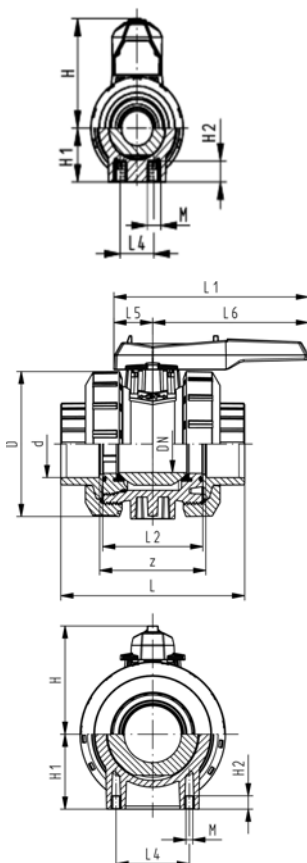
- Material: PVDF / silicone free cleaned
- Ball seals PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	16	71	175 546 691	0.195
20	15	16	185	175 546 692	0.200
25	20	16	350	175 546 693	0.300
32	25	16	700	175 546 694	0.440
40	32	16	1000	175 546 695	0.760
50	40	16	1600	175 546 696	1.060
63	50	16	3100	175 546 697	2.055
75	65	16	5000	175 546 698	6.300
90	80	16	7000	175 546 699	9.500
110	100	16	11000	175 546 700	15.000

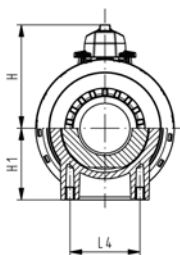
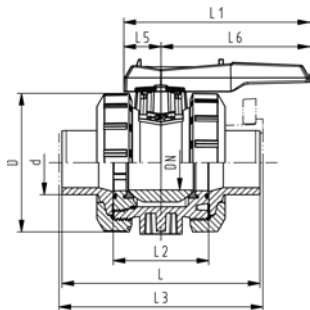
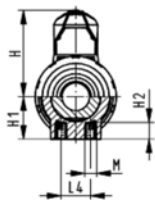
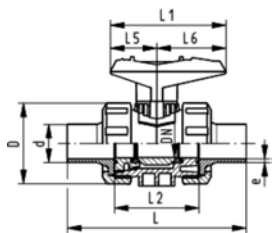
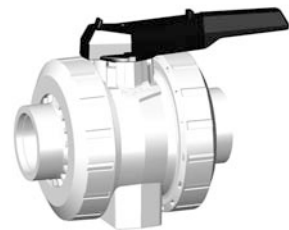


d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4

PF 2 35 540 801



DN10/15 - 50



PF 2 35 540 801

SYGEF Standard oil free Ball valve type 546 With mounting inserts With butt fusion spigots IR-Plus metric

Model:

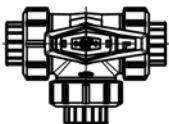
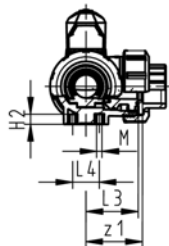
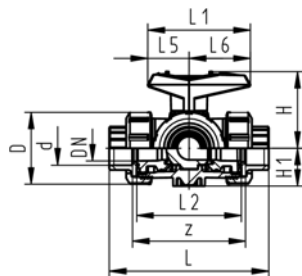
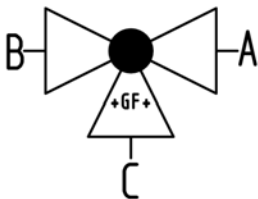
- Material: PVDF / oil free cleaned
- Union ends for easy installation and removal
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	16	185	175 546 492	0.202
25	20	16	350	175 546 493	0.301
32	25	16	700	175 546 494	0.438
40	32	16	1000	175 546 495	0.780
50	40	16	1600	175 546 496	1.057
63	50	16	3100	175 546 497	2.150
75	65	16	5000	175 546 498	6.600
90	80	16	7000	175 546 499	9.700
110	100	16	11000	175 546 500	15.300

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 1/2
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4



SYGEF Standard silicone free 3-Way ball valve type 543 Horizontal/L-port With fusion sockets metric

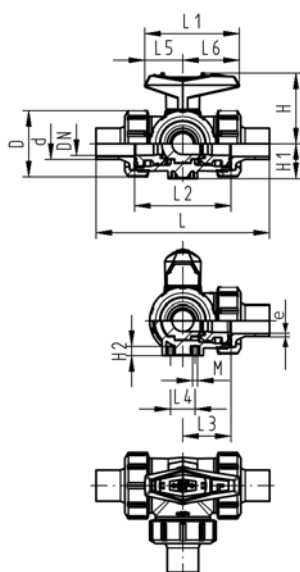
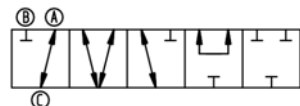
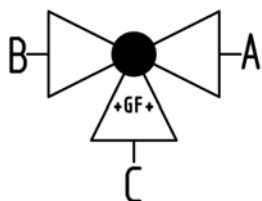
Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme
- Ball seals PVDF

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
16	10	10	50	175 543 211	0.312										
20	15	10	75	175 543 212	0.320										
25	20	10	150	175 543 213	0.461										
32	25	10	280	175 543 214	0.704										
40	32	10	480	175 543 215	1.199										
50	40	10	620	175 543 216	1.778										
63	50	10	1230	175 543 217	3.462										

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801



SYGEF Standard silicone free 3-Way ball valve type 543 Horizontal/L-port With butt fusion spigots IR-Plus metric

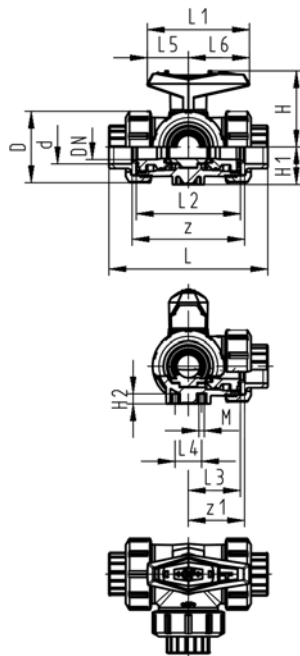
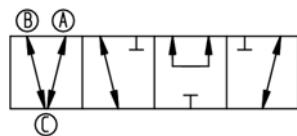
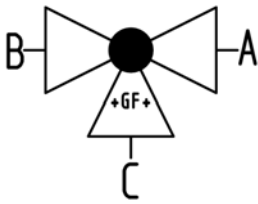
Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme
- Ball seals PVDF

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
20	15	10	75	175 543 252	0.332	
25	20	10	150	175 543 253	0.480	
32	25	10	280	175 543 254	0.735	
40	32	10	480	175 543 255	1.226	
50	40	10	620	175 543 256	1.859	
63	50	10	1230	175 543 257	3.624	

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]	closest inch	
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	½	
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	¾	
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1	
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 ¼	
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 ½	
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2	

PF 2 35 735 801



SYGEF Standard silicone free 3-Way ball valve type 543 Horizontal/T-port With fusion sockets metric

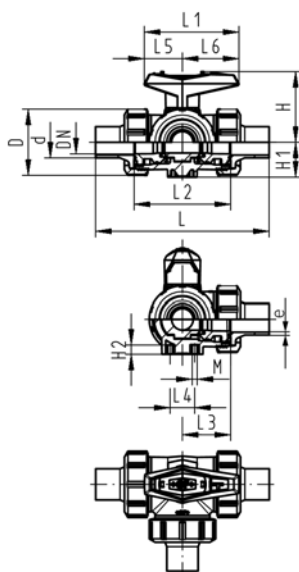
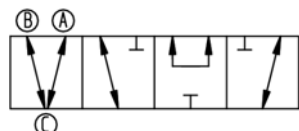
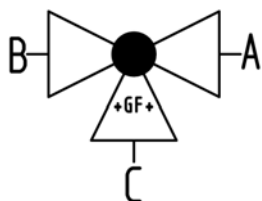
Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme
- Ball seals PVDF

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
16	10	10	140	175 543 311	0.311										
20	15	10	200	175 543 312	0.319										
25	20	10	470	175 543 313	0.458										
32	25	10	793	175 543 314	0.695										
40	32	10	1290	175 543 315	1.185										
50	40	10	1910	175 543 316	1.751										
63	50	10	3100	175 543 317	3.405										

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801



SYGEF Standard silicone free 3-Way ball valve type 543 Horizontal/T-port With butt fusion spigots IR-Plus metric

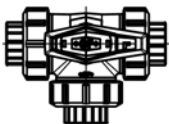
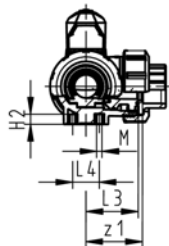
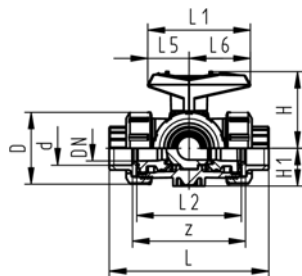
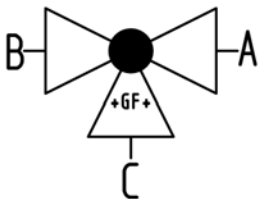
Model:

- Material: PVDF / silicone free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme
- Ball seals PVDF

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	200	175 543 352	0.330
25	20	10	470	175 543 353	0.478
32	25	10	793	175 543 354	0.726
40	32	10	1290	175 543 355	1.212
50	40	10	1910	175 543 356	1.832
63	50	10	3100	175 543 357	3.566

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]	closest inch
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	1/2
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	3/4
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 1/4
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 1/2
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2

PF 2 35 735 801



SYGEF Standard oil free 3-Way ball valve type 543 Horizontal/L-port With fusion sockets metric

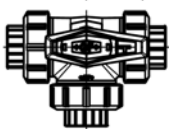
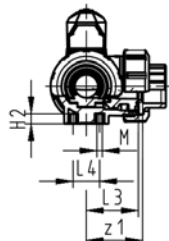
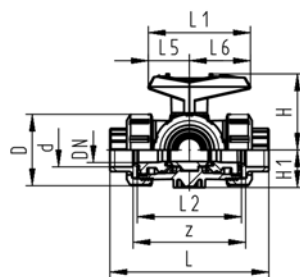
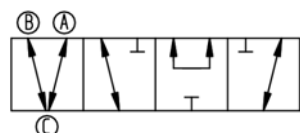
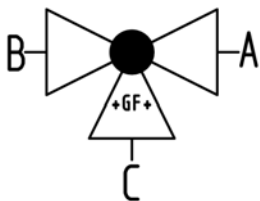
Model:

- Material: PVDF / oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg										
16	10	10	50	175 543 611	0.312										
20	15	10	75	175 543 612	0.320										
25	20	10	150	175 543 613	0.423										
32	25	10	280	175 543 614	0.653										
40	32	10	480	175 543 615	1.121										
50	40	10	620	175 543 616	1.778										
63	50	10	1230	175 543 617	3.462										

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801



SYGEF Standard oil free 3-Way ball valve type 543 Horizontal/T-port With fusion sockets metric

Model:

- Material: PVDF / oil free cleaned
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	140	175 543 631	0.311
20	15	10	200	175 543 632	0.319
25	20	10	470	175 543 633	0.458
32	25	10	793	175 543 634	0.695
40	32	10	1290	175 543 635	1.185
50	40	10	1910	175 543 636	1.751
63	50	10	3100	175 543 637	3.405

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

PF 2 35 735 801

Cone check valves silicone free

SYGEF Standard silicone free

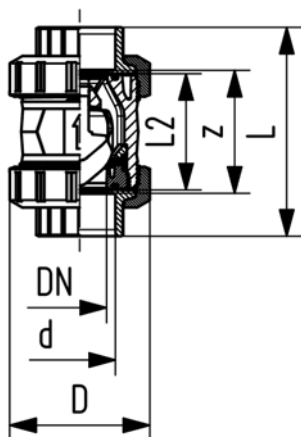
Check valve type 561

With fusion sockets metric

Model:

- Material: PVDF / silicone free cleaned
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
16	10	16	190	175 561 211	0.160	50	93	56	67	3/8
20	15	16	180	175 561 212	0.160	50	95	56	66	1/2
25	20	16	380	175 561 213	0.340	58	109	65	77	3/4
32	25	16	460	175 561 214	0.360	68	119	71	83	1
40	32	16	850	175 561 215	0.670	84	135	85	99	1 1/4
50	40	16	1080	175 561 216	0.990	97	147	89	105	1 1/2
63	50	16	1670	175 561 217	1.770	124	168	101	117	2
75	65	16	2950	175 561 218	3.630	166	235	136	167	2 1/2
90	80	16	3600	175 561 219	5.800	200	255	141	180	3
110	100	16	4150	175 561 220	9.450	238	305	164	215	4

SYGEF Standard silicone free

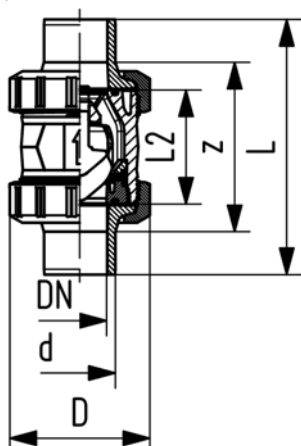
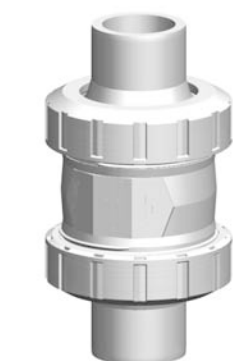
Check valve type 561

With socket fusion spigots metric

Model:

- Material: PVDF / silicone free cleaned
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch
20	15	16	180	175 561 232	0.170	50	120	56	1/2
25	20	16	380	175 561 233	0.370	58	139	65	3/4
32	25	16	460	175 561 234	0.400	68	150	71	1
40	32	16	850	175 561 235	0.670	84	170	85	1 1/4
50	40	16	1080	175 561 236	1.030	97	190	89	1 1/2
63	50	16	1670	175 561 237	1.830	124	220	101	2

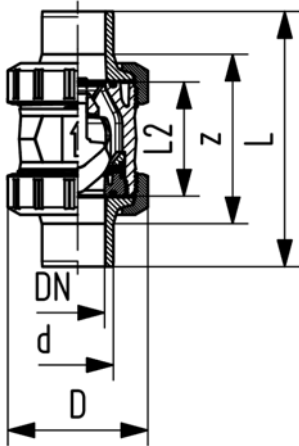


SYGEF Standard silicone free Check valve type 561 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF / silicone free cleaned
- Designed for easy installation and removal
- Sealing at a minimum water column of 2m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 211

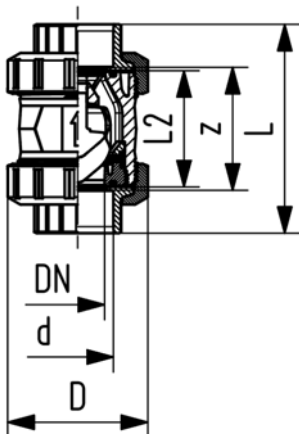
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch	
20	15	16	180	175 561 272	0.160	50	130	56	1.9	½	
25	20	16	380	175 561 273	0.350	58	143	65	1.9	¾	
32	25	16	460	175 561 274	0.380	68	150	71	2.4	1	
40	32	16	850	175 561 275	0.660	84	171	85	2.4	1 ¼	
50	40	16	1080	175 561 276	1.000	97	191	89	3.0	1 ½	
63	50	16	1670	175 561 277	1.790	124	220	101	3.0	2	
75	65	16	2950	175 561 278	3.680	166	290	136	3.6	2 ½	
90	80	16	3600	175 561 279	5.760	200	310	141	4.3	3	
110	100	16	4150	175 561 280	9.270	238	350	164	5.3	4	

SYGEF Standard silicone free Check valve type 562 With fusion sockets metric

Model:

- Material: PVDF / silicone free cleaned
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch	
16	10	16	190	175 562 211	0.160	50	93	56	67	¾	
20	15	16	180	175 562 212	0.160	50	95	56	66	½	
25	20	16	380	175 562 213	0.340	58	109	65	77	¾	
32	25	16	460	175 562 214	0.360	68	119	71	83	1	
40	32	16	850	175 562 215	0.670	84	135	85	99	1 ¼	
50	40	16	1080	175 562 216	0.990	97	147	89	105	1 ½	
63	50	16	1670	175 562 217	1.770	124	168	101	117	2	
75	65	16	2950	175 562 218	3.630	166	235	136	167	2 ½	
90	80	16	3600	175 562 219	5.800	200	255	141	180	3	
110	100	16	4150	175 562 220	9.450	238	305	164	215	4	

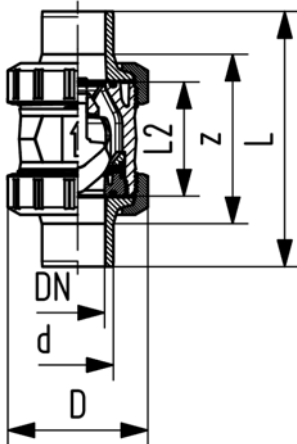


SYGEF Standard silicone free Check valve type 562 With socket fusion spigots metric

Model:

- Material: PVDF / silicone free cleaned
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch	
20	15	16	180	175 562 232	0.170	50	120	56	½	
25	20	16	380	175 562 233	0.370	58	139	65	¾	
32	25	16	460	175 562 234	0.400	68	150	71	1	
40	32	16	850	175 562 235	0.670	84	170	85	1 ¼	
50	40	16	1080	175 562 236	1.030	97	190	89	1 ½	
63	50	16	1670	175 562 237	1.830	124	220	101	2	

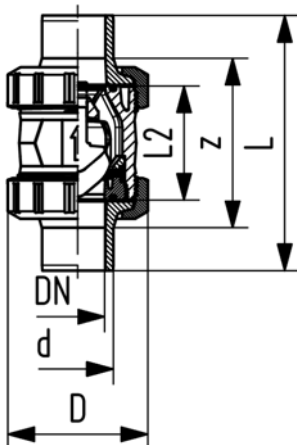


SYGEF Standard silicone free Check valve type 562 With butt fusion spigots IR-Plus metric

Model:

- Material: PVDF / silicone free cleaned
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Sealing at a minimum water column of 0.5m
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



PF 2 35 990 111

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch	
20	15	16	180	175 562 272	0.160	50	130	56	1.9	½	
25	20	16	380	175 562 273	0.350	58	143	65	1.9	¾	
32	25	16	460	175 562 274	0.380	68	150	71	2.4	1	
40	32	16	850	175 562 275	0.660	84	171	85	2.4	1 ¼	
50	40	16	1080	175 562 276	1.000	97	191	89	3.0	1 ½	
63	50	16	1670	175 562 277	1.790	124	220	101	3.0	2	
75	65	16	2950	175 562 278	3.680	166	290	136	3.6	2 ½	
90	80	16	3600	175 562 279	5.760	200	310	141	4.3	3	
110	100	16	4150	175 562 280	9.270	238	350	164	5.3	4	

Ball valves electric

SYGEF Standard

Ball valve type 107 100-230V

With manual emergency override

With fusion sockets metric



DN10/15 - 50

Model:

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

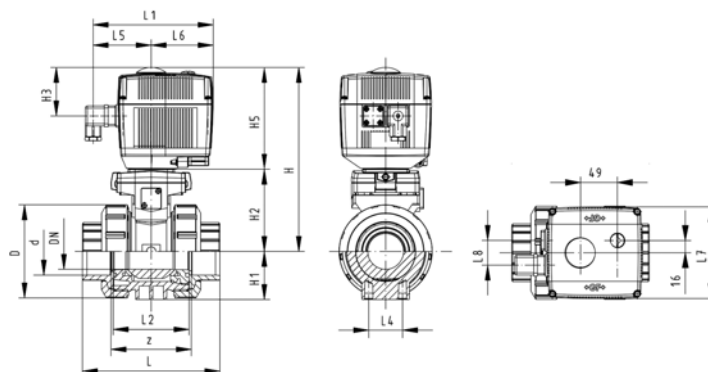
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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	92	161	56	25	79	83	122	67	64
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	64
25	58	209	30	73	64	137	110	161	65	25	79	83	122	67	72
32	68	209	36	73	64	137	123	161	71	25	79	83	122	67	79
40	84	220	44	84	64	137	146	161	85	45	79	83	122	67	94
50	97	220	51	84	64	137	157	161	89	45	79	83	122	67	95
63	124	243	64	106	64	137	183	161	101	45	79	83	122	67	107

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



PF 3 39 695 035



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

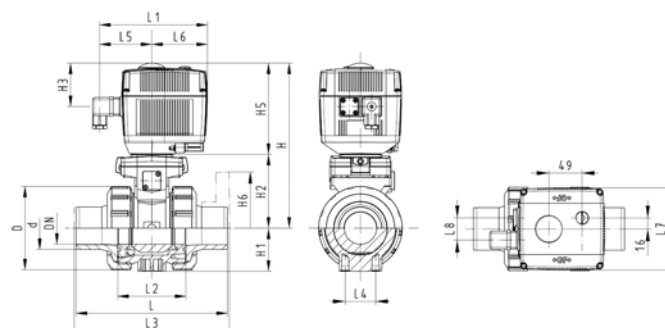
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
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 [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
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



PF 3 39 695 035



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

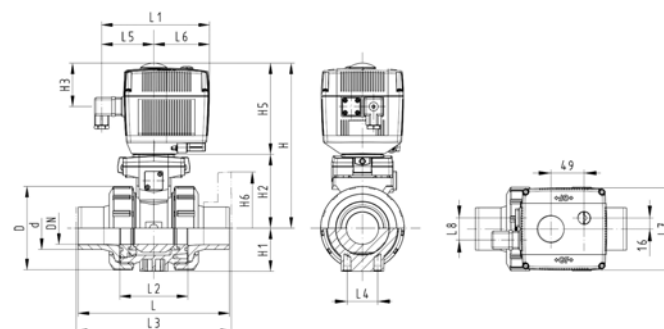
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67

d [mm]	closest inch
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



PF 3 39 695 035



DN10/15 - 50

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

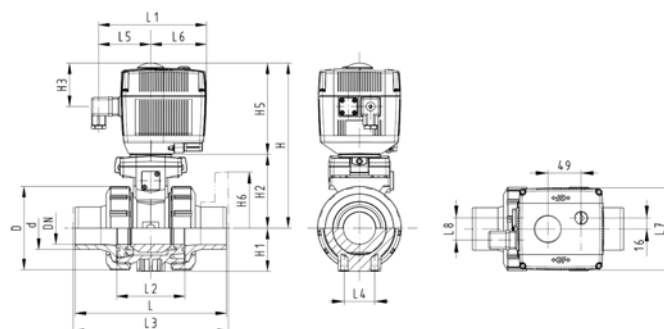
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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]
20	50	200	27	64	64	137	130	161	56	25	79	83	122	67
25	58	209	30	73	64	137	143	161	65	25	79	83	122	67
32	68	209	36	73	64	137	150	161	71	25	79	83	122	67
40	84	220	44	84	64	137	171	161	85	45	79	83	122	67
50	97	220	51	84	64	137	191	161	89	45	79	83	122	67
63	124	243	64	106	64	137	220	161	101	45	79	83	122	67

d [mm]	closest inch
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



PF 3 39 695 035



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

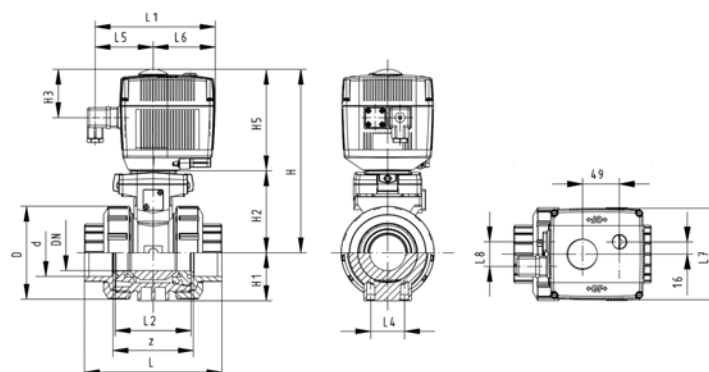
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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	92	161	56	25	79	83	122	67	64
20	50	200	27	64	64	137	95	161	56	25	79	83	122	67	64
25	58	209	30	73	64	137	110	161	65	25	79	83	122	67	72
32	68	209	36	73	64	137	123	161	71	25	79	83	122	67	79
40	84	220	44	84	64	137	146	161	85	45	79	83	122	67	94
50	97	220	51	84	64	137	157	161	89	45	79	83	122	67	95
63	124	243	64	106	64	137	183	161	101	45	79	83	122	67	107

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



PF 3 39 695 035



DN10/15 - 50

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

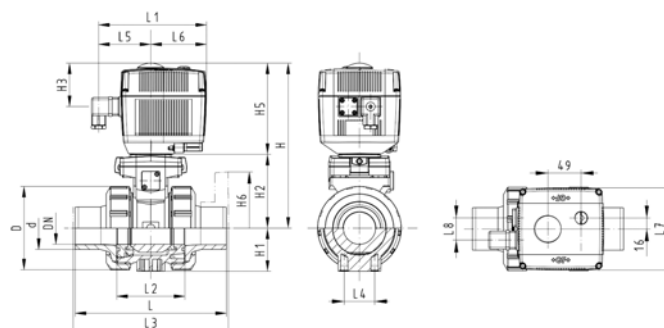
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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
16	¾
20	½
25	¾
32	1
40	1 ¼
50	1 ½
63	2



PF 3 39 695 035



DN10/15 - 50

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 dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

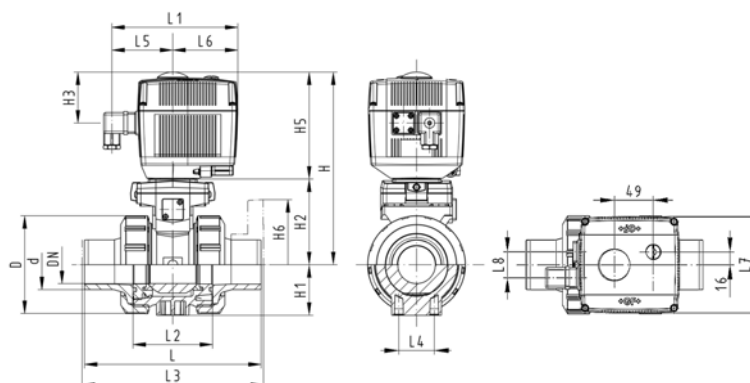
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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



PF 3 39 695 035



SYGEF Standard Ball valve type 132 100-230V With manual emergency override With butt fusion spigots IR-Plus metric

Model:

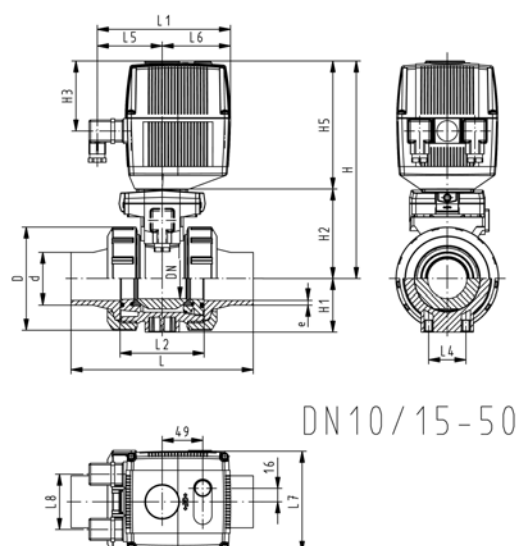
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

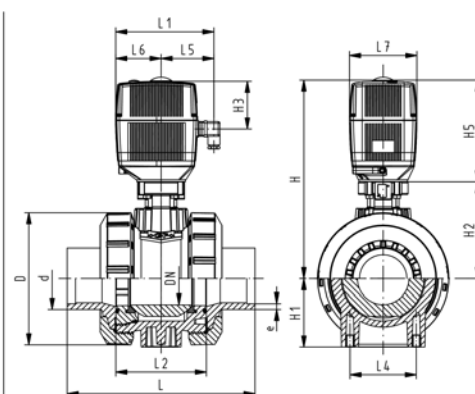
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	185	199 132 113	2.100
25	20	10	350	199 132 114	2.200
32	25	10	700	199 132 115	2.300
40	32	10	1000	199 132 116	2.600
50	40	10	1600	199 132 117	3.000
63	50	10	3100	199 132 118	3.800
75	65	10	5000	199 132 119	9.100
90	80	10	7000	199 132 120	12.200
110	100	10	11000	199 132 121	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
63	124	273	64	106	94	167	220	180	101	45	97	122	3.0
75	166	346	85	156	94	190	266	180	136	70	98	122	3.6
90	200	358	105	168	94	190	264	180	141	70	98	122	4.3
110	238	365	123	175	94	190	301	180	164	70	98	122	5.3



DN10/15-50



DN65-100

PF 3 39 695 035



DN10/15 - 50



SYGEF Standard Ball valve type 132 100-230V With manual emergency override With fusion sockets metric

Model:

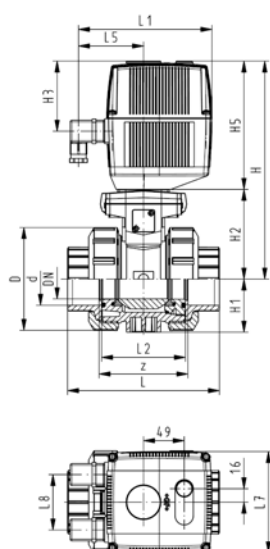
- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

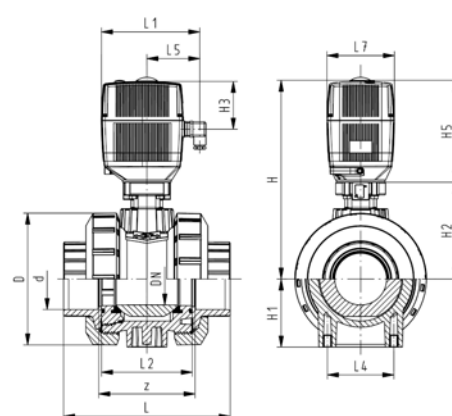
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	70	199 132 012	2.100
20	15	10	185	199 132 013	2.100
25	20	10	350	199 132 014	2.200
32	25	10	700	199 132 015	2.300
40	32	10	1000	199 132 016	2.600
50	40	10	1600	199 132 017	3.000
63	50	10	3100	199 132 018	3.800
75	65	10	5000	199 132 019	8.800
90	80	10	7000	199 132 020	11.900
110	100	10	11000	199 132 021	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]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100

PF 3 39 695 035



SYGEF Standard Ball valve type 132 100-230V With manual emergency override With socket fusion spigots metric

Model:

- Material: PVDF
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<)

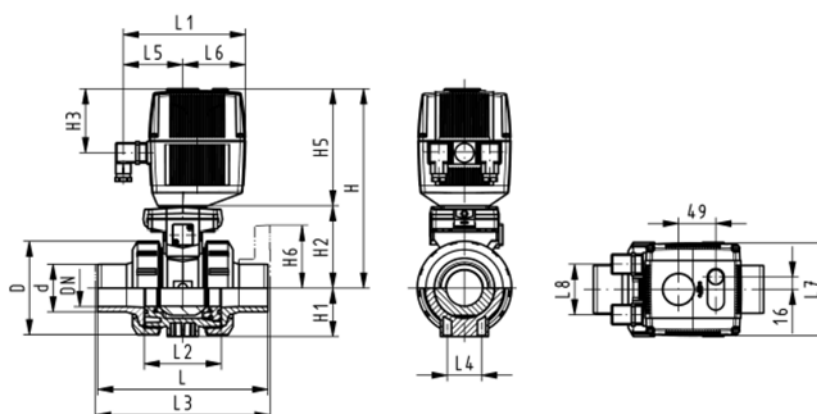
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	70	199 132 032	2.100
20	15	10	185	199 132 033	2.100
25	20	10	350	199 132 034	2.200
32	25	10	700	199 132 035	2.300
40	32	10	1000	199 132 036	2.600
50	40	10	1600	199 132 037	3.000
63	50	10	3100	199 132 038	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	231	27	64	94	167	114	180	56	130	25	97	83	122	66
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122	66
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122	66
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122	66
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122	66
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122	66
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122	66

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



PF 3 39 695 035



DN10/15 - 50

SYGEF Standard

Ball valve type 132 100-230V

With manual emergency override

With fixed flanges PVDF serrated metric

Model:

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

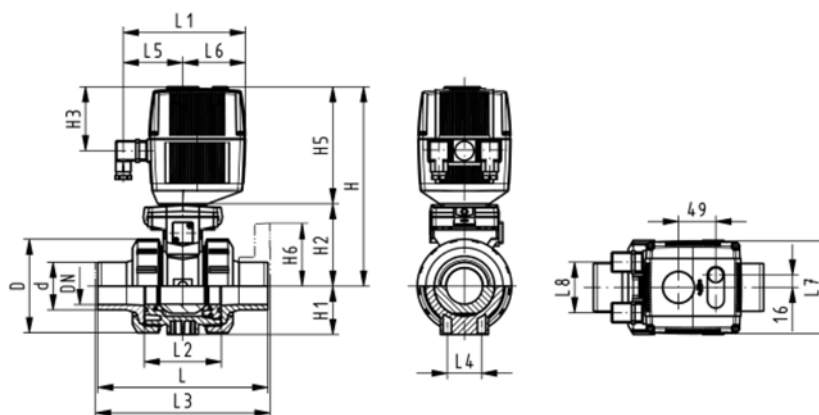
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	½	10	185	199 132 083	2.300
25	20	¾	10	350	199 132 084	2.500
32	25	1	10	700	199 132 085	2.700
40	32	1 ¼	10	1000	199 132 086	3.200
50	40	1 ½	10	1600	199 132 087	3.700
63	50	2	10	3100	199 132 088	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	231	27	64	94	167	48	124	180	56	130	25	98	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	98	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

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



PF 3 39 695 035



DN10/15 - 50



SYGEF Standard Ball valve type 132 24V With manual emergency override With fusion sockets metric

Model:

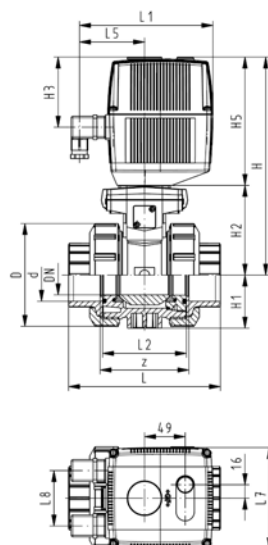
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

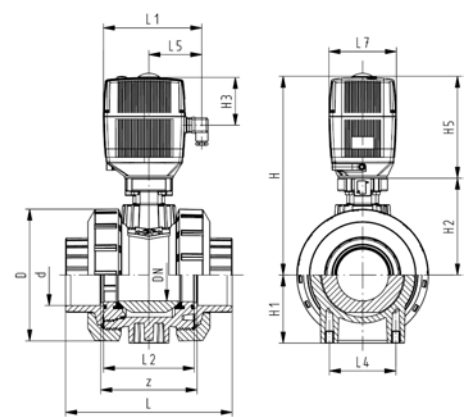
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	70	199 132 052	2.100
20	15	10	185	199 132 053	2.100
25	20	10	350	199 132 054	2.200
32	25	10	700	199 132 055	2.744
40	32	10	1000	199 132 056	2.600
50	40	10	1600	199 132 057	3.000
63	50	10	3100	199 132 058	3.800
75	65	10	5000	199 132 059	8.800
90	80	10	7000	199 132 060	11.900
110	100	10	11000	199 132 061	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]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	122	64
20	50	231	27	64	94	167	95	180	56	25	97	122	64
25	58	240	30	73	94	167	110	180	65	25	97	122	72
32	68	240	36	73	94	167	123	180	71	25	97	122	79
40	84	251	44	84	94	167	146	180	85	45	97	122	94
50	97	251	51	84	94	167	157	180	89	45	97	122	95
63	124	273	64	106	94	167	183	180	101	45	97	122	107
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	172	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100

PF 3 39 695 035



SYGEF Standard Ball valve type 132 24V With manual emergency override With socket fusion spigots metric

Model:

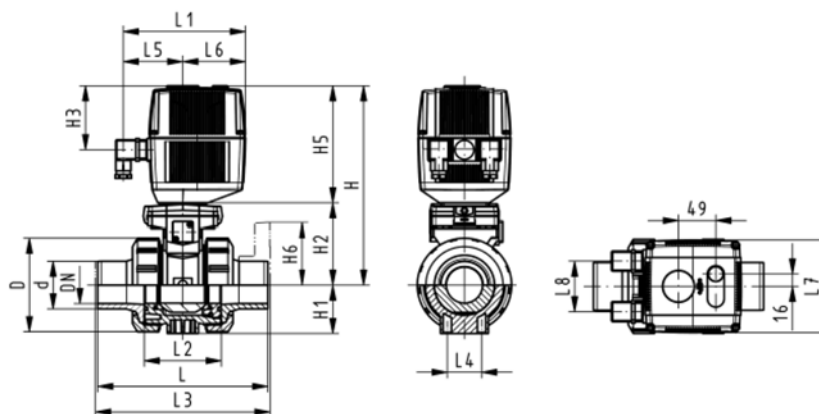
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	70	199 132 072	2.100
20	15	10	185	199 132 073	2.100
25	20	10	350	199 132 074	2.200
32	25	10	700	199 132 075	2.300
40	32	10	1000	199 132 076	2.600
50	40	10	1600	199 132 077	3.000
63	50	10	3100	199 132 078	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	231	27	64	94	167	114	180	56	130	25	97	83	122	66
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122	66
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122	66
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122	66
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122	66
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122	66
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122	66



PF 3 39 695 035



SYGEF Standard Ball valve type 132 24V With manual emergency override With fixed flanges PVDF serrated metric

Model:

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

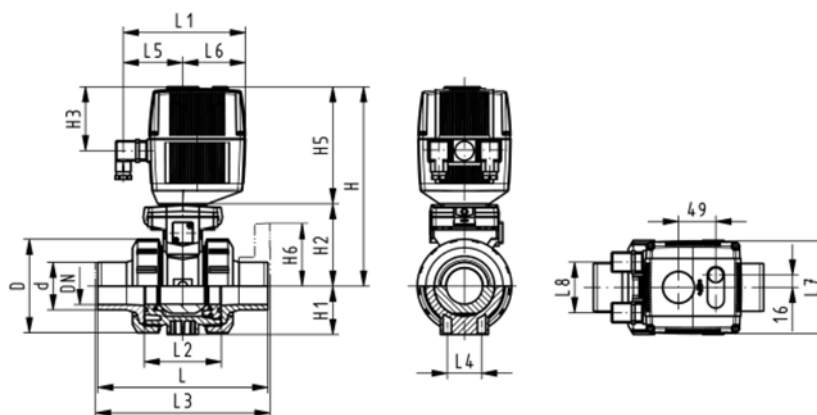
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	½	10	185	199 132 093	2.300
25	20	¾	10	350	199 132 094	2.500
32	25	1	10	700	199 132 095	2.700
40	32	1 ¼	10	1000	199 132 096	3.200
50	40	1 ½	10	1600	199 132 097	3.700
63	50	2	10	3100	199 132 098	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	231	27	64	94	167	48	124	180	56	130	25	98	83	122
25	58	240	30	73	94	167	53	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	194	180	89	200	45	98	83	122
63	124	273	64	106	94	167	83	224	180	101	230	45	97	83	122

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



PF 3 39 695 035



SYGEF Standard Ball valve type 132 24V With manual emergency override With butt fusion spigots IR-Plus metric

Model:

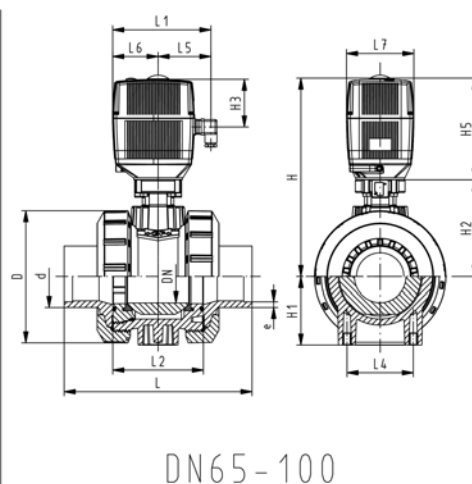
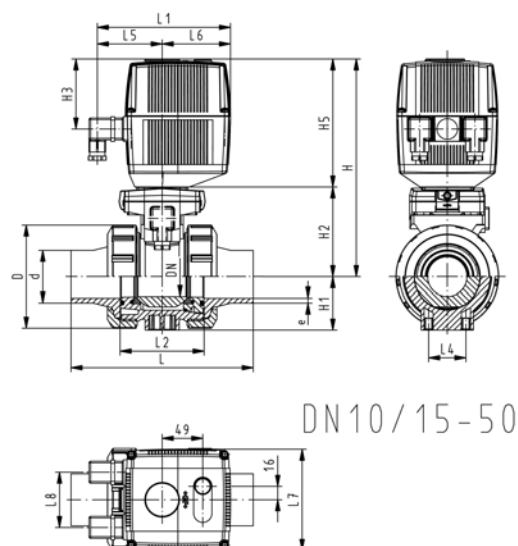
- Material: PVDF
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

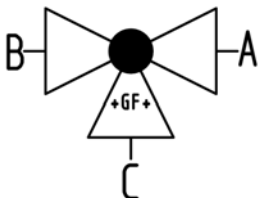
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	185	199 132 153	2.100
25	20	10	350	199 132 154	2.200
32	25	10	700	199 132 155	2.300
40	32	10	1000	199 132 156	2.600
50	40	10	1600	199 132 157	3.000
63	50	10	3100	199 132 158	3.800
75	65	10	5000	199 132 159	9.100
90	80	10	7000	199 132 160	12.200
110	100	10	11000	199 132 161	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
63	124	273	64	106	94	167	220	180	101	45	97	122	3.0
75	166	346	85	156	94	190	266	180	136	70	98	122	3.6
90	200	358	105	168	94	190	264	180	141	70	98	122	4.3
110	238	365	123	175	94	190	301	180	164	120	98	122	5.3



PF 3 39 695 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With fusion sockets metric

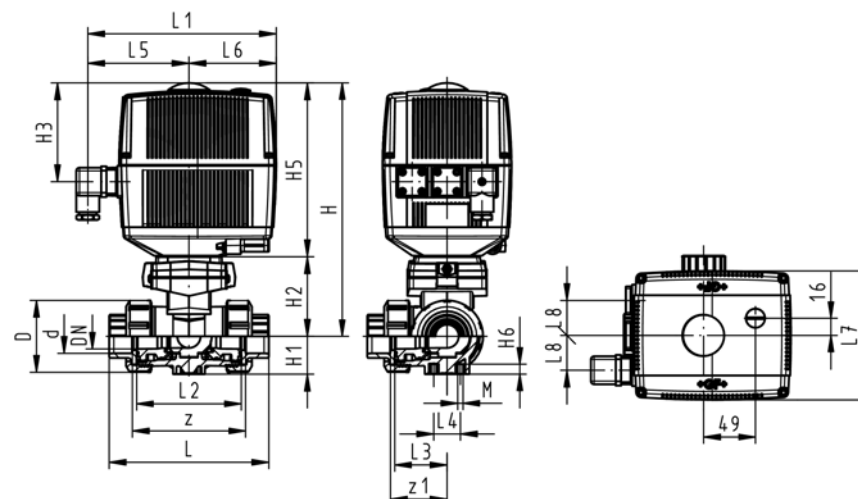
Model:

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

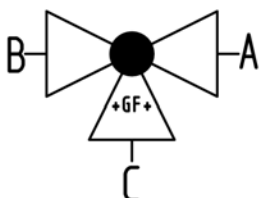
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	50	199 187 092	2.190
20	15	10	75	199 187 093	2.198
25	20	10	150	199 187 094	2.356
32	25	10	280	199 187 095	2.600
40	32	10	480	199 187 096	3.131
50	40	10	620	199 187 097	3.710
63	50	10	1230	199 187 098	5.440

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch
16	33	6	82	41	3/8
20	33	6	82	41	1/2
25	33	6	97	49	3/4
32	33	6	110	55	1
40	33	8	132	66	1 1/4
50	33	8	151	76	1 1/2
63	33	8	188	94	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With threaded sockets NPT

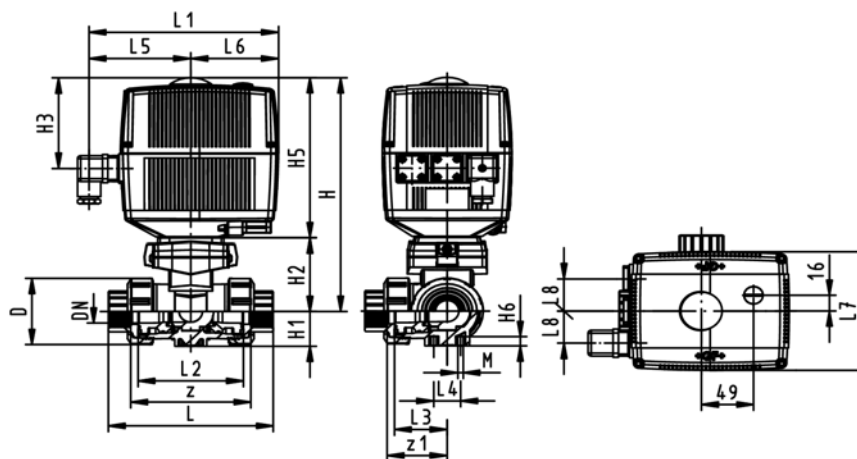
Model:

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

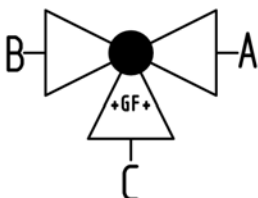
NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/8	10	10	50	199 187 242	2.190
1/2	15	10	75	199 187 243	2.198
3/4	20	10	150	199 187 244	2.356
1	25	10	280	199 187 245	2.600
1 1/4	32	10	480	199 187 246	3.131
1 1/2	40	10	620	199 187 247	3.710
2	50	10	1230	199 187 248	5.440

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M [mm]	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With socket fusion spigots metric

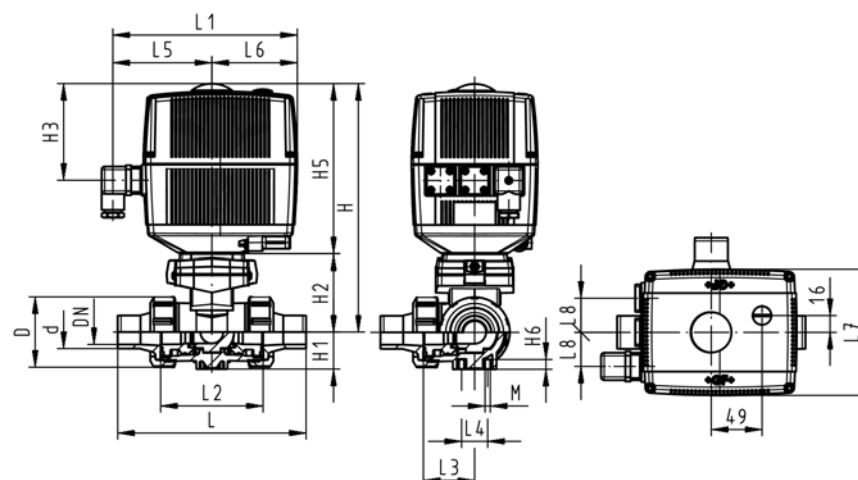
Model:

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

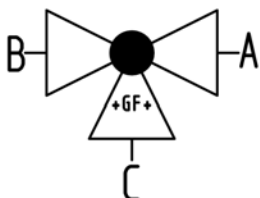
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	199 187 012	2.198
20	15	10	75	199 187 013	2.209
25	20	10	150	199 187 014	2.376
32	25	10	280	199 187 015	2.630
40	32	10	480	199 187 016	3.158
50	40	10	620	199 187 017	3.791
63	50	10	1230	199 187 018	5.602

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M [mm]	closest inch
16	33	6	$\frac{3}{8}$
20	33	6	$\frac{1}{2}$
25	33	6	$\frac{3}{4}$
32	33	6	1
40	33	8	$1 \frac{1}{4}$
50	33	8	$1 \frac{1}{2}$
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 100-230V With manual emergency override With butt fusion spigots IR-Plus metric

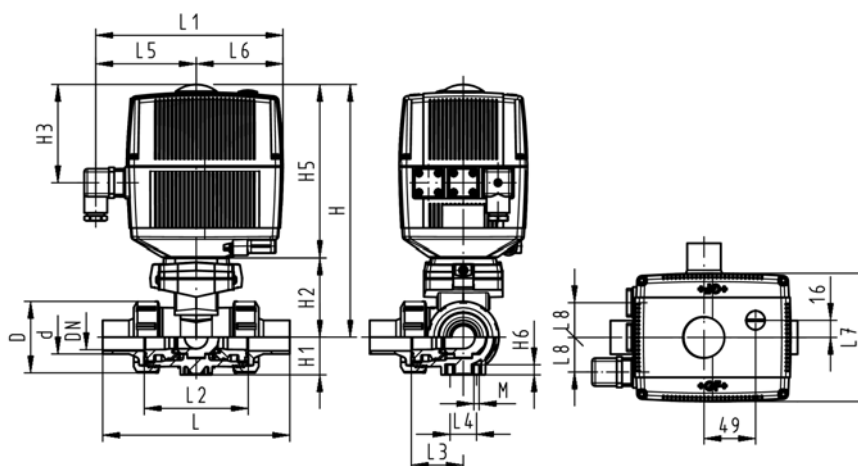
Model:

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

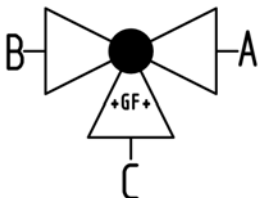
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
20	15	10	75	199 187 053	2.209
25	20	10	150	199 187 054	2.743
32	25	10	280	199 187 055	2.630
40	32	10	480	199 187 056	3.158
50	40	10	620	199 187 057	3.791
63	50	10	1230	199 187 058	5.602

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	closest inch
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With fusion sockets metric

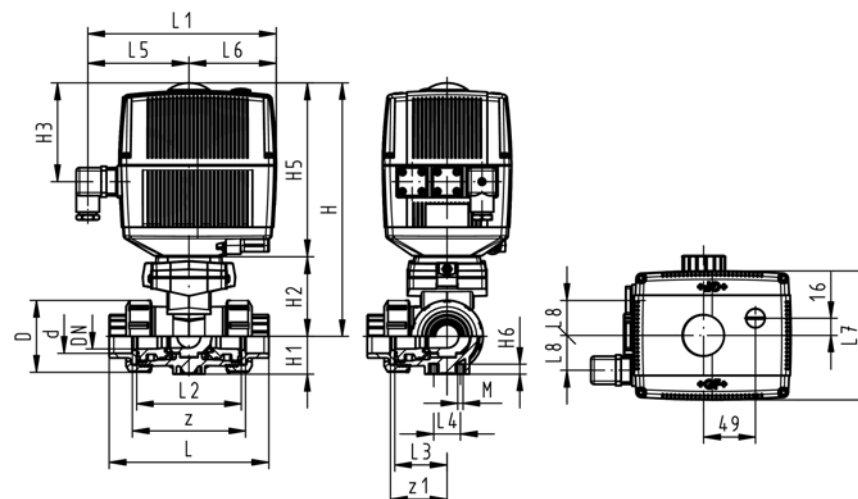
Model:

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

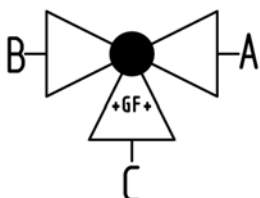
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	50	199 187 212	2.190
20	15	10	75	199 187 213	2.198
25	20	10	150	199 187 214	2.356
32	25	10	280	199 187 215	2.600
40	32	10	480	199 187 216	3.131
50	40	10	620	199 187 217	3.710
63	50	10	1230	199 187 218	5.440

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch
16	33	6	82	41	3/8
20	33	6	82	41	1/2
25	33	6	97	49	3/4
32	33	6	110	55	1
40	33	8	132	66	1 1/4
50	33	8	151	76	1 1/2
63	33	8	188	94	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With threaded sockets NPT

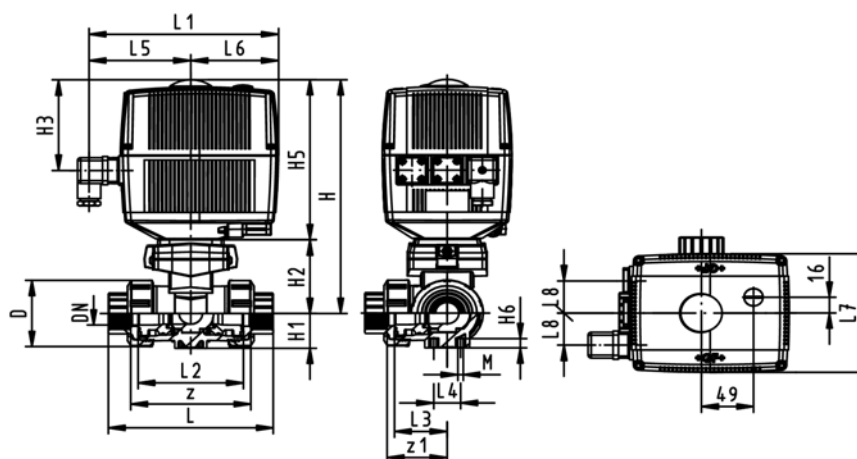
Model:

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

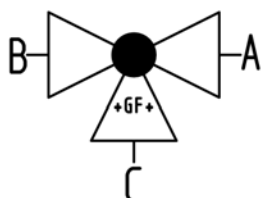
NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/8	10	10	50	199 187 262	2.190
1/2	15	10	75	199 187 263	2.198
3/4	20	10	150	199 187 264	2.356
1	25	10	280	199 187 265	2.600
1 1/4	32	10	480	199 187 266	3.131
1 1/2	40	10	620	199 187 267	3.710
2	50	10	1230	199 187 268	5.440

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M [mm]	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With socket fusion spigots metric

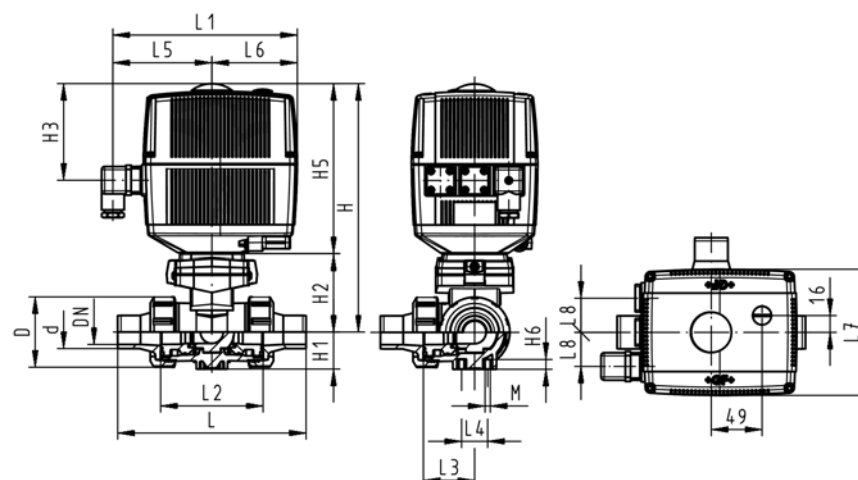
Model:

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

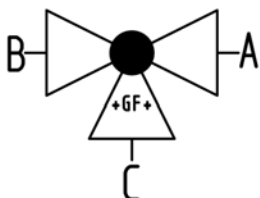
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	50	199 187 132	2.198
20	15	10	75	199 187 133	2.209
25	20	10	150	199 187 134	2.376
32	25	10	280	199 187 135	2.630
40	32	10	480	199 187 136	3.158
50	40	10	620	199 187 137	3.791
63	50	10	1230	199 187 138	5.602

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M [mm]	closest inch
16	33	6	3/8
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/L-port 24V With manual emergency override With butt fusion spigots IR-Plus metric

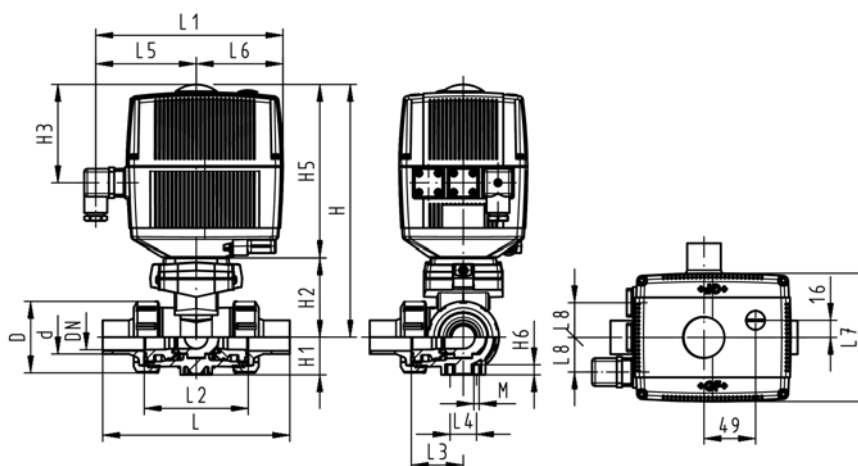
Model:

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

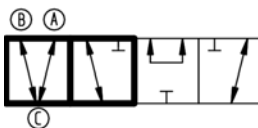
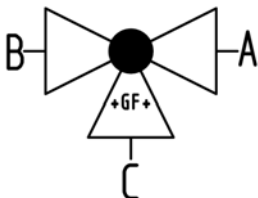
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	75	199 187 173	2.209
25	20	10	150	199 187 174	2.376
32	25	10	280	199 187 175	2.630
40	32	10	480	199 187 176	3.158
50	40	10	620	199 187 177	3.791
63	50	10	1230	199 187 178	5.602

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	closest inch
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 100-230V With manual emergency override With fusion sockets metric

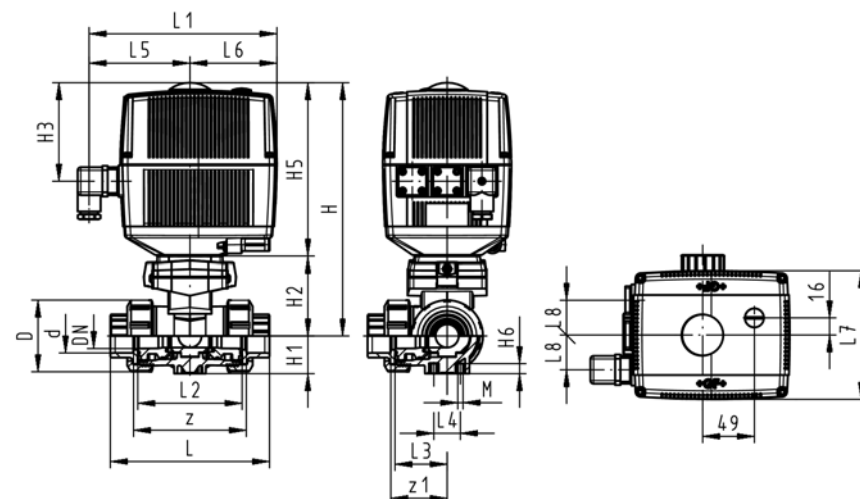
Model:

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

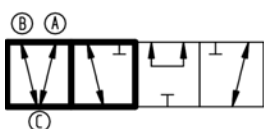
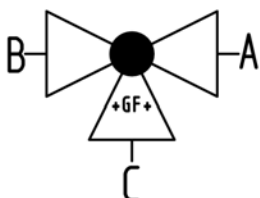
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	140	199 187 112	2.189
20	15	10	200	199 187 113	2.196
25	20	10	470	199 187 114	2.354
32	25	10	793	199 187 115	2.591
40	32	10	1290	199 187 116	3.117
50	40	10	1910	199 187 117	3.683
63	50	10	3100	199 187 118	5.383

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch
16	33	6	82	41	3/8
20	33	6	82	41	1/2
25	33	6	97	49	3/4
32	33	6	110	55	1
40	33	8	132	66	1 1/4
50	33	8	151	76	1 1/2
63	33	8	188	94	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 100-230V With manual emergency override With threaded sockets NPT

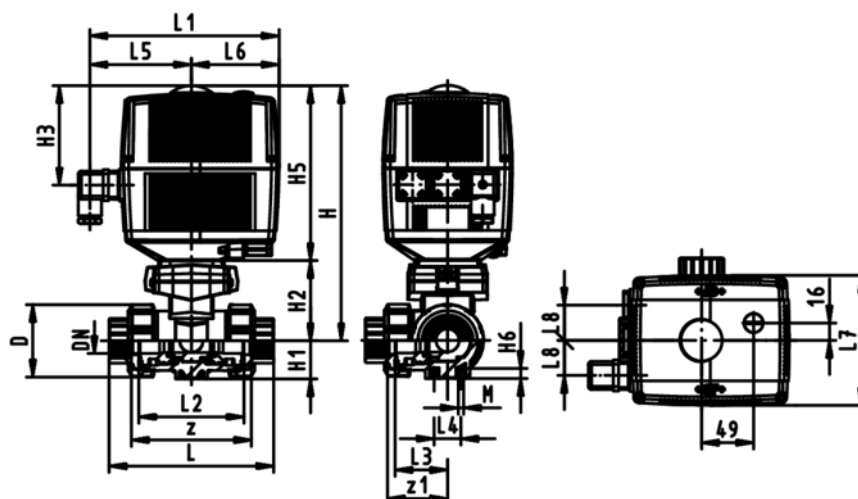
Model:

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

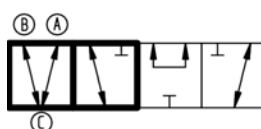
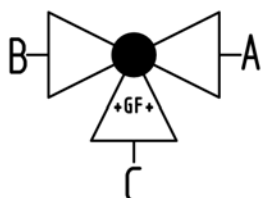
NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/8	10	10	140	199 187 252	2.189
1/2	15	10	200	199 187 253	2.196
3/4	20	10	470	199 187 254	2.354
1	25	10	793	199 187 255	2.591
1 1/4	32	10	1290	199 187 256	3.117
1 1/2	40	10	1910	199 187 257	3.683
2	50	10	3100	199 187 258	5.383

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M [mm]	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 100-230V With manual emergency override With socket fusion spigots metric

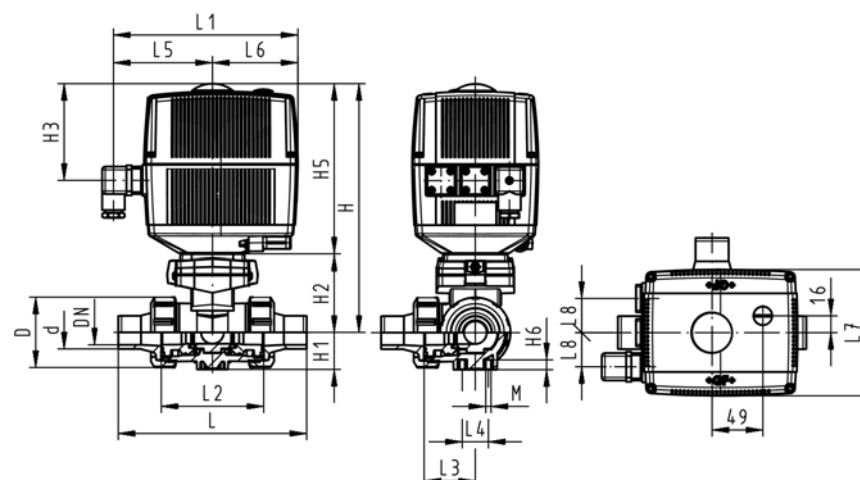
Model:

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

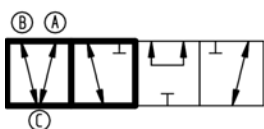
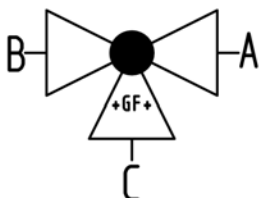
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	140	199 187 032	2.196
20	15	10	200	199 187 033	2.208
25	20	10	470	199 187 034	2.373
32	25	10	793	199 187 035	2.622
40	32	10	1290	199 187 036	3.144
50	40	10	1910	199 187 037	3.764
63	50	10	3100	199 187 038	5.544

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M [mm]	closest inch
16	33	6	3/8
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 100-230V With manual emergency override With butt fusion spigots IR-Plus metric

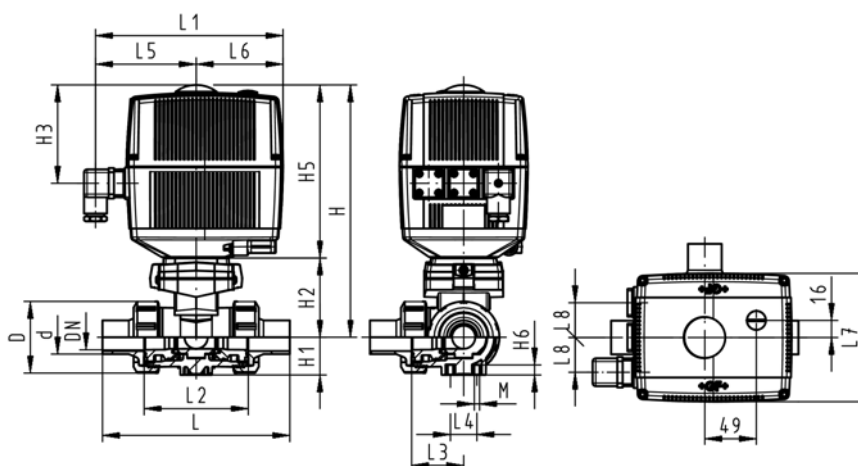
Model:

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

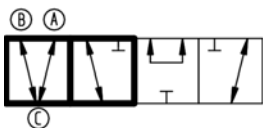
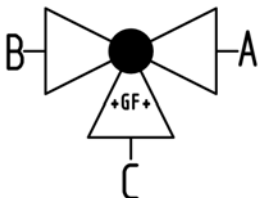
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
20	15	10	200	199 187 073	2.208
25	20	10	470	199 187 074	2.373
32	25	10	793	199 187 075	2.622
40	32	10	1290	199 187 076	3.144
50	40	10	1910	199 187 077	3.764
63	50	10	3100	199 187 078	5.544

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	closest inch
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With fusion sockets metric

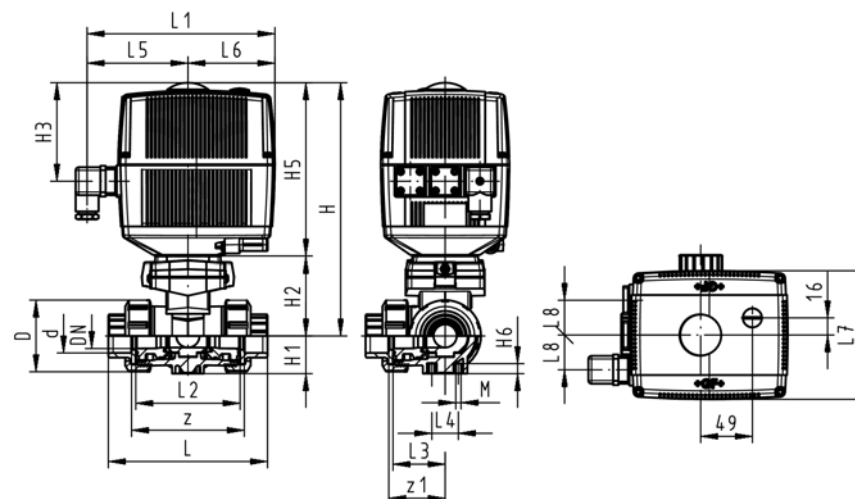
Model:

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

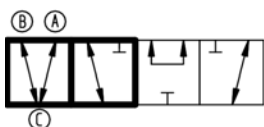
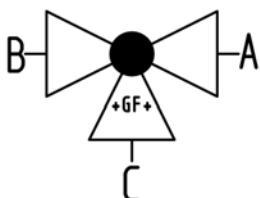
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	140	199 187 232	2.189
20	15	10	200	199 187 233	2.196
25	20	10	470	199 187 234	2.354
32	25	10	793	199 187 235	2.591
40	32	10	1290	199 187 236	3.117
50	40	10	1910	199 187 237	3.683
63	50	10	3100	199 187 238	5.383

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M [mm]	z [mm]	z1 [mm]	closest inch
16	33	6	82	41	$\frac{3}{8}$
20	33	6	82	41	$\frac{1}{2}$
25	33	6	97	49	$\frac{3}{4}$
32	33	6	110	55	1
40	33	8	132	66	$1 \frac{1}{4}$
50	33	8	151	76	$1 \frac{1}{2}$
63	33	8	188	94	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With threaded sockets NPT

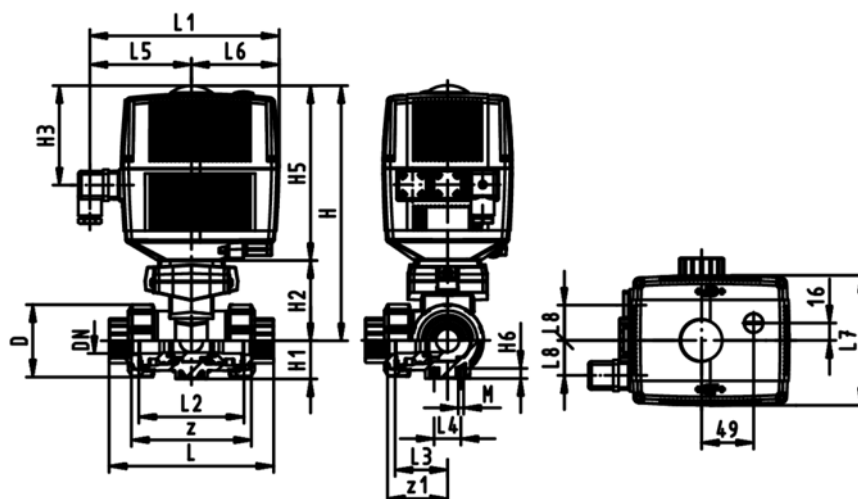
Model:

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

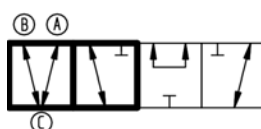
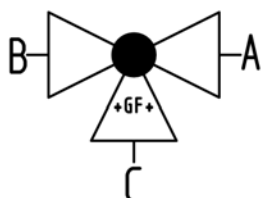
NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3/8	10	10	140	199 187 272	2.189
1/2	15	10	200	199 187 273	2.196
3/4	20	10	470	199 187 274	2.354
1	25	10	793	199 187 275	2.591
1 1/4	32	10	1290	199 187 276	3.117
1 1/2	40	10	1910	199 187 277	3.683
2	50	10	3100	199 187 278	5.383

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

NPT [inch]	L8 [mm]	M [mm]	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	80	40
3/4	33	6	95	48
1	33	6	110	55
1 1/4	33	8	132	66
1 1/2	33	8	157	79
2	33	8	210	105



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With socket fusion spigots metric

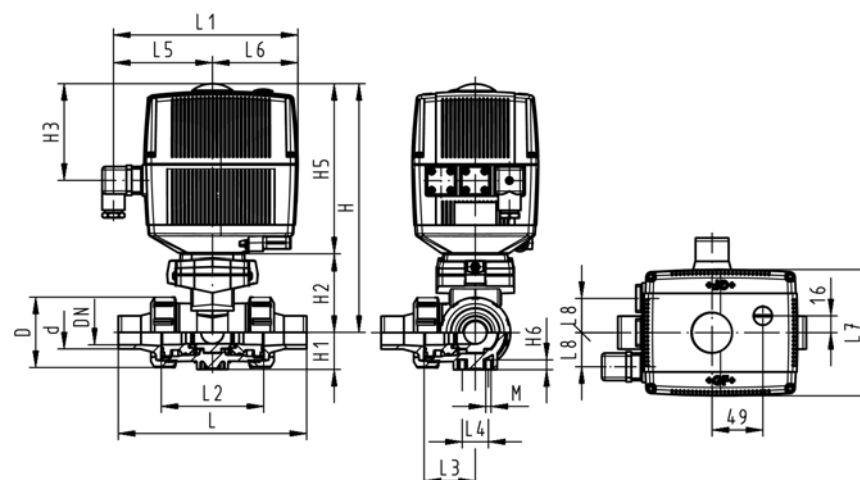
Model:

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

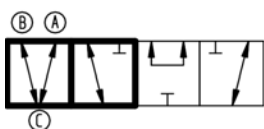
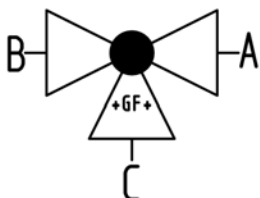
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	140	199 187 152	2.196
20	15	10	200	199 187 153	2.208
25	20	10	470	199 187 154	2.373
32	25	10	793	199 187 155	2.622
40	32	10	1290	199 187 156	3.144
50	40	10	1910	199 187 157	3.764
63	50	10	3100	199 187 158	5.544

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M [mm]	closest inch
16	33	6	$\frac{3}{8}$
20	33	6	$\frac{1}{2}$
25	33	6	$\frac{3}{4}$
32	33	6	1
40	33	8	$1 \frac{1}{4}$
50	33	8	$1 \frac{1}{2}$
63	33	8	2



PF 3 39 980 035



SYGEF Standard 3-Way ball valve type 187 Horizontal/T-port 24V With manual emergency override With butt fusion spigots IR-Plus metric

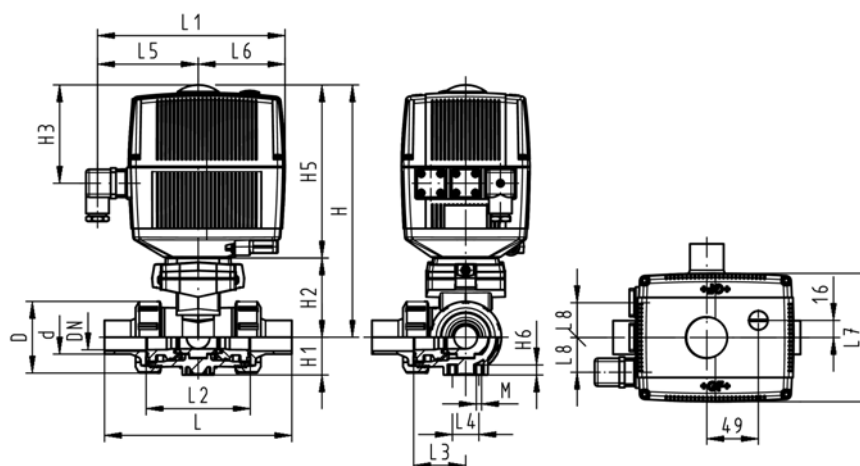
Model:

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

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	200	199 187 193	2.208
25	20	10	470	199 187 194	2.373
32	25	10	793	199 187 195	2.622
40	32	10	1290	199 187 196	3.144
50	40	10	1910	199 187 197	3.764
63	50	10	3100	199 187 198	5.544

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	closest inch
20	33	6	1/2
25	33	6	3/4
32	33	6	1
40	33	8	1 1/4
50	33	8	1 1/2
63	33	8	2



PF 3 39 980 035

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

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

- Individual configuration of the valve (see diagram)

d	D	H	H1	H2	H3	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]	[mm]
16	50	230	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	99	183	224	101	45	305	95	59	107

169



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

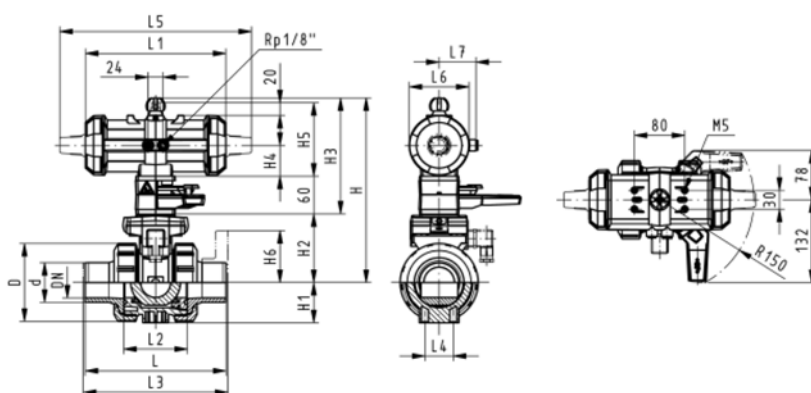
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

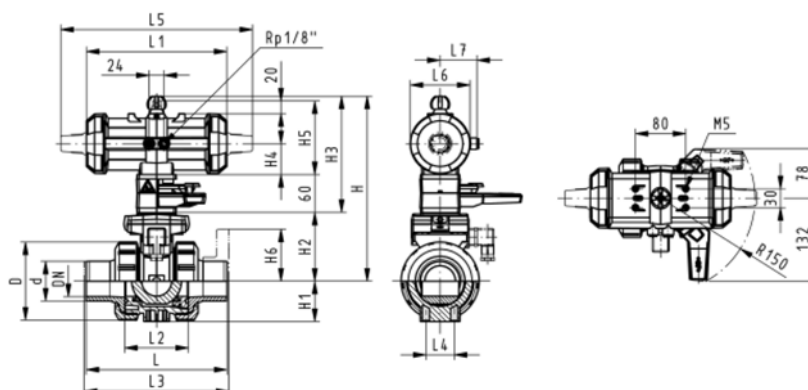
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

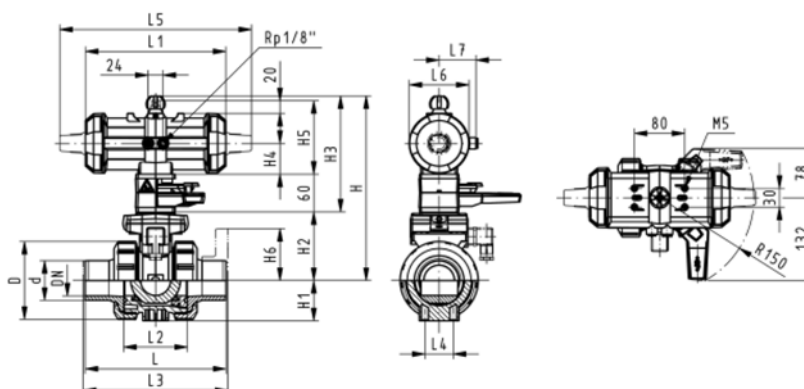
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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]
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48
25	58	239	30	71	168	40	77	130	194	65	25	261	76	48
32	68	239	36	71	168	40	77	130	194	71	25	261	76	48
40	84	271	44	84	187	51	99	130	224	85	45	305	95	59
50	97	271	51	84	187	51	99	130	224	89	45	305	95	59
63	124	293	64	106	187	51	99	130	224	101	45	305	95	59

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



PF 3 39 695 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

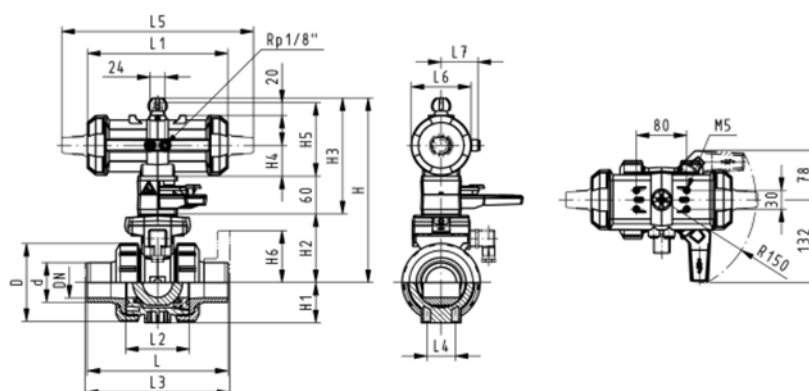
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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]
20	50	159	27	62	168	40	77	130	194	56	25	261	76	48
25	58	168	30	71	168	40	77	130	194	65	25	261	76	48
32	68	168	36	71	168	40	77	130	194	71	25	261	76	48
40	84	202	44	84	187	51	99	130	224	85	45	305	95	59
50	97	202	51	84	187	51	99	130	224	89	45	305	95	59
63	124	225	64	106	187	51	99	130	224	101	45	305	95	59

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



PF 3 39 695 035



DN10/15 - 50

SYGEF Standard Ball valve type 232 Function FO (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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

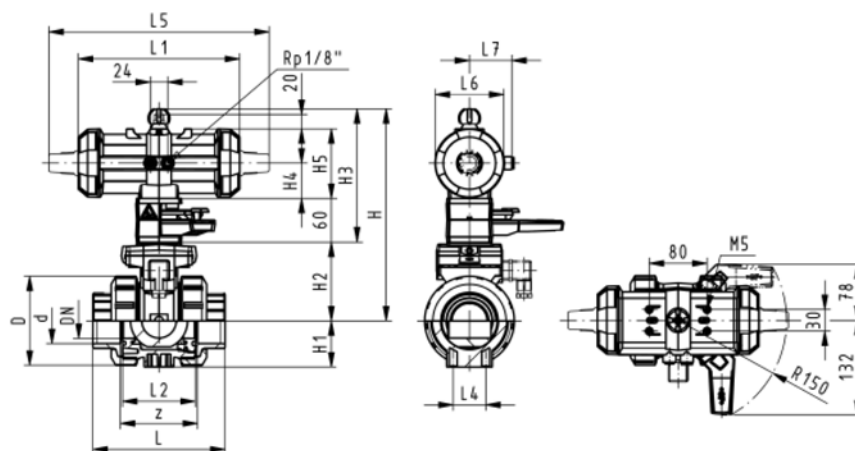
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	99	183	224	101	45	305	95	59	107

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



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ \leq$ 1-2 s

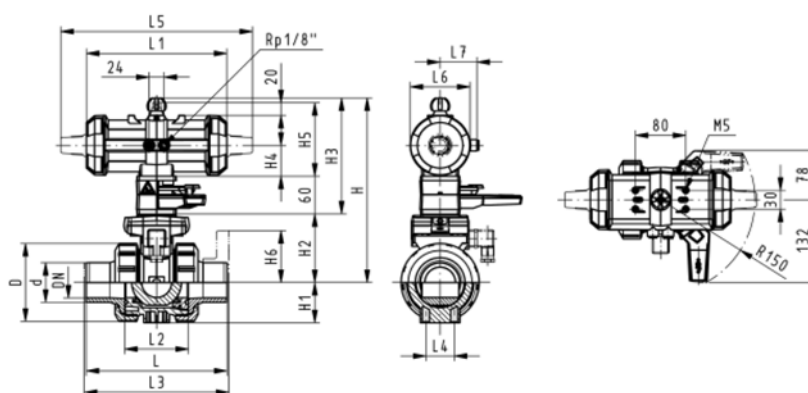
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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
16	$\frac{3}{8}$
20	$\frac{1}{2}$
25	$\frac{3}{4}$
32	1
40	1 $\frac{1}{4}$
50	1 $\frac{1}{2}$
63	2



PF 3 39 696 035



DN10/15 - 50

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

Model:

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

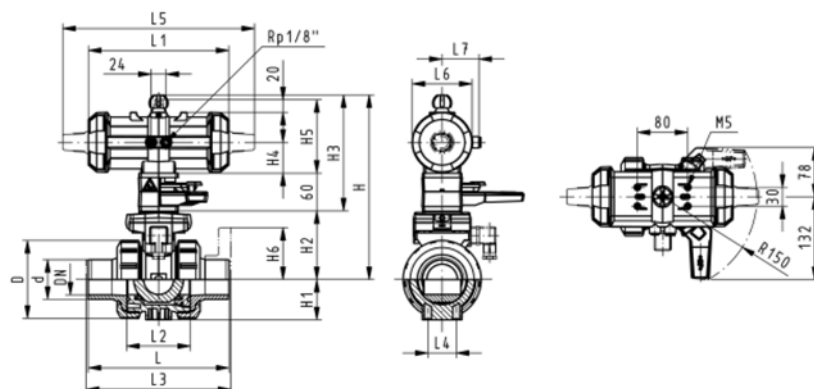
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
20	15	½	10	185	199 232 023	1.700	
25	20	¾	10	350	199 232 024	1.900	
32	25	1	10	700	199 232 025	2.100	
40	32	1 ¼	10	1000	199 232 026	3.400	
50	40	1 ½	10	1600	199 232 027	3.900	
63	50	2	10	3100	199 232 028	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



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° <) 1-2 s

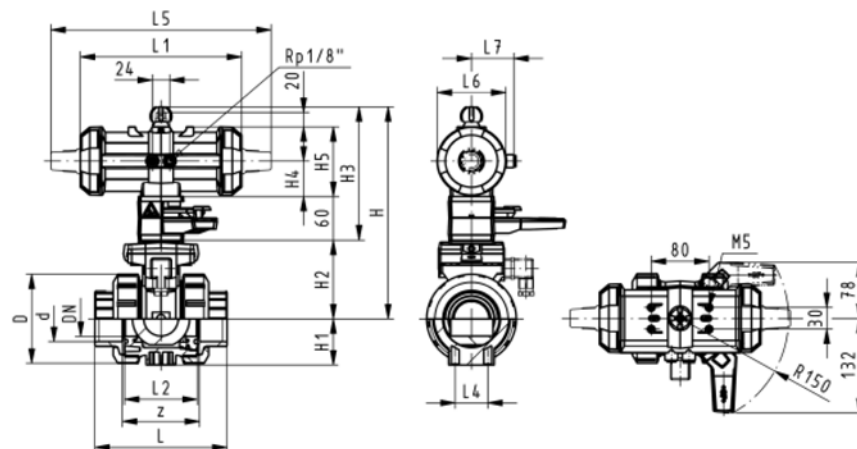
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	99	183	224	101	45	305	95	59	107

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



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

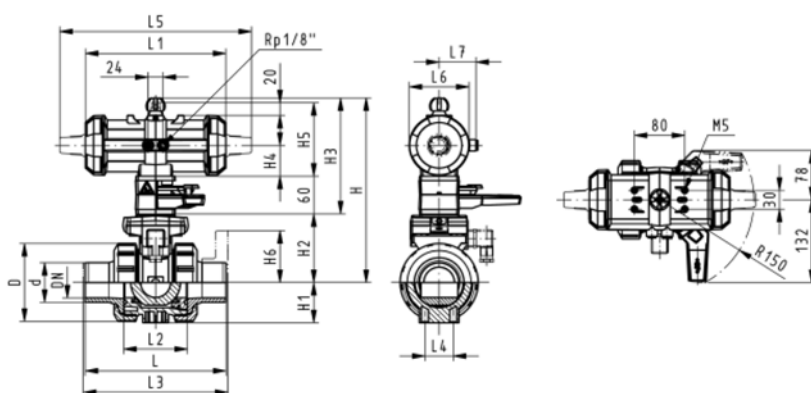
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

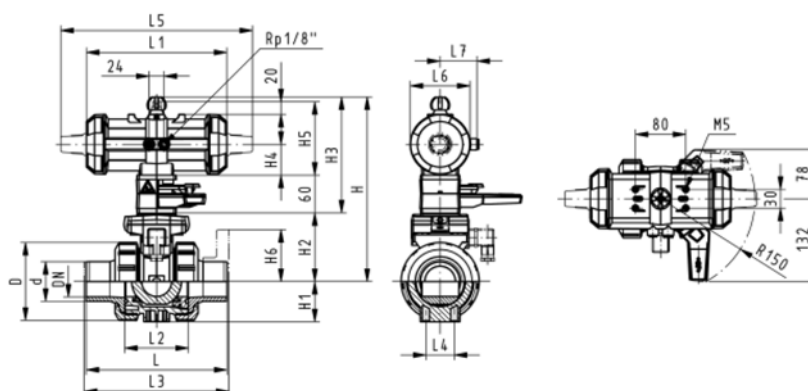
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [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



PF 3 39 696 035



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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

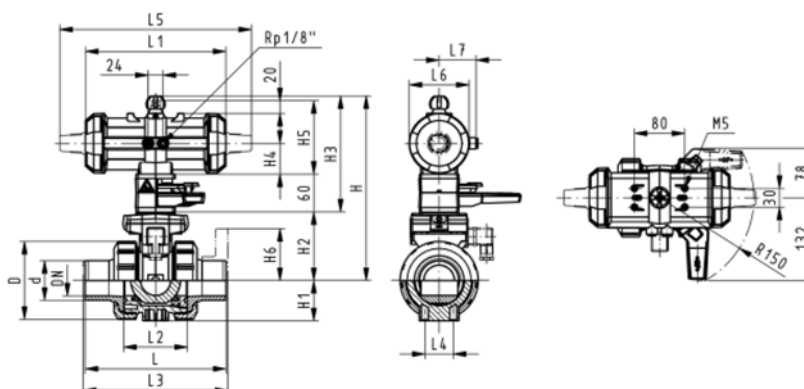
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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]
20	50	230	27	62	168	40	77	130	194	56	25	261	76	48
25	58	239	30	71	168	40	77	130	194	65	25	261	76	48
32	68	239	36	71	168	40	77	130	194	71	25	261	76	48
40	84	271	44	84	187	51	99	130	224	85	45	305	95	59
50	97	271	51	84	187	51	99	130	224	89	45	305	95	59
63	124	293	64	106	187	51	99	130	224	101	45	305	95	59

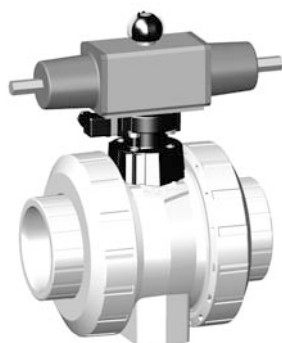
d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



PF 3 39 695 035



DN10/15 - 50



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

Model:

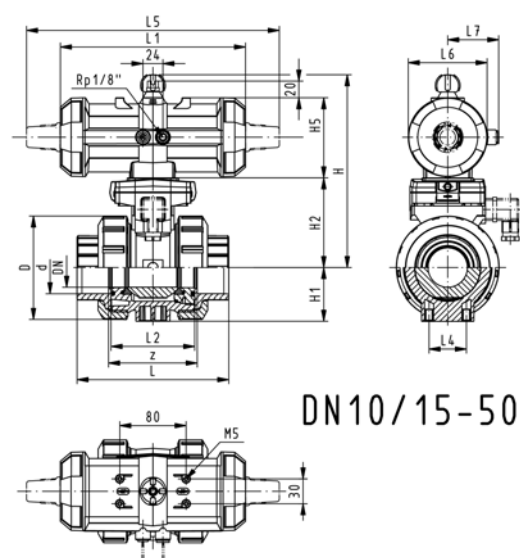
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

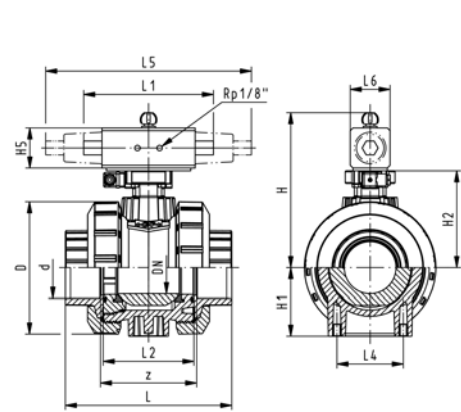
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215



DN10/15-50

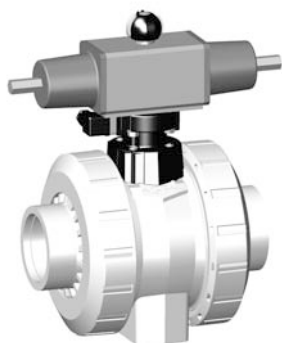


DN65-100

PF 3 39 696 035



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:

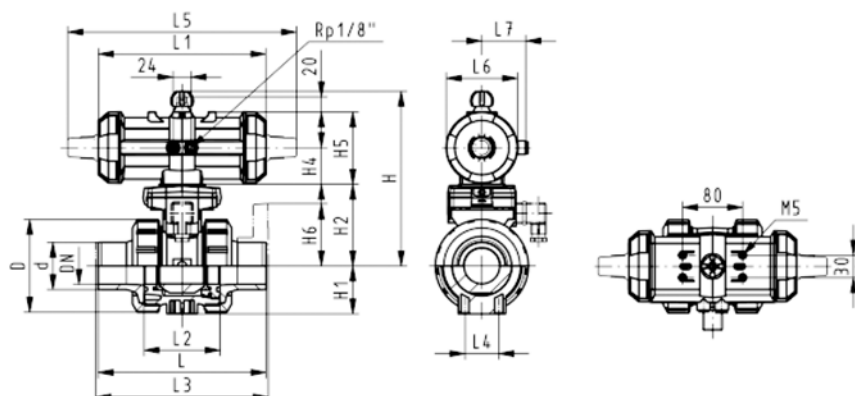
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

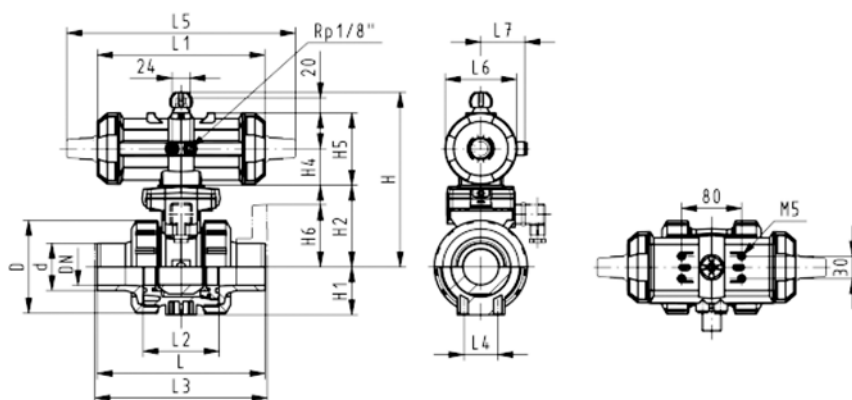
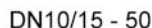
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0
75	166	262	85	156		70	266	270	136	70	276	65		3.6
90	200	281	105	168		78	264	270	141	70	341	72		4.3
110	238	292	123	175		86	301	320	164	120	369	80		5.3



PF 3 39 696 035





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

Model:

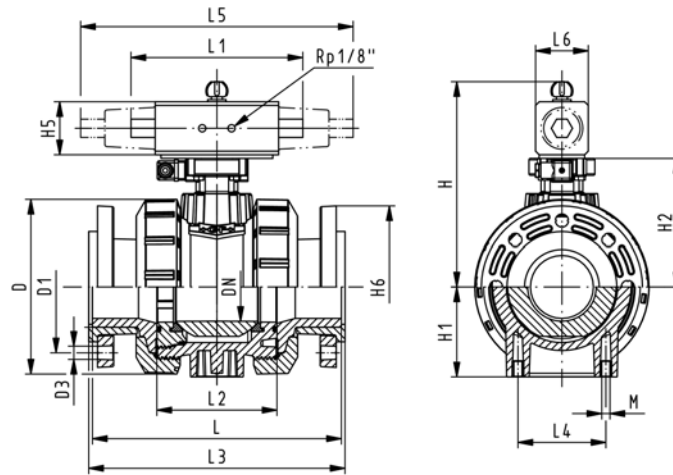
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
75	65	2 ½	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	336	164	350	120	369	80	



PF 3 39 696 035



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

Model:

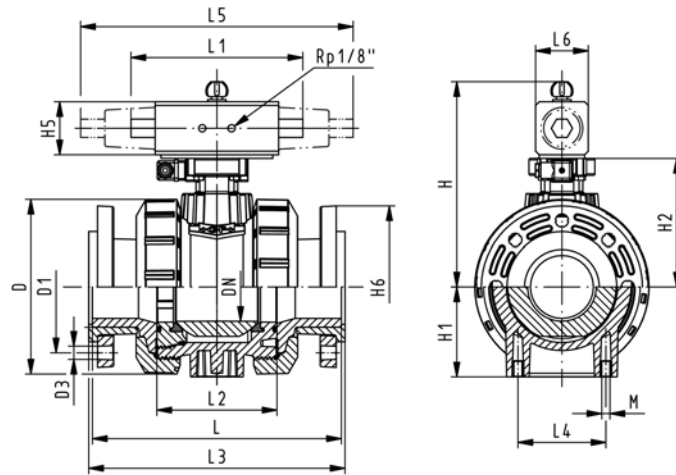
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
75	65	2 ½	10	5000	199 232 959	14.500	
90	80	3	10	7000	199 232 960	18.900	
110	100	4	10	11000	199 232 961	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	115	336	164	350	120	369	80	



PF 3 39 696 035



DN10/15 - 50

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

Model:

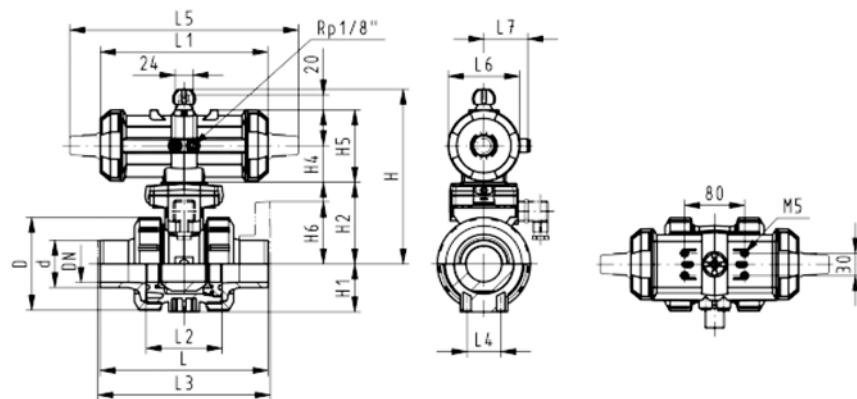
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



PF 3 39 696 035



DN10/15 - 50

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

Model:

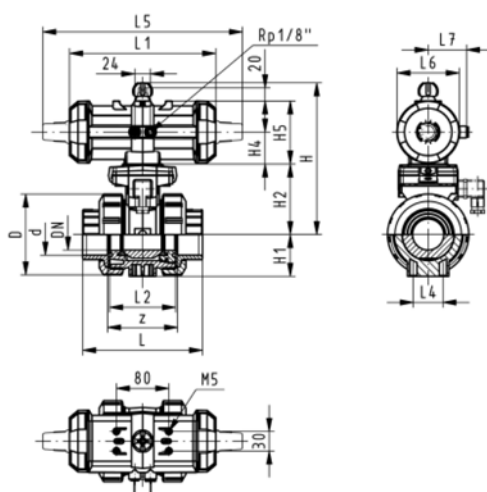
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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

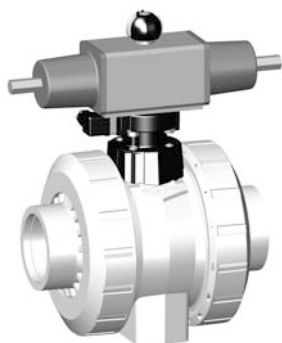
Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	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



PF 3 39 696 035



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:

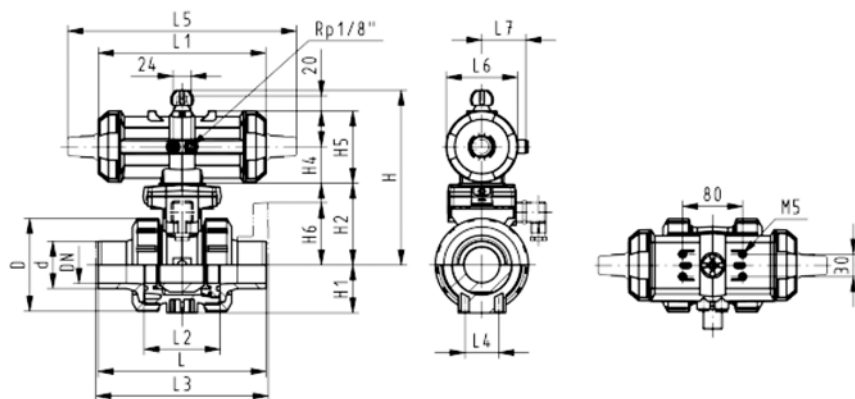
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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

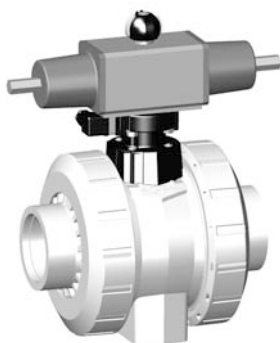
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0



PF 3 39 696 035



DN10/15 - 50



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

Model:

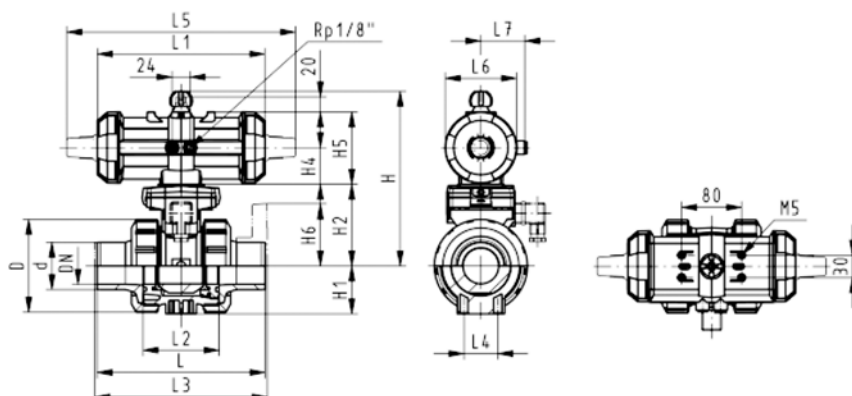
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	

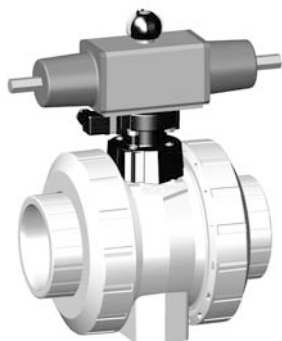
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]	
20	50	159	27	62	40	77	130	194	56	25	261	76	48	1.9	
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9	
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4	
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4	
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0	
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0	
75	166	262	85	156		70	266	218	136	70	276	65		3.6	
90	200	281	105	168		70	264	259	141	70	341	72		4.3	
110	238	292	123	175		70	301	287	164	120	369	80		5.3	



PF 3 39 696 035



DN10/15 - 50



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

Model:

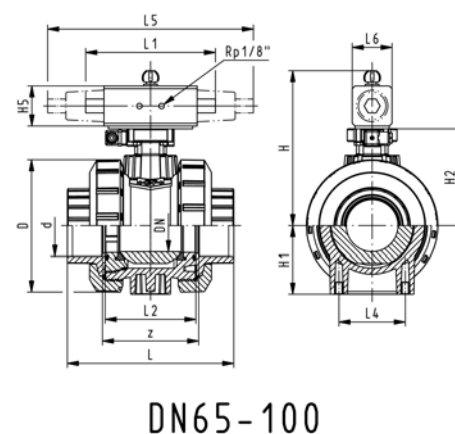
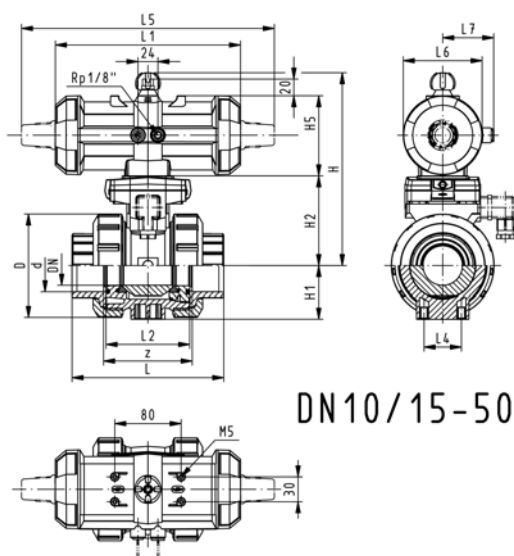
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233		136	70	276	65		167
90	200	281	105	168		78	254		141	70	341	72		180
110	238	292	123	175		86	301		164	120	369	80		215





DN10/15 - 50

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

Model:

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

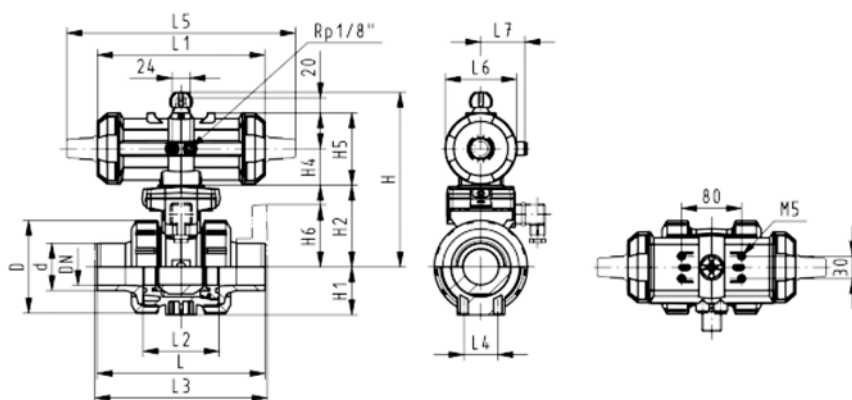
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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]
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59

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



PF 3 39 696 035



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

Model:

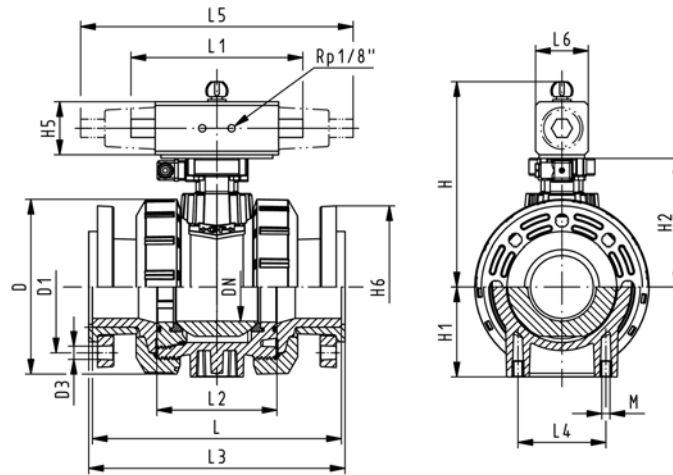
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
75	65	2 ½	10	5000	199 232 939	14.500	
90	80	3	10	7000	199 232 940	18.900	
110	100	4	10	11000	199 232 941	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	336	164	350	120	369	80	



PF 3 39 696 035



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

Model:

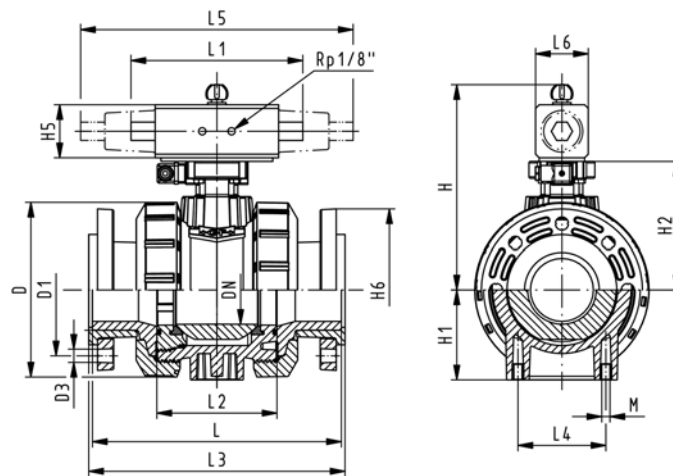
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
75	65	2 ½	10	5000	199 232 969	14.500	
90	80	3	10	7000	199 232 970	18.900	
110	100	4	10	11000	199 232 971	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	115	336	164	350	120	369	80	



PF 3 39 696 035



DN10/15 - 50

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

Model:

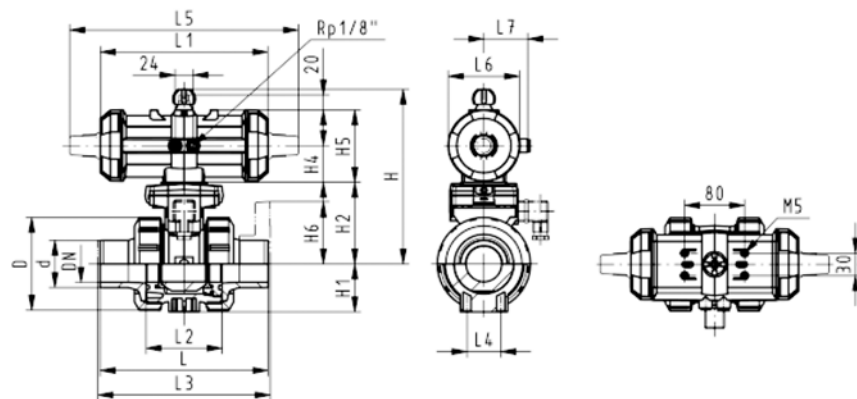
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



PF 3 39 696 035



DN10/15 - 50

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

Model:

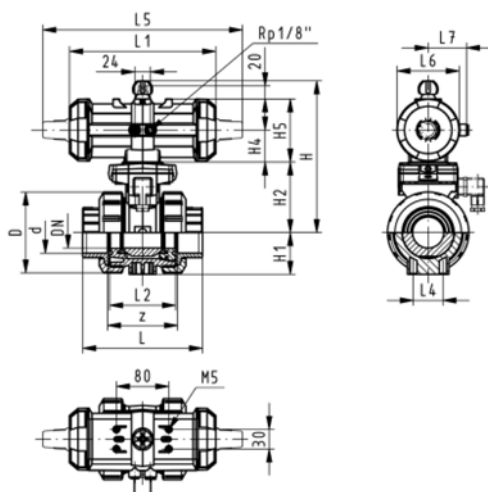
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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

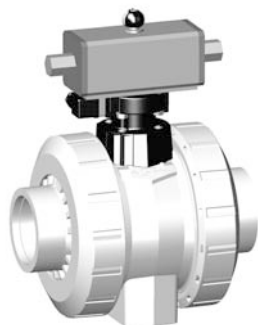
Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	40	77	96	194	56	25	261	76	48	69
1/2	50	159	27	62	40	77	99	194	56	25	261	76	48	64
3/4	58	168	30	71	40	77	111	194	65	25	261	76	48	76
1	68	168	36	71	40	77	127	194	71	25	261	76	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



PF 3 39 696 035



DN10/15 - 50



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

Model:

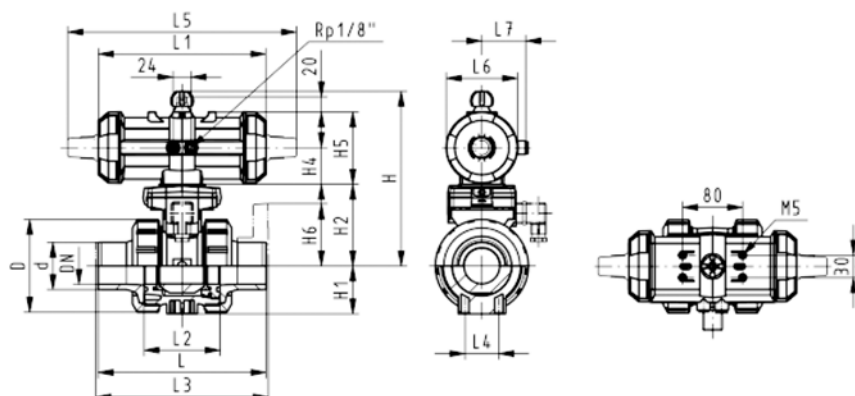
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	1.9
25	58	168	30	71	40	77	130	194	65	25	261	76	48	1.9
32	68	168	36	71	40	77	130	194	71	25	261	76	48	2.4
40	84	202	44	84	51	99	130	224	85	45	305	95	59	2.4
50	97	202	51	84	51	99	130	224	89	45	305	95	59	3.0
63	124	225	64	106	51	99	130	224	101	45	305	95	59	3.0
75	166	257	85	156		66	266	144	136	70		60		3.6
90	200	274	105	168		70	264	152	141	70		65		4.3
110	238	273	123	175		78	301	169	164	120		72		5.3



PF 3 39 696 035



DN10/15 - 50



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

Model:

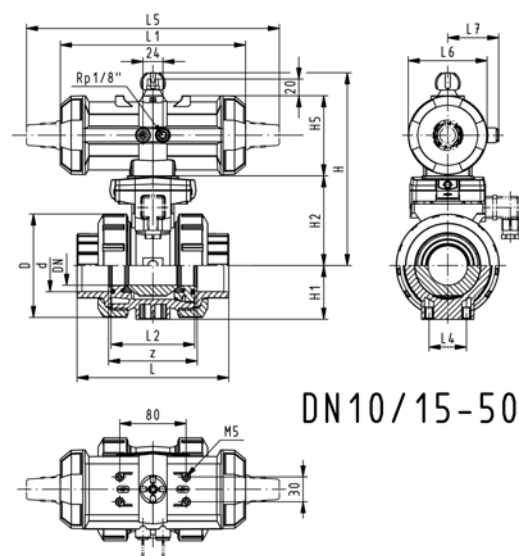
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

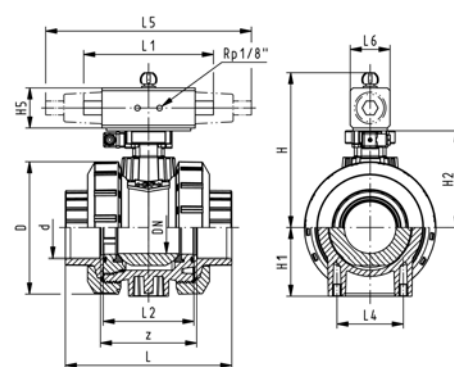
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	40	77	92	194	56	25	261	76	48	64
20	50	159	27	62	40	77	95	194	56	25	261	76	48	64
25	58	168	30	71	40	77	110	194	65	25	261	76	48	72
32	68	168	36	71	40	77	123	194	71	25	261	76	48	79
40	84	202	44	84	51	99	146	224	85	45	305	95	59	94
50	97	202	51	84	51	99	157	224	89	45	305	95	59	95
63	124	225	64	106	51	99	183	224	101	45	305	95	59	107
75	166	257	85	156		66	233	144	136	70		60		167
90	200	274	105	168		70	254	152	141	70		65		180
110	238	273	123	175		78	301	169	164	120		72		215



DN10/15-50



DN65-100

PF 3 39 696 035



DN10/15 - 50

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

Model:

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

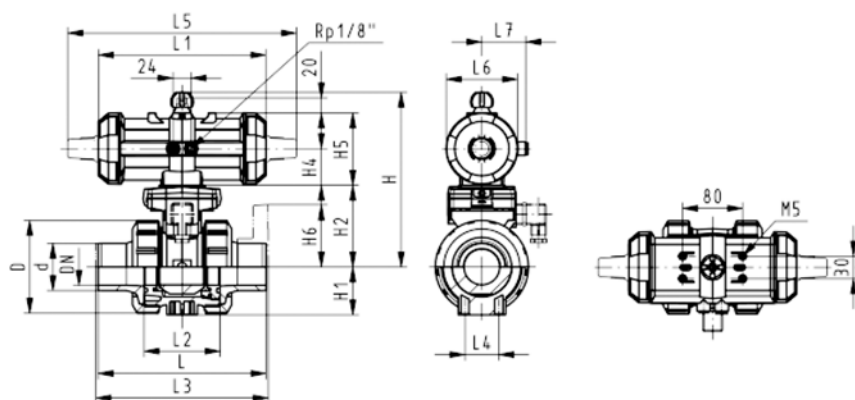
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	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]
16	50	159	27	62	40	77	114	194	56	130	25	261	76	48
20	50	159	27	62	40	77	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	224	224	101	230	45	305	95	59

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



PF 3 39 696 035



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

Model:

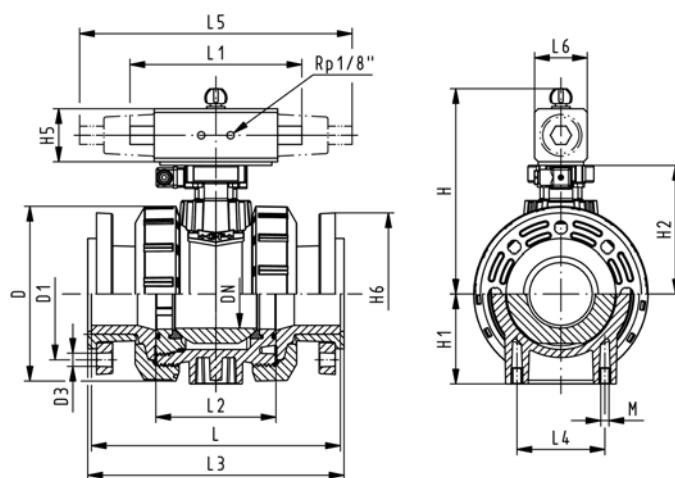
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
75	65	2 ½	10	5000	199 232 979	13.400	
90	80	3	10	7000	199 232 980	18.200	
110	100	4	10	11000	199 232 981	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	115	336	169	164	350	120	72	



PF 3 39 696 035



SYGEF Standard Ball valve type 232 Function DA (Double acting) Without manual override With backing flanges PP-st metric

Model:

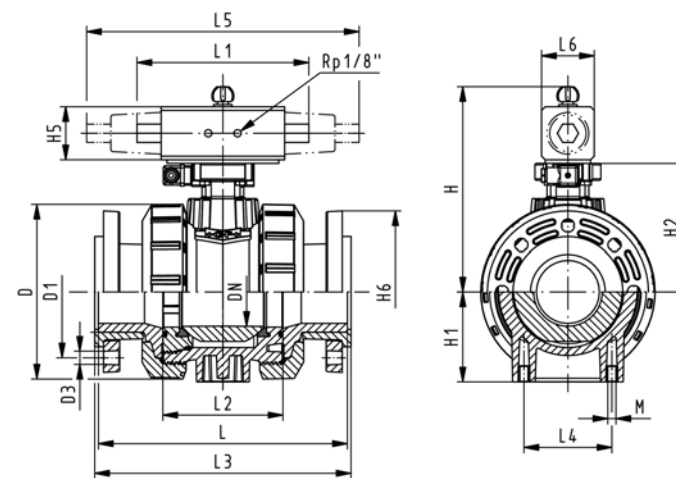
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	



PF 3 39 696 035



DN10/15 - 50

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

Model:

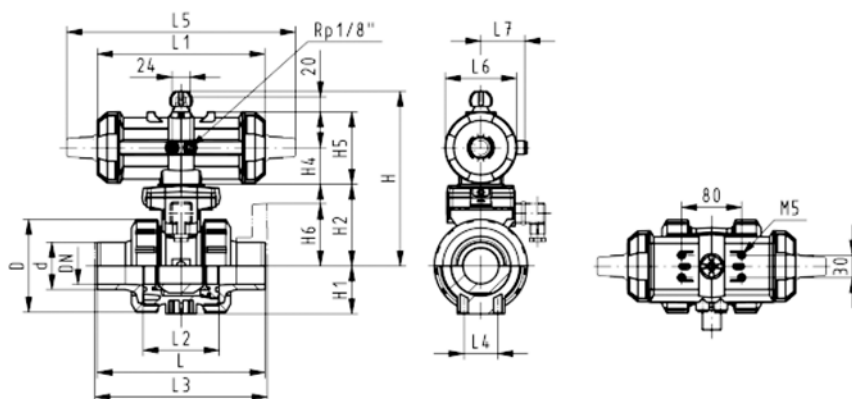
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
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 [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	124	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	144	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	154	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	174	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	194	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	224	224	101	230	45	305	95	59



PF 3 39 696 035



DN10/15 - 50

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

Model:

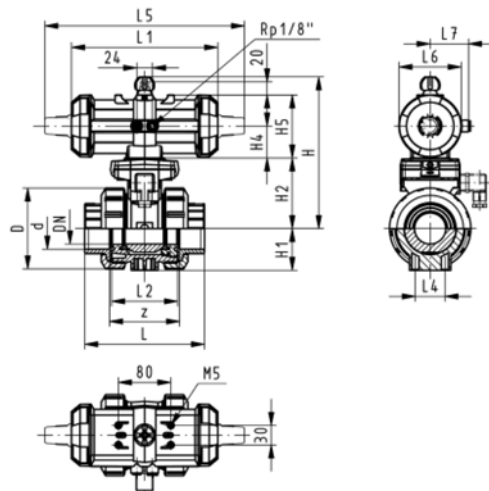
- Material: PVDF
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)

Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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

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



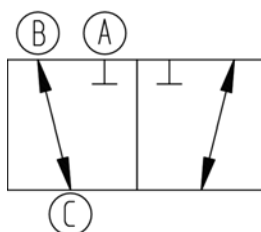
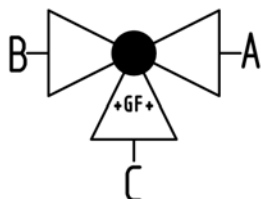
PF 3 39 696 035



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

Model:

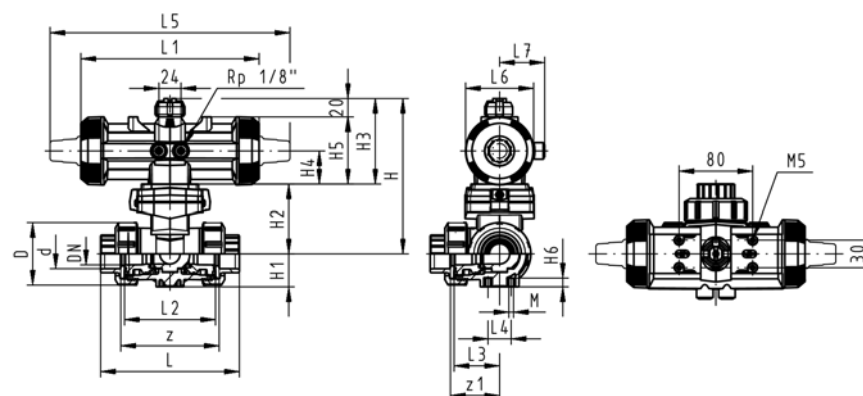
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time $90^\circ \leq$) 1-3 s
- For easy installation and removal
- Integrated stainless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



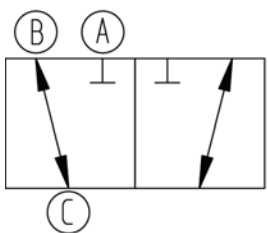
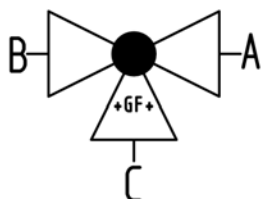
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	199 287 092	1.183
20	15	10	75	199 287 093	1.191
25	20	10	150	199 287 094	1.349
32	25	10	280	199 287 095	1.593
40	32	10	480	199 287 096	2.800
50	40	10	620	199 287 097	3.379
63	50	10	1230	199 287 098	5.109

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
16	48	6	82	41	$\frac{3}{8}$
20	48	6	82	41	$\frac{1}{2}$
25	48	6	97	49	$\frac{3}{4}$
32	48	6	110	55	1
40	59	8	132	66	$1 \frac{1}{4}$
50	59	8	151	76	$1 \frac{1}{2}$
63	59	8	188	94	2



PF 3 39 981 035



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

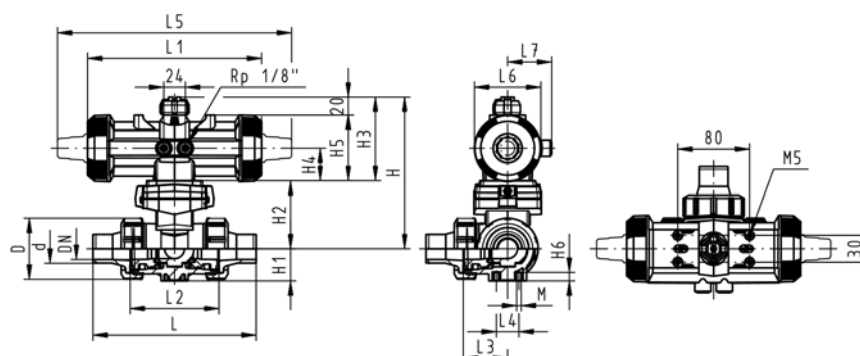
Model:

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

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	closest 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



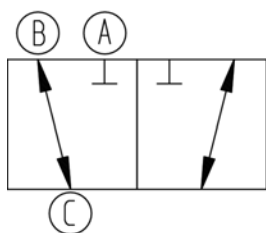
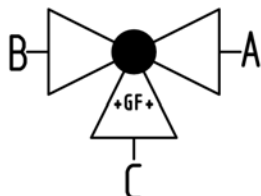
PF 3 39 981 035



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

Model:

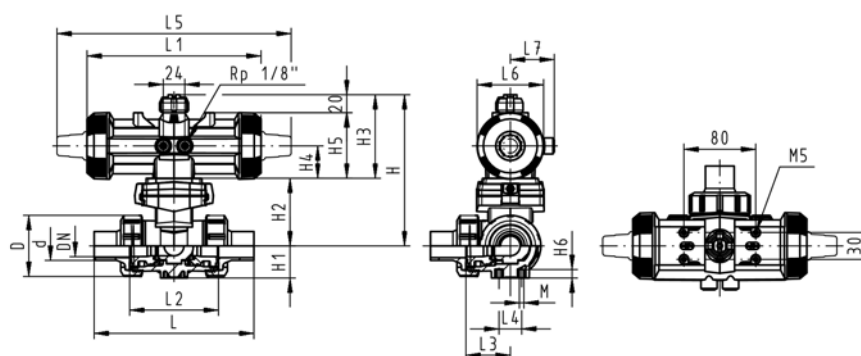
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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



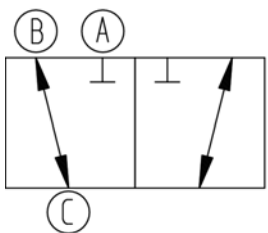
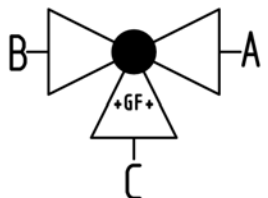
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	75	199 287 053	1.666
25	20	10	150	199 287 054	1.369
32	25	10	280	199 287 055	1.623
40	32	10	480	199 287 056	2.827
50	40	10	620	199 287 057	3.294
63	50	10	1230	199 287 058	4.982

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	closest 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



PF 3 39 981 035



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

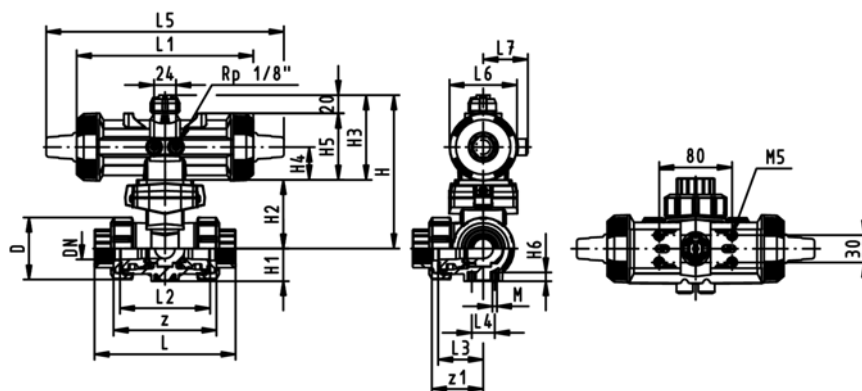
Model:

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

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	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



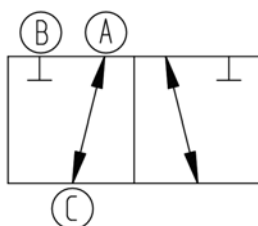
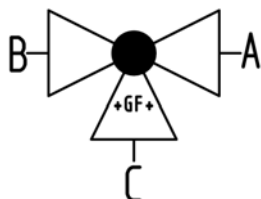
PF 3 39 981 035



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

Model:

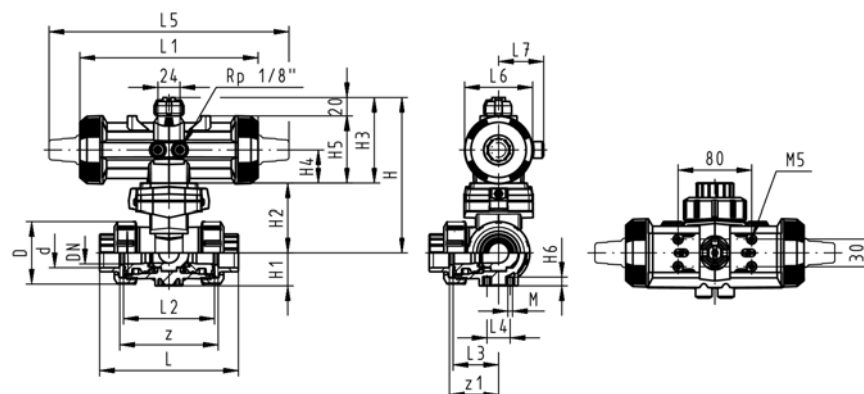
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



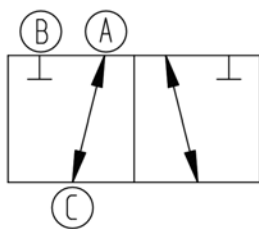
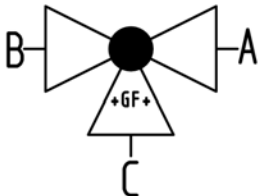
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	199 287 212	0.992
20	15	10	75	199 287 213	1.001
25	20	10	150	199 287 214	1.159
32	25	10	280	199 287 215	1.403
40	32	10	480	199 287 216	2.376
50	40	10	620	199 287 217	2.955
63	50	10	1230	199 287 218	4.347

d [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
16	48	6	82	41	$\frac{3}{8}$
20	48	6	82	41	$\frac{1}{2}$
25	48	6	97	49	$\frac{3}{4}$
32	48	6	110	55	1
40	59	8	132	66	1 $\frac{1}{4}$
50	59	8	151	76	1 $\frac{1}{2}$
63	59	8	188	94	2



PF 3 39 981 035



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

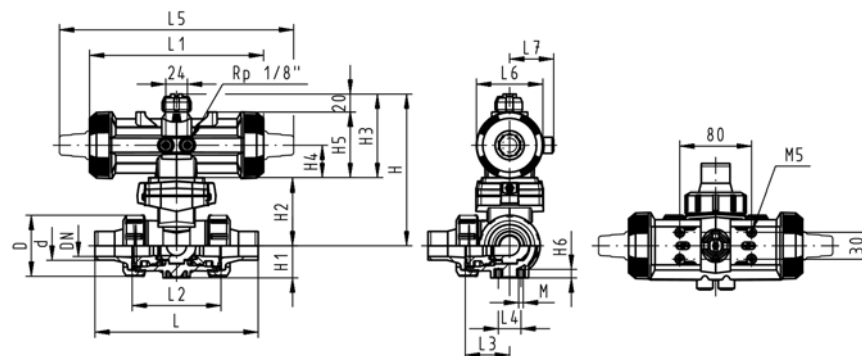
Model:

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

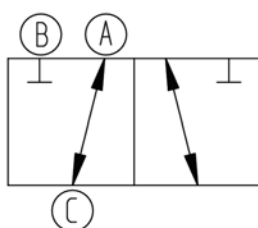
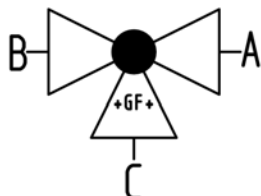
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
16	10	10	50	199 287 132	1.001
20	15	10	75	199 287 133	1.012
25	20	10	150	199 287 134	1.179
32	25	10	280	199 287 135	1.433
40	32	10	480	199 287 136	2.403
50	40	10	620	199 287 137	3.036
63	50	10	1230	199 287 138	4.847

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	closest 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



PF 3 39 981 035



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

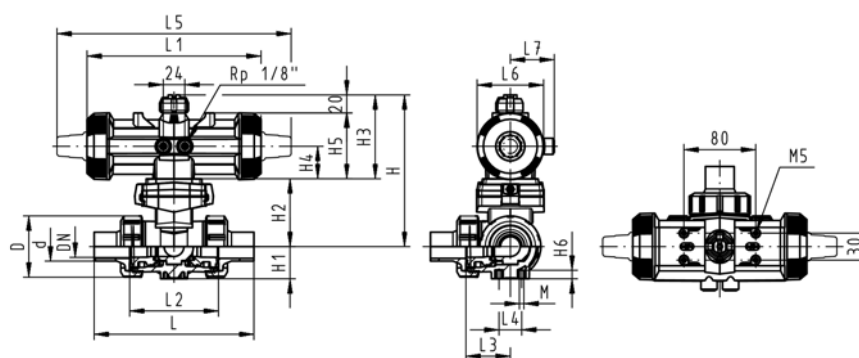
Model:

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

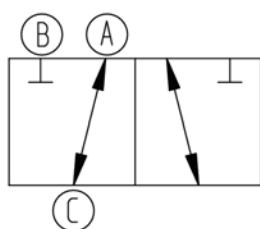
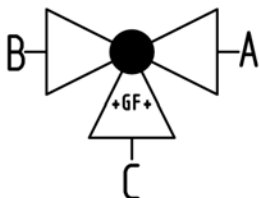
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
20	15	10	75	199 287 173	1.012
25	20	10	150	199 287 174	1.179
32	25	10	280	199 287 175	1.433
40	32	10	480	199 287 176	2.403
50	40	10	620	199 287 177	3.036
63	50	10	1230	199 287 178	4.847

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	closest 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



PF 3 39 981 035



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

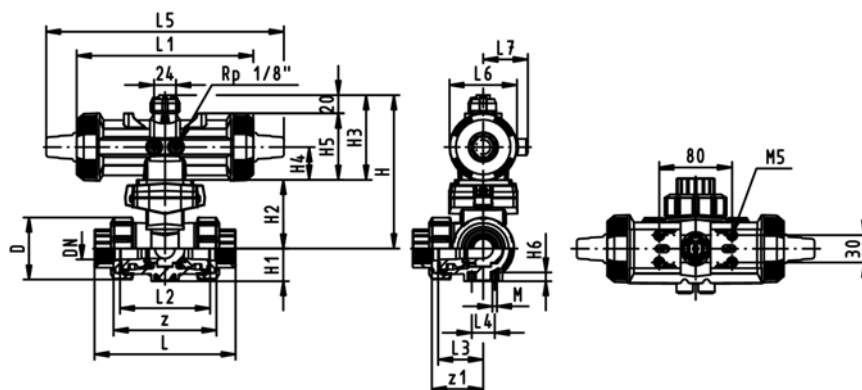
Model:

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

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	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



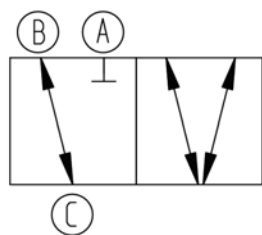
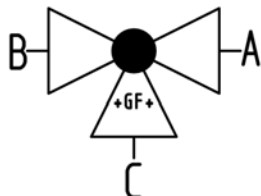
PF 3 39 981 035



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

Model:

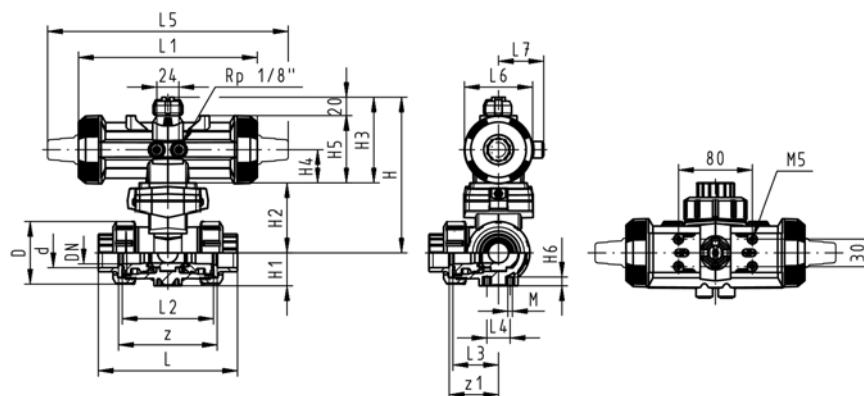
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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



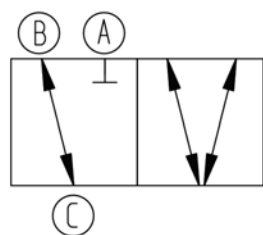
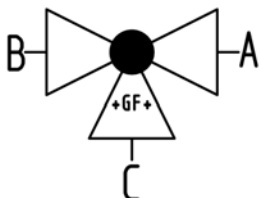
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	140	199 287 112	1.182
20	15	10	200	199 287 113	1.189
25	20	10	470	199 287 114	1.347
32	25	10	793	199 287 115	1.584
40	32	10	1290	199 287 116	2.786
50	40	10	1910	199 287 117	3.154
63	50	10	3100	199 287 118	5.052

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	z [mm]	z1 [mm]	closest 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



PF 3 39 981 035



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

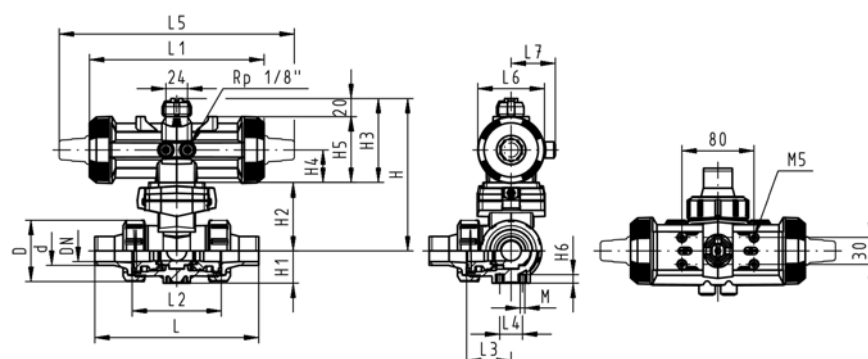
Model:

- 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	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	closest 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



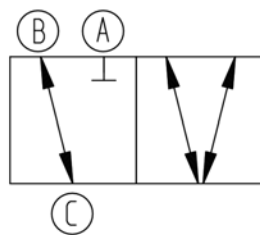
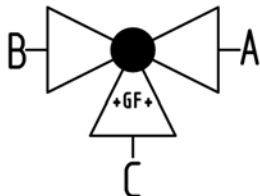
PF 3 39 981 035



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

Model:

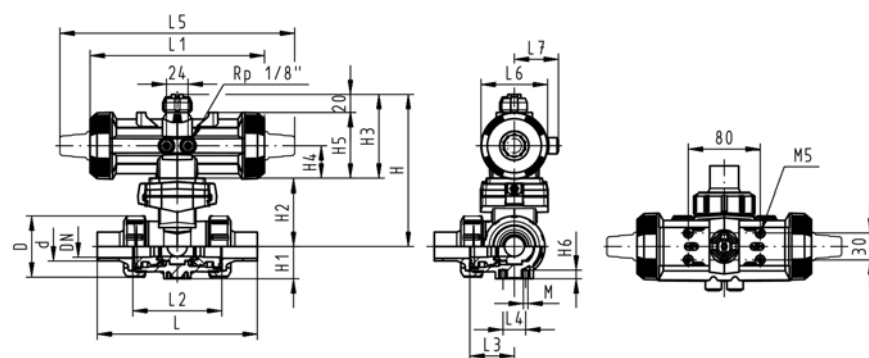
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel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



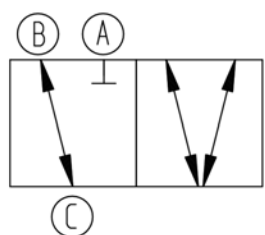
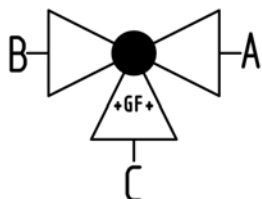
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
20	15	10	200	199 287 073	1.201
25	20	10	470	199 287 074	1.366
32	25	10	793	199 287 075	1.615
40	32	10	1290	199 287 076	2.813
50	40	10	1910	199 287 077	3.433
63	50	10	3100	199 287 078	5.213

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	closest 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



PF 3 39 981 035



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

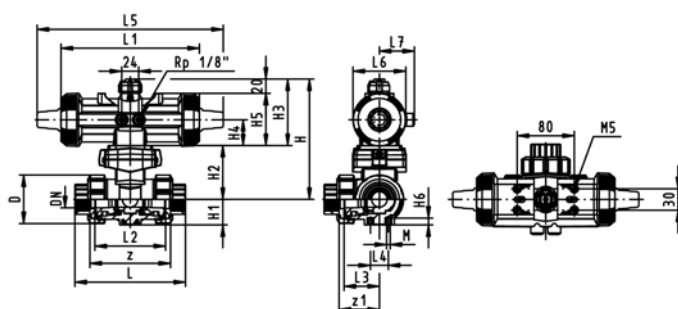
Model:

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

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	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



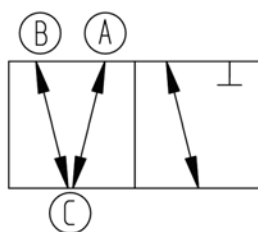
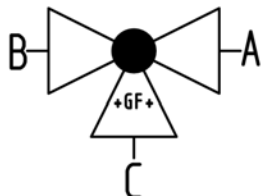
PF 3 39 981 035



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

Model:

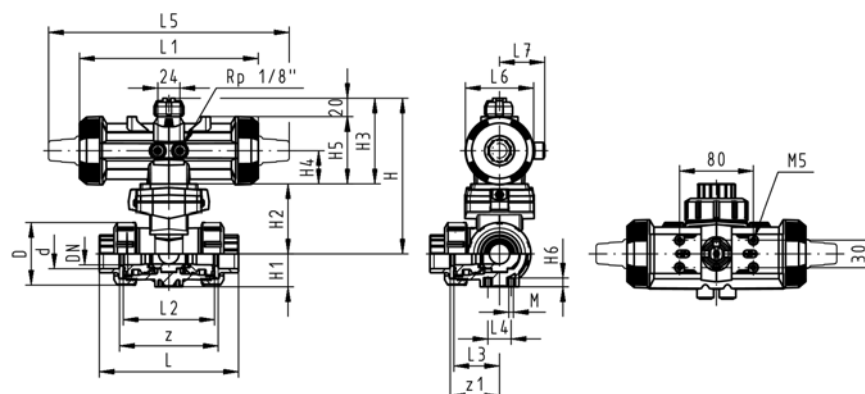
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



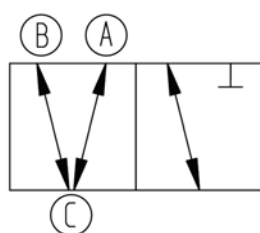
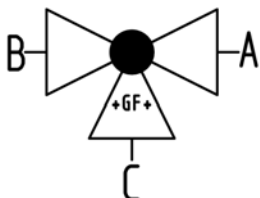
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
16	10	10	140	199 287 232	0.991
20	15	10	200	199 287 233	0.999
25	20	10	470	199 287 234	1.157
32	25	10	793	199 287 235	1.394
40	32	10	1290	199 287 236	2.362
50	40	10	1910	199 287 237	2.928
63	50	10	3100	199 287 238	4.628

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	z [mm]	z1 [mm]	closest 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



PF 3 39 981 035



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

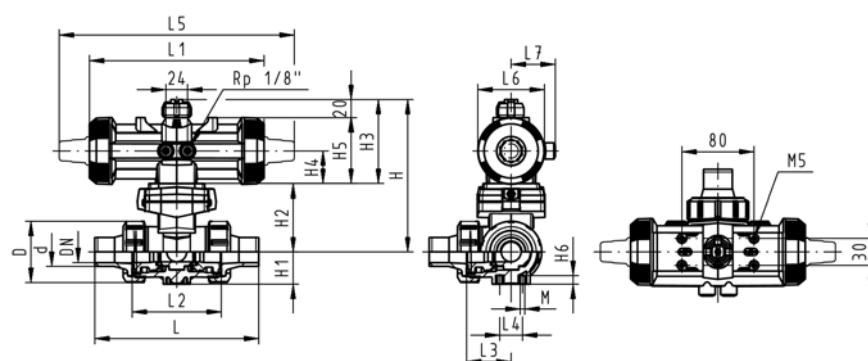
Model:

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

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	closest 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



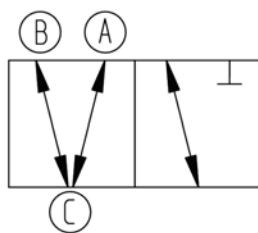
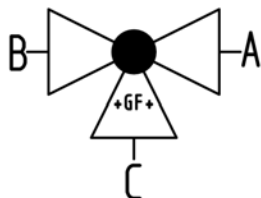
PF 3 39 981 035



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:

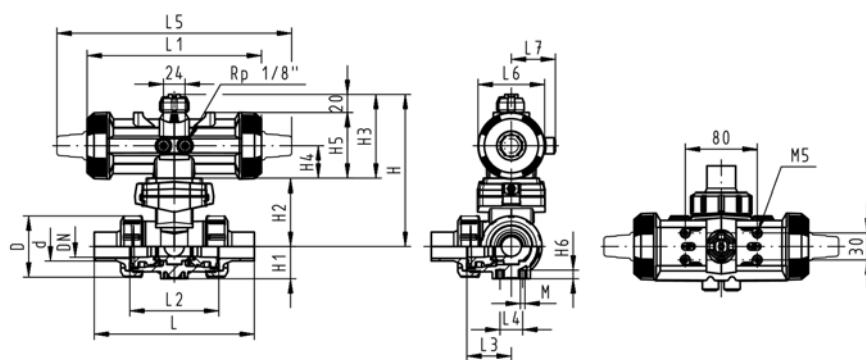
- Material: PVDF
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



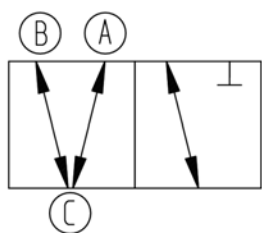
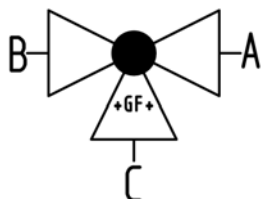
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	kg
20	15	10	140	199 287 193	1.011
25	20	10	200	199 287 194	1.176
32	25	10	470	199 287 195	1.425
40	32	10	793	199 287 196	2.389
50	40	10	1290	199 287 197	3.009
63	50	10	3100	199 287 198	4.789

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	closest 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



PF 3 39 981 035



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

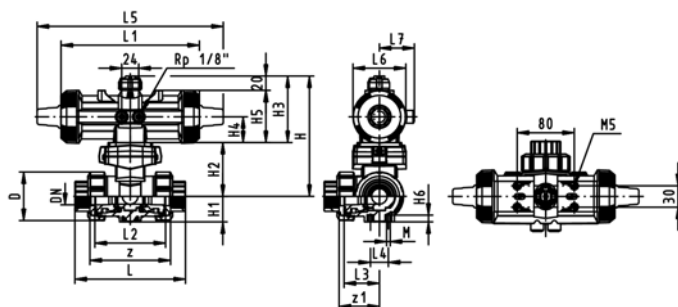
Model:

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

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	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	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



PF 3 39 981 035

Diaphragm valves pneumatic

New generation

SYGEF Standard

Diaphragm valve DIASTAR TenPlus

FC (Fail safe to close)

Unions with fusion sockets metric



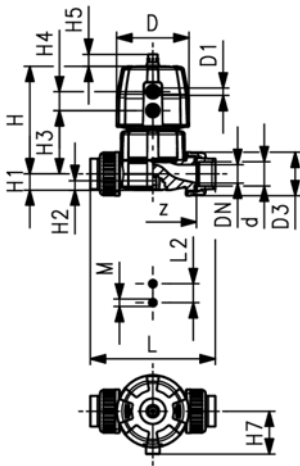
Model:

- 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

* PN: PTFE/EPDM

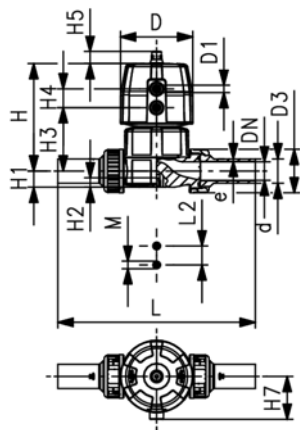


d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
20	15	10/10*	150/150*	125	185 684 032	185 684 052	1.147	
25	20	10/10*	150/150*	271	185 684 033	185 684 053	1.233	
32	25	10/10*	150/150*	481	185 684 034	185 684 054	2.184	
40	32	10/10*	150/150*	759	185 684 035	185 684 055	3.643	
50	40	10/10*	150/150*	1263	185 684 036	185 684 056	5.729	
63	50	10/10*	150/150*	1728	185 684 037	185 684 057	6.873	

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]	
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	100	7	
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10	
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	126	13	
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	144	15	
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	164	19	
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	194	23	

d [mm]	closest inch	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	

PF 3 39 772 620



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/EPDM

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

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	3.0

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 620



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

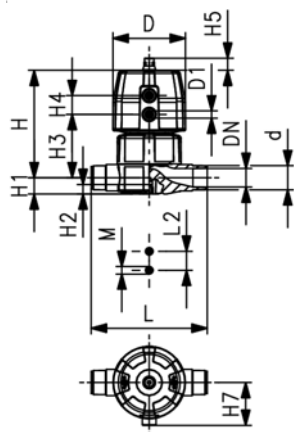
Model:

- 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/EPDM



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

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	closest inch
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1/2
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	3/4
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	1
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	1 1/4
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	1 1/2
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	2

PF 3 39 772 610



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

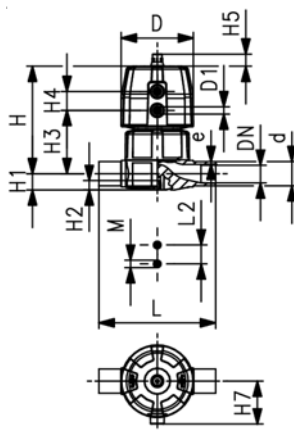
Model:

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

Option:

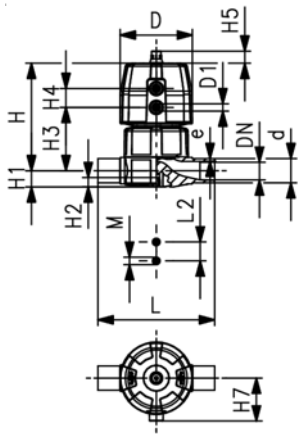
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
20	15	10/10*	150/150*	125	185 685 132	185 685 152	0.972	
25	20	10/10*	150/150*	271	185 685 133	185 685 153	1.209	
32	25	10/10*	150/150*	481	185 685 134	185 685 154	2.022	
40	32	10/10*	150/150*	759	185 685 135	185 685 155	3.350	
50	40	10/10*	150/150*	1263	185 685 136	185 685 156	5.289	
63	50	10/10*	150/150*	1728	185 685 137	185 685 157	6.151	

table continued next page



PF 3 39 772 610

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]	
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9	
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9	
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.4	
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	2.4	
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	3.0	
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	3.0	

d [mm]	closest inch	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	



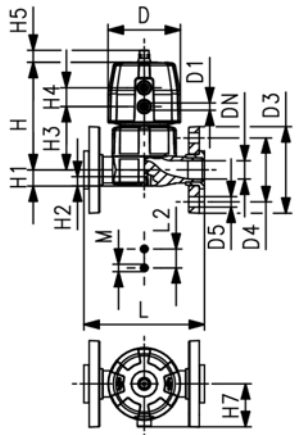
SYGEF Standard Diaphragm valve DIASTAR TenPlus FC (Fail safe to close) With backing flanges PP-V metric/BS

Model:

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

Option:

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

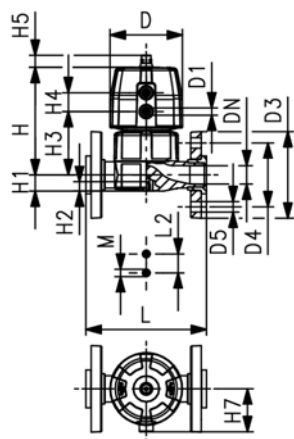


d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg	
20	15	10	125	185 687 132	185 687 152	1.281	
25	20	10	271	185 687 133	185 687 153	1.491	
32	25	10	481	185 687 134	185 687 154	2.410	
40	32	10	759	185 687 135	185 687 155	3.961	
50	40	10	1263	185 687 136	185 687 156	5.944	
63	50	10	1728	185 687 137	185 687 157	7.277	

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

d [mm]	Lift = Hx [mm]	closest inch	
20	7	1/2	
25	10	3/4	
32	13	1	
40	15	1 1/4	
50	19	1 1/2	
63	23	2	

PF 3 39 772 630



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
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

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

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	PTFE/FPM Code	kg
1/2	15	10	125	185 687 732	185 687 752	1.281
3/4	20	10	271	185 687 733	185 687 753	1.491
1	25	10	481	185 687 734	185 687 754	2.410
1 1/4	32	10	759	185 687 735	185 687 755	3.961
1 1/2	40	10	1263	185 687 736	185 687 756	5.944
2	50	10	1728	185 687 737	185 687 757	7.277

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

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

PF 3 39 772 630



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

Model:

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

* With backing flanges PP-V

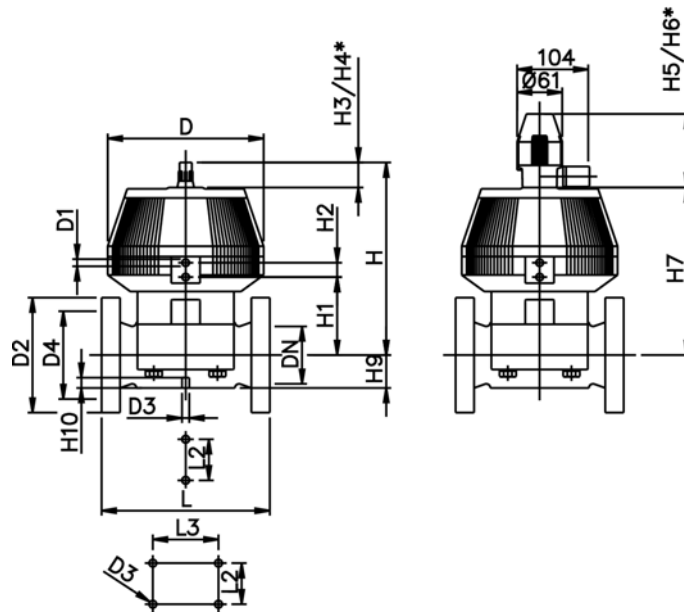
** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 75	65	2 1/2	10	992	199 025 357	13.600
** 90	80	3	10	1700	199 025 358	18.948
110	100	4	6	2700	199 025 359	32.500

table continued next page

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	185	8	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	200	12	160	310	120	348	150	24	46	100	129	195
110	335	¼	225	12	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



PF 3 39 212 044



SYGEF Standard

Diaphragm valve type DIASTAR 025

Function FC (Fail safe to close)

With fixed flanges PVDF Inch ANSI

Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side

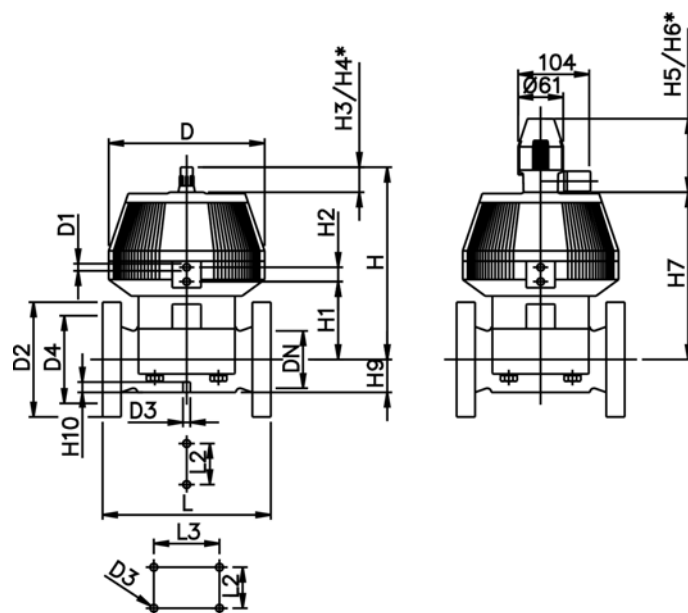
* With backing flanges PP-V

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

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

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 2 1/2	280	1/4	185	8	145	290	70	344	148	24	46	100	129	195
** 3	280	1/4	200	12	160	310	120	348	150	24	46	100	129	195
4	335	1/4	225	12	180	350	120	395	176	24	46	100	129	195

Inch	H7 [mm]	H9 [mm]	H10 [mm]											
* 2 1/2	298	46	15											
** 3	302	57	15											
4	349	69	20											



PF 3 39 212 044



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

Model:

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

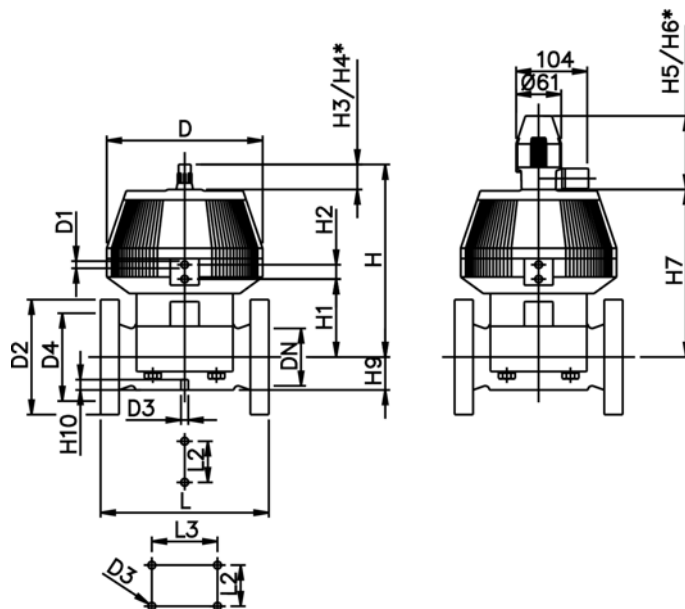
* With backing flanges PP-V

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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 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 [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

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



PF 3 39 212 045



SYGEF Standard

Diaphragm valve type DIASTAR 025

Function FO (Fail safe to open)

With fixed flanges PVDF Inch ANSI

Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side

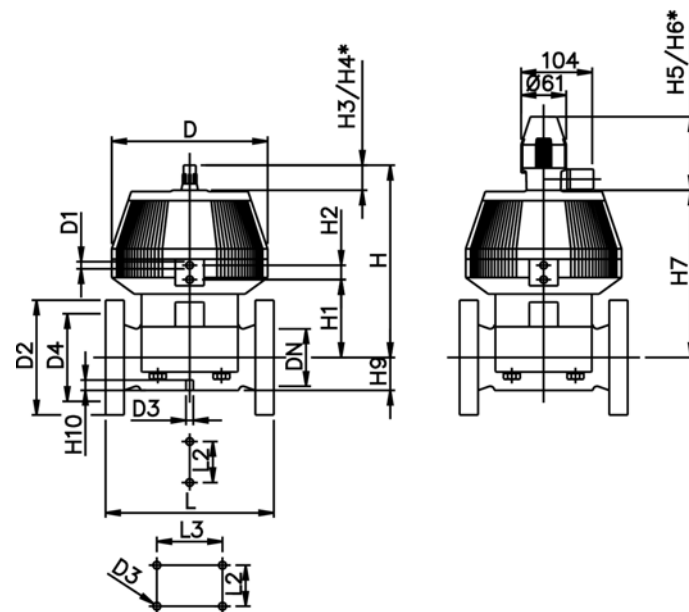
* With backing flanges PP-V

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

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

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



PF 3 39 212 045



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

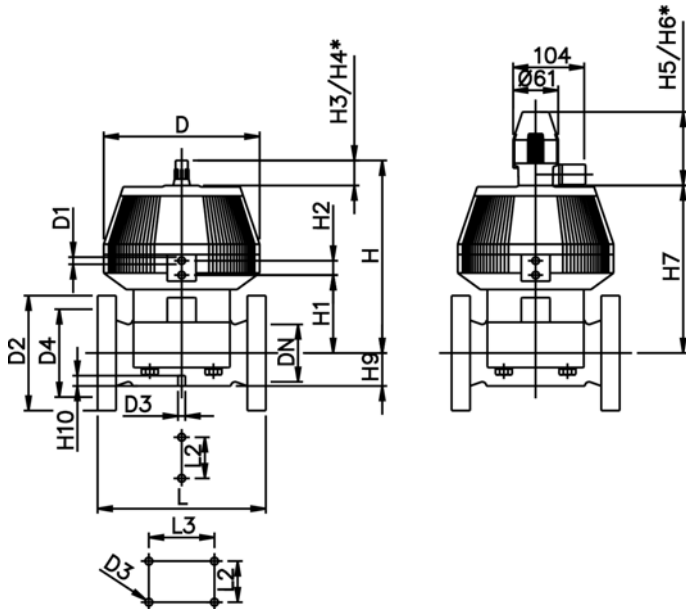
Model:

- Material: PVDF
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: on one side
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 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 [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

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



PF 3 39 212 046



SYGEF Standard

Diaphragm valve type DIASTAR 025

Function DA (Double acting)

With fixed flanges PVDF Inch ANSI

Model:

- Material: PVDF
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side

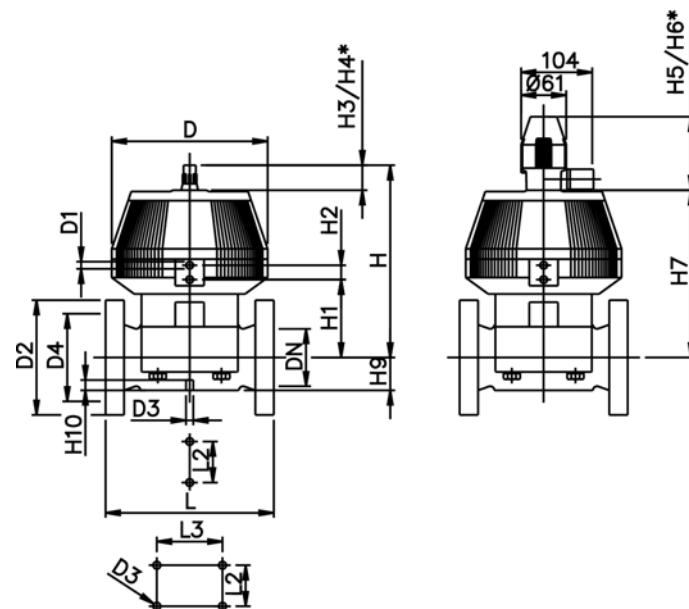
* With backing flanges PP-V

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

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

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



PF 3 39 212 046

Butterfly valves electric

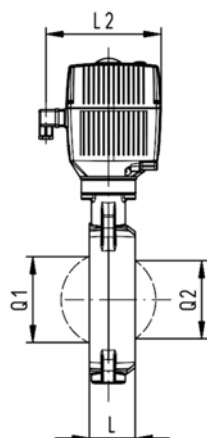
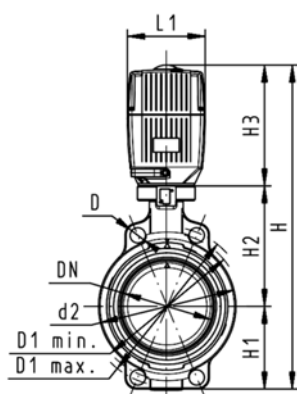
SYGEF Standard

Butterfly valve type 140 100-230V

Without manual override

Model:

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

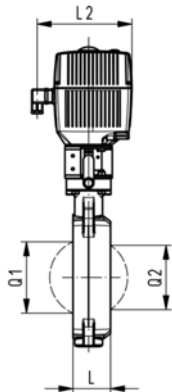
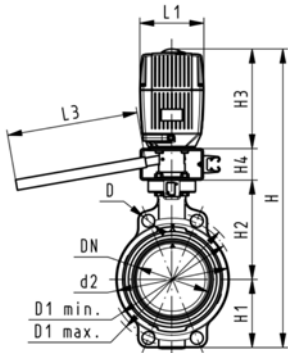


d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 140 582	199 140 642	4.218
75	65	2 ½	10	2200	199 140 583	199 140 643	4.330
90	80	3	10	3000	199 140 584	199 140 644	4.510
110	100	4	10	6500	199 140 585	199 140 645	5.162
140	125	5	10	11500	199 140 586	199 140 646	5.757
160	150	6	10	16600	199 140 587	199 140 647	6.977
225	200	8	10	39600	199 140 588	199 140 648	13.638
280	250	10	6	55200	199 140 589	199 140 649	16.169
315	300	12	4	80000	199 140 590	199 140 650	21.059

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

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

PF 3 39 643 039



SYGEF Standard Butterfly valve type 140 100-230V With manual override

Model:

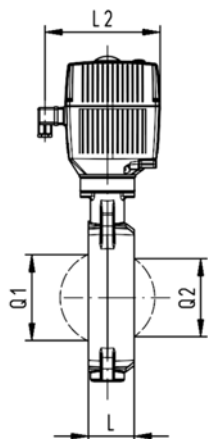
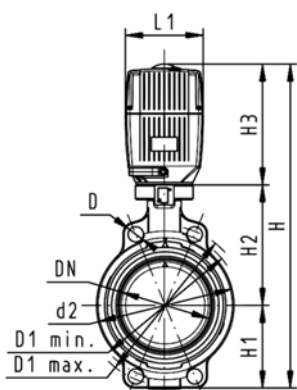
- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range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

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

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

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

PF 3 39 643 039



SYGEF Standard Butterfly valve type 140 24V Without manual override

Model:

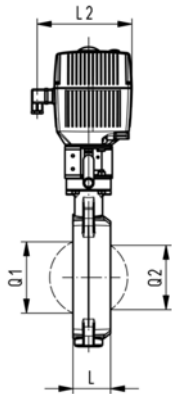
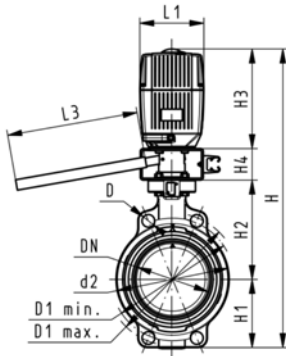
- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 140 622	199 140 662	4.218
75	65	2 ½	10	2200	199 140 623	199 140 663	4.330
90	80	3	10	3000	199 140 624	199 140 664	4.510
110	100	4	10	6500	199 140 625	199 140 665	5.162
140	125	5	10	11500	199 140 626	199 140 666	5.757
160	150	6	10	16600	199 140 627	199 140 667	6.977
225	200	8	10	39600	199 140 628	199 140 668	13.638
280	250	10	6	55200	199 140 629	199 140 669	16.169
315	300	12	4	80000	199 140 630	199 140 670	21.059

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

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

PF 3 39 643 039



SYGEF Standard Butterfly valve type 140 24V With manual override

Model:

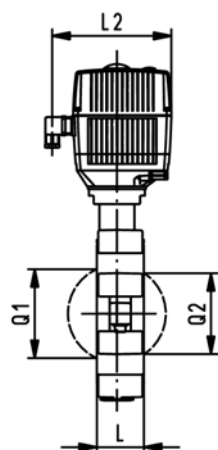
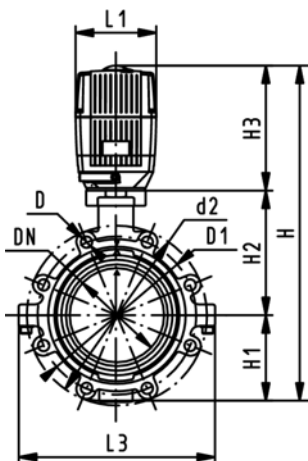
- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
63	50	2	10	1470	199 140 602	5.718	
75	65	2 ½	10	2200	199 140 603	5.830	
90	80	3	10	3000	199 140 604	6.010	
110	100	4	10	6500	199 140 605	6.662	
140	125	5	10	11500	199 140 606	7.257	
160	150	6	10	16600	199 140 607	8.477	
225	200	8	10	39600	199 140 608	15.138	

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

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

PF 3 39 643 039



SYGEF Standard Lugstyle butterfly valve type 141 100-230V Without manual override

Model:

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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 141 582	199 141 642	6.308
75	65	2 ½	10	2200	199 141 583	199 141 643	6.671
90	80	3	10	3000	199 141 584	199 141 644	7.728
110	100	4	10	6500	199 141 585	199 141 645	9.260
140	125	5	10	11500	199 141 586	199 141 646	11.241
160	150	6	10	16600	199 141 587	199 141 647	13.460
225	200	8	10	39600	199 141 588	199 141 648	23.614

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

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

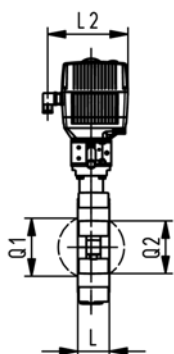
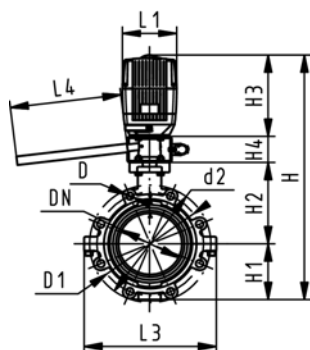
PF 3 39 643 040



SYGEF Standard Lugstyle butterfly valve type 141 100-230V With manual override

Model:

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

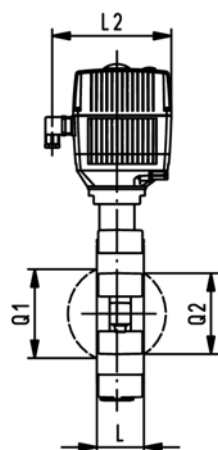
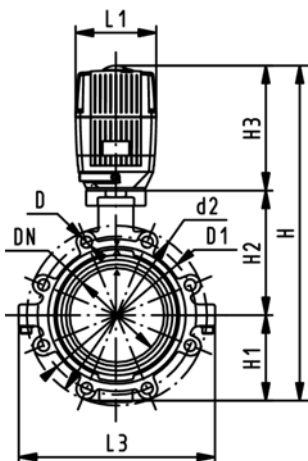


d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
63	50	2	10	1470	199 141 562	7.808	
75	65	2 ½	10	2200	199 141 563	8.171	
90	80	3	10	3000	199 141 564	9.228	
110	100	4	10	6500	199 141 565	10.760	
140	125	5	10	11500	199 141 566	12.741	
160	150	6	10	16600	199 141 567	14.960	
225	200	8	10	39600	199 141 568	25.114	

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

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

PF 3 39 643 040



SYGEF Standard Lugstyle butterfly valve type 141 24V Without manual override

Model:

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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 141 622	199 141 662	6.308
75	65	2 ½	10	2200	199 141 623	199 141 663	6.671
90	80	3	10	3000	199 141 624	199 141 664	7.728
110	100	4	10	6500	199 141 625	199 141 665	9.260
140	125	5	10	11500	199 141 626	199 141 666	11.241
160	150	6	10	16600	199 141 627	199 141 667	13.460
225	200	8	10	39600	199 141 628	199 141 668	23.614

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

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

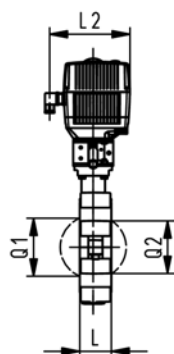
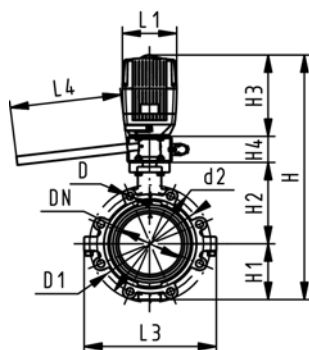
PF 3 39 643 040



SYGEF Standard Lugstyle butterfly valve type 141 24V With manual override

Model:

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

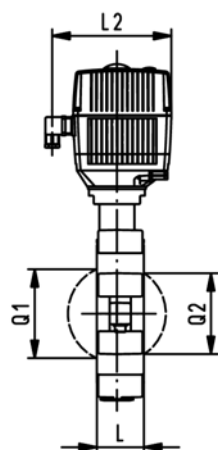
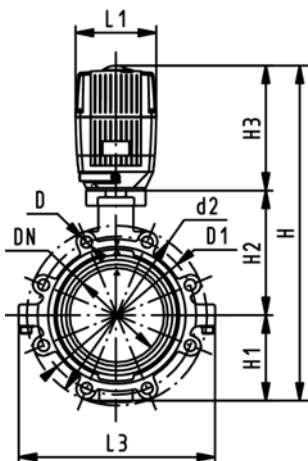


d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
63	50	2	10	1470	199 141 602	7.808	
75	65	2 ½	10	2200	199 141 603	8.171	
90	80	3	10	3000	199 141 604	9.228	
110	100	4	10	6500	199 141 605	10.760	
140	125	5	10	11500	199 141 606	12.741	
160	150	6	10	16600	199 141 607	14.960	
225	200	8	10	39600	199 141 608	25.114	

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

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

PF 3 39 643 040



PF 3 39 643 040

SYGEF Standard Lugstyle butterfly valve type 142 100-230V ANSI Without manual override

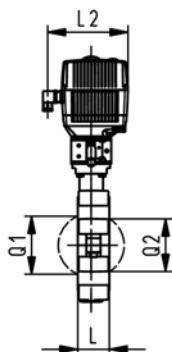
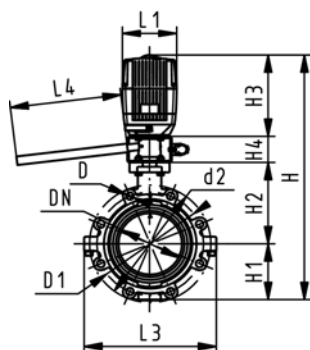
Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg	
2	50	63	10	1470	199 142 582	199 142 642	6.308	
2 ½	65	75	10	2200	199 142 583	199 142 643	6.671	
3	80	90	10	3000	199 142 584	199 142 644	7.099	
4	100	110	10	6500	199 142 585	199 142 645	9.260	
5	125	140	10	11500	199 142 586	199 142 646	11.241	
6	150	160	10	16600	199 142 587	199 142 647	13.460	
8	200	225	10	39600	199 142 588	199 142 648	23.614	

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150	
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160	
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175	
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244	
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272	
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297	
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360	

Inch	Q1 [mm]	Q2 [mm]	
2	40		
2 ½	54	35	
3	67	50	
4	88	74	
5	113	97	
6	139	123	
8	178	169	



SYGEF Standard Lugstyle butterfly valve type 142 100-230V ANSI With manual override

Model:

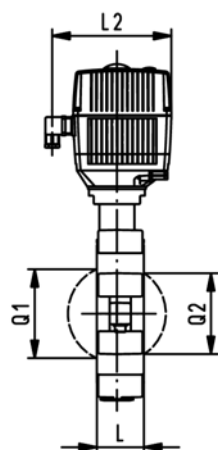
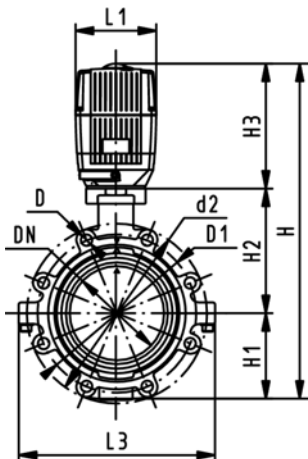
- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
2	50	63	10	1470	199 142 562	7.808	
2 ½	65	75	10	2200	199 142 563	8.171	
3	80	90	10	3000	199 142 564	8.599	
4	100	110	10	6500	199 142 565	10.760	
5	125	140	10	11500	199 142 566	12.741	
6	150	160	10	16600	199 142 567	14.960	
8	200	225	10	39600	199 142 568	25.114	

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

Inch	L4 [mm]	Q1 [mm]	Q2 [mm]	
2	200	40		
2 ½	200	54	35	
3	200	67	50	
4	250	88	74	
5	250	113	97	
6	250	139	123	
8	250	178	169	

PF 3 39 643 040



SYGEF Standard Lugstyle butterfly valve type 142 24V ANSI Without manual override

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard

Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
2	50	63	10	1470	199 142 622	199 142 662	6.308
2 ½	65	75	10	2200	199 142 623	199 142 663	6.671
3	80	90	10	3000	199 142 624	199 142 664	7.099
4	100	110	10	6500	199 142 625	199 142 665	9.260
5	125	140	10	11500	199 142 626	199 142 666	11.241
6	150	160	10	16600	199 142 627	199 142 667	13.460
8	200	225	10	39600	199 142 628	199 142 668	23.614

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169

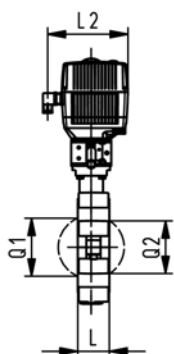
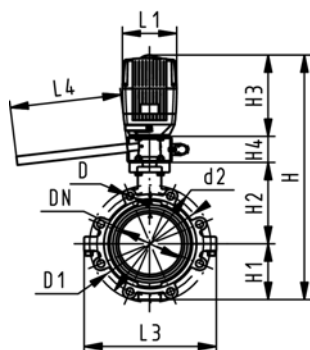
PF 3 39 643 040



SYGEF Standard Lugstyle butterfly valve type 142 24V ANSI With manual override

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
2	50	63	10	1470	199 142 602	7.808	
2 ½	65	75	10	2200	199 142 603	8.171	
3	80	90	10	3000	199 142 604	8.599	
4	100	110	10	6500	199 142 605	10.760	
5	125	140	10	11500	199 142 606	12.741	
6	150	160	10	16600	199 142 607	14.960	
8	200	225	10	39600	199 142 608	25.114	

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

Inch	L4 [mm]	Q1 [mm]	Q2 [mm]	
2	200	40		
2 ½	200	54	35	
3	200	67	50	
4	250	88	74	
5	250	113	97	
6	250	139	123	
8	250	178	169	

PF 3 39 643 040

Butterfly valves pneumatic

SYGEF Standard

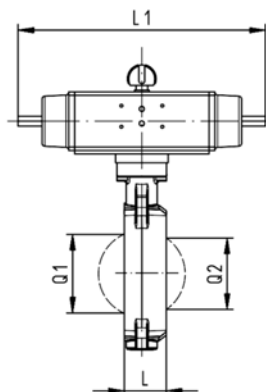
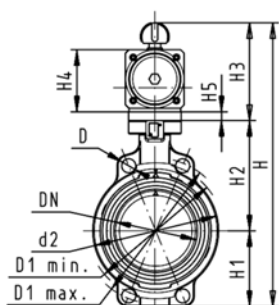
Butterfly valve type 240

FC (Fail safe to close)

Without manual override

Model:

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

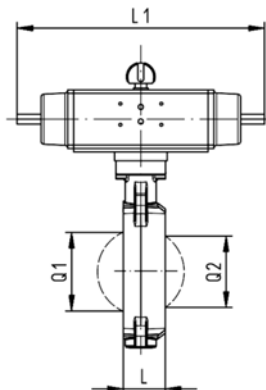
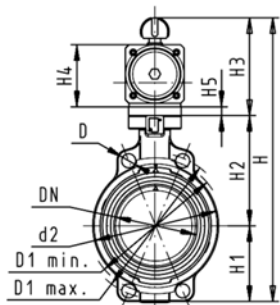


d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 240 462	199 240 522	3.258
75	65	2 ½	10	2200	199 240 463	199 240 523	3.370
90	80	3	10	3000	199 240 464	199 240 524	3.550
110	100	4	10	6500	199 240 465	199 240 525	5.400
140	125	5	10	11500	199 240 466	199 240 526	6.997
160	150	6	10	16600	199 240 467	199 240 527	10.538
225	200	8	10	39600	199 240 468	199 240 528	15.138
280	250	10	10	55200	199 240 469	199 240 529	32.529
315	300	12	10	80000	199 240 470	199 240 530	38.156

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

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

PF 3 39 769 001



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

Model:

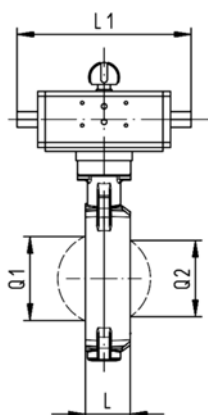
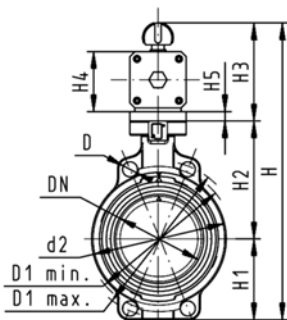
- Material: PVDF
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 240 482	199 240 542	3.258
75	65	2 ½	10	2200	199 240 483	199 240 543	3.370
90	80	3	10	3000	199 240 484	199 240 544	3.550
110	100	4	10	6500	199 240 485	199 240 545	5.400
140	125	5	10	11500	199 240 486	199 240 546	6.997
160	150	6	10	16600	199 240 487	199 240 547	10.538
225	200	8	10	39600	199 240 488	199 240 548	15.000
280	250	10	10	55200	199 240 489	199 240 549	32.529
315	300	12	10	80000	199 240 490	199 240 550	37.419

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

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

PF 3 39 769 001



SYGEF Standard Butterfly valve type 240 DA (Double acting) Without manual override

Model:

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

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

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

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253

PF 3 39 769 001



SYGEF Standard

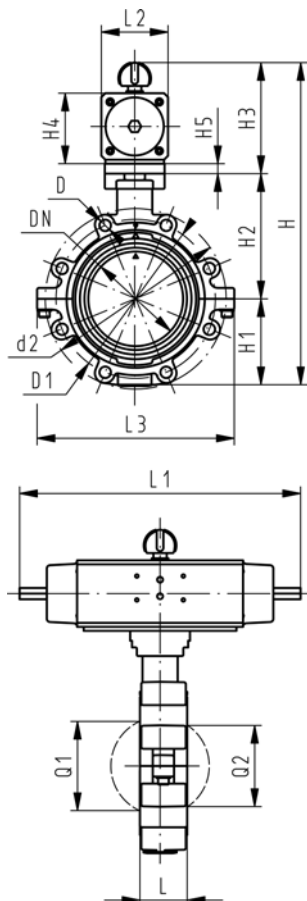
Lugstyle butterfly valve type 241

FC (Fail safe to close)

Without manual override

Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 241 462	199 241 522	5.348
75	65	2 ½	10	2200	199 241 463	199 241 523	5.711
90	80	3	10	3000	199 241 464	199 241 524	6.768
110	100	4	10	6500	199 241 465	199 241 525	9.498
140	125	5	10	11500	199 241 466	199 241 526	12.481
160	150	6	10	16600	199 241 467	199 241 527	17.021
225	200	8	10	39600	199 241 468	199 241 528	25.114

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

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

PF 3 39 769 002



SYGEF Standard

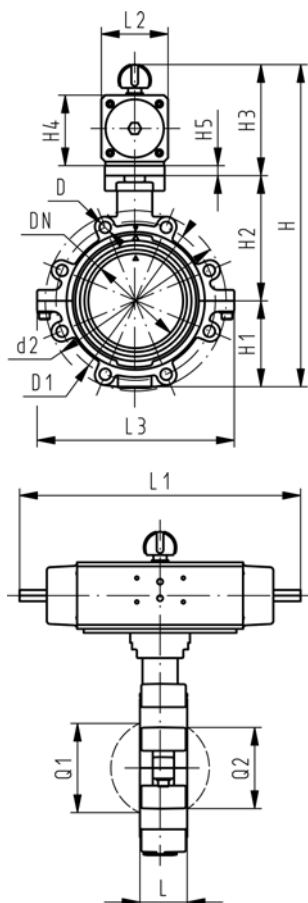
Lugstyle butterfly valve type 241

FO (Fail safe to open)

Without manual override

Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 241 482	199 241 542	5.348
75	65	2 ½	10	2200	199 241 483	199 241 543	5.711
90	80	3	10	3000	199 241 484	199 241 544	6.768
110	100	4	10	6500	199 241 485	199 241 545	9.498
140	125	5	10	11500	199 241 486	199 241 546	12.481
160	150	6	10	16600	199 241 487	199 241 547	17.021
225	200	8	10	39600	199 241 488	199 241 548	25.114

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

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

PF 3 39 769 002



SYGEF Standard

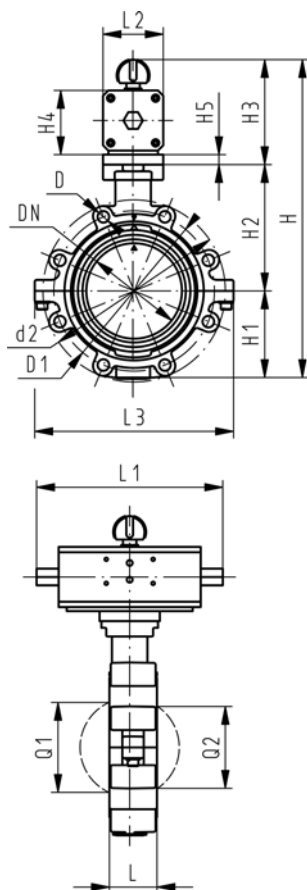
Lugstyle butterfly valve type 241

DA (Double acting)

Without manual override

Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
63	50	2	10	1470	199 241 502	199 241 562	4.198
75	65	2 ½	10	2200	199 241 503	199 241 563	4.561
90	80	3	10	3000	199 241 504	199 241 564	6.099
110	100	4	10	6500	199 241 505	199 241 565	7.750
140	125	5	10	11500	199 241 506	199 241 566	9.731
160	150	6	10	16600	199 241 507	199 241 567	13.500
225	200	8	10	39600	199 241 508	199 241 568	19.114

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

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

PF 3 39 769 002



SYGEF Standard

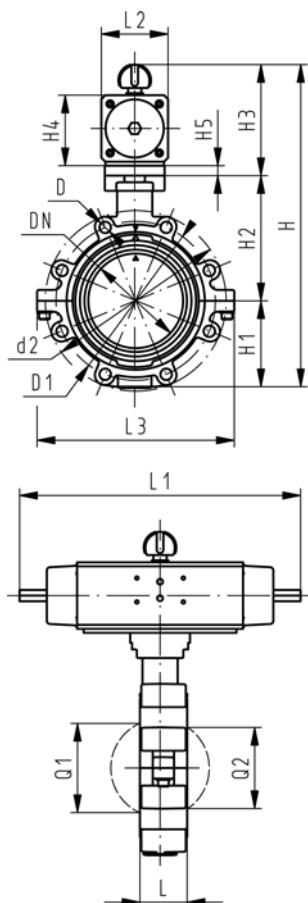
Lugstyle butterfly valve type 242 ANSI

FC (Fail safe to close)

Without manual override

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
2	50	63	10	1470	199 242 462	199 242 522	5.348
2 ½	65	75	10	2200	199 242 463	199 242 523	5.711
3	80	90	10	3000	199 242 464	199 242 524	6.139
4	100	110	10	6500	199 242 465	199 242 525	9.498
5	125	140	10	11500	199 242 466	199 242 526	12.481
6	150	160	10	16600	199 242 467	199 242 527	17.021
8	200	225	10	39600	199 242 468	199 242 528	25.114

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FC	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FC	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FC	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FC	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FC	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FC	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FC	UNC 3/4	299	334	529	158	210	161	118		73	452	112

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

PF 3 39 769 001



SYGEF Standard

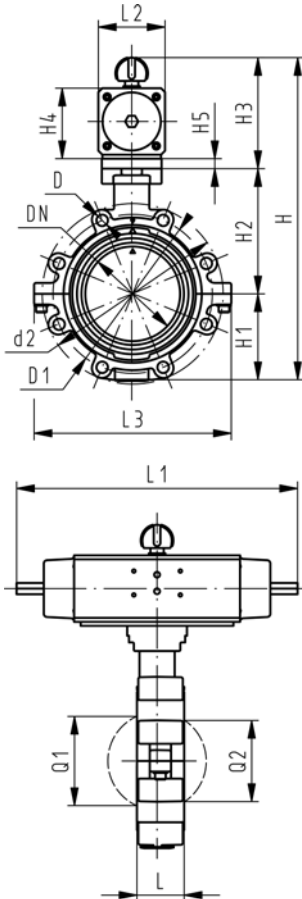
Lugstyle butterfly valve type 242 ANSI

FO (Fail safe to open)

Without manual override

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<)



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg	
2	50	63	10	1470	199 242 482	199 242 542	5.348	
2 ½	65	75	10	2200	199 242 483	199 242 543	5.711	
3	80	90	10	3000	199 242 484	199 242 544	6.139	
4	100	110	10	6500	199 242 485	199 242 545	9.498	
5	125	140	10	11500	199 242 486	199 242 546	12.481	
6	150	160	10	16600	199 242 487	199 242 547	17.021	
8	200	225	10	39600	199 242 488	199 242 548	25.114	

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FO	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FO	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FO	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FO	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FO	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FO	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FO	UNC 3/4	299	334	529	158	210	161	118		73	452	112

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]	
2	150	40		
2 ½	160	54	35	
3	175	67	50	
4	244	88	74	
5	272	113	97	
6	297	139	123	
8	360	178	169	

PF 3 39 769 001



SYGEF Standard

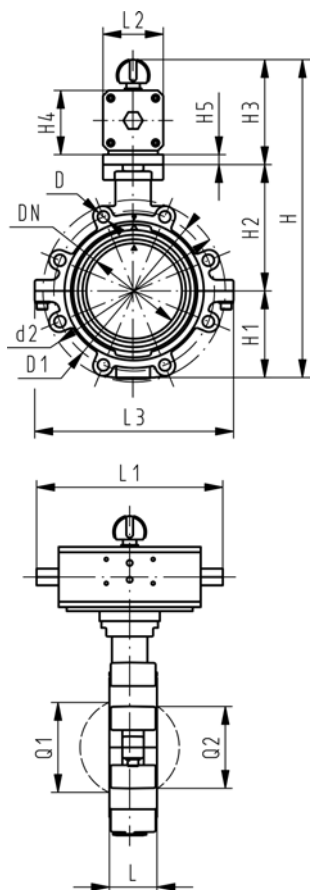
Lugstyle butterfly valve type 242 ANSI

DA (Double acting)

Without manual override

Model:

- Material: PVDF
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	PTFE Code	kg
2	50	63	10	1470	199 242 502	199 242 562	4.198
2 ½	65	75	10	2200	199 242 503	199 242 563	4.561
3	80	90	10	3000	199 242 504	199 242 564	5.470
4	100	110	10	6500	199 242 505	199 242 565	7.750
5	125	140	10	11500	199 242 506	199 242 566	9.731
6	150	160	10	16600	199 242 507	199 242 567	13.500
8	200	225	10	39600	199 242 508	199 242 568	19.114

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-35 DA	UNC 5/8	121	150	318	77	134	107	60	15	45	177	55
2 ½	PA-35 DA	UNC 5/8	140	170	330	83	140	107	60	15	46	177	55
3	PA-40 DA	UNC 5/8	153	177	348	89	146	113	66	15	49	190	60
4	PA-45 DA	UNC 5/8	191	216	373	104	167	102	71		56	235	65
5	PA-45 DA	UNC 3/4	216	246	409	117	181	111	78		64	235	72
6	PA-55 DA	UNC 3/4	242	273	448	130	189	129	86		72	279	80
8	PA-55 DA	UNC 3/4	299	334	507	158	210	139	96		73	279	90

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

PF 3 39 769 001

Solenoid valves

SYGEF Standard

Solenoid valve type 165

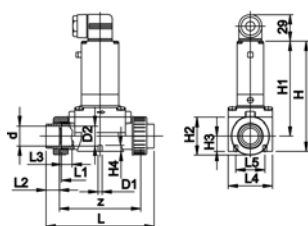
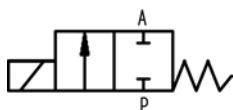
Nominal voltage 230V 50 Hz

Function A straight-through valve 2/2 ways

With fusion sockets metric

Model:

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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	0.5 - 6.0	83	199 165 412	199 165 402	1.047
25	20	0.5 - 6.0	100	199 165 413	199 165 403	0.700
32	25	0.5 - 6.0	233	199 165 414	199 165 404	1.200
40	32	0.5 - 6.0	500	199 165 415	199 165 405	1.268
50	40	0.5 - 6.0	500	199 165 416	199 165 406	2.200
63	50	0.5 - 6.0	600	199 165 417	199 165 407	2.200

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	closest inch
20		120	147	109	16		63	40	148	122	53	22	8	1/2
25	25	120	151	109	18	18	62	40	148	122	53	22	8	3/4
32		150	185	139	20		85	45	175	137	76	31	15	1
40	40	150	189	139	22	23	85	45	175	137	76	31	15	1 1/4
50		200	245	189	25		115	45	212	160	105	42	15	1 1/2
63	63	200	253	189	29	33	115	45	212	160	105	42	15	2

PF 3 39 215 112

SYGEF Standard

Solenoid valve type 165

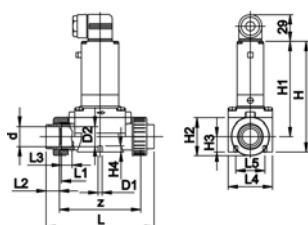
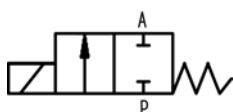
Nominal voltage 115V 50 Hz

Function A straight-through valve 2/2 ways

With fusion sockets metric

Model:

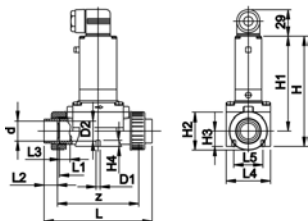
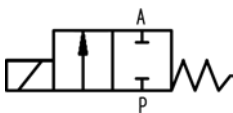
- Material: PVDF
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	0.5 - 6.0	83	199 165 442	199 165 432	0.700
25	20	0.5 - 6.0	100	199 165 443	199 165 433	0.700
32	25	0.5 - 6.0	233	199 165 444	199 165 434	1.200
40	32	0.5 - 6.0	267	199 165 445	199 165 435	1.200
50	40	0.5 - 6.0	500	199 165 446	199 165 436	2.200
63	50	0.5 - 6.0	600	199 165 447	199 165 437	2.200

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	closest inch
20		120	147	109	16		63	40	148	122	53	22	8	1/2
25	25	120	151	109	18	18	62	40	148	122	53	22	8	3/4
32		150	185	139	20		85	45	175	137	76	31	15	1
40	40	150	189	139	22	23	85	45	175	137	76	31	15	1 1/4
50		200	245	189	25		115	45	212	160	105	42	15	1 1/2
63	63	200	253	189	29	33	115	45	212	160	105	42	15	2

PF 3 39 215 114



SYGEF Standard

Solenoid valve type 165

Nominal voltage 24V DC

Function A straight-through valve 2/2 ways

With fusion sockets metric

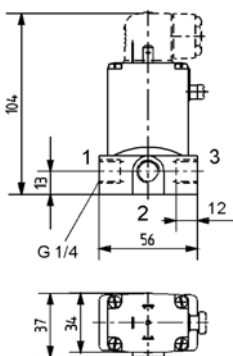
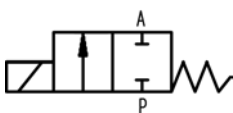
Model:

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

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	0.5 - 6.0	83	199 165 422	199 165 452	0.700
25	20	0.5 - 6.0	100	199 165 423	199 165 453	0.744
32	25	0.5 - 6.0	233	199 165 424	199 165 454	1.300
40	32	0.5 - 6.0	267	199 165 425	199 165 455	1.200
50	40	0.5 - 6.0	500	199 165 426	199 165 456	2.200
63	50	0.5 - 6.0	600	199 165 427	199 165 457	2.200

d [mm]	D2 [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	closest inch
20		120	147	109	16		63	40	148	122	53	22	8	1/2
25	25	120	151	109	18	18	62	40	148	122	53	22	8	3/4
32		150	185	139	20		85	45	175	137	76	31	15	1
40	40	150	189	139	22	23	85	45	175	137	76	31	15	1 1/4
50		200	245	189	25		115	45	212	160	105	42	15	1 1/2
63	63	200	253	189	29	33	115	45	212	160	105	42	15	2

PF 3 39 215 116



SYGEF Standard

Solenoid valve type 166

Function A straight-through valve 2/2 ways

Nominal voltage 24V DC

With G 1/4 line connection

Model:

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

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg
3	1/4	A	0.0 - 8.0	4	199 166 505	1.100
4	1/4	A	0.0 - 4.0	5	199 166 506	0.302
5	1/4	A	0.0 - 3.0	6	199 166 507	0.331

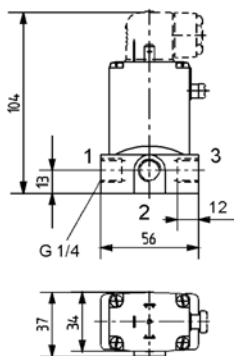
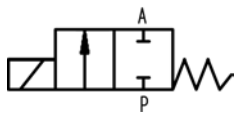
PF 3 39 215 251



SYGEF Standard
Solenoid valve type 166
Function A straight-through valve 2/2 ways
Nominal voltage 230V 50Hz $\pm 10\%$
With G 1/4 line connection

Model:

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



PF 3 39 215 253

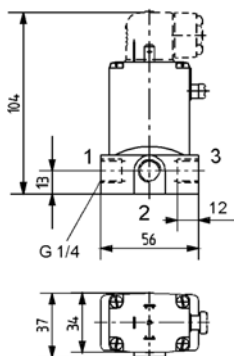
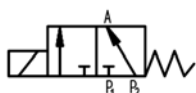
DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
3	1/4	A	0.0 - 10.0	4	199 166 515	1.100	
4	1/4	A	0.0 - 5.0	5	199 166 516	1.100	
5	1/4	A	0.0 - 4.5	6	199 166 517	1.100	



SYGEF Standard
Solenoid valve type 166
Function E mixing valve 3/2 ways
Nominal voltage 24V DC
With G 1/4 line connection

Model:

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



PF 3 39 215 281

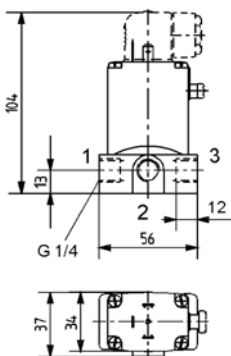
DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
4	1/4	E	0.0 - 2.0	5	199 166 656	1.100	



SYGEF Standard
Solenoid valve type 166
Function E mixing valve 3/2 ways
Nominal voltage 230V 50Hz $\pm 10\%$
With G 1/4 line connection

Model:

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



PF 3 39 215 283

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	FPM Code	kg	
4	1/4	E	0.0 - 3.0	5	199 166 666	1.100	

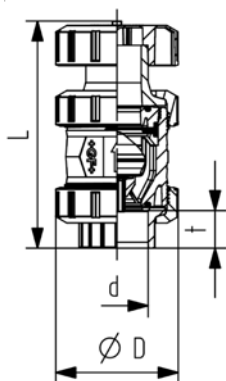
Process control valves

SYGEF Standard

Ventilating and bleed valve type 591 With fusion sockets metric

Model:

- Material: PVDF
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length



PF 2 35 990 311

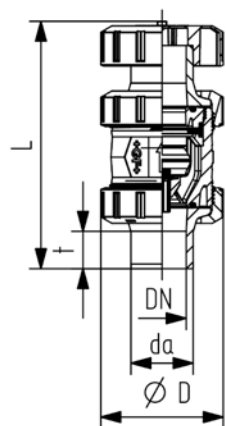
d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch	
16	10	16	175 591 011	0.177	50	126	14	3/8	
20	15	16	175 591 012	0.177	50	127	15	1/2	
25	20	16	175 591 013	0.363	58	142	16	3/4	
32	25	16	175 591 014	0.394	68	153	18	1	
40	32	16	175 591 015	0.722	84	171	19	1 1/4	
50	40	16	175 591 016	1.059	97	190	21	1 1/2	
63	50	16	175 591 017	1.876	124	219	26	2	
75	65	16	175 591 018	3.630	166	256	33	2 1/2	
90	80	16	175 591 019	5.800	200	275	37	3	
110	100	16	175 591 020	9.450	238	318	43	4	

SYGEF Standard

Ventilating and bleed valve type 591 With socket fusion spigots metric

Model:

- Material: PVDF
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Special floater made of PVDF
- Designed for easy installation and removal
- Compact installation length



PF 2 35 990 311

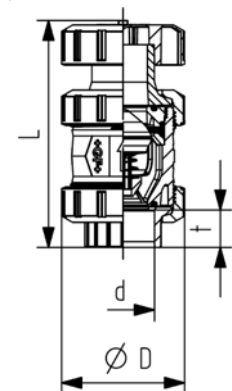
d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch	
16	10	16	175 591 031	0.177	50	135	13	3/8	
20	15	16	175 591 032	0.187	50	140	14	1/2	
25	20	16	175 591 033	0.393	58	157	16	3/4	
32	25	16	175 591 034	0.434	68	168	18	1	
40	32	16	175 591 035	0.722	84	189	20	1 1/4	
50	40	16	175 591 036	1.099	97	211	23	1 1/2	
63	50	16	175 591 037	1.936	124	245	27	2	

SYGEF Standard Ventilating valve type 595 With fusion sockets metric

Model:

- Material: PVDF
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch	
16	10	16	175 595 011	0.177	50	126	14	⅜	
20	15	16	175 595 012	0.177	50	127	15	½	
25	20	16	175 595 013	0.363	58	142	16	¾	
32	25	16	175 595 014	0.394	68	153	18	1	
40	32	16	175 595 015	0.722	84	171	19	1 ¼	
50	40	16	175 595 016	1.059	97	190	21	1 ½	
63	50	16	175 595 017	1.876	124	219	26	2	
75	65	16	175 595 018	3.630	166	256	33	2 ½	
90	80	16	175 595 019	5.800	200	275	37	3	
110	100	16	175 595 020	9.450	238	318	43	4	



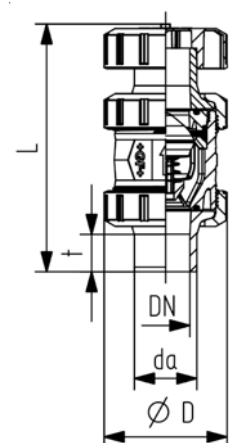
PF 2 35 990 411

SYGEF Standard Ventilating valve type 595 With socket fusion spigots metric

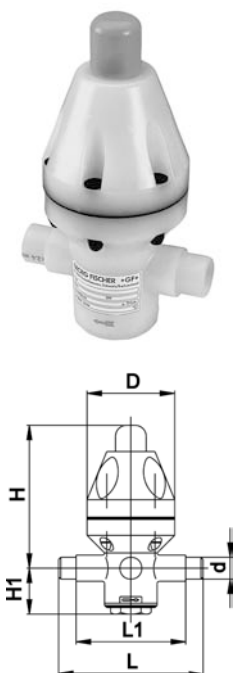
Model:

- Material: PVDF
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch	
16	10	16	175 595 031	0.177	50	135	13	⅜	
20	15	16	175 595 032	0.187	50	140	14	½	
25	20	16	175 595 033	0.393	58	157	16	¾	
32	25	16	175 595 034	0.434	68	168	18	1	
40	32	16	175 595 035	0.722	84	189	20	1 ¼	
50	40	16	175 595 036	1.099	97	211	23	1 ½	
63	50	16	175 595 037	1.936	124	245	27	2	



PF 2 35 990 411



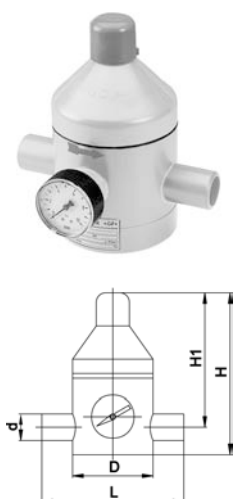
PF 3 58 458 002

SYGEF Standard Pressure reducing valve type V782 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch	
16	10	0.5 - 10	199 041 084	1.300	83	134	102	138	48	3/8	
20	15	0.5 - 10	199 041 085	1.300	83	134	102	138	48	1/2	
25	20	0.5 - 10	199 041 086	2.186	113	154	110	205	65	3/4	
32	25	0.5 - 10	199 041 087	1.882	113	154	110	205	65	1	
40	32	0.5 - 10	199 041 088	7.036	165	224	162	248	95	1 1/4	
50	40	0.5 - 10	199 041 089	4.840	165	224	162	248	95	1 1/2	



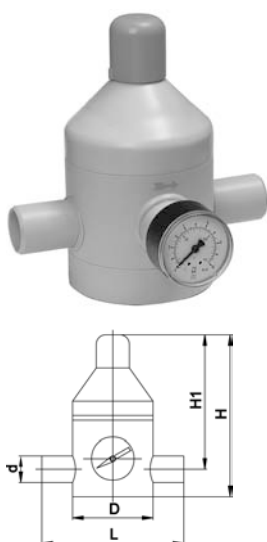
PF 3 58 458 002

SYGEF Standard Pressure reducing valve type V82 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
16	10	0.5 - 10	199 041 052	0.790	70	134	130	100	3/8	
20	15	0.5 - 10	199 041 053	0.736	70	134	130	100	1/2	
25	20	0.5 - 10	199 041 054	1.620	100	174	170	130	3/4	
32	25	0.5 - 10	199 041 055	1.968	100	174	170	130	1	
40	32	0.5 - 10	199 041 056	4.006	130	224	230	175	1 1/4	
50	40	0.5 - 10	199 041 057	3.960	130	224	230	175	1 1/2	
63	50	0.5 - 10	199 041 058	5.700	155	244	285	210	2	
75	65	0.5 - 6	199 041 059	11.600	190	284	350	250	2 1/2	



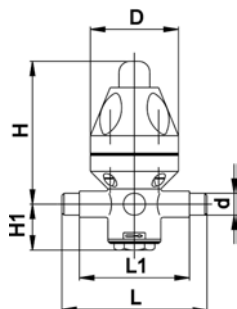
PF 3 58 458 002

SYGEF Standard Pressure reducing valve type V182 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
16	10	0.5 - 10	199 041 661	0.790	70	134	130	100	3/8	
20	15	0.5 - 10	199 041 662	0.751	70	134	130	100	1/2	
25	20	0.5 - 10	199 041 663	1.620	100	174	170	130	3/4	
32	25	0.5 - 10	199 041 664	1.620	100	174	170	130	1	
40	32	0.5 - 10	199 041 665	3.150	130	224	230	175	1 1/4	
50	40	0.5 - 10	199 041 666	3.150	130	224	230	175	1 1/2	



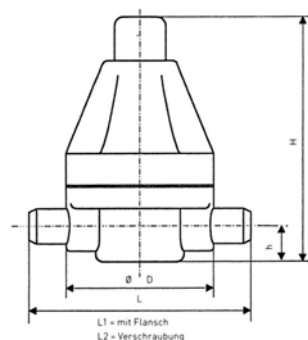
PF 3 58 458 002

SYGEF Standard Pressure retaining valve type V786 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch	
16	10	0.5 - 10	199 041 114	0.620	83	134	102	138	38	3/8	
20	15	0.5 - 10	199 041 115	0.620	83	134	102	158	38	1/2	
25	20	0.5 - 10	199 041 116	1.883	113	154	110	205	55	3/4	
32	25	0.5 - 10	199 041 117	1.700	113	154	110	205	55	1	
40	32	0.5 - 4	199 041 118	4.840	165	224	162	248	85	1 1/4	
50	40	0.5 - 4	199 041 119	4.840	165	224	162	248	85	1 1/2	



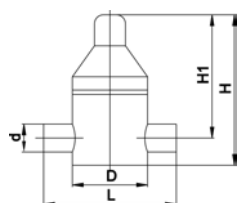
PF 3 58 458 002

SYGEF Standard Pressure retaining valve type V186 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	h [mm]	closest inch	
16	10	0.5 - 10	199 041 323	0.600	83	134	137	20	3/8	
20	15	0.5 - 10	199 041 324	0.600	83	134	137	20	1/2	
25	20	0.5 - 10	199 041 325	0.600	83	134	137	20	3/4	
32	25	0.5 - 10	199 041 326	1.600	112	174	199	27	1	
40	32	0.5 - 10	199 041 327	1.600	112	174	199	27	1 1/4	
50	40	0.5 - 10	199 041 328	8.000	165	224	290	43	1 1/2	
63	50	0.5 - 10	199 041 329	7.814	165	244	290	43	2	



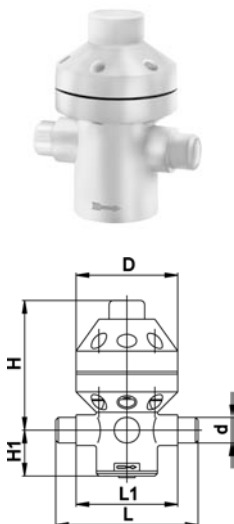
PF 3 58 458 002

SYGEF Standard Pressure retaining valve type V86 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
75	65	1.0 - 6	199 041 892	7.730	180	284	275	230	2 1/2	



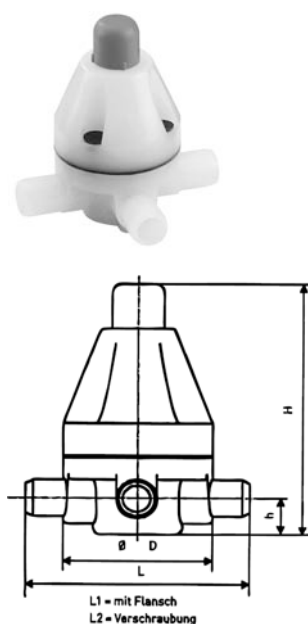
PF 3 58 458 002

SYGEF Standard Pressure retaining valve type V886 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch	
40	32	0.5 - 10	199 041 998	5.530	160	224	162	260	85	1 ½	
50	40	0.5 - 10	199 041 999	5.530	160	224	162	260	85	2	



PF 3 58 458 002

SYGEF Standard Pressure relief valve type V185 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	h [mm]	closest inch	
16	10	0.5 - 10	199 041 344	0.700	83	134	137	20	¾	
20	15	0.5 - 10	199 041 345	0.700	83	134	137	20	½	
25	20	0.5 - 10	199 041 346	0.700	83	134	137	20	¾	
32	25	0.5 - 10	199 041 347	1.700	112	174	199	27	1	
40	32	0.5 - 10	199 041 348	1.700	112	174	199	27	1 ¼	
50	40	0.5 - 10	199 041 349	8.100	165	224	290	43	1 ½	
63	50	0.5 - 10	199 041 350	8.300	165	244	290	43	2	



PF 3 58 458 002

SYGEF Standard Pressure relief valve type V85 With fusion spigots metric

Model:

- Material: PVDF

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	closest inch	
75	65	1.0 - 6	199 041 898	13.000	180	284	295	250	70	2 ½	

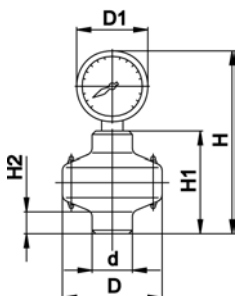


SYGEF Standard Gauge guard type Z700 With manometer 0-10 bar

Model:

- Material: PVDF

d [mm]	G [inch]	PTFE Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	
25	¼	199 041 004	0.297	72	63	129	71	15	
32	½	199 041 005	0.670	100	100	210	90	22	



PF 3 58 458 001

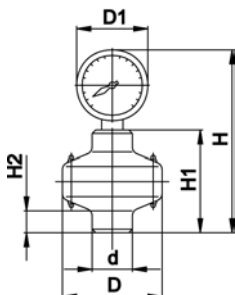


SYGEF Standard Gauge guard type Z700 With manometer 0-6 bar

Model:

- Material: PVDF

d [mm]	G [inch]	PTFE Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	
25	¼	199 041 296	0.320	72	63	129	71	15	
32	½	199 041 297	0.670	100	100	210	90	22	



PF 3 58 458 001

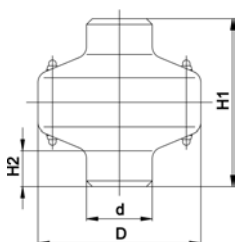


SYGEF Standard Gauge guard type Z701 Without manometer

Model:

- Material: PVDF

d [mm]	G [inch]	PTFE Code	kg	D [mm]	H1 [mm]	H2 [mm]	
25	¼	199 041 010	0.173	72	71	15	
32	½	199 041 011	0.334	100	90	22	



PF 3 58 458 001



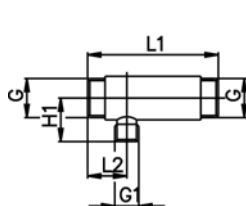
SYGEF Standard Water jet suction pump type P20

Model:

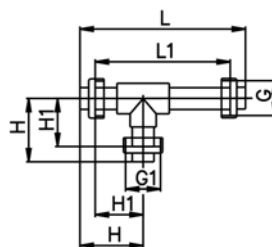
- Material: PVDF
- DN 10-20: BSP parallel female thread
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

d [mm]	DN [mm]	PN	FPM Code	kg	
16	10	10	199 041 138	0.160	
20	15	10	199 041 139	0.300	
25	20	10	199 041 140	0.480	
32	25	10	199 041 141	0.690	
40	32	10	199 041 142	1.100	
50	40	10	199 041 143	1.880	
63	50	10	199 041 144	3.340	
75	65	10	199 041 145	3.340	
90	80	10	199 041 146	5.500	

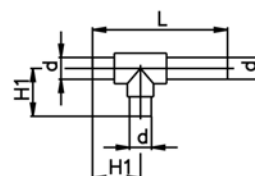
d [mm]	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	closest inch	
16	R 3/4	R 3/4		110	40		35	3/8	
20	R 1	R 3/4		110	40		35	1/2	
25	R 1 1/4	R 3/4		145	45		45	3/4	
32	R 1 1/2	R 1 1/2	245	195		96	71	1	
40	R 2	R 2	297	239		116	87	1 1/4	
50	R 2 1/4	R 2 1/4	369	301		139	105	1 1/2	
63	R 2 3/4	R 2 3/4	433	351		169	128	2	
75	-	-	388				115	2 1/2	
90	-	-	465				149	3	



DN 10 - 20



DN 25 - 50



DN 65 - 80

PF 3 58 458 004

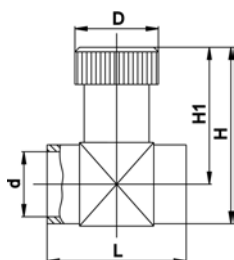


SYGEF Standard Throttle valve type V251 With fusion sockets metric

Model:

- Material: PVDF

d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
16	10	10	199 041 231	0.100	29	47	57	45	3/8	
20	15	10	199 041 232	0.104	35	55	66	51	1/2	
25	20	10	199 041 233	0.143	40	66	80	63	3/4	
32	25	10	199 041 234	0.273	47	80	96	75	1	
40	32	10	199 041 235	0.400	56	100	111	86	1 1/4	
50	40	10	199 041 236	0.923	70	120	133	101	1 1/2	
63	50	10	199 041 237	1.300	88	146	158	118	2	

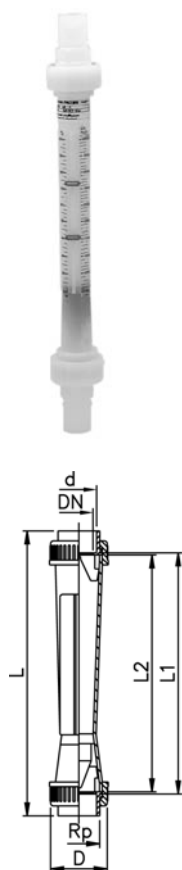


PF 3 58 458 003

Variable area flow meters

Special version PVDF Float in PVDF (red) without magnet

Dimension L and L1 only valid for socket connection
Dimension L2 describes taper tube length



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in PVDF O-rings in FPM fusion sock- et Code	Taper tube in PVDF O-rings in FPM IR fusion spigot Code	kg	
SK 10	32	25	50 - 500	198 806 466	198 803 905	0.520	
SK 11	32	25	100 - 1000	198 806 467	198 803 906	0.520	
SK 20	50	40	200 - 2000	198 806 468	198 803 907	1.220	
SK 21	50	40	300 - 3000	198 806 469	198 803 908	1.220	
SK 30	63	50	600 - 6000	198 806 470	198 803 909	1.785	
SK 31	63	50	1200 - 12000	198 806 471	198 803 910	1.680	
SK 40	75	65	2000 - 20000	-	198 803 911	2.900	
SK 41	75	65	3000 - 30000	-	198 803 912	2.900	

Type	D [mm]	L [mm]	L (IR-SS) [mm]	L1 [mm]	L2 [mm]	Rp [inch]	
SK 10	60	385	443	341	335	1	
SK 11	60	385	443	341	335	1	
SK 20	83	403	459	341	335	1 ½	
SK 21	83	403	459	341	335	1 ½	
SK 30	103	417	461	339	335	2	
SK 31	103	417	461	339	335	2	
SK 40	122	429	453	341	335	2 ½	
SK 41	122	429	453	341	335	2 ½	

PF 3 48 227 006

		Page
	Pipes	265
	Fittings for butt fusion	266
	Transition fittings	291
	Sanitary adaptors	293
	Diaphragm valves new generation	297
	Butterfly valves	
	Diaphragm valves pneumatic New generation	306
	Butterfly valves	320
	Process control valves	321
	Variable area flow meters	324

SYGEF Plus – System Specification

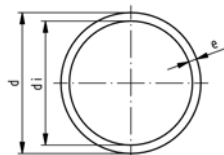
Material	High Purity Polyvinylidene fluoride (PVDF HP)
Colour	Virgin material, translucent
Density	~1.78g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m ²
Linear expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-modulus	≥1800 N/mm ² (EN ISO 527/ASTM D 790)
Thermal conductivity	0.19 W/mK (EN12664)
Surface resistivity	5 x 10 ¹⁴ Ωcm (IEC 60093)
Dimension	d 20 [½"]–d 450 [18"] in accordance to ISO 10931
Pressure rating	Pipes/fittings: PN 16 (d 20–d 225), PN 10 (d 90–d 450) Valves: separate specification
Temperature rating	from –20 °C to 140 °C (–4 °F–284 °F)
Production⁽¹⁾	Fittings/diaphragm valves: injection moulded Pipes: extruded Produced under clean room ISO 14644-1 Class 7 (U.S. Fed. Std. 209E Class 10'000) conditions. Subsequent assembling, quality inspection and cleaning is carried out using 18 MΩ pure water under clean room ISO 14644-1 Class 5-6 (U.S. Fed. Std. 209E Class 100-1000) conditions.
Surface finish	Inner surface ≤ d 225 Ra ≤ 0.2 μm (9 μin) / > d 225 Ra ≤ 0.3 μm (12 μin) / ≥ d 280 Ra ≤ 0.4 μm (18 μin) for injection moulded and extruded components
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
Testing and inspection (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Periodic leachout per SEMI F40/F57
Approvals/conformance	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) SEMI F57 FM-4910 listing
Welding technology	BCF Plus, bead and crevice free fusion, size d 20 [½"]–d 110 [4"] IR Plus, infrared fusion (DVS 2207-6), size d 20 [½"]–d 450 [18"]
Documentation⁽¹⁾	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
Packing⁽²⁾	Pipes capped and each component double bagged in an specified inner bag and an outer bag under clean room ISO 14644-1 Class 6 (U.S. Fed. Std. 209E Class 1000) conditions.
Labeling	Brand Name Product Description Code Number Material Dimension
Main applications	Uses include delivery of ultrapure water in the semiconductor/electronic industry, pharmaceutical grade water (WFI/PW) and analytical DI water to highest purity requirements. A wide range of sanitisation methods is suitable such as Ozone, hot water or steam.

⁽¹⁾ on request

⁽²⁾ Excluding pressure regulating valves. Products are cleaned and double bagged after production assuring controlled process and highest product standards.

Pipes

75 48 12



SYGEF Plus pipe PN16

Model:

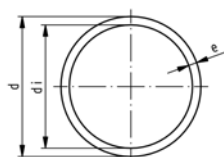
- Material: PVDF-HP
- Length: Lengths of 5 m

* on request

d [mm]	PN	FM	Code	kg/m	e [mm]	di [mm]	
16	16	BCF, IR	175 481 202	0.171	1.9	12.2	
20	16	BCF, IR	175 481 203	0.210	1.9	16.2	
25	16	BCF, IR	175 481 204	0.269	1.9	21.2	
32	16	BCF, IR	175 481 205	0.435	2.4	27.2	
40	16	BCF, IR	175 481 206	0.563	2.4	35.2	
50	16	BCF, IR	175 481 207	0.850	3.0	44.0	
63	16	BCF, IR	175 481 208	1.090	3.0	57.0	
75	16	BCF, IR	175 481 209	1.550	3.6	67.8	
90	16	BCF, IR	175 481 210	2.230	4.3	81.4	
110	16	BCF, IR	175 481 211	3.330	5.3	99.4	
* 125	16	IR	175 481 212	4.242	6.0	113.0	
140	16	IR	175 481 213	5.312	6.7	126.6	
160	16	IR	175 481 214	6.961	7.7	144.6	
200	16	IR	175 481 216	10.862	9.6	180.8	
225	16	IR	175 481 217	13.700	10.8	202.6	

PF 2 37 202 001

75 48 16



SYGEF Plus pipe PN10

Model:

- Material: PVDF-HP
- Length: Lengths of 5 m

* on request

** Available as from Q2, 2012

d [mm]	PN	FM	Code	kg/m	e [mm]	di [mm]	
90	10	BCF, IR	175 481 665	1.480	2.8	84.4	
110	10	BCF, IR	175 481 666	2.200	3.4	103.2	
* 125	10	IR	175 481 667	2.840	3.9	117.2	
140	10	IR	175 481 673	3.520	4.3	131.4	
160	10	IR	175 481 668	4.540	4.9	150.2	
200	10	IR	175 481 669	7.190	6.2	187.6	
225	10	IR	175 481 670	8.950	6.9	211.2	
250	10	IR	175 481 671	11.100	7.7	234.6	
280	10	IR	175 481 656	13.900	8.6	262.8	
315	10	IR	175 481 674	17.600	9.7	295.6	
** 355	10	IR	175 481 657	20.960	10.9	333.2	
** 400	10	IR	175 481 658	26.650	12.3	375.4	
** 450	10	IR	175 481 659	33.640	13.8	422.4	

PF 2 37 202 002

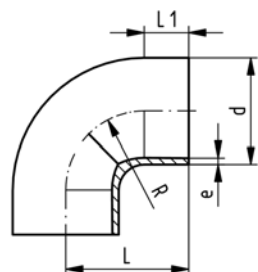
Fittings for butt fusion

SYGEF Plus bend 90° PN16

Model:

- Material: PVDF-HP

35 01 87



PF 2 37 249 006

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	R [mm]	
20	16	BCF, IR	735 018 731	0.016	1.9	38	23	15	
25	16	BCF, IR	735 018 732	0.022	1.9	42	23	19	
32	16	BCF, IR	735 018 733	0.038	2.4	46	22	24	
40	16	BCF, IR	735 018 734	0.051	2.4	51	21	30	
50	16	BCF, IR	735 018 735	0.088	3.0	58	21	37	
63	16	BCF, IR	735 018 736	0.128	3.0	66	21	45	
75	16	BCF, IR	735 018 737	0.309	3.6	75	23	62	
90	16	BCF, IR	735 018 738	0.490	4.3	90	23	77	
110	16	BCF, IR	735 018 739	0.793	5.3	110	23	98	
140	16	IR	735 018 741	1.665	6.7	140	33	121	
160	16	IR	735 018 742	2.346	7.7	160	33	141	
200	16	IR	735 018 744	4.104	9.6	200	33	181	
225	16	IR	735 018 745	5.846	10.8	220	33	200	

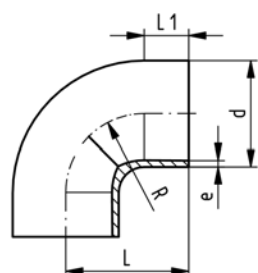
35 01 85

SYGEF Plus bend 90° PN10

Model:

- Material: PVDF-HP

** Available as from Q2, 2012



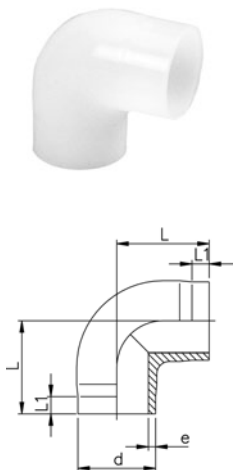
PF 2 37 249 002

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	R [mm]	
90	10	BCF, IR	735 018 538	0.391	2.8	90	23	77	
110	10	BCF, IR	735 018 539	0.653	3.4	110	23	98	
125	10	IR	735 018 540	0.874	3.9	125	28	112	
140	10	IR	735 018 541	1.325	4.3	140	33	121	
160	10	IR	735 018 542	1.831	4.9	160	33	141	
200	10	IR	735 018 544	3.244	6.2	200	33	181	
225	10	IR	735 018 545	4.266	6.9	220	33	200	
250	10	IR	735 018 546	4.836	7.7	254	48	232	
280	10	IR	735 018 547	5.999	8.6	283	48	262	
315	10	IR	735 018 548	8.522	9.7	321	48	297	
** 355	10	IR	735 018 549	17.580	10.9	362	100	262	
** 400	10	IR	735 018 550	23.520	12.3	396	100	296	
** 450	10	IR	735 018 551	34.260	13.8	434	100	334	

35 10 86

SYGEF Plus elbow 90° PN16**Model:**

- Material: PVDF-HP



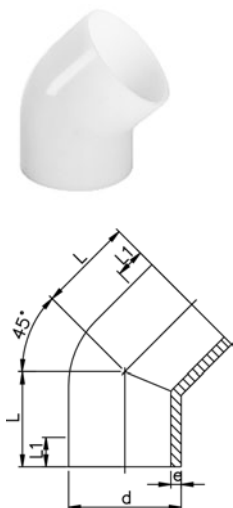
PF 2 37 249 007

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 108 631	0.026	1.9	38	25	
25	16	BCF, IR	735 108 632	0.033	1.9	42	26	
32	16	BCF, IR	735 108 633	0.056	2.4	46	26	
40	16	BCF, IR	735 108 634	0.075	2.4	51	28	
50	16	BCF, IR	735 108 635	0.128	3.0	58	28	
63	16	BCF, IR	735 108 636	0.211	3.0	66	28	

35 15 86

SYGEF Plus elbow 45° PN16**Model:**

- Material: PVDF-HP



PF 2 37 249 008

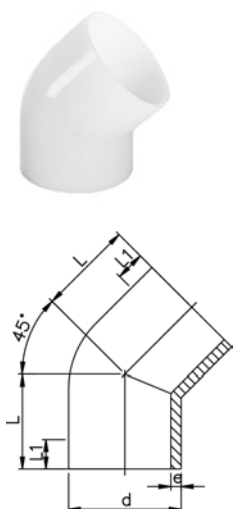
d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 158 631	0.023	1.9	32	25	
25	16	BCF, IR	735 158 632	0.020	1.9	34	26	
32	16	BCF, IR	735 158 633	0.045	2.4	36	26	
40	16	BCF, IR	735 158 634	0.061	2.4	39	28	
50	16	BCF, IR	735 158 635	0.093	3.0	42	30	
63	16	BCF, IR	735 158 636	0.131	3.0	47	31	
75	16	BCF, IR	735 158 637	0.200	3.6	49	32	
90	16	BCF, IR	735 158 638	0.326	4.3	57	37	
110	16	BCF, IR	735 158 639	0.574	5.3	70	46	
140	16	IR	735 158 641	1.095	6.7	88	57	
160	16	IR	735 158 642	1.605	7.7	100	62	
200	16	IR	735 158 644	3.018	9.6	124	77	
225	16	IR	735 158 645	4.324	10.8	140	88	

35 15 85

SYGEF Plus elbow 45° PN10**Model:**

- Material: PVDF-HP

** Available as from Q2, 2012



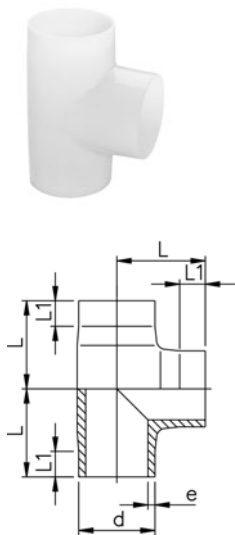
PF 2 37 249 003

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
90	10	BCF, IR	735 158 538	0.181	2.8	57	37	
110	10	BCF, IR	735 158 539	0.330	3.4	70	46	
125	10	IR	735 158 540	0.490	3.9	79	51	
140	10	IR	735 158 541	0.827	4.3	88	57	
160	10	IR	735 158 542	1.186	4.9	100	62	
200	10	IR	735 158 544	2.148	6.2	124	77	
225	10	IR	735 158 545	3.114	6.9	140	88	
** 250	10	IR	735 158 546		7.7	120	48	
** 280	10	IR	735 158 547		8.6	132	48	
** 315	10	IR	735 158 548		9.7	147	48	
** 355	10	IR	735 158 549	11.250	10.9	457	100	
** 400	10	IR	735 158 550	14.880	12.3	506	100	
** 450	10	IR	735 158 551	19.560	13.8	561	100	

35 20 86

SYGEF Plus tee 90° equal PN16**Model:**

- Material: PVDF-HP



PF 2 37 249 001

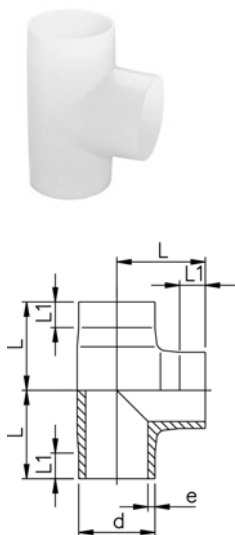
d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 208 631	0.029	1.9	38	25	
25	16	BCF, IR	735 208 632	0.047	1.9	42	27	
32	16	BCF, IR	735 208 633	0.076	2.4	46	27	
40	16	BCF, IR	735 208 634	0.104	2.4	51	28	
50	16	BCF, IR	735 208 635	0.170	3.0	58	28	
63	16	BCF, IR	735 208 636	0.280	3.0	66	28	
75	16	BCF, IR	735 208 637	0.403	3.6	75	32	
90	16	BCF, IR	735 208 638	0.678	4.3	90	39	
110	16	BCF, IR	735 208 639	1.185	5.3	110	48	
140	16	IR	735 208 641	2.384	6.7	140	62	
160	16	IR	735 208 642	3.408	7.7	160	71	
200	16	IR	735 208 644	6.845	9.6	200	80	
225	16	IR	735 208 645	9.755	10.8	220	86	

35 20 85

SYGEF Plus tee 90° equal PN10**Model:**

- Material: PVDF-HP

** Available as from Q2, 2012



PF 2 37 249 009

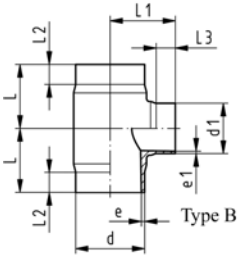
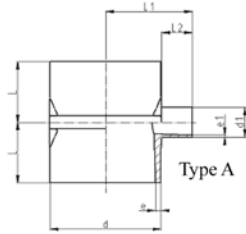
d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
90	10	BCF, IR	735 208 538	0.546	2.8	90	39	
110	10	BCF, IR	735 208 539	0.898	3.4	110	48	
125	10	IR	735 208 540	1.280	3.9	125	56	
140	10	IR	735 208 541	1.707	4.3	140	62	
160	10	IR	735 208 542	2.523	4.9	160	71	
200	10	IR	735 208 544	5.373	6.2	200	80	
225	10	IR	735 208 545	7.270	6.9	220	86	
250	10	IR	735 208 546	9.021	7.7	223	61	
280	10	IR	735 208 547	13.608	8.6	256	74	
315	10	IR	735 208 548	17.630	9.7	274	74	
** 355	10	IR	735 208 549	21.700	10.9	313	100	
** 400	10	IR	735 208 550	29.250	12.3	335	100	
** 450	10	IR	735 208 551	39.100	13.8	360	100	

35 20 89 / 35 20 86 SYGEF Plus tee 90° reduced PN16



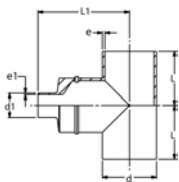
Model:

• Material: PVDF-HP



d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	
A 63 - 20	16	BCF, IR	735 208 956	0.250	3.0	1.9	60	67	25	35	
A 63 - 25	16	BCF, IR	735 208 957	0.245	3.0	1.9	60	66	25	34	
A 63 - 32	16	BCF, IR	735 208 958	0.257	3.0	2.4	60	67	25	25	
A 63 - 40	16	BCF, IR	735 208 959	0.254	3.0	2.4	60	66	25	26	
A 75 - 20	16	BCF, IR	735 208 961	0.306	3.6	1.9	65	69	25	31	
A 75 - 25	16	BCF, IR	735 208 962	0.356	3.6	1.9	65	72	25	34	
A 75 - 32	16	BCF, IR	735 208 963	0.308	3.6	2.4	65	69	25	31	
A 75 - 40	16	BCF, IR	735 208 964	0.312	3.6	2.4	65	72	25	26	
A 75 - 50	16	BCF, IR	735 208 965	0.372	3.6	3.0	65	69	25	26	
A 90 - 20	16	BCF, IR	735 208 967	0.470	4.3	1.9	65	76	25	31	
A 90 - 25	16	BCF, IR	735 208 968	0.466	4.3	1.9	65	79	25	34	
A 90 - 32	16	BCF, IR	735 208 969	0.405	4.3	2.4	65	76	25	31	
A 90 - 40	16	BCF, IR	735 208 970	0.476	4.3	2.4	65	79	25	26	
A 90 - 50	16	BCF, IR	735 208 971	0.469	4.3	3.0	65	76	25	26	
B 90 - 63	16	BCF, IR	735 208 972	0.611	4.3	3.0	80	85	25	25	
A 110 - 20	16	BCF, IR	735 208 974	0.641	5.3	1.9	65	86	25	31	
A 110 - 25	16	BCF, IR	735 208 975	0.570	5.3	1.9	65	89	25	34	
A 110 - 32	16	BCF, IR	735 208 976	0.570	5.3	2.4	65	86	25	31	
A 110 - 40	16	BCF, IR	735 208 977	0.640	5.3	2.4	65	89	25	26	
A 110 - 50	16	BCF, IR	735 208 978	0.640	5.3	3.0	65	86	25	26	
B 110 - 63	16	BCF, IR	735 208 979	0.925	5.3	3.0	90	95	30	25	
B 110 - 75	16	BCF, IR	735 208 980	0.950	5.3	3.0	90	95	30	25	
B 110 - 90	16	BCF, IR	735 208 981	0.959	5.3	4.3	90	95	30	25	
B 160 - 90	16	IR	735 208 687	3.091	7.7	4.3	155	130	60	25	
B 160 - 110	16	IR	735 208 686	3.078	7.7	5.3	155	130	60	25	
B 225 - 90	16	IR	735 208 695	5.423	10.8	4.3	155	160	60	25	
B 225 - 110	16	IR	735 208 694	6.100	10.8	5.3	155	160	60	25	

PF 2 37 425 001



Fabricated Reducing Tee (25-110mm) PN 16, PVDF-HP

IR Plus/BCF Plus Fusion

**Uses Molded Reducer

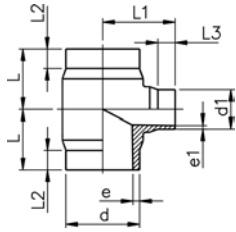
d [mm]	d1 [mm]	PN	FM	Code	SP	kg	e1 [mm]	e2 [mm]	L [mm]	L1 [mm]	
** 25	20	16	IR	735 992 450	-	0.001	1.9	1.9	42	87	
** 32	20	16	IR	735 992 451	-	0.001	2.4	1.9	46	91	
** 32	25	16	IR	735 992 452	-	0.001	2.4	2.4	46	91	
40	20	16	IR	735 992 453	-	0.001	2.4	1.9	51	98	
40	25	16	IR	735 992 454	-	0.001	2.4	2.4	51	99	
40	32	16	IR	735 992 455	-	0.001	2.4	2.4	51	99	
50	20	16	IR	735 992 456	-	0.001	3.0	1.9	58	103	
50	25	16	IR	735 992 457	-	0.001	3.0	2.4	58	106	
50	32	16	IR	735 992 458	-	0.001	3.0	2.4	58	106	
50	40	16	IR	735 992 459	-	0.001	3.0	2.4	58	108	
75	63	16	IR	735 992 470	-	0.001	3.6	3.0	75	125	
90	75	16	IR	735 992 477	-	0.001	4.3	3.6	90	145	

PF 2 37 423 005

35 20 85

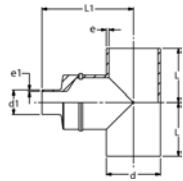
SYGEF Plus tee 90° reduced PN10**Model:**

• Material: PVDF-HP



PF 2 37 425 001

d - d1 [mm]	PN [bar]	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	
160 - 90	10 / 16	IR	735 208 587	2.431	4.9	4.3	155	130	60	25	
160 - 110	10 / 16	IR	735 208 586	2.514	4.9	5.3	155	130	60	25	
225 - 90	10 / 16	IR	735 208 595	4.501	6.9	4.3	155	160	60	25	
225 - 110	10 / 16	IR	735 208 594	4.594	6.9	5.3	155	160	60	25	

**Fabricated Reducing Tee (160-315mm)
PN 10, PVDF-HP**

IR Plus Fusion

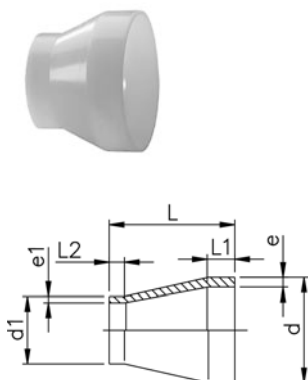
d [mm]	d1 [mm]	PN	FM	Code	SP	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	
160	63	10	IR	735 992 486	-	0.001	4.9	3.0	160	250	
160	75	10	IR	735 992 487	-	0.001	4.9	3.6	160	225	
200	63	10	IR	735 992 490	-	0.001	6.2	3.0	200	280	
200	75	10	IR	735 992 491	-	0.001	6.2	3.6	200	275	
200	90	10	IR	735 992 492	-	0.001	6.2	4.3	200	275	
200	110	10	IR	735 992 493	-	0.001	6.2	5.3	200	275	
200	160	10	IR	735 992 494	-	0.001	6.2	4.9	200	285	
225	63	10	IR	735 992 495	-	0.001	6.9	3.0	220	310	
225	75	10	IR	735 992 496	-	0.001	6.9	3.6	220	305	
225	160	10	IR	735 992 499	-	0.001	6.9	4.9	220	315	
225	200	10	IR	735 992 500	-	0.001	6.9	6.2	220	303	
250	63	10	IR	735 992 501	-	0.001	7.7	3.0	223	313	
250	75	10	IR	735 992 502	-	0.001	7.7	3.6	223	308	
250	90	10	IR	735 992 503	-	0.001	7.7	4.3	223	309	
250	110	10	IR	735 992 504	-	0.001	7.7	5.3	223	311	
250	160	10	IR	735 992 505	-	0.001	7.7	4.9	223	310	
250	200	10	IR	735 992 506	-	0.001	7.7	6.2	223	312	
250	225	10	IR	735 992 507	-	0.001	7.7	6.9	223	294	
315	63	10	IR	735 992 508	-	0.001	9.7	3.0	274	364	
315	75	10	IR	735 992 509	-	0.001	9.7	3.6	274	359	
315	90	10	IR	735 992 510	-	0.001	9.7	4.3	274	360	
315	110	10	IR	735 992 511	-	0.001	9.7	5.3	274	362	
315	160	10	IR	735 992 512	-	0.001	9.7	4.9	274	361	
315	200	10	IR	735 992 513	-	0.001	9.7	6.2	274	363	
315	225	10	IR	735 992 514	-	0.001	9.7	6.9	274	363	
315	250	10	IR	735 992 515	-	0.001	9.7	7.7	274	367	

PF 2 37 423 005

35 90 86

SYGEF Plus reducer PN16**Model:**

• Material: PVDF-HP



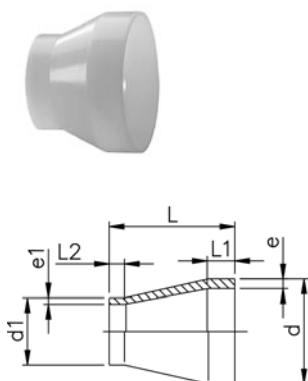
d - d1 [mm]	PN	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	
25 - 20	16	BCF, IR	735 908 600	0.021	1.9	1.9	50	22	22	
32 - 20	16	BCF, IR	735 908 602	0.028	2.4	1.9	50	22	22	
32 - 25	16	BCF, IR	735 908 601	0.028	2.4	1.9	50	22	22	
40 - 20	16	BCF, IR	735 908 605	0.037	2.4	1.9	58	22	24	
40 - 25	16	BCF, IR	735 908 604	0.033	2.4	1.9	55	22	24	
40 - 32	16	BCF, IR	735 908 603	0.038	2.4	2.4	55	22	24	
50 - 25	16	BCF, IR	735 908 608	0.054	3.0	1.9	60	22	25	
50 - 32	16	BCF, IR	735 908 607	0.059	3.0	2.4	60	22	25	
50 - 40	16	BCF, IR	735 908 606	0.060	3.0	2.4	60	22	25	
63 - 32	16	BCF, IR	735 908 611	0.078	3.0	2.4	65	22	25	
63 - 40	16	BCF, IR	735 908 610	0.082	3.0	2.4	65	22	25	
63 - 50	16	BCF, IR	735 908 609	0.090	3.0	3.0	65	22	25	
75 - 40	16	BCF, IR	735 908 614	0.120	3.6	2.4	68	24	25	
75 - 50	16	BCF, IR	735 908 613	0.125	3.6	3.0	65	24	25	
75 - 63	16	BCF, IR	735 908 612	0.128	3.6	3.0	65	24	25	
90 - 63	16	BCF, IR	735 908 616	0.164	4.3	3.0	75	25	30	
90 - 75	16	BCF, IR	735 908 615	0.187	4.3	3.6	75	25	35	
110 - 63	16	BCF, IR	735 908 619	0.301	5.3	3.0	90	30	30	
110 - 75	16	BCF, IR	735 908 618	0.220	5.3	3.6	90	30	35	
110 - 90	16	BCF, IR	735 908 617	0.321	5.3	4.3	90	30	35	
140 - 110	16	IR	735 908 621	0.614	6.7	5.3	110	40	40	
160 - 110	16	IR	735 908 623	0.803	7.7	5.3	120	40	40	
160 - 140	16	IR	735 908 622	0.899	7.7	6.7	120	40	40	
200 - 160	16	IR	735 908 624	1.474	9.6	7.7	145	40	35	
225 - 110	16	IR	735 908 625	1.540	10.8	5.3	160	55	40	
225 - 160	16	IR	735 908 626	1.936	10.8	7.7	160	55	28	
225 - 200	16	IR	735 908 627	2.142	10.8	9.6	160	55	50	

PF 2 37 249 011

35 90 85

SYGEF Plus reducer PN10**Model:**

• Material: PVDF-HP



d - d1 [mm]	PN [bar]	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	L1 [mm]	L2 [mm]	
90 - 63	10 / 16	BCF, IR	735 908 511	0.149	2.8	3.0	75	25	30	
110 - 63	10 / 16	BCF, IR	735 908 513	0.164	3.4	3.0	90	30	30	
110 - 90	10 / 10	BCF, IR	735 908 515	0.239	3.4	2.8	90	30	35	
125 - 110	10 / 16	IR	735 908 500	0.406	3.9	5.3	100	35	40	
140 - 110	10 / 16	IR	735 908 502	0.455	4.3	5.3	110	40	40	
140 - 125	10 / 10	IR	735 908 501	0.439	4.3	3.9	110	40	40	
160 - 110	10 / 10	IR	735 908 521	0.550	4.9	3.4	120	40	40	
160 - 110	10 / 16	IR	735 908 504	0.635	4.9	5.3	120	40	40	
160 - 140	10 / 10	IR	735 908 503	0.634	4.9	4.3	120	40	40	
200 - 160	10 / 10	IR	735 908 505	1.032	6.2	4.9	145	50	40	
225 - 110	10 / 10	IR	735 908 526	1.120	6.9	3.4	160	55	35	
225 - 110	10 / 16	IR	735 908 506	1.373	6.9	5.3	160	55	35	
225 - 160	10 / 10	IR	735 908 507	1.349	6.9	4.9	160	55	40	
225 - 200	10 / 10	IR	735 908 508	1.475	6.9	6.2	160	55	50	
250 - 225	10 / 10	IR	735 908 531	2.215	7.7	6.9	182	60	55	
280 - 225	10 / 10	IR	735 908 532	2.952	8.6	6.9	206	70	55	
315 - 225	10 / 10	IR	735 908 533	3.910	9.7	6.9	231	80	55	

PF 2 37 249 005

35 90 85

SYGEF Plus reducer PN10**Model:**

- Material: PVDF-HP

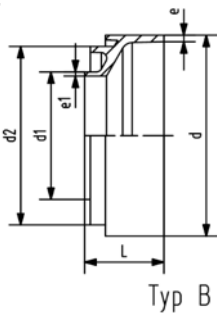
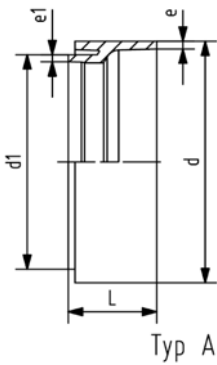
Note:

for Typ B, clamping on IR machine for welding spigot d1 needs to be done on diameter d2

** Available as from Q2, 2012

* Available as from Q3, 2012

d - d1 [mm]	PN [bar]	FM	Code	kg	e [mm]	e1 [mm]	L [mm]	Type	d2 [mm]
* 250 - 160	10 / 10	IR	735 908 522	1.768	7.7	4.9	110	B	225
* 250 - 225	10 / 10	IR	735 908 524	1.089	7.7	6.9	100	A	
* 280 - 160	10 / 10	IR	735 908 525	2.223	8.6	4.9	120	B	225
* 280 - 225	10 / 10	IR	735 908 527	1.549	8.6	6.9	110	A	
* 315 - 160	10 / 10	IR	735 908 528	2.994	9.7	4.9	130	B	225
* 315 - 225	10 / 10	IR	735 908 530	2.256	9.7	6.9	120	A	
** 355 - 225	10 / 10	IR	735 908 535	5.146	10.9	6.9	150	B	225
** 355 - 315	10 / 10	IR	735 908 534	3.917	10.9	9.7	130	A	
** 400 - 225	10 / 10	IR	735 908 537	6.989	12.3	6.9	150	B	225
** 400 - 315	10 / 10	IR	735 908 536	5.631	12.3	9.7	130	A	
** 450 - 225	10 / 10	IR	735 908 539	9.145	13.8	6.9	150	B	225
** 450 - 315	10 / 10	IR	735 908 538	7.656	13.8	9.7	130	A	



PF 2 37 249 005

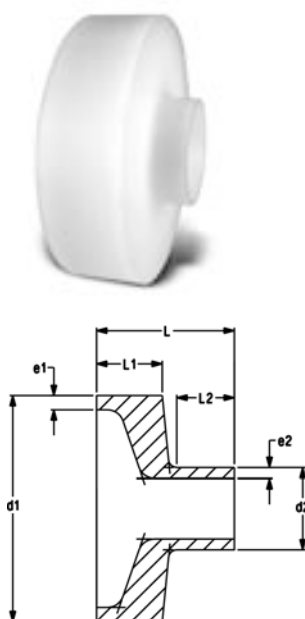
35 90 86

SYGEF Plus flush style reducer PN16**Model:**

- Material: PVDF-HP
- Machined version

Note:

*clamping on IR machine for welding both spigots, need to be done on d1



d1 [mm]	d2 [mm]	PN	d1 fusion	d2 fusion	Code	e1 [mm]	e2 [mm]	L1 [mm]	L2 [mm]	L [mm]	
* 40	20	16	IR63	-	735 909 104	2.4	1.9	22	8	30	
* 40	25	16	IR63	-	735 909 105	2.4	1.9	22	8	30	
* 40	32	16	IR63	-	735 909 106	2.4	2.4	22	9	31	
* 50	20	16	IR63	-	735 909 107	3.0	1.9	22	8	30	
* 50	25	16	IR63	-	735 909 108	3.0	1.9	22	8	30	
* 50	32	16	IR63	-	735 909 109	3.0	2.4	22	9	31	
* 50	40	16	IR63	-	735 909 110	3.0	2.4	22	9	31	
* 63	20	16	IR63	-	735 909 111	3.0	1.9	22	8	30	
* 63	25	16	IR63	-	735 909 112	3.0	1.9	22	8	30	
* 63	32	16	IR63	-	735 909 113	3.0	2.4	22	9	31	
* 63	40	16	IR63	-	735 909 114	3.0	2.4	22	9	31	
* 63	50	16	IR63	-	735 909 115	3.0	3	22	11	33	
75	20	16	IR225	IR63	735 909 116	3.6	1.9	23	25	48	
75	25	16	IR225	IR63	735 909 117	3.6	1.9	23	25	48	
75	32	16	IR225	IR63	735 909 118	3.6	2.4	23	26	49	
75	40	16	IR225	IR63	735 909 119	3.6	2.4	23	26	49	
75	50	16	IR225	IR63	735 909 120	3.6	3	23	27	50	
* 75	63	16	IR225	-	735 909 121	3.6	3	23	11	34	
90	20	16	IR225	IR63	735 909 122	4.3	1.9	23	25	48	
90	25	16	IR225	IR63	735 909 123	4.3	1.9	23	25	48	
90	32	16	IR225	IR63	735 909 124	4.3	2.4	23	26	49	
90	40	16	IR225	IR63	735 909 125	4.3	2.4	23	26	49	
90	50	16	IR225	IR63	735 909 126	4.3	3	23	27	50	
* 90	63	16	IR225	-	735 909 127	4.3	3	23	11	34	
* 90	75	16	IR225	-	735 909 128	4.3	3.6	23	13	36	
110	20	16	IR225	IR63	735 909 129	5.3	1.9	23	25	48	
110	25	16	IR225	IR63	735 909 130	5.3	1.9	23	25	48	
110	32		IR225	IR63	735 909 131	5.3	2.4	23	26	49	
110	40		IR225	IR63	735 909 132	5.3	2.4	23	26	49	
110	50		IR225	IR63	735 909 133	5.3	3	23	27	50	
* 110	63		IR225	-	735 909 134	5.3	3	23	11	34	
* 110	75		IR225	-	735 909 135	5.3	3.6	23	13	36	
* 110	90		IR225	-	735 909 136	5.3	4.3	23	14	37	

PF 2 37 249 011

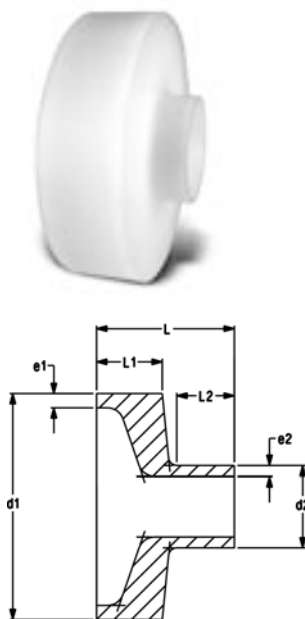
35 90 86

SYGEF Plus flush style reducer PN10**Model:**

- Material: PVDF-HP
- Machined version

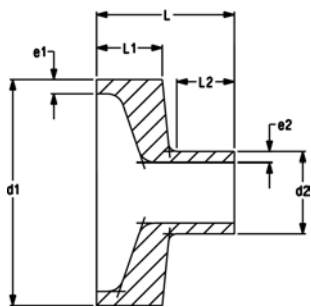
Note:

*clamping on IR machine for welding both spigots, need to be done on d1



d1 [mm]	d2 [mm]	PN [bar]	d1 fusion	d2 fusion	Code	e1 [mm]	e2 [mm]	L1 [mm]	L2 [mm]	L [mm]	
* 160	63	10 / 16	IR225	-	735 909 356	4.9	3	33	11	44	
* 160	75	10 / 16	IR225	-	735 909 357	4.9	3.6	33	13	46	
* 160	90	10 / 16	IR225	-	735 909 358	4.9	4.3	33	14	47	
* 160	110	10 / 16	IR225	-	735 909 359	4.9	5.3	33	17	50	
* 200	63	10 / 16	IR225	-	735 909 362	6.2	3	33	12	45	
* 200	75	10 / 16	IR225	-	735 909 363	6.2	3.6	33	13	46	
* 200	90	10 / 16	IR225	-	735 909 364	6.2	4.3	33	14	47	
* 200	110	10 / 16	IR225	-	735 909 365	6.2	5.3	33	17	50	
* 200	160	10 / 10	IR225	-	735 909 768	6.2	4.9	33	15	48	
* 225	63	10 / 16	IR225	-	735 909 369	6.9	3	34	12	46	
* 225	75	10 / 16	IR225	-	735 909 370	6.9	3.6	35	13	48	
* 225	90	10 / 16	IR225	-	735 909 371	6.9	4.3	36	14	50	
* 225	110	10 / 16	IR225	-	735 909 372	6.9	5.3	36	17	53	
* 225	160	10 / 10	IR225	-	735 909 775	6.9	4.9	33	15	48	

table continued next page



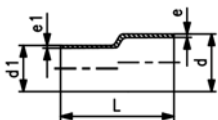
PF 2 37 425 002

d1 [mm]	d2 [mm]	PN [bar]	d1 fusion	d2 fusion	Code	e1 [mm]	e2 [mm]	L1 [mm]	L2 [mm]	L [mm]
* 225	200	10 / 10	IR225	-	735 909 776	6.9	6.2	33	18	51
250	63	10 / 16	IR315	IR225	735 909 377	7.7	3	42	30	72
250	75	10 / 16	IR315	IR225	735 909 378	7.7	3.6	43	28	71
250	90	10 / 16	IR315	IR225	735 909 379	7.7	4.3	44	29	73
250	110	10 / 16	IR315	IR225	735 909 380	7.7	5.3	45	31	76
250	160	10 / 10			735 909 783	7.7	4.9	34	40	74
250	200	10 / 10	IR315	IR225	735 909 784	7.7	6.2	34	42	76
250	225	10 / 10	IR315	IR225	735 909 785	7.7	6.9	34	43	77
315	63	10 / 16	IR315	IR225	735 909 396	9.7	3	47	38	85
315	75	10 / 16	IR315	IR225	735 909 397	9.7	3.6	47	43	90
315	90	10 / 16	IR315	IR225	735 909 398	9.7	4.3	48	44	92
315	110	10 / 16	IR315	IR225	735 909 399	9.7	5.3	50	46	96
315	160	10 / 10	IR315	IR225	735 909 802	9.7	4.9	44	40	84
315	200	10 / 10	IR315	IR225	735 909 803	9.7	6.2	44	42	86
315	225	10 / 10	IR315	IR225	735 909 804	9.7	6.9	42	43	85
* 315	250	10 / 10	IR315	-	735 909 805	9.7	7.7	54	23	77

SYGEF Plus reducing bush eccentric PN16

Model:

- Material: PVDF-HP



PF 2 37 249 019

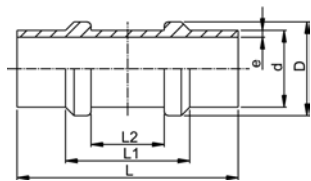
d - d1 [mm]	FM	Code	kg	e [mm]	e1 [mm]	L [mm]
25 - 20	BCF, IR	735 938 737	0.020	1.9	1.9	80
32 - 20	BCF, IR	735 938 742	0.027	2.4	1.9	80
32 - 25	BCF, IR	735 938 741	0.030	2.4	1.9	80
40 - 20	BCF, IR	735 938 748	0.052	2.4	1.9	100
40 - 25	BCF, IR	735 938 747	0.043	2.4	1.9	100
40 - 32	BCF, IR	735 938 746	0.050	2.4	2.4	100
50 - 32	BCF, IR	735 938 753	0.068	3.0	2.4	100
50 - 40	BCF, IR	735 938 752	0.074	3.0	2.4	100
63 - 32	BCF, IR	735 938 760	0.105	3.0	2.4	100
63 - 40	BCF, IR	735 938 759	0.106	3.0	2.4	100
63 - 50	BCF, IR	735 938 758	0.097	3.0	3.0	100

35 91 86

SYGEF Plus fixpoint fitting PN16

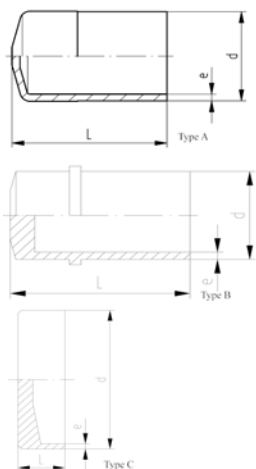
Model:

- Material: PVDF-HP



PF 2 37 249 012

d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	BCF, IR	735 918 656	0.027	28	1.9	100	53	32
25	16	BCF, IR	735 918 657	0.036	33	1.9	100	53	32
32	16	BCF, IR	735 918 658	0.054	40	2.4	100	53	32
40	16	BCF, IR	735 918 659	0.067	48	2.4	100	53	32
50	16	BCF, IR	735 918 660	0.125	58	3.0	100	53	32
63	16	BCF, IR	735 918 661	0.131	71	3.0	105	53	32
75	16	BCF, IR	735 918 662	0.252	87	3.6	125	70	40
90	16	BCF, IR	735 918 663	0.370	105	4.3	127	70	40
110	16	BCF, IR	735 918 664	0.521	127	5.3	127	70	40



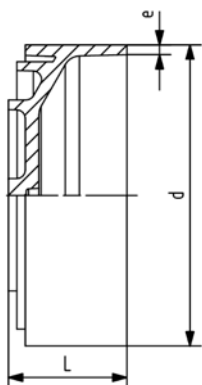
PF 2 37 249 017

SYGEF Plus cap

Model:

- Material: PVDF-HP

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]	Type
20	16	BCF, IR	735 968 106	0.017	1.9	47	A
25	16	BCF, IR	735 968 107	0.012	1.9	47	A
32	16	BCF, IR	735 968 108	0.034	2.4	52	A
40	16	BCF, IR	735 991 654	0.068	2.4	59	B
50	16	BCF, IR	735 991 655	0.104	3.0	64	B
63	16	BCF, IR	735 991 656	0.165	3.0	69	B
75	16	IR	735 991 657	0.283	3.6	40	C
90	16	IR	735 991 658	0.292	4.3	40	C
110	16	IR	735 991 659	0.812	5.3	40	C
160	10	IR	735 991 661	1.046	4.9	50	C
200	10	IR	735 991 662	1.637	6.2	50	C
225	10	IR	735 991 663	2.072	6.9	50	C



PF 2 37 249 018

SYGEF Plus cap

Model:

- Material: PVDF-HP

** Available as from Q2, 2012

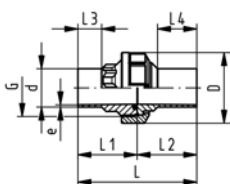
* Available as from Q3, 2012

d [mm]	PN	FM	Code	kg	e [mm]	L [mm]
* 250	10	IR	735 968 546		7.7	110
* 280	10	IR	735 968 547		8.6	120
* 315	10	IR	735 968 548		9.7	130
** 355	10	IR	735 968 549	6.321	10.9	150
** 400	10	IR	735 968 550	8.288	12.3	150
** 450	10	IR	735 968 551	10.565	13.8	150

SYGEF Plus union (FPM white) PN16

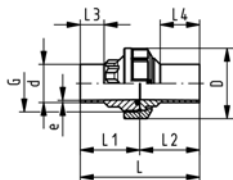
Model:

- Material: PVDF-HP
- FDA compliant
- d75, d90 and d110 with buttress shaped thread
- Please see installation instruction



d [mm]	PN	FM	Code	kg
20	16	BCF, IR	735 528 626	0.082
25	16	BCF, IR	735 528 627	0.123
32	16	BCF, IR	735 528 628	0.166
40	16	BCF, IR	735 528 629	0.263
50	16	BCF, IR	735 528 630	0.372
63	16	BCF, IR	735 528 631	0.523

table continued next page



d [mm]	PN	FM	Code	kg
75	16	BCF, IR	735 528 637	0.740
90	16	BCF, IR	735 528 638	0.798
110	16	BCF, IR	735 528 639	1.020

d [mm]	G [inch]	e [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]
20	1	1.9	43	106	53	53	25	37
25	1 1/4	1.9	53	112	56	56	25	38
32	1 1/2	2.4	60	118	59	59	25	40
40	2	2.4	74	124	62	62	25	41
50	2 1/4	3.0	82	130	65	65	25	43
63	2 3/4	3.0	100	136	68	68	25	44
75	S 107.5 x 3.6	3.6	133	132	66	66	24	34
90	S 107.5 x 3.6	4.3	133	130	65	65	24	48
110	S 127.5 x 3.6	5.3	155	130	65	65	25	45

PF 2 37 230 001



Blanking Union End

d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]
20	10	155 482 101	-	0.007	28	30	5	13
25	10	155 482 102	-	0.015	36	38	6	15
32	10	155 482 103	-	0.025	36	38	6	16
40	10	155 482 104	-	0.043	42	45	6	17
50	10	155 482 105	-	0.060	59	63	7	20
63	10	155 482 106	-	0.110	74	78	8	22

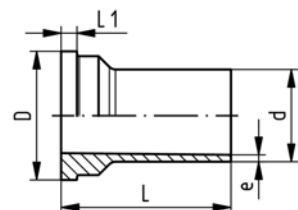
PF 2 65 434 001



SYGEF Plus union end PN16

Model:

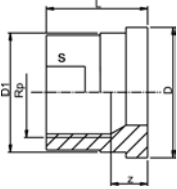
- Material: PVDF-HP
- Suitable for SYGEF Plus Union Butt Fusion
- Suitable for Diaphragm Valves Type 314 and 514
- Suitable for Vortex Sensor



d [mm]	PN	FM	Code	SP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]
20	16	BCF, IR	735 608 626	1	0.019	30	1.9	53	5
25	16	BCF, IR	735 608 627	1	0.032	39	1.9	56	5
32	16	BCF, IR	735 608 628	1	0.043	45	2.4	59	6
40	16	BCF, IR	735 608 629	1	0.070	57	2.4	62	6
50	16	BCF, IR	735 608 630	1	0.083	63	3.0	65	7
63	16	BCF, IR	735 608 631	1	0.130	78	3.0	68	8
75	16	BCF, IR	735 608 637	1	0.194	101	3.6	66	9
90	16	BCF, IR	735 608 638	1	0.189	101	4.3	65	9
110	16	BCF, IR	735 608 639	1	0.264	121	5.3	65	10

PF 2 37 230 999

24 60 06



PF 2 30 153 999

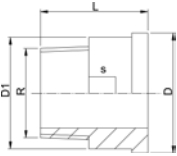
Union end stainless steel Rp

Model:

- Material: Stainless Steel 1.4404 (316L)
- Parallel female thread Rp

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	s [mm]	
3/8	16	724 600 655	10	0.030	9	24	22	19	19	
1/2	16	724 600 656	10	0.060	11	30	28	24	24	
3/4	16	724 600 657	10	0.092	11	39	36	26	29	
1	16	724 600 658	10	0.137	12	45	42	29	36	
1 1/4	16	724 600 659	10	0.226	14	57	53	33	45	
1 1/2	16	724 600 660	10	0.314	15	63	59	34	54	
2	16	724 600 661	10	0.450	15	78	74	39	63	

24 60 07



PF 2 30 153 999

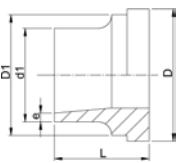
Union end stainless steel R

Model:

- Material: Stainless Steel 1.4404 (316L)
- Taper male thread R

R [inch]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	s [mm]	
3/8	16	724 600 705	10	0.052	24	22	30	19	
1/2	16	724 600 706	10	0.083	30	28	34	24	
3/4	16	724 600 707	10	0.125	39	36	36	32	
1	16	724 600 708	10	0.189	45	42	40	37	
1 1/4	16	724 600 709	10	0.356	57	53	46	48	
1 1/2	16	724 600 710	10	0.407	63	59	48	54	
2	16	724 600 711	10	0.668	78	74	55	69	

24 60 55



PF 2 30 153 999

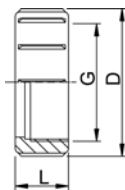
Union end stainless steel Welding end

Model:

- Material: Stainless Steel 1.4404 (316L)

d [mm]	d1 [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	e [mm]	
16	17	16	724 605 505	10	0.029	24	22	18	1.6	
20	21	16	724 605 506	10	0.046	30	28	22	2.0	
25	26	16	724 605 507	10	0.080	39	36	23	2.0	
32	33	16	724 605 508	10	0.112	45	42	26	2.0	
40	42	16	724 605 509	10	0.188	57	53	26	2.0	
50	48	16	724 605 510	10	0.222	63	59	28	2.0	
63	60	16	724 605 511	10	0.361	78	74	32	2.6	

35 69 04



PF 2 35 191 999

SYGEF Standard union nut PN16

Model:

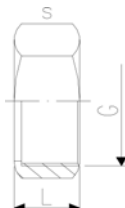
- Material: PVDF
- d75, d90 and d110 with buttress shaped thread

Note:

For the dimensions d75-110 please see instructions for the installation

Socket Fusion d [mm]	Butt Fusion d [mm]	PN	Code	kg	D [mm]	G [inch]	L [mm]	
16	16	16	735 690 405	0.011	35	3/4	21	
20	20	16	735 690 406	0.021	43	1	22	
25	25	16	735 690 407	0.032	53	1 1/4	24	
32	32	16	735 690 408	0.044	60	1 1/2	26	
40	40	16	735 690 409	0.065	74	2	29	
50	50	16	735 690 410	0.093	82	2 1/4	33	
63	63	16	735 690 411	0.143	100	2 3/4	35	
	75 - 90	16	735 690 422	0.289	133	S 107,5x3,6	40	
	110	16	735 690 423	0.403	155	S 127,5x3,6	42	

24 69 01

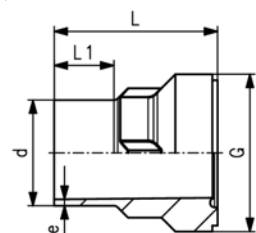


PF 2 30 153 999

Union nut stainless steel 1.4404 (316L)

* Octagon union nut

d [mm]	PN	Code	SP	kg	L [mm]	G [inch]	s [mm]	closest inch	
16	16	724 690 105	10	0.060	19	3/4	32	3/8	
20	16	724 690 106	10	0.105	21	1	41	1/2	
25	16	724 690 107	10	0.091	23	1 1/4	46	3/4	
32	16	724 690 108	10	0.170	24	1 1/2	55	1	
* 40	16	724 690 109	10	0.218	27	2	68	1 1/4	
* 50	16	724 690 110	10	0.316	31	2 1/4	74	1 1/2	
* 63	16	724 690 111	10	0.364	35	2 3/4	88	2	



PF 2 37 230 999

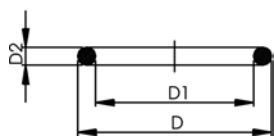
SYGEF Plus union bush PN16

Model:

- Material: PVDF-HP
- Suitable for SYGEF Plus Union Butt Fusion
- d75, d90 and d110 with buttress shaped thread

d [mm]	PN	FM	Code	SP	kg	G [inch]	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 648 626	1	0.024	1	1.9	53	25	
25	16	BCF, IR	735 648 627	1	0.041	1 1/4	4.9	56	25	
32	16	BCF, IR	735 648 628	1	0.056	1 1/2	2.4	59	25	
40	16	BCF, IR	735 648 629	1	0.099	2	2.4	62	25	
50	16	BCF, IR	735 648 630	1	0.116	2 1/4	3.0	65	25	
63	16	BCF, IR	735 648 631	1	0.172	2 3/4	3.0	68	25	
75	16	BCF, IR	735 648 637	1	0.261	S 107.5 x 3.6	3.6	66	24	
90	16	BCF, IR	735 648 638	1	0.258	S 107.5 x 3.6	4.3	65	24	
110	16	BCF, IR	735 648 639	1	0.343	S 127.5 x 3.6	5.3	65	25	

49 41 10



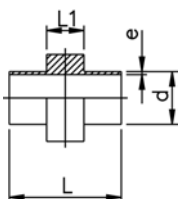
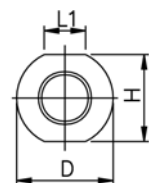
PF 2 65 434 999

O-ring white

Model:

- Hardness approx. 65° Shore
- For SYGEF® Plus Union and diaphragm valve SYGEF® Plus type 314

d [mm]	PN	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]	
20	16	749 411 005	0.002	20.6	15.5	2.6	
25	16	749 411 006	0.003	27.3	20.2	3.5	
32	16	749 411 120	0.002	33.6	26.6	3.5	
40	16	749 411 062	0.003	41.6	34.5	3.5	
50	16	749 411 172	0.001	51.1	44.0	3.5	
63	16	749 411 054	0.005	63.0	55.0	4.0	
75	16	749 411 013	0.010	79.9	69.2	5.3	
90	16	749 411 014	0.012	92.6	81.9	5.3	
110	16	749 411 015	0.015	117.0	101.0	5.3	



PF 2 37 423 002

Instrument Installation Fitting, PN 16, PVDF-HP

IR Plus/BCF Plus Fusion

d [mm]	PN	FM	Code	SP	kg	e [mm]	L [mm]	D [mm]	H [mm]	L1 [mm]	
20	16	BCF, IR	735 918 606	-	0.001	1.9	140	71	58	40	
25	16	BCF, IR	735 918 607	-	0.001	1.9	140	75	63	40	
32	16	BCF, IR	735 918 608	-	0.001	2.4	140	81	70	40	
40	16	BCF, IR	735 918 609	-	0.001	2.4	140	88	78	40	
50	16	BCF, IR	735 918 610	-	0.001	3.0	140	97	88	40	

35 91 88



SYGEF Plus instrument installation fitting PN16

Model:

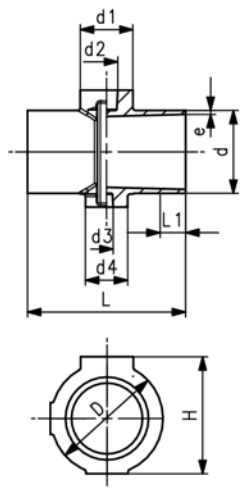
- Material: PVDF-HP
- Suitable for hole diameters from 1/4" - 3/4"
- Injection-moulded version

Range of use:

- compatible with all signet sensors excepting flow sensors

Note:

Hole needs to be milled, HAND HELD DRILLING MUST NOT BE DONE



d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	H [mm]	L [mm]	L1 [mm]
63	16	BCF, IR	735 918 811	0.299	85	3.0	40	17	10	32	89	120	25
75	16	BCF, IR	735 918 812	0.041	96	3.6	40	17	10	40	101	130	25
90	16	BCF, IR	735 918 813	0.051	110	4.3	40	17	10	40	116	130	25
110	16	BCF, IR	735 918 814	0.690	127	5.3	40	17	10	40	136	130	25

PF 2 37 425 002

35 91 86



SYGEF Plus instrument installation fitting PN16

Model:

- Material: PVDF-HP
- Suitable for hole diameters from 1/8" - 3/4"
- Machined version

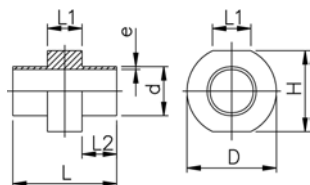
Range of use:

- compatible with all signet sensors excepting flow sensors

Note:

Hole needs to be milled, HAND HELD DRILLING MUST NOT BE DONE

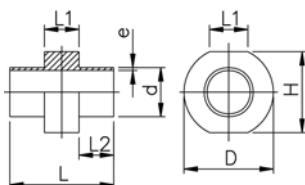
* no stock item



d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]
* 125	16	IR	735 918 615	1.007	162	6.0	157	100	40	27
* 140	16	IR	735 918 616	1.185	176	6.7	171	110	40	32
* 160	16	IR	735 918 617	1.405	194	7.7	190	110	40	32
* 200	16	IR	735 918 619	1.871	231	9.6	228	110	40	32
* 225	16	IR	735 918 620	2.284	254	10.8	251	110	40	32

PF 2 37 425 002

35 91 85



PF 2 37 425 002

SYGEF Plus instrument installation fitting PN10

Model:

- Material: PVDF-HP
- Suitable for hole diameters from 1/8" - 3/4"
- Machined version

Range of use:

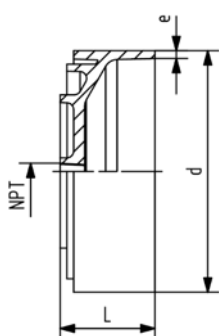
- compatible with all signet sensors excepting flow sensors

Note:

Hole needs to be milled, HAND HELD DRILLING MUST NOT BE DONE

d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	
125	10	IR	735 918 565	0.858	162	3.9	157	100	40	27	
140	10	IR	735 918 566	1.119	176	4.4	171	110	40	32	
160	10	IR	735 918 567	1.151	194	4.9	190	110	40	32	
200	10	IR	735 918 569	1.486	231	6.2	228	110	40	32	
225	10	IR	735 918 570	3.151	254	7.0	251	110	40	32	

35 91 85



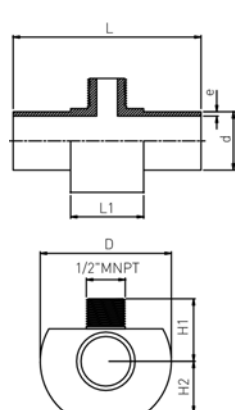
PF 2 37 425 002

SYGEF Plus instrument installation fitting PN10

Model:

- Material: PVDF-HP
- ** Available as from Q2, 2012
- * Available as from Q3, 2012

d [mm]	NPT [inch]	PN	FM	Code	kg	e [mm]	L [mm]	
* 250	1/2	10	IR	735 918 846		7.7	110	
* 280	1/2	10	IR	735 918 847		8.6	120	
* 315	1/2	10	IR	735 918 848		9.7	130	
** 355	1/2	10	IR	735 918 849	6.311	10.9	150	
** 400	1/2	10	IR	735 918 850	8.277	12.3	150	
** 450	1/2	10	IR	735 918 851	10.554	13.8	150	

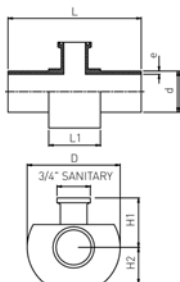


PF 2 37 423 002

1/2" MNPT Low Profile Adapter, PN 10, PVDF-HP

IR Plus/BCF Plus Fusion

d [mm]	PN	FM	Code	SP	kg	e [mm]	L [mm]	D [mm]	H1 [mm]	H2 [mm]	L1 [mm]	
20	10	BCF, IR	735 918 626	-	0.001	1.9	140	71	28	29	40	
25	10	BCF, IR	735 918 627	-	0.001	1.9	140	75	30	31	40	
32	10	BCF, IR	735 918 628	-		2.4	140	81	34	35	40	
40	10	BCF, IR	735 918 629	-		2.4	140	88	38	39	40	
50	10	BCF, IR	735 918 630	-	0.001	3.0	140	97	43	44	40	
63	10	BCF, IR	735 918 631	-	0.001	3.0	140	109	49	50	40	
75	10	BCF, IR	735 918 632	-	0.001	3.6	140	120	55	56	40	
90	10	BCF, IR	735 918 633	-	0.001	4.3	140	134	63	64	40	
110	10	BCF, IR	735 918 634	-	0.001	5.3	140	153	73	74	40	



3/4" (3A) Sanitary Adapter, PN 10 PVDF-HP

IR Plus/BCF Plus Fusion

d [mm]	PN	FM	Code	SP	kg	e [mm]	L [mm]	D [mm]	H1 [mm]	H2 [mm]	L1 [mm]	
20	10	BCF, IR	735 918 646			1.9	140	71	28	29	40	
25	10	BCF, IR	735 918 647			1.9	140	75	30	31	40	
32	10	BCF, IR	735 918 648			2.4	140	81	34	35	40	
40	10	BCF, IR	735 918 649			2.4	140	88	38	39	40	
50	10	BCF, IR	735 918 650	-	0.890	3.0	140	97	43	44	40	
63	10	BCF, IR	735 918 651			3.0	140	109	49	50	40	
75	10	BCF, IR	735 918 652			3.6	140	120	55	56	40	
90	10	BCF, IR	735 918 653			4.3	140	134	63	64	40	
110	10	BCF, IR	735 918 654			5.3	140	153	73	74	40	

PF 2 37 423 002

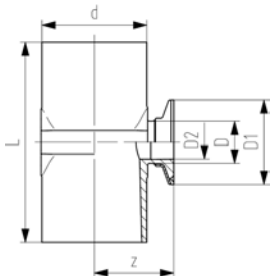
SYGEF Plus Installation fitting with sanitary adaptor PN16

Model:

- without chamfer for complete evacuation even in horizontal installation
- Material: PVDF-HP
- d [mm] = main line
- D [mm] = connector line

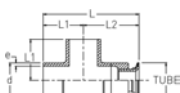
Range of use:

- for pressure gauges
- for sampling valves
- for sanitary adaptor PVDF connection



d [mm]	D [mm]	PN	FM	Code	SP	kg	D1 [mm]	D2 [mm]	L [mm]	Z [mm]	
20	20	16	BCF, IR	735 318 101	1	0.100	50.5	34.1	110	32.7	
25	25	16	BCF, IR	735 318 202	1	0.097	50.5	34.1	110	35.2	
32	32	16	BCF, IR	735 318 303	1	0.138	50.5	34.1	124	38.7	
40	25	16	BCF, IR	735 318 204	1	0.100	50.5	19.9	124	42.7	
40	32	16	BCF, IR	735 318 304	1	0.100	50.5	25.6	124	42.7	
50	25	16	BCF, IR	735 318 205	1	0.100	50.5	19.9	124	47.7	
50	32	16	BCF, IR	735 318 305	1	0.100	50.5	25.6	124	47.7	
50	50	16	BCF, IR	735 318 505	1	0.100	64.0	42.2	124	47.7	
63	25	16	BCF, IR	735 318 206	1	0.258	50.5	19.9	120	54.2	
63	32	16	BCF, IR	735 318 306	1	0.269	50.5	25.6	120	54.2	
63	50	16	BCF, IR	735 318 506	1	0.100	64.0	42.2	120	54.2	
63	63	16	BCF, IR	735 318 606	1	0.100	77.5	55.1	138	54.2	
75	25	16	BCF, IR	735 318 207	1	0.352	50.5	19.9	130	60.2	
75	32	16	BCF, IR	735 318 307	1	0.357	50.5	25.6	130	60.2	
75	50	16	BCF, IR	735 318 507	1	0.402	64.0	42.2	130	60.2	
75	63	16	BCF, IR	735 318 607	1	0.619	77.5	55.1	130	60.2	
90	25	16	BCF, IR	735 318 208	1	0.449	50.5	19.9	130	67.7	
90	32	16	BCF, IR	735 318 308	1	0.454	50.5	25.6	130	67.7	
90	50	16	BCF, IR	735 318 508	1	0.496	64.0	42.2	130	67.7	
90	63	16	BCF, IR	735 318 608	1	0.658	77.5	55.1	138	67.7	
110	25	16	BCF, IR	735 318 209	1	0.614	50.5	19.9	130	77.7	
110	32	16	BCF, IR	735 318 309	1	0.619	50.5	25.6	130	77.7	
110	50	16	BCF, IR	735 318 509	1	0.662	64.0	42.2	130	77.7	
110	63	16	BCF, IR	735 318 609	1	0.686	77.5	55.1	138	77.7	

PF 2 65 456 004

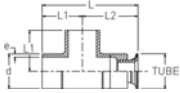


Analytical Sanitary Sensor, PN 16 PVDF-HP

IR Plus/BCF Plus Fusion

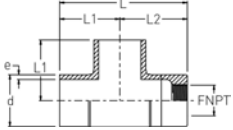
d [mm]	Tube Size [inch]	PN	FM	Code	SP	kg	e [mm]	L [mm]	L1 [mm]	L2 [mm]	
50	3/4	16	BCF, IR	735 991 820	-	0.001	3.0	150	58	92	
50	1	16	BCF, IR	735 991 821	-	0.001	3.0	150	58	92	
50	1 1/2	16	BCF, IR	735 991 822	-	0.400	3.0	150	58	92	
63	3/4	16	BCF, IR	735 991 823	-	0.001	3.0	166	66	100	
63	1	16	BCF, IR	735 991 824	-	0.001	3.0	166	66	100	

table continued next page



d [mm]	Tube Size [inch]	PN	FM	Code	SP	kg	e [mm]	L [mm]	L1 [mm]	L2 [mm]	
63	1 ½	16	BCF, IR	735 991 825	-	0.075	3.0	166	66	100	
75	¾	16	BCF, IR	735 991 826	-	0.075	3.6	180	75	105	
75	1	16	BCF, IR	735 991 827	-	0.075	3.6	180	75	105	
75	1 ½	16	BCF, IR	735 991 828	-	0.001	3.6	180	75	105	
90	¾	16	BCF, IR	735 991 829	-	0.001	4.3	203	90	113	
90	1	16	BCF, IR	735 991 830	-	0.001	4.3	203	90	113	
90	1 ½	16	BCF, IR	735 991 831	-	0.001	4.3	203	90	113	
110	¾	16	BCF, IR	735 991 832	-	0.001	5.3	234	110	124	
110	1	16	BCF, IR	735 991 833	-	0.001	5.3	234	110	124	
110	1 ½	16	BCF, IR	735 991 834	-	0.001	5.3	234	110	124	

PF 2 35 440 001



Analytical Threaded Sensor, PN 16 PVDF-HP

IR Plus/BCF Plus Fusion

d [mm]	FNPT [inch]	PN	FM	Code	SP	kg	e [mm]	L [mm]	L1 [mm]	L2 [mm]	
50	¼	16	BCF, IR	735 991 840	-	0.001	3.0	135	58	77	
50	½	16	BCF, IR	735 991 841	-	0.001	3.0	135	58	77	
50	¾	16	BCF, IR	735 991 842	-	0.001	3.0	135	58	77	
50	1	16	BCF, IR	735 991 843	-	0.001	3.0	135	58	77	
63	¼	16	BCF, IR	735 991 844	-	0.001	3.0	151	66	85	
63	½	16	BCF, IR	735 991 845	-	0.001	3.0	151	66	85	
63	¾	16	BCF, IR	735 991 846	-	0.001	3.0	151	66	85	
63	1	16	BCF, IR	735 991 847	-	0.001	3.0	151	66	85	
75	¼	16	BCF, IR	735 991 848	-	0.001	3.6	165	75	90	
75	½	16	BCF, IR	735 991 849	-	0.001	3.6	165	75	90	
75	¾	16	BCF, IR	735 991 850	-	0.001	3.6	165	75	90	
75	1	16	BCF, IR	735 991 851	-	0.001	3.6	165	75	90	
90	¼	16	BCF, IR	735 991 852	-	0.001	4.3	188	90	98	
90	½	16	BCF, IR	735 991 853	-	0.001	4.3	188	90	98	
90	¾	16	BCF, IR	735 991 854	-	0.001	4.3	188	90	98	
90	1	16	BCF, IR	735 991 855	-	0.001	4.3	188	90	98	
110	¼	16	BCF, IR	735 991 856	-	0.001	5.3	219	110	109	
110	½	16	BCF, IR	735 991 857	-	0.001	5.3	219	110	109	
110	¾	16	BCF, IR	735 991 858	-	0.001	5.3	219	110	109	
110	1	16	BCF, IR	735 991 859	-	0.001	5.3	219	110	109	

PF 2 37 423 005

35 79 88

SYGEF Plus flange adaptor jointing face serrated PN16**Model:**

- Material: PVDF-HP

d [mm]	DN [mm]	PN	FM	Code	kg	
20	15	16	BCF, IR	735 798 831	0.042	
25	20	16	BCF, IR	735 798 832	0.060	
32	25	16	BCF, IR	735 798 833	0.066	
40	32	16	BCF, IR	735 798 834	0.121	
50	40	16	BCF, IR	735 798 835	0.165	
63	50	16	BCF, IR	735 798 836	0.237	
75	65	16	BCF, IR	735 798 837	0.361	
90	80	16	BCF, IR	735 798 838	0.444	
110	100	16	BCF, IR	735 798 839	0.626	
140	125	16	IR	735 798 841	0.970	
160	150	16	IR	735 798 842	1.208	
200	200	16	IR	735 798 844	2.139	
225	200	16	IR	735 798 845	2.210	

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	Type	
20	26	45	15		1.9	54	6		A	
25	32	58	20	54	1.9	56	7	4	B	
32	40	68	26	63	2.4	58	7	4	B	
40	49	78	34	73	2.4	68	8	4	B	
50	60	88	42	82	3.0	69	8	4	B	
63	75	102	56		3.0	72	9		A	
75	89	122	66		3.6	80	10		A	
90	105	138	78	133	4.3	81	12	4	B	
110	125	158	100		5.3	81	13		C	
140	155	188	127		6.7	90	16		C	
160	175	212	151		7.7	93	17		C	
200	232	268	207		9.6	102	22		C	
225	235	268	207		10.8	102	22		C	

PF 2 37 249 010

35 79 88

SYGEF Plus flange adaptor ANSI jointing face serrated PN16**Model:**

- Material: PVDF-HP
- Other dimensions identical with metric version

d [mm]	PN	FM	Code	kg	D [mm]	D1 [mm]	D2 [mm]	e [mm]	L [mm]	L1 [mm]	Type	
25	16	BCF, IR	735 798 882	0.058	32	54	20	1.9	56	7	A	
32	16	BCF, IR	735 798 883	0.084	40	63	26	2.4	58	7	A	
40	16	BCF, IR	735 798 884	0.115	49	73	34	2.4	68	8	A	
50	16	BCF, IR	735 798 885	0.160	60	82	43	3.0	69	8	A	
90	16	BCF, IR	735 798 886	0.435	105	133	78	4.3	81	12	A	

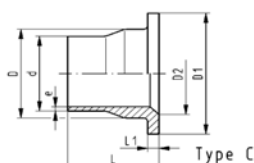
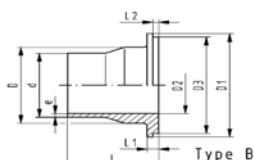
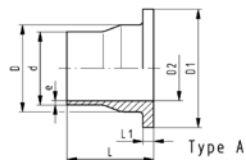
PF 2 37 249 010

35 79 88 / 35 79 85 SYGEF Plus flange adaptor jointing face serrated PN10

Model:

- Material: PVDF-HP

** Available as from Q2, 2012



d [mm]	DN [mm]	PN	FM	Code	kg	
90	80	10	BCF, IR	735 798 888	0.407	
110	100	10	BCF, IR	735 798 889	0.540	
125	100	10	IR	735 798 590	0.528	
140	125	10	IR	735 798 891	0.800	
160	150	10	IR	735 798 892	1.037	
200	200	10	IR	735 798 894	1.766	
225	200	10	IR	735 798 895	1.742	
250	250	10	IR	735 798 596	2.803	
280	250	10	IR	735 798 597	2.777	
315	300	10	IR	735 798 598	3.657	
** 355	350	10	IR	735 798 549	6.719	
** 400	400	10	IR	735 798 550	8.279	
** 450	450	10	IR	735 798 551	10.856	

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]	Type
90	105	138	78	133	2.8	81	12	4	B
110	125	158	100		3.4	81	13		A
125	132	158	114		3.9	82	14		A
140	155	188	127		4.3	90	16		A
160	175	212	151		4.9	93	17		C
200	232	268	207		6.2	102	22		C
225	235	268	207		6.9	102	22		A
250	285	320	250		7.7	120	22		C
280	291	320	250		8.6	120	22		A
315	335	370	300		9.7	120	22		C
** 355	355	430	327		10.9	170	30		A
** 400	400	482	394		12.3	175	32		C
** 450	451	530	430		13.8	180	36		C

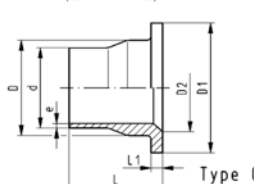
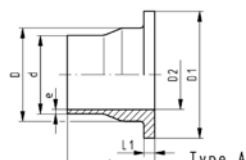
PF 2 37 249 004

35 79 88

SYGEF Plus flange adaptor JIS PN16

Model:

- Material: PVDF-HP



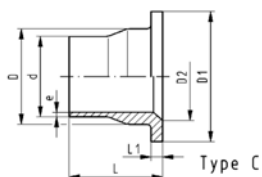
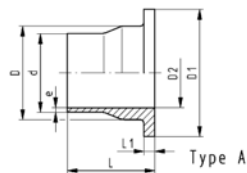
d [mm]	DN [mm]	PN	FM	Code	kg	D [mm]	D1 [mm]	D2 [mm]	e [mm]	L [mm]	L1 [mm]	Type
20	15	16	BCF, IR	735 805 926	0.025	26	34	15	1.9	54	6	A
25	20	16	BCF, IR	735 805 927	0.042	32	41	20	1.9	56	7	A
32	25	16	BCF, IR	735 805 928	0.063	40	50	26	2.4	58	7	A
40	32	16	BCF, IR	735 805 929	0.101	49	61	34	2.4	68	8	A
50	40	16	BCF, IR	735 805 930	0.139	60	73	42	3.0	69	8	A
63	50	16	BCF, IR	735 805 931	0.200	75	90	56	3.0	72	9	A
75	65	16	BCF, IR	735 805 932	0.308	89	106	66	3.6	80	10	A
90	80	16	BCF, IR	735 805 933	0.387	105	125	78	4.3	80	11	A
110	100	16	BCF, IR	735 805 934	0.556	125	150	100	5.3	80	12	C
140	125	16	IR	735 798 841	0.970	155	188	127	6.7	90	16	C
160	150	16	IR	735 798 842	1.208	175	212	151	7.7	93	17	C
225	200	16	IR	735 798 845	2.210	235	268	207	10.8	102	22	C

PF 2 37 249 016

35 79 88

SYGEF Plus flange adaptor JIS PN10**Model:**

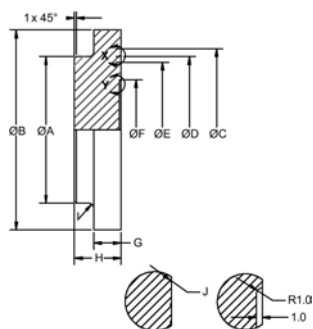
- Material: PVDF-HP



PF 2 37 249 015

Blind Flange

- * 40% Restock Charge

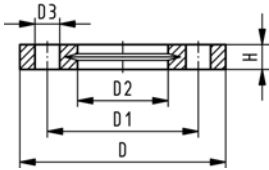
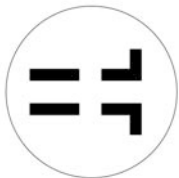


Size [mm]	PN	Code	SP	kg
20	16	735 991 362	1	0.021
25	16	735 991 363	1	0.031
32	16	735 991 364	1	0.047
40	16	735 991 365	1	0.085
50	16	735 991 366	1	0.125
63	16	735 991 367	1	0.195
75	16	735 991 368	1	0.294
90	16	735 991 369	1	0.436
110	16	735 991 370	1	0.661
160	10	735 991 372	1	1.607
200/225	10	735 991 373	1	3.549

Size [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Rad I [mm]	Rad J [mm]
20	25	43	28	22		16	6	17	1.0	0.4
25	32	54	35	29		20	7	17	1.5	0.4
32	40	63	43	36		26	7	17	1.5	0.4
40	49	73	54	57		33	8	21	2.0	0.4
50	60	79	64	56		41	8	21	2.0	0.4
63	75	99	83	75	69	51	9	21	2.5	0.4
75	89	119	99	91	83	61	10	21	2.5	0.4
90	105	133	115	106	97	74	11	23	3.0	0.4
110	125	158	138	128	118	90	12	24	3.0	0.5
160	175	200	191	181	171	131	17	30	4.0	1.0
200/225	232	268	250	240	230	164	20	30	4.0	1.0

PF 2 37 423 002

27 70 04
27 70 05



Backing flange PP-V For butt fusion systems metric

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

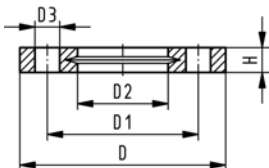
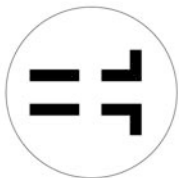
AL: number of holes

* Combined version, metric-ANSI

d [mm]	Inch	DN [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	56	0.093	95	65.0	28	14	16	4	M12
25		20	16	727 700 407	38	0.120	105	75.0	34	14	17	4	M12
32		25	16	727 700 408	80	0.151	115	85.0	42	14	18	4	M12
40		32	16	727 700 409	40	0.244	140	100.0	51	18	20	4	M16
50		40	16	727 700 410	30	0.297	150	110.0	62	18	22	4	M16
63		50	16	727 700 411	25	0.362	165	125.0	78	18	24	4	M16
75		65	16	727 700 412	19	0.487	185	145.0	92	18	26	4	M16
90		80	16	727 700 513	15	0.544	200	160.0	108	18	27	8	M16
110		100	16	727 700 514	13	0.643	220	180.0	128	18	28	8	M16
125		100	16	727 700 515	13	0.635	220	180.0	135	18	28	8	M16
140		125	16	727 700 516	10	0.842	250	210.0	158	18	30	8	M16
160	6	150	16	727 700 517	-	1.200	285	241.0	178	22	32	8	M20
180		150	16	727 700 518	-	1.200	285	240.0	188	22	32	8	M20
* 200	8	200	16	727 700 519	-	1.400	340	296.5	235	22	34	8	M20
* 225	9	200	16	727 700 520	-	1.400	340	296.5	238	22	34	8	M20
250		250	16	727 700 521	-	2.052	395	350.0	288	22	38	12	M20
280		250	16	727 700 522	-	1.700	395	350.0	294	22	38	12	M20
315		300	16	727 700 523	-	2.400	445	400.0	338	22	42	12	M20
355		350	10	727 700 524	-	4.440	515	460.0	376	22	46	16	M20
400		400	10	727 700 525	-	5.624	574	515.0	430	26	50	16	M24

PF 2 34 238 031

27 70 14
27 70 15



Backing flange PP-V For butt fusion systems Inch ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

1) Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1 1/2	15	16	727 701 406	0.091	95	60	28	16	16	4	M12
1 3/4	20	16	727 701 407	0.120	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.147	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.246	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.299	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.361	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.492	185	140	92	19	26	4	M16
3	80	16	727 701 513	0.607	200	152	108	19	27	4	M16
4	100	16	727 701 514	0.736	229	190	128	19	28	8	M16
6	150	16	727 700 517	1.200	285		178	22	32	8	M20
* 8	200	16	727 700 519	1.400	340		235	22	34	8	M20
* 9	200	16	727 700 520	1.400	340		238	22	34	8	M20
10	250	16	727 701 521	2.241	406	362	288	26	38	12	M20
10	250	16	727 701 522	2.173	406	362	294	26	38	12	M20
12	300	16	727 701 523	3.627	483	432	338	26	42	12	M20

PF 2 34 238 033

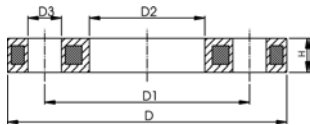
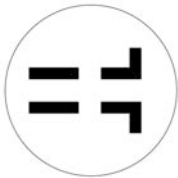
27 70 02
27 70 03

Backing flange PP-Steel For butt fusion systems metric

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	d [inch]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 206	0.216	95	65	28	14	12	4	M12
25		20	16	727 700 207	0.279	105	75	34	14	12	4	M12
32		25	16	727 700 208	0.429	115	85	42	14	16	4	M12
40		32	16	727 700 209	0.621	140	100	51	18	16	4	M16
50		40	16	727 700 210	0.722	150	110	62	18	20	4	M16
63		50	16	727 700 211	1.084	165	125	78	18	20	4	M16
75		65	16	727 700 212	1.349	185	145	92	18	20	4	M16
90		80	16	727 700 313	1.390	200	160	108	18	20	8	M16
110		100	16	727 700 314	1.407	220	180	128	18	20	8	M16
125		100	16	727 700 315	1.408	220	180	135	18	20	8	M16
140		125	16	727 700 316	2.318	250	210	158	18	24	8	M16
160		150	16	727 700 317	3.491	285	240	178	22	24	8	M20
180		150	16	727 700 318	3.108	285	240	188	22	24	8	M20
200		200	16	727 700 319	5.600	340	295	235	22	27	8	M20
225		200	16	727 700 320	5.533	340	295	238	22	27	8	M20
250		250	16	727 700 321	6.632	395	350	288	22	30	12	M20
280		250	16	727 700 322	6.573	395	350	294	22	30	12	M20
315		300	16	727 700 323	7.903	445	400	338	22	34	12	M20
355		350	16	727 700 324	14.587	515	460	376	22	40	16	M20
400		400	16	727 700 325	20.034	574	515	430	26	40	16	M24

PF 2 34 238 022

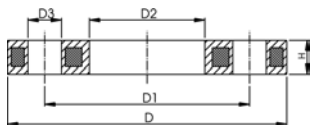
27 70 12

Backing flange PP-Steel For butt fusion systems Inch ANSI

Model:

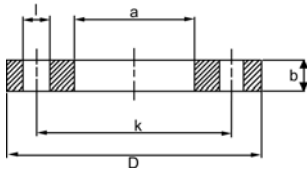
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

AL: number of holes



d [inch]	DN [mm]	d [mm]	PN	Code	SP	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
1/2	15	20	16	727 701 206	72	0.213	60	28	16	95	12	4
3/4	20	25	16	727 701 207	45	0.260	70	34	16	105	12	4
1	25	32	16	727 701 208	34	0.416	79	42	16	115	16	4
1 1/4	32	40	16	727 701 209	20	0.730	89	51	16	140	16	4
1 1/2	40	50	16	727 701 210	17	0.809	98	62	16	150	18	4
2	50	63	16	727 701 211	15	0.866	121	78	19	165	18	4
2 1/2	65	75	16	727 701 212	11	1.117	140	92	19	185	18	4
3	80	90	16	727 701 313	9	1.499	152	108	19	200	20	4
4	100	110	16	727 701 314	13	1.739	190	128	19	229	20	8
6	150	160	16	727 700 317	-	3.491	240	178	22	285	24	8
8	200	200	16	727 701 319	-	5.440	298	235	22	340	27	8
8	200	225	16	727 701 320	-	5.621	298	238	22	340	27	8

PF 2 34 238 023



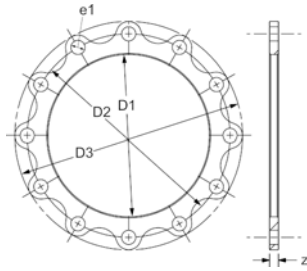
PVDF Coated Steel for Butt Fusion Systems Inch/ANSI Flange Ring blue coated steel

Material: PVDF blue coated steel

Bolt holes drilled in accordance with ANSI B16.5, Class 150 pattern

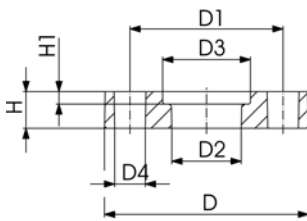
d [mm]	Inch	Code	Weight [lb]	D [inch]	a [inch]	k [inch]	b [inch]	l [inch]	Bolt Holes
20	1/2	155 701 806	0.50	3.50	1.10	2.36	0.28	0.63	4
25	3/4	155 701 807	0.75	3.86	1.34	2.76	0.28	0.63	4
32	1	155 701 808	0.75	4.25	1.65	3.11	0.28	0.63	4
40	1 1/4	155 701 809	1.13	4.61	2.01	3.50	0.32	0.63	4
50	1 1/2	155 701 810	1.31	5.00	2.44	3.86	0.32	0.63	4
63	2	155 701 811	2.13	5.98	3.07	4.76	0.39	0.75	4
75	2 1/2	155 701 812	2.94	7.01	3.62	5.51	0.39	0.75	4
90	3	155 701 813	3.19	7.48	4.33	5.98	0.39	0.75	4
110	4	155 703 814	4.56	9.02	5.24	7.48	0.39	0.75	8
160	6	155 701 917	7.34	10.98	7.05	9.48	0.50	0.88	8
200	8	155 701 919	13.12	13.50	9.30	11.73	0.63	0.88	8
225	9	155 701 920	12.64	13.50	9.42	11.73	0.63	0.88	8
250	10	155 701 921	16.76	16.00	11.35	14.25	0.88	0.88	12
315	12	155 701 923	23.00	19.00	13.31	17.00	1.00	1.00	12
355	14	155 701 924	25.00	21.00	14.80	18.75	1.00	1.00	12
400	16	155 701 925	28.00	23.50	16.93	21.25	1.13	1.13	16

PF 2 34 238 007



PVDF Coated Steel for Butt Fusion Systems Inch/ANSI (reduced weight design)

d [mm]	Size	Code	Weight [lb]	D1 [mm]	D2 [mm]	D3 [mm]	E1 [mm]	z [mm]	Bolt Holes
355	14	155 801 924	31	376	476	533	28.7	25	12
400	16	155 801 925	37	430	540	597	28.7	25	16
450	18	155 801 926	49	470	578	635	31.7	28	16



Backing flange PP-GF JIS

Model:

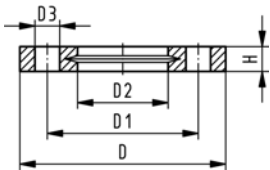
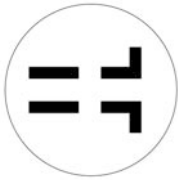
- PP-GF (30% glass-fibre reinforced)
- Connecting dimensions: JIS B 2220, 10K
- Only use with flange adaptor JIS 27 80 02

AL: number of holes

DN [mm]	Inch	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL	SC
15	1/2	727 705 006	-	0.083	95	70	28	36	15	16	5	4	M12
20	3/4	727 705 007	-	0.101	100	75	34	43	15	18	6	4	M12
25	1	727 705 008	-	0.168	125	90	42	52	19	20	6	4	M16
32	1 1/4	727 705 009	-	0.195	135	100	51	63	19	21	7	4	M16
40	1 1/2	727 705 010	-	0.196	140	105	62	76	19	21	7	4	M16
50	2	727 705 011	-	0.228	155	120	78	92	19	21	8	4	M16
65	2 1/2	727 705 012	11	0.367	175	140	92	108	19	29	9	4	M16
80	3	727 705 013	9	0.414	185	150	110	127	19	30	10	8	M16
100	4	727 705 014	13	0.543	210	175	133	152	19	34	11	8	M16
150	6	727 705 017	-	1.097	280	240	190	215	23	44	15	8	M20

PF 2 34 238 006

27 70 55



PF 2 34 238 006

Backing flange PP-V JIS For butt fusion systems

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimensions: JIS B 2220, 10K

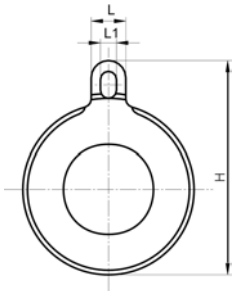
AL: number of holes

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	SC	AL	
225	200	10	727 705 520	2.640	330	290	238	23	32	M20	12	
280	250	10	727 705 522	2.640	400	355	294	25	36	M22	12	

SYGEF Plus Gasket

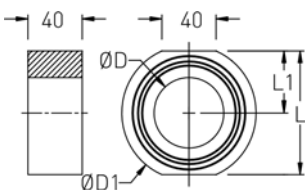
Model:

- For Use with Steel Flange Rings
- * Non-Returnable/Non-Cancelable



PF 2 37 344 001

d [mm]	Pipe Size [inch]	Code	SP	kg	H [inch]	L [inch]	L1 [inch]	
25	3/4	731 400 753	1	0.035	2.99	0.79	0.51	
32	1	731 400 755	1	0.040	3.58	0.98	0.63	
40	1 1/4	731 400 757	1	0.030	3.98	0.98	0.63	
50	1 1/2	731 400 759	1	0.055	4.33	0.98	0.63	
63	2	731 400 760	1	0.080	5.04	0.98	0.63	
75	2 1/2	731 400 761	1	0.100	5.83	0.98	0.63	
90	3	731 400 763	1	0.110	6.34	0.98	0.63	
110	4	731 400 764	1	0.165	7.44	0.98	0.63	
160	6	731 400 667	1	0.200	9.61	1.18	0.79	
200/225	8/9	731 400 670	1	0.305	11.81	1.18	0.79	
250	10	731 400 671	-	0.000	14.17	1.38	0.87	
315	12	731 400 672	-		16.50	1.38	0.87	



Wafer Blank, PN 16, PVDF-HP

d [mm]	PN	Code	SP	kg	L [mm]	L1 [mm]	D [mm]	D1 [mm]	
50	16	735 991 950	-	0.001	71	35	40	82	
63	16	735 991 951	-	0.071	94	47	51	102	
75	16	735 991 952	-	0.001	115	57	61	121	
90	16	735 991 953	-	0.108	127	63	73	133	
110	16	735 991 954	-	0.105	153	76	90	158	
160	16	735 991 955	-	0.001	208	104	130	212	
200	16	735 991 956	-	0.191	265	132	163	268	
225	16	735 991 957	-	0.185	265	132	184	268	
250	16	735 991 958	-	0.181	317	158	204	320	
315	16	735 991 959	1	0.001	368	184	257	370	

PF 2 37 423 002

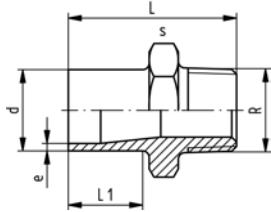
Transition fittings

35 91 07

SYGEF Plus adaptor nipple male thread R PN16

Model:

- Material: PVDF-HP
- With taper male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



PF 2 65 434 005

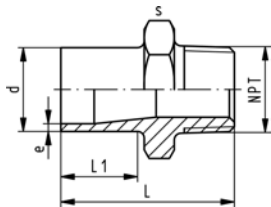
d [mm]	R [inch]	PN	FM	Code	kg	e [mm]	L [mm]	s [mm]	L1 [mm]	
20	½	16	BCF, IR	735 910 706	0.039	1.9	53	32	28	
25	¾	16	BCF, IR	735 910 707	0.021	1.9	55	36	28	
32	1	16	BCF, IR	735 910 708	0.034	2.4	57	46	28	
40	1 ¼	16	BCF, IR	735 910 709	0.058	2.4	60	55	28	
50	1 ½	16	BCF, IR	735 910 710	0.087	3.0	63	65	28	
63	2	16	BCF, IR	735 910 711	0.118	3.0	69	75	29	

35 91 43

SYGEF Plus adaptor nipple male thread NPT PN16

Model:

- Material: PVDF-HP
- With taper male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



PF 2 65 460 002

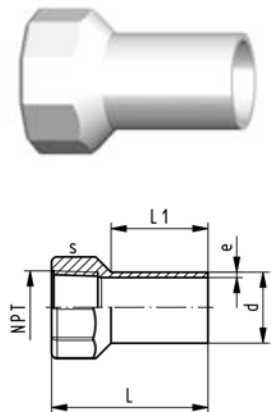
d [mm]	NPT [inch]	PN	FM	Code	kg	e [mm]	L [mm]	s [mm]	L1 [mm]	
20	½	16	BCF, IR	735 914 306	0.016	1.9	53	32	28	
25	¾	16	BCF, IR	735 914 307	0.021	1.9	55	36	28	
32	1	16	BCF, IR	735 914 308	0.035	2.4	57	46	28	
40	1 ¼	16	BCF, IR	735 914 309	0.057	2.4	60	55	28	
50	1 ½	16	BCF, IR	735 914 310	0.085	3.0	63	65	28	
63	2	16	BCF, IR	735 914 311	0.119	3.0	69	75	29	

35 91 07

SYGEF Plus adaptor socket female thread NPT PN10

Model:

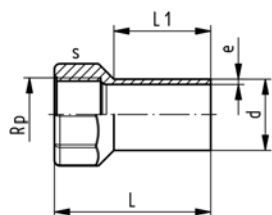
- Material: PVDF-HP
- Welding dimension: PN16
- With butt fusion spigot and taper female thread NPT
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVDF
- Avoid stresses when installing and large changes in temperature



PF 2 37 423 012

d [mm]	NPT [inch]	PN	FM	Code	e [mm]	L [mm]	s [mm]	L1 [mm]	
20	½	10	BCF, IR	735 914 486	1.9	58	30	37	
25	¾	10	BCF, IR	735 914 487	1.9	63	36	40	
32	1	10	BCF, IR	735 914 488	2.4	71	46	44	
40	1 ¼	10	BCF, IR	735 914 489	2.4	79	55	49	
50	1 ½	10	BCF, IR	735 914 490	3.0	84	60	55	
63	2	10	BCF, IR	735 914 491	3.0	97	75	63	

35 91 07



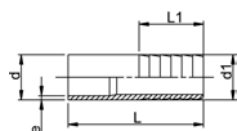
PF 2 37 423 011

SYGEF Plus adaptor socket female thread Rp PN10

Model:

- Material: PVDF-HP
- Welding dimension: PN16
- With butt fusion spigot and parallel female thread Rp
- Connection to plastic threads only
- Avoid stresses when installing and large changes in temperature
- Do not use thread sealing pastes that are harmful to PVDF

d [mm]	Rp [inch]	PN	FM	Code	e [mm]	L [mm]	s [mm]	L1 [mm]	
20	½	10	BCF, IR	735 910 486	1.9	58	30	37	
25	¾	10	BCF, IR	735 910 487	1.9	63	36	40	
32	1	10	BCF, IR	735 910 488	2.4	71	46	44	
40	1 ¼	10	BCF, IR	735 910 489	2.4	79	55	49	
50	1 ½	10	BCF, IR	735 910 490	3.0	84	60	55	
63	2	10	BCF, IR	735 910 491	3.0	97	75	63	



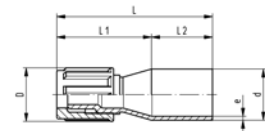
PF 2 37 423 006

SYGEF Plus hose adapters

Model:

- Material: PVDF-HP
- With butt fusion spigot and parallel hose connection.

d - d1 [mm]	PN	FM	Code	kg	e [mm]	L [mm]	L1 [mm]	
20 - 20	16	BCF, IR	735 968 731	0.015	1.9	64	27	
25 - 25	16	BCF, IR	735 968 732	0.024	1.9	75	36	
32 - 32	16	BCF, IR	735 968 733	0.042	2.4	82	36	
40 - 40	16	BCF, IR	735 968 734	0.063	2.4	84	42	
50 - 50	16	BCF, IR	735 968 735	0.150	3.0	90	48	
63 - 60	16	BCF, IR	735 968 736	0.001	3.0	100	50	



PF 2 37 423 007

SYGEF Plus flare transition fitting PN10

Model:

- Material: PVDF-HP
- Welding dimension: PN16

d [mm]	tube size [inch]	PN	FM	Code	SP	kg	e [mm]	L [mm]	L1 [mm]	L2 [mm]	D [mm]	
20	¾	10	BCF, IR	735 598 430	1	0.028	1.9	75	45	30	21	
20	¾	10	BCF, IR	735 598 431	1	0.022	1.9	76	46	30	23	
20	½	10	BCF, IR	735 598 432	1	0.034	1.9	77	47	30	26	
20	¾	10	BCF, IR	735 598 433	1	0.043	1.9	78	48	30	34	
25	¾	10	BCF, IR	735 598 435	1	0.033	1.9	75	45	30	21	
25	¾	10	BCF, IR	735 598 436	1	0.025	1.9	76	46	30	23	
25	½	10	BCF, IR	735 598 437	1	0.028	1.9	77	47	30	26	
25	¾	10	BCF, IR	735 598 438	1	0.050	1.9	78	48	30	34	
25	1	10	BCF, IR	735 598 439	1	0.102	1.9	87	57	30	46	
32	½	10	BCF, IR	735 598 442	1	0.036	2.4	77	47	30	26	
32	¾	10	BCF, IR	735 598 443	1	0.048	2.4	78	48	30	34	
32	1	10	BCF, IR	735 598 444	1	0.107	2.4	87	57	30	46	

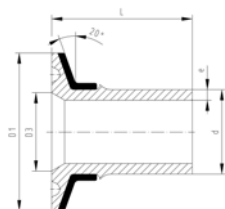
Sanitary adaptors

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 Ferrule ISO 1127

Model:

- Material: PVDF-HP

* Model without chamfer



PF 2 65 456 001

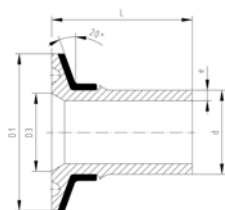
d [mm]	DN [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	15	16	BCF, IR	735 598 006	0.032	1.9	50.5	18.1	50	
25	20	16	BCF, IR	735 598 008	0.042	1.9	50.5	23.4	55	
25	25	16	BCF, IR	735 598 009	0.041	1.9	50.5	29.7	55	
32	25	16	BCF, IR	735 598 010	0.045	2.4	50.5	29.6	57	
40	32	16	BCF, IR	735 598 014	0.073	2.4	64.0	38.4	67	
* 50	40	16	BCF, IR	735 598 016	0.083	3.0	64.0	44.3	68	
* 63	50	16	BCF, IR	735 598 018	0.107	3.0	77.5	56.3	71	

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 Ferrule DIN 32676

Model:

- Material: PVDF-HP

* Model without chamfer



PF 2 65 456 001

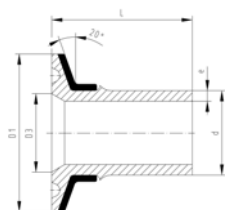
d [mm]	DN [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
* 20	15	16	BCF, IR	735 598 056	0.020	1.9	34.0	16.0	50	
20	20	16	BCF, IR	735 598 057	0.020	1.9	34.0	20.0	50	
25	25	16	BCF, IR	735 598 059	0.056	1.9	50.5	26.0	55	
32	32	16	BCF, IR	735 598 062	0.045	2.4	50.5	31.7	57	
40	40	16	BCF, IR	735 598 065	0.047	2.4	50.5	38.0	67	
50	50	16	BCF, IR	735 598 067	0.081	3.0	64.0	50.0	68	

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 Ferrule BS Inch 4825

Model:

- Material: PVDF-HP

* Model without chamfer



PF 2 65 456 001

d [mm]	Inch	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	3/4	16	BCF, IR	735 598 157	0.040	1.9	50.5	22.1	50	
* 25	1	16	BCF, IR	735 598 159	0.042	1.9	50.5	22.4	55	
32	1 1/2	16	BCF, IR	735 598 163	0.044	2.4	50.5	34.9	57	
40	1 1/2	16	BCF, IR	735 598 165	0.047	2.4	50.5	35.5	67	
50	2	16	BCF, IR	735 598 167	0.082	3.0	64.0	47.7	68	
63	2 1/2	16	BCF, IR	735 598 169	0.107	3.0	77.5	59.9	71	



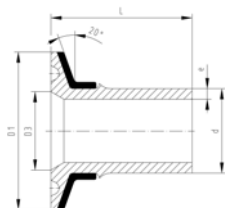
SYGEF Plus sanitary adaptor With stainless reinforcement PN16 Ferrule 3A Standard

Model:

- Material: PVDF-HP

¹ Model without stainless reinforcement

* Model without chamfer

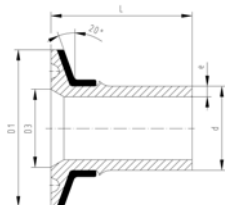


PF 2 65 456 001

d [mm]	Inch	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
¹ * 20	3/4	16	BCF, IR	735 598 207	0.011	1.9	25.0	16.2	50	
* 25	1	16	BCF, IR	735 598 209	0.042	1.9	50.5	22.4	55	
32	1 1/2	16	BCF, IR	735 598 213	0.044	2.4	50.5	34.9	57	
40	1 1/2	16	BCF, IR	735 598 215	0.047	2.4	50.5	35.5	67	
50	2	16	BCF, IR	735 598 217	0.082	3.0	64.0	47.7	68	
63	2 1/2	16	BCF, IR	735 598 219	0.107	3.0	77.5	59.9	71	



SYGEF Plus sanitary adaptor With stainless reinforcement PN16 DIN 3017

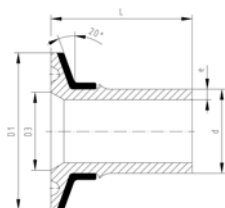


PF 2 65 456 001

d [mm]	DN [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
25	25	16	BCF, IR	735 598 259	0.042	1.9	50.5	22.4	55	
32	32	16	BCF, IR	735 598 262	0.042	2.4	50.5	31.7	57	
40	40	16	BCF, IR	735 598 265	0.047	2.4	50.5	35.5	67	
50	50	16	BCF, IR	735 598 267	0.081	3.0	64.0	48.6	68	
63	65	16	BCF, IR	735 598 269	0.107	3.0	77.5	59.9	71	

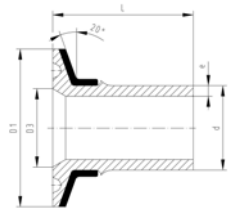


SYGEF Plus sanitary adaptor With stainless reinforcement PN16 ISO 2852



PF 2 65 456 001

d [mm]	DN [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
25	25	16	BCF, IR	735 598 309	0.042	1.9	50.5	22.4	55	
32	32	16	BCF, IR	735 598 312	0.045	2.4	50.5	31.7	57	
40	40	16	BCF, IR	735 598 315	0.047	2.4	50.5	35.5	67	
50	50	16	BCF, IR	735 598 317	0.081	3.0	64.0	48.6	68	
63	65	16	BCF, IR	735 598 319	0.107	3.0	77.5	59.9	71	



PF 2 65 456 001

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 ASME BPE

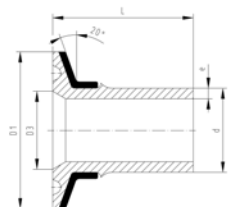
Model:

- Material: PVDF-HP

¹ Model without stainless reinforcement

* Model without chamfer

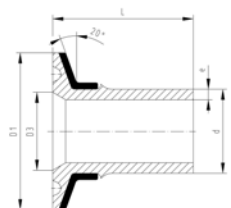
d [mm]	Inch	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	¾	16	BCF, IR	735 598 357	0.011	1.9	25.0	16.2	49	
25	1	16	BCF, IR	735 598 359	0.042	1.9	50.5	22.4	55	
32	1 ½	16	BCF, IR	735 598 362	0.061	2.4	50.5	34.9	57	
40	1 ½	16	BCF, IR	735 598 365	0.047	2.4	50.5	35.5	57	
50	2	16	BCF, IR	735 598 367	0.118	3.0	64.0	47.7	68	
63	2 ½	16	BCF, IR	735 598 369	0.150	3.0	77.5	59.9	71	



PF 2 65 456 001

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 JIS G3447

d [mm]	DN	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	15 A	16	BCF, IR	735 598 406	0.020	1.9	34.0	17.5	49	
25	1 S	16	BCF, IR	735 598 408	0.042	1.9	50.5	23.4	55	
32	1 1/4 S	16	BCF, IR	735 598 410	0.045	2.4	50.5	29.6	57	
40	1 1/2 S	16	BCF, IR	735 598 414	0.047	2.4	50.5	35.2	67	
50	2 S	16	BCF, IR	735 598 416	0.082	3.0	64.0	47.7	68	
63	2 1/2 S	16	BCF, IR	735 598 418	0.107	3.0	77.5	59.9	71	



PF 2 65 456 001

SYGEF Plus sanitary adaptor With stainless reinforcement PN16 Ferrule for mebrane manometer

d [mm]	DN [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	15	16	BCF, IR	735 598 506	0.038	1.9	50.5	34.1	49	
25	20	16	BCF, IR	735 598 508	0.041	1.9	50.5	34.1	55	
32	25	16	BCF, IR	735 598 510	0.045	2.4	50.5	34.1	57	



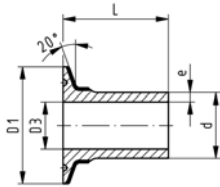
SYGEF Plus sanitary adaptor With stainless reinforcement PN16 For PVDF-PVDF connection

Model:

- Material: PVDF-HP
- without chamfer for complete evacuation even in horizontal installation

Note:

to be connected with standard clamp - please see dimension D1



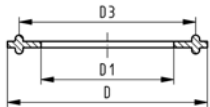
PF 2 65 456 001

d [mm]	PN	FM	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]	
20	16	BCF, IR	735 598 806	0.041	1.9	50.5	16.7	49	
25	16	BCF, IR	735 598 807	0.044	1.9	50.5	19.9	55	
32	16	BCF, IR	735 598 808	0.049	2.4	50.5	25.6	57	
40	16	BCF, IR	735 598 809	0.079	2.4	64.0	33.4	67	
50	16	BCF, IR	735 598 810	0.090	3.0	64.0	42.2	68	
63	16	BCF, IR	735 598 811	0.118	3.0	77.5	55.1	71	

Gasket PTFE

Model:

- Special gaskets for Sanitary Adaptors PVDF-PVDF connection only

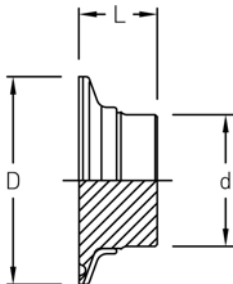


PF 2 65 456 003

d [mm]	Code	kg	D [mm]	D1 [mm]	D3 [mm]	
20	743 400 806	0.018	50.5	16.9	43.5	
25	743 400 807	0.017	50.5	20.1	43.5	
32	743 400 808	0.017	50.5	25.8	43.5	
40	743 400 809	0.022	64.0	33.6	56.5	
50	743 400 810	0.019	64.0	42.5	56.5	
63	743 400 811	0.027	77.5	55.4	70.5	

Sanitary Blank, PN 16/PN 10, PVDF-HP

**Does not use a sanitary backing ring

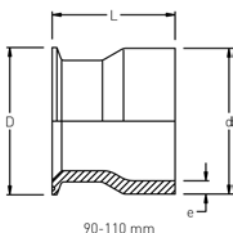
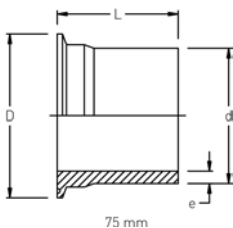


PF 2 37 423 002

Tube (3A)	PN	Code	SP	kg	D [mm]	d [mm]	L [mm]	
3/4	16	735 992 390	-	0.001	25	20	13	
1 & 1 1/2	16	735 992 391	-	0.001	51	32	19	
2	16	735 992 392	-	0.001	64	50	19	
2 1/2	16	735 992 393	-	0.001	78	63	19	
3	10	735 992 394	-	0.001	91	75	19	
4	10	735 992 395	-	0.001	117	103	25	

Large Sanitary Adapter, PN 10, PVDF-HP

**Does not use a sanitary backing ring



PF 2 37 423 002

d [mm]	Tube (3A) [inch]	PN	FM	Code	SP	kg	e [mm]	D [mm]	L [mm]	
75	3	10	BCF, IR	735 598 370	-	0.198	3.6	91	67	
90	3	10	BCF, IR	735 598 371	-	0.210	4.3	91	76	
110	4	10	BCF, IR	735 598 372			5.3	119	76	

Diaphragm valves new generation

SYGEF Plus

Diaphragm valve type 514

With butt fusion spigots metric

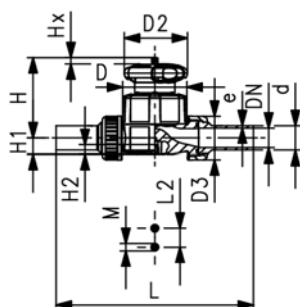


Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	16	125	180 514 132	0.399
25	20	16	271	180 514 133	0.597
32	25	16	481	180 514 134	1.111
40	32	16	759	180 514 135	1.286
50	40	16	1263	180 514 136	2.989
63	50	16	1728	180 514 137	3.164

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch
20	65	65	43	196	25	73	14	12	M6	7	1.9	1/2
25	80	65	53	221	25	81	18	12	M6	10	1.9	3/4
32	88	87	60	234	25	107	22	12	M6	13	2.4	1
40	101	87	74	260	45	115	26	15	M8	15	2.4	1 1/4
50	117	135	82	284	45	148	32	15	M8	19	3.0	1 1/2
63	144	135	100	321	45	166	39	15	M8	25	3.0	2

PF 2 37 773 020

SYGEF Plus

Diaphragm valve type 515

With butt fusion spigots metric

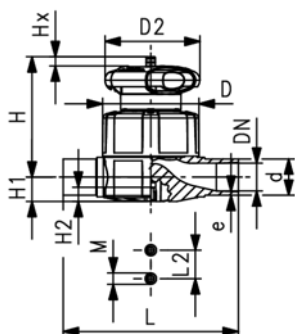


Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

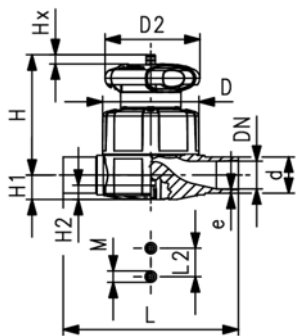
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	16	125	180 515 132	0.295
25	20	16	271	180 515 133	0.438
32	25	16	481	180 515 134	0.870
40	32	16	759	180 515 135	1.103
50	40	16	1263	180 515 136	1.846
63	50	16	1728	180 515 137	2.512

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch
20	65	65	124	25	73	14	12	M6	7	1.9	1/2
25	80	65	144	25	81	18	12	M6	10	1.9	3/4
32	88	87	155	25	107	22	12	M6	13	2.4	1

table continued next page



PF 2 37 773 010

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch	
40	101	87	176	45	115	26	15	M8	15	2.4	1 ¼	
50	117	135	193	45	148	32	15	M8	19	3.0	1 ½	
63	144	135	223	45	166	39	15	M8	25	3.0	2	



SYGEF Plus Diaphragm valve type 317 With flanges metric

Model:

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm PTFE with EPDM backing diaphragm (FDA compliant)

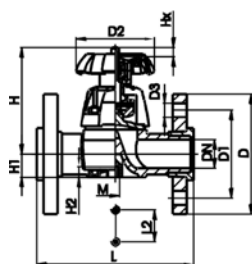
Option:

- Handwheel with built-in locking mechanism (standard version is nonlockable)

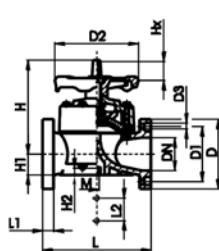
* DN80 and DN150 fixed flanges metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	PTFE/EPDM Code	kg	
75	65	2 ½	10	992	175 317 453	5.700	
* 90	80	3	10	1700	175 317 054	11.057	
110	100	4	10	2700	175 317 055	16.112	
* 160	150	6	7	6033	175 317 057	31.000	

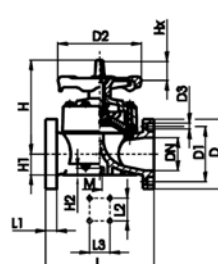
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	M	AL	
75	185	145	152	18	201	46	15	290		70		M8	4	
* 90	200	152	270	18	265	57	23	310	35	120		M12	8	
110	225	180	270	18	302	68	23	350	35	120		M12	8	
* 160	285	240	400	22	437	108	23	480	26	100	200	M12	8	



DN 15-65



DN 80-100



DN 150

PF 2 37 206 002



SYGEF Plus

Diaphragm valve type 317

Flanged version Inch ANSI

Model:

- Material: PVDF-HP
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Diaphragm PTFE with EPDM backing diaphragm (FDA compliant)

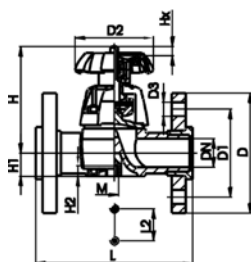
Option:

- Handwheel with built-in locking mechanism (standard version is nonlockable)

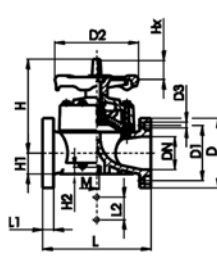
* DN80 and DN150 fixed flanges metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE with EPDM supp. Diaphragm Code	kg	
75	65	2 1/2	10	992	175 317 568	5.700	
* 90	80	3	10	1700	175 317 054	11.057	
110	100	4	10	2700	175 317 355	14.950	

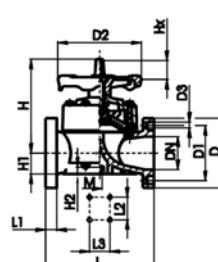
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	M	AL	
75	185	140	152	18	201	46	15	290		70	M8	4	
* 90	200	152	270	18	265	57	23	310	35	120	M12	8	
110	225	191	270	18	302	68	23	350	35	120	M12	8	



DN 15-65



DN 80-100



DN 150

PF 2 37 206 002



SYGEF Plus

Diaphragm valve type 519

With butt fusion spigots metric

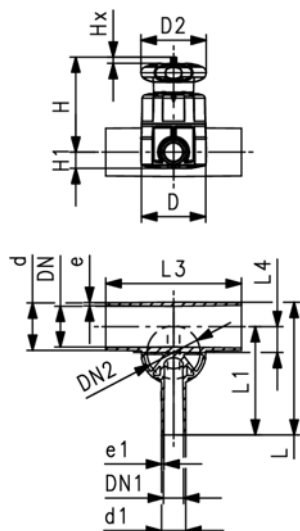
Model:

- Material: PVDF-HP
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

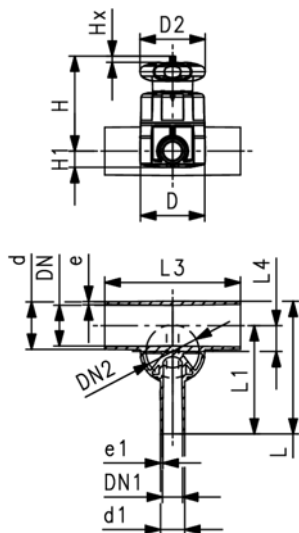
* Available on request



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg	
20	20	15	15	15	16	57	180 519 301	0.350	
25	20	20	15	20	16	89	180 519 303	0.476	
25	25	20	20	20	16	118	180 519 304	0.633	
32	20	25	15	20	16	80	180 519 307	0.692	
32	25	25	20	20	16	105	180 519 308	0.721	
32	32	25	25	25	16	231	180 519 309	0.889	
40	20	32	15	25	16	85	180 519 312	0.963	
40	25	32	20	25	16	119	180 519 313	0.812	
40	32	32	25	25	16	153	180 519 314	0.845	
40	40	32	32	25	16	187	180 519 315	0.866	
50	20	40	15	20	16	86	180 519 318	0.789	
50	25	40	20	25	16	160	180 519 319	0.905	
50	32	40	25	25	16	206	180 519 320	0.926	
50	40	40	32	50	16	524	180 519 321	2.381	
50	50	40	40	50	16	667	180 519 322	2.387	
63	20	50	15	20	16	84	180 519 325	0.784	
63	25	50	20	25	16	150	180 519 326	1.411	
63	32	50	25	25	16	184	180 519 327	1.018	
63	40	50	32	50	16	471	180 519 328	2.606	
63	50	50	40	50	16	610	180 519 329	3.458	
63	63	50	50	50	16	747	180 519 330	2.653	
* 75	40	65	32	25	16	221	180 519 336	1.570	
* 75	50	65	40	50	16	641	180 519 337	3.650	
* 75	63	65	50	50	16	771	180 519 338	3.696	
90	20	80	15	25	16	82	180 519 341	1.304	
90	25	80	20	25	16	103	180 519 342	1.703	
90	32	80	25	25	16	129	180 519 343	1.719	
90	50	80	40	50	16	623	180 519 345	3.164	
90	63	80	50	50	16	696	180 519 346	3.172	
110	20	100	15	25	16	78	180 519 351	1.966	
110	25	100	20	25	16	103	180 519 352	1.972	
110	32	100	25	25	16	131	180 519 353	1.975	
110	50	100	40	50	16	604	180 519 355	4.327	
110	63	100	50	50	16	661	180 519 356	3.580	

d [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]	closest inch	
20	65	65	117	96	162	12	75	7	1.9	1.9	½	
25	80	65	133	108	162	16	80	10	1.9	1.9	¾	
25	80	65	133	108	162	16	80	10	1.9	1.9	¾	
32	80	65	142	120	162	19	84	10	2.4	1.9	1	
32	80	65	142	120	162	19	84	10	2.4	1.9	1	
32	88	87	145	120	160	19	107	13	2.4	2.4	1	
40	88	87	149	128	180	23	115	13	2.4	1.9	1 ¼	
40	88	87	149	128	180	23	115	13	2.4	1.9	1 ¼	
40	88	87	149	128	180	23	115	13	2.4	2.4	1 ¼	
40	88	87	174	153	180	23	115	13	2.4	2.4	1 ¼	
50	80	65	160	134	180	27	97	10	3.0	1.9	1 ½	

table continued next page



d [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]	closest inch	
50	88	87	160	134	180	28	120	13	3.0	1.9	1 ½	
50	88	87	160	134	180	28	120	13	3.0	2.4	1 ½	
50	144	135	209	169	209	33	164	25	3.0	2.4	1 ½	
50	144	135	209	169	209	33	164	25	3.0	3.0	1 ½	
63	80	65	177	144	180	33	104	10	3.0	1.9	2	
63	88	87	177	144	180	35	127	13	3.0	1.9	2	
63	88	87	177	144	180	35	127	13	3.0	2.4	2	
63	144	135	225	192	220	39	170	25	3.0	2.4	2	
63	144	135	225	192	220	39	170	25	3.0	3.0	2	
63	144	135	225	192	220	39	170	25	3.0	3.0	2	
* 75	88	87	205	166	190	40	133	13	3.6	2.4	2 ½	
* 75	144	135	237	198	250	44	176	25	3.6	3.0	2 ½	
* 75	144	135	237	198	250	44	176	25	3.6	3.0	2 ½	
90	88	87	205	159	190	47	140	13	4.3	1.9	3	
90	88	87	205	159	190	47	140	13	4.3	1.9	3	
90	88	87	205	159	190	47	140	13	4.3	2.4	3	
90	144	135	254	207	250	51	184	25	4.3	3.0	3	
90	144	135	254	207	250	51	184	25	4.3	3.0	3	
110	88	87	227	171	190	56	149	13	5.3	1.9	4	
110	88	87	227	171	190	56	149	13	5.3	1.9	4	
110	88	87	227	171	190	56	149	13	5.3	2.4	4	
110	144	135	276	219	250	60	194	25	5.3	3.0	4	
110	144	135	276	219	250	60	194	25	5.3	3.0	4	

PF 2 37 773 040

Spare parts for hand-operated valves Type 514/515/517/519



Bonnet complete



d [mm]	Inch	DN [mm]	Standard configu- ration PN16 Code	For pressure tight housing PN16 Code	kg	
20	¾	15	198 151 842	198 151 852	0.137	
25	1	20	198 151 843	198 151 853	0.177	
32	1 ¼	25	198 151 844	198 151 854	0.366	
40	1 ½	32	198 151 845	198 151 855	0.390	
50	2	40	198 151 846	198 151 856	0.746	
63	2 ½	50	198 151 847	198 151 857	1.016	

PF 2 31 780 998



Hand wheel

Model:

- Without position indicator

DN [mm]	Code	kg	
15 - 20	198 204 162	0.024	
25 - 32	198 204 164	0.056	
40 - 50	198 104 166	0.190	

PF 2 31 780 998

Position indicator



d [mm]	Inch	DN [mm]	Code	kg	
20	½	15	167 484 992	0.011	
25	¾	20	167 484 993	0.011	
32	1	25	167 484 994	0.013	
40	1 ¼	32	167 484 995	0.012	
50	1 ½	40	167 484 996	0.014	
63	2	50	167 484 997	0.015	

PF 2 31 780 998

Spindle assembly

Model:

- Incl. position indicator and compressor



DN-DN [mm]	Code	kg	
15 - 20	198 204 327	0.049	
25 - 32	198 204 328	0.135	
40 - 50	198 204 329	0.251	

PF 2 31 780 998

Seal set

Model:

- For manual valve - pressure tight housing
- Incl. position indicator



d [mm]	Inch	DN [mm]	EPDM Code	kg	
20	½	15	198 000 892	0.004	
25	¾	20	198 000 893	0.004	
32	1	25	198 000 894	0.007	
40	1 ¼	32	198 000 895	0.006	
50	1 ½	40	198 000 896	0.008	
63	2	50	198 000 897	0.009	

PF 2 31 780 998

Spare parts diaphragm

For type 514/515/517/519



d [mm]	Inch	DN [mm]	PTFE/EPDM HP Code	kg	
20	½	15	747 502 032	0.020	
25	¾	20	747 502 033	0.028	
32	1	25	747 502 034	0.040	
40	1 ¼	32	747 502 035	0.066	
50	1 ½	40	747 502 036	0.085	
63	2	50	747 502 037	0.120	

PF 2 31 780 997

Spare parts for valve body type 514

Valve body with true union

Model:

- Without connection parts



PF 2 37 773 998

d [mm]	Inch	DN [mm]	PVDF HP Code	kg	
20	½	15	180 001 002	0.145	
25	¾	20	180 001 003	0.231	
32	1	25	180 001 004	0.310	
40	1 ¼	32	180 001 005	0.492	
50	1 ½	40	180 001 006	0.737	
63	2	50	180 001 007	1.301	

Union nut



PF 2 35 191 999

d [mm]	Inch	DN [mm]	PVDF Code	kg	
20	½	15	735 690 406	0.021	
25	¾	20	735 690 407	0.032	
32	1	25	735 690 408	0.044	
40	1 ¼	32	735 690 409	0.065	
50	1 ½	40	735 690 410	0.093	
63	2	50	735 690 411	0.143	

O-ring



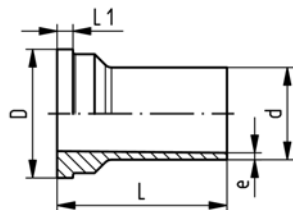
PF 2 31 156 999

d [mm]	Inch	DN [mm]	FPM for PVDF-HP Code	kg	
20	½	15	749 411 005	0.002	
25	¾	20	749 411 006	0.003	
32	1	25	749 411 120	0.002	
40	1 ¼	32	749 411 062	0.003	
50	1 ½	40	749 411 172	0.001	
63	2	50	749 411 054	0.005	

SYGEF Plus union end PN16

Model:

- Material: PVDF-HP
- Suitable for SYGEF Plus Union Butt Fusion
- Suitable for Diaphragm Valves Type 314 and 514
- Suitable for Vortex Sensor



PF 2 37 230 999

d [mm]	PN	FM	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	
20	16	BCF, IR	735 608 626	0.019	30	1.9	53	5	
25	16	BCF, IR	735 608 627	0.032	39	1.9	56	5	
32	16	BCF, IR	735 608 628	0.043	45	2.4	59	6	
40	16	BCF, IR	735 608 629	0.070	57	2.4	62	6	
50	16	BCF, IR	735 608 630	0.083	63	3.0	65	7	
63	16	BCF, IR	735 608 631	0.130	78	3.0	68	8	

Spare parts for valve body type 515

Valve body with spigot ends



d [mm]	Inch	DN [mm]	PVDF-HP butt fu- sion spigot IR Code	kg	
20	½	15	180 001 012	0.138	
25	¾	20	180 001 013	0.214	
32	1	25	180 001 014	0.292	
40	1 ¼	32	180 001 015	0.449	
50	1 ½	40	180 001 016	0.703	
63	2	50	180 001 017	1.231	

PF 2 37 773 998

Spare parts for valve body type 519

Valve body with butt fusion spigot



d [mm]	Inch	PVDF-HP Code	kg	
20 - 20	½	180 001 101	0.171	
25 - 20	¾	180 001 102	0.236	
25 - 25	¾	180 001 103	0.239	
32 - 20	1	180 001 104	0.289	
32 - 25	1	180 001 105	0.293	
32 - 32	1	180 001 106	0.334	
40 - 20	1 ¼	180 001 107	0.388	
40 - 25	1 ¼	180 001 108	0.392	
40 - 32	1 ¼	180 001 109	0.410	
40 - 40	1 ¼	180 001 110	0.439	
50 - 20	1 ½	180 001 111	0.408	
50 - 25	1 ½	180 001 112	0.478	
50 - 32	1 ½	180 001 113	0.483	
50 - 40	1 ½	180 001 114	1.101	
50 - 50	1 ½	180 001 115	1.111	
63 - 20	2	180 001 116	0.485	
63 - 25	2	180 001 117	0.563	
63 - 32	2	180 001 118	0.569	
63 - 40	2	180 001 119	1.278	
63 - 50	2	180 001 120	1.343	
63 - 63	2	180 001 121	1.356	
90 - 25	3	180 001 126	0.855	
90 - 32	3	180 001 127	0.871	
90 - 50	3	180 001 128	1.796	
90 - 63	3	180 001 129	1.824	

table continued next page

PF 2 37 773 998

d [mm]	Inch	PVDF-HP Code	kg	
110 - 20	4	180 001 130	1.118	
110 - 25	4	180 001 131	1.124	
110 - 32	4	180 001 132	1.141	
110 - 50	4	180 001 133	2.212	
110 - 63	4	180 001 134	2.242	

Diaphragm valves pneumatic

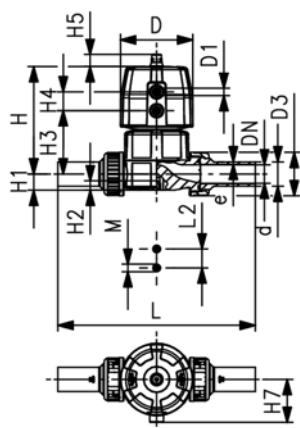
New generation

SYGEF Plus

Diaphragm valve DIASTAR Sixteen

FC (Fail safe to close)

Unions with butt fusion spigots metric



Model:

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

Option:

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

* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	16/16*	240/140*	125	180 634 132	1.172
25	20	16/16*	240/140*	271	180 634 133	1.381
32	25	16/16*	240/140*	481	180 634 134	2.225
40	32	16/16*	240/140*	759	180 634 135	3.730
50	40	16/16*	240/140*	1263	180 634 136	5.786
63	50	16/10*	240/150*	1728	180 634 137	6.880

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	3.0

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 720



SYGEF Plus

Diaphragm valve DIASTAR Sixteen

FC (Fail safe to close)

With butt fusion spigots metric

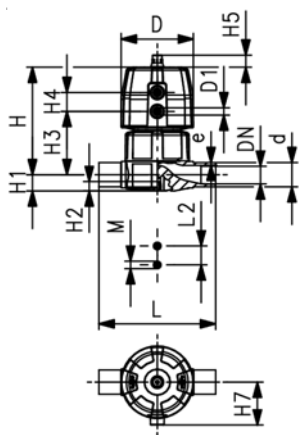
Model:

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

Option:

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

* PN: PTFE/EPDM

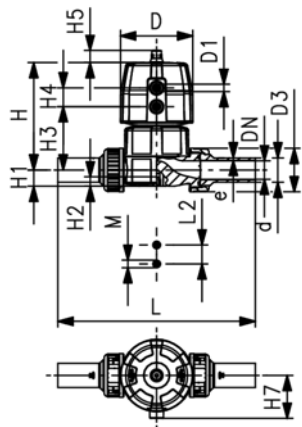


d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	16/16*	240/140*	125	180 635 132	1.079
25	20	16/16*	240/140*	271	180 635 133	1.208
32	25	16/16*	240/140*	481	180 635 134	2.021
40	32	16/16*	240/140*	759	180 635 135	3.349
50	40	16/16*	240/140*	1263	180 635 136	5.288
63	50	16/10*	240/150*	1728	180 635 137	6.150

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	1.9
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.4
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	2.4
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	3.0
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	3.0

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 710



SYGEF Plus

Diaphragm valve DIASTAR Ten

FC (Fail safe to close)

Unions with butt fusion spigots metric

Model:

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

Option:

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

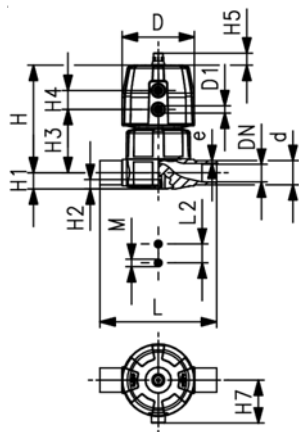
* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg	
20	15	10/10*	150/150*	125	180 624 132	0.761	
25	20	10/10*	150/150*	271	180 624 133	1.363	
32	25	10/10*	150/150*	481	180 624 134	1.563	
40	32	10/10*	150/150*	759	180 624 135	2.623	
50	40	10/10*	150/150*	1263	180 624 136	4.323	
63	50	10/6*	150/90*	1728	180 624 137	5.365	

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]	
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9	
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9	
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4	
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4	
50	150	1/4	284	45	214	32	15	119	36	26	88	M8	19	3.0	
63	150	1/4	321	45	226	39	15	132	36	26	88	M8	23	3.0	

d [mm]	closest inch	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	

PF 3 39 772 720



SYGEF Plus

Diaphragm valve DIASTAR Ten

FC (Fail safe to close)

With butt fusion spigots metric

Model:

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

Option:

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

* PN: PTFE/EPDM

d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	10/10*	150/150*	125	180 625 132	0.668
25	20	10/10*	150/150*	271	180 625 133	1.113
32	25	10/10*	150/150*	481	180 625 134	1.402
40	32	10/10*	150/150*	759	180 625 135	2.242
50	40	10/10*	150/150*	1263	180 625 136	3.825
63	50	10/6*	150/90*	1728	180 625 137	4.635

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

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 710



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function FC (Fail safe to close)

With fixed flanges PVDF metric

Model:

- Material: PVDF-HP
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **both sides**

* With backing flanges PP-V

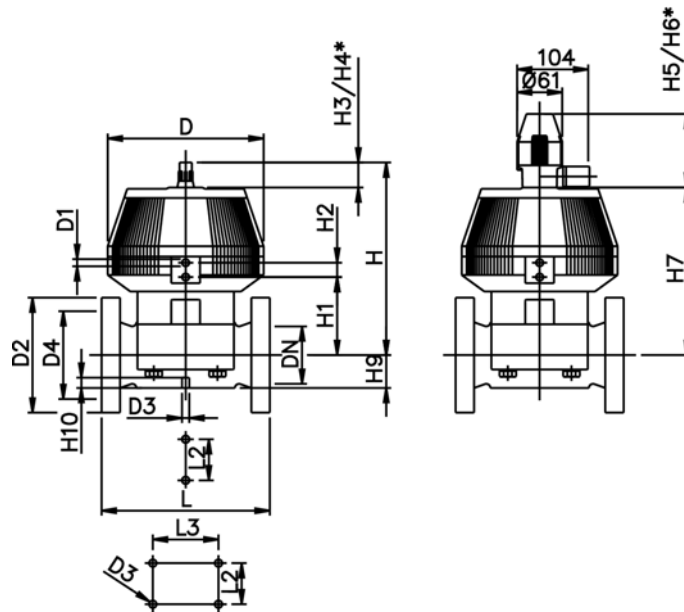
** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 75	65	2 1/2	10	992	199 025 447	13.600
** 90	80	3	10	1700	199 025 448	17.400
110	100	4	6	2700	199 025 449	24.700

table continued next page

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 75	280	¼	8	185	145	290	70	344	148	24	46	100	129	195
** 90	280	¼	12	200	160	310	120	348	150	24	46	100	129	195
110	335	¼	12	225	180	350	120	395	176	24	46	100	129	195

d [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	298	46	15
** 90	302	57	15
110	349	69	20



PF 3 39 212 118



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function FC (Fail safe to close)

With fixed flanges PVDF Inch ANSI

Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: **both sides**

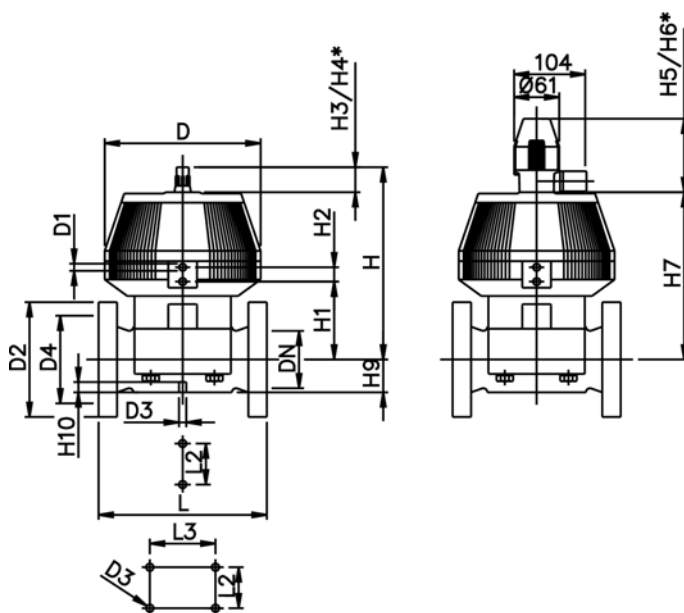
* With backing flanges PP-V

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

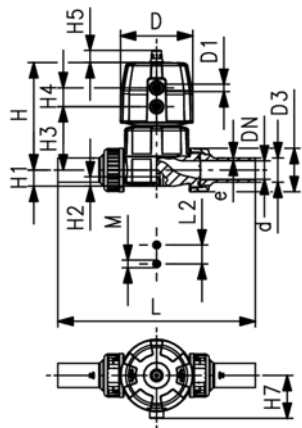
Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 2 1/2	65	10	992	199 025 387	14.200
** 3	80	10	1700	199 025 448	17.400
4	100	6	2700	199 025 389	26.500

Inch	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
* 2 1/2	280	1/4	8	185	145	290	70	344	148	24	46	100	129	195
** 3	280	1/4	12	200	160	310	120	348	150	24	46	100	129	195
4	335	1/4	12	225	180	350	120	395	176	24	46	100	129	195

Inch	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	298	46	15
** 3	302	57	15
4	349	69	20



PF 3 39 212 118



SYGEF Plus

Diaphragm valve DIASTAR Ten

FO (Fail safe to open)

Unions with butt fusion spigots metric

Model:

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

Option:

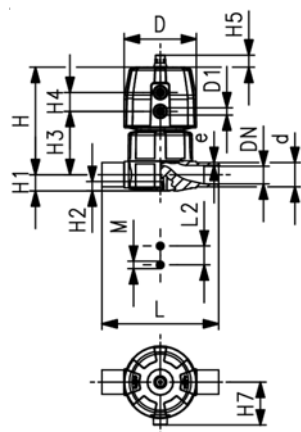
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	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]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 720



SYGEF Plus

Diaphragm valve DIASTAR Ten

FO (Fail safe to open)

With butt fusion spigots metric

Model:

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

Option:

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

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

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 710



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function FO (Fail safe to open)

With fixed flanges PVDF metric

Model:

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

* With backing flanges PP-V

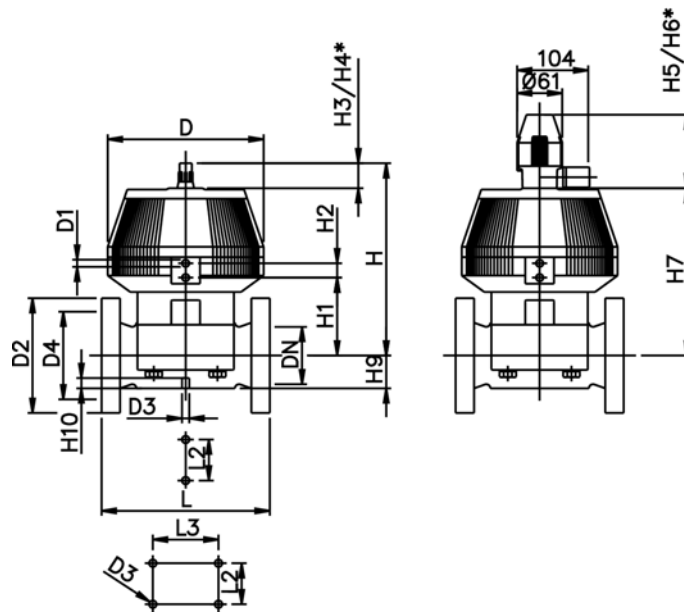
** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 75	65	2 1/2	10	992	199 025 457	13.600
** 90	80	3	10	1700	199 025 458	17.400
110	100	4	6	2700	199 025 459	24.700
** 160	150	6	6	6033	199 025 460	35.000

table continued next page

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

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



PF 3 39 212 119



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function FO (Fail safe to open)

With fixed flanges PVDF Inch ANSI

Model:

- Material: PVDF-HP
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- With position indicator / Working pressure: on one side

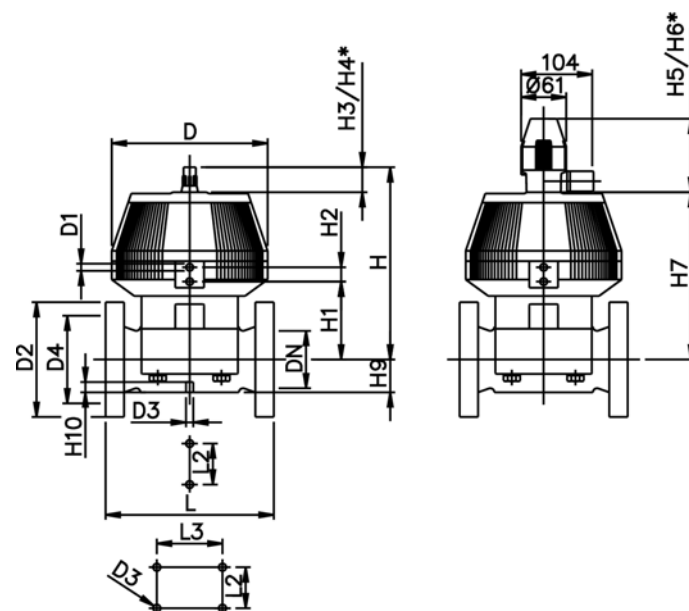
* With backing flanges PP-V

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

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

Inch	D [mm]	D1_G [inch]	D3[M] [mm]	D2 [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	8	185	145	290	70		344	148	24	46	100	129
** 3	280	1/4	12	200	160	310	120		348	150	24	46	100	129
4	335	1/4	12	225	180	350	120		395	176	24	46	100	129
** 6	335	1/4	12	285	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



PF 3 39 212 119



SYGEF Plus

Diaphragm valve DIASTAR Ten

DA (Double acting)

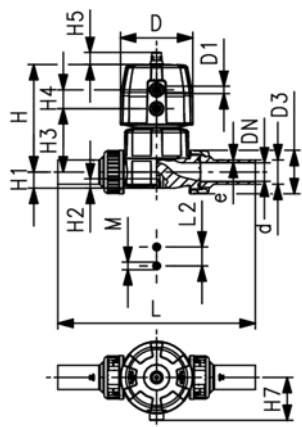
Unions with butt fusion spigots metric

Model:

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

Option:

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

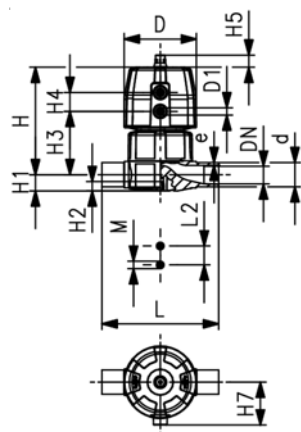


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
20	15	10	125	180 654 132	0.695
25	20	10	271	180 654 133	1.153
32	25	10	481	180 654 134	1.396
40	32	10	759	180 654 135	2.203
50	40	10	1263	180 654 136	3.483
63	50	10	1728	180 654 137	4.525

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	1.9
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.4
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	2.4
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	3.0
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	3.0

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 720



SYGEF Plus

Diaphragm valve DIASTAR Ten

DA (Double acting)

With butt fusion spigots metric

Model:

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

Option:

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

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

d [mm]	closest inch
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2

PF 3 39 772 710



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function DA (Double acting)

With fixed flanges PVDF metric

Model:

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

* With backing flanges PP-V

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

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE/EPDM Code	kg
* 75	65	2 1/2	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

table continued next page



SYGEF Plus

Diaphragm valve type DIASTAR 025

Function DA (Double acting)

With fixed flanges PVDF Inch ANSI

Model:

- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

- With position indicator / Working pressure: on one side

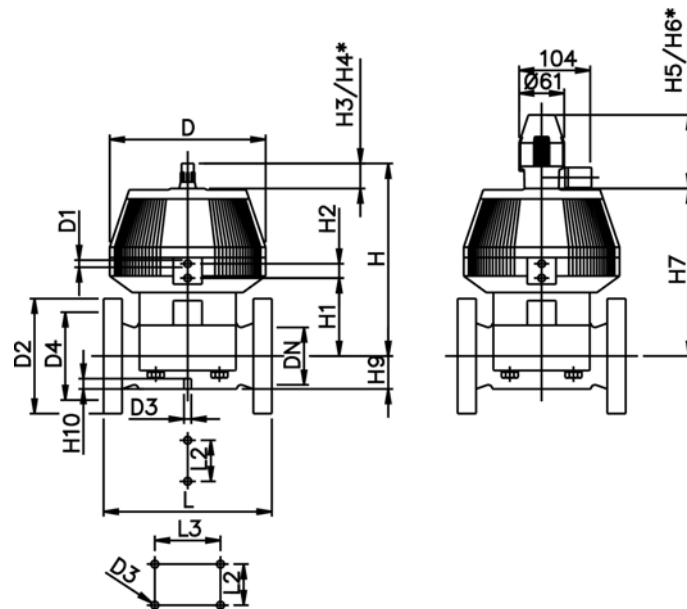
* With backing flanges PP-V

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

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

Inch	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	125
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



PF 3 39 212 120

SYGEF® Plus

Butterfly Valve Type 365 Lug-Style - Bareshaft



Model:

- Metal lugged body with epoxy-coating
- PFA coated disc with PTFE liner
- HP produced & double-bagged
- Bareshaft to ISO5211
- Lugged body to ANSI B16.5 #150 or ISO/EN 1092 PN16

d (mm)	DN (mm)	Inch	PN	Kv value L/min (ΔP=1BAR)	Lugged ANSI B16.5 #150 Code	Lugged ISO/EN 1092 Code	KG	Torque Nm	ISO5211 (square shaft)
63	50	2	16	3199	160 365 423	160 365 551	4.7	30	F07/11mm
75	65	2½	16	3199	160 365 424	160 365 552	6	30	F07/11mm
90	80	3	16	6497	160 365 425	160 365 553	6.5	40	F07/11mm
110	100	4	16	9696	160 365 426	160 365 554	8.5	50	F07/14mm
140	125	5	16	16808	160 365 427	160 365 555	10.6	60	F07/14mm
160	150	6	16	24762	160 365 428	160 365 556	13.9	110	F07/17mm
225	200	8	10	50523	160 365 429	160 365 557	17.9	180	F10/17mm
280	250	10	10	74713	160 365 430	160 365 558	27.2	250	F10/22mm
315	300	12	10	119438	160 365 431	160 365 559	35.9	350	F10/22mm

Pneumatic Actuator for Type 365



Model:

- Hard-anodized aluminium body
- NAMUR connection for mounting accessories

d	DN	Inch	FC/FO Code	DA Code	Type
63-75	50-65	2-2½	198 800 037	198 800 758	PA 35
90	80	3	198 800 728	198 800 759	PA 40
110	100	4	198 800 039	198 800 040	PA 45
140	125	5	198 800 729	198 800 733	PA 50
160	150	6	198 800 041	198 800 042	PA 55
225	200	8	198 800 730	198 800 734	PA 60
280	250	10	198 800 043	198 800 044	PA 65
315	300	12	198 800 731	198 800 735	PA 70

Assembly kit for Type 365 with Pneumatic Actuator Without Manual Override



Model:

- Includes all necessary parts to mount actuator to bareshaft valve

d	DN	Inch	FC/FO Code	DA Code	
63-75	50-65	2-2½	198 000 383	198 000 383	
90	80	3	198 000 385	198 000 384	
110	100	4	198 000 386	198 000 386	
140	125	5	198 000 386	198 000 386	
160	150	6	198 000 389	198 000 389	
225	200	8	198 000 389	198 000 389	
280	250	10	on request	198 000 392	
315	300	12	on request	198 000 393	

- Order bareshaft valve, actuator and assembly kit as separate items
- Electric Actuation available on request

Process control valves

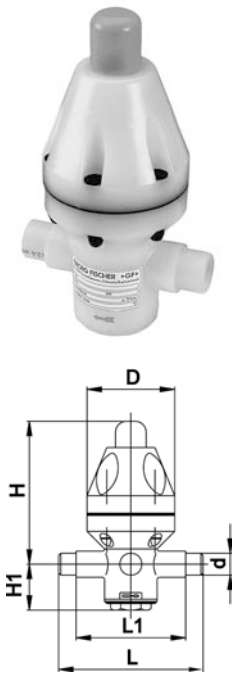
SYGEF Plus

Pressure reducing valve type V782

With fusion spigots BCF

Model:

- Material: PVDF-HP



PF 3 58 458 012

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch	
20	15	0.5 - 10	199 041 192	0.784	83	182	102	195	48	½	
25	20	0.5 - 10	199 041 193	1.300	112	190	110	210	65	¾	
32	25	0.5 - 10	199 041 194	1.984	112	190	110	210	65	1	
40	32	0.5 - 10	199 041 195	4.840	165	262	162	260	95	1 ¼	
50	40	0.5 - 10	199 041 196	4.840	165	262	162	260	95	1 ½	

SYGEF Plus

Pressure reducing valve type V82

With fusion spigots BCF

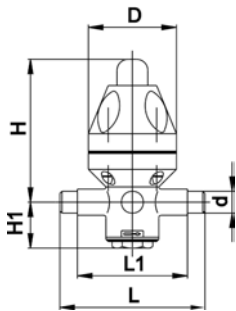
Model:

- Material: PVDF-HP



PF 3 58 458 012

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
20	15	0.5 - 10	199 041 184	0.802	70	150	130	100	½	
25	20	0.5 - 10	199 041 185	2.027	100	190	180	134	¾	
32	25	0.5 - 10	199 041 186	1.657	100	190	180	134	1	
40	32	0.5 - 10	199 041 187	5.320	130	240	230	175	1 ¼	
50	40	0.5 - 10	199 041 188	5.320	130	240	230	175	1 ½	
63	50	0.5 - 10	199 041 189	6.818	150	260	285	210	2	



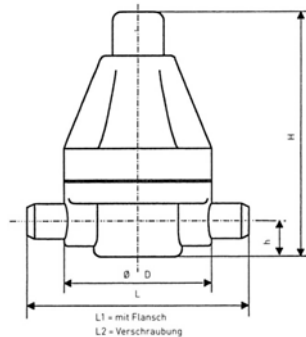
PF 3 58 458 012

SYGEF Plus Pressure retaining valve type V786 With fusion spigots BCF

Model:

- Material: PVDF-HP

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch	
20	15	0.5 - 10	199 041 198	0.620	83	172	102	145	38	½	
25	20	0.5 - 10	199 041 199	1.987	112	190	110	210	55	¾	
32	25	0.5 - 10	199 041 200	1.973	112	190	110	210	55	1	
40	32	0.5 - 4	199 041 201	4.840	165	262	162	260	85	1 ¼	
50	40	0.5 - 4	199 041 202	4.840	165	262	162	260	85	1 ½	



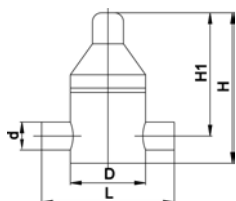
PF 3 58 458 012

SYGEF Plus Pressure retaining valve type V186 With butt fusion spigots BCF IR

Model:

- Material: PVDF-HP

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
20	15	0.5 - 10	199 041 395	0.600	83	158	137	20	½	
25	20	0.5 - 10	199 041 396	0.592	83	158	137	20	¾	
32	25	0.5 - 10	199 041 397	1.600	112	198	199	27	1	
40	32	0.5 - 10	199 041 398	1.600	112	202	199	43	1 ¼	
50	40	0.5 - 10	199 041 399	8.000	165	256	290	43	1 ½	
63	50	0.5 - 10	199 041 400	7.419	165	256	290	43	2	



PF 3 58 458 002

SYGEF Standard Pressure retaining valve type V86 With fusion spigots metric

Model:

- Material: PVDF

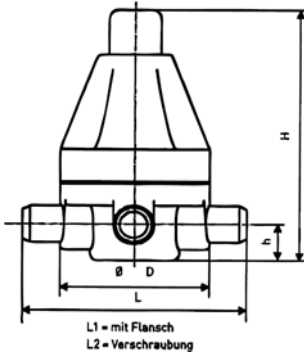
d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
75	65	1.0 - 6	199 041 892	7.730	180	284	275	230	2 ½	



SYGEF Plus Pressure relief valve type V185 With butt fusion spigots metric IR

Model:

- Material: PVDF-HP



PF 3 58 458 012

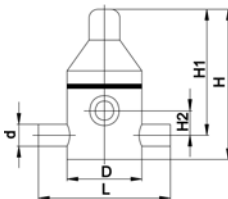
d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch	
20	15	0.5 - 10	199 041 520	0.600	83	158	137	20	½	
25	20	0.5 - 10	199 041 521	0.650	83	158	137	20	¾	
32	25	0.5 - 10	199 041 522	1.600	112	198	199	27	1	
40	32	0.5 - 10	199 041 523	1.600	165	202	199	43	1 ¼	
50	40	0.5 - 10	199 041 524	8.000	165	256	290	43	1 ½	
63	50	0.5 - 10	199 041 525	8.200	165	256	290	43	2	



SYGEF Standard Pressure relief valve type V85 With fusion spigots metric

Model:

- Material: PVDF

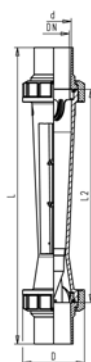


PF 3 58 458 002

d [mm]	DN [mm]	Pressure range [bar]	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	closest inch	
75	65	1.0 - 6	199 041 898	13.000	180	284	295	250	70	2 ½	

Variable area flow meters

Special version PVDF-HP
Float in PTFE without magnet
With fusion spigots BCF/IR



Type	d [mm]	DN [mm]	Scale range [l/h]	Scale range [gal/min]	Taper tube in Polysulfone O- rings in FPM Code	kg	
SK 70	32	25	68 - 204	0.3-0.9	198 807 209	0.383	
SK 71	32	25	90 - 295	0.4-1.3	198 807 210	0.387	
SK 73	32	25	136 - 795	0.6-3.5	198 807 202	0.401	
SK 20	50	40	568 - 2273	2.5-10.0	198 807 203	1.030	
SK 21	50	40	909 - 4091	4.0-18.0	198 807 204	0.978	
SK 30	63	50	1000 - 8142	4.4-36.0	198 807 205	1.500	
SK 31	63	50	1000 - 9091	4.4-40.0	198 807 206	1.500	
SK 40	75	65	1848 - 11364	8.0-50.0	198 807 207	2.500	
SK 41	75	65	2273 - 16364	10.0-72.0	198 807 208	2.500	

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]	
SK 70	60	318		200	1	
SK 71	60	318		200	1	
SK 73	60	318		200	1	
SK 20	83	466		335	1 ½	
SK 21	83	466		335	1 ½	
SK 30	103	472		335	2	
SK 31	103	472		335	2	
SK 40	122	495		335	2 ½	
SK 41	122	495		335	2 ½	

PF 3 48 227 002



Pipe

SYGEF Exhaust – Product Specification

Material	Polyvinylidene fluoride (PVDF)
Colour	translucent
Density	~1.78 g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m ²
Linear expansion coefficient	0.12–0.18 mm/mK (DIN 53752)
E-module (tensile strength)	≥1800 N/mm ² (ISO 527 / ASTM D 790)
Thermal conductivity	0.19 W/mK (DIN 52612)
Surface resistivity	5 x 10 ¹⁴ Ωcm (IEC 60093)
Dimension	d 75 (2½")–d 400 (16")
Pressure Rating	Maximum negative pressure: -ΔP _{max} = 1500Pa (0.015 bar, 6" water column)
Temperature Rating	PVDF: -20°C to 140°C [-4°F-284°F], System: ΔT= 30°C
Production	Fittings: injection moulded, segment welded Pipes: extruded
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension
Testing and Inspection	Inclusions Visual inspection Dimension tolerance
Approvals/Conformance	FM-4910 listing: www.fmglobal.com
Welding Technology	Hot Gas Back Welding, Rod diameter 4 mm Recommended tool: duratherm SC Recommended Manufacturer: www.wegenerwelding.com
Documentation⁽¹⁾	EN 10204 2.2 EN 10204 3.1
Packing	Fitting: multiple components bagged in specified bag Pipe: capped and single bagged in specified bag
Labeling	Brand Name Product Description Code Number Material Dimension CE-Labeling
Main Applications	Safe conveying of critical exhaust gases and fumes within state-of-the-art manufacturing plants. Due to its excellent chemical resistance it is widely used within the Microelectronics and Chemical Industry.

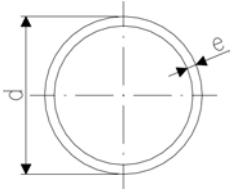
⁽¹⁾ on request

Pipe

SYGEF Exhaust pipe

Model:

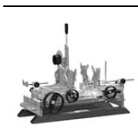
- Material: PVDF
- Length: Lengths of 5 m



PF 2 35 784 001

d [mm]	Code	e [mm]	di [mm]	
75	175 483 459	3.0	69.0	
110	175 483 461	3.0	104.0	
160	175 483 464	3.0	154.0	
200	175 483 466	3.0	194.0	
250	175 483 468	3.0	244.0	
315	175 483 470	4.0	307.0	
400	175 483 472	5.0	390.0	

System-Oriented Fusion Jointing Machines

		Page
	IR-63 Plus Fusion Jointing Machine and Accessories	331
	IR-110 Plus Fusion Jointing Machine and Accessories	334
	IR-225 Plus Fusion Jointing Machine and Accessories	336
	IR-315 Plus Fusion Jointing Machine	338
	IR-450 Fusion Jointing Machine	339
	Accessories for the IR-Plus plastic fusion jointing machines	340
	BCF Plus Plastic Fusion Jointing Machine	342
	Accessories for the BCF Plus plastic fusion jointing machine	350
	Accessories for the IR Plus and BFC Plus fusion machines	352
	SG 110 Socket fusion machine	354
	SG 110 Accessories	355
	SG 110 Special accessories	356
	Preparation Tools and Accessories	357

IR-Plus Product Specification

Fusion Technology	Non-contact radiant heating Jointing pressure produced by overlap distance Software controlled, reproducible and monitored fusion and cooling process Cooling process determined by fusion zone temperature via infrared sensor (IR225/315-Plus) Remote fusion unit (IR63-Plus) Pre-programmed and key-protected fusion parameters Fusion protocol storage of 2500 fusions with unique fusion numbers Fusion factor ≥ 0.93 Fusion + cooling time typically between 38% and 62% of conventional butt-fusion (DVS 2207-15) User guidance in more than 12 languages with graphic icons Integrated error recognition Automated maintenance intervals World-wide welder installation training and certification programme World-wide weld-bead inspection training and certification programme	
Piping Material	SYGEF Plus (PVDF HP) SYGEF Standard (PVDF Standard) PROGEF Plus (PP-H CDB) PROGEF Natural (PP Natural) PROGEF Standard / DEKAPROP / Beta PP (β-PP-H) PE100 / HDPE ECTFE SDR21 PFA Sch40	
Dimension	IR-63 Plus d20 (1/2") – d63 (2") IR-110 Plus d20 (1/2") – d110 (4") IR-225 Plus d63 (2") – d225 (9") IR-315 Plus d225 (9") – d315 (12") IR-450 d315 (12") – d450 (18")	
Pre-fusion treatment	Cleaning with Tangit KS and lint-free tissue (KO-TON-R) Facing by integrated facing tool Airflow around fusion machine maximum 0.2 m/s	
Weld bead	Typically 50% smaller than conventional butt-fusion (DVS 2207-15)	
Post-fusion treatment	Software controlled cooling phase No additional treatment after cooling phase complete	
Fusion Documentation	Print-out of 2 identical labels for labelling of piping system and/or isometric drawing • Date • 2 Joint numbers (1 fixed, 1 user selectable) • Machine number • Process status symbol (OK / NOK) • Welder / supervisor visa Print-out of fusion protocol via A4 printer • Date • Time • Machine number • 2 Joint numbers (1 fixed, 1 user selectable) • Operator • Worksite • Process status (OK / NOK) • Chosen parameter (material, size, series, PN, wall thickness) • Process parameters (overlap and facing distance, temperatures, times) • Confirmation and signature Electronic record downloadable, write protected stored and administered via WIN WELD software package for PC via USB interface	
Testing and Inspection	Sample fusions one per job site and dimension Weld-bead inspection as per GF control document Weld-bead inspection as per DVS control document	
Conformances/Standards	DVS 2207-6 (2003) SEMI F57	
Main applications	Alternative to conventional butt-fusion in applications where purity, weld-strength, traceability and speed of installation are imperative. Typical market segments include Semiconductor/Microelectronics, Chemical Processing and workshop pre-fabrication.	

IR-63 Plus Fusion Jointing Machine and Accessories



IR-63 Plus Fully-Equipped Machine

Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100, PFA in dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater assembly (1 pcs.)
- Remote weld device (1 pcs.)
- Facing tool (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-63 mm (8 pcs. per dimension)
- End caps PE d 20-63 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Extension cable for remote weld device (1 pcs.)
- Extension cable for heater (1 pcs.)
- Extension cable for facing tool (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon key 3 mm (1 pcs.)
- Hexagon key 4 mm (1 pcs.)
- Heater protection shield (1 pcs.)
- Clamping unit extension (8 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Screw driver, Size 0 (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 131 005	35.000	

PF 2 43 412 001



Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d [mm]	Code	kg	Pieces	
20	790 131 038	0.090	1	
25	790 131 039	0.090	1	
32	790 131 040	0.052	1	
40	790 131 041	0.074	1	
50	790 131 042	0.100	1	
63	790 131 043	0.035	1	

PF 2 43 412 002



Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 131 045	0.016	2	

PF 2 43 412 002



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Code	kg	Pieces	
20	790 131 030	0.002	4	
25	790 131 031	0.010	4	
32	790 131 032	0.001	4	
40	790 131 033	0.005	4	
50	790 131 034	0.005	4	
63	790 131 035	0.023	4	

PF 2 43 412 002



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 131 046	0.430	1	

PF 2 43 412 002



Extension cable for clamping slide

- The extension cable enables the fusion e. g. under the ceiling.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 131 047	0.800	1	

PF 2 43 412 002



Extension cable for facing tool

- The extension cable enables the fusion e. g. under the ceiling.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 131 048	0.438	1	

PF 2 43 412 002



Extension cable for heater

- The extension cable enables the fusion e. g. under the ceiling.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 131 049	0.767	1	

PF 2 43 412 002



Heater protection shield

- Protects the heater from plastic chips during the facing process.

Code	kg	Pieces	
790 131 051	0.205	1	

PF 2 43 412 002

IR-110 Plus Fusion Jointing Machine and Accessories

IR-110 Plus Fully-Equipped Machine

Model:

- Fully-equipped fusion jointing machine for welding SYGEF® Standard, SYGEF® Plus, PROGEF® Standard, PROGEF® Natural, PROGEF® Plus, PE 100, PFA, ECTFE in dimensions d 20-110 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater and facing tool assembly (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-90 mm (8 pcs. per dimension)
- End caps PE d 20-110 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon keys 4 mm (1 pcs.), 5 mm (1 pcs.), 6 mm (1 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)



d-d [mm]	Code	kg	
20 - 110	790 132 001	75.000	

PF 2 43 770 001

Clamping inserts

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.



d [mm]	Code	kg	Pieces	
20	790 132 051	0.108	1	
25	790 132 052	0.106	1	
32	790 132 053	0.104	1	
40	790 132 054	0.100	1	
50	790 132 055	0.095	1	
63	790 132 056	0.085	1	
75	790 132 057	0.087	1	
90	790 132 058	0.064	1	

PF 2 43 770 002

Clamping inserts PFA

- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.



d [inch]	Code	kg	Pieces	
¼	790 132 062	0.109	1	
½	790 132 063	0.107	1	
¾	790 132 064	0.106	1	
1	790 132 065	0.103	1	
2	790 132 066	0.088	1	

PF 2 43 770 002

Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.



d-d [mm]	Code	kg	Pieces	
20 - 110	790 132 061	0.007	2	

PF 2 43 460 902



Set of end caps

- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Code	kg	Pieces	
20	790 131 030	0.002	4	
25	790 131 031	0.010	4	
32	790 131 032	0.001	4	
40	790 131 033	0.005	4	
50	790 131 034	0.005	4	
63	790 131 035	0.023	4	
75	790 133 036	0.095	4	
90	790 133 037	0.110	4	
110	790 133 038	0.180	4	

PF 2 43 412 002



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Code	kg	Pieces	
20 - 110	790 132 059	0.700	1	

PF 2 43 460 902

IR-225 Plus Fusion Jointing Machine and Accessories

IR-225 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)



Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100 in dimensions d 63-225 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 VL1/L2/L3/N/PE
- Machine base (1 pcs.)
- Facing tool (1 pcs.)
- Heater assembly (1 pcs.)
- Working table, HP (1 pcs.)
- Movable clamping units (1 pcs.)
- Clamping inserts d 63-225 mm (8 pcs. per dimension)
- End caps PE d 63-225 mm (4 pcs. per dimension)
- Transportation lock (1 pcs.)
- Pipe stop (1 pcs.)
- Hexagon key 5 mm (1 pcs.)
- Hexagon key 6 mm (1 pcs.)
- Combination ring /open-jaw wrench 13 mm (1 pcs.)
- Cleaning brush (1 pcs.)
- Connecting cable 400 V - 230 V (1 pcs.)
- Ball for lever (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
63 - 225	790 133 009	453.000	

PF 2 43 414 001

Clamping inserts



- The clamping inserts are different for each dimension. They are used to clamp and position the pipe components.

d [mm]	Code	kg	Pieces	
63	790 133 026	0.771	1	
75	790 133 027	0.747	1	
90	790 133 028	0.691	1	
110	790 133 029	0.644	1	
125	790 133 030	0.500	1	
140	790 133 031	0.600	1	
160	790 133 032	0.600	1	
180	790 133 463	0.560	1	
200	790 133 033	0.700	1	
225	790 133 034	0.270	1	

PF 2 43 460 903

Set of end caps *on request



- A set includes 4 end caps. The end caps are different for each dimension. The ends of the pipe **must** be closed. The caps prevent heat loss due to airflow in the fusion zone and guarantee optimum fusion results of the pipe components.

d [mm]	Code	kg	Pieces	
63	790 131 035	0.023	4	
75	790 133 036	0.095	4	
90	790 133 037	0.110	4	
110	790 133 038	0.180	4	
125	790 133 039	0.170	4	
140	790 133 040	0.185	4	

table continued next page

PF 2 43 460 903

d [mm]	Code	kg	Pieces	
160	790 133 041	0.212	4	
180	790 133 494	0.090	4	
200	790 133 042	0.450	4	
225	790 133 043	0.365	4	



Movable clamping unit - left

- The movable, external clamping unit ensure high operating convenience. Short pipe pieces can be clamped on both sides.
- Included in the delivery when a new IR-225 Plus® is ordered.
- Previous IR 225 fusion jointing machines can be upgraded.

d-d [mm]	Code	kg	Pieces	
63 - 225	790 133 061	10.700	1	

PF 2 43 414 002



Movable clamping unit - right

- The movable, external clamping unit ensure high operating convenience. Short pipe pieces can be clamped on both sides.
- Included in the delivery when a new IR-225 Plus® is ordered.
- Previous IR 225 fusion jointing machines can be upgraded.

d-d [mm]	Code	kg	Pieces	
63 - 225	790 133 062	10.200	1	

PF 2 43 414 002



HP-Working table including transportation cover

- Multifunction working table for the IR-225 Plus® fusion jointing machine with two integrated drawer. Especially for the use in clean room environment. The working table is made of steel with a stainless steel table.

Code	kg	Pieces	
790 133 021	220.000	1	

PF 2 43 414 002



Set of facing knives

- A set includes two facing knives. Each facing knife has four blades. The blade may be turned three times before it must be replaced.

d-d [mm]	Code	kg	Pieces	
63 - 225	790 133 046	0.125	2	

PF 2 43 414 002



Pipe stop

- The pipe stop defines the allowance when the pipes are clamped into position.

d-d [mm]	Code	kg	Pieces	
63 - 225	790 133 047	0.150	1	

PF 2 43 414 002

IR-315 Plus Fusion Jointing Machine

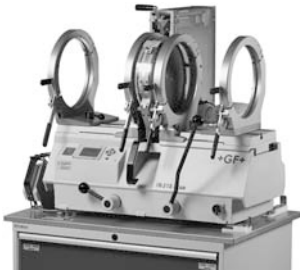
IR-315 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)



PF 2 43 649 001

- Fully-equipped fusion jointing machine for welding PROGEF Standard, PROGEF Plus, SYGEF Standard, SYGEF Plus in dimensions d 225-315, 2 USB interfaces, monochrome display with icons and 12 languages.

d-d [mm]	Code	kg	
225 - 315	790 134 001	466.000	



IR-315 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)

Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus in dimensions d 250-315, 2 USB interfaces, monochrome display with icons and 12 languages.
- Only a rental pool machine**

d-d [mm]		Code	
250 - 315	On request	-	

IR-450 Fusion Jointing Machine

IR-450 Fully-Equipped Machine

Model:

- Fully-equipped semi automated fusion jointing machine for welding SYGEF Plus in dimension d 315-450, USB interfaces and touch screen with icons
- **Only a rental pool machine**



d-d [mm]	Code	
315 - 450	-	

Accessories for the IR-Plus plastic fusion jointing machines

Modification Kit



In order to give our existing IR-Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing IR-Plus machines. The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new IR-Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

PF 2 43 460 902

Type	Code	kg	
IR-63 Plus	790 131 124	0.500	



Modification Kit

In order to give our existing IR-Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing IR-Plus machines. The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new IR-Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

PF 2 43 460 903

Type	Code	kg	
IR-225 Plus	790 133 124	6.650	

Heater protection shield

- Protects the heater from plastic chips during the facing process.



PF 2 43 412 002

Code	kg	Pieces	
790 131 051	0.205	1	



USB memory stick

PF 2 51 306 005

Code	kg	Description	
799 350 622	0.035	Memory stick (for software or languages updates)	



USB cable

- PC and printer transmission cable to transfer fusion data directly to PC or to printer

PF 2 51 306 005

Code	kg	Description	
799 350 619	0.062	USB cable (type A/B) for printer and PC connection	

BCF Plus Product Specifications

Fusion Technology	Bead and crevice free fusion Software controlled, reproducible and monitored fusion and cooling process Remote fusion unit Pre-programmed and password protected fusion parameters Fusion protocol storage of 1600 fusions with unique fusion number Fusion factor → 0.98 User guidance in 8 languages Integrated error recognition Automated maintenance intervals Welder training and certification Voltage supply 110 V/230 V
Piping material	SYGEF Plus (PVDF HP) SYGEF Standard (PVDF Standard) PROGEF Natural (PP Natural)
Dimension	d20 [1/2"] – d110 [4"]
Pre-fusion treatment	Cleaning with Tangit KS No inert gas required No filler material
Surface finish in fusion zone	SYGEF Plus (PVDF HP) Ra ~ 0.25 µm SYGEF Standard (PVDF Standard) Ra ~ 0.5 µm PROGEF Natural (PP Natural) Ra ~ 0.8 µm
Post-fusion treatment	No manual welds No passivation No pickling
Fusion Documentation	Print-out of 2 identical labels for labelling of piping system or isometric drawing • Date • Joint number • Work site number • Welder / supervisor visa Print-out of fusion protocol via A4 printer • Date • Time • Machine number • Joint number • Operator • Work site • Process status • Chosen parameter (material, size, pipe series, PN, wall thickness) • Process parameter (temperature, time, pressure) • Confirmation and signature Electronic record downloadable, write protected stored and administered via WIN WELD read out software.
Testing and Inspection	Sample fusions one per job site and dimension Fusion inspection with torch lamp based upon ASME BPE-a-2004.
Conformances / Standards	ASME BPE-a-2004 DVS 2203
Main applications	Uses include delivery of ultrapure water in pharmaceutical, medical and semiconductor grade water to highest purity and cleaning requirements as well a abrasive fluid transport in semiconductor and cosmetics.

BCF Plus Plastic Fusion Jointing Machine

BCF Plus fully equipped machine d 20 - 63 mm



Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-63 mm (6 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 121 002	153.000	

PF 2 43 654 001



BCF Plus fully-equipped machine d 20 -110 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-110 mm with integrated remote welding unit.

Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-110 mm (9 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- Supporting tools big d 75-110 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 110	790 121 001	188.000	

PF 2 43 654 001



BCF Plus basic machine d 20-63 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-63 mm with integrated remote welding unit

Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

Scope of delivery includes:

- Machine housing (1 pcs.) with remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Inbus T-screwdriver (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.)
- Air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Power supply cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 121 004	144.000	

PF 2 43 654 001



Hose cutter

d-d [mm]	Code	kg	Pieces	
4 - 6	790 122 106	0.031	1	

PF 2 43 410 002



BCF Plus basic machine d 75-110 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 75-110 mm with integrated remote welding unit

Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

Delivery includes:

- Machine housing (1 pcs.) with remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools big (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Inbus T-screwdriver (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.)
- Air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Power supply cable (1 pcs.)
- Manual (1 pcs.)

PF 2 43 654 001

d-d [mm]	Code	kg	
75 - 110	790 121 005	155.000	



BCF Plus basic machine d 20 -110 mm

Fully-equipped machine for bead and crevice free jointing of SYGEF Standard, SYGEF Plus, PROGEF Natural of the dimensions d 20-110 mm with integrated remote welding unit

Supply:

1-phase AC (50/60 Hz) 115/ 230 V L/N/PE

Delivery includes:

- Machine housing (1 pcs.) with remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- Supporting tools big d 75-110 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Inbus T-screwdriver (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.)
- Air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Power supply cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 110	790 121 006	161.000	

PF 2 43 654 001



Socket for compressed air hose

Code	kg	Pieces	
790 122 104	0.002	1	

PF 2 43 410 002

BCF Plus dimension packet d 20-63 mm

- This package is necessary to complete BCF Plus machines which are only equipped for large dimensions d 75-110 mm.

Delivery includes:

- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Supporting tools small (2 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 121 023	6.225	

PF 2 43 654 002

BCF Plus dimension packet d 75-110 mm

- This package is necessary to complete BCF Plus machines which are only equipped for small dimensions d 20-63 mm.
- **Delivery includes:**
- Clamping units big (2 pcs.) with clamping inserts d 75-110 mm (12 pcs.)
- Facing tool big (1 pcs.) with facing inserts d 75-110 mm (3 pcs.)
- Supporting tools tall (2 pcs.)
- Adapter for clamping unit d 75-110 mm (2 pcs.)

d-d [mm]	Code	kg	
75 - 110	790 121 022	8.107	

PF 2 43 654 002



PF 2 43 278 001

BCF Plus Win Weld

- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- **incl. Recordcard / USB stick**

	Code	kg	Pieces	
WIN 2000/XP	790 121 471	0.080	1	
WIN 95/98/Me/NT	790 121 472	0.220	1	

BCF Plus Heating stations



PF 2 43 654 002

d [mm]	Code	kg	Pieces	
20	790 121 111	1.800	1	
25	790 121 112	1.820	1	
32	790 121 113	1.890	1	
40	790 121 114	2.396	1	
50	790 121 115	2.400	1	
63	790 121 116	2.150	1	
75	790 121 117	3.600	1	
90	790 121 118	3.600	1	
110	790 121 119	3.520	1	

BCF Plus facing tool

- Inclusive crank handle, mounting material and clamping inserts. Suitable for SYGEF (PVDF) as well as PROGEF Natural.



PF 2 43 654 002

d-d [mm]	Code	kg	Pieces	
20 - 63	790 121 052	1.400	1	
75 - 110	790 121 053	3.000	1	

BCF Plus clamping inserts for the facing tool

- These dimension-specific parts are inserted into the facing tool, in order to be able to face the end of the pipes smoothly and parallel.



PF 2 43 654 002

d [mm]	Code	kg	Pieces	
20	790 121 061	0.160	1	
25	790 121 062	0.150	1	
32	790 121 063	0.132	1	
40	790 121 064	0.125	1	
50	790 121 065	0.100	1	
63	790 121 066	0.050	1	
75	790 121 067	0.300	1	
90	790 121 068	0.200	1	
110	790 121 069	0.090	1	



PF 2 43 654 002

BCF Plus facing tool mounting plate

d-d [mm]	Code	kg	Pieces	
20 - 110	790 121 055	1.200	1	



PF 2 43 654 002

BCF Plus clamping units

- The clamping units are adjustable, so that all types of pipes and fittings can be clamped.

d-d [mm]	Code	kg	Pieces	
20 - 63	790 121 034	0.001	1	
75 - 110	790 121 035	0.900	1	



PF 2 43 654 002

BCF Plus adapter for clamping unit d 75-110 mm

d-d [mm]	Code	kg	Pieces	
75 - 110	790 121 038	0.250	1	



PF 2 43 654 002

BCF Plus clamping inserts

d [mm]	Code	kg	Pieces	
20	790 131 038	0.090	1	
25	790 131 039	0.090	1	
32	790 131 040	0.052	1	
40	790 131 041	0.074	1	
50	790 131 042	0.100	1	
63	790 131 043	0.035	1	
75	790 121 036	0.143	1	
90	790 121 037	0.095	1	



PF 2 43 460 901

BCF Plus hose box

- For the clean and professional storage of the air hose.

Code	kg	Pieces	
790 121 151	1.114	1	



PF 2 43 410 002

BCF Plus hose

Code	kg	Length [mm]	
790 122 087	0.121	11	



PF 2 43 654 002

BCF Plus supporting tool

d-d [mm]	Code	kg	Pieces	
20 - 63	790 121 072	0.542	1	
75 - 110	790 121 073	0.942	1	



PF 2 43 654 002

BCF Plus bladder/ hose remove tool (BReT)

Code	kg	Pieces	
790 121 075	0.079	1	



PF 2 43 460 901

BCF Plus extension cable

Code	kg	Length [mm]	
790 122 989	1.000	8	

Accessories for the BCF Plus plastic fusion jointing machine

Modification Kit



In order to give our existing BCF Plus customers the full benefit of the advantages we offer a modification kit which enables a reconstruction of all existing BCF Plus machines.

The following modifications are included:

- 2 USB interfaces
- Monochrome display with icons
- New navigation panel
- operator guidance in 12 languages

The upgrade of the new BCF Plus components will be executed by Georg Fischer service centres in the USA/Tustin, Singapore and CSO Schaffhausen.

Type	Code	kg	
BCF Plus	790 121 124	0.500	

PF 2 43 460 901

Hose cutter



d-d [mm]	Code	kg	Pieces	
4 - 6	790 122 106	0.031	1	

PF 2 43 410 002

Reducer for compressed air hose



d-d [mm]	Code	kg	Pieces	
6 - 4	790 122 978	0.002	1	

PF 2 43 460 901

Socket for compressed air hose



Code	kg	Pieces	
790 122 104	0.002	1	

PF 2 43 410 002

BCF Plus Win Weld



- The PC data transfer software makes it possible to manage and evaluate easily the recorded fusion data as required.
- **incl. Recordcard / USB stick**

	Code	kg	Pieces	
WIN 2000/XP	790 121 471	0.080	1	
WIN 95/98/Me/NT	790 121 472	0.220	1	

PF 2 43 278 001



BCF Plus Recordcard (not for new platform)

- Fusion data from the BCF® Plus- machine can be stored on an exchangeable protocol card (record card) with a storage capacity of approx. 900 fusion protocols. It allows a paperless documentation.

PF 2 43 412 002

Code	kg	
790 121 473	0.031	

Accessories for the IR Plus and BFC Plus fusion machines



Label Printer TLP-2844

- The thermotransfer printer TLP-2844 from Eltron International is, as a result of its compactness and ergonomic design, ideal for use on job sites. Supply includes a thermal printer ribbon, thermal transfer labels and a serial as well as a parallel interface.
- **Remarks:** We suggest, regarding service and warranty matters, to purchase directly from the local Eltron Representative. George Fischer can provide a list of world-wide addresses of the Eltron representatives on request.



PF 2 43 412 002

Code	kg	Pieces	
790 131 027	2.600	1	



Thermal Printer Ribbon for TLP-2742 / TLP-2844

- The thermal transfer ribbon is specially suited for printing polyester labels.

PF 2 43 412 002

Code	kg	Pieces	
790 131 029	0.076	1	



Thermal Transfer Labels

- The labels are made of white polyester. The printing, as well as the labels themselves, are resistant against:
- UV resistant
- Temperatures up to 140 °C (284 °F)
- Up to 95% humidity
- Cleaning agents (Isopropylalcohol etc.)
- Two identical labels are printed for each weld. Each roll contains 2500 labels.
- Label size: 38 x 19 mm
- Specification information available on request from George Fischer.

PF 2 43 412 002

Code	kg	Pieces	
790 131 028	0.400	1	



Power supply lead

PF 2 43 410 002

Performance	Code	kg	Pieces	
230V	790 122 246	0.301	1	
115V	790 122 248	0.188	1	



KS Tangit Cleaner

- special cleaner for plastic welding joints of PP, PE, PVDF, PB
- 1 litre container

Code	



Cleaning tissue KO-TON-R

- This cleaning tissue is suitable for the cleaning of the welding zone of piping components, because it is lint free and clean room checked.

¹⁾ Minimum order quantity 50 pieces

Code	kg	
790 122 085	0.005	

SG 110 Socket fusion machine

For fusion jointing of PP, PE, PB and PVDF pipes and fittings



- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- Dimension d 20 - 110 mm
- **Base machine**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- **Heater**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **Additional standard equipment on the basic model**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- Depth stop
- V-shaped pipe support d 20 - 110 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times

d-d [mm]	Performance	Code	kg	
20 - 110	230 V/1200 W	790 310 001	65.000	
20 - 110	115 V/1200 W	790 310 003	50.000	

PF 3 25 134 100

SG 110 Accessories

Heating spigots and bushes



- For socket fusion systems in PP, PE and PVDF
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)

d [mm]	Code	kg	
25	799 300 157	0.154	
32	799 300 158	0.211	
40	799 300 159	0.230	
50	799 300 160	0.434	
63	799 300 161	0.594	
75	799 300 162	0.981	
90	799 300 163	1.440	
110	799 300 164	2.210	

PF 3 25 117 302

Manual pipe peeling tool



d [mm]	Code	kg	
20	799 300 260	0.087	
25	799 300 270	0.080	
32	799 300 280	0.099	
40	799 300 290	0.240	
50	799 300 300	0.244	
63	799 300 310	0.507	
75	799 300 320	0.680	
90	799 300 330	1.006	
110	799 300 340	1.355	

Chamfering tool

d-d [mm]	Code	kg	
40 - 200	790 309 001	1.607	
50 - 315	790 309 002	3.265	

PF 3 10 590 100

SG 110 Special accessories

Universal prismatic clamping device, complete



PF 3 25 134 100

d-d [mm]	Code	kg	
20 - 110	790 310 011	3.300	

Backstop, complete



PF 3 25 117 317

d-d [mm]	Code	kg	
20 - 110	790 310 012	0.600	

V-shaped pipe support, complete



PF 3 25 117 317

d-d [mm]	Code	kg	
20 - 110	790 310 013	0.700	

Heating element



PF 3 25 117 317

d-d [mm]	Performance	description	Code	kg	
20 - 110	230 V/1200 W	electronic	790 310 014	2.400	
20 - 110	230 V/1200 W	thermostatic	790 310 015	2.400	
20 - 110	115 V/1200 W	electronic	790 310 016	2.400	
20 - 110	115 V/1200 W	thermostatic	790 310 017	2.400	

Special transport crate



PF 3 25 117 317

Code	kg	
790 310 099	26.000	

1 set face chucks



PF 3 25 117 317

d-d [mm]	Code	kg	
20 - 110	790 310 018	1.100	

Preparation Tools and Accessories

Manual Pipe Peeling Tool for Socket Fusion



PF 2 51 305 001

d [mm]	Code	kg	
20	799 300 260	0.087	
25	799 300 270	0.080	
32	799 300 280	0.099	
40	799 300 290	0.240	
50	799 300 300	0.244	
63	799 300 310	0.507	
75	799 300 320	0.680	
90	799 300 330	1.006	
110	799 300 340	1.355	

KS Tangit Cleaner

- Special cleaning agent for plastic fusion connections with PP, PE, PVDF and PB.



PF 2 28 473 002

Code	kg	
799 298 023	0.872	

Cleaning tissue KO-TON-R

- This cleaning tissue is suitable for the cleaning of the welding zone of piping components, because it is lint free and clean room checked.

1) Minimum order quantity 50 pieces



Code	kg	
790 122 085	0.005	

Index

Code	Page	Code	Page	Code	Page
-	94	161 484 913	120	161 486 438	63
150 530 001	123	161 484 914	120	161 486 443	63
150 530 002	123	161 484 915	120	161 486 444	63
150 530 003	123	161 484 916	120	161 486 445	63
155 482 101	18	161 484 917	120	161 486 446	63
155 482 102	18	161 484 919	120	161 486 689	62
155 482 103	18	161 484 920	120	161 486 690	62
155 482 104	18	161 484 921	120	161 486 691	62
155 482 105	18	161 484 922	120	161 486 694	106
155 482 106	18	161 485 102	115	161 486 695	106
155 701 806	27	161 485 103	115	161 486 697	106
155 701 807	27	161 485 104	115	161 486 855	107
155 701 808	27	161 485 105	115	161 486 856	107
155 701 809	27	161 485 106	115	161 486 857	107
155 701 810	27	161 485 107	115	161 486 858	106
155 701 811	27	161 485 108	115	161 486 859	106
155 701 812	27	161 485 109	115	161 486 899	106
155 701 813	27	161 485 112	115	161 486 900	106
155 701 917	27	161 485 113	115	161 486 901	106
155 701 919	27	161 485 114	115	161 486 902	106
155 701 920	27	161 485 115	115	161 486 903	106
155 701 921	27	161 485 116	115	161 486 904	106
155 701 923	27	161 485 117	115	161 486 905	106
155 701 924	289	161 485 118	115	161 486 906	106
155 701 925	289	161 485 119	115	161 486 907	106
155 703 814	27	161 485 122	115	161 486 979	104
155 801 924	289	161 485 123	115	161 486 980	104
155 801 925	289	161 485 124	115	161 486 981	104
155 801 926	289	161 485 125	115	161 486 982	104
161 480 240	93	161 485 126	115	161 486 983	104
161 480 241	93	161 485 127	115	161 486 984	104
161 480 242	93	161 485 128	115	161 486 985	104
161 481 759	94	161 485 129	115	161 486 986	104
161 481 760	94	161 485 251	114	161 486 987	104
161 482 408	106	161 485 252	114	161 488 248	80
161 482 516	93	161 485 253	114	161 488 249	80
161 482 517	93	161 485 254	114	161 488 250	80
161 482 744	94	161 485 255	114	161 488 251	80
161 482 760	93	161 485 256	114	161 488 252	80
161 482 906	93	161 485 257	114	161 488 253	80
161 483 020	93	161 485 258	114	167 482 479	80
161 483 021	93	161 485 259	114	167 482 480	80
161 483 023	93	161 486 006	107	167 482 481	80
161 483 462	106	161 486 007	107	167 482 482	80
161 484 638	93	161 486 008	107	167 482 626	59
161 484 702	93	161 486 009	106	167 482 627	59
161 484 887	119	161 486 010	106	167 482 628	59
161 484 888	119	161 486 301	107	167 482 629	59
161 484 889	119	161 486 302	107	167 482 630	59
161 484 890	119	161 486 303	107	167 482 631	59
161 484 891	119	161 486 304	106	167 482 635	60
161 484 892	119	161 486 305	106	167 482 636	60
161 484 893	119	161 486 325	106	167 482 637	60
161 484 894	119	161 486 326	106	167 482 638	60
161 484 895	119	161 486 327	106	167 482 639	60
161 484 896	119	161 486 328	106	167 482 640	60
161 484 897	119	161 486 410	65	167 482 653	61
161 484 900	120	161 486 411	65	167 482 654	61
161 484 901	120	161 486 412	65	167 482 655	61
161 484 902	120	161 486 413	65	167 482 656	61
161 484 903	120	161 486 414	65	167 482 657	61
161 484 904	120	161 486 415	65	167 482 658	61
161 484 905	120	161 486 416	65	167 482 662	61
161 484 907	120	161 486 417	65	167 482 663	61
161 484 908	120	161 486 418	65	167 482 664	61
161 484 909	120	161 486 435	63	167 482 665	61
161 484 910	120	161 486 436	63	167 482 666	61
161 484 912	120	161 486 437	63	167 482 667	61

Index

Code	Page	Code	Page	Code	Page
167 482 671	60	167 484 578	79	175 369 064	117
167 482 672	60	167 484 579	79	175 369 065	117
167 482 673	60	167 484 580	79	175 369 066	117
167 482 674	60	167 484 581	79	175 369 067	117
167 482 675	60	167 484 588	79	175 369 069	117
167 482 676	60	167 484 589	79	175 369 070	117
167 482 680	59	167 484 590	79	175 369 071	117
167 482 681	59	167 484 591	79	175 369 072	117
167 482 682	59	167 484 592	79	175 369 073	117
167 482 683	59	167 484 593	79	175 369 102	118
167 482 684	59	167 484 941	80	175 369 103	118
167 482 685	59	167 484 942	80	175 369 104	118
167 483 251	105	167 484 943	80	175 369 105	118
167 483 252	105	167 484 944	80	175 369 106	118
167 483 253	105	167 484 992	90	175 369 107	118
167 483 254	105	167 484 993	90	175 369 109	118
167 484 076	65	167 484 994	90	175 369 110	118
167 484 077	65	167 484 995	90	175 369 111	118
167 484 078	65	167 484 996	90	175 369 112	118
167 484 079	65	167 484 997	90	175 369 113	118
167 484 080	65	167 530 123	121	175 369 142	119
167 484 081	65	167 530 124	121	175 369 143	119
167 484 082	65	167 530 125	121	175 369 144	119
167 484 083	65	167 530 126	121	175 369 145	119
167 484 084	65	167 530 127	121	175 369 146	119
167 484 088	65	167 530 128	121	175 369 147	119
167 484 089	65	167 530 144	121	175 369 148	119
167 484 090	65	167 530 145	121	175 369 149	119
167 484 091	65	167 530 146	121	175 369 150	119
167 484 092	65	167 530 147	121	175 369 151	119
167 484 093	65	167 530 148	121	175 369 152	119
167 484 094	65	167 530 164	121	175 480 189	94
167 484 095	65	167 530 165	121	175 480 190	94
167 484 096	65	167 530 166	121	175 480 202	12
167 484 100	62	167 530 167	121	175 480 203	12
167 484 101	62	167 530 168	121	175 480 204	12
167 484 102	62	168 530 012	122	175 480 205	12
167 484 103	62	168 530 013	123	175 480 206	12
167 484 104	62	168 530 014	123	175 480 207	12
167 484 105	62	168 530 015	123	175 480 208	12
167 484 110	62	168 530 016	123	175 480 209	12
167 484 111	62	168 530 017	123	175 480 210	12
167 484 376	79	168 530 032	122	175 480 211	12
167 484 377	79	175 317 009	87	175 480 213	12
167 484 378	79	175 317 010	87	175 480 214	12
167 484 379	79	175 317 012	87	175 480 216	12
167 484 380	79	175 317 054	298	175 480 217	12
167 484 381	79	175 317 055	298	175 480 656	12
167 484 442	79	175 317 057	298	175 480 665	12
167 484 443	79	175 317 340	88	175 480 666	12
167 484 444	79	175 317 355	299	175 480 667	12
167 484 445	79	175 317 438	87	175 480 668	12
167 484 446	79	175 317 453	298	175 480 669	12
167 484 447	79	175 317 538	88	175 480 670	12
167 484 488	79	175 317 568	299	175 480 671	12
167 484 489	79	175 369 022	116	175 480 673	12
167 484 490	79	175 369 023	116	175 480 674	12
167 484 491	79	175 369 024	116	175 480 737	94
167 484 492	79	175 369 025	116	175 480 738	94
167 484 493	79	175 369 026	116	175 480 748	94
167 484 542	79	175 369 027	116	175 481 002	94
167 484 543	79	175 369 029	116	175 481 202	265
167 484 544	79	175 369 030	116	175 481 203	265
167 484 545	79	175 369 031	116	175 481 204	265
167 484 546	79	175 369 032	116	175 481 205	265
167 484 547	79	175 369 033	116	175 481 206	265
167 484 576	79	175 369 062	117	175 481 207	265
167 484 577	79	175 369 063	117	175 481 208	265

Index

Code	Page	Code	Page	Code	Page
175 481 209	265	175 483 059	67	175 483 642	79
175 481 210	265	175 483 060	67	175 483 643	79
175 481 211	265	175 483 061	67	175 483 644	79
175 481 212	265	175 483 062	67	175 483 645	79
175 481 213	265	175 483 063	67	175 483 646	79
175 481 214	265	175 483 064	67	175 483 647	79
175 481 216	265	175 483 251	105	175 483 652	79
175 481 217	265	175 483 252	105	175 483 653	79
175 481 656	265	175 483 253	105	175 483 654	79
175 481 657	265	175 483 254	105	175 483 655	79
175 481 658	265	175 483 255	105	175 483 656	79
175 481 659	265	175 483 256	105	175 483 657	79
175 481 665	265	175 483 257	105	175 483 682	91
175 481 666	265	175 483 258	105	175 483 683	91
175 481 667	265	175 483 259	105	175 483 684	91
175 481 668	265	175 483 275	64	175 483 685	91
175 481 669	265	175 483 276	64	175 483 686	91
175 481 670	265	175 483 277	64	175 483 687	91
175 481 671	265	175 483 278	64	175 483 692	92
175 481 673	265	175 483 279	64	175 483 693	92
175 481 674	265	175 483 280	64	175 483 694	92
175 481 949	94	175 483 281	64	175 483 695	92
175 482 937	67	175 483 282	64	175 483 696	92
175 482 938	67	175 483 283	64	175 483 697	92
175 482 939	67	175 483 285	67	175 483 742	92
175 482 940	67	175 483 286	67	175 483 743	92
175 482 941	67	175 483 287	67	175 483 744	92
175 482 942	67	175 483 288	67	175 483 745	92
175 482 943	67	175 483 289	67	175 483 746	92
175 482 944	67	175 483 290	67	175 483 747	92
175 482 945	67	175 483 413	104	175 483 752	104
175 482 963	64	175 483 414	104	175 483 753	104
175 482 964	64	175 483 415	104	175 483 754	104
175 482 965	64	175 483 416	104	175 483 755	104
175 482 966	64	175 483 417	104	175 483 756	104
175 482 967	64	175 483 418	104	175 483 757	104
175 482 968	64	175 483 419	104	175 483 758	104
175 482 969	64	175 483 420	104	175 483 759	104
175 482 970	64	175 483 421	104	175 483 760	104
175 482 971	64	175 483 426	105	175 484 151	113
175 482 981	94	175 483 427	105	175 484 152	113
175 483 025	66	175 483 428	105	175 484 153	113
175 483 026	66	175 483 429	105	175 484 154	113
175 483 027	66	175 483 459	327	175 484 155	113
175 483 028	66	175 483 461	327	175 484 156	113
175 483 029	66	175 483 464	327	175 484 157	114
175 483 030	66	175 483 466	327	175 484 158	114
175 483 031	66	175 483 468	327	175 484 159	114
175 483 032	66	175 483 470	327	175 485 211	113
175 483 033	66	175 483 472	327	175 485 212	113
175 483 034	66	175 483 532	92	175 485 213	113
175 483 036	66	175 483 533	92	175 485 214	113
175 483 037	66	175 483 534	92	175 485 215	113
175 483 038	66	175 483 535	92	175 485 216	113
175 483 039	66	175 483 536	92	175 485 217	113
175 483 040	66	175 483 537	92	175 485 218	113
175 483 041	66	175 483 602	78	175 485 219	113
175 483 042	66	175 483 603	78	175 485 231	113
175 483 048	66	175 483 604	78	175 485 232	113
175 483 049	66	175 483 605	78	175 485 233	113
175 483 050	66	175 483 606	78	175 485 234	113
175 483 051	66	175 483 607	78	175 485 235	113
175 483 052	66	175 483 612	78	175 485 236	113
175 483 053	66	175 483 613	78	175 485 237	113
175 483 054	66	175 483 614	78	175 485 238	113
175 483 055	66	175 483 615	78	175 485 239	113
175 483 056	66	175 483 616	78	175 530 001	121
175 483 058	67	175 483 617	78	175 530 002	121

Index

Code	Page	Code	Page	Code	Page
175 530 003	121	175 543 117	72	175 543 651	77
175 530 010	123	175 543 131	74	175 543 652	77
175 530 011	122	175 543 132	74	175 543 653	77
175 530 012	122	175 543 133	74	175 543 654	77
175 530 013	123	175 543 134	74	175 543 655	77
175 530 014	123	175 543 135	74	175 543 656	77
175 530 015	123	175 543 136	74	175 543 657	77
175 530 016	123	175 543 137	74	175 546 051	52
175 530 017	123	175 543 152	75	175 546 052	52
175 530 032	122	175 543 153	75	175 546 053	52
175 530 123	121	175 543 154	75	175 546 054	52
175 530 124	121	175 543 155	75	175 546 055	52
175 530 125	121	175 543 156	75	175 546 056	52
175 530 126	122	175 543 157	75	175 546 057	52
175 530 127	122	175 543 171	73	175 546 192	53
175 530 128	122	175 543 172	73	175 546 193	53
175 530 144	121	175 543 173	73	175 546 194	53
175 530 145	121	175 543 174	73	175 546 195	53
175 530 146	122	175 543 175	73	175 546 196	53
175 530 147	122	175 543 176	73	175 546 197	53
175 530 148	122	175 543 177	73	175 546 272	50
175 530 164	121	175 543 211	129	175 546 273	50
175 530 165	121	175 543 212	129	175 546 274	50
175 530 166	122	175 543 213	129	175 546 275	50
175 530 167	122	175 543 214	129	175 546 276	50
175 530 168	122	175 543 215	129	175 546 277	50
175 530 225	122	175 543 216	129	175 546 278	50
175 530 226	122	175 543 217	129	175 546 279	50
175 530 227	122	175 543 252	130	175 546 280	50
175 530 245	122	175 543 253	130	175 546 331	54
175 530 246	122	175 543 254	130	175 546 332	54
175 530 247	122	175 543 255	130	175 546 333	54
175 530 265	122	175 543 256	130	175 546 334	54
175 530 266	122	175 543 257	130	175 546 335	54
175 530 267	122	175 543 311	131	175 546 336	54
175 543 011	68	175 543 312	131	175 546 337	54
175 543 012	68	175 543 313	131	175 546 411	51
175 543 013	68	175 543 314	131	175 546 412	51
175 543 014	68	175 543 315	131	175 546 413	51
175 543 015	68	175 543 316	131	175 546 414	51
175 543 016	68	175 543 317	131	175 546 415	51
175 543 017	68	175 543 352	132	175 546 416	51
175 543 031	70	175 543 353	132	175 546 417	51
175 543 032	70	175 543 354	132	175 546 418	51
175 543 033	70	175 543 355	132	175 546 419	51
175 543 034	70	175 543 356	132	175 546 420	51
175 543 035	70	175 543 357	132	175 546 431	57
175 543 036	70	175 543 611	133	175 546 432	57
175 543 037	70	175 543 612	133	175 546 433	57
175 543 052	71	175 543 613	133	175 546 434	57
175 543 053	71	175 543 614	133	175 546 435	57
175 543 054	71	175 543 615	133	175 546 436	57
175 543 055	71	175 543 616	133	175 546 437	57
175 543 056	71	175 543 617	133	175 546 438	57
175 543 057	71	175 543 631	134	175 546 439	57
175 543 071	69	175 543 632	134	175 546 440	57
175 543 072	69	175 543 633	134	175 546 442	58
175 543 073	69	175 543 634	134	175 546 443	58
175 543 074	69	175 543 635	134	175 546 444	58
175 543 075	69	175 543 636	134	175 546 445	58
175 543 076	69	175 543 637	134	175 546 446	58
175 543 077	69	175 543 641	76	175 546 447	58
175 543 111	72	175 543 642	76	175 546 448	58
175 543 112	72	175 543 643	76	175 546 449	58
175 543 113	72	175 543 644	76	175 546 450	58
175 543 114	72	175 543 645	76	175 546 471	126
175 543 115	72	175 543 646	76	175 546 472	126
175 543 116	72	175 543 647	76	175 546 473	126

Index

Code	Page	Code	Page	Code	Page
175 546 474	126	175 561 112	109	175 562 116	111
175 546 475	126	175 561 113	109	175 562 117	111
175 546 476	126	175 561 114	109	175 562 192	112
175 546 477	126	175 561 115	109	175 562 193	112
175 546 478	126	175 561 116	109	175 562 194	112
175 546 479	126	175 561 117	109	175 562 195	112
175 546 480	126	175 561 192	109	175 562 196	112
175 546 492	128	175 561 193	109	175 562 197	112
175 546 493	128	175 561 194	109	175 562 211	136
175 546 494	128	175 561 195	109	175 562 212	136
175 546 495	128	175 561 196	109	175 562 213	136
175 546 496	128	175 561 197	109	175 562 214	136
175 546 497	128	175 561 211	135	175 562 215	136
175 546 498	128	175 561 212	135	175 562 216	136
175 546 499	128	175 561 213	135	175 562 217	136
175 546 500	128	175 561 214	135	175 562 218	136
175 546 691	127	175 561 215	135	175 562 219	136
175 546 692	127	175 561 216	135	175 562 220	136
175 546 693	127	175 561 217	135	175 562 232	137
175 546 694	127	175 561 218	135	175 562 233	137
175 546 695	127	175 561 219	135	175 562 234	137
175 546 696	127	175 561 220	135	175 562 235	137
175 546 697	127	175 561 232	135	175 562 236	137
175 546 698	127	175 561 233	135	175 562 237	137
175 546 699	127	175 561 234	135	175 562 272	137
175 546 700	127	175 561 235	135	175 562 273	137
175 546 752	125	175 561 236	135	175 562 274	137
175 546 753	125	175 561 237	135	175 562 275	137
175 546 754	125	175 561 272	136	175 562 276	137
175 546 755	125	175 561 273	136	175 562 277	137
175 546 756	125	175 561 274	136	175 562 278	137
175 546 757	125	175 561 275	136	175 562 279	137
175 546 758	125	175 561 276	136	175 562 280	137
175 546 759	125	175 561 277	136	175 567 002	95
175 546 760	125	175 561 278	136	175 567 003	95
175 546 808	55	175 561 279	136	175 567 004	95
175 546 809	55	175 561 280	136	175 567 005	95
175 546 810	55	175 562 011	110	175 567 006	95
175 546 818	56	175 562 012	110	175 567 007	95
175 546 819	56	175 562 013	110	175 567 008	95
175 546 820	56	175 562 014	110	175 567 009	95
175 561 011	108	175 562 015	110	175 567 010	95
175 561 012	108	175 562 016	110	175 567 022	96
175 561 013	108	175 562 017	110	175 567 023	96
175 561 014	108	175 562 018	110	175 567 024	96
175 561 015	108	175 562 019	110	175 567 025	96
175 561 016	108	175 562 020	110	175 567 026	96
175 561 017	108	175 562 051	111	175 567 027	96
175 561 018	108	175 562 052	111	175 567 028	96
175 561 019	108	175 562 053	111	175 567 029	96
175 561 020	108	175 562 054	111	175 567 030	96
175 561 051	108	175 562 055	111	175 567 202	95
175 561 052	108	175 562 056	111	175 567 203	95
175 561 053	108	175 562 057	111	175 567 204	95
175 561 054	108	175 562 092	112	175 567 205	95
175 561 055	108	175 562 093	112	175 567 206	95
175 561 056	108	175 562 094	112	175 567 207	95
175 561 057	108	175 562 095	112	175 567 208	95
175 561 092	110	175 562 096	112	175 567 209	95
175 561 093	110	175 562 097	112	175 567 210	95
175 561 094	110	175 562 098	112	175 567 222	96
175 561 095	110	175 562 099	112	175 567 223	96
175 561 096	110	175 562 100	112	175 567 224	96
175 561 097	110	175 562 111	111	175 567 225	96
175 561 098	110	175 562 112	111	175 567 226	96
175 561 099	110	175 562 113	111	175 567 227	96
175 561 100	110	175 562 114	111	175 567 228	96
175 561 111	109	175 562 115	111	175 567 229	96

Index

Code	Page
175 567 230	96
175 567 822	97
175 567 823	97
175 567 824	97
175 567 825	97
175 567 826	97
175 567 827	97
175 567 828	97
175 567 829	97
175 567 830	97
175 567 842	97
175 567 843	97
175 567 844	97
175 567 845	97
175 567 846	97
175 567 847	97
175 567 848	97
175 567 849	97
175 567 850	97
175 568 002	98
175 568 003	98
175 568 004	98
175 568 005	98
175 568 006	98
175 568 007	98
175 568 008	98
175 568 022	99
175 568 023	99
175 568 024	99
175 568 025	99
175 568 026	99
175 568 027	99
175 568 028	99
175 568 102	101
175 568 103	101
175 568 104	101
175 568 105	101
175 568 106	101
175 568 107	101
175 568 108	101
175 568 122	102
175 568 123	102
175 568 124	102
175 568 125	102
175 568 126	102
175 568 127	102
175 568 128	102
175 568 202	98
175 568 203	98
175 568 204	98
175 568 205	98
175 568 206	98
175 568 207	98
175 568 208	98
175 568 222	99
175 568 223	99
175 568 224	99
175 568 225	99
175 568 226	99
175 568 227	99
175 568 228	99
175 568 302	101
175 568 303	101
175 568 304	101
175 568 305	101
175 568 306	101
175 568 307	101
175 568 308	101

Code	Page
175 568 322	102
175 568 323	102
175 568 324	102
175 568 325	102
175 568 326	102
175 568 327	102
175 568 328	102
175 568 822	100
175 568 823	100
175 568 824	100
175 568 825	100
175 568 826	100
175 568 827	100
175 568 828	100
175 568 842	100
175 568 843	100
175 568 844	100
175 568 845	100
175 568 846	100
175 568 847	100
175 568 848	100
175 568 922	103
175 568 923	103
175 568 924	103
175 568 925	103
175 568 926	103
175 568 927	103
175 568 928	103
175 568 942	103
175 568 943	103
175 568 944	103
175 568 945	103
175 568 946	103
175 568 947	103
175 568 948	103
175 591 011	255
175 591 012	255
175 591 013	255
175 591 014	255
175 591 015	255
175 591 016	255
175 591 017	255
175 591 018	255
175 591 019	255
175 591 020	255
175 591 031	255
175 591 032	255
175 591 033	255
175 591 034	255
175 591 035	255
175 591 036	255
175 591 037	255
175 595 011	256
175 595 012	256
175 595 013	256
175 595 014	256
175 595 015	256
175 595 016	256
175 595 017	256
175 595 018	256
175 595 019	256
175 595 020	256
175 595 031	256
175 595 032	256
175 595 033	256
175 595 034	256
175 595 035	256
175 595 036	256

Code	Page
175 595 037	256
178 530 001	123
180 001 002	303
180 001 003	303
180 001 004	303
180 001 005	303
180 001 006	303
180 001 007	303
180 001 012	304
180 001 013	304
180 001 014	304
180 001 015	304
180 001 016	304
180 001 017	304
180 001 101	304
180 001 102	304
180 001 103	304
180 001 104	304
180 001 105	304
180 001 106	304
180 001 107	304
180 001 108	304
180 001 109	304
180 001 110	304
180 001 111	304
180 001 112	304
180 001 113	304
180 001 114	304
180 001 115	304
180 001 116	304
180 001 117	304
180 001 118	304
180 001 119	304
180 001 120	304
180 001 121	304
180 001 126	304
180 001 127	304
180 001 128	304
180 001 129	304
180 001 130	305
180 001 131	305
180 001 132	305
180 001 133	305
180 001 134	305
180 514 132	297
180 514 133	297
180 514 134	297
180 514 135	297
180 514 136	297
180 514 137	297
180 515 132	297
180 515 133	297
180 515 134	297
180 515 135	297
180 515 136	297
180 515 137	297
180 519 301	300
180 519 303	300
180 519 304	300
180 519 307	300
180 519 308	300
180 519 309	300
180 519 312	300
180 519 313	300
180 519 314	300
180 519 315	300
180 519 318	300
180 519 319	300

Index

Code	Page	Code	Page	Code	Page
180 519 320	300	180 655 136	317	185 517 752	86
180 519 321	300	180 655 137	317	185 517 753	86
180 519 322	300	185 514 032	83	185 517 754	86
180 519 325	300	185 514 033	83	185 517 755	86
180 519 326	300	185 514 034	83	185 517 756	86
180 519 327	300	185 514 035	83	185 517 757	86
180 519 328	300	185 514 036	83	185 684 032	219
180 519 329	300	185 514 037	83	185 684 033	219
180 519 330	300	185 514 052	83	185 684 034	219
180 519 336	300	185 514 053	83	185 684 035	219
180 519 337	300	185 514 054	83	185 684 036	219
180 519 338	300	185 514 055	83	185 684 037	219
180 519 341	300	185 514 056	83	185 684 052	219
180 519 342	300	185 514 057	83	185 684 053	219
180 519 343	300	185 514 132	83	185 684 054	219
180 519 345	300	185 514 133	83	185 684 055	219
180 519 346	300	185 514 134	83	185 684 056	219
180 519 351	300	185 514 135	83	185 684 057	219
180 519 352	300	185 514 136	83	185 684 132	220
180 519 353	300	185 514 137	83	185 684 133	220
180 519 355	300	185 514 152	83	185 684 134	220
180 519 356	300	185 514 153	83	185 684 135	220
180 624 132	308	185 514 154	83	185 684 136	220
180 624 133	308	185 514 155	83	185 684 137	220
180 624 134	308	185 514 156	83	185 684 152	220
180 624 135	308	185 514 157	83	185 684 153	220
180 624 136	308	185 515 032	84	185 684 154	220
180 624 137	308	185 515 033	84	185 684 155	220
180 625 132	309	185 515 034	84	185 684 156	220
180 625 133	309	185 515 035	84	185 684 157	220
180 625 134	309	185 515 036	84	185 685 032	221
180 625 135	309	185 515 037	84	185 685 033	221
180 625 136	309	185 515 052	84	185 685 034	221
180 625 137	309	185 515 053	84	185 685 035	221
180 634 132	306	185 515 054	84	185 685 036	221
180 634 133	306	185 515 055	84	185 685 037	221
180 634 134	306	185 515 056	84	185 685 052	221
180 634 135	306	185 515 057	84	185 685 053	221
180 634 136	306	185 515 132	85	185 685 054	221
180 634 137	306	185 515 133	85	185 685 055	221
180 635 132	307	185 515 134	85	185 685 056	221
180 635 133	307	185 515 135	85	185 685 057	221
180 635 134	307	185 515 136	85	185 685 132	221
180 635 135	307	185 515 137	85	185 685 133	221
180 635 136	307	185 515 152	85	185 685 134	221
180 635 137	307	185 515 153	85	185 685 135	221
180 644 132	312	185 515 154	85	185 685 136	221
180 644 133	312	185 515 155	85	185 685 137	221
180 644 134	312	185 515 156	85	185 685 152	221
180 644 135	312	185 515 157	85	185 685 153	221
180 644 136	312	185 517 132	85	185 685 154	221
180 644 137	312	185 517 133	85	185 685 155	221
180 645 132	313	185 517 134	85	185 685 156	221
180 645 133	313	185 517 135	85	185 685 157	221
180 645 134	313	185 517 136	85	185 687 132	222
180 645 135	313	185 517 137	85	185 687 133	222
180 645 136	313	185 517 152	85	185 687 134	222
180 645 137	313	185 517 153	85	185 687 135	222
180 654 132	316	185 517 154	85	185 687 136	222
180 654 133	316	185 517 155	85	185 687 137	222
180 654 134	316	185 517 156	85	185 687 152	222
180 654 135	316	185 517 157	85	185 687 153	222
180 654 136	316	185 517 732	86	185 687 154	222
180 654 137	316	185 517 733	86	185 687 155	222
180 655 132	317	185 517 734	86	185 687 156	222
180 655 133	317	185 517 735	86	185 687 157	222
180 655 134	317	185 517 736	86	185 687 732	223
180 655 135	317	185 517 737	86	185 687 733	223

Index

Code	Page
185 687 734	223
185 687 735	223
185 687 736	223
185 687 737	223
185 687 752	223
185 687 753	223
185 687 754	223
185 687 755	223
185 687 756	223
185 687 757	223
193 530 001	123
193 530 010	123
198 000 892	90
198 000 893	90
198 000 894	90
198 000 895	90
198 000 896	90
198 000 897	90
198 104 166	89
198 151 742	89
198 151 743	89
198 151 744	89
198 151 745	89
198 151 746	89
198 151 747	89
198 151 752	89
198 151 753	89
198 151 754	89
198 151 755	89
198 151 756	89
198 151 757	89
198 151 842	89
198 151 843	89
198 151 844	89
198 151 845	89
198 151 846	89
198 151 847	89
198 151 852	89
198 151 853	89
198 151 854	89
198 151 855	89
198 151 856	89
198 151 857	89
198 204 162	89
198 204 164	89
198 204 327	90
198 204 328	90
198 204 329	90
198 803 905	262
198 803 906	262
198 803 907	262
198 803 908	262
198 803 909	262
198 803 910	262
198 803 911	262
198 803 912	262
198 806 466	262
198 806 467	262
198 806 468	262
198 806 469	262
198 806 470	262
198 806 471	262
198 807 202	324
198 807 203	324
198 807 204	324
198 807 205	324
198 807 206	324
198 807 207	324

Code	Page
198 807 208	324
198 807 209	324
198 807 210	324
199 025 327	225
199 025 329	225
199 025 337	227
199 025 339	227
199 025 347	229
199 025 349	229
199 025 357	223
199 025 358	223
199 025 359	223
199 025 367	226
199 025 368	226
199 025 369	226
199 025 370	226
199 025 377	228
199 025 378	228
199 025 379	228
199 025 380	228
199 025 387	311
199 025 389	311
199 025 397	315
199 025 399	315
199 025 407	319
199 025 409	319
199 025 447	309
199 025 448	309
199 025 449	309
199 025 457	313
199 025 458	313
199 025 459	313
199 025 460	313
199 025 467	317
199 025 468	317
199 025 469	317
199 025 470	317
199 041 004	260
199 041 005	260
199 041 010	260
199 041 011	260
199 041 052	257
199 041 053	257
199 041 054	257
199 041 055	257
199 041 056	257
199 041 057	257
199 041 058	257
199 041 059	257
199 041 084	257
199 041 085	257
199 041 086	257
199 041 087	257
199 041 088	257
199 041 089	257
199 041 114	258
199 041 115	258
199 041 116	258
199 041 117	258
199 041 118	258
199 041 119	258
199 041 138	261
199 041 139	261
199 041 140	261
199 041 141	261
199 041 142	261
199 041 143	261
199 041 144	261

Code	Page
199 041 145	261
199 041 146	261
199 041 184	321
199 041 185	321
199 041 186	321
199 041 187	321
199 041 188	321
199 041 189	321
199 041 192	321
199 041 193	321
199 041 194	321
199 041 195	321
199 041 196	321
199 041 198	322
199 041 199	322
199 041 200	322
199 041 201	322
199 041 202	322
199 041 231	261
199 041 232	261
199 041 233	261
199 041 234	261
199 041 235	261
199 041 236	261
199 041 237	261
199 041 296	260
199 041 297	260
199 041 323	258
199 041 324	258
199 041 325	258
199 041 326	258
199 041 327	258
199 041 328	258
199 041 329	258
199 041 344	259
199 041 345	259
199 041 346	259
199 041 347	259
199 041 348	259
199 041 349	259
199 041 350	259
199 041 395	322
199 041 396	322
199 041 397	322
199 041 398	322
199 041 399	322
199 041 400	322
199 041 520	323
199 041 521	323
199 041 522	323
199 041 523	323
199 041 524	323
199 041 525	323
199 041 661	257
199 041 662	257
199 041 663	257
199 041 664	257
199 041 665	257
199 041 666	257
199 041 892	258
199 041 898	259
199 041 998	259
199 041 999	259
199 107 423	140
199 107 424	140
199 107 425	140
199 107 426	140
199 107 427	140

Index

Code	Page	Code	Page	Code	Page
199 107 428	140	199 132 072	150	199 140 630	232
199 107 433	141	199 132 073	150	199 140 642	230
199 107 434	141	199 132 074	150	199 140 643	230
199 107 435	141	199 132 075	150	199 140 644	230
199 107 436	141	199 132 076	150	199 140 645	230
199 107 437	141	199 132 077	150	199 140 646	230
199 107 438	141	199 132 078	150	199 140 647	230
199 107 802	138	199 132 083	148	199 140 648	230
199 107 803	138	199 132 084	148	199 140 649	230
199 107 804	138	199 132 085	148	199 140 650	230
199 107 805	138	199 132 086	148	199 140 662	232
199 107 806	138	199 132 087	148	199 140 663	232
199 107 807	138	199 132 088	148	199 140 664	232
199 107 808	138	199 132 093	151	199 140 665	232
199 107 812	139	199 132 094	151	199 140 666	232
199 107 813	139	199 132 095	151	199 140 667	232
199 107 814	139	199 132 096	151	199 140 668	232
199 107 815	139	199 132 097	151	199 140 669	232
199 107 816	139	199 132 098	151	199 140 670	232
199 107 817	139	199 132 113	145	199 141 562	235
199 107 818	139	199 132 114	145	199 141 563	235
199 107 822	142	199 132 115	145	199 141 564	235
199 107 823	142	199 132 116	145	199 141 565	235
199 107 824	142	199 132 117	145	199 141 566	235
199 107 825	142	199 132 118	145	199 141 567	235
199 107 826	142	199 132 119	145	199 141 568	235
199 107 827	142	199 132 120	145	199 141 582	234
199 107 828	142	199 132 121	145	199 141 583	234
199 107 832	143	199 132 153	152	199 141 584	234
199 107 833	143	199 132 154	152	199 141 585	234
199 107 834	143	199 132 155	152	199 141 586	234
199 107 835	143	199 132 156	152	199 141 587	234
199 107 836	143	199 132 157	152	199 141 588	234
199 107 837	143	199 132 158	152	199 141 602	237
199 107 838	143	199 132 159	152	199 141 603	237
199 107 853	144	199 132 160	152	199 141 604	237
199 107 854	144	199 132 161	152	199 141 605	237
199 107 855	144	199 140 562	231	199 141 606	237
199 107 856	144	199 140 563	231	199 141 607	237
199 107 857	144	199 140 564	231	199 141 608	237
199 107 858	144	199 140 565	231	199 141 622	236
199 132 012	146	199 140 566	231	199 141 623	236
199 132 013	146	199 140 567	231	199 141 624	236
199 132 014	146	199 140 568	231	199 141 625	236
199 132 015	146	199 140 582	230	199 141 626	236
199 132 016	146	199 140 583	230	199 141 627	236
199 132 017	146	199 140 584	230	199 141 628	236
199 132 018	146	199 140 585	230	199 141 642	234
199 132 019	146	199 140 586	230	199 141 643	234
199 132 020	146	199 140 587	230	199 141 644	234
199 132 021	146	199 140 588	230	199 141 645	234
199 132 032	147	199 140 589	230	199 141 646	234
199 132 033	147	199 140 590	230	199 141 647	234
199 132 034	147	199 140 602	233	199 141 648	234
199 132 035	147	199 140 603	233	199 141 662	236
199 132 036	147	199 140 604	233	199 141 663	236
199 132 037	147	199 140 605	233	199 141 664	236
199 132 038	147	199 140 606	233	199 141 665	236
199 132 052	149	199 140 607	233	199 141 666	236
199 132 053	149	199 140 608	233	199 141 667	236
199 132 054	149	199 140 622	232	199 141 668	236
199 132 055	149	199 140 623	232	199 142 562	239
199 132 056	149	199 140 624	232	199 142 563	239
199 132 057	149	199 140 625	232	199 142 564	239
199 132 058	149	199 140 626	232	199 142 565	239
199 132 059	149	199 140 627	232	199 142 566	239
199 132 060	149	199 140 628	232	199 142 567	239
199 132 061	149	199 140 629	232	199 142 568	239

Index

Code	Page
199 142 582	238
199 142 583	238
199 142 584	238
199 142 585	238
199 142 586	238
199 142 587	238
199 142 588	238
199 142 602	241
199 142 603	241
199 142 604	241
199 142 605	241
199 142 606	241
199 142 607	241
199 142 608	241
199 142 622	240
199 142 623	240
199 142 624	240
199 142 625	240
199 142 626	240
199 142 627	240
199 142 628	240
199 142 642	238
199 142 643	238
199 142 644	238
199 142 645	238
199 142 646	238
199 142 647	238
199 142 648	238
199 142 662	240
199 142 663	240
199 142 664	240
199 142 665	240
199 142 666	240
199 142 667	240
199 142 668	240
199 165 402	251
199 165 403	251
199 165 404	251
199 165 405	251
199 165 406	251
199 165 407	251
199 165 412	251
199 165 413	251
199 165 414	251
199 165 415	251
199 165 416	251
199 165 417	251
199 165 422	252
199 165 423	252
199 165 424	252
199 165 425	252
199 165 426	252
199 165 427	252
199 165 432	251
199 165 433	251
199 165 434	251
199 165 435	251
199 165 436	251
199 165 437	251
199 165 442	251
199 165 443	251
199 165 444	251
199 165 445	251
199 165 446	251
199 165 447	251
199 165 452	252
199 165 453	252
199 165 454	252

Code	Page
199 165 455	252
199 165 456	252
199 165 457	252
199 166 505	252
199 166 506	252
199 166 507	252
199 166 515	253
199 166 516	253
199 166 517	253
199 166 656	253
199 166 666	254
199 187 012	155
199 187 013	155
199 187 014	155
199 187 015	155
199 187 016	155
199 187 017	155
199 187 018	155
199 187 032	163
199 187 033	163
199 187 034	163
199 187 035	163
199 187 036	163
199 187 037	163
199 187 038	163
199 187 053	156
199 187 054	156
199 187 055	156
199 187 056	156
199 187 057	156
199 187 058	156
199 187 073	164
199 187 074	164
199 187 075	164
199 187 076	164
199 187 077	164
199 187 078	164
199 187 092	153
199 187 093	153
199 187 094	153
199 187 095	153
199 187 096	153
199 187 097	153
199 187 098	153
199 187 112	161
199 187 113	161
199 187 114	161
199 187 115	161
199 187 116	161
199 187 117	161
199 187 118	161
199 187 132	159
199 187 133	159
199 187 134	159
199 187 135	159
199 187 136	159
199 187 137	159
199 187 138	159
199 187 152	167
199 187 153	167
199 187 154	167
199 187 155	167
199 187 156	167
199 187 157	167
199 187 158	167
199 187 173	160
199 187 174	160
199 187 175	160

Code	Page
199 187 176	160
199 187 177	160
199 187 178	160
199 187 193	168
199 187 194	168
199 187 195	168
199 187 196	168
199 187 197	168
199 187 198	168
199 187 212	157
199 187 213	157
199 187 214	157
199 187 215	157
199 187 216	157
199 187 217	157
199 187 218	157
199 187 232	165
199 187 233	165
199 187 234	165
199 187 235	165
199 187 236	165
199 187 237	165
199 187 238	165
199 187 242	154
199 187 243	154
199 187 244	154
199 187 245	154
199 187 246	154
199 187 247	154
199 187 248	154
199 187 252	162
199 187 253	162
199 187 254	162
199 187 255	162
199 187 256	162
199 187 257	162
199 187 258	162
199 187 262	158
199 187 263	158
199 187 264	158
199 187 265	158
199 187 266	158
199 187 267	158
199 187 268	158
199 187 272	166
199 187 273	166
199 187 274	166
199 187 275	166
199 187 276	166
199 187 277	166
199 187 278	166
199 232 003	171
199 232 004	171
199 232 005	171
199 232 006	171
199 232 007	171
199 232 008	171
199 232 012	169
199 232 013	169
199 232 014	169
199 232 015	169
199 232 016	169
199 232 017	169
199 232 018	169
199 232 023	176
199 232 024	176
199 232 025	176
199 232 026	176

Index

Code	Page	Code	Page	Code	Page
199 232 027	176	199 232 139	181	199 232 716	172
199 232 028	176	199 232 140	181	199 232 717	172
199 232 032	170	199 232 141	181	199 232 718	172
199 232 033	170	199 232 152	183	199 232 753	173
199 232 034	170	199 232 153	183	199 232 754	173
199 232 035	170	199 232 154	183	199 232 755	173
199 232 036	170	199 232 155	183	199 232 756	173
199 232 037	170	199 232 156	183	199 232 757	173
199 232 038	170	199 232 157	183	199 232 758	173
199 232 043	179	199 232 158	183	199 232 793	180
199 232 044	179	199 232 172	190	199 232 794	180
199 232 045	179	199 232 173	190	199 232 795	180
199 232 046	179	199 232 174	190	199 232 796	180
199 232 047	179	199 232 175	190	199 232 797	180
199 232 048	179	199 232 176	190	199 232 798	180
199 232 052	174	199 232 177	190	199 232 833	182
199 232 053	174	199 232 178	190	199 232 834	182
199 232 054	174	199 232 179	190	199 232 835	182
199 232 055	174	199 232 180	190	199 232 836	182
199 232 056	174	199 232 181	190	199 232 837	182
199 232 057	174	199 232 192	191	199 232 838	182
199 232 058	174	199 232 193	191	199 232 839	182
199 232 063	186	199 232 194	191	199 232 840	182
199 232 064	186	199 232 195	191	199 232 841	182
199 232 065	186	199 232 196	191	199 232 873	189
199 232 066	186	199 232 197	191	199 232 874	189
199 232 067	186	199 232 198	191	199 232 875	189
199 232 068	186	199 232 212	197	199 232 876	189
199 232 072	175	199 232 213	197	199 232 877	189
199 232 073	175	199 232 214	197	199 232 878	189
199 232 074	175	199 232 215	197	199 232 879	189
199 232 075	175	199 232 216	197	199 232 880	189
199 232 076	175	199 232 217	197	199 232 881	189
199 232 077	175	199 232 218	197	199 232 913	196
199 232 078	175	199 232 219	197	199 232 914	196
199 232 083	194	199 232 220	197	199 232 915	196
199 232 084	194	199 232 221	197	199 232 916	196
199 232 085	194	199 232 232	198	199 232 917	196
199 232 086	194	199 232 233	198	199 232 918	196
199 232 087	194	199 232 234	198	199 232 919	196
199 232 088	194	199 232 235	198	199 232 920	196
199 232 092	177	199 232 236	198	199 232 921	196
199 232 093	177	199 232 237	198	199 232 929	184
199 232 094	177	199 232 238	198	199 232 930	184
199 232 095	177	199 232 572	187	199 232 931	184
199 232 096	177	199 232 573	187	199 232 939	192
199 232 097	177	199 232 574	187	199 232 940	192
199 232 098	177	199 232 575	187	199 232 941	192
199 232 103	201	199 232 576	187	199 232 949	200
199 232 104	201	199 232 577	187	199 232 950	200
199 232 105	201	199 232 578	187	199 232 951	200
199 232 106	201	199 232 592	195	199 232 959	185
199 232 107	201	199 232 593	195	199 232 960	185
199 232 108	201	199 232 594	195	199 232 961	185
199 232 112	178	199 232 595	195	199 232 969	193
199 232 113	178	199 232 596	195	199 232 970	193
199 232 114	178	199 232 597	195	199 232 971	193
199 232 115	178	199 232 598	195	199 232 979	199
199 232 116	178	199 232 612	202	199 232 980	199
199 232 117	178	199 232 613	202	199 232 981	199
199 232 118	178	199 232 614	202	199 240 462	242
199 232 132	181	199 232 615	202	199 240 463	242
199 232 133	181	199 232 616	202	199 240 464	242
199 232 134	181	199 232 617	202	199 240 465	242
199 232 135	181	199 232 618	202	199 240 466	242
199 232 136	181	199 232 713	172	199 240 467	242
199 232 137	181	199 232 714	172	199 240 468	242
199 232 138	181	199 232 715	172	199 240 469	242

Index

Code	Page
199 240 470	242
199 240 482	243
199 240 483	243
199 240 484	243
199 240 485	243
199 240 486	243
199 240 487	243
199 240 488	243
199 240 489	243
199 240 490	243
199 240 502	244
199 240 503	244
199 240 504	244
199 240 505	244
199 240 506	244
199 240 507	244
199 240 508	244
199 240 509	244
199 240 510	244
199 240 522	242
199 240 523	242
199 240 524	242
199 240 525	242
199 240 526	242
199 240 527	242
199 240 528	242
199 240 529	242
199 240 530	242
199 240 542	243
199 240 543	243
199 240 544	243
199 240 545	243
199 240 546	243
199 240 547	243
199 240 548	243
199 240 549	243
199 240 550	243
199 240 562	244
199 240 563	244
199 240 564	244
199 240 565	244
199 240 566	244
199 240 567	244
199 240 568	244
199 240 569	244
199 240 570	244
199 241 462	245
199 241 463	245
199 241 464	245
199 241 465	245
199 241 466	245
199 241 467	245
199 241 468	245
199 241 482	246
199 241 483	246
199 241 484	246
199 241 485	246
199 241 486	246
199 241 487	246
199 241 488	246
199 241 502	247
199 241 503	247
199 241 504	247
199 241 505	247
199 241 506	247
199 241 507	247
199 241 508	247
199 241 522	245

Code	Page
199 241 523	245
199 241 524	245
199 241 525	245
199 241 526	245
199 241 527	245
199 241 528	245
199 241 542	246
199 241 543	246
199 241 544	246
199 241 545	246
199 241 546	246
199 241 547	246
199 241 548	246
199 241 562	247
199 241 563	247
199 241 564	247
199 241 565	247
199 241 566	247
199 241 567	247
199 241 568	247
199 242 462	248
199 242 463	248
199 242 464	248
199 242 465	248
199 242 466	248
199 242 467	248
199 242 468	248
199 242 482	249
199 242 483	249
199 242 484	249
199 242 485	249
199 242 486	249
199 242 487	249
199 242 488	249
199 242 502	250
199 242 503	250
199 242 504	250
199 242 505	250
199 242 506	250
199 242 507	250
199 242 508	250
199 242 522	248
199 242 523	248
199 242 524	248
199 242 525	248
199 242 526	248
199 242 527	248
199 242 528	248
199 242 542	249
199 242 543	249
199 242 544	249
199 242 545	249
199 242 546	249
199 242 547	249
199 242 548	249
199 242 562	250
199 242 563	250
199 242 564	250
199 242 565	250
199 242 566	250
199 242 567	250
199 242 568	250
199 287 012	204
199 287 013	204
199 287 014	204
199 287 015	204
199 287 016	204
199 287 017	204

Code	Page
199 287 018	204
199 287 032	212
199 287 033	212
199 287 034	212
199 287 035	212
199 287 036	212
199 287 037	212
199 287 038	212
199 287 053	205
199 287 054	205
199 287 055	205
199 287 056	205
199 287 057	205
199 287 058	205
199 287 073	213
199 287 074	213
199 287 075	213
199 287 076	213
199 287 077	213
199 287 078	213
199 287 092	203
199 287 093	203
199 287 094	203
199 287 095	203
199 287 096	203
199 287 097	203
199 287 098	203
199 287 112	211
199 287 113	211
199 287 114	211
199 287 115	211
199 287 116	211
199 287 117	211
199 287 118	211
199 287 132	208
199 287 133	208
199 287 134	208
199 287 135	208
199 287 136	208
199 287 137	208
199 287 138	208
199 287 152	216
199 287 153	216
199 287 154	216
199 287 155	216
199 287 156	216
199 287 157	216
199 287 158	216
199 287 173	209
199 287 174	209
199 287 175	209
199 287 176	209
199 287 177	209
199 287 178	209
199 287 193	217
199 287 194	217
199 287 195	217
199 287 196	217
199 287 197	217
199 287 198	217
199 287 212	207
199 287 213	207
199 287 214	207
199 287 215	207
199 287 216	207
199 287 217	207
199 287 218	207
199 287 232	215

Index

Code	Page	Code	Page	Code	Page
199 287 233	215	727 700 206	26	727 705 011	43
199 287 234	215	727 700 207	26	727 705 012	289
199 287 235	215	727 700 208	26	727 705 013	289
199 287 236	215	727 700 209	26	727 705 014	289
199 287 237	215	727 700 210	26	727 705 017	289
199 287 238	215	727 700 211	26	727 705 520	290
199 287 242	206	727 700 212	26	727 705 522	290
199 287 243	206	727 700 313	26	731 400 667	28
199 287 244	206	727 700 314	26	731 400 670	28
199 287 245	206	727 700 315	26	731 400 671	28
199 287 246	206	727 700 316	26	731 400 672	28
199 287 247	206	727 700 317	26	731 400 753	28
199 287 248	206	727 700 318	26	731 400 755	28
199 287 252	214	727 700 319	26	731 400 757	28
199 287 253	214	727 700 320	26	731 400 759	28
199 287 254	214	727 700 321	26	731 400 760	28
199 287 255	214	727 700 322	26	731 400 761	28
199 287 256	214	727 700 323	26	731 400 763	28
199 287 257	214	727 700 324	26	731 400 764	28
199 287 258	214	727 700 325	26	735 018 513	13
199 287 262	210	727 700 406	25	735 018 514	13
199 287 263	210	727 700 407	25	735 018 515	13
199 287 264	210	727 700 408	25	735 018 516	13
199 287 265	210	727 700 409	25	735 018 517	13
199 287 266	210	727 700 410	25	735 018 519	13
199 287 267	210	727 700 411	25	735 018 520	13
199 287 268	210	727 700 412	25	735 018 538	266
199 287 272	218	727 700 513	25	735 018 539	266
199 287 273	218	727 700 514	25	735 018 540	266
199 287 274	218	727 700 515	25	735 018 541	266
199 287 275	218	727 700 516	25	735 018 542	266
199 287 276	218	727 700 517	25	735 018 544	266
199 287 277	218	727 700 518	25	735 018 545	266
199 287 278	218	727 700 519	25	735 018 546	266
700 245 481	21	727 700 520	25	735 018 547	266
700 245 482	21	727 700 521	25	735 018 548	266
700 245 483	21	727 700 522	25	735 018 549	266
700 245 484	21	727 700 523	25	735 018 550	266
700 245 485	21	727 700 524	287	735 018 551	266
700 245 486	21	727 700 525	287	735 018 706	13
724 600 655	19	727 701 206	27	735 018 707	13
724 600 656	19	727 701 207	27	735 018 708	13
724 600 657	19	727 701 208	27	735 018 709	13
724 600 658	19	727 701 209	27	735 018 710	13
724 600 659	19	727 701 210	27	735 018 711	13
724 600 660	19	727 701 211	27	735 018 712	13
724 600 661	19	727 701 212	27	735 018 713	13
724 600 705	19	727 701 313	27	735 018 714	13
724 600 706	19	727 701 314	27	735 018 716	13
724 600 707	19	727 701 319	27	735 018 717	13
724 600 708	19	727 701 320	27	735 018 719	13
724 600 709	19	727 701 406	26	735 018 720	13
724 600 710	19	727 701 407	26	735 018 731	266
724 600 711	19	727 701 408	26	735 018 732	266
724 605 505	19	727 701 409	26	735 018 733	266
724 605 506	19	727 701 410	26	735 018 734	266
724 605 507	19	727 701 411	26	735 018 735	266
724 605 508	19	727 701 412	26	735 018 736	266
724 605 509	19	727 701 513	26	735 018 737	266
724 605 510	19	727 701 514	26	735 018 738	266
724 605 511	19	727 701 521	26	735 018 739	266
724 690 105	20	727 701 522	26	735 018 741	266
724 690 106	20	727 701 523	26	735 018 742	266
724 690 107	20	727 705 006	43	735 018 744	266
724 690 108	20	727 705 007	43	735 018 745	266
724 690 109	20	727 705 008	43	735 100 105	30
724 690 110	20	727 705 009	43	735 100 106	30
724 690 111	20	727 705 010	43	735 100 107	30

Index

Code	Page
735 100 108	30
735 100 109	30
735 100 110	30
735 100 111	30
735 108 606	13
735 108 607	13
735 108 608	13
735 108 609	13
735 108 610	13
735 108 611	13
735 108 631	267
735 108 632	267
735 108 633	267
735 108 634	267
735 108 635	267
735 108 636	267
735 150 105	30
735 150 106	30
735 150 107	30
735 150 108	30
735 150 109	30
735 150 110	30
735 150 111	30
735 158 513	14
735 158 514	14
735 158 515	14
735 158 516	14
735 158 517	14
735 158 519	14
735 158 520	14
735 158 538	267
735 158 539	267
735 158 540	267
735 158 541	267
735 158 542	267
735 158 544	267
735 158 545	267
735 158 546	267
735 158 547	267
735 158 548	267
735 158 549	267
735 158 550	267
735 158 551	267
735 158 606	14
735 158 607	14
735 158 608	14
735 158 609	14
735 158 610	14
735 158 611	14
735 158 612	14
735 158 613	14
735 158 614	14
735 158 616	14
735 158 617	14
735 158 619	14
735 158 620	14
735 158 631	267
735 158 632	267
735 158 633	267
735 158 634	267
735 158 635	267
735 158 636	267
735 158 637	267
735 158 638	267
735 158 639	267
735 158 641	267
735 158 642	267
735 158 644	267

Code	Page
735 158 645	267
735 200 105	30
735 200 106	30
735 200 107	30
735 200 108	30
735 200 109	30
735 200 110	30
735 200 111	30
735 208 513	15
735 208 514	15
735 208 515	15
735 208 516	15
735 208 517	15
735 208 519	15
735 208 520	15
735 208 538	268
735 208 539	268
735 208 540	268
735 208 541	268
735 208 542	268
735 208 544	268
735 208 545	268
735 208 546	268
735 208 547	268
735 208 548	268
735 208 549	268
735 208 550	268
735 208 551	268
735 208 561	16
735 208 562	16
735 208 569	16
735 208 570	16
735 208 586	270
735 208 587	270
735 208 594	270
735 208 595	270
735 208 606	15
735 208 607	15
735 208 608	15
735 208 609	15
735 208 610	15
735 208 611	15
735 208 612	15
735 208 613	15
735 208 614	15
735 208 616	15
735 208 617	15
735 208 619	15
735 208 620	15
735 208 631	268
735 208 632	268
735 208 633	268
735 208 634	268
735 208 635	268
735 208 636	268
735 208 637	268
735 208 638	268
735 208 639	268
735 208 641	268
735 208 642	268
735 208 644	268
735 208 645	268
735 208 661	16
735 208 662	16
735 208 669	16
735 208 670	16
735 208 686	269
735 208 687	269

Code	Page
735 208 694	269
735 208 695	269
735 208 956	269
735 208 957	269
735 208 958	269
735 208 959	269
735 208 961	269
735 208 962	269
735 208 963	269
735 208 964	269
735 208 965	269
735 208 967	269
735 208 968	269
735 208 969	269
735 208 970	269
735 208 971	269
735 208 972	269
735 208 974	269
735 208 975	269
735 208 976	269
735 208 977	269
735 208 978	269
735 208 979	269
735 208 980	269
735 208 981	269
735 310 036	46
735 310 037	46
735 310 038	46
735 310 039	46
735 310 040	46
735 310 041	46
735 311 042	46
735 311 043	46
735 311 044	46
735 311 045	46
735 311 046	46
735 311 047	46
735 311 049	46
735 311 050	46
735 314 000	47
735 314 001	47
735 314 002	47
735 318 036	47
735 318 037	47
735 318 038	47
735 318 039	47
735 318 040	47
735 318 041	47
735 318 101	282
735 318 202	282
735 318 204	282
735 318 205	282
735 318 206	282
735 318 207	282
735 318 208	282
735 318 209	282
735 318 303	282
735 318 304	282
735 318 305	282
735 318 306	282
735 318 307	282
735 318 308	282
735 318 309	282
735 318 505	282
735 318 506	282
735 318 507	282
735 318 508	282
735 318 509	282

Index

Code	Page	Code	Page	Code	Page
735 318 606	282	735 598 367	295	735 648 610	20
735 318 607	282	735 598 369	295	735 648 611	20
735 318 608	282	735 598 370	296	735 648 612	20
735 318 609	282	735 598 371	296	735 648 613	20
735 510 105	33	735 598 372	296	735 648 614	20
735 510 106	33	735 598 406	295	735 648 626	278
735 510 107	33	735 598 408	295	735 648 627	278
735 510 108	33	735 598 410	295	735 648 628	278
735 510 109	33	735 598 414	295	735 648 629	278
735 510 110	33	735 598 416	295	735 648 630	278
735 510 111	33	735 598 418	295	735 648 631	278
735 528 606	18	735 598 430	292	735 648 637	278
735 528 607	18	735 598 431	292	735 648 638	278
735 528 608	18	735 598 432	292	735 648 639	278
735 528 609	18	735 598 433	292	735 690 405	20
735 528 610	18	735 598 435	292	735 690 406	20
735 528 611	18	735 598 436	292	735 690 407	20
735 528 612	18	735 598 437	292	735 690 408	20
735 528 613	18	735 598 438	292	735 690 409	20
735 528 614	18	735 598 439	292	735 690 410	20
735 528 626	275	735 598 442	292	735 690 411	20
735 528 627	275	735 598 443	292	735 690 422	20
735 528 628	275	735 598 444	292	735 690 423	20
735 528 629	275	735 598 506	295	735 740 106	39
735 528 630	275	735 598 508	295	735 740 107	39
735 528 631	275	735 598 510	295	735 740 108	39
735 528 637	276	735 598 806	296	735 740 109	39
735 528 638	276	735 598 807	296	735 740 110	39
735 528 639	276	735 598 808	296	735 740 111	39
735 598 006	293	735 598 809	296	735 790 206	39
735 598 008	293	735 598 810	296	735 790 207	39
735 598 009	293	735 598 811	296	735 790 208	39
735 598 010	293	735 600 105	33	735 790 209	39
735 598 014	293	735 600 106	33	735 790 210	39
735 598 016	293	735 600 107	33	735 790 211	39
735 598 018	293	735 600 108	33	735 790 257	39
735 598 056	293	735 600 109	33	735 790 258	39
735 598 057	293	735 600 110	33	735 790 259	39
735 598 059	293	735 600 111	33	735 790 260	39
735 598 062	293	735 608 606	18	735 798 549	285
735 598 065	293	735 608 607	18	735 798 550	285
735 598 067	293	735 608 608	18	735 798 551	285
735 598 157	293	735 608 609	18	735 798 565	25
735 598 159	293	735 608 610	18	735 798 590	285
735 598 163	293	735 608 611	18	735 798 596	285
735 598 165	293	735 608 612	18	735 798 597	285
735 598 167	293	735 608 613	18	735 798 598	285
735 598 169	293	735 608 614	18	735 798 806	24
735 598 207	294	735 608 626	276	735 798 807	24
735 598 209	294	735 608 627	276	735 798 808	24
735 598 213	294	735 608 628	276	735 798 809	24
735 598 215	294	735 608 629	276	735 798 810	24
735 598 217	294	735 608 630	276	735 798 811	24
735 598 219	294	735 608 631	276	735 798 812	24
735 598 259	294	735 608 637	276	735 798 813	24
735 598 262	294	735 608 638	276	735 798 814	24
735 598 265	294	735 608 639	276	735 798 816	24
735 598 267	294	735 640 105	35	735 798 817	24
735 598 269	294	735 640 106	35	735 798 819	24
735 598 309	294	735 640 107	35	735 798 820	24
735 598 312	294	735 640 108	35	735 798 831	284
735 598 315	294	735 640 109	35	735 798 832	284
735 598 317	294	735 640 110	35	735 798 833	284
735 598 319	294	735 640 111	35	735 798 834	284
735 598 357	295	735 648 606	20	735 798 835	284
735 598 359	295	735 648 607	20	735 798 836	284
735 598 362	295	735 648 608	20	735 798 837	284
735 598 365	295	735 648 609	20	735 798 838	284

Index

Code	Page
735 798 839	284
735 798 841	284
735 798 842	284
735 798 844	284
735 798 845	284
735 798 857	24
735 798 858	24
735 798 859	24
735 798 860	24
735 798 861	24
735 798 863	25
735 798 864	25
735 798 866	25
735 798 867	25
735 798 869	25
735 798 870	25
735 798 882	284
735 798 883	284
735 798 884	284
735 798 885	284
735 798 886	284
735 798 888	285
735 798 889	285
735 798 891	285
735 798 892	285
735 798 894	285
735 798 895	285
735 800 106	40
735 800 107	40
735 800 108	40
735 800 109	40
735 800 110	40
735 800 111	40
735 805 926	285
735 805 927	285
735 805 928	285
735 805 929	285
735 805 930	285
735 805 931	285
735 805 932	285
735 805 933	285
735 805 934	285
735 805 936	286
735 805 937	286
735 805 940	286
735 810 106	40
735 810 107	40
735 810 108	40
735 810 109	40
735 810 110	40
735 810 111	40
735 908 500	271
735 908 501	271
735 908 502	271
735 908 503	271
735 908 504	271
735 908 505	271
735 908 506	271
735 908 507	271
735 908 508	271
735 908 511	271
735 908 513	271
735 908 515	271
735 908 521	271
735 908 522	272
735 908 524	272
735 908 525	272
735 908 526	271

Code	Page
735 908 527	272
735 908 528	272
735 908 530	272
735 908 531	271
735 908 532	271
735 908 533	271
735 908 534	272
735 908 535	272
735 908 536	272
735 908 537	272
735 908 538	272
735 908 539	272
735 908 551	17
735 908 553	17
735 908 555	17
735 908 561	17
735 908 566	17
735 908 580	17
735 908 584	17
735 908 585	17
735 908 588	17
735 908 590	17
735 908 592	17
735 908 595	17
735 908 596	17
735 908 597	17
735 908 600	271
735 908 601	271
735 908 602	271
735 908 603	271
735 908 604	271
735 908 605	271
735 908 606	271
735 908 607	271
735 908 608	271
735 908 609	271
735 908 610	271
735 908 611	271
735 908 612	271
735 908 613	271
735 908 614	271
735 908 615	271
735 908 616	271
735 908 617	271
735 908 618	271
735 908 619	271
735 908 621	271
735 908 622	271
735 908 623	271
735 908 624	271
735 908 625	271
735 908 626	271
735 908 627	271
735 908 637	16
735 908 641	16
735 908 642	16
735 908 646	16
735 908 647	16
735 908 648	16
735 908 652	16
735 908 653	16
735 908 654	16
735 908 658	16
735 908 659	16
735 908 660	16
735 908 664	16
735 908 665	16
735 908 666	16

Code	Page
735 908 670	16
735 908 671	16
735 908 676	16
735 908 677	16
735 908 678	16
735 908 685	16
735 908 688	16
735 908 690	16
735 908 692	16
735 908 695	17
735 908 696	17
735 908 697	17
735 909 104	273
735 909 105	273
735 909 106	273
735 909 107	273
735 909 108	273
735 909 109	273
735 909 110	273
735 909 111	273
735 909 112	273
735 909 113	273
735 909 114	273
735 909 115	273
735 909 116	273
735 909 117	273
735 909 118	273
735 909 119	273
735 909 120	273
735 909 121	273
735 909 122	273
735 909 123	273
735 909 124	273
735 909 125	273
735 909 126	273
735 909 127	273
735 909 128	273
735 909 129	273
735 909 130	273
735 909 131	273
735 909 132	273
735 909 133	273
735 909 134	273
735 909 135	273
735 909 136	273
735 909 356	273
735 909 357	273
735 909 358	273
735 909 359	273
735 909 362	273
735 909 363	273
735 909 364	273
735 909 365	273
735 909 369	273
735 909 370	273
735 909 371	273
735 909 372	273
735 909 377	274
735 909 378	274
735 909 379	274
735 909 380	274
735 909 396	274
735 909 397	274
735 909 398	274
735 909 399	274
735 909 768	273
735 909 775	273
735 909 776	274

Index

Code	Page	Code	Page	Code	Page
735 909 783	274	735 914 208	37	735 918 653	282
735 909 784	274	735 914 209	37	735 918 654	282
735 909 785	274	735 914 210	37	735 918 656	274
735 909 802	274	735 914 211	37	735 918 657	274
735 909 803	274	735 914 285	23	735 918 658	274
735 909 804	274	735 914 286	23	735 918 659	274
735 909 805	274	735 914 287	23	735 918 660	274
735 910 105	32	735 914 288	23	735 918 661	274
735 910 106	32	735 914 289	23	735 918 662	274
735 910 107	31	735 914 290	23	735 918 663	274
735 910 108	31	735 914 291	23	735 918 664	274
735 910 109	31	735 914 306	291	735 918 811	280
735 910 110	31	735 914 307	291	735 918 812	280
735 910 111	32	735 914 308	291	735 918 813	280
735 910 206	37	735 914 309	291	735 918 814	280
735 910 207	37	735 914 310	291	735 918 846	281
735 910 208	37	735 914 311	291	735 918 847	281
735 910 209	37	735 914 486	291	735 918 848	281
735 910 210	37	735 914 487	291	735 918 849	281
735 910 211	37	735 914 488	291	735 918 850	281
735 910 285	22	735 914 489	291	735 918 851	281
735 910 286	22	735 914 490	291	735 938 737	274
735 910 287	22	735 914 491	291	735 938 741	274
735 910 288	22	735 914 505	38	735 938 742	274
735 910 289	22	735 914 506	38	735 938 746	274
735 910 290	22	735 914 507	38	735 938 747	274
735 910 291	22	735 914 508	38	735 938 748	274
735 910 334	31	735 914 509	38	735 938 752	274
735 910 337	31	735 914 510	38	735 938 753	274
735 910 342	31	735 914 511	38	735 938 758	274
735 910 347	31	735 914 555	22	735 938 759	274
735 910 348	31	735 914 556	22	735 938 760	274
735 910 353	31	735 914 557	22	735 960 105	32
735 910 354	31	735 914 558	22	735 960 106	32
735 910 355	31	735 914 559	22	735 960 107	32
735 910 359	31	735 914 560	22	735 960 108	32
735 910 360	31	735 914 561	22	735 960 109	32
735 910 361	31	735 918 565	281	735 960 110	32
735 910 362	31	735 918 566	281	735 960 111	32
735 910 486	292	735 918 567	281	735 960 405	38
735 910 487	292	735 918 569	281	735 960 406	38
735 910 488	292	735 918 570	281	735 960 407	38
735 910 489	292	735 918 606	279	735 960 408	38
735 910 490	292	735 918 607	279	735 960 409	38
735 910 491	292	735 918 608	279	735 960 410	38
735 910 505	37	735 918 609	279	735 960 411	38
735 910 506	37	735 918 610	279	735 968 006	17
735 910 507	37	735 918 615	280	735 968 007	17
735 910 508	37	735 918 616	280	735 968 008	17
735 910 509	37	735 918 617	280	735 968 106	275
735 910 510	37	735 918 619	280	735 968 107	275
735 910 511	37	735 918 620	280	735 968 108	275
735 910 555	22	735 918 626	281	735 968 546	275
735 910 556	22	735 918 627	281	735 968 547	275
735 910 557	22	735 918 628	281	735 968 548	275
735 910 558	22	735 918 629	281	735 968 549	275
735 910 559	22	735 918 630	281	735 968 550	275
735 910 560	22	735 918 631	281	735 968 551	275
735 910 561	22	735 918 632	281	735 968 606	23
735 910 706	291	735 918 633	281	735 968 607	23
735 910 707	291	735 918 634	281	735 968 608	23
735 910 708	291	735 918 646	282	735 968 609	23
735 910 709	291	735 918 647	282	735 968 610	23
735 910 710	291	735 918 648	282	735 968 611	23
735 910 711	291	735 918 649	282	735 968 731	292
735 914 205	37	735 918 650	282	735 968 732	292
735 914 206	37	735 918 651	282	735 968 733	292
735 914 207	37	735 918 652	282	735 968 734	292

Index

Code	Page
735 968 735	292
735 968 736	292
735 991 362	286
735 991 363	286
735 991 364	286
735 991 365	286
735 991 366	286
735 991 367	286
735 991 368	286
735 991 369	286
735 991 370	286
735 991 372	286
735 991 373	286
735 991 654	275
735 991 655	275
735 991 656	275
735 991 657	275
735 991 658	275
735 991 659	275
735 991 661	275
735 991 662	275
735 991 663	275
735 991 820	282
735 991 821	282
735 991 822	282
735 991 823	282
735 991 824	282
735 991 825	283
735 991 826	283
735 991 827	283
735 991 828	283
735 991 829	283
735 991 830	283
735 991 831	283
735 991 832	283
735 991 833	283
735 991 834	283
735 991 840	283
735 991 841	283
735 991 842	283
735 991 843	283
735 991 844	283
735 991 845	283
735 991 846	283
735 991 847	283
735 991 848	283
735 991 849	283
735 991 850	283
735 991 851	283
735 991 852	283
735 991 853	283
735 991 854	283
735 991 855	283
735 991 856	283
735 991 857	283
735 991 858	283
735 991 859	283
735 991 950	290
735 991 951	290
735 991 952	290
735 991 953	290
735 991 954	290
735 991 955	290
735 991 956	290
735 991 957	290
735 991 958	290
735 991 959	290
735 992 390	296

Code	Page
735 992 391	296
735 992 392	296
735 992 393	296
735 992 394	296
735 992 395	296
735 992 450	269
735 992 451	269
735 992 452	269
735 992 453	269
735 992 454	269
735 992 455	269
735 992 456	269
735 992 457	269
735 992 458	269
735 992 459	269
735 992 470	269
735 992 477	269
735 992 486	270
735 992 487	270
735 992 490	270
735 992 491	270
735 992 492	270
735 992 493	270
735 992 494	270
735 992 495	270
735 992 496	270
735 992 499	270
735 992 500	270
735 992 501	270
735 992 502	270
735 992 503	270
735 992 504	270
735 992 505	270
735 992 506	270
735 992 507	270
735 992 508	270
735 992 509	270
735 992 510	270
735 992 511	270
735 992 512	270
735 992 513	270
735 992 514	270
735 992 515	270
743 400 806	296
743 400 807	296
743 400 808	296
743 400 809	296
743 400 810	296
743 400 811	296
745 410 107	94
747 502 012	90
747 502 013	90
747 502 014	90
747 502 015	90
747 502 016	90
747 502 017	90
747 502 032	90
747 502 033	90
747 502 034	90
747 502 035	90
747 502 036	90
747 502 037	90
747 503 012	90
747 503 013	90
747 503 014	90
747 503 015	90
747 503 016	90
747 503 017	90

Code	Page
748 410 001	45
748 410 002	45
748 410 003	45
748 410 005	35
748 410 006	21
748 410 007	21
748 410 008	21
748 410 009	21
748 410 010	21
748 410 011	21
748 410 012	45
748 410 013	45
748 410 212	94
748 440 705	28
748 440 706	28
748 440 707	28
748 440 708	28
748 440 709	28
748 440 710	28
748 440 711	28
748 440 712	28
748 440 713	28
748 440 714	28
748 440 715	28
748 440 716	28
748 440 717	28
748 440 719	28
748 440 720	28
748 440 721	28
748 440 722	28
748 440 723	28
749 410 001	45
749 410 002	45
749 410 003	45
749 410 005	35
749 410 006	21
749 410 007	21
749 410 008	21
749 410 009	21
749 410 010	21
749 410 011	21
749 410 012	45
749 410 013	21
749 410 014	21
749 410 015	21
749 410 023	65
749 410 054	91
749 410 059	65
749 410 062	65
749 410 106	65
749 410 119	65
749 410 120	91
749 410 151	65
749 410 172	91
749 410 231	65
749 410 254	65
749 411 005	279
749 411 006	279
749 411 013	279
749 411 014	279
749 411 015	279
749 411 054	279
749 411 062	279
749 411 120	279
749 411 172	279
749 436 001	114
749 436 002	114
749 436 003	114

Index

Code	Page
749 436 004	114
749 436 005	114
749 436 006	114
749 436 007	114
749 436 008	114
749 436 009	114
749 440 705	28
749 440 706	28
749 440 707	28
749 440 708	28
749 440 709	28
749 440 710	28
749 440 711	28
749 440 712	28
749 440 713	28
749 440 714	28
749 440 715	28
749 440 716	28
749 440 717	28
749 440 719	28
749 440 720	28
749 440 721	28
749 440 722	28
749 440 723	28
790 121 001	343
790 121 002	342
790 121 004	344
790 121 005	345
790 121 006	346
790 121 022	347
790 121 023	346
790 121 034	348
790 121 035	348
790 121 036	348
790 121 037	348
790 121 038	348
790 121 052	347
790 121 053	347
790 121 055	348
790 121 061	347
790 121 062	347
790 121 063	347
790 121 064	347
790 121 065	347
790 121 066	347
790 121 067	347
790 121 068	347
790 121 069	347
790 121 072	349
790 121 073	349
790 121 075	349
790 121 111	347
790 121 112	347
790 121 113	347
790 121 114	347
790 121 115	347
790 121 116	347
790 121 117	347
790 121 118	347
790 121 119	347
790 121 124	350
790 121 151	348
790 121 471	347
790 121 472	347
790 121 473	351
790 122 085	353
790 122 087	348
790 122 104	346

Code	Page
790 122 106	344
790 122 246	352
790 122 248	352
790 122 978	350
790 122 989	349
790 131 005	331
790 131 027	352
790 131 028	352
790 131 029	352
790 131 030	332
790 131 031	332
790 131 032	332
790 131 033	332
790 131 034	332
790 131 035	332
790 131 038	331
790 131 039	331
790 131 040	331
790 131 041	331
790 131 042	331
790 131 043	331
790 131 045	331
790 131 046	332
790 131 047	332
790 131 048	332
790 131 049	332
790 131 051	333
790 131 124	340
790 132 001	334
790 132 051	334
790 132 052	334
790 132 053	334
790 132 054	334
790 132 055	334
790 132 056	334
790 132 057	334
790 132 058	334
790 132 059	335
790 132 061	334
790 132 062	334
790 132 063	334
790 132 064	334
790 132 065	334
790 132 066	334
790 133 009	336
790 133 021	337
790 133 026	336
790 133 027	336
790 133 028	336
790 133 029	336
790 133 030	336
790 133 031	336
790 133 032	336
790 133 033	336
790 133 034	336
790 133 036	335
790 133 037	335
790 133 038	335
790 133 039	336
790 133 040	336
790 133 041	337
790 133 042	337
790 133 043	337
790 133 046	337
790 133 047	337
790 133 061	337
790 133 062	337
790 133 124	340

Code	Page
790 133 463	336
790 133 494	337
790 134 001	338
790 309 001	355
790 309 002	355
790 310 001	354
790 310 003	354
790 310 011	356
790 310 012	356
790 310 013	356
790 310 014	356
790 310 015	356
790 310 016	356
790 310 017	356
790 310 018	356
790 310 099	356
799 298 023	357
799 300 157	355
799 300 158	355
799 300 159	355
799 300 160	355
799 300 161	355
799 300 162	355
799 300 163	355
799 300 164	355
799 300 260	355
799 300 270	355
799 300 280	355
799 300 290	355
799 300 300	355
799 300 310	355
799 300 320	355
799 300 330	355
799 300 340	355
799 350 619	340
799 350 622	340

Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Notes

[illegible]

General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer Piping Systems Limited («Georg Fischer») to the Purchaser.
They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

2 Tenders

- Tenders shall only be binding if they contain a specifically stated period for acceptance.

3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
- a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
- b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially impractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.
Should the effect of force majeure exceed a period of six (6) months, either party may cancel the contract forthwith.
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting the reform, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
- c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one (1) month which equally is not met.
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved.

Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

11 Packing

- If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms 2010 ICC, or latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six (6) days after receipt of the Products.

14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within seven (7) working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice.
In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via www.piping.georgfischer.com.
Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if
- the repair or replacement of the defective Product is impossible
 - the defective Product is not repaired or replaced within a reasonable period
 - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
- Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
 - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

16 Limitation of Liability

The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages.
This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

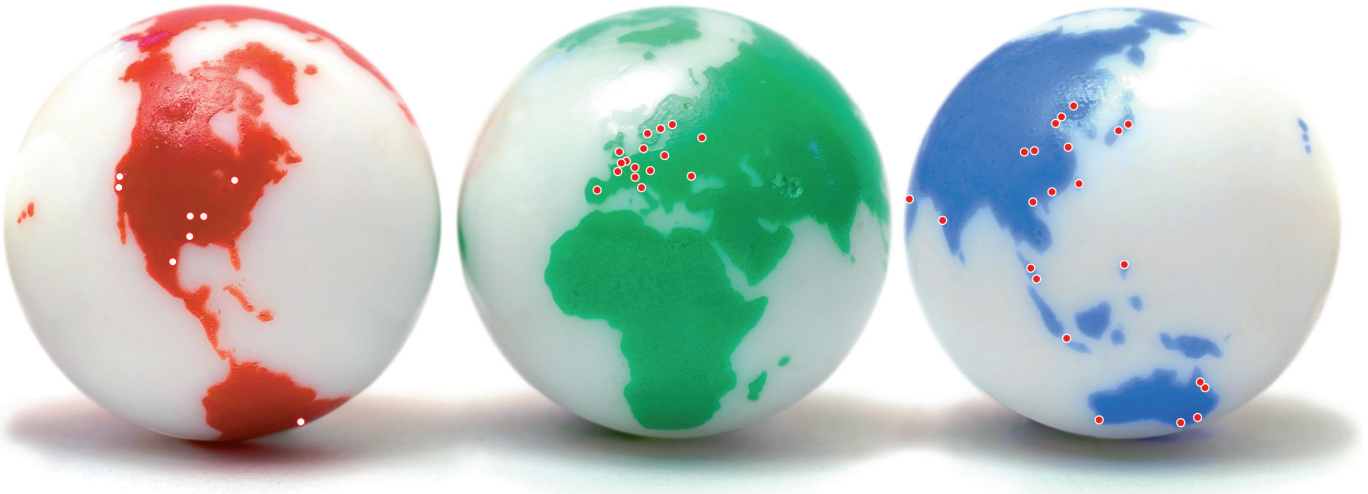
18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.

GF Piping Systems – worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries.

www.piping.georgfischer.com



The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

Adding Quality to People's Lives

Argentina / Southern South America

Georg Fischer Central Plastics
Sudamérica S.R.L.
Buenos Aires, Argentina
Phone +5411 4512 02 90
gfccentral.ps.ar@georgfischer.com

Australia

Georg Fischer Pty Ltd
Riverwood NSW 2210 Australia
Phone +61(0)2 9502 8000
australia.ps@georgfischer.com
www.georgfischer.com.au

Austria

Georg Fischer
Rohrleitungssysteme GmbH
3130 Herzogenburg
Phone +43(0)2782 856 43-0
austria.ps@georgfischer.com
www.georgfischer.at

Belgium / Luxembourg

Georg Fischer NV/SA
1070 Bruxelles/Brüssel
Phone +32(0)2 556 40 20
be.ps@georgfischer.com
www.georgfischer.be

Brazil

Georg Fischer Ltda.
04795-100 São Paulo
Phone +55(0)11 5525 1311
br.ps@georgfischer.com
www.georgfischer.com.br

Canada

Georg Fischer Piping Systems Ltd
Brampton, ON L6T 4E3
Phone +1(905)792 8005
Fax +1(905)792 6667
ca.ps@georgfischer.com
www.georgfischer.ca

China

Georg Fischer
Piping Systems Ltd Shanghai
Pudong, Shanghai 201319
Phone +86(0)21 58 13 33 33
china.ps@georgfischer.com
www.georgfischer.cn

Denmark / Iceland

Georg Fischer A/S
2630 Taastrup
Phone +45 (0)70 22 19 75
info.dk.ps@georgfischer.com
www.georgfischer.dk

Finland

Georg Fischer AB
01510 VANTAA
Phone +358 (0)9 586 58 25
Fax +358 (0)9 586 58 29
www.georgfischer.fi
info.fi.ps@georgfischer.com

France

Georg Fischer SAS
95932 Roissy Charles de Gaulle Cedex
Phone +33(0)1 41 84 68 84
fr.ps@georgfischer.com
www.georgfischer.fr

Germany

Georg Fischer GmbH
73095 Albershausen
Phone +49(0)7161 302-0
info.de.ps@georgfischer.com
www.georgfischer.de

India

Georg Fischer Piping Systems Ltd
400 076 Mumbai
Phone +91 224007 2001
in.ps@georgfischer.com
www.georgfischer.in

Italy

Georg Fischer S.p.A.
20063 Cernusco S/N (MI)
Phone +3902 921 861
it.ps@georgfischer.com
www.georgfischer.it

Japan

Georg Fischer Ltd
556-0011 Osaka,
Phone +81(0)6 6635 2691
jp.ps@georgfischer.com
www.georgfischer.jp

Korea

Georg Fischer Piping Systems
271-3 Seohyeon-dong Bundang-gu
Seongnam-si, Gyeonggi-do
Seoul 463-824
Phone +82 31 8017 1450 3
Fax +82 31 8017 1454
kor.ps@georgfischer.com
www.georgfischer.kr

Malaysia

Georg Fischer (M) Sdn. Bhd.
40460 Shah Alam, Selangor Darul Ehsan
Phone +60 (0)3 5122 5585
my.ps@georgfischer.com
www.georgfischer.my

Mexico / Northern Latin America

Georg Fischer S.A. de C.V.
Apodaca, Nuevo Leon
CP66636 Mexico
Phone +52 (81)1340 8586
Fax +52 (81)1522 8906
mx.ps@georgfischer.com
www.georgfischer.mx

Middle East

Georg Fischer Piping Systems
Dubai, United Arab Emirates
Phone +971 4 289 49 60
info.export@georgfischer.com
www.export.georgfischer.com

Netherlands

Georg Fischer N.V.
8161 PA Epe
Phone +31(0)578 678 222
nl.ps@georgfischer.com
www.georgfischer.nl

Norway

Georg Fischer AS
1351 Rud
Phone +47(0)67 18 29 00
no.ps@georgfischer.com
www.georgfischer.no

Poland

Georg Fischer Sp. z o.o.
05-090 Sekocin Nowy
Phone +48(0)22 31 31 0 50
poland.ps@georgfischer.com
www.georgfischer.pl

Romania

Georg Fischer
Piping Systems Ltd
020257 Bucharest - Sector 2
Phone +40(0)21 230 53 80
ro.ps@georgfischer.com
www.export.georgfischer.com

Russia

Georg Fischer Piping Systems
Moscow 125047
Tel. +7 495 258 60 80
ru.ps@georgfischer.com
www.georgfischer.ru

Singapore

Georg Fischer Pte Ltd
528 872 Singapore
Phone +65(0)67 47 06 11
sgp.ps@georgfischer.com
www.georgfischer.sg

Spain / Portugal

Georg Fischer S.A.
28046 Madrid
Phone +34(0)91 781 98 90
es.ps@georgfischer.com
www.georgfischer.es

Sweden

Georg Fischer AB
117 43 Stockholm
Phone +46(0)8 506 775 00
info.se.ps@georgfischer.com
www.georgfischer.se
www.georgfischer.fi

Switzerland

Georg Fischer
Rohrleitungssysteme [Schweiz] AG
8201 Schaffhausen
Phone +41(0)52 631 30 26
ch.ps@georgfischer.com
www.piping.georgfischer.ch

Taiwan

Georg Fischer Piping Systems
San Chung City, Taipei Hsien
Phone +886 2 8512 2822
Fax +886 2 8512 2823
www.georgfischer.tw

United Kingdom / Ireland

Georg Fischer Sales Limited
Coventry, CV2 2ST
Phone +44(0)2476 535 535
uk.ps@georgfischer.com
www.georgfischer.co.uk

USA / Caribbean

Georg Fischer LLC
Tustin, CA 92780-7258
Phone +1(714) 731 88 00
Toll Free 800 854 40 90
us.ps@georgfischer.com
www.gfiping.com

Vietnam

Georg Fischer Pte Ltd
136E Tran Vu, Ba Dinh District, Hanoi
Phone +84 4 3715 3290
Fax +84 4 3715 3285

International

Georg Fischer
Piping Systems (Switzerland) Ltd.
8201 Schaffhausen / Switzerland
Phone +41(0)52 631 30 03
Fax +41(0)52 631 28 93
info.export@georgfischer.com
www.export.georgfischer.com