

Product Range International 2015

Piping systems for industrial application

List of abbreviations

ANSI	American National Standard	Tg	Malleable Iron
ASTM	American Society for Testing and Materials	d	Pipe outside diameter
BS	British Standard	FM	Fusion Method
DIN	Deutsche Industrie-Normen	DN	Nominal bore
ISO	International Standardization Organisation	PN	Nominal pressure at 20°C, water
ABS	Acrylnitril Butadien Styrene	kg	Weight in kilograms
PVC-U	Polyvinyl Chloride	g	Weight in grams
PVC-C	Polyvinyl Chloride chlorinated	SP	Standard pack. The figure given indicates the quantity of fittings contained in a standard pack
PP	Polypropylene, heat stabilised	GP	Gross pack. The figure given indicates the quantity of fittings contained in a gross pack
PP-N	Polypropylene, Random copolymer unpigmented	G	Pipe thread, not pressure tight in the thread to ISO 228/1
PE	Polyethylene	NPT	Taper male thread pressure tight in the thread to ANSI B 1.20.1
PVDF	Polyvinylidene fluoride	R	Taper male thread, pressure tight in the thread to ISO 7/DIN 2999/1
EPDM	Ethylene Propylene Rubber	Rc	Taper female thread, pressure tight in the thread to ISO 7/1
FPM	Fluorine Rubber, e.g. Viton®	Rp	Parallel female thread, pressure tight in the thread to ISO 7/DIN 999/1
NBR	Nitrile Rubber	Tr	Trapezoid thread
IIR	Butyl Rubber	SC	Size of hexagon bolts
CSM	Chlore Sulphonyl Polythene, e.g. Hypalon®	s	A/F
CR	Chloroprene Rubber, e.g. Neoprene®	e	Wall thickness
PROGEF	GF of PP	AL	Number of bolt holes
PTFE	Polytetrafluorethylene, e.g. Teflon®	®	Registered trade-mark
UP-GF	Unsaturated polyester resin glassfibre reinforced		
St	Steel		
Ms	Brass		

Application area of pipes and fittings

General

The choice of material and the pressure rating of the pipe components are important for both operating safety and for attaining the specified minimum operational life of the system.

The decisive factors are:

- Operating pressure
- Operating temperature
- Medium transported
- Duration of service

Separate calculations are necessary if safety factors are different or the operational lifetime is modified.

The chemical resistance of the material used can be determined from our special list for "Chemical resistance of thermoplastics and elastomers for piping systems".

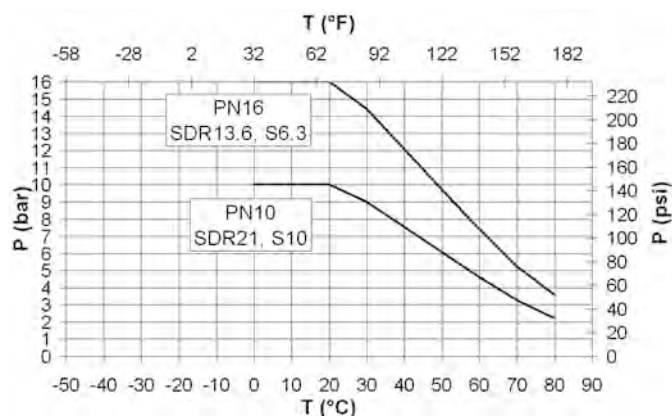
Pressure/temperature diagram for PVC-C

The design factor recommended by GF is incorporated.

It can be used for water or media resembling water, in other words, media which have no derating factor regarding the chemical resistance.

Remark: Please take into account the pressure / temperature diagrams for valves and special fittings. Because of the construction and/or sealing material used, differences are possible when compared with pipes and fittings. This information can be found in the planning fundamentals of the relevant types of valves, respectively special fittings.

Under certain conditions working temperatures up to 90°C are possible for limited times. Please contact your local GF representative for advice on any applications lying outside of our standard guidelines.



P Permissible pressure in bar, psi

T Temperature in °C, °F

PVC-C Standard Pipes, Fittings, Unions, Flanges and Flange Adaptors

	Page
Pipes	6
Fittings	7
Adaptor fittings	12
Unions	14
Flange adaptors	23
Backing flanges	24
Seals	27
Pipe clips metric	29
PVC-C accessories	33

Pipes

Pipe PVC-C grey Series S4 SDR9 nominal pressure PN16

Model:

- Material: PVC-C
- Colour: RAL 7038 - agate grey
- Dimension: DIN 8079, EN ISO 15493
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	PN [bar]	Code	Weight [kg/m]	di [mm]	e [mm]	
16	16	163 017 130	0.136	12.4	1,8	
20	16	163 017 131	0.217	15.4	2,3	
25	16	163 017 132	0.326	19.4	2,8	

PF 2 80 449 001

Pipe PVC-C grey Series S6.3 SDR13.6 nominal pressure PN16

Model:

- Material: PVC-C
- Colour: RAL 7038 - agate grey
- Dimension: DIN 8079, EN ISO 15493
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	PN [bar]	Code	Weight [kg/m]	e [mm]	di [mm]	
32	16	163 017 133	0.379	2.4	27.2	
40	16	163 017 134	0.589	3.0	34.0	
50	16	163 017 135	0.896	3.7	42.6	
63	16	163 017 136	1.420	4.7	53.6	
75	16	163 017 137	2.010	5.6	63.0	
90	16	163 017 138	2.880	6.7	76.6	
110	16	163 017 139	4.270	8.2	93.8	
160	16	163 017 142	8.970	11.9	136.4	

PF 2 80 449 001

Pipe PVC-C grey Series S10 SDR21 nominal pressure PN10

Model:

- Material: PVC-C
- Colour: RAL 7038 - agate grey
- Dimension: DIN 8079, EN ISO 15493
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

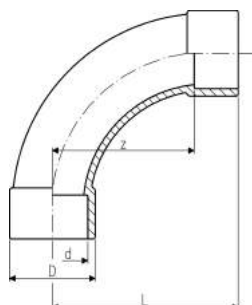
d [mm]	PN [bar]	Code	Weight [kg/m]	e [mm]	di [mm]	
75	10	163 017 187	1.320	3.6	67.8	
90	10	163 017 188	1.930	4.3	81.4	
110	10	163 017 189	2.890	5.3	99.4	
160	10	163 017 192	6.060	7.7	124.6	
225	10	163 017 195	11.900	10.8	203.4	

PF 2 80 449 003

Fittings

Bend 90° PVC-C metric

- Radius = 2 d

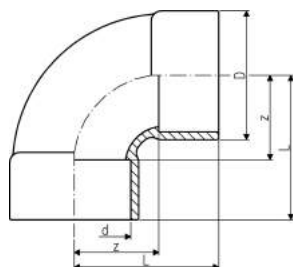


PF 2 32 450 009

d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
20	16	723 000 106	10	0.032	40	27	58	
25	16	723 000 107	10	0.055	50	35	71	
32	16	723 000 108	10	0.080	64	38	88	
40	16	723 000 109	30	0.143	80	54	109	
50	16	723 000 110	5	0.327	100	61	131	
63	16	723 000 111	17	0.547	126	76	163	
75	16	723 000 112	5	0.847	150	90	194	
90	16	723 000 113	5	1.470	180	113	231	
110	16	723 000 114	5	2.943	220	137	284	
160	16	723 000 117	1	5.247	320	192	406	

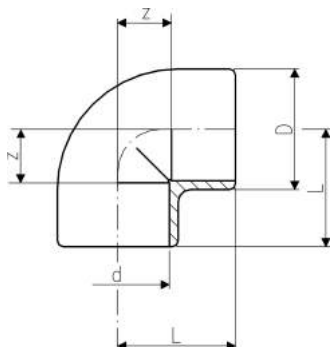
Bend 90° short pattern PVC-C metric

- Radius = 0,75 d



PF 2 32 450 009

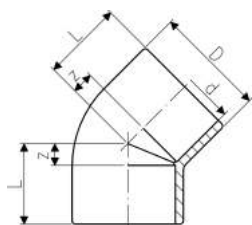
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
225	10	723 010 120	1	7.930	168	256	287	



PF 2 32 450 001

Elbow 90° PVC-C metric

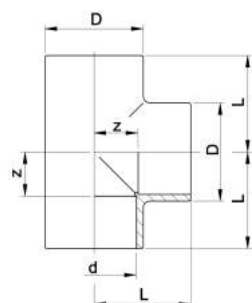
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
16	16	723 100 105	10	0.015	9	21	23	
20	16	723 100 106	10	0.014	11	25	27	
25	16	723 100 107	10	0.025	14	31	33	
32	16	723 100 108	10	0.047	17	40	39	
40	16	723 100 109	10	0.077	21	49	47	
50	16	723 100 110	10	0.139	26	61	57	
63	16	723 100 111	10	0.259	33	76	72	
75	16	723 100 112	5	0.437	40	90	84	
90	16	723 100 113	5	0.626	46	110	97	
110	16	723 100 114	4	1.085	61	128	116	
160	16	723 100 117	1	3.097	80	185	166	



PF 2 32 450 002

Elbow 45° PVC-C metric

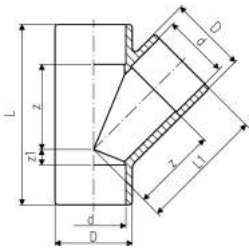
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
16	16	723 150 105	10	0.008	5	21	19	
20	16	723 150 106	10	0.011	5	25	21	
25	16	723 150 107	10	0.021	6	31	25	
32	16	723 150 108	10	0.037	8	40	30	
40	16	723 150 109	5	0.063	10	49	36	
50	16	723 150 110	5	0.110	12	61	43	
63	16	723 150 111	10	0.205	14	76	52	
75	16	723 150 112	5	0.323	17	88	61	
90	16	723 150 113	5	0.526	20	106	71	
110	16	723 150 114	10	0.782	28	137	89	
160	16	723 150 117	1	2.384	36	185	122	
225	10	723 150 120	1	4.833	49	250	168	



PF 2 32 450 003

Tee 90° PVC-C metric

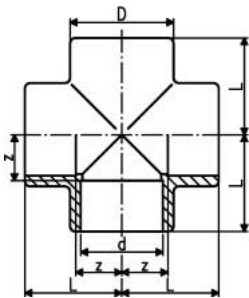
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
16	16	723 200 105	10	0.014	9	21	23	
20	16	723 200 106	10	0.020	11	25	27	
25	16	723 200 107	10	0.035	14	31	33	
32	16	723 200 108	10	0.061	17	40	39	
40	16	723 200 109	10	0.111	21	49	47	
50	16	723 200 110	10	0.198	26	61	57	
63	16	723 200 111	10	0.365	34	76	72	
75	16	723 200 112	5	0.581	40	90	84	
90	16	723 200 113	5	0.945	47	107	98	
110	16	723 200 114	6	1.450	55	128	116	
160	16	723 200 117	1	5.580	81	193	167	
225	10	723 200 120	1	9.560	114	256	233	



PF 2 32 450 026

Tee 45° PVC-C metric

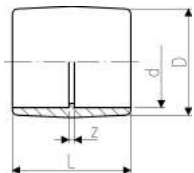
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	
20	10	723 250 106	10	0.039	30	6	28	68	46	
25	10	723 250 107	10	0.062	36	9	33	83	55	
32	10	723 250 108	10	0.102	45	10	41	99	67	
40	10	723 250 109	10	0.172	56	10	50	118	82	
50	10	723 250 110	10	0.289	66	12	60	140	97	
63	10	723 250 111	10	0.449	85	14	74	175	123	
75	6	723 250 112	5	0.857	101	18	91	207	145	
90	6	723 250 113	1	1.334	122	20	107	245	173	
110	6	723 250 114	3	2.677	149	27	134	298	210	



PF 2 32 450 036

Cross PVC-C metric

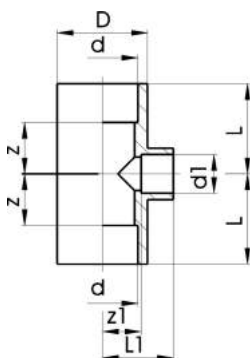
d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
32	16	723 300 108	10	0.101	17	43	39	
63	16	723 300 111	5	0.511	34	79	72	



PF 2 32 450 004

Socket PVC-C metric

d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	
16	16	723 910 105	10	0.008	3	22	31	
20	16	723 910 106	10	0.010	3	26	35	
25	16	723 910 107	10	0.017	3	31	41	
32	16	723 910 108	10	0.029	3	39	47	
40	16	723 910 109	10	0.049	3	49	55	
50	16	723 910 110	10	0.085	3	61	65	
63	16	723 910 111	10	0.155	3	76	79	
75	16	723 910 112	10	0.204	4	87	92	
90	16	723 910 113	10	0.338	5	110	107	
110	16	723 910 114	5	0.765	5	131	132	
160	16	723 910 117	2	1.605	8	183	180	
225	10	723 910 120	1	3.644	10	253	248	

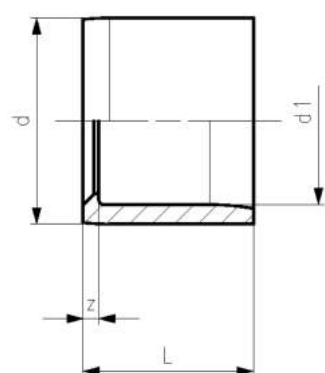


PF 2 32 450 010

Tee 90° reducing PVC-C metric

*Tee 90° delivered with the required reducing bushes

	d1 [mm]	d [mm]	PN [bar]	Code	SP	Weight [kg]	z1 [mm]	L1 [mm]	z [mm]	D [mm]	L [mm]	
	20	25	16	723 200 134	10	0.042	14	30	14	33	33	
	25	32	16	723 200 138	10	0.069	17	36	17	41	39	
	25	40	16	723 200 151	10	0.120	23	42	23	50	49	
	32	40	16	723 200 147	10	0.120	23	45	23	50	49	
	20	50	16	723 200 009	5	0.196	28	44	28	62	59	
	25	50	16	723 200 010	5	0.192	28	47	28	62	59	
	32	50	16	723 200 164	10	0.199	28	50	28	62	59	
	25	63	16	723 200 011	10	0.358	34	53	34	77	73	
	32	63	16	723 200 178	5	0.368	34	56	35	77	73	
	50	63	16	723 200 170	5	0.096	34	65	35	77	73	
*	63	75	16	723 200 184	8	0.766	47	84	41	92	84	
*	32	90	16	723 200 142	6	1.436	75	97	46	111	97	
*	63	90	16	723 200 145	5	1.166	66	97	46	111	97	
*	32	110	16	723 200 135	3	2.796	101	116	55	128	116	
*	90	110	16	723 200 137	3	2.677	71	116	55	128	116	



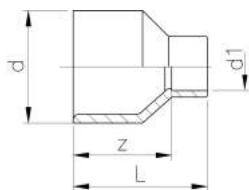
PF 2 32 450 017

Reducing bush short pattern PVC-C metric

Model:

• With solvent cement spigot and socket metric

	d [mm]	d1 [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	L [mm]	
*	20	16	16	723 900 334	10	0.004	2	16	
*	25	20	16	723 900 337	10	0.004	3	19	
*	32	20	16	723 900 342	10	0.015	6	22	
*	32	25	16	723 900 341	10	0.009	4	22	
	40	20	16	723 900 348	10	0.023	10	26	
	40	25	16	723 900 347	10	0.024	7	26	
*	40	32	16	723 900 346	10	0.017	4	26	
	50	20	16	723 900 355	10	0.036	15	31	
	50	25	16	723 900 354	10	0.037	12	31	
	50	32	16	723 900 353	10	0.050	9	31	
*	50	40	16	723 900 352	10	0.032	5	31	
	63	32	16	723 900 360	10	0.086	16	38	
	63	40	16	723 900 359	10	0.074	12	38	
*	63	50	16	723 900 358	10	0.061	6	38	
	75	50	16	723 900 365	10	0.115	13	44	
*	75	63	16	723 900 364	10	0.086	6	44	
	90	50	16	723 900 372	10	0.196	20	51	
	90	63	16	723 900 371	10	0.183	14	51	
*	90	75	16	723 900 370	10	0.146	8	51	
*	110	63	16	723 900 378	5	0.329	24	61	
	110	90	16	723 900 376	5	0.283	10	61	
	160	110	16	723 900 390	5	0.956	25	86	
	225	160	16	723 900 396	2	2.380	33	119	



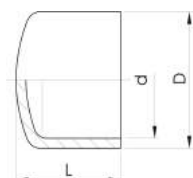
PF 2 32 450 035

Reducing bush long pattern PVC-C metric

Model:

- With solvent cement spigot and socket metric

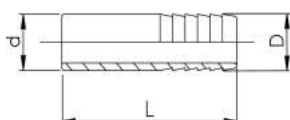
d1 [mm]	d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	L [mm]	
20	32	16	723 910 342	10	0.021	30	46	
25	40	16	723 910 347	10	0.036	36	55	
25	50	16	723 910 354	10	0.058	44	63	
32	63	16	723 910 360	10	0.110	54	76	
40	75	16	723 910 366	5	0.165	62	88	
63	90	16	723 910 371	5	0.311	74	112	



PF 2 32 450 005

Cap PVC-C metric

d [mm]	PN [bar]	Code	SP	Weight [kg]	D [mm]	L [mm]	
16	16	723 960 105	10	0.008	26	24	
20	16	723 960 106	10	0.011	30	25	
25	16	723 960 107	10	0.018	37	30	
32	16	723 960 108	10	0.029	44	34	
40	16	723 960 109	10	0.046	55	41	
50	16	723 960 110	10	0.064	64	44	
63	16	723 960 111	5	0.120	80	54	
75	16	723 960 112	5	0.162	87	65	
90	16	723 960 113	10	0.315	112	77	
110	16	723 960 114	5	0.692	145	101	
160	10	723 960 117	2	1.599	188	130	



PF 2 32 450 024

Hose nozzle PVC-C metric

Model:

- With solvent cement spigot and parallel hose connection

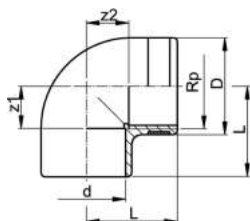
d [mm]	PN [bar]	Code	SP	Weight [kg]	D [mm]	L [mm]	
16	16	723 960 405	10	0.009	16	57	
20	16	723 960 406	10	0.016	20	73	
25	16	723 960 407	10	0.023	25	79	
32	16	723 960 408	10	0.038	30	89	

Adaptor fittings

Elbow 90° PVC-C metric Rp

Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Install with low mechanical stress and avoid large cyclic temperature changes
- Do not use thread sealing pastes that are harmful to PVC-C



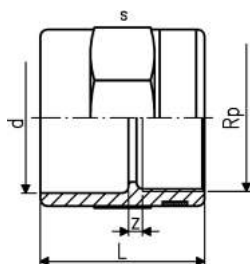
PF 2 32 450 011

Rp [inch]	d [mm]	PN [bar]	Code	SP	Weight [kg]	z1 [mm]	z2 [mm]	D [mm]	L [mm]
½	20	16	723 100 206	10	0.024	11	14	30	27
¾	25	16	723 100 207	10	0.037	14	17	35	33
1	32	16	723 100 208	40	0.063	17	22	45	39
1 ¼	40	16	723 100 209	100	0.134	23	27	55	50
1 ½	50	16	723 100 210	5	0.199	27	36	62	58
2	63	16	723 100 211	10	0.337	33	46	75	73

Socket PVC-C metric Rp

Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Install with low mechanical stress and avoid large cyclic temperature changes
- Do not use thread sealing pastes that are harmful to PVC-C



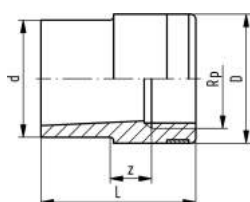
PF 2 32 450 012

Rp [inch]	d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	L [mm]	s [mm]
½	20	16	723 910 206	10	0.027	4	35	32
¾	25	16	723 910 207	10	0.035	3	40	36
1	32	16	723 910 208	10	0.059	3	45	46
1 ¼	40	16	723 910 209	10	0.093	5	51	55
1 ½	50	16	723 910 210	10	0.133	7	59	65
2	63	16	723 910 211	5	0.211	7	69	80

Reducing bush PVC-C metric Rp

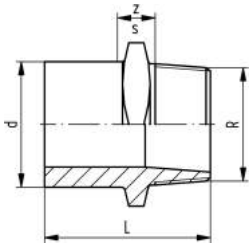
Model:

- With solvent cement spigot metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Install with low mechanical stress and avoid large cyclic temperature changes



PF 2 32 450 022

d [mm]	Rp [inch]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]
20	¾	16	723 910 434	10	0.016	7	25	35
25	½	16	723 910 437	10	0.022	7	30	41
32	¾	16	723 910 441	10	0.033	15	35	48
40	1	16	723 910 446	10	0.061	20	45	56
50	1 ¼	16	723 910 452	10	0.101	20	55	66
63	1 ½	16	723 910 458	5	0.161	10	62	77



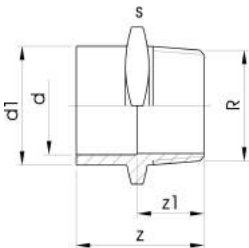
PF 2 32 450 018

Adaptor nipple PVC-C metric R

Model:

- With solvent cement spigot metric and taper male thread R
- Connection to plastic threads only
- Install with low mechanical stress and avoid large cyclic temperature changes
- Do not use thread sealing pastes that are harmful to PVC-C

R [inch]	d [mm]	PN [bar]	Code	SP	Weight [kg]	L [mm]	z [mm]	s [mm]	
3/8	16	16	723 910 505	10	0.012	35	8	27	



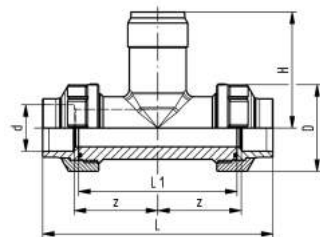
PF 2 32 450 023

Adaptor socket nipple PVC-C metric R

Model:

- With solvent cement spigot/socket metric and taper male thread R
- Connection to plastic threads only
- Install with low mechanical stress and avoid large cyclic temperature changes
- Do not use thread sealing pastes that are harmful to PVC-C

d [mm]	R [inch]	d1 [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	z1 [mm]	s [mm]	
16	1/2	20	16	723 910 556	10	0.017	42	28	32	
20	3/4	25	16	723 910 557	10	0.026	47	31	36	
25	1	32	16	723 910 558	10	0.043	54	35	46	
32	1 1/4	40	16	723 910 559	10	0.065	60	38	55	
40	1 1/2	50	16	723 910 560	10	0.102	66	40	65	
50	2	63	16	723 910 561	5	0.173	78	47	80	



PF 2 98 930 004

Installation fitting type 310 PVC-C For socket systems metric

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

Model:

- Threaded outlet 1 1/4" NPSM
- Body and union nut PVDF
- Union end with solvent cement socket PVC-C

d [mm]	DN [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
20	15	16	723 310 006	1	0.250	723 310 036	1	0.250	
25	20	16	723 310 007	1	0.355	723 310 037	1	0.355	
32	25	16	723 310 008	1	0.427	723 310 038	1	0.427	
40	32	16	723 310 009	1	0.700	723 310 039	1	0.700	
50	40	16	723 310 010	1	0.850	723 310 040	1	0.850	
63	50	16	723 310 011	1	1.182	723 310 041	1	1.182	

d [mm]	DN [mm]	L [mm]	z [mm]	L1 [mm]	D [mm]	H [mm]	Sensor Type	
20	15	132	49	90	45	76	flow X0; pH XX	
25	20	148	53	100	55	78	flow X0; pH XX	
32	25	164	58	110	62	81	flow X0; pH XX	
40	32	172	58	110	75	85	flow X0; pH XX	
50	40	188	63	120	84	89	flow X0; pH XX	
63	50	212	68	130	101	95	flow X0; pH XX	

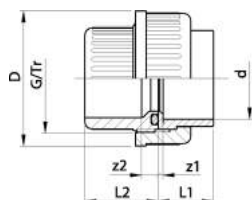
Unions

Solvent cement unions

Union for solvent cement jointing PVC-C metric

Model:

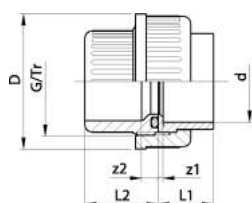
- Silicone free / paint-compatible
- Union End: solvent socket metric
- Union bush: Solvent cement socket metric
- With O-ring gasket



d [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	16	723 510 155	10	0.028	723 510 180	0	0.028
20	16	723 510 156	10	0.046	723 510 181	0	0.046
25	16	723 510 157	10	0.071	723 510 182	0	0.071
32	16	723 510 158	10	0.099	723 510 183	0	0.099
40	16	723 510 159	10	0.190	723 510 184	0	0.190
50	16	723 510 160	5	0.240	723 510 185	0	0.240
63	16	723 510 161	10	0.425	723 510 186	0	0.425
75	10	723 510 162	2	0.670	723 510 187	0	0.670
90	10	723 510 163	2	1.008	723 510 188	0	1.008
110	10	723 510 164	2	1.553	723 510 189	0	1.553

L2 [mm]	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	G/Tr [inch]
24	3	8	35	19	3/4
26	3	9	43	21	1
29	3	9	53	24	1 1/4
33	3	9	60	27	1 1/2
39	3	10	74	32	2
46	3	10	83	33	2 1/4
58	3	10	103	40	2 3/4
62	3	18	135	47	Tr108x5
69	5	18	158	56	Tr128x5
72	5	11	188	66	Tr154x6

PF 2 32 450 021



Union PVC-C metric

Model:

- Union End: Solvent cement socket metric
- Union bush: Solvent cement socket metric
- Jointing face: With O-ring groove
- Gasket: O-ring EPDM code no. 748 410 005-016, for d90 748 410 248

d [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	16	723 510 105	10	0.028	723 510 130	10	0.027
20	16	723 510 106	10	0.046	723 510 131	10	0.044
25	16	723 510 107	10	0.063	723 510 132	10	0.072
32	16	723 510 108	10	0.090	723 510 133	10	0.098
40	16	723 510 109	10	0.158	723 510 134	10	0.167
50	16	723 510 110	5	0.214	723 510 135	10	0.098
63	16	723 510 111	10	0.360	723 510 136	10	0.362
75	10	723 510 112	2	0.650	723 510 137	2	0.670
90	10	723 510 313	2	0.994	723 510 338	2	1.008
110	10	723 510 114	1	1.509	723 510 139	1	1.523

z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr [inch]
3	8	35	19	24	3/4
3	9	43	21	26	1
3	9	53	24	29	1 1/4
3	9	60	27	33	1 1/2
3	10	74	32	39	2
3	10	83	33	46	2 1/4
3	10	103	40	58	2 3/4
3	18	135	47	62	Tr108x5
5	18	158	56	69	Tr128x5
5	11	188	66	72	Tr154x6

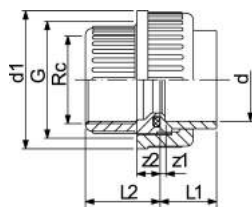
PF 2 32 450 007

Adaptor unions

Adaptor union PVC-C metric Rp

Model:

- Union End: Solvent cement socket metric
- Union Bush: Parallel female thread Rp
- Gasket: O-ring EPDM code no. 748 410 005-011
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-C



Rp [inch]	d [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	16	16	723 510 205	10	0.022	723 510 230	0	0.022	
1/2	20	16	723 510 206	10	0.047	723 510 231	0	0.040	
3/4	25	16	723 510 207	10	0.065	723 510 232	0	0.065	
1	32	16	723 510 208	10	0.103	723 510 233	0	0.103	
1 1/4	40	16	723 510 209	10	0.615	723 510 234	0	0.174	
1 1/2	50	16	723 510 210	2	0.239	723 510 235	0	0.239	
2	63	16	723 510 211	2	0.400	723 510 236	0	0.435	

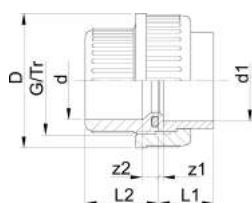
z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]	
3	13	35	17	24	3/4	
3	13	43	19	26	1	
3	14	51	22	29	1 1/4	
3	15	58	25	32	1 1/2	
3	19	74	31	38	2	
3	26	83	34	45	2 1/4	
3	33	100	41	56	2 3/4	

PF 2 32 450 033

Adaptor union PVC-C metric/ASTM

Model:

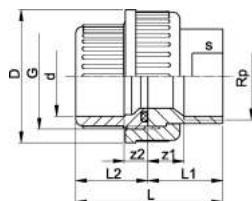
- Union bush: Solvent cement socket metric
- Union End: solvent cement socket inch ASTM
- Gasket: O-ring EPDM code no. 748 410 005-011



d [mm]	Inch [inch]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	3/8	10	723 514 105	10	0.022	723 514 130	0	0.022	
20	1/2	10	723 514 106	10	0.047	723 514 131	0	0.047	
25	3/4	10	723 514 107	10	0.065	723 514 132	0	0.065	
32	1	10	723 514 108	10	0.103	723 514 133	0	0.093	
40	1 1/4	10	723 514 109	10	0.174	723 514 134	0	0.161	
50	1 1/2	10	723 514 110	5	0.239	723 514 135	0	0.226	
63	2	10	723 514 111	10	0.435	723 514 136	0	0.372	

d [mm]	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]	
16	4	10	35	17	24	3/4	
20	2	10	43	19	26	1	
25	4	10	51	22	29	1 1/4	
32	4	10	58	25	33	1 1/2	
40	6	12	74	29	39	2	
50	11	14	83	34	46	2 1/4	
63	17	18	100	41	58	2 3/4	

PF 2 32 450 034



Adaptor union PVC-C/stainless steel metric Rp

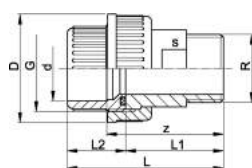
Model:

- Union Nut: PVC-C
- Union Bush: Solvent cement socket PVC-C metric
- Union End: Stainless Steel WN 1.4404 (316L), parallel female thread Rp
- Gasket: O-ring EPDM code no. 748 410 005-011

d [mm]	Rp [inch]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	3/8	16	723 540 205	10	0.053	723 540 230	0	0.053
20	1/2	16	723 540 206	10	0.096	723 540 231	0	0.096
25	3/4	16	723 540 207	5	0.154	723 540 232	0	0.154
32	1	16	723 540 208	5	0.212	723 540 233	0	0.212
40	1 1/4	16	723 540 209	2	0.356	723 540 234	0	0.347
50	1 1/2	16	723 540 210	2	0.455	723 540 235	0	0.502
63	2	16	723 540 211	2	0.721	723 540 236	0	0.721

z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
9	10	35	43	19	24	3/4	19
11	10	43	50	24	26	1	24
11	10	51	55	26	29	1 1/4	29
12	10	58	61	29	33	1 1/2	36
14	12	74	71	33	39	2	45
15	14	83	79	34	46	2 1/4	54
15	18	100	95	39	58	2 3/4	63

PF 2 32 450 037



Adaptor union PVC-C/stainless steel metric R

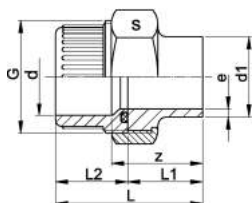
Model:

- Union Nut: PVC-C
- Union Bush: Solvent cement socket PVC-C metric
- Union End: Stainless Steel WN 1.4404 (316L), taper male thread R
- Gasket: O-ring EPDM code no. 748 410 005-011

R [inch]	d [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	16	16	723 540 705	10	0.073	723 540 730	0	0.073
1/2	20	16	723 540 706	10	0.126	723 540 731	0	0.120
3/4	25	16	723 540 707	5	0.174	723 540 732	0	0.174
1	32	16	723 540 708	5	0.262	723 540 733	0	0.259
1 1/4	40	16	723 540 709	2	0.476	723 540 734	0	0.482
1 1/2	50	16	723 540 710	2	0.535	723 540 735	0	0.535
2	63	16	723 540 711	2	0.931	723 540 736	0	0.982

z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
40	35	54	30	24	3/4	19
44	43	60	34	26	1	24
46	51	65	36	29	1 1/4	32
50	58	72	40	33	1 1/2	37
58	74	84	46	39	2	48
62	83	93	48	46	2 1/4	54
73	100	111	55	58	2 3/4	69

PF 2 32 450 037



Adaptor union PVC-C/stainless steel metric welding end

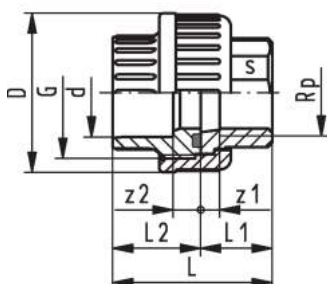
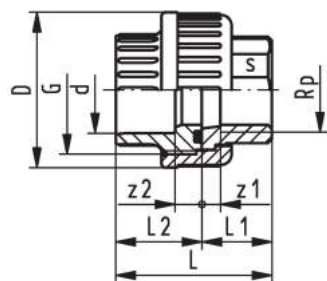
Model:

- Union Nut: Stainless Steel WN 1.4404 (316L)
- Union Bush: Solvent cement socket PVC-C metric
- Union End: Stainless Steel 1.4404 (316L) with welding end
- Gasket: O-ring EPDM code no. 748 410 005-011

d1 [mm]	d [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
17	16	16	723 545 505	10	0.101	723 545 530	0	0.101
21	20	16	723 545 506	10	0.176	723 545 531	0	0.171
27	25	16	723 545 507	5	0.204	723 545 532	0	0.204
34	32	16	723 545 508	5	0.313	723 545 533	0	0.313
42	40	16	723 545 509	2	0.493	723 545 534	0	0.493
48	50	16	723 545 510	2	0.566	723 545 535	0	0.566
60	63	16	723 545 511	2	0.902	723 545 536	0	0.885

z [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	G [inch]	s [mm]
28	42	18	24	1.6	3/4	32
32	48	22	26	2.0	1	41
33	52	23	29	2.0	1 1/4	46
36	58	26	33	2.0	1 1/2	55
38	64	26	39	2.0	2	68
42	73	28	46	2.0	2 1/4	74
50	88	32	58	2.6	2 3/4	88

PF 2 32 450 037



Adaptor union PVC-C/malleable iron galvanised metric Rp

Model:

- Union Nut: PVC-C
- Union Bush: Solvent cement socket PVC-C metric
- Union End: malleable iron with parallel female thread Rp
- Gasket: O-ring EPDM code no. 748 410 006-011

Rp [inch]	d [mm]	Code	SP	Weight [kg]	z2 [mm]	G [inch]	s [mm]	z1 [mm]	L [mm]	L2 [mm]	L1 [mm]	D [mm]
1/2	20	723 530 306	10	0.075	10	1	25	9	48	26	22	43
3/4	25	723 530 307	5	0.112	10	1 1/4	31	7	51	29	22	51
1	32	723 530 308	5	0.157	10	1 1/2	38	9	58	33	26	58
1 1/4	40	723 530 309	2	0.300	12	2	48	12	69	39	31	72
1 1/2	50	723 530 310	2	0.384	14	2 1/4	54	14	78	46	33	83
2	63	723 530 311	5	0.603	18	2 3/4	67	11	91	58	35	100

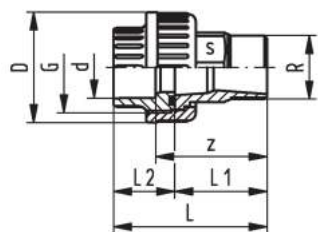
PF 2 32 450 019



Adaptor union PVC-C/malleable iron galvanised metric R

Model:

- Union Nut: PVC-C
- Union End: Malleable iron with taper male thread R
- Union Bush: Solvent cement socket PVC-C metric
- Gasket: O-ring EPDM code no. 748 410 006-011



R	d	Code	SP	Weight	s	L2	G	z	L1	D	L	
[inch]	[mm]			[kg]	[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	
1/2	20	723 530 806	10	0.114	25	26	1	50	40	43	66	
3/4	25	723 530 807	5	0.165	31	29	1 1/4	53	43	51	72	
1	32	723 530 808	5	0.205	38	33	1 1/2	58	48	58	80	
1 1/4	40	723 530 809	2	0.403	48	39	2	69	57	72	95	
1 1/2	50	723 530 810	2	0.539	54	46	2 1/4	73	59	83	104	
2	63	723 530 811	8	0.787	67	58	2 3/4	80	62	100	118	

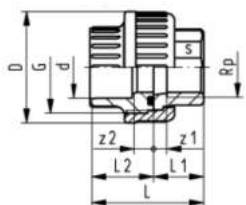
PF 2 32 450 020



Adaptor union PVC-C/brass metric Rp

Model:

- Union Nut: PVC-C
- Union Bush: Solvent cement socket PVC-C metric
- Union End: Brass with parallel female thread Rp
- Gasket: O-ring EPDM code no. 748 410 006-011



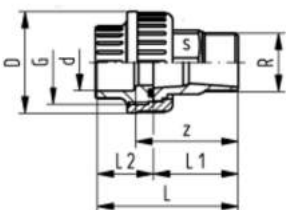
Rp	PN	d	Code	SP	Weight	L1	D	L	L2	s	z1	z2	G
[inch]	[bar]	[mm]			[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[inch]
1/2	16	20	723 550 506	10	0.093	22	43	48	26	25	7	10	1
3/4	16	25	723 550 507	5	0.152	25	51	54	29	30	9	10	1 1/4
1	16	32	723 550 508	5	0.198	27	58	60	33	36	8	11	1 1/2
1 1/4	16	40	723 550 509	2	0.351	31	72	70	39	46	10	13	2
1 1/2	16	50	723 550 510	2	0.507	35	83	81	46	55	13	15	2 1/4
2	16	63	723 550 511	5	0.809	40	100	98	58	65	14	21	2 3/4



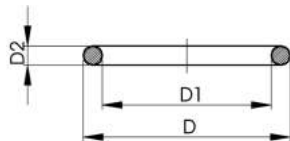
Adaptor union PVC-C/brass metric R

Model:

- Union Nut: PVC-C
- Union Bush: Solvent cement socket PVC-C metric
- Union End: Brass with taper male thread R
- Gasket: O-ring EPDM code no. 748 410 006-011



R	d	PN*	Code	SP	Weight	z	s	G	L1	D	L	L2	
[inch]	[mm]	[bar]			[kg]	[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	
1/2	20	16	723 550 906	10	0.132	47	25	1	37	43	63	26	
1/2	25	16	723 550 957	5	0.230	47	30	1 1/4	37	51	66	29	
3/4	25	16	723 550 907	5	0.203	52	30	1 1/4	42	51	71	29	
1	25	16	723 550 967	5	0.312	56	30	1 1/4	46	51	75	29	
1/2	32	16	723 550 958	5	0.302	48	36	1 1/2	37	58	70	33	
3/4	32	16	723 550 968	5	0.302	53	36	1 1/2	52	58	75	33	
1	32	16	723 550 908	5	0.393	57	36	1 1/2	46	58	79	33	
1 1/4	40	16	723 550 909	2	0.493	65	46	2	52	72	91	39	
1 1/2	50	16	723 550 910	2	1.468	71	55	2 1/4	56	83	102	46	
2	63	16	723 550 911	8	1.103	87	65	2 3/4	67	100	125	58	



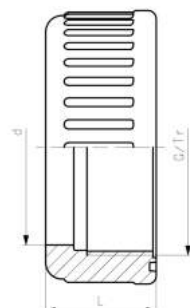
Spare parts unions O-Ring gasket

Model:

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

DN [mm]	d [mm]	EPDM Code	PF	SP	Weight [kg]
8	10 - 12	748 410 004	2 30 162 006	100	0.002
10	16	748 410 005	2 30 162 006	0	0.001
15	20	748 410 006	2 30 162 006	0	0.001
20	25	748 410 007	2 31 800 999	0	0.004
25	32	748 410 008	2 30 162 006	0	0.002
32	40	748 410 009	2 30 162 006	0	0.001
40	50	748 410 010	2 30 162 006	0	0.001
50	63	748 410 011	2 30 162 006	0	0.010
65	75	748 410 014	2 31 800 999	500	0.001
80	90	748 410 248	2 30 162 006	1	0.008
100	110	748 410 016	2 31 800 999	100	0.016

FPM Code	PF	SP	Weight [kg]	D [mm]	closest inch [inch]	D1 [mm]	D2 [mm]
749 410 004	2 30 162 006	0	0.001	18	¾	12	3
749 410 005	2 30 162 006	0	0.001	21	⅝	16	3
749 410 006	2 30 162 006	0	0.001	27	½	20	4
749 410 007	2 31 800 999	100	0.002	35	¾	28	4
749 410 008	2 30 162 006	100	0.002	40	1	33	4
749 410 009	2 30 162 006	0	0.007	51	1 ¼	41	5
749 410 010	2 30 162 006	0	0.060	58	1 ½	47	5
749 410 011	2 30 162 006	100	0.003	70	2	60	5
749 410 014	2 31 800 999	100	0.012	93	2 ½	82	5
749 410 248	2 30 162 006	1	0.020	105	3	95	5
749 410 016	2 31 800 999	50	0.031	134	4	120	7



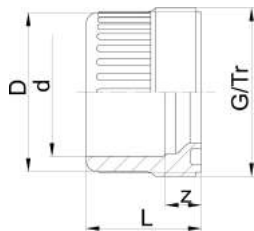
Union nut PVC-C

Model:

- For union 723 510 105-114

d [mm]	PN [bar]	Code	SP	Weight [kg]	L [mm]	G/Tr [inch]
16	16	723 690 005	0	0.012	21	3/4
20	16	723 690 006	0	0.020	23	1
25	16	723 690 007	0	0.021	24	1 1/4
32	16	723 690 008	0	0.031	26	1 1/2
40	16	723 690 009	0	0.053	29	2
50	16	723 690 010	0	0.092	34	2 1/4
63	16	723 690 011	0	0.133	38	2 3/4
75	10	723 690 012	0	0.267	40	Tr108x5
90	10	723 690 013	0	0.389	43	Tr128x5
110	10	723 690 014	0	0.609	48	Tr154x6

PF 2 32 450 999



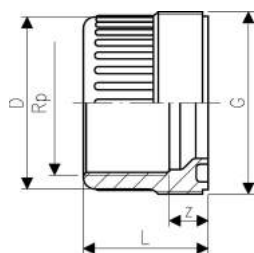
PF 2 32 450 999

Union bush PVC-C metric

Model:

- Solvent cement socket metric
- For union 723 510 105-114
- Jointing face: With O-Ring groove
- Gasket: O-ring EPDM code no. 748 410 005-016

d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	G/Tr [inch]	
16	16	723 840 105	10	0.009	11	24	25	3/4	
20	16	723 840 106	10	0.014	12	28	26	1	
25	16	723 840 107	10	0.024	11	33	29	1 1/4	
32	16	723 840 108	10	0.038	10	41	33	1 1/2	
40	16	723 840 109	10	0.066	12	50	39	2	
50	16	723 840 110	10	0.083	14	62	46	2 1/4	
63	16	723 840 111	10	0.158	19	77	58	2 3/4	
75	10	723 840 112	20	0.230	18	93	62	Tr108x5	
90	10	723 840 123	12	0.381	18	110	69	Tr128x5	
110	10	723 840 114	10	0.480	11	133	72	Tr154x6	



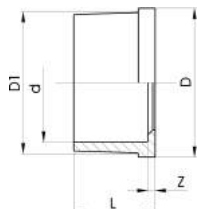
PF 2 32 450 027

Union bush PVC-C Rp

Model:

- With parallel female thread Rp
- For union 723 510 105-114
- Jointing face: With O-Ring groove
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-C
- Gasket: O-ring EPDM code no. 748 410 005-011

Rp [inch]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	L [mm]	G [inch]	
3/8	10	723 840 605	10	0.010	13	24	24	3/4	
1/2	10	723 840 606	10	0.015	13	29	26	1	
3/4	10	723 840 607	10	0.024	14	34	29	1 1/4	
1	10	723 840 608	10	0.039	15	42	32	1 1/2	
1 1/4	10	723 840 609	10	0.069	19	53	38	2	
1 1/2	10	723 840 610	10	0.092	26	63	45	2 1/4	
2	10	723 840 611	10	0.114	33	78	56	2 3/4	



PF 2 32 450 999

Union end PVC-C metric

Model:

- For union 723 510 105-114
- With solvent cement socket metric

d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	D1 [mm]	L [mm]	
16	16	723 800 105	10	0.005	3	24	22	19	
20	16	723 800 106	10	0.010	4	30	28	21	
25	16	723 800 107	10	0.018	3	39	36	24	
32	16	723 800 108	10	0.023	3	44	41	27	
40	16	723 800 109	10	0.062	3	57	53	31	
50	16	723 800 110	10	0.064	3	63	59	34	
63	16	723 800 111	10	0.120	3	78	74	41	
75	10	723 800 162	20	0.157	3	101	91	47	
90	10	723 800 163	12	0.260	5	121	108	56	
110	10	723 800 164	10	0.418	5	146	131	66	

Union end PVC-C ASTM

Model:

- For union 723 510 105-114
- With solvent cement socket ASTM

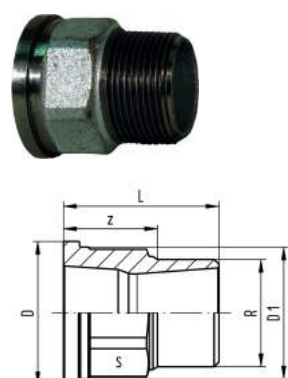


Inch [inch]	PN [bar]	Code	PF	SP	Weight [kg]	z [mm]	D [mm]	D1 [mm]	L [mm]	
3/8	16	723 602 005	2 32 450 032	0	0.006	3	24	22	22	
1/2	16	723 602 006	2 32 450 032	0	0.013	3	30	28	25	
3/4	16	723 602 007	2 32 450 032	0	0.017	3	39	36	28	
1	16	723 602 008	2 32 450 032	0	0.024	3	45	42	32	
1 1/4	16	723 602 009	2 32 450 032	0	0.038	3	57	53	35	
1 1/2	16	723 602 010	2 32 450 032	0	0.048	3	63	59	38	
2	16	723 602 011	2 32 450 032	0	0.080	3	78	74	41	
2 1/2	16	723 602 012				3	101	91	47	
3	16	723 602 013				5	121	108	56	
4	16	723 602 014				5	146	131	66	

Union end malleable iron galvanized R

Model:

- Union End: Malleable iron with taper male thread R



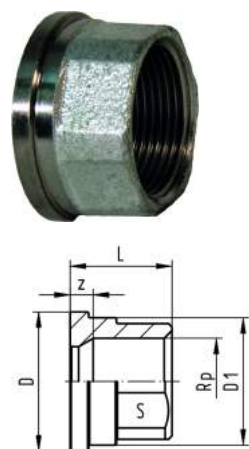
PF 2 30 153 999

R [inch]	d [mm]	Code	SP	Weight [kg]	D [mm]	L [mm]	D1 [mm]	z [mm]	s [mm]	
1/2	20	724 600 806	200	0.069	30	40	27	25	23	
3/4	25	724 600 807	120	0.115	39	43	36	27	30	
1	32	724 600 808	0	0.161	44	48	41	29	36	
1 1/4	40	724 600 809	0	0.294	56	57	52	36	48	
1 1/2	50	724 600 810	0	0.353	62	59	58	37	54	
2	63	724 600 811	15	0.570	78	62	73	36	66	
2 1/2	75	724 600 812	0	0.980	100	75	92	45	85	
3	90	724 600 813	0	1.217	121	80	110	47	95	

Union end malleable iron galvanized Rp

Model:

- Union End: malleable iron with parallel female thread Rp



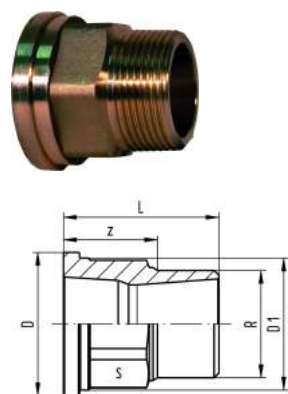
PF 2 30 153 999

d [mm]	Rp [inch]	PN [bar]	Code	SP	Weight [kg]	D [mm]	L [mm]	s [mm]	z [mm]	D1 [mm]	
20	1/2	16	724 600 206	100	0.037	30	22	25	9	27	
25	3/4	16	724 600 207	0	0.072	39	22	31	7	36	
32	1	16	724 600 208	120	0.088	44	26	38	9	41	
32	1 1/4	16	724 600 209	0	0.172	56	31	48	12	52	
50	1 1/2	16	724 600 210	1	0.210	62	33	54	14	58	
63	2	16	724 600 211	0	0.331	78	35	67	11	73	
75	2 1/2	16	724 600 212	35	0.557	100	39	85	12	92	
90	3	16	724 600 213	0	0.650	121	45	96	15	110	

Union end brass R

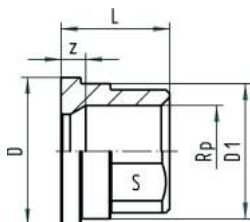
Model:

- Union End: Brass with taper male thread R



PF 2 30 153 999

d [mm]	R [inch]	Code	SP	Weight [kg]	z [mm]	D1 [mm]	D [mm]	s [mm]	L [mm]	
20	1/2	720 600 246	1	0.092	22	28	30	25	37	
25	3/4	720 600 247	1	0.151	25	36	39	30	42	
25	1/2	720 600 257	1	0.142	27	36	39	30	42	
32	1	720 600 248	1	0.216	28	42	45	36	46	
32	1/2	720 600 258	1	0.113	31	42	45	36	46	
32	3/4	720 600 268	1	0.206	30	42	45	36	46	
40	1 1/4	720 600 249	1	0.408	32	53	56	46	52	
50	1 1/2	720 600 250	1	0.538	36	59	62	55	56	
63	2	720 600 251	1	0.859	42	74	78	65	67	
75	2 1/2	720 600 252	1	1.446	49	92	100	85	77	
90	3	720 600 253	1	2.063	54	110	121	95	86	



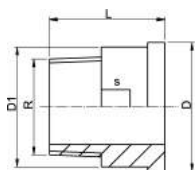
PF 2 30 153 999

Union end brass Rp

Model:

- Union End: Brass with parallel female thread Rp

Rp [inch]	d [mm]	Code	SP	Weight [kg]	L [mm]	s [mm]	D [mm]	D1 [mm]	z [mm]	
1/2	20	720 600 236	1	0.059	22	25	30	28	5	
3/4	25	720 600 237	1	0.100	25	30	39	36	6	
1	32	720 600 238	1	0.128	27	36	45	42	6	
1 1/4	40	720 600 239	1	0.211	31	46	56	53	7	
1 1/2	50	720 600 240	1	0.324	35	55	62	59	7	
2	63	720 600 241	1	0.510	40	65	78	74	8	
2 1/2	75	720 600 242	1	0.893	47	85	100	92	10	
3	90	720 600 243	1	1.395	52	95	121	110	11	



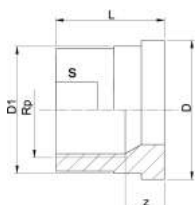
PF 2 30 153 999

Union end stainless steel R

Model:

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

R [inch]	PN [bar]	Code	SP	Weight [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	



PF 2 30 153 999

Union end stainless steel Rp

Model:

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

Rp [inch]	PN [bar]	Code	SP	Weight [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	45	0.438	15	78	74	39	63	

Flange adaptors

Flange adaptor PVC-C

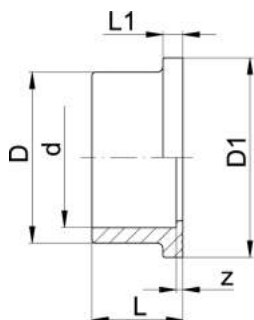
Combined jointing face flat and serrated metric

Model:

- Gasket: flat gasket EPDM code no. 748 400 306-320
- Flange: code no. 727 700 406-420, 727 700 206-220, 721 700 006-020
- Gasket: profile flange gasket EPDM code no. 748 440 706-720, FPM code no. 749 440 706-720

Note:

* bevel on pipe may be needed if used with butterfly valve type 037/038/039



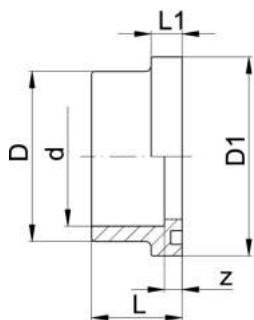
PF 2 32 450 006

	d [mm]	DN [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	
	20	15	16	723 790 106	10	0.011	3	27	34	21	6	
	25	20	16	723 790 107	10	0.018	3	33	41	24	7	
	32	25	16	723 790 108	10	0.027	3	41	50	27	7	
	40	32	16	723 790 109	10	0.032	3	50	61	30	8	
	50	40	16	723 790 110	10	0.054	3	61	73	34	8	
	63	50	16	723 790 111	10	0.097	3	76	90	41	9	
	75	65	16	723 790 112	10	0.168	3	91	106	47	10	
	90	80	16	723 790 113	10	0.265	5	108	125	56	11	
	110	100	16	723 790 114	10	0.441	5	131	150	66	12	
*	160	150	16	723 790 117	12	1.139	5	188	213	91	16	
*	200	200	10	723 790 119	2	1.630	6	224	250	112	24	
	225	200	10	723 790 120	2	1.860	6	248	274	125	25	

Flange adaptor PVC-C with O-ring groove metric

Model:

- Counterpart: flange adaptor code no. 723 790 117, 723 790 120
- Gasket: O-ring EPDM code no. 748 410 019, 748 410 022; FPM code no. 749 410 019, 749 410 022
- Flange: code no. 727 700 406-420, 727 700 206-220, 721 700 006-020

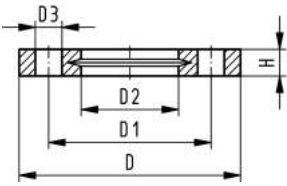


PF 2 32 450 030

	d [mm]	PN [bar]	Code	SP	Weight [kg]	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	
	160	16	723 810 117	12	1.252	11	188	213	97	22	
	225	10	723 810 120	2	2.050	12	248	274	131	31	

Backing flanges

Backing flange PP-V For socket systems metric



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

* Combined version, metric-ANSI

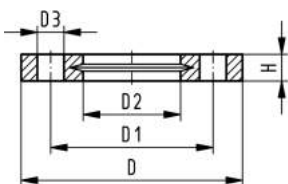
AL: number of holes

Model:

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

	d [mm]	DN [mm]	PN [bar]	Code	PF	SP	Weight [kg]
	20	15	16	727 700 406	2 34 238 030	56	0.093
	25	20	16	727 700 407	2 34 238 030	38	0.120
	32	25	16	727 700 408	2 34 238 030	80	0.151
	40	32	16	727 700 409	2 34 238 030	40	0.244
	50	40	16	727 700 410	2 34 238 030	30	0.297
	63	50	16	727 700 411	2 34 238 030	25	0.362
	75	65	16	727 700 412	2 34 238 030	19	0.487
	90	80	16	727 700 413	2 34 238 030	15	0.550
	110	100	16	727 700 414	2 34 238 030	13	0.640
	140	125	16	727 700 416	2 34 238 030	10	0.781
	160	150	16	727 700 417	2 34 238 032		
*	200	200	16	727 700 419	2 34 238 032		
*	225	200	16	727 700 420	2 34 238 032		
	250	250	16	727 700 421	2 34 238 030	0	2.229

	d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
	20	95	65	28	14	16	4	M12
	25	105	75	34	14	17	4	M12
	32	115	85	42	14	18	4	M12
	40	140	100	51	18	20	4	M16
	50	150	110	62	18	22	4	M16
	63	165	125	78	18	24	4	M16
	75	185	145	92	18	26	4	M16
	90	200	160	110	18	27	8	M16
	110	220	180	133	18	28	8	M16
	140	250	210	167	18	30	8	M16
	160	285	241	190	22	32	8	M20
*	200	340	297	226	22	34	8	M20
*	225	340	297	250	22	34	8	M20
	250	395	350	277	22	38	12	M20



Backing flange PP-V For socket systems Inch ANSI

AL: number of holes

* Combined version, metric-ANSI

• 727701414, 727700417, 727700419: only for use with original metric flange adaptors

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

Model:

• 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**

• Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)

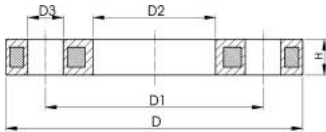
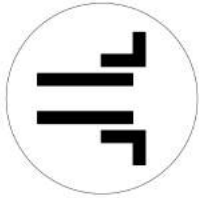
• With V-groove which applies force evenly on collar

• With integrated bolt-fixing as an assembly aid

	Size [inch]	DN [mm]	d [mm]	PN [bar]	Code	SP	Weight [kg]
1	1/2	15	20	16	727 701 406	56	0.091
1	3/4	20	25	16	727 701 407	38	0.120
1	1	25	32	16	727 701 408	80	0.147
1	1 1/4	32	40	16	727 701 409	40	0.246
1	1 1/2	40	50	16	727 701 410	30	0.299
1	2	50	63	16	727 701 411	25	0.361
1	2 1/2	65	75	16	727 701 412	19	0.492
	3	80	90	16	727 701 413	14	0.605
	4	100	110	16	727 701 414	12	0.704
	6	150	160	16	727 700 417		
*	8	200	200	16	727 700 419		
*	8	200	225	16	727 700 420		

	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1	95	60	28	16	16	4	M12
1	105	70	34	16	17	4	M12
1	115	79	42	16	18	4	M12
1	140	89	51	16	20	4	M16
1	150	98	62	16	22	4	M16
1	165	121	78	19	24	4	M16
1	185	140	92	19	26	4	M16
	200	152	110	19	27	4	M16
	229	190	133	19	28	8	M16
	285	241	190	22	32	8	M20
*	340	297	226	22	34	8	M20
*	340	297	250	22	34	8	M20

PF 2 34 238 032



Backing Flange PP-Steel for Socket Systems Inch/ANSI

- 727701214, 727700217: only for use with original metric flange adaptors
- AL: number of holes

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**

d [inch]	d [mm]	Code	Weight [lb]	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	SC	
1/2	20	727 701 206	0.470	60	28	16	95	12	4	M12	
3/4	25	727 701 207	0.573	70	34	16	105	12	4	M12	
1	32	727 701 208	0.917	79	42	16	115	16	4	M12	
1 1/4	40	727 701 209	1.609	89	51	16	140	16	4	M16	
1 1/2	50	727 701 210	1.784	98	62	16	150	18	4	M16	
2	63	727 701 211	1.909	121	78	19	165	18	4	M16	
2 1/2	75	727 701 212	2.463	140	92	19	185	18	4	M16	
3	90	727 701 213	3.289	152	110	19	200	20	4	M16	
4	110	727 701 214	3.737	190	133	19	229	20	8	M16	
6	160	727 700 217		240	190	22	285	24	8	M20	
8	225	727 701 220	9.861	298	250	22	340	27	8	M20	

PF 2 34 238 021

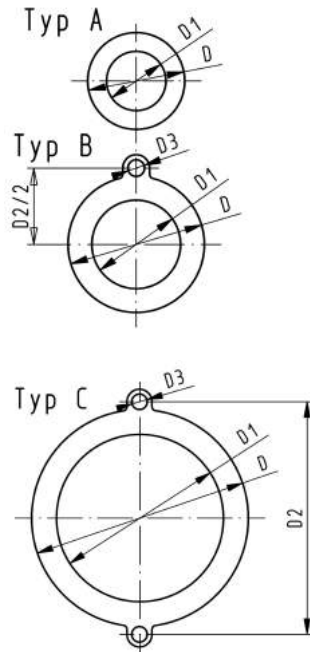
Seals

Flat gasket

Flat gasket

Model:

- For all metric GF Flange Adaptors
- Hardness approx. 65° Shore
- Integrated fixation aids from d110
- Centering on the inner diameter of the screw crown



di FA are the suitable inner diameters of flanges adaptors

d [mm]	DN [mm]	PN [bar]	Type	EPDM Code	SP	Weight [kg]	
16	10	10	A	748 400 305	0	0.004	
20	15	10	A	748 400 306	0	0.012	
25	20	10	A	748 400 307	0	0.004	
32	25	10	A	748 400 308	0	0.008	
40	32	10	A	748 400 309	0	0.013	
50	40	10	A	748 400 310	0	0.016	
63	50	10	A	748 400 311	0	0.018	
75	65	10	A	748 400 312	0	0.029	
90	80	10	A	748 400 313	0	0.035	
110	100	10	B	748 400 314	0	0.051	
125	100	10	B	748 400 315	0	0.044	
140	125	10	B	748 400 316	0	0.068	
160 - 180	150	10	B	748 400 317	0	0.090	
200	200	6	C	748 400 319	0	0.210	
225	200	6	C	748 400 320	0	0.140	

d [mm]	DN [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	di FA [mm]	
16	10	46	16			2	6 - 26	
20	15	51	20			2	10 - 30	
25	20	61	25			2	15 - 35	
32	25	71	32			2	22 - 42	
40	32	82	40			3	30 - 50	
50	40	92	50			3	40 - 60	
63	50	107	63			3	53 - 73	
75	65	127	71			3	61 - 81	
90	80	142	84			3	74 - 94	
110	100	162	104	180	18	4	94 - 114	
125	100	162	119	180	18	4	109 - 129	
140	125	192	134	210	18	4	124 - 144	
160 - 180	150	218	155	241	22	4	145 - 165	
200	200	273	195	295	22	5	185 - 205	
225	200	273	216	295	22	5	206 - 226	

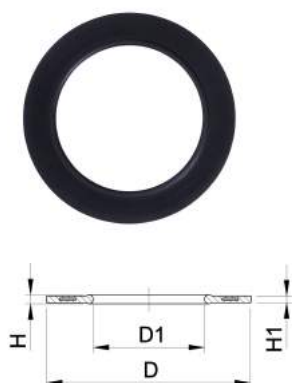
PF 2 30 162 003

Profiled gasket

Profile Flange Gasket, metric EPDM / FPM

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 flanges adaptors

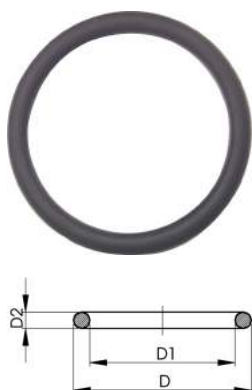
d [mm]	PN [bar]	DN [mm]	EPDM Code	FPM Code	Weight [kg]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
16	16	10	748 440 705	749 440 705	0.012	46	16	4	3	6 - 16
20	16	15	748 440 706	749 440 706	0.013	51	20	4	3	10 - 20
25	16	20	748 440 707	749 440 707	0.014	61	22	4	3	12 - 22
32	16	25	748 440 708	749 440 708	0.019	71	28	4	3	18 - 28
40	16	32	748 440 709	749 440 709	0.026	82	40	4	3	30 - 40
50	16	40	748 440 710	749 440 710	0.039	92	46	4	3	36 - 46
63	16	50	748 440 711	749 440 711	0.050	107	58	5	4	48 - 58
75	16	65	748 440 712	749 440 712	0.082	127	69	5	4	59 - 69
90	16	80	748 440 713	749 440 713	0.083	142	84	5	4	73 - 84
110	16	100	748 440 714	749 440 714	0.127	162	104	6	5	94 - 104
125	16	100	748 440 715	749 440 715	0.105	162	123	6	5	113 - 123
140	16	125	748 440 716	749 440 716	0.173	192	137	6	5	127 - 137
160 - 180	16	150	748 440 717	749 440 717	0.207	218	160	8	6	150 - 160
200	16	200	748 440 719	749 440 719	0.263	273	203	8	6	192 - 203
225	16	200	748 440 720	749 440 720	0.255	273	220	8	6	207 - 220

PF 2 30 162 037

O-Ring gasket

Model:

- For Flange Adaptors
- Hardness approx. 65° Shore



d [mm]	DN [mm]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
160	150	748 410 019	200	0.025	749 410 019	200	0.044
225	200	748 410 022	100	0.034	749 410 022	150	0.060

d [mm]	D [mm]	D1 [mm]	D2 [mm]	closest inch [inch]
160	191	177	6.99	6
225	255	241	6.99	8

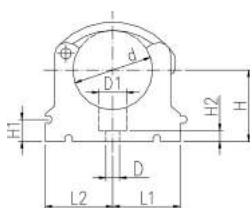
PF 2 31 800 999

Pipe clips metric

KLIP-IT pipe clip type 061 PP metric

Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- d16 - d63: Height designed for Ball Valve Type 546 and 543
- **Minimum order quantity: standard packagings SP**



	d [inch]	d [mm]	Code	SP	Weight [kg]
*		10	167 061 003	10	0.003
*		12	167 061 004	10	0.003
*		16	167 061 035	1	0.007
		20	167 061 036	1	0.007
		25	167 061 037	10	0.009
*		32	167 061 038	10	0.012
		40	167 061 039	10	0.027
		50	167 061 040	10	0.031
		63	167 061 041	10	0.052
	2 ½	75	167 061 012	10	0.057
	3	90	167 061 013	10	0.092
	4	110	167 061 014	10	0.117
		125	167 061 015	10	0.180
	5	140	167 061 016	10	0.224
		160	167 061 017	10	0.242

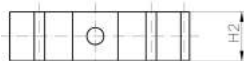
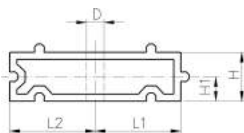
	H1 [mm]	H3 [mm]	closest inch [inch]	D1 [mm]	HoH +/- 2mm [mm]	L1 [mm]	D [mm]	H [mm]	L2 [mm]	H2 [mm]	SC
*	10	12	½	8		11	5	20	14	6	M4
*	10	12	¼	8		11	5	21	14	6	M5
*	10	16	¾	11	17	14	6	27	17	6	M5
	10	16	½	11	21	17	6	27	19	6	M5
	10	16	¾	11	27	19	6	30	22	6	M5
*	10	16	1	11	37	24	6	36	27	6	M5
	10	22	1 ¼	14	44	34	7	44	34	7	M6
	10	22	1 ½	14	52	37	7	51	37	7	M6
	10	25	2	17	67	45	9	64	45	10	M8
	10	25	2 ½	17		52	9	58	52	10	M8
	10	28	3	17		65	9	65	65	10	M8
	10	28	4	17		79	9	75	79	10	M8
	10	32		17		88	9	90	88	10	M8
	10	32	5	17		98	9	110	98	10	M8
	10	32	6	17		109	9	108	109	10	M8

PF 2 30 162 023

KLIP-IT spacer type 061 PP

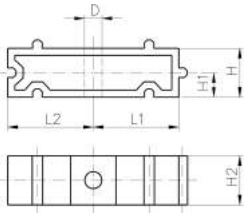
Model:

- For pipe clips Type 061/061H, PP black, UV resistant
- **Minimum order quantity: standard packaging SP**



Inch [inch]	d [mm]	Code	SP	Weight [kg]
⅛ - ¼	10 - 12	167 061 153	10	0.003
⅜	16	167 061 155	10	0.005
½	20	167 061 156	10	0.005
¾	25	167 061 157	10	0.007
1	32	167 061 158	10	0.006
1 ¼	40	167 061 159	10	0.015
1 ½	50	167 061 160	10	0.017
2	63	167 061 161	10	0.020
2 ½	75	167 061 162	10	0.027
3	90	167 061 163	10	0.039
4	110	167 061 164	10	0.048
4 ½	125	167 061 165	10	0.059
5	140	167 061 166	10	0.065
6	160	167 061 167	10	0.071

table continued next page



PF 2 30 162 023

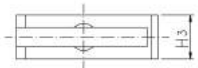
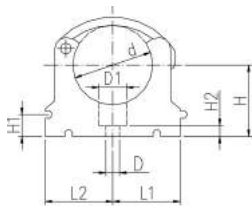
HoH +/- 2mm [mm]	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
1.0	5	11	14	20	10	12	M4	
17.0	6	14	17	20	10	16	M5	
21.4	6	17	19	20	10	16	M5	
26.9	6	19	22	20	10	16	M5	
36.7	6	24	27	20	10	16	M5	
44.4	7	34	34	20	10	22	M6	
52.3	7	37	37	20	10	22	M6	
66.7	9	45	45	20	10	25	M8	
81.2	9	52	52	20	10	25	M8	
100.0	9	65	65	20	10	28	M8	
127.3	9	79	79	20	10	28	M8	
142.9	9	88	88	20	10	32	M8	
161.4	9	98	98	20	10	32	M8	
185.1	9	109	109	20	10	32	M8	

KLIP-IT pipe clip type 061 PE metric

- Height not designed for ball valve 546 and 543. Please use spacer 73 06 11.

Model:

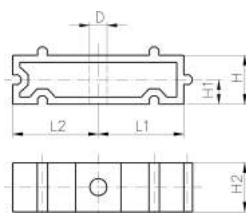
- Material: Clip PE and safety clip PP black, bolts galvanized
- **Minimum order quantity: standard packaging SP**



	d [mm]	Code	SP	Weight [kg]	
*	10	173 061 003	10	0.003	
*	12	173 061 004	10	0.006	
*	16	173 061 005	10	0.006	
*	20	173 061 006	10	0.007	
*	25	173 061 007	10	0.009	
*	32	173 061 008	10	0.011	
	40	173 061 009	10	0.026	
	50	173 061 010	10	0.028	
	63	173 061 011	10	0.047	
	75	173 061 012	10	0.061	
	90	173 061 013	10	0.098	
	110	173 061 014	10	0.125	
	125	173 061 015	10	0.194	
	140	173 061 016	10	0.243	
	160	173 061 017	10	0.254	

	HoH +/- 2mm [mm]	D1 [mm]	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	
*	1	8	5	11	14	20	10	6	12	M4	
*	1	8	5	11	14	21	10	6	12	M5	
*	17	11	6	14	17	23	10	6	16	M5	
*	21	11	6	17	19	25	10	6	16	M5	
*	27	11	6	19	22	28	10	6	16	M5	
*	37	11	6	24	27	31	10	6	16	M5	
	44	14	7	34	34	35	10	7	22	M6	
	52	14	7	37	37	40	10	7	22	M6	
	67	17	9	45	45	52	10	10	25	M8	
	81	17	9	52	52	58	10	10	25	M8	
	100	17	9	65	65	65	10	10	28	M8	
	127	17	9	79	79	75	10	10	28	M8	
	143	17	9	88	88	90	10	10	32	M8	
	161	17	9	98	98	110	10	10	32	M8	
	185	17	9	109	109	108	10	10	32	M8	

PF 2 30 162 026



KLIP-IT spacer type 061 PE

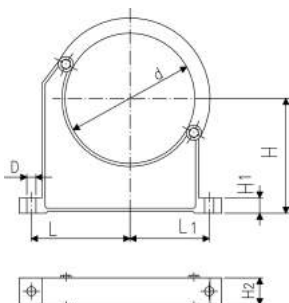
Model:

- Minimum order quantity: standard packaging SP
- For pipe clips Type 061, PE black, UV resistant

d [mm]	Inch [inch]	Code	SP	Weight [kg]	
16	1/8-1/4	173 061 153	10	0.003	
20	3/8	173 061 155	10	0.005	
25	1/2	173 061 156	10	0.005	
32	3/4	173 061 157	10	0.006	
40	1	173 061 158	10	0.008	
50	11/4	173 061 159	10	0.016	
63	11/2	173 061 160	10	0.017	
75	2	173 061 161	10	0.025	
90	21/2	173 061 162	10	0.027	
110	3	173 061 163	10	0.040	
125	4	173 061 164	10	0.050	
140	41/2	173 061 165	10	0.059	
160	5	173 061 166	10	0.065	
	6	173 061 167	10	0.078	

HoH +/- 2mm [mm]	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
17	5	11	14	20	10	12	M4	
21	6	14	17	20	10	16	M5	
27	6	17	19	20	10	16	M5	
37	6	19	22	20	10	16	M5	
44	6	24	27	20	10	16	M5	
52	7	34	34	20	10	22	M6	
67	7	37	37	20	10	22	M6	
81	9	45	45	20	10	25	M8	
100	9	52	52	20	10	25	M8	
127	9	65	65	20	10	28	M8	
143	9	79	79	20	10	28	M8	
	9	88	88	20	10	32	M8	
185	9	98	98	20	10	32	M8	
	9	109	109	20	10	32	M8	

PF 2 30 162 026



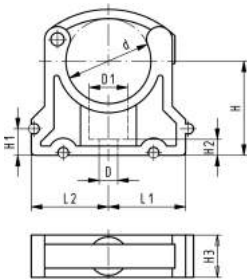
Pipe clip type 060 PP metric

Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- Minimum order quantity: standard packaging SP or gross packaging GP
- Accidental opening of the safety clip is not possible
- Clip and safety clip are not assembled in the packaging.
- Pipes with flanges can be installed directly

d [inch]	d [mm]	Code	SP	Weight [kg]	closest inch [inch]	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
3	90	167 060 038	10	0.144	3	9	89	71	105	15	33	M 8	
	110	167 060 039	10	0.158	4	9	94	80	115	15	33	M 8	
	125	167 060 040	10	0.249		11	116	91	130	20	35	M10	
5	140	167 060 041	10	0.260	5	11	121	98	130	20	35	M10	
	160	167 060 042	10	0.296	6	11	131	107	148	20	35	M10	
	180	167 060 043	10	0.327	7	11	143	115	163	20	35	M10	
	200	167 060 019	5	0.539	8	13	152	120	175	25	39	M12	
	225	167 060 020	5	0.178	8	13	165	132	175	25	39	M12	
	250	167 060 021	5	0.657	9	13	183	143	200	25	39	M12	
	280	167 060 022	5	0.212	10	13	198	156	200	25	39	M12	
	315	167 060 023	5	0.805	12	13	219	172	225	25	39	M12	
	355	167 060 024	5	1.251	14	17	275	209	258	30	50	M16	
	400	167 060 025	4	1.031	16	17	300	228	288	30	50	M16	

PF 2 30 162 023



PF 2 30 162 023

KLIP-IT pipe clip type 061H PP metric

- * d16 to d32 without bracket
- d16 - d63: height designed for Ball Valve Type 546 und 543

Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- **Minimum order quantity: standard packagings SP**

	d [mm]	Code	SP	Weight [kg]									
*	16	167 061 035	1	0.007									
	20	167 061 036	1	0.007									
	25	167 061 037	10	0.009									
*	32	167 061 038	10	0.012									
	40	167 061 039	10	0.027									
	50	167 061 040	10	0.031									
	63	167 061 041	10	0.052									
	d [mm]	HoH +/- 2mm [mm]	closest inch [inch]	D1 [mm]	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	
*	16	17	$\frac{3}{8}$	11	6	14	17	27	10	6	16	M5	
	20	21	$\frac{1}{2}$	11	6	17	19	27	10	6	16	M5	
	25	27	$\frac{3}{4}$	11	6	19	22	30	10	6	16	M5	
*	32	37	1	11	6	24	27	36	10	6	16	M5	
	40	44	$1 \frac{1}{4}$	14	7	34	34	44	10	7	22	M6	
	50	52	$1 \frac{1}{2}$	14	7	37	37	51	10	7	22	M6	
	63	67	2	17	9	45	45	64	10	10	25	M8	

PVC-C accessories

Tangit solvent cement for PVC-C



PF 2 28 473 006

Code	Weight [kg]	
799 298 027	0.700	



PF 2 28 473 003

Tangit Dytex special solvent cement

Model:

- Special solvent cement, transparent.
- For concentrated acids and strong oxidizing agents the use of Dytex is recommended
- 1.350 kg (net) tin

Code	Weight [kg]	
799 298 016	0.668	



PF 2 28 473 009

Cap for cement

Model:

- Cap prevents the evaporation of the solvent whilst using the Tangit cement
- Tangit cement

Code	Weight [kg]	
799 298 028	0.030	



PF 2 28 473 002

Tangit cleaner

Model:

- 1 litre tin

Code	Weight [kg]	
799 298 010	0.868	



PF 2 30 217 004

Round brush

Code	Weight [kg]	
799 299 001	0.004	
799 299 002	0.006	



Flat brush

PF 2 30 217 005

Code	Weight [kg]	
799 299 003	0.015	
799 299 004	0.035	
799 299 005	0.053	



PF 3 25 117 309

PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

Article	d-d [mm]	Code	SP	Weight [kg]	Closest inch [inch]	
PPC 63, s max. = 7.2mm	10 - 63	790 109 001	1	0.865	1/8 - 2	
PPC 110, s max. = 12.7mm	50 - 110	790 109 002	1	1.624	1 1/2 - 4	
PPC 160, s max. = 19.0mm	110 - 160	790 109 003	1	2.212	4 - 6	



PF 3 25 117 909

Replacement cutting wheels

- for plastic pipe cutter

d-d [mm]	Article	Code	SP	Weight [kg]	
10 - 63	SR 63 max. s=7,2 mm	790 109 011	50	0.004	
50 - 110	SR 110/160 max. s=12,7 mm	790 109 012	50	0.015	
110 - 160	SR 160 max. s=19,0 mm	790 109 013	30	0.023	



PF 3 25 117 325

Alignment Tool

- To align and position pipes in the dimension range d 110 - 400 mm. The pipes are clamped in the vice, the axial movement takes place by a chain drive. The chain is totated by the ratched (square 19 mm).

Article	Code	SP	Weight [kg]	
Alignment Tool	790 109 108	0	15.000	
Ratch	790 109 107	0	1.220	



PF 2 35 268 001

Chamfering tool

d-d [mm]	Size [mm]	Code	SP	Weight [kg]	Closest inch [inch]	
16 - 75	1	799 495 145	0	0.720	3/8 - 2 1/2	
32 - 200	2	799 495 146	0	0.992	1 - 8	



PF 2 55 338 999

Marker

Type	Code	Weight [kg]	
silver	799 350 364	0.010	



PF 3 25 117 316

Timer with 2 stop times

Code	SP	Weight [kg]	
790 114 028	1	0.088	

Notes

[illegible]

PVC-C Valves

	Page
Ball valves	38
Diaphragm valves new generation	58
Diaphragm valves	60
Butterfly valves	61
Cone check valves	67
Process control valves	71
Pressure regulating valves	72
Strainers	77
Ball valves electric	80
Ball valves pneumatic	106
Diaphragm valves pneumaticNew generation	135
Diaphragm valves pneumatic	150
Butterfly valves electric	153
Butterfly valves pneumatic	161

Ball valves

546

Ball valve type 546 PVC-C With mounting inserts With solvent cement sockets metric

Model:

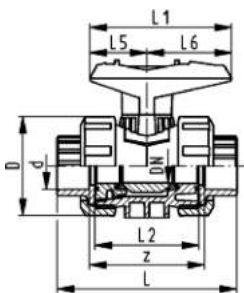
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

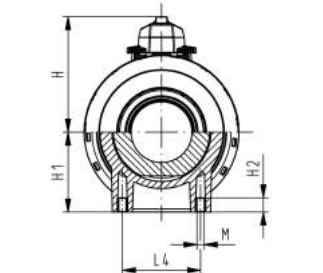
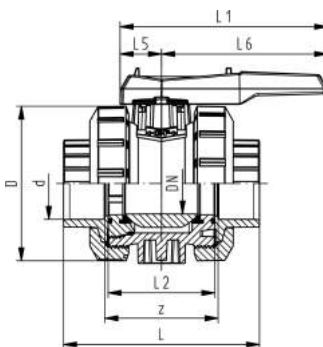
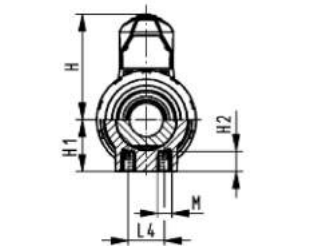
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



DN10/15 - 50



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	16	71	163 546 061	1	0.160	163 546 071	1	0.160
20	15	16	185	163 546 062	1	0.169	163 546 072	1	0.160
25	20	16	350	163 546 063	1	0.255	163 546 073	1	0.245
32	25	16	700	163 546 064	1	0.370	163 546 074	1	0.373
40	32	16	1000	163 546 065	1	0.648	163 546 075	1	0.658
50	40	16	1600	163 546 066	1	0.894	163 546 076	1	0.890
63	50	16	3100	163 546 067	1	1.653	163 546 077	1	1.662
75	65	16	5000	163 546 068	1	3.552	163 546 078	1	4.122
90	80	16	7000	163 546 069	1	6.646	163 546 079	1	6.698
110	100	16	11000	163 546 070	1	9.697	163 546 080	1	12.700

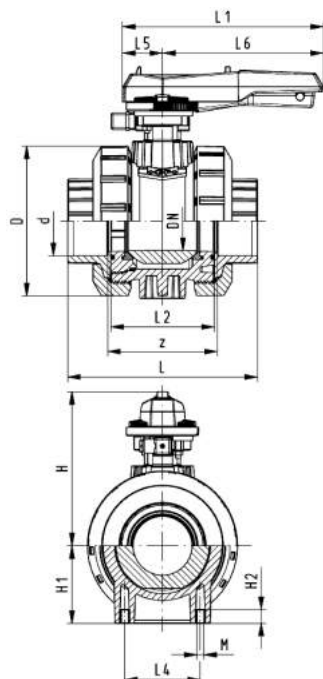
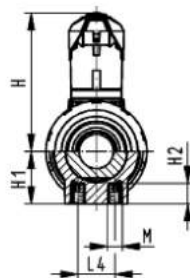
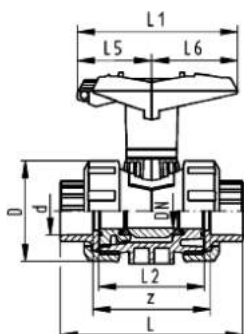


d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch [inch]
16	50	57	27	12	92	77	56	25	32	45	M6	64	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	64	1/2
25	58	67	30	12	110	97	65	25	39	58	M6	72	3/4
32	68	73	36	12	123	97	71	25	39	58	M6	79	1
40	84	90	44	15	146	128	85	45	54	74	M8	94	1 1/4
50	97	97	51	15	157	128	89	45	54	74	M8	95	1 1/2
63	124	116	64	15	183	152	101	45	66	87	M8	107	2
75	166	149	85	15	233	270	136	70	64	206	M8	144	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	151	3
110	238	178	123	22	301	320	164	120	64	256	M12	174	4

PF 2 32 541 801



DN10/15 - 50



Ball valve type 546 PVC-C With lockable handle With solvent cement sockets metric

Model:

- 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)
- 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+

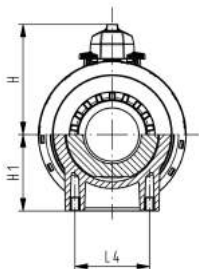
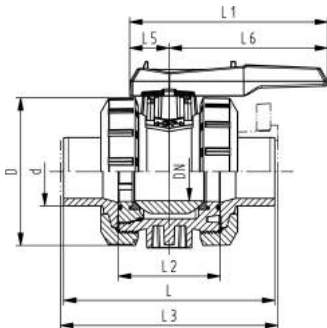
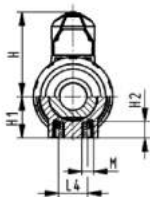
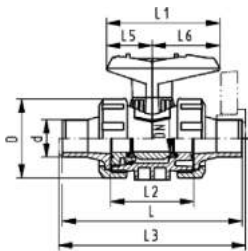
d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	16	71	163 546 081	1	0.175	163 546 091	1	0.175
20	15	16	185	163 546 082	1	0.175	163 546 092	1	0.175
25	20	16	350	163 546 083	1	0.270	163 546 093	1	0.270
32	25	16	700	163 546 084	1	0.390	163 546 094	1	0.390
40	32	16	1000	163 546 085	1	0.700	163 546 095	1	0.700
50	40	16	1600	163 546 086	1	0.930	163 546 096	1	0.930
63	50	16	3100	163 546 087	1	1.695	163 546 097	1	1.695
75	65	16	5000	163 546 088	1	4.900	163 546 098	1	4.900
90	80	16	7000	163 546 089	1	6.647	163 546 099	1	7.400
110	100	16	11000	163 546 090	1	11.600	163 546 100	1	0.000

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 [inch]
16	50	79	27	12	92	87	56	25	42	45	M6	64	3/8
20	50	79	27	12	95	87	56	25	42	45	M6	64	1/2
25	58	88	30	12	110	108	65	25	50	58	M6	72	3/4
32	68	94	36	12	123	108	71	25	50	58	M6	79	1
40	84	113	44	15	146	140	85	45	66	75	M8	94	1 1/4
50	97	119	51	15	157	140	89	45	66	75	M8	95	1 1/2
63	124	141	64	15	183	165	101	45	78	87	M8	107	2
75	166	224	85	15	233	270	136	70	64	206	M8	144	2 1/2
90	200	235	105	15	254	270	141	70	64	206	M8	151	3
110	238	245	123	22	301	320	164	120	64	256	M12	174	4

PF 2 32 541 801



DN10/15 - 50



Ball valve type 546 PVC-C With mounting inserts With solvent cement spigots metric

Model:

- 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)

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 [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	16	71	163 546 381	1	0.162	163 546 391	1	0.162
20	15	16	185	163 546 382	1	0.162	163 546 392	1	0.162
25	20	16	350	163 546 383	1	0.247	163 546 393	1	0.247
32	25	16	700	163 546 384	1	0.367	163 546 394	1	0.367
40	32	16	1000	163 546 385	1	0.665	163 546 395	1	0.665
50	40	16	1600	163 546 386	1	0.895	163 546 396	1	0.895
63	50	16	3100	163 546 387	1	1.655	163 546 397	1	1.655
75	65	16	5000	163 546 388	1	5.500	163 546 398	1	5.500
90	80	16	7000	163 546 389	1	8.200	163 546 399	1	8.200
110	100	16	11000	163 546 390	1	12.900	163 546 400	1	12.900

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 [inch]
16	50	57	27	12	114	77	56		25	32	45	M6	3/8
20	50	57	27	12	124	77	56	130	25	32	45	M6	1/2
25	58	67	30	12	144	97	65	150	25	39	58	M6	3/4
32	68	73	36	12	154	97	71	160	25	39	58	M6	1
40	84	90	44	15	174	128	85	180	45	54	74	M8	1 1/4
50	97	97	51	15	194	128	89	200	45	54	74	M8	1 1/2
63	124	116	64	15	224	152	101	230	45	66	87	M8	2
75	166	149	85	15	284	270	136	290	70	64	206	M8	2 1/2
90	200	161	105	15	300	270	141	310	70	64	206	M8	3
110	238	178	123	22	340	320	164	350	120	64	256	M12	4

PF 2 32 541 801



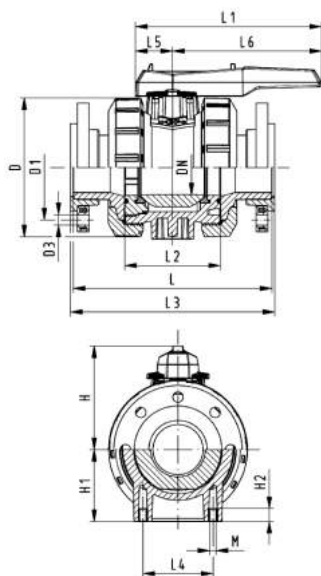
Ball valve type 546 PVC-C With mounting inserts With backing flanges PP-st metric

Model:

- 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+



PF 2 32 541 801

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	16	5000	163 546 108	1	6.000	163 546 118	1	6.546	
90	80	16	7000	163 546 109	1	9.501	163 546 119	1	9.320	
110	100	16	11000	163 546 110	1	14.200	163 546 120	1	14.200	

d [mm]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	
75	166	145	18	149	85	284	270	136	290	70	64	206	8	
90	200	160	18	161	105	300	270	141	310	70	64	206	8	
110	238	180	18	178	123	340	320	164	350	120	64	256	12	



DN10/15 - 50



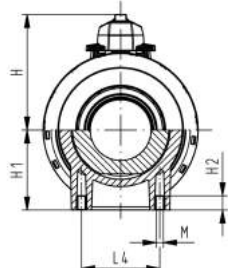
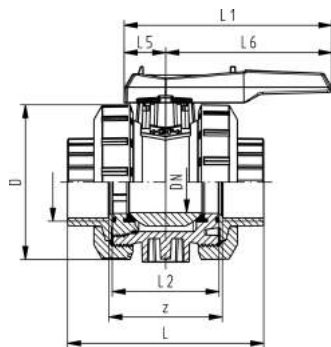
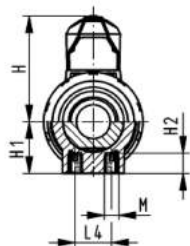
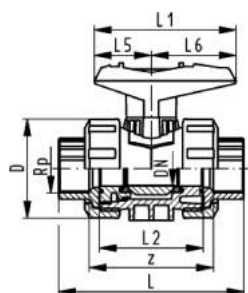
Ball valve type 546 PVC-C With mounting inserts With threaded sockets Rp

Model:

- 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)

Option:

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



Rp [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	71	163 546 401	1	0.162	163 546 411	1	0.162
1/2	15	10	185	163 546 402	1	0.162	163 546 412	1	0.162
3/4	20	10	350	163 546 403	1	0.247	163 546 413	1	0.247
1	25	10	700	163 546 404	1	0.367	163 546 414	1	0.367
1 1/4	32	10	1000	163 546 405	1	0.665	163 546 415	1	0.665
1 1/2	40	10	1600	163 546 406	1	0.895	163 546 416	1	0.895
2	50	10	3100	163 546 407	1	1.655	163 546 417	1	1.655
2 1/2	65	10	5000	163 546 408	1	5.400	163 546 418	1	5.400
3	80	10	7000	163 546 409	1	8.100	163 546 419	1	8.100
4	100	10	11000	163 546 410	1	12.700	163 546 420	1	12.700

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	12	95	77	56	25	32	45	M6	69
1/2	50	57	27	12	100	77	56	25	32	45	M6	67
3/4	58	67	30	12	114	97	65	25	39	58	M6	78
1	68	73	36	12	127	97	71	25	39	58	M6	85
1 1/4	84	90	44	12	146	128	85	45	54	74	M8	100
1 1/2	97	97	51	15	152	128	89	45	54	74	M8	106
2	124	116	64	15	177	152	101	45	66	87	M8	121
2 1/2	166	149	85	15	233	270	136	70	64	206	M8	144
3	200	161	105	15	254	270	141	70	64	206	M8	151
4	238	178	123	22	301	320	164	120	64	256	M12	174

PF 2 32 541 801



DN10/15 - 50



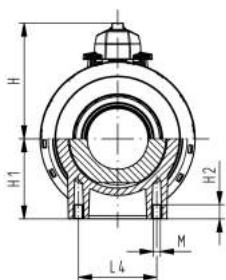
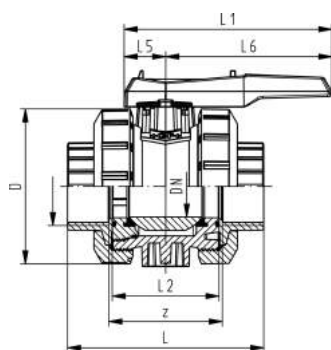
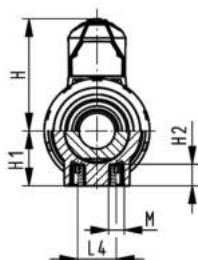
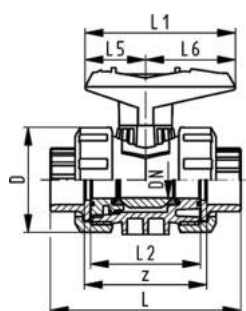
Ball valve type 546 PVC-C **With mounting inserts** **With solvent cement sockets Inch ASTM** **Including 2 threaded union ends NPT**

Model:

- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Threaded valve ends are only enclosed for DN10/15-50
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

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



Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	16	71	163 546 341	1	0.194	163 546 351	1	0.194
1/2	15	16	185	163 546 342	1	0.248	163 546 352	1	0.250
3/4	20	16	350	163 546 343	1	0.358	163 546 353	1	0.267
1	25	16	700	163 546 344	1	0.517	163 546 354	1	0.520
1 1/4	32	16	1000	163 546 345	1	0.652	163 546 355	1	0.810
1 1/2	40	16	1600	163 546 346	1	1.166	163 546 356	1	1.180
2	50	16	3100	163 546 347	1	2.055	163 546 357	1	2.078
2 1/2	65	16	5000	163 546 348	1	5.400	163 546 358	1	5.400
3	80	16	7000	163 546 349	1	5.821	163 546 359	1	6.689
4	100	16	11000	163 546 350	1	12.800	163 546 360	1	12.800

Size [inch]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	105	77	56	25	32	45	M6	67
1/2	50	57	27	105	77	56	25	32	45	M6	61
3/4	58	67	30	121	97	65	25	39	58	M6	70
1	68	73	36	133	97	71	25	39	58	M6	76
1 1/4	84	90	44	154	128	85	45	54	74	M8	90
1 1/2	97	97	51	164	128	89	45	54	74	M8	94
2	124	116	64	183	152	101	45	66	87	M8	107
2 1/2	166	149	85	233	270	136	70	64	206	M8	144
3	200	161	105	254	270	141	70	64	206	M8	151
4	238	178	123	301	320	164	120	64	256	M12	174

PF 2 32 541 803



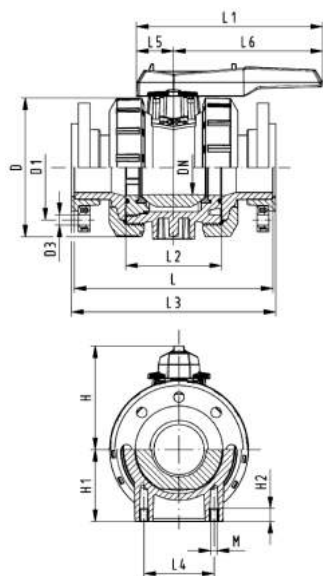
Ball valve type 546 PVC-C With mounting inserts With backing flanges PP-st Inch ANSI

Model:

- 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 ANSI/ASME B 16.5 / ASTM D 4024

Option:

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



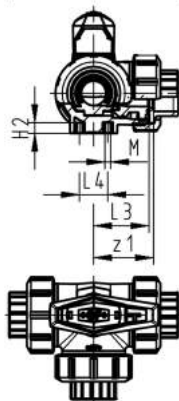
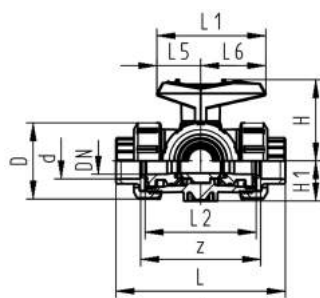
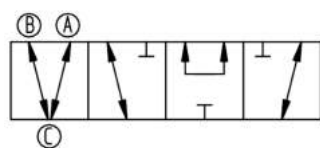
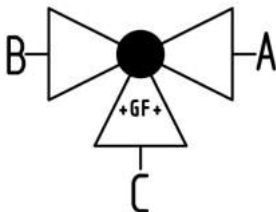
Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
2 1/2	65	16	5000	163 546 168	1	6.000	163 546 178	1	6.000
3	80	16	7000	163 546 169	1	9.100	163 546 179	1	9.100
4	100	16	11000	163 546 170	1	14.200	163 546 180	1	14.200

Size [inch]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M
2 1/2	166	140	19	149	85	284	270	136	290	70	64	206	8
3	200	152	19	161	105	300	270	141	310	70	64	206	8
4	238	191	19	178	123	340	320	164	350	120	64	256	12

PF 2 32 541 803

543

3-Way ball valve type 543 PVC-C Horizontal/T-port With solvent cement sockets metric



Model:

- 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 [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	163 543 201	1	0.264	163 543 211	1	0.264	
20	15	10	200	163 543 202	1	0.271	163 543 212	1	0.271	
25	20	10	470	163 543 203	1	0.389	163 543 213	1	0.389	
32	25	10	793	163 543 204	1	0.561	163 543 214	1	0.590	
40	32	10	1290	163 543 205	1	1.007	163 543 215	1	1.007	
50	40	10	1910	163 543 206	1	1.487	163 543 216	1	1.487	
63	50	10	3100	163 543 207	1	2.889	163 543 217	1	2.889	

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	z [mm]	z1 [mm]	
16	50	57	28	8	109	77	73	36	25	32	45	6	81	40	
20	50	57	28	8	112	77	73	36	25	32	45	6	81	40	
25	58	67	32	8	131	97	86	43	25	39	58	6	94	47	
32	68	73	36	8	151	97	99	50	25	39	58	6	107	54	
40	84	90	45	9	181	128	120	60	45	54	74	8	130	65	
50	97	97	51	9	205	128	137	69	45	54	74	8	143	72	
63	124	116	65	9	261	152	179	89	45	66	87	8	185	92	

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

PF 2 32 002 801



3-Way ball valve type 543 PVC-C

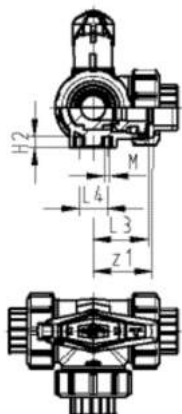
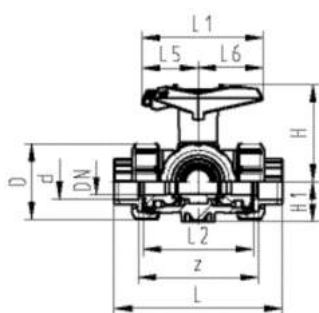
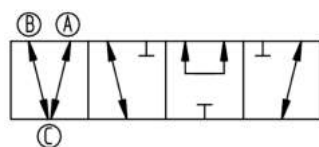
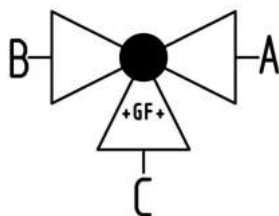
Horizontal/T-port

With lockable handle

With solvent cement sockets metric

Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	163 543 401	1	0.280	163 543 411	1	0.280	
20	15	10	200	163 543 402	1	0.286	163 543 412	1	0.286	
25	20	10	470	163 543 403	1	0.408	163 543 413	1	0.408	
32	25	10	793	163 543 404	1	0.609	163 543 414	1	0.609	
40	32	10	1290	163 543 405	1	1.031	163 543 415	1	1.031	
50	40	10	1910	163 543 406	1	1.512	163 543 416	1	1.512	
63	50	10	3100	163 543 407	1	2.923	163 543 417	1	2.923	

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	z [mm]	z1 [mm]	
16	50	79	28	8	109	87	73	36	25	42	45	6	81	40	
20	50	79	28	8	112	87	73	36	25	42	45	6	81	40	
25	58	88	32	8	131	108	86	43	25	50	58	6	94	47	
32	68	94	36	8	151	108	99	50	25	50	58	6	107	54	
40	84	113	45	9	181	141	120	60	45	66	75	8	130	65	
50	97	119	51	9	205	141	137	69	45	66	75	8	143	72	
63	124	141	65	9	261	165	179	89	45	78	87	8	185	92	

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

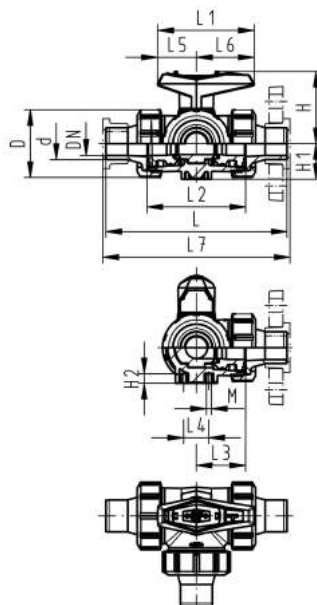
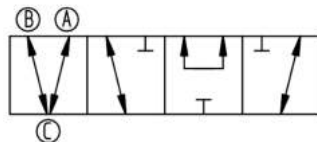
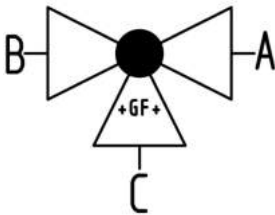
PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/T-port With solvent cement spigots metric

Model:

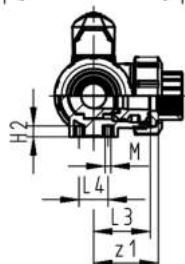
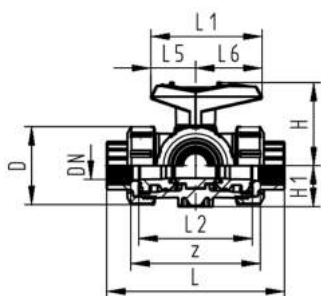
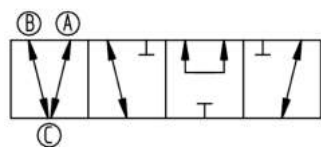
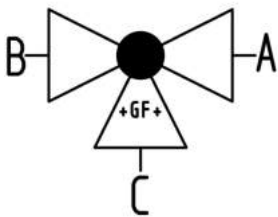
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	10	140	163 543 221	1	0.264	163 543 231	1	0.264
20	15	10	200	163 543 222	1	0.271	163 543 232	1	0.271
25	20	10	470	163 543 223	1	0.389	163 543 233	1	0.389
32	25	10	793	163 543 224	1	0.590	163 543 234	1	0.590
40	32	10	1290	163 543 225	1	1.007	163 543 235	1	1.007
50	40	10	1910	163 543 226	1	1.487	163 543 236	1	1.487
63	50	10	3100	163 543 227	1	2.889	163 543 237	1	2.889

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	M	closest inch [inch]
16	50	57	28	8	131	77	73	36	25	32	45	137	6	3/8
20	50	57	28	8	141	77	73	36	25	32	45	147	6	1/2
25	58	67	32	8	165	97	86	43	25	39	58	171	6	3/4
32	68	73	36	8	182	97	99	50	25	39	58	188	6	1
40	84	90	45	9	209	128	120	60	45	54	74	215	8	1 1/4
50	97	97	51	9	242	128	137	69	45	54	74	248	8	1 1/2
63	124	116	65	9	302	152	179	89	45	66	87	308	8	2

PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/T-port With threaded sockets Rp

Model:

- 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

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	140	163 543 241	1	0.264	163 543 251	1	0.264
1/2	15	10	200	163 543 242	1	0.271	163 543 252	1	0.271
3/4	20	10	470	163 543 243	1	0.389	163 543 253	1	0.389
1	25	10	793	163 543 244	1	0.590	163 543 254	1	0.590
1 1/4	32	10	1290	163 543 245	1	1.007	163 543 255	1	1.007
1 1/2	40	10	1910	163 543 246	1	1.487	163 543 256	1	1.487
2	50	10	3100	163 543 247	1	2.889	163 543 257	1	2.889

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	57	28	8	113	77	73	36	25	32	45	6	87	43
1/2	50	57	28	8	116	77	73	36	25	32	45	6	85	42
3/4	58	67	32	8	135	97	86	43	25	39	58	6	100	50
1	68	73	36	8	155	97	99	50	25	39	58	6	113	57
1 1/4	84	90	45	9	179	128	120	60	45	54	74	8	134	67
1 1/2	97	97	51	9	201	128	137	69	45	54	74	8	155	78
2	124	116	65	9	255	152	179	89	45	66	87	8	199	99

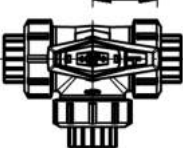
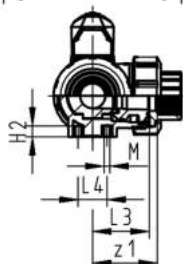
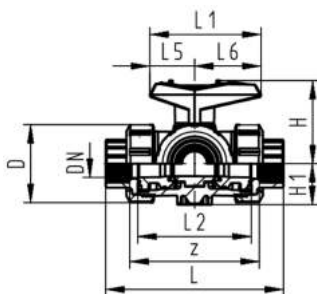
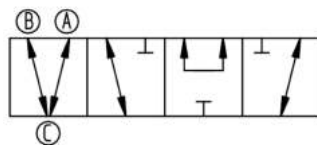
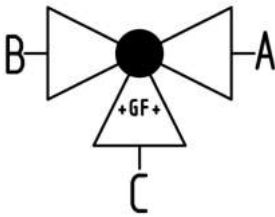
PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/T-port With threaded sockets NPT

Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	140	163 543 301	1	0.264	163 543 311	1	0.264
1/2	15	10	200	163 543 302	1	0.271	163 543 312	1	0.271
3/4	20	10	470	163 543 303	1	0.389	163 543 313	1	0.389
1	25	10	793	163 543 304	1	0.590	163 543 314	1	0.590
1 1/4	32	10	1290	163 543 305	1	1.007	163 543 315	1	1.007
1 1/2	40	10	1910	163 543 306	1	1.487	163 543 316	1	1.487
2	50	10	3100	163 543 307	1	2.889	163 543 317	1	2.889

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	57	28	8	115	77	73	36	25	32	45	6	87	43
1/2	50	57	28	8	114	77	73	36	25	32	45	6	81	40
3/4	58	67	32	8	131	97	86	43	25	39	58	6	96	48
1	68	73	36	8	155	97	99	50	25	39	58	6	111	56
1 1/4	84	90	45	9	181	128	120	60	45	54	74	8	134	67
1 1/2	97	97	51	9	205	128	137	69	45	54	74	8	159	80
2	124	116	65	9	261	152	179	89	45	66	87	8	213	106

PF 2 32 002 803



3-Way ball valve type 543 PVC-C

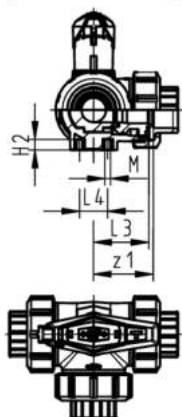
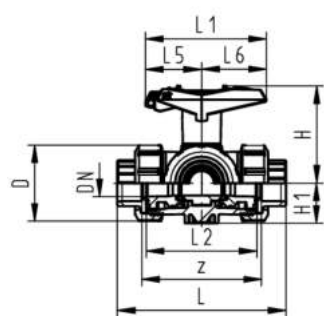
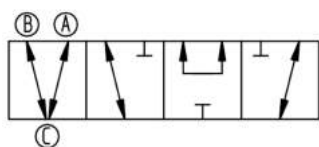
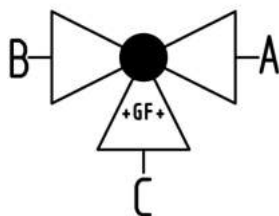
Horizontal/T-port

With lockable handle

With solvent cement sockets ASTM

Model:

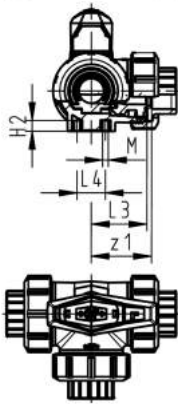
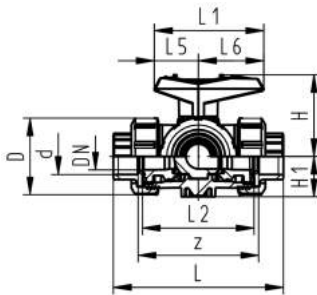
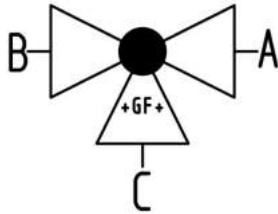
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	140	163 543 441	1	0.280	163 543 451	1	0.280
1/2	15	10	200	163 543 442	1	0.286	163 543 452	1	0.286
3/4	20	10	470	163 543 443	1	0.408	163 543 453	1	0.408
1	25	10	793	163 543 444	1	0.609	163 543 454	1	0.609
1 1/4	32	10	1290	163 543 445	1	1.031	163 543 455	1	1.031
1 1/2	40	10	1910	163 543 446	1	1.512	163 543 456	1	1.512
2	50	10	3100	163 543 447	1	2.923	163 543 457	1	2.923

Size [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	79	28	8	123	87	73	36	25	42	45	6	85	42
1/2	50	79	28	8	122	87	73	36	25	42	45	6	77	38
3/4	58	88	32	8	141	108	86	43	25	50	58	6	92	46
1	68	94	36	8	161	108	99	50	25	50	58	6	105	53
1 1/4	84	113	45	9	187	141	120	60	45	66	75	8	126	63
1 1/2	97	119	51	9	213	141	137	69	45	66	75	8	143	72
2	124	141	65	9	261	165	179	89	45	78	87	8	185	92

PF 2 32 002 803



3-Way ball valve type 543 PVC-C Horizontal/L-port With solvent cement sockets metric

Model:

- 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 [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	10	50	163 543 001	1	0.265	163 543 011	1	0.265
20	15	10	75	163 543 002	1	0.272	163 543 012	1	0.272
25	20	10	150	163 543 003	1	0.391	163 543 013	1	0.391
32	25	10	280	163 543 004	1	0.598	163 543 014	1	0.598
40	32	10	480	163 543 005	1	1.018	163 543 015	1	1.018
50	40	10	620	163 543 006	1	1.509	163 543 016	1	1.509
63	50	10	1230	163 543 007	1	2.938	163 543 017	1	2.938

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	z [mm]	z1 [mm]
16	50	57	28	8	109	77	73	36	25	32	45	6	81	40
20	50	57	28	8	112	77	73	36	25	32	45	6	81	40
25	58	67	32	8	131	97	86	43	25	39	58	6	94	47
32	68	73	36	8	151	97	99	50	25	39	58	6	107	54
40	84	90	45	9	181	128	120	60	45	54	74	8	130	65
50	97	97	51	9	205	128	137	69	45	54	74	8	143	72
63	124	116	65	9	261	152	179	89	45	66	87	8	185	92

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

PF 2 32 002 801



3-Way ball valve type 543 PVC-C

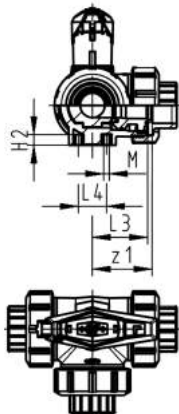
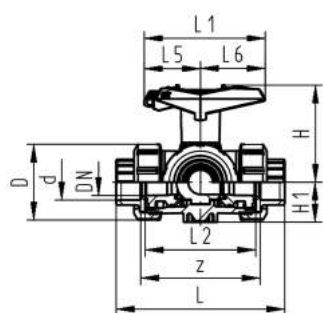
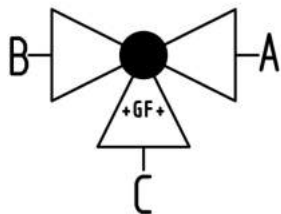
Horizontal/L-port

With lockable handle

With solvent cement sockets metric

Model:

- 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

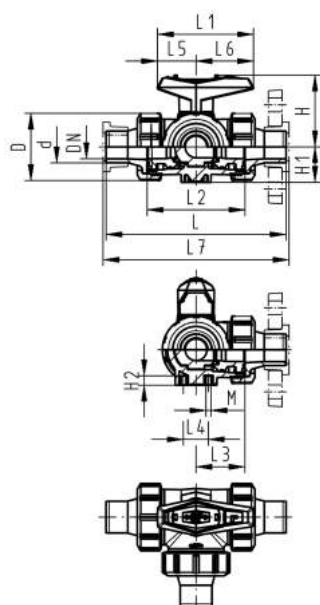
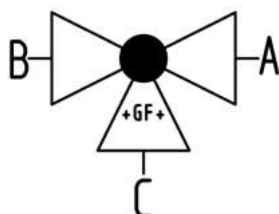


d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	163 543 381	1	0.281	163 543 391	1	0.281	
20	15	10	75	163 543 382	1	0.287	163 543 392	1	0.287	
25	20	10	150	163 543 383	1	0.410	163 543 393	1	0.410	
32	25	10	280	163 543 384	1	0.616	163 543 394	1	0.616	
40	32	10	480	163 543 385	1	1.043	163 543 395	1	1.043	
50	40	10	620	163 543 386	1	1.534	163 543 396	1	1.534	
63	50	10	1230	163 543 387	1	2.972	163 543 397	1	2.972	

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	z [mm]	z1 [mm]	
16	50	79	28	8	109	87	73	36	25	42	45	6	81	40	
20	50	79	28	8	112	87	73	36	25	42	45	6	81	40	
25	58	88	32	8	131	108	86	43	25	50	58	6	94	47	
32	68	94	36	8	151	108	99	50	25	50	58	6	107	54	
40	84	113	45	9	181	141	120	60	45	66	75	8	130	65	
50	97	119	51	9	205	141	137	69	45	66	75	8	143	72	
63	124	141	65	9	261	165	179	89	45	78	87	8	185	92	

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

PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/L-port With solvent cement spigots metric

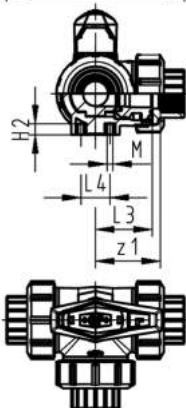
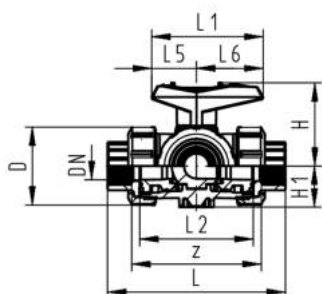
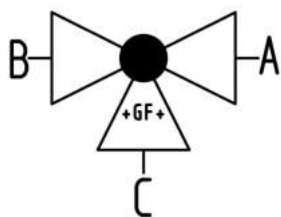
Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	163 543 021	1	0.272	163 543 031	1	0.272	
20	15	10	75	163 543 022	1	0.282	163 543 032	1	0.282	
25	20	10	150	163 543 023	1	0.408	163 543 033	1	0.408	
32	25	10	280	163 543 024	1	0.624	163 543 034	1	0.624	
40	32	10	480	163 543 025	1	1.041	163 543 035	1	1.041	
50	40	10	620	163 543 026	1	1.578	163 543 036	1	1.578	
63	50	10	1230	163 543 027	1	3.075	163 543 037	1	3.075	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	M	closest inch [inch]	
16	50	57	28	8	131	77	73	36	25	32	45	137	6	3/8	
20	50	57	28	8	141	77	73	36	25	32	45	147	6	1/2	
25	58	67	32	8	165	97	86	43	25	39	58	171	6	3/4	
32	68	73	36	8	182	97	99	50	25	39	58	188	6	1	
40	84	90	45	9	209	128	120	60	45	54	74	215	8	1 1/4	
50	97	97	51	9	242	128	137	69	45	54	74	248	8	1 1/2	
63	124	116	65	9	302	152	179	89	45	66	87	308	8	2	

PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/L-port With threaded sockets Rp

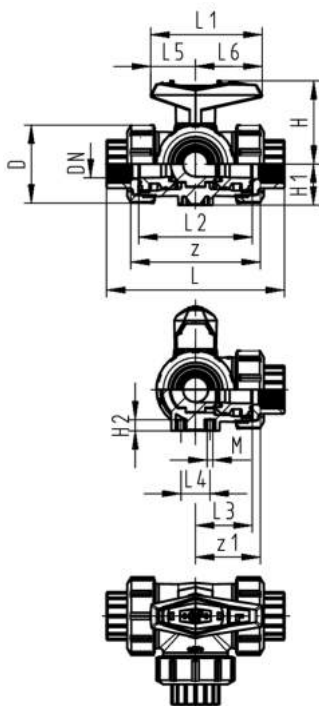
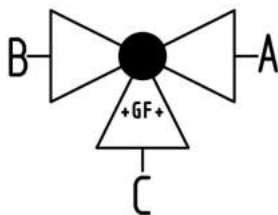
Model:

- 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

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	50	163 543 041	1	0.265	163 543 051	1	0.265
1/2	15	10	75	163 543 042	1	0.272	163 543 052	1	0.272
3/4	20	10	150	163 543 043	1	0.391	163 543 053	1	0.391
1	25	10	280	163 543 044	1	0.598	163 543 054	1	0.598
1 1/4	32	10	480	163 543 045	1	1.018	163 543 055	1	1.018
1 1/2	40	10	620	163 543 046	1	1.509	163 543 056	1	1.509
2	50	10	1230	163 543 047	1	2.938	163 543 057	1	2.938

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	57	28	8	113	77	73	36	25	32	45	6	87	43
1/2	50	57	28	8	116	77	73	36	25	32	45	6	85	42
3/4	58	67	32	8	135	97	86	43	25	39	58	6	100	50
1	68	73	36	8	155	97	99	50	25	39	58	6	113	57
1 1/4	84	90	45	9	179	128	120	60	45	54	74	8	134	67
1 1/2	97	97	51	9	201	128	137	69	45	54	74	8	155	78
2	124	116	65	9	255	152	179	89	45	66	87	8	199	99

PF 2 32 002 801



3-Way ball valve type 543 PVC-C Horizontal/L-port With threaded sockets NPT

Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	50	163 543 101	1	0.265	163 543 111	1	0.265
1/2	15	10	75	163 543 102	1	0.272	163 543 112	1	0.272
3/4	20	10	150	163 543 103	1	0.391	163 543 113	1	0.391
1	25	10	280	163 543 104	1	0.598	163 543 114	1	0.598
1 1/4	32	10	480	163 543 105	1	1.018	163 543 115	1	1.018
1 1/2	40	10	620	163 543 106	1	1.509	163 543 116	1	1.509
2	50	10	1230	163 543 107	1	2.938	163 543 117	1	2.938

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	57	28	8	115	77	73	36	25	32	45	6	87	43
1/2	50	57	28	8	114	77	73	36	25	32	45	6	81	40
3/4	58	67	32	8	131	97	86	43	25	39	58	6	96	48
1	68	73	36	8	155	97	99	50	25	39	58	6	111	56
1 1/4	84	90	45	9	181	128	120	60	45	54	74	8	134	67
1 1/2	97	97	51	9	205	128	137	69	45	54	74	8	159	80
2	124	116	65	9	261	152	179	89	45	66	87	8	213	106

PF 2 32 002 803



3-Way ball valve type 543 PVC-C

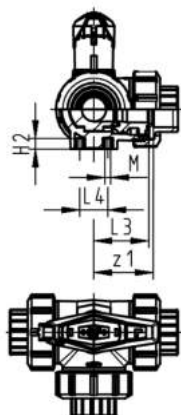
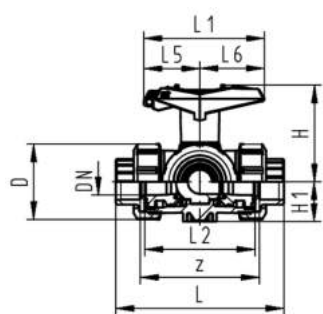
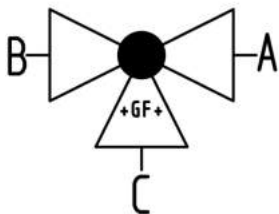
Horizontal/L-port

With lockable handle

With solvent cement sockets ASTM

Model:

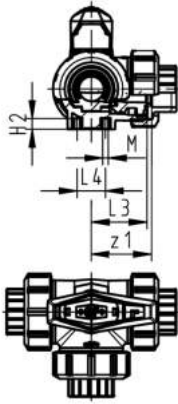
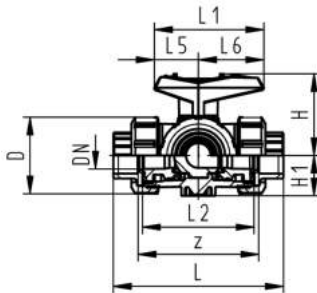
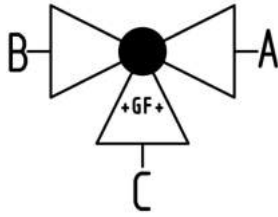
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	50	163 543 421	1	0.281	163 543 431	1	0.281
1/2	15	10	75	163 543 422	1	0.287	163 543 432	1	0.287
3/4	20	10	150	163 543 423	1	0.410	163 543 433	1	0.410
1	25	10	280	163 543 424	1	0.616	163 543 434	1	0.616
1 1/4	32	10	480	163 543 425	1	1.043	163 543 435	1	1.043
1 1/2	40	10	620	163 543 426	1	1.534	163 543 436	1	1.534
2	50	10	1230	163 543 427	1	2.972	163 543 437	1	2.972

Size [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	79	28	8	123	87	73	36	25	42	45	6	85	42
1/2	50	79	28	8	122	87	73	36	25	42	45	6	77	38
3/4	58	88	32	8	141	108	86	43	25	50	58	6	92	46
1	68	94	36	8	161	108	99	50	25	50	58	6	105	53
1 1/4	84	113	45	9	187	141	120	60	45	66	75	8	126	63
1 1/2	97	119	51	9	213	141	137	69	45	66	75	8	143	72
2	124	141	65	9	261	165	179	89	45	78	87	8	185	92

PF 2 32 002 803



3-Way ball valve type 543 PVC-C Horizontal/L-port With solvent cement sockets ASTM

Model:

- 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

Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	50	163 543 081	1	0.265	163 543 091	1	0.265
1/2	15	10	75	163 543 082	1	0.272	163 543 092	1	0.272
3/4	20	10	150	163 543 083	1	0.391	163 543 093	1	0.391
1	25	10	280	163 543 084	1	0.598	163 543 094	1	0.598
1 1/4	32	10	480	163 543 085	1	1.018	163 543 095	1	1.018
1 1/2	40	10	620	163 543 086	1	1.480	163 543 096	1	1.496
2	50	10	1230	163 543 087	1	2.938	163 543 097	1	2.938

Size [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	z1 [mm]
3/8	50	57	28	8	123	77	73	36	25	32	45	6	85	42
1/2	50	57	28	8	122	77	73	36	25	32	45	6	77	38
3/4	58	67	32	8	141	97	86	43	25	39	58	6	92	46
1	68	73	36	8	161	97	99	50	25	39	58	6	105	53
1 1/4	84	90	45	9	187	128	120	60	45	54	74	8	126	63
1 1/2	97	97	51	9	213	128	137	69	45	54	74	8	143	72
2	124	116	65	9	261	152	179	89	45	66	87	8	185	92

PF 2 32 002 803

Diaphragm valves new generation

Diaphragm valve type 514 PVC-C With solvent cement sockets metric

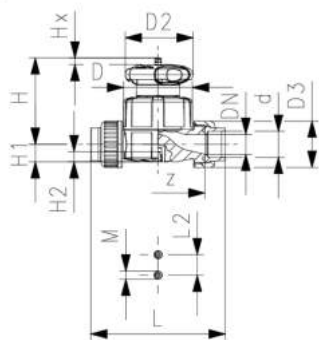


Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]
20	15	10	125	163 514 012	1	0.409	163 514 032	1	0.312
25	20	10	271	163 514 013	1	0.448	163 514 033	1	0.558
32	25	10	481	163 514 014	1	0.707	163 514 034	1	1.207
40	32	10	759	163 514 015	1	1.516	163 514 035	1	1.536
50	40	10	1263	163 514 016	1	1.674	163 514 036	1	1.541
63	50	10	1728	163 514 017	1	2.568	163 514 037	1	3.622

d [mm]	D [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch [inch]
20	65	65	43	73	14	12	128	25	M6	96	7	1/2
25	80	65	51	81	18	12	152	25	M6	114	10	3/4
32	88	87	58	107	22	12	166	25	M6	122	13	1
40	101	87	72	115	26	15	192	45	M8	140	15	1 1/4
50	117	135	83	148	32	15	222	45	M8	160	19	1 1/2
63	144	135	100	166	39	15	266	45	M8	190	25	2

PF 2 31 158 064

Diaphragm valve type 515 PVC-C With solvent cement spigots metric

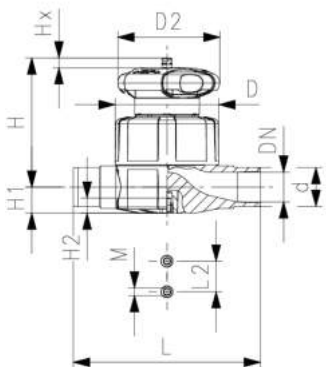


Model:

- 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 [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]
20	15	10	125	163 515 012	1	0.344	163 515 032	1	0.344
25	20	10	271	163 515 013	1	0.361	163 515 033	1	0.364
32	25	10	481	163 515 014	1	0.589	163 515 034	1	1.073
40	32	10	759	163 515 015	1	1.269	163 515 035	1	1.290
50	40	10	1263	163 515 016	1	2.314	163 515 036	1	2.343
63	50	10	1728	163 515 017	1	3.054	163 515 037	1	3.082

d [mm]	D [mm]	D2 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	65	65	73	14	12	124	25	M6	7	1/2
25	80	65	81	18	12	144	25	M6	10	3/4
32	88	87	107	22	12	154	25	M6	13	1
40	101	87	115	26	15	174	45	M8	15	1 1/4
50	117	135	148	32	15	194	45	M8	19	1 1/2
63	144	135	166	39	15	224	45	M8	25	2

PF 2 31 158 064



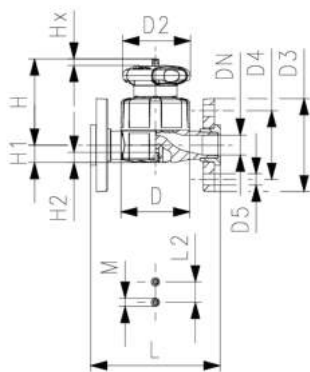
Diaphragm valve type 517 PVC-C With backing flanges PP-V metric/BS

Model:

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

Option:

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



d [mm]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10	125	163 517 112	1	0.447	163 517 132	1	0.528	
25	20	10	271	163 517 113	1	0.695	163 517 133	1	0.695	
32	25	10	481	163 517 114	1	1.388	163 517 134	1	0.952	
40	32	10	759	163 517 115	1	1.797	163 517 135	1	1.818	
50	40	10	1263	163 517 116	1	2.854	163 517 136	1	2.142	
63	50	10	1728	163 517 117	1	3.318	163 517 137	1	3.115	

d [mm]	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]	
20	65	65	95	65	14	73	14	12	130	25	M6	7	1/2	
25	80	65	105	75	14	81	18	12	150	25	M6	10	3/4	
32	88	87	115	85	14	107	22	12	160	25	M6	13	1	
40	101	87	140	100	18	115	26	15	180	45	M8	15	1 1/4	
50	117	135	150	110	18	148	32	15	200	45	M8	19	1 1/2	
63	144	135	165	125	18	166	39	15	230	45	M8	25	2	

PF 2 31 158 064

Diaphragm valves

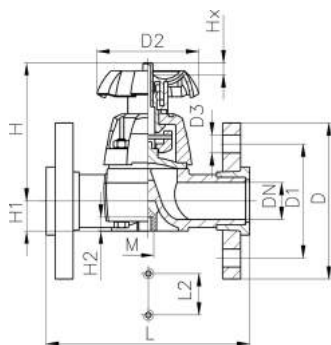
Diaphragm valve type 317 PVC-C With flanges PP-V

Model:

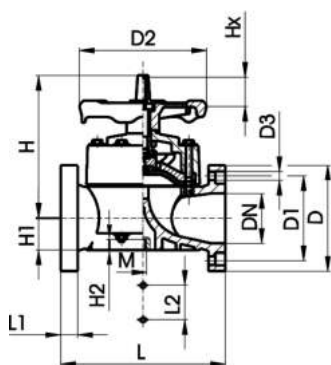
- Flat sealing faces
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558

Option:

- Handwheel lockable DN15-65 (basic version not lockable)



DN 15-65



DN 80-100

PF 2 32 169 020

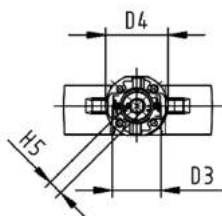
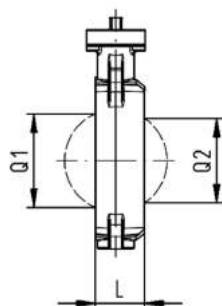
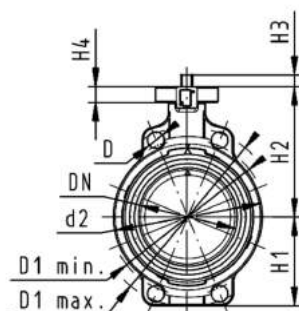
* DN80 and DN150 fixed flanges metric and inch ANSI B16.5

	d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	SP	Weight [kg]	
*	75	2 ½	65	10	992	163 317 523	163 317 538	1	4.425	
	90	3	80	10	1700	163 317 024	163 317 039	1	9.822	
	110	4	100	10	2700	163 317 025	163 317 040	1	13.799	

	d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	M	Lift = Hx [mm]	AL	
*	75	185	145	152	18	201	46	15	290		70	M8	30	4	
	90	200	160	270	18	265	57	23	310	35	120	M12	40	8	
	110	225	180	270	18	304	69	23	350	35	120	M12	50	8	

Butterfly valves

Butterfly valve type 567 PVC-C Bare shaft



Model:

- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Interface F07 according to DIN/ISO 5211

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 567 802	1	0.831	163 567 822	1	0.835
75	2 ½	65	10	2200	163 567 803	1	0.947	163 567 823	1	0.952
90	3	80	10	3000	163 567 804	1	1.079	163 567 824	1	1.097
110	4	100	10	6500	163 567 805	1	1.759	163 567 825	1	1.737
140	5	125	10	11500	163 567 806	1	2.361	163 567 826	1	2.379
160	6	150	10	16600	163 567 807	1	3.289	163 567 827	1	3.364
225	8	200	10	39600	163 567 808	1	5.269	163 567 828	1	5.094

d [mm]	PTFE Code
63	163 567 832
75	163 567 833
90	163 567 834
110	163 567 835
140	163 567 836
160	163 567 837
225	163 567 838

d [mm]	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	Q1 [mm]
63	104	19	120	125	70	90	222	77	134	27	23	11	45	40
75	115	19	140	145	70	90	235	83	140	27	23	11	46	54
90	131	19	150	160	70	90	247	89	146	27	23	11	49	67
110	161	19	175	191	70	90	287	104	167	16	23	14	56	88
140	187	23	210	216	70	90	313	117	181	16	23	14	64	113
160	215	24	241	241	70	90	335	130	189	19	23	17	72	139
225	267	23	290	295	70	90	387	158	210	19	23	17	73	178

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

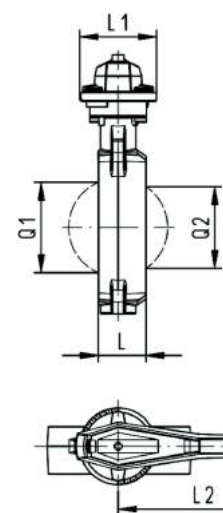
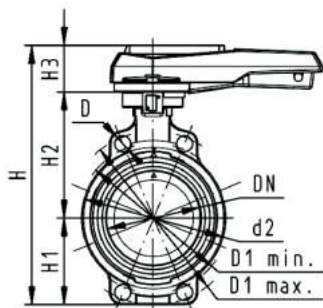
PF 2 32 693 998



Butterfly valve type 567 PVC-C Hand lever with ratchet settings

Model:

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

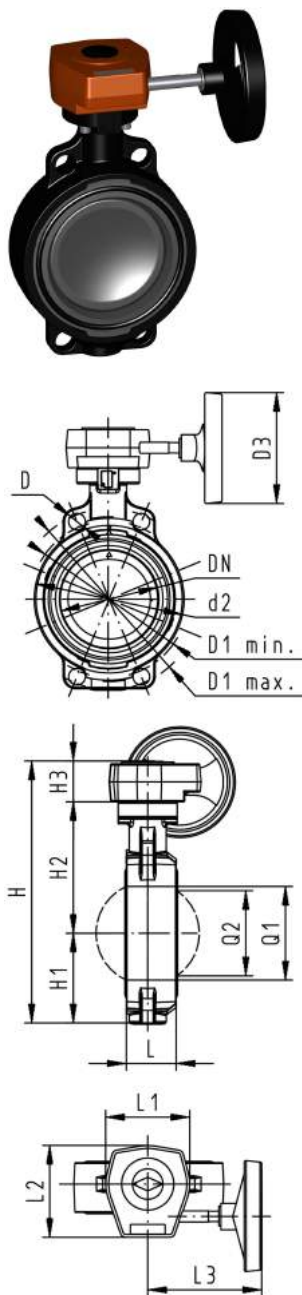


d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 567 002	1	1.257	163 567 022	1	1.268
75	2 ½	65	10	2200	163 567 003	1	1.366	163 567 023	1	1.174
90	3	80	10	3000	163 567 004	1	1.542	163 567 024	1	1.997
110	4	100	10	6500	163 567 005	1	2.231	163 567 025	1	2.715
140	5	125	10	11500	163 567 006	1	2.820	163 567 026	1	2.536
160	6	150	10	16600	163 567 007	1	6.719	163 567 027	1	3.361
225	8	200	10	39600	163 567 008	1	5.873	163 567 028	1	6.803

d [mm]	PTFE Code
63	163 567 202
75	163 567 203
90	163 567 204
110	163 567 205
140	163 567 206
160	163 567 207
225	163 567 208

d [mm]	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	104	19	120	125	264	77	134	54	45	106	205	40	
75	115	19	140	145	277	83	140	54	46	106	205	54	35
90	131	19	150	160	289	89	146	54	49	106	205	67	50
110	161	19	175	191	325	104	167	55	56	106	255	88	74
140	187	23	210	216	352	117	181	55	64	106	255	113	97
160	215	24	241	241	373	130	189	55	72	106	255	139	123
225	267	23	290	295	435	158	210	67	73	140	408	178	169

PF 2 32 693 001



Butterfly valve type 567 PVC-C Reduction gear with handwheel

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 567 042	1	3.078	163 567 062	1	3.078
75	2 ½	65	10	2200	163 567 043	1	3.201	163 567 063	1	3.212
90	3	80	10	3000	163 567 044	1	3.384	163 567 064	1	3.391
110	4	100	10	6500	163 567 045	1	4.019	163 567 065	1	4.033
140	5	125	10	11500	163 567 046	1	4.526	163 567 066	1	4.526
160	6	150	10	16600	163 567 047	1	5.601	163 567 067	1	5.624
225	8	200	10	39600	163 567 048	1	7.326	163 567 068	1	7.354

d [mm]	PTFE Code
63	163 567 242
75	163 567 243
90	163 567 244
110	163 567 245
140	163 567 246
160	163 567 247
225	163 567 248

d [mm]	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	104	19	120	125	150	278	77	134	50	45	110	120	155	40
75	115	19	140	145	150	291	83	140	50	46	110	120	155	54
90	131	19	150	160	150	303	89	146	50	49	110	120	155	67
110	160	19	175	191	150	339	104	167	50	56	110	120	155	88
140	187	23	210	216	150	365	117	181	50	64	110	120	155	113
160	215	24	241	241	150	387	130	189	50	72	110	120	155	139
225	267	23	290	295	150	436	158	210	50	73	110	120	155	178

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

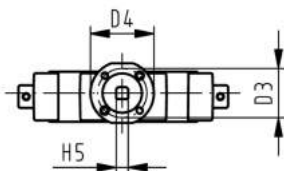
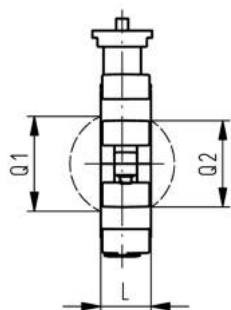
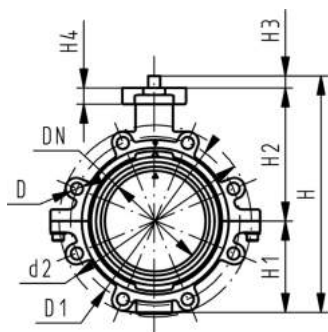
PF 2 32 693 001



Lugstyle butterfly valve type 568 PVC-C Bare shaft

Model:

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



d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 568 802	1	2.921	163 568 822	1	2.921
75	2 ½	65	10	2200	163 568 803	1	3.288	163 568 823	1	3.288
90	3	80	10	3000	163 568 804	1	4.342	163 568 824	1	4.342
110	4	100	10	6500	163 568 805	1	5.857	163 568 825	1	5.857
140	5	125	10	11500	163 568 806	1	7.845	163 568 826	1	7.845
160	6	150	10	16600	163 568 807	1	9.824	163 568 827	1	9.824
225	8	200	10	39600	163 568 808	1	15.042	163 568 828	1	15.042

d [mm]	PTFE Code
63	163 568 832
75	163 568 833
90	163 568 834
110	163 568 835
140	163 568 836
160	163 568 837
225	163 568 838

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	238	77	134	27	23	45	40	
75	170	M16	145	70	90	250	83	140	27	23	46	54	35
90	184	M16	160	70	90	262	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	314	117	181	16	23	64	113	97
160	273	M20	240	70	90	338	130	189	19	23	72	139	123
225	334	M20	295	70	90	387	158	210	19	23	73	178	169

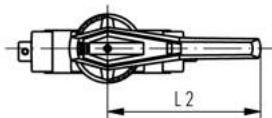
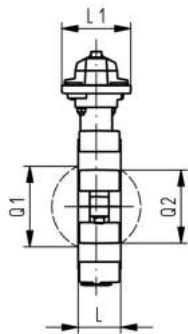
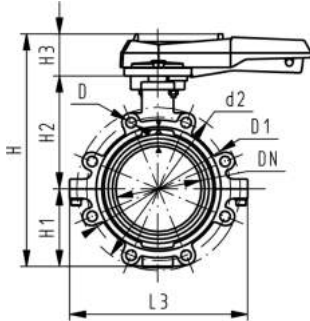
PF 2 32 694 998



Lugstyle butterfly valve type 568 PVC-C Hand lever with ratchet settings

Model:

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



d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 568 002	1	3.143	163 568 022	1	3.143
75	2 ½	65	10	2200	163 568 003	1	3.510	163 568 023	1	3.510
90	3	80	10	3000	163 568 004	1	4.564	163 568 024	1	4.564
110	4	100	10	6500	163 568 005	1	6.127	163 568 025	1	6.127
140	5	125	10	11500	163 568 006	1	8.115	163 568 026	1	8.115
160	6	150	10	16600	163 568 007	1	10.094	163 568 027	1	10.094
225	8	200	10	39600	163 568 008	1	15.849	163 568 028	1	15.849

d [mm]	PTFE Code
63	163 568 202
75	163 568 203
90	163 568 204
110	163 568 205
140	163 568 206
160	163 568 207
225	163 568 208

d [mm]	d2 [mm]	D [mm]	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	35
75	170	M16	145	277	83	140	54	46	106	205	160	54	50
90	184	M16	160	289	89	146	54	49	106	205	205	67	74
110	216	M16	180	326	104	167	55	56	106	255	244	88	97
140	246	M16	210	353	117	181	55	64	106	255	272	113	123
160	273	M20	240	374	130	189	55	72	106	255	297	139	169
225	334	M20	295	435	158	210	67	73	140	408	360	178	

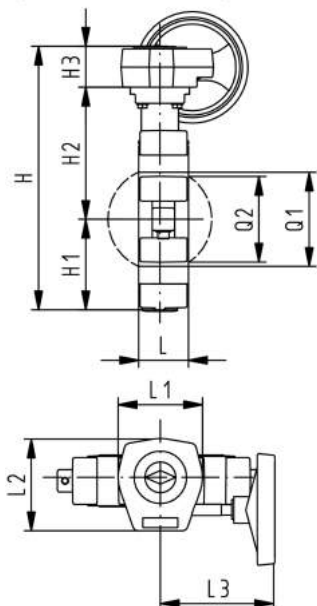
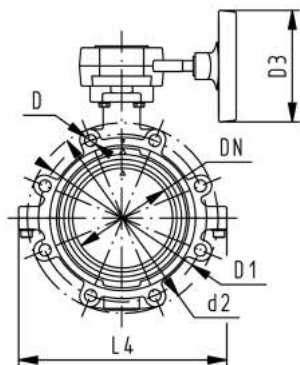
PF 2 32 694 001



Lugstyle butterfly valve type 568 PVC-C Reduction gear with handwheel

Model:

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



d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	163 568 042	0	5.181	163 568 062	0	5.181
75	2 ½	65	10	2200	163 568 043	0	5.548	163 568 063	0	5.548
90	3	80	10	3000	163 568 044	0	6.602	163 568 064	0	6.602
110	4	100	10	6500	163 568 045	0	8.117	163 568 065	0	8.117
140	5	125	10	11500	163 568 046	0	10.105	163 568 066	0	10.105
160	6	150	10	16600	163 568 047	1	12.084	163 568 067	1	12.084
225	8	200	10	39600	163 568 048	1	17.302	163 568 068	1	17.302

d [mm]	PTFE Code
63	163 568 242
75	163 568 243
90	163 568 244
110	163 568 245
140	163 568 246
160	163 568 247
225	163 568 248

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]	Q2 [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	35
90	184	M16	160	150	303	89	146	50	49	110	120	155	205	67	50
110	216	M16	180	150	339	104	167	50	56	110	120	155	244	88	74
140	246	M16	210	150	366	117	181	50	64	110	120	155	272	113	97
160	273	M20	240	150	387	130	189	50	72	110	120	155	297	139	123
225	334	M20	295	150	436	158	210	50	73	110	120	155	360	178	169

PF 2 32 694 001

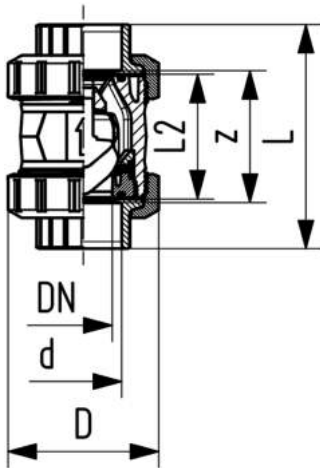
Cone check valves

Check valve type 561 PVC-C With solvent cement sockets metric



Model:

- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN56-DN100



d [mm]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	16	190	163 561 001	1	0.120	163 561 011	1	0.120
20	15	16	180	163 561 002	1	0.120	163 561 012	1	0.120
25	20	16	380	163 561 003	1	0.260	163 561 013	1	0.280
32	25	16	460	163 561 004	1	0.280	163 561 014	1	0.280
40	32	16	850	163 561 005	1	0.490	163 561 015	1	0.490
50	40	16	1080	163 561 006	1	0.710	163 561 016	1	0.710
63	50	16	1670	163 561 007	1	1.456	163 561 017	1	1.470
75	65	16	2950	163 561 008	1	3.460	163 561 018	1	3.480
90	80	16	3600	163 561 009	1	5.540	163 561 019	1	5.570
110	100	16	4150	163 561 010	1	8.930	163 561 020	1	8.970

d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch [inch]
16	50	92	56	64	3/8
20	50	95	56	64	1/2
25	58	110	65	72	3/4
32	68	123	71	79	1
40	84	146	85	94	1 1/4
50	97	157	89	95	1 1/2
63	124	183	101	107	2
75	166	233	136	144	2 1/2
90	200	254	141	151	3
110	238	301	164	174	4

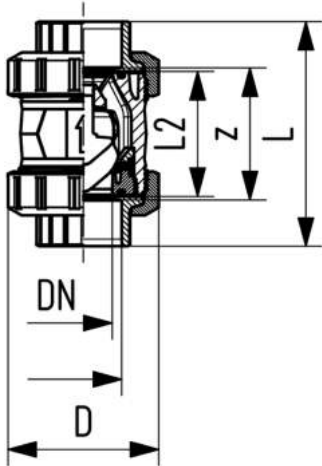
PF 2 31 161 012



Check valve type 561 PVC-C With threaded sockets Rp

Model:

- Sealing at a minimum water column of 2 m
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN56-DN100



Rp [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	190	163 561 021	1	0.120	163 561 031	1	0.120
1/2	15	10	180	163 561 022	1	0.120	163 561 032	1	0.120
3/4	20	10	380	163 561 023	1	0.260	163 561 033	1	0.280
1	25	10	460	163 561 024	1	0.290	163 561 034	1	0.290
1 1/4	32	10	850	163 561 025	1	0.490	163 561 035	1	0.500
1 1/2	40	10	1080	163 561 026	1	0.740	163 561 036	1	0.750
2	50	10	1670	163 561 027	1	1.530	163 561 037	1	1.530
2 1/2	65	10	2950	163 561 028	1	3.530	163 561 038	1	3.550
3	80	10	3600	163 561 029	1	5.670	163 561 039	1	5.700
4	100	10	4150	163 561 030	1	8.990	163 561 040	1	9.030

Rp [inch]	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	50	95	56	69
1/2	50	100	56	67
3/4	58	114	65	78
1	68	127	71	85
1 1/4	84	146	85	100
1 1/2	97	152	89	106
2	124	177	101	121
2 1/2	166	233	136	144
3	200	254	141	151
4	238	301	164	174

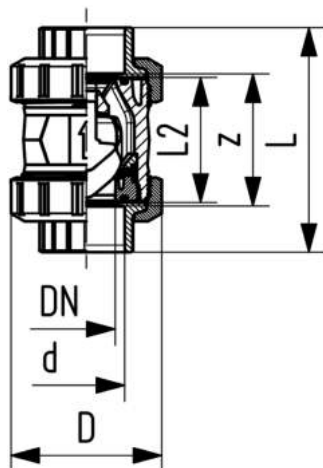
PF 2 31 161 012



Check valve type 562 PVC-C With solvent cement sockets metric

Model:

- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN56-DN100



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	16	190	163 562 001	1	0.120	163 562 011	1	0.120
20	15	16	180	163 562 002	1	0.120	163 562 012	1	0.120
25	20	16	380	163 562 003	1	0.260	163 562 013	1	0.280
32	25	16	460	163 562 004	1	0.280	163 562 014	1	0.280
40	32	16	850	163 562 005	1	0.490	163 562 015	1	0.490
50	40	16	1080	163 562 006	1	0.710	163 562 016	1	0.710
63	50	16	1670	163 562 007	1	1.460	163 562 017	1	1.470
75	65	16	2950	163 562 008	1	3.460	163 562 018	1	3.480
90	80	16	3600	163 562 009	1	5.540	163 562 019	1	5.570
110	100	16	4150	163 562 010	1	8.930	163 562 020	1	8.970

d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch [inch]
16	50	92	56	64	$\frac{3}{8}$
20	50	95	56	64	$\frac{1}{2}$
25	58	110	65	72	$\frac{3}{4}$
32	68	123	71	79	1
40	84	146	85	94	1 $\frac{1}{4}$
50	97	157	89	95	1 $\frac{1}{2}$
63	124	183	101	107	2
75	166	233	136	144	2 $\frac{1}{2}$
90	200	254	141	151	3
110	238	301	164	174	4

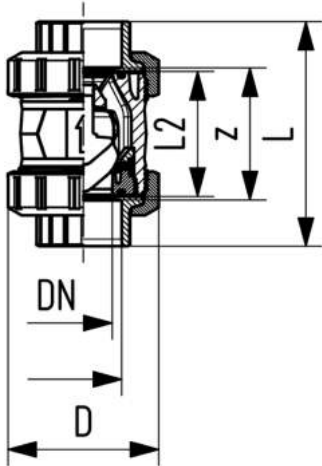
PF 2 31 161 012



Check valve type 562 PVC-C With threaded sockets Rp

Model:

- For horizontal or vertical installation
- Sealing at a minimum water column of 1 m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- New DN56-DN100



Rp [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	190	163 562 021	1	0.120	163 562 031	1	0.120
1/2	15	10	180	163 562 022	1	0.120	163 562 032	1	0.120
3/4	20	10	380	163 562 023	1	0.260	163 562 033	1	0.280
1	25	10	460	163 562 024	1	0.290	163 562 034	1	0.290
1 1/4	32	10	850	163 562 025	1	0.490	163 562 035	1	0.500
1 1/2	40	10	1080	163 562 026	1	0.740	163 562 036	1	0.750
2	50	10	1670	163 562 027	1	1.530	163 562 037	1	1.530
2 1/2	65	10	2950	163 562 028	1	3.530	163 562 038	1	3.550
3	80	10	3600	163 562 029	1	5.670	163 562 039	1	5.700
4	100	10	4150	163 562 030	1	8.990	163 562 040	1	9.030

Rp [inch]	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	50	95	56	69
1/2	50	100	56	67
3/4	58	114	65	78
1	68	127	71	85
1 1/4	84	146	85	100
1 1/2	97	152	89	106
2	124	177	101	121
2 1/2	166	233	136	144
3	200	254	141	151
4	238	301	164	174

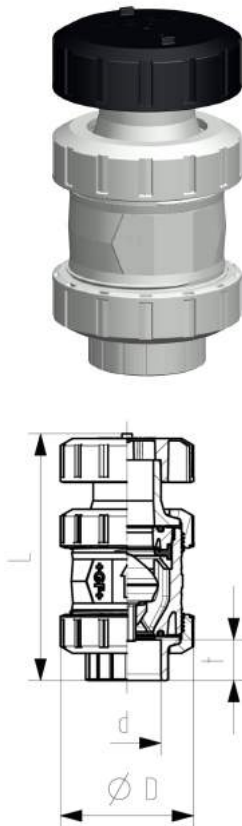
PF 2 31 161 012

Process control valves

Ventilating and bleed valve Type 591 PVC-C With solvent cement sockets metric

Model:

- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Floater made of PP-H
- Designed for easy installation and removal
- Compact installation length



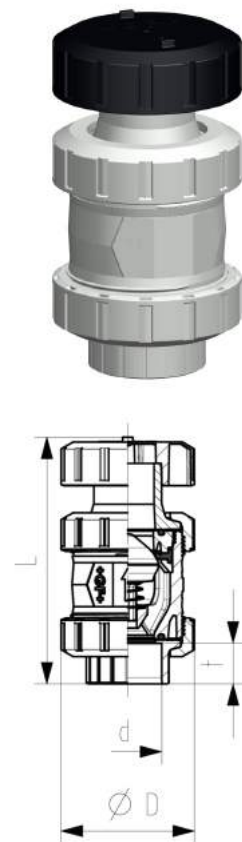
PF 2 31 161 012

d [mm]	DN [mm]	PN [bar]	EPDM Code	FPM Code	D [mm]	L [mm]	t [mm]	closest inch [inch]	
16	10	16	163 591 001	163 591 011	50	118	14	3/8	
20	15	16	163 591 002	163 591 012	50	124	16	1/2	
25	20	16	163 591 003	163 591 013	58	142	19	3/4	
32	25	16	163 591 004	163 591 014	68	157	22	1	
40	32	16	163 591 005	163 591 015	84	179	26	1 1/4	
50	40	16	163 591 006	163 591 016	97	197	31	1 1/2	
63	50	16	163 591 007	163 591 017	124	229	38	2	
75	65	16	163 591 008	163 591 018	166	258	45	2 1/2	
90	80	16	163 591 009	163 591 019	200	277	52	3	
110	100	16	163 591 010	163 591 020	238	320	64	4	

Ventilating valve type 595 PVC-C With solvent cement sockets metric

Model:

- With protection cap up to DN50 made of PP-GF, DN65-100 made of 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



PF 2 31 161 012

d [mm]	DN [mm]	PN [bar]	EPDM Code	FPM Code	D [mm]	L [mm]	t [mm]	closest inch [inch]	
16	10	16	163 595 001	163 595 011	50	118	14	3/8	
20	15	16	163 595 002	163 595 012	50	124	16	1/2	
25	20	16	163 595 003	163 595 013	58	142	19	3/4	
32	25	16	163 595 004	163 595 014	68	157	22	1	
40	32	16	163 595 005	163 595 015	84	179	26	1 1/4	
50	40	16	163 595 006	163 595 016	97	197	31	1 1/2	
63	50	16	163 595 007	163 595 017	124	229	38	2	
75	65	16	163 595 008	163 595 018	166	258	45	2 1/2	
90	80	16	163 595 009	163 595 019	200	277	52	3	
110	100	16	163 595 010	163 595 020	238	320	64	4	

Pressure regulating valves

Pressure reducing valve type 582 PVC-C With solvent cement spigots metric Without manometer

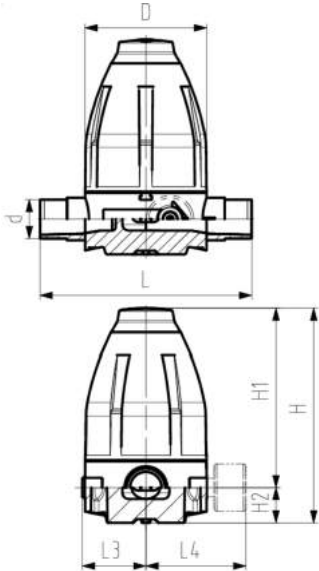


Model:

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

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

Manometer on request



d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code							
16	10	10	163 582 001	163 582 011							
20	15	10	163 582 002	163 582 012							
25	20	10	163 582 003	163 582 013							
32	25	10	163 582 004	163 582 014							
40	32	10	163 582 005	163 582 015							
50	40	10	163 582 006	163 582 016							
63	50	10	163 582 007	163 582 017							
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L3 [mm]	L5 [mm]	M	closest inch [inch]	
16	79	132	111	21	12	134	42	40	M6	⅜	
20	79	132	111	21	12	134	42	40	M6	½	
25	100	177	148	29	14	174	53	46	M6	¾	
32	100	177	148	29	14	174	53	46	M6	1	
40	147	251	207	44	21	224	76	65	M8	1 ¼	
50	147	251	207	44	21	224	76	65	M8	1 ½	
63	147	251	207	44	21	244	76	65	M8	2	



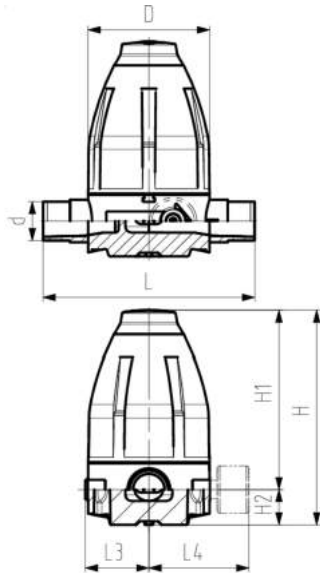
Pressure reducing valve type 582 PVC-C

With solvent cement spigots metric

With manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)
- Attention: Manometer with brass connection in direct contact with medium. Check for chemical resistance, otherwise chose the optional manometer adapter for media separation.



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

d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code								
16	10	10	163 582 021	163 582 031								
20	15	10	163 582 022	163 582 032								
25	20	10	163 582 023	163 582 033								
32	25	10	163 582 024	163 582 034								
40	32	10	163 582 025	163 582 035								
50	40	10	163 582 026	163 582 036								
63	50	10	163 582 027	163 582 037								

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L3 [mm]	L4 [mm]	L5 [mm]	M	closest inch [inch]	
16	79	132	111	21	12	134	42	77	40	M6	3/8	
20	79	132	111	21	12	134	42	77	40	M6	1/2	
25	100	177	148	29	14	174	53	88	46	M6	3/4	
32	100	177	148	29	14	174	53	88	46	M6	1	
40	147	251	207	44	21	224	76	111	65	M8	1 1/4	
50	147	251	207	44	21	224	76	111	65	M8	1 1/2	
63	147	251	207	44	21	244	76	111	65	M8	2	



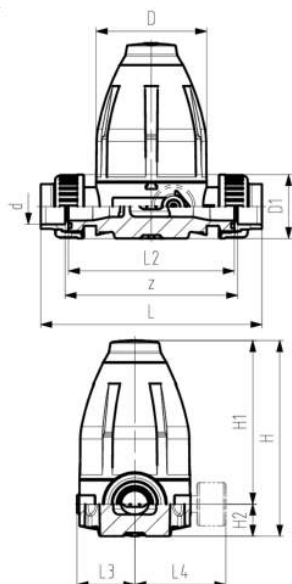
Pressure reducing valve type 582 PVC-C Unions with solvent cement sockets metric Without manometer

Model:

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

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

Manometer on request



d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code
20	15	10	163 582 102	163 582 112
25	20	10	163 582 103	163 582 113
32	25	10	163 582 104	163 582 114
40	32	10	163 582 105	163 582 115
50	40	10	163 582 106	163 582 116
63	50	10	163 582 107	163 582 117

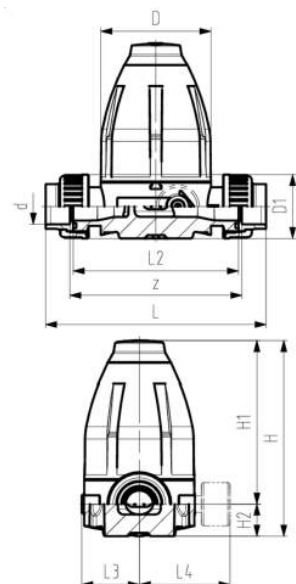
d [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L2 [mm]	L3 [mm]	L5 [mm]	M	z [mm]	closest inch [inch]
20	79	43	132	111	21	12	162	120	42	40	M6	126	½
25	100	51	177	148	29	14	198	150	53	46	M6	156	¾
32	100	58	177	148	29	14	204	150	53	46	M6	156	1
40	147	72	251	207	44	21	267	205	76	65	M8	211	1 ¼
50	147	83	251	207	44	21	273	205	76	65	M8	211	1 ½
63	147	100	251	207	44	21	287	205	76	65	M8	211	2



Pressure reducing valve type 582 PVC-C Unions with solvent cement sockets metric With manometer

Model:

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)
- Attention: Manometer with brass connection in direct contact with medium. Check for chemical resistance, otherwise chose the optional manometer adapter for media separation.



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

d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code
20	15	10	163 582 122	163 582 132
25	20	10	163 582 123	163 582 133
32	25	10	163 582 124	163 582 134
40	32	10	163 582 125	163 582 135
50	40	10	163 582 126	163 582 136
63	50	10	163 582 127	163 582 137

d [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	M	z [mm]
20	79	43	132	111	21	12	162	120	42	77	40	M6	126
25	100	51	177	148	29	14	198	150	53	88	46	M6	156
32	100	58	177	148	29	14	204	150	53	88	46	M6	156
40	147	72	251	207	44	21	267	205	76	111	65	M8	211
50	147	83	251	207	44	21	273	205	76	111	65	M8	211
63	147	100	251	207	44	21	287	205	76	111	65	M8	211

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



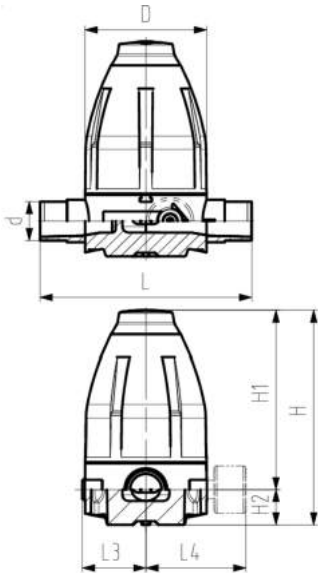
Pressure retaining valve type 586 PVC-C With solvent cement spigots metric Without manometer

Model:

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

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

Manometer on request



d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code
16	10	10	163 586 001	163 586 011
20	15	10	163 586 002	163 586 012
25	20	10	163 586 003	163 586 013
32	25	10	163 586 004	163 586 014
40	32	10	163 586 005	163 586 015
50	40	10	163 586 006	163 586 016
63	50	10	163 586 007	163 586 017

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L3 [mm]	L5 [mm]	M	closest inch [inch]
16	79	132	111	21	12	134	42	40	M6	3/8
20	79	132	111	21	12	134	42	40	M6	1/2
25	100	177	148	29	14	174	53	46	M6	3/4
32	100	177	148	29	14	174	53	46	M6	1
40	147	251	207	44	21	224	76	65	M8	1 1/4
50	147	251	207	44	21	224	76	65	M8	1 1/2
63	147	251	207	44	21	244	76	65	M8	2



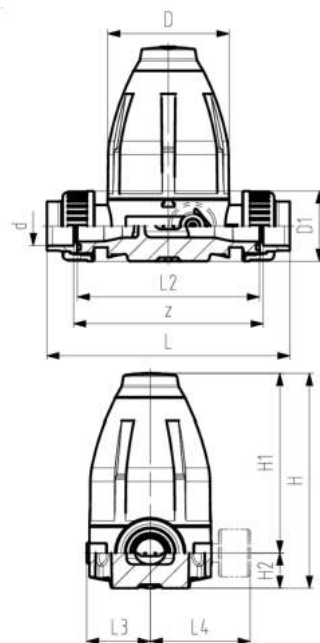
Pressure retaining valve type 586 PVC-C Unions with solvent cement sockets metric Without manometer

Model:

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

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

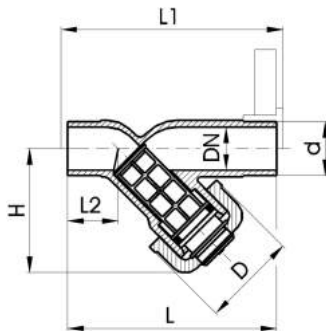
Manometer on request



d [mm]	DN [mm]	PN [bar]	O-rings EPDM Code	O-rings FPM Code
20	15	10	163 586 102	163 586 112
25	20	10	163 586 103	163 586 113
32	25	10	163 586 104	163 586 114
40	32	10	163 586 105	163 586 115
50	40	10	163 586 106	163 586 116
63	50	10	163 586 107	163 586 117

d [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L2 [mm]	L3 [mm]	L5 [mm]	M	z [mm]	closest inch [inch]
20	79	43	132	111	21	12	162	120	42	40	M6	126	1/2
25	100	51	177	148	29	14	198	150	53	46	M6	156	3/4
32	100	58	177	148	29	14	204	150	53	46	M6	156	1
40	147	72	251	207	44	21	267	205	76	65	M8	211	1 1/4
50	147	83	251	207	44	21	273	205	76	65	M8	211	1 1/2
63	147	100	251	207	44	21	287	205	76	65	M8	211	2

Strainers



Line strainer type 305 PVC-C With solvent cement spigots metric

Model:

- Protects valves, pumps, etc. from becoming soiled
- Easy dismantling for cleaning the screens
- Overall length EN 558
- Cylindrical screen must be ordered separately

d [mm]	DN [mm]	PN [bar]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
20	15	10	163 305 302	1	0.110	163 305 317	1	0.120
25	20	10	163 305 303	1	0.160	163 305 318	1	0.160
32	25	10	163 305 304	1	0.250	163 305 319	1	0.250
40	32	10	163 305 305	1	0.380	163 305 320	1	0.640
50	40	10	163 305 306	1	0.640	163 305 321	1	0.640
63	50	10	163 305 307	1	1.072	163 305 322	1	1.076

d [mm]	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	closest inch [inch]
20	48	65	124	130	28	1/2
25	54	76	144	150	37	3/4
32	62	90	154	160	37	1
40	71	104	174	180	44	1 1/4
50	88	124	194	200	48	1 1/2
63	103	148	224	230	60	2

PF 2 32 200 004



Screen stainless steel Screen perforation 0.5 mm

Model:

- Stainless Steel A4 Quality (AISI 316)
- For line strainers Type 305

d [mm]	DN [mm]	kv-val- ue (Δp=1 bar) [l/min]	Code	D [mm]	L [mm]	closest inch [inch]
20	15	35	161 486 100	14	39	1/2
25	20	60	161 486 101	18	48	3/4
32	25	85	161 486 102	24	60	1
40	32	130	161 486 103	30	71	1 1/4
50	40	200	161 486 104	38	87	1 1/2
63	50	330	161 486 105	48	106	2
75	65	460	161 486 106	61	100	2 1/2
90	80	665	161 486 107	73	118	3

PF 2 32 200 999

Configurator GF ball valve type 546 PVC-C

Ball valve

A01 Ball valve 546

Material

B02 PVC-C

Dimension

C05 DN 10 3/8"
 C06 DN 15 1/2"
 C07 DN 20 3/4"
 C08 DN 25 1"
 C09 DN 32 1 1/4"
 C10 DN 40 1 1/2"
 C11 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 for inch ASTM (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

Threaded inserts

F01 Without threaded inserts
 F02 With threaded inserts

Connecting parts

G11 PVC-C Cement socket metric
 G12 PVC-C Cement socket JIS
 G13 PVC-C Cement socket inch ASTM
 G14 PVC-C Cement spigot metric
 G15 PVC-C Threaded socket Rp
 G16 PVC-C Threaded socket Rp reinforced (DN10-50)
 G17 PVC-C Threaded socket NPT
 G40 PE-100 Butt fusion metric
 G41 PE-100 Butt fusion spigot SDR11 metric
 G42 PE-100 Butt fusion spigot SDR17.6 metric (DN65-100)
 G43 PE-100 Butt fusion spigot long SDR11 metric
 G72 Backing flange PP-steel metric
 G73 Backing flange PP-steel inch ANSI
 G81 PVC-C Valve end blank

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 B02 C D E F G G I K L

left

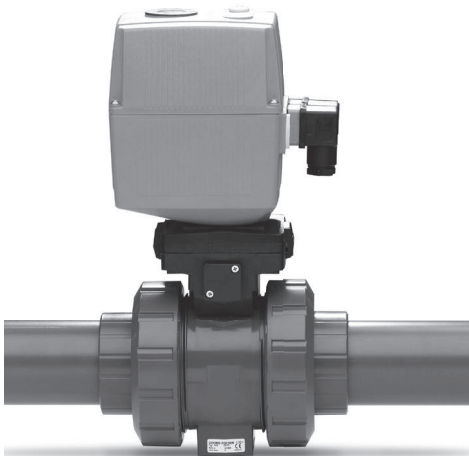
right

You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for your application, we have created a selection menu for you.

We supply what you put together.

Copiable

GF ball valve type 546 with electric actuator



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

With the configurator, you have a choice of new electric actuators, the EA11 for standard applications and the EA21 with modular design and accessories, for practically and type of operation.

We supply what you put together.

Electric Actuator EA11

- T01 EA11 24 V
- T02 EA11 100–230 V

Accessories EA11

- U01 No accessories
- U02 2 limit switches Ag, Ni
- U03 Heating element
- U04 Fail-safe return
- U05 2 limit switches Ag, Ni normally open

Electric Actuator EA21/31

- T03 EA21/31 24 V
- T04 EA21/31 100–230 V

Accessories EA21

- W01 No accessories
- W02 Heating element
- W03 Cycle time module
- W04 Cycle time monitoring
- W05 Cycles monitoring
- W06 Motor current monitoring
- W07 2 limit switches Ag, Ni
- W08 2 limit switches Gold
- W09 2 limit switches NPN
- W10 2 limit switches PNP
- W11 Positioner
- W12 Electric position indicator
- W14 Fail-safe return unit
- W15 Switch intermediate position
- W27 2 limit switches Ag, Ni normally open with connector
- W31 Positioner PE25 with galv. separation

T	U	T	W	W	W	W	W	W

Ball valves electric

107

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



DN10/15 - 50

Model:

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

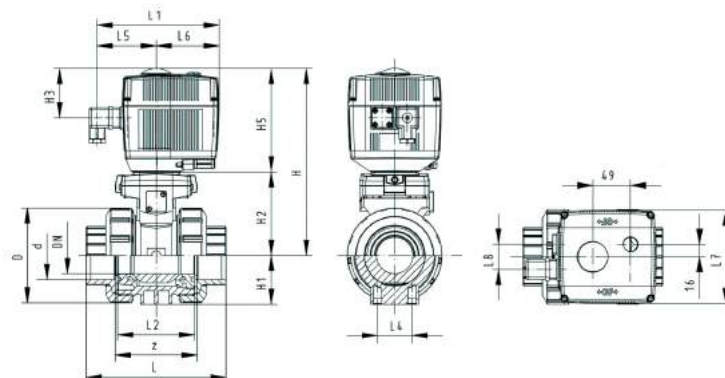
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 107 102	1	1.770	199 107 112	1	1.770	
20	15	10	185	199 107 103	1	1.780	199 107 113	1	1.780	
25	20	10	350	199 107 104	1	1.860	199 107 114	1	1.860	
32	25	10	700	199 107 105	1	1.950	199 107 115	1	1.950	
40	32	10	1000	199 107 106	1	2.190	199 107 116	1	0.001	
50	40	10	1600	199 107 107	1	2.360	199 107 117	1	2.360	
63	50	10	3100	199 107 108	1	3.140	199 107 118	1	3.140	

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

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



PF 3 39 695 032



DN10/15 - 50

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

Model:

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

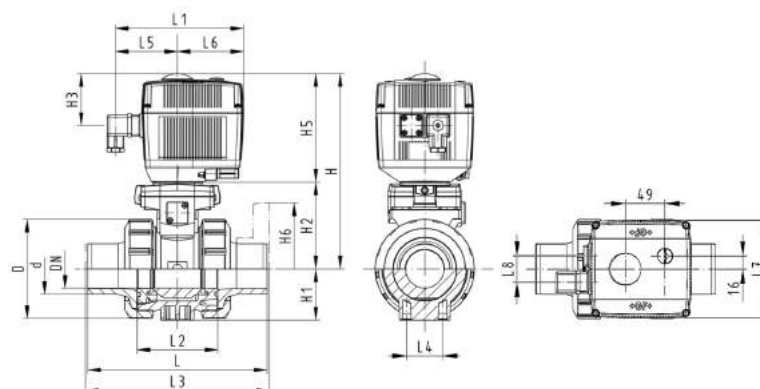
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 107 122	1	1.770	199 107 132	1	1.770	
20	15	10	185	199 107 123	1	1.780	199 107 133	1	1.780	
25	20	10	350	199 107 124	1	1.860	199 107 134	1	1.860	
32	25	10	700	199 107 125	1	1.950	199 107 135	1	1.950	
40	32	10	1000	199 107 126	1	2.641	199 107 136	1	2.190	
50	40	10	1600	199 107 127	1	2.360	199 107 137	1	2.360	
63	50	10	3100	199 107 128	1	3.140	199 107 138	1	3.140	

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

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



PF 3 39 695 032



DN10/15 - 50

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

Model:

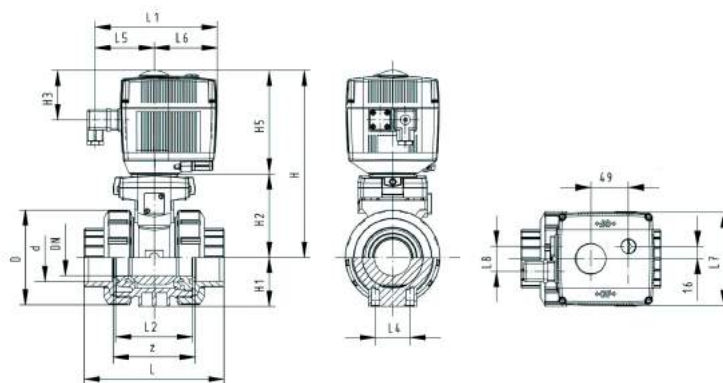
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<)
- Control time 5 s/90°<)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 107 702	1	2.100	199 107 712	1	2.100	
1/2	15	10	185	199 107 703	1	2.100	199 107 713	1	2.100	
3/4	20	10	350	199 107 704	1	2.200	199 107 714	1	2.200	
1	25	10	700	199 107 705	1	2.300	199 107 715	1	2.300	
1 1/4	32	10	1000	199 107 706	1	2.600	199 107 716	1	2.600	
1 1/2	40	10	1600	199 107 707	1	3.000	199 107 717	1	3.000	
2	50	10	3100	199 107 708	1	3.800	199 107 718	1	3.800	

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



PF 3 39 695 032



DN10/15 - 50

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

Model:

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

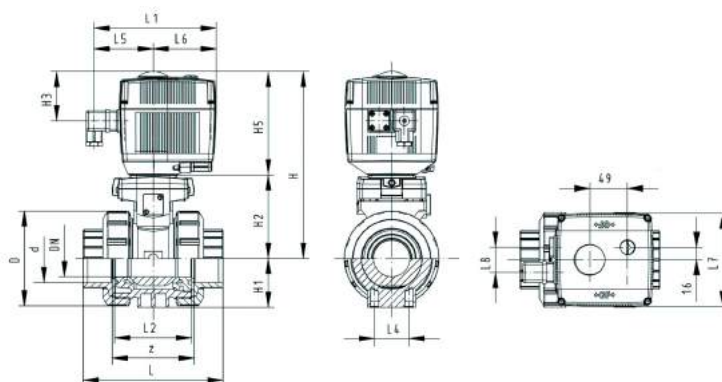
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 107 142	1	1.770	199 107 152	1	1.770	
20	15	10	185	199 107 143	1	1.780	199 107 153	1	1.780	
25	20	10	350	199 107 144	1	2.237	199 107 154	1	1.860	
32	25	10	700	199 107 145	1	1.950	199 107 155	1	1.950	
40	32	10	1000	199 107 146	1	2.190	199 107 156	1	2.190	
50	40	10	1600	199 107 147	1	2.360	199 107 157	1	2.360	
63	50	10	3100	199 107 148	1	3.665	199 107 158	1	3.140	

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

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



PF 3 39 695 032



DN10/15 - 50

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

Model:

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

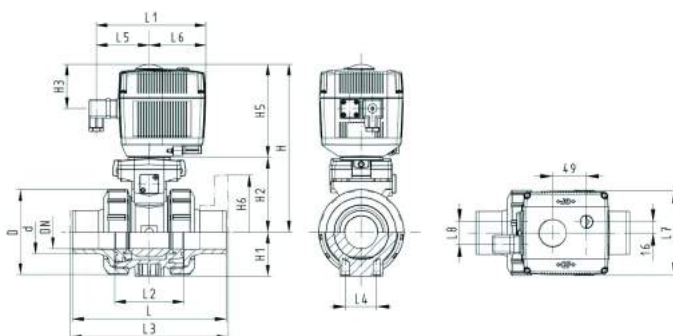
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 107 162	1	1.770	199 107 172	1	1.770	
20	15	10	185	199 107 163	1	1.780	199 107 173	1	1.780	
25	20	10	350	199 107 164	1	1.860	199 107 174	1	1.860	
32	25	10	700	199 107 165	1	1.950	199 107 175	1	1.950	
40	32	10	1000	199 107 166	1	2.190	199 107 176	1	2.190	
50	40	10	1600	199 107 167	1	2.360	199 107 177	1	2.360	
63	50	10	3100	199 107 168	1	3.140	199 107 178	1	3.140	

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

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



PF 3 39 695 032



DN10/15 - 50

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

Model:

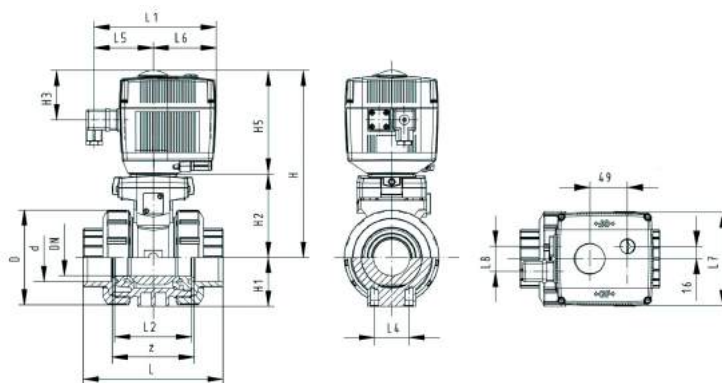
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 107 742	1	2.100	199 107 752	1	2.100	
1/2	15	10	185	199 107 743	1	2.100	199 107 753	1	2.100	
3/4	20	10	350	199 107 744	1	2.200	199 107 754	1	2.200	
1	25	10	700	199 107 745	1	2.300	199 107 755	1	2.300	
1 1/4	32	10	1000	199 107 746	1	2.600	199 107 756	1	2.600	
1 1/2	40	10	1600	199 107 747	1	3.000	199 107 757	1	3.000	
2	50	10	3100	199 107 748	1	3.800	199 107 758	1	3.800	

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



PF 3 39 695 032

130

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

Model:

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

Option:

- Individual configuration of the valve (see diagram)

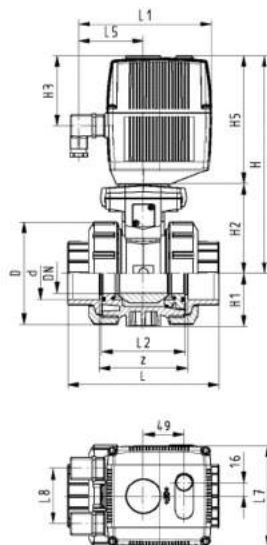


DN10/15 - 50

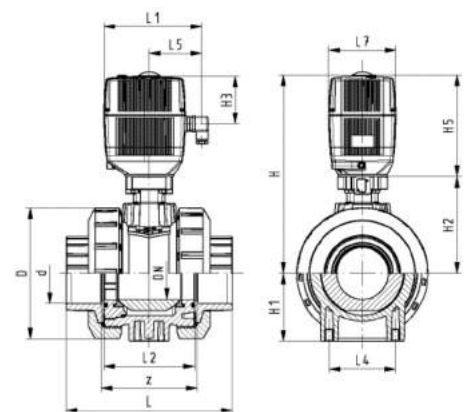


d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	10	70	199 130 402	1	2.100	199 130 412	1	2.100
20	15	10	185	199 130 403	1	2.100	199 130 413	1	2.100
25	20	10	350	199 130 404	1	2.200	199 130 414	1	2.200
32	25	10	700	199 130 405	1	2.300	199 130 415	1	2.695
40	32	10	1000	199 130 406	1	2.600	199 130 416	1	2.600
50	40	10	1600	199 130 407	1	3.000	199 130 417	1	3.213
63	50	10	3100	199 130 408	1	3.800	199 130 418	1	3.800
75	65	10	5000	199 130 409	1	7.700	199 130 419	1	7.700
90	80	10	7000	199 130 410	1	10.400	199 130 420	1	10.400
110	100	10	11000	199 130 411	1	15.100	199 130 421	1	15.100

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]	closest inch [inch]
16	50	231	27	64	94	167	92	180	56	25	97	122	64	3/8
20	50	231	27	64	94	167	95	180	56	25	97	122	64	1/2
25	58	240	30	73	94	167	110	180	65	25	97	122	72	3/4
32	68	240	36	73	94	167	123	180	71	25	97	122	79	1
40	84	251	44	84	94	167	146	180	85	45	97	122	94	1 1/4
50	97	251	51	84	94	167	157	180	89	45	97	122	95	1 1/2
63	124	273	64	106	94	167	183	180	101	45	97	122	107	2
75	166	346	85	156	94	190	233	180	136	70	98	122	144	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	151	3
110	238	365	123	175	94	190	301	180	164	120	98	122	174	4



DN10/15-50



DN65-100



DN10/15 - 50



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

Model:

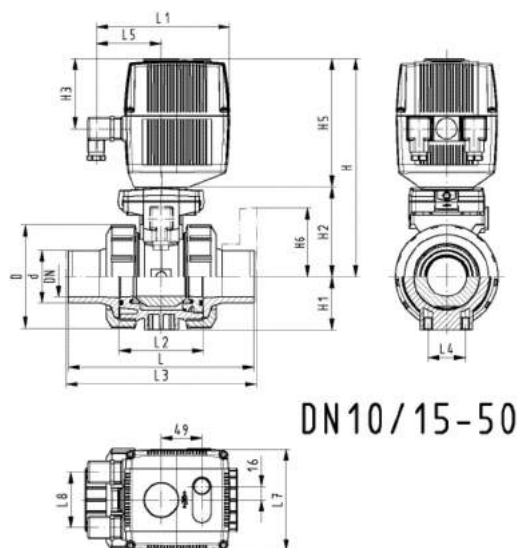
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

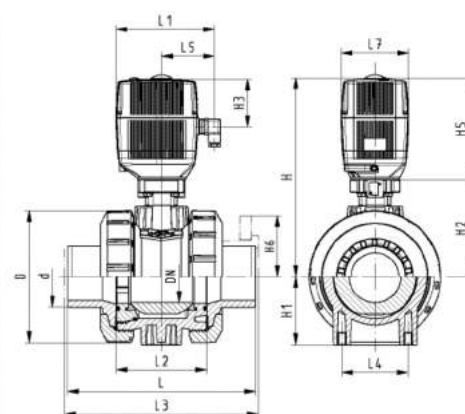
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 130 422	1	2.100	199 130 432	1	2.100	
20	15	10	185	199 130 423	1	2.100	199 130 433	1	2.100	
25	20	10	350	199 130 424	1	2.200	199 130 434	1	2.200	
32	25	10	700	199 130 425	1	2.300	199 130 435	1	2.300	
40	32	10	1000	199 130 426	1	2.600	199 130 436	1	2.600	
50	40	10	1600	199 130 427	1	3.000	199 130 437	1	3.000	
63	50	10	3100	199 130 428	1	3.800	199 130 438	1	3.800	
75	65	10	5000	199 130 429	1	7.900	199 130 439	1	7.900	
90	80	10	7000	199 130 430	1	10.600	199 130 440	1	10.600	
110	100	10	11000	199 130 431	1	15.300	199 130 441	1	15.300	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	closest inch [inch]
16	50	231	27	64	94	167	114	180	56	130	25	97	122	3/8
20	50	231	27	64	94	167	124	180	56	130	25	97	122	1/2
25	58	240	30	73	94	167	144	180	65	150	25	97	122	3/4
32	68	240	36	73	94	167	154	180	71	160	25	97	122	1
40	84	251	44	84	94	167	174	180	85	180	45	97	122	1 1/4
50	97	251	51	84	94	167	194	180	89	200	45	97	122	1 1/2
63	124	273	64	106	94	167	224	180	101	230	45	97	122	2
75	166	346	85	156	94	190	284	180	136	290	70	98	122	2 1/2
90	200	358	105	168	94	190	300	180	141	310	70	98	122	3
110	238	365	123	175	94	190	340	180	164	350	120	98	122	4



DN10/15-50



DN65-100

PF 3 39 695 632



DN10/15 - 50



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

Model:

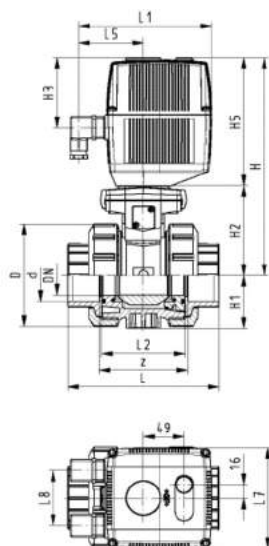
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

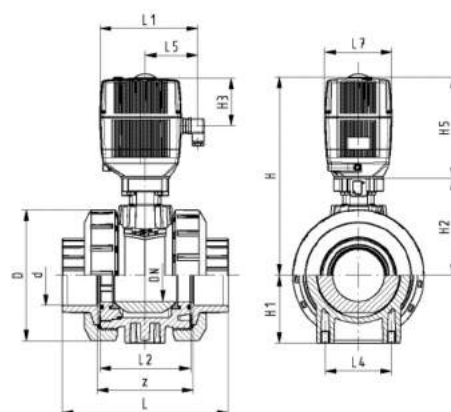
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 130 182	1	2.100	199 130 192	1	2.100	
1/2	15	10	185	199 130 183	1	2.100	199 130 193	1	2.100	
3/4	20	10	350	199 130 184	1	2.200	199 130 194	1	2.200	
1	25	10	700	199 130 185	1	2.300	199 130 195	1	2.300	
1 1/4	32	10	1000	199 130 186	1	2.600	199 130 196	1	2.600	
1 1/2	40	10	1600	199 130 187	1	3.000	199 130 197	1	3.000	
2	50	10	3100	199 130 188	1	3.800	199 130 198	1	3.800	
2 1/2	65	10	5000	199 130 189	1	7.800	199 130 199	1	7.800	
3	80	10	7000	199 130 190	1	10.600	199 130 200	1	10.600	
4	100	10	11000	199 130 191	1	15.200	199 130 201	1	15.200	

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



DN10/15-50



DN65-100

PF 3 39 695 632



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

Model:

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

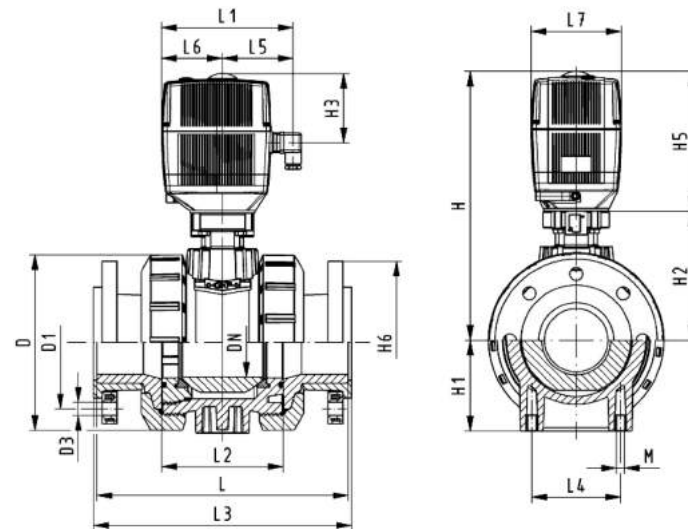
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	10	5000	199 134 489	1	11.900	199 134 499	1	11.900	
90	80	10	7000	199 134 490	1	15.400	199 134 500	1	15.400	
110	100	10	11000	199 134 491	1	21.800	199 134 501	1	21.800	

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]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

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



PF 3 39 695 632



DN10/15 - 50



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

Model:

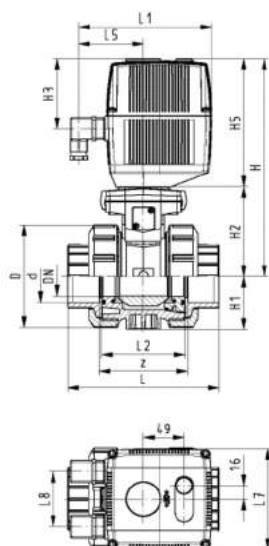
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

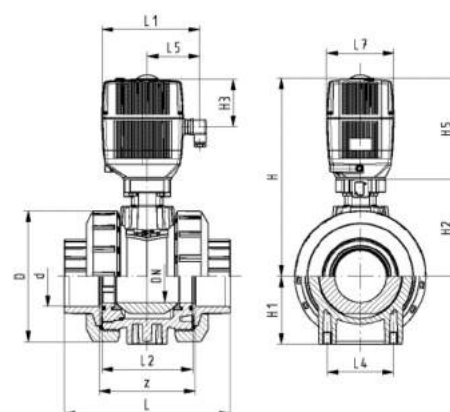
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 130 442	1	2.100	199 130 452	1	2.100	
20	15	10	185	199 130 443	1	2.100	199 130 453	1	2.100	
25	20	10	350	199 130 444	1	2.200	199 130 454	1	2.200	
32	25	10	700	199 130 445	1	2.300	199 130 455	1	2.674	
40	32	10	1000	199 130 446	1	2.600	199 130 456	1	2.600	
50	40	10	1600	199 130 447	1	3.000	199 130 457	1	3.000	
63	50	10	3100	199 130 448	1	3.800	199 130 458	1	3.800	
75	65	10	5000	199 130 449	1	7.700	199 130 459	1	7.700	
90	80	10	7000	199 130 450	1	10.400	199 130 460	1	9.825	
110	100	10	11000	199 130 451	1	15.100	199 130 461	1	15.100	

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]	closest inch [inch]
16	50	231	27	64	94	167	92	180	56	25	97	122	64	3/8
20	50	231	27	64	94	167	95	180	56	25	97	122	64	1/2
25	58	240	30	73	94	167	110	180	65	25	97	122	72	3/4
32	68	240	36	73	94	167	123	180	71	25	97	122	79	1
40	84	251	44	84	94	167	146	180	85	45	97	122	94	1 1/4
50	97	251	51	84	94	167	157	180	89	45	97	122	95	1 1/2
63	124	273	64	106	94	167	183	180	101	45	97	122	107	2
75	166	346	85	156	94	190	233	180	136	70	98	122	144	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	151	3
110	238	365	123	175	94	190	301	180	164	120	98	122	174	4



DN10/15-50



DN65-100



DN10/15 - 50



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

Model:

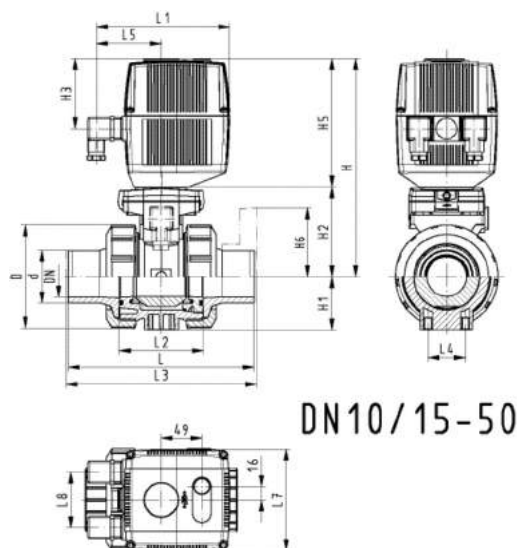
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

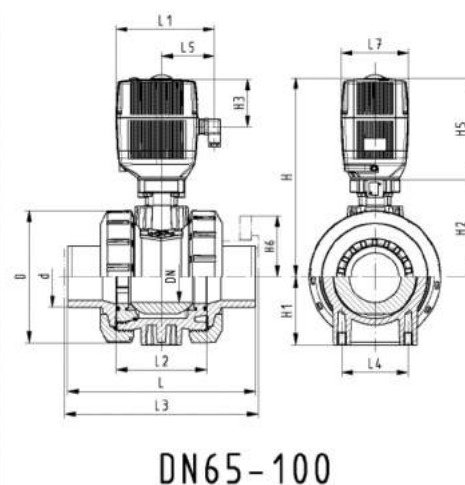
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 130 462	1	2.100	199 130 472	1	2.100	
20	15	10	185	199 130 463	1	2.100	199 130 473	1	2.100	
25	20	10	350	199 130 464	1	2.200	199 130 474	1	2.200	
32	25	10	700	199 130 465	1	2.300	199 130 475	1	2.300	
40	32	10	1000	199 130 466	1	2.600	199 130 476	1	2.600	
50	40	10	1600	199 130 467	1	3.000	199 130 477	1	3.000	
63	50	10	3100	199 130 468	1	3.800	199 130 478	1	3.800	
75	65	10	5000	199 130 469	1	7.900	199 130 479	1	7.900	
90	80	10	7000	199 130 470	1	10.600	199 130 480	1	10.600	
110	100	10	11000	199 130 471	1	15.300	199 130 481	1	15.300	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	closest inch [inch]	
16	50	231	27	64	94	167	114	180	56	0	25	97	122	3/8	
20	50	231	27	64	94	167	124	180	56	130	25	97	122	1/2	
25	58	240	30	73	94	167	144	180	65	150	25	97	122	3/4	
32	68	240	36	73	94	167	154	180	71	160	25	97	122	1	
40	84	251	44	84	94	167	174	180	85	180	45	97	122	1 1/4	
50	97	251	51	84	94	167	194	180	89	200	45	97	122	1 1/2	
63	124	273	64	106	94	167	224	180	101	230	45	97	122	2	
75	166	346	85	156	94	190	284	180	136	290	70	98	122	2 1/2	
90	200	358	105	168	94	190	300	180	141	310	70	98	122	3	
110	238	365	123	175	94	190	340	180	164	350	120	98	122	4	



DN10/15-50



DN65-100

PF 3 39 695 632



DN10/15 - 50



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

Model:

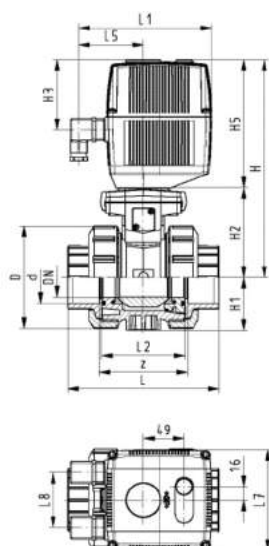
- Voltage 24 V AC/DC
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

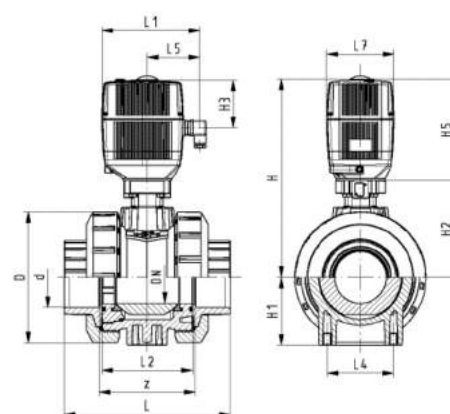
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 130 202	1	2.100	199 130 212	1	2.100	
1/2	15	10	185	199 130 203	1	2.100	199 130 213	1	2.100	
3/4	20	10	350	199 130 204	1	2.200	199 130 214	1	2.200	
1	25	10	700	199 130 205	1	2.300	199 130 215	1	2.300	
1 1/4	32	10	1000	199 130 206	1	2.600	199 130 216	1	2.600	
1 1/2	40	10	1600	199 130 207	1	3.000	199 130 217	1	3.000	
2	50	10	3100	199 130 208	1	3.800	199 130 218	1	3.800	
2 1/2	65	10	5000	199 130 209	1	7.800	199 130 219	1	7.800	
3	80	10	7000	199 130 210	1	10.600	199 130 220	1	10.600	
4	100	10	11000	199 130 211	1	15.200	199 130 221	1	15.200	

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



DN10/15-50



DN65-100

PF 3 39 695 632



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

Model:

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

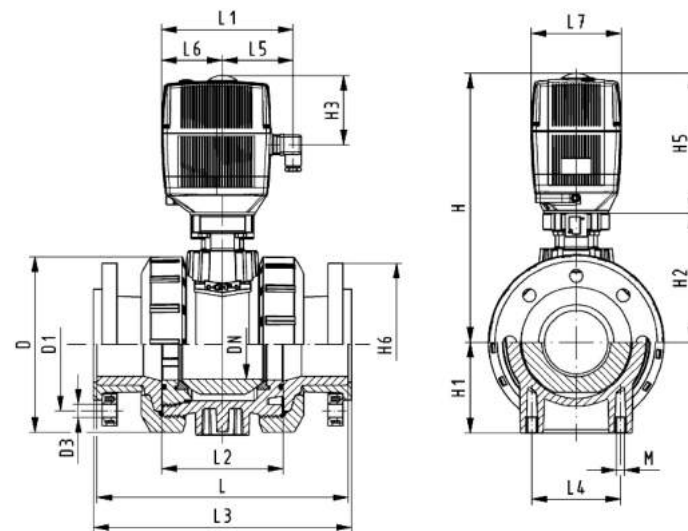
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	10	5000	199 134 509	1	11.900	199 134 519	1	11.900	
90	80	10	7000	199 134 510	1	15.400	199 134 520	1	15.400	
110	100	10	11000	199 134 511	1	21.800	199 134 521	1	21.800	

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]
75	166	346	85	156	94	190	93	284	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	300	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	340	180	164	350	120	98	83	122

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



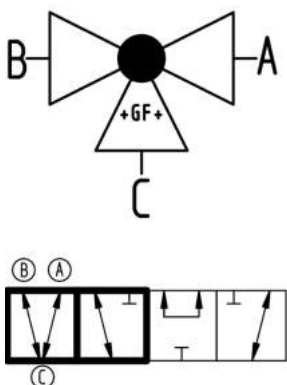
PF 3 39 695 632

185

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

Model:

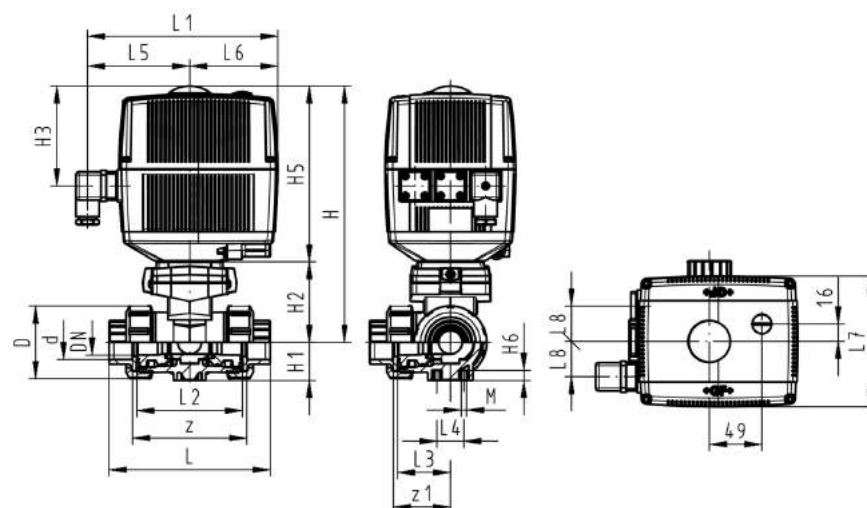
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 185 142	1	2.142	199 185 152	1	2.142	
20	15	10	200	199 185 143	1	2.148	199 185 153	1	2.148	
25	20	10	470	199 185 144	1	2.285	199 185 154	1	2.285	
32	25	10	793	199 185 145	1	2.486	199 185 155	1	2.486	
40	32	10	1290	199 185 146	1	2.939	199 185 156	1	2.939	
50	40	10	1910	199 185 147	1	3.419	199 185 157	1	3.419	
63	50	10	3100	199 185 148	1	4.867	199 185 158	1	4.867	

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

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	33	6	81	40	$\frac{3}{8}$
20	33	6	81	40	$\frac{1}{2}$
25	33	6	94	47	$\frac{3}{4}$
32	33	6	107	54	1
40	33	8	130	65	$1 \frac{1}{4}$
50	33	8	143	72	$1 \frac{1}{2}$
63	33	8	185	92	2



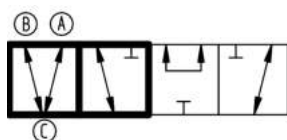
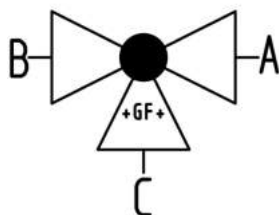
PF 3 39 980 032



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

Model:

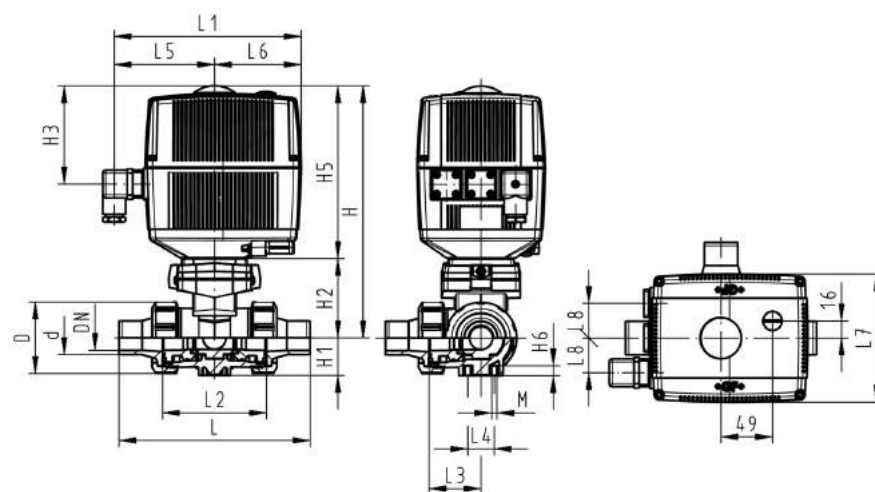
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 185 122	1	2.148	199 185 132	1	2.148	
20	15	10	200	199 185 123	1	2.158	199 185 133	1	2.158	
25	20	10	470	199 185 124	1	2.301	199 185 134	1	2.301	
32	25	10	793	199 185 125	1	2.512	199 185 135	1	2.512	
40	32	10	1290	199 185 126	1	2.961	199 185 136	1	2.961	
50	40	10	1910	199 185 127	1	3.487	199 185 137	1	3.487	
63	50	10	3100	199 185 128	1	5.004	199 185 138	1	5.004	

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

d [mm]	L8 [mm]	M	closest inch [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 39 980 032



3-Way ball valve type 185 PVC-C

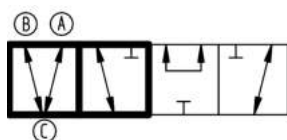
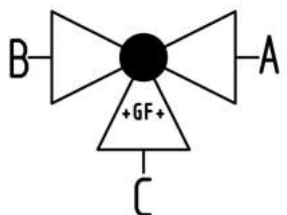
Horizontal/T-port 24V

With manual emergency override

With solvent cement sockets metric

Model:

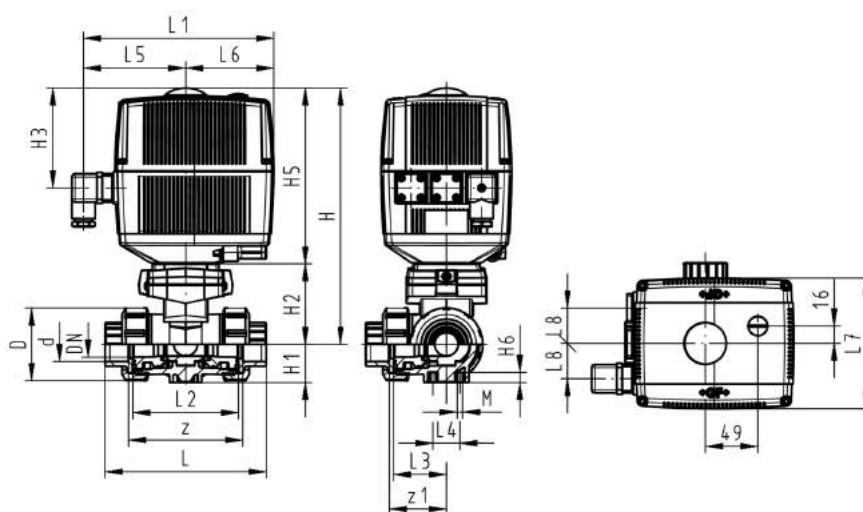
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<)
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 185 322	1	2.142	199 185 332	1	2.142	
20	15	10	200	199 185 323	1	2.148	199 185 333	1	2.148	
25	20	10	470	199 185 324	1	2.285	199 185 334	1	2.285	
32	25	10	793	199 185 325	1	2.486	199 185 335	1	2.486	
40	32	10	1290	199 185 326	1	2.939	199 185 336	1	2.939	
50	40	10	1910	199 185 327	1	3.419	199 185 337	1	3.419	
63	50	10	3100	199 185 328	1	4.867	199 185 338	1	4.867	

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

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	33	6	81	40	$\frac{3}{8}$
20	33	6	81	40	$\frac{1}{2}$
25	33	6	94	47	$\frac{3}{4}$
32	33	6	107	54	1
40	33	8	130	65	$1 \frac{1}{4}$
50	33	8	143	72	$1 \frac{1}{2}$
63	33	8	185	92	2



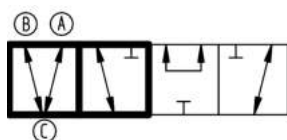
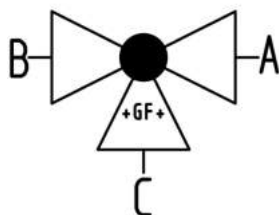
PF 3 39 980 032



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

Model:

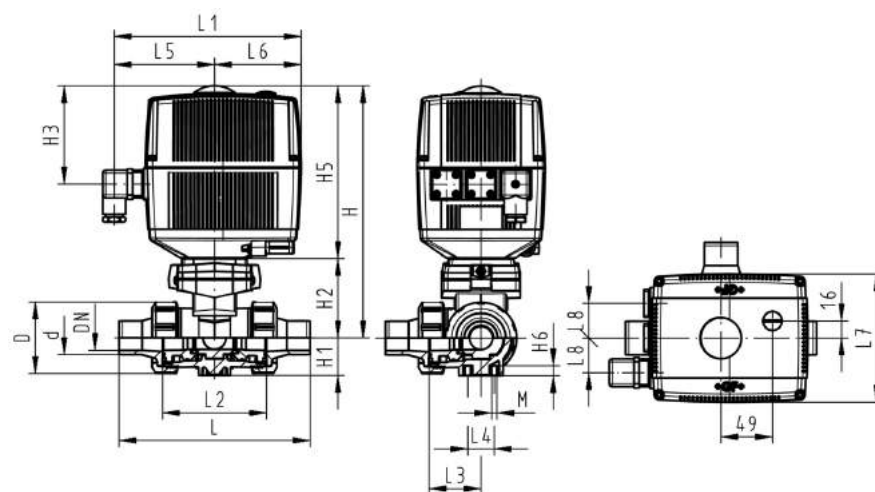
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 185 302	1	2.148	199 185 312	1	2.148	
20	15	10	200	199 185 303	1	2.158	199 185 313	1	2.158	
25	20	10	470	199 185 304	1	2.301	199 185 314	1	2.301	
32	25	10	793	199 185 305	1	2.512	199 185 315	1	2.512	
40	32	10	1290	199 185 306	1	2.961	199 185 316	1	2.961	
50	40	10	1910	199 185 307	1	3.487	199 185 317	1	3.487	
63	50	10	3100	199 185 308	1	5.004	199 185 318	1	5.004	

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

d [mm]	L8 [mm]	M	closest inch [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



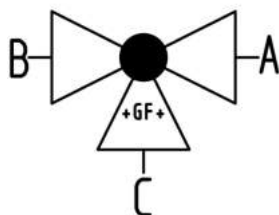
PF 3 39 980 032



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

Model:

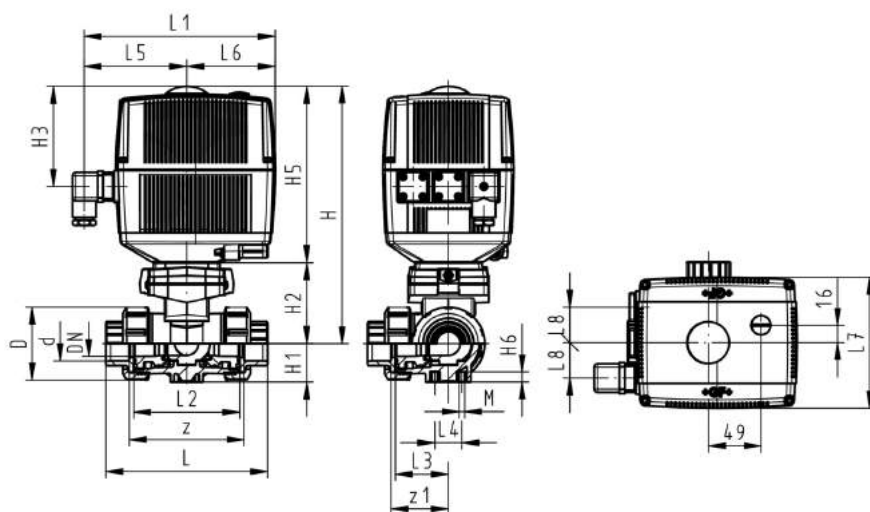
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<)
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 185 102	1	2.143	199 185 112	1	2.143	
20	15	10	75	199 185 103	1	2.149	199 185 113	1	2.149	
25	20	10	150	199 185 104	1	2.287	199 185 114	1	2.287	
32	25	10	280	199 185 105	1	2.493	199 185 115	1	2.493	
40	32	10	480	199 185 106	1	2.950	199 185 116	1	2.950	
50	40	10	620	199 185 107	1	3.441	199 185 117	1	3.441	
63	50	10	1230	199 185 108	1	4.916	199 185 118	1	4.916	

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

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	33	6	81	40	$\frac{3}{8}$
20	33	6	81	40	$\frac{1}{2}$
25	33	6	94	47	$\frac{3}{4}$
32	33	6	107	54	1
40	33	8	130	65	$1 \frac{1}{4}$
50	33	8	143	72	$1 \frac{1}{2}$
63	33	8	185	92	2



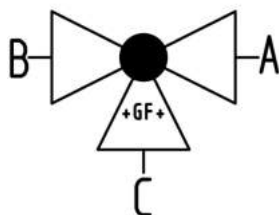
PF 3 39 980 032



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

Model:

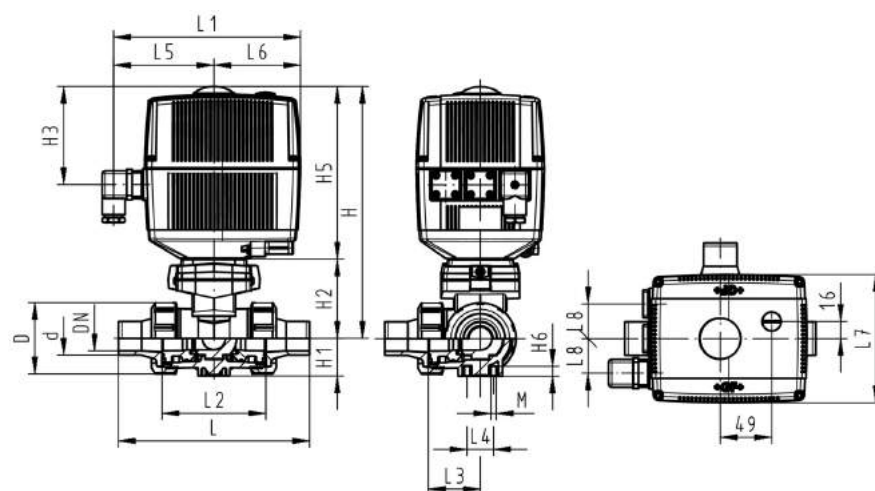
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 185 082	1	2.149	199 185 092	1	2.149	
20	15	10	75	199 185 083	1	2.159	199 185 093	1	2.159	
25	20	10	150	199 185 084	1	2.303	199 185 094	1	2.303	
32	25	10	280	199 185 085	1	2.519	199 185 095	1	2.519	
40	32	10	480	199 185 086	1	2.973	199 185 096	1	2.973	
50	40	10	620	199 185 087	1	3.510	199 185 097	1	3.510	
63	50	10	1230	199 185 088	1	5.053	199 185 098	1	5.053	

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

d [mm]	L8 [mm]	M	closest inch [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



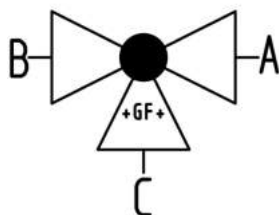
PF 3 39 980 032



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

Model:

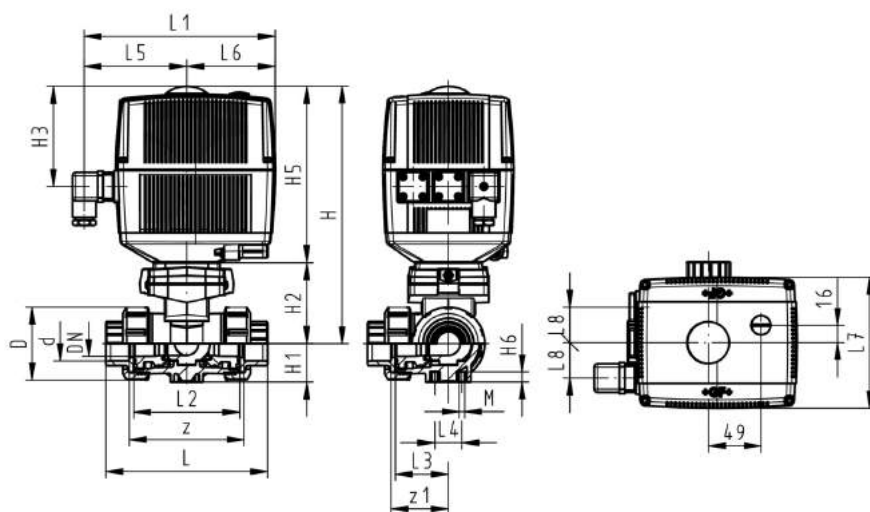
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<)
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 185 262	1	2.143	199 185 272	1	2.143	
20	15	10	75	199 185 263	1	2.149	199 185 273	1	2.149	
25	20	10	150	199 185 264	1	2.287	199 185 274	1	2.287	
32	25	10	280	199 185 265	1	2.493	199 185 275	1	2.493	
40	32	10	480	199 185 266	1	2.950	199 185 276	1	2.950	
50	40	10	620	199 185 267	1	3.766	199 185 277	1	3.441	
63	50	10	1230	199 185 268	1	4.916	199 185 278	1	4.916	

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

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	33	6	81	40	$\frac{3}{8}$
20	33	6	81	40	$\frac{1}{2}$
25	33	6	94	47	$\frac{3}{4}$
32	33	6	107	54	1
40	33	8	130	65	$1 \frac{1}{4}$
50	33	8	143	72	$1 \frac{1}{2}$
63	33	8	185	92	2



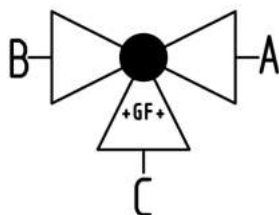
PF 3 39 980 032



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

Model:

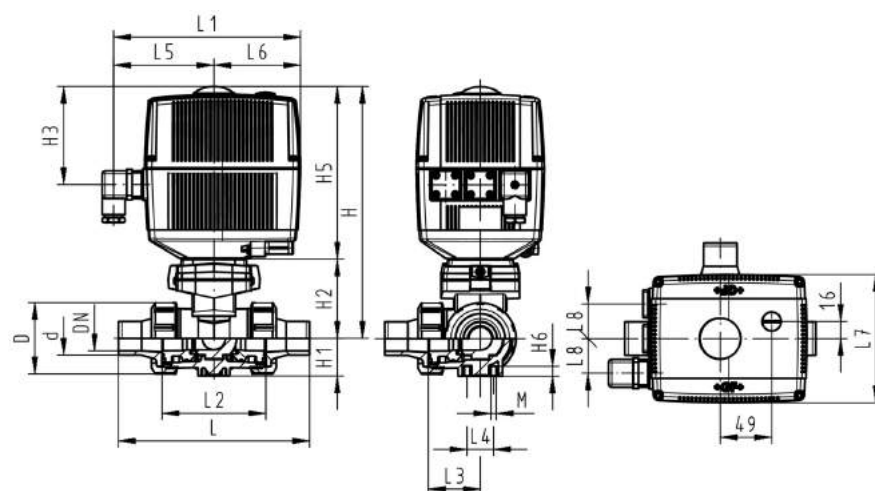
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 185 282	1	2.149	199 185 292	1	2.149	
20	15	10	75	199 185 283	1	2.159	199 185 293	1	2.159	
25	20	10	150	199 185 284	1	2.303	199 185 294	1	2.303	
32	25	10	280	199 185 285	1	2.519	199 185 295	1	2.519	
40	32	10	480	199 185 286	1	2.973	199 185 296	1	2.973	
50	40	10	620	199 185 287	1	3.510	199 185 297	1	3.510	
63	50	10	1230	199 185 288	1	5.053	199 185 298	1	5.053	

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

d [mm]	L8 [mm]	M	closest inch [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



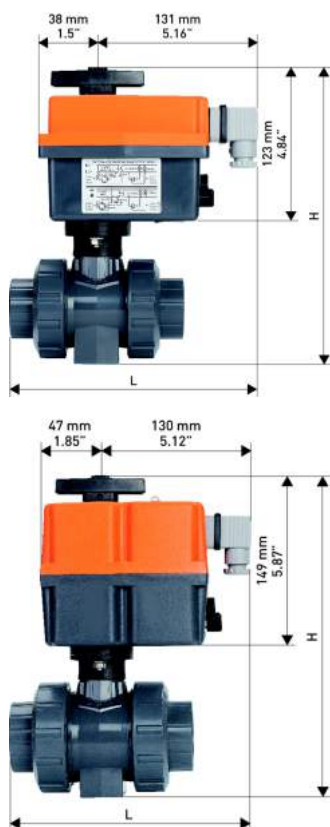
PF 3 39 980 032

104

Ball valve type 104 PVC-C 100-230V With solvent cement sockets metric

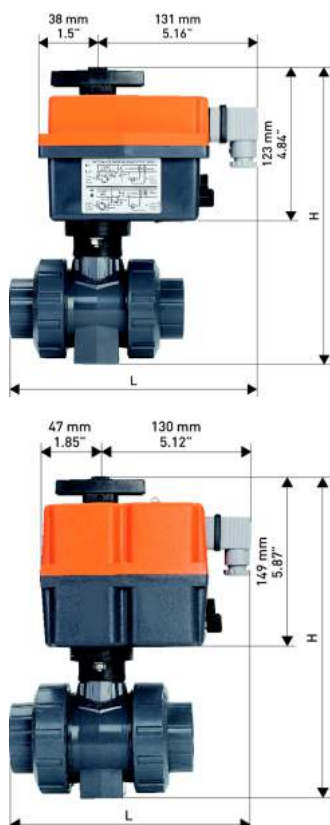
Model:

- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	H [mm]	L [mm]	Type of ac- tuator	B [mm]
16	10	10	70	199 104 102	199 104 112	194	178.5	10Nm	50
20	15	10	185	199 104 103	199 104 113	194	178.5	10Nm	50
25	20	10	350	199 104 104	199 104 114	207	186.0	10Nm	58
32	25	10	700	199 104 105	199 104 115	217	192.5	10Nm	68
40	32	10	1000	199 104 106	199 104 116	236	204.5	10Nm	84
50	40	10	1600	199 104 107	199 104 117	275	208.5	20Nm	97
63	50	10	3100	199 104 108	199 104 118	307	221.5	20Nm	124

Ball valve type 104 PVC-C 24V With solvent cement sockets metric



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	H [mm]	L [mm]	Type of ac- tuator	B [mm]
16	10	10	70	199 104 142	199 104 152	194	178.5	10Nm	50
20	15	10	185	199 104 143	199 104 153	194	178.5	10Nm	50
25	20	10	350	199 104 144	199 104 154	207	186.0	10Nm	58
32	25	10	700	199 104 145	199 104 155	217	192.5	10Nm	68
40	32	10	1000	199 104 146	199 104 156	236	204.5	10Nm	84
50	40	10	1600	199 104 147	199 104 157	275	208.5	20Nm	97
63	50	10	3100	199 104 148	199 104 158	307	221.5	20Nm	124

Notes

[illegible]

Configurator GF ball valve type 546 PVC-C

Ball valve

A01 Ball valve 546

Material

B02 PVC-C

Dimension

C05 DN 10 3/8"
 C06 DN 15 1/2"
 C07 DN 20 3/4"
 C08 DN 25 1"
 C09 DN 32 1 1/4"
 C10 DN 40 1 1/2"
 C11 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 for inch ASTM (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

Threaded inserts

F01 Without threaded inserts
 F02 With threaded inserts

Connecting parts

G11 PVC-C Cement socket metric
 G12 PVC-C Cement socket JIS
 G13 PVC-C Cement socket inch ASTM
 G14 PVC-C Cement spigot metric
 G15 PVC-C Threaded socket Rp
 G16 PVC-C Threaded socket Rp reinforced (DN10-50)
 G17 PVC-C Threaded socket NPT
 G40 PE-100 Butt fusion metric
 G41 PE-100 Butt fusion spigot SDR11 metric
 G42 PE-100 Butt fusion spigot SDR17.6 metric (DN65-100)
 G43 PE-100 Butt fusion spigot long SDR11 metric
 G72 Backing flange PP-steel metric
 G73 Backing flange PP-steel inch ANSI
 G81 PVC-C Valve end blank

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	B02	C	D	E	F	G	G	I	K	L
-----	-----	---	---	---	---	---	---	---	---	---

left

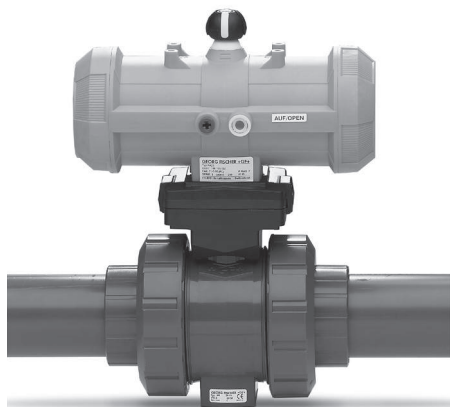
right

You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for your application, we have created a selection menu for you.

We supply what you put together.

Copiable

GF ball valve type 546 with pneumatic actuator



**It's so easy to actuate
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 pneumatic

230

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

Model:

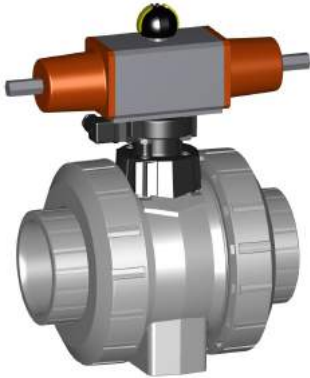
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

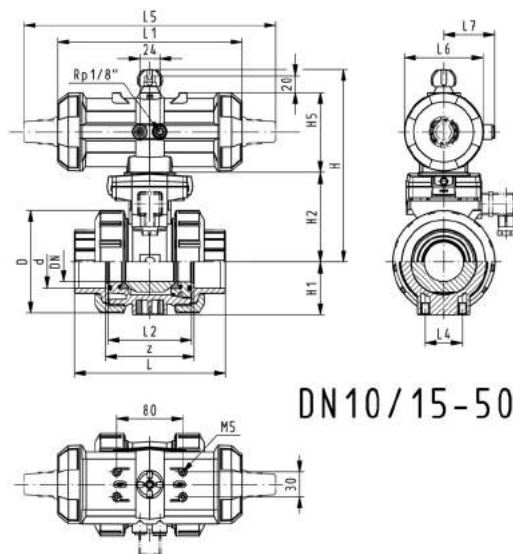


DN10/15 - 50

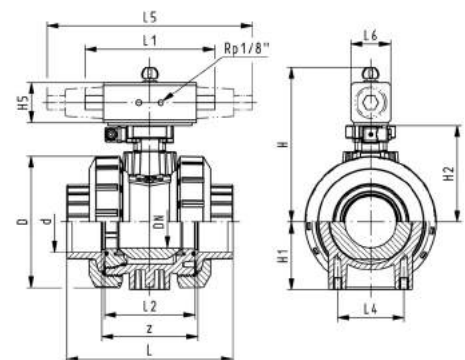


d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	10	70	199 230 522	1	1.159	199 230 532	1	1.159
20	15	10	185	199 230 523	1	1.553	199 230 533	1	1.159
25	20	10	350	199 230 524	1	1.276	199 230 534	1	1.276
32	25	10	700	199 230 525	1	1.400	199 230 535	1	1.262
40	32	10	1000	199 230 526	1	2.451	199 230 536	1	2.226
50	40	10	1600	199 230 527	1	2.773	199 230 537	1	2.773
63	50	10	3100	199 230 528	1	3.250	199 230 538	1	3.631
75	65	10	5000	199 230 529	1	8.100	199 230 539	1	8.100
90	80	10	7000	199 230 530	1	10.800	199 230 540	1	10.800
110	100	10	11000	199 230 531	1	16.500	199 230 541	1	16.500

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]	closest inch [inch]
16	50	159	27	62	77	92	194	56	25	261	76	48	64	3/8
20	50	159	27	62	77	95	194	56	25	261	76	48	64	1/2
25	58	168	30	71	77	110	194	65	25	261	76	48	72	3/4
32	68	168	36	71	77	123	194	71	25	261	76	48	79	1
40	84	202	44	84	99	146	224	85	45	305	95	59	94	1 1/4
50	97	202	51	84	99	157	224	89	45	305	95	59	95	1 1/2
63	124	225	64	106	99	183	224	101	45	305	95	59	107	2
75	166	262	85	156	70	233		136	70	276	65		144	2 1/2
90	200	281	105	168	78	254		141	70	341	72		151	3
110	238	292	123	175	86	301		164	120	369	80		174	4



DN10/15-50



DN65-100



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

Model:

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

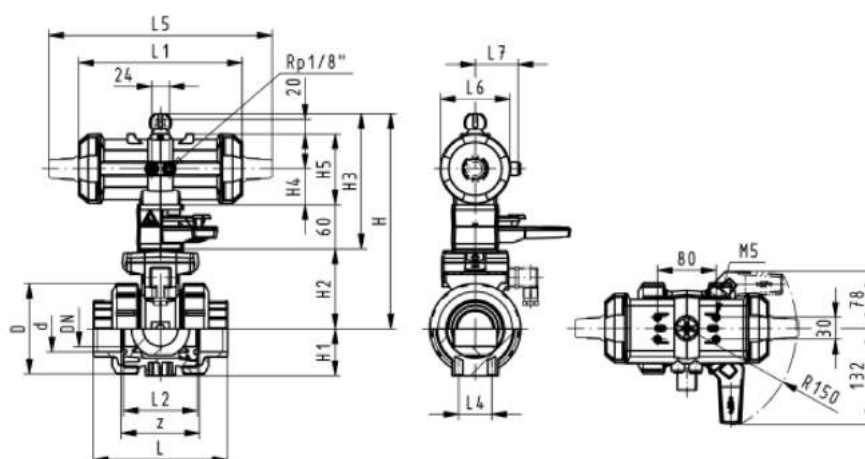
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 402	1	1.459	199 230 412	1	1.459	
20	15	10	185	199 230 403	1	1.459	199 230 413	1	1.459	
25	20	10	350	199 230 404	1	1.576	199 230 414	1	1.576	
32	25	10	700	199 230 405	1	1.700	199 230 415	1	1.496	
40	32	10	1000	199 230 406	1	2.477	199 230 416	1	2.751	
50	40	10	1600	199 230 407	1	3.073	199 230 417	1	2.736	
63	50	10	3100	199 230 408	1	4.471	199 230 418	1	3.530	

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

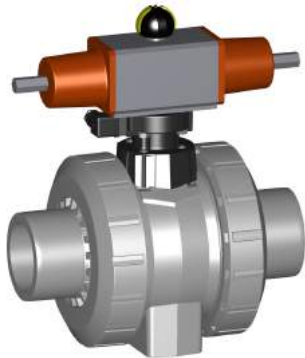
d [mm]	closest inch [inch]	
16	3/8	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	



PF 3 39 696 032



DN10/15 - 50



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

Model:

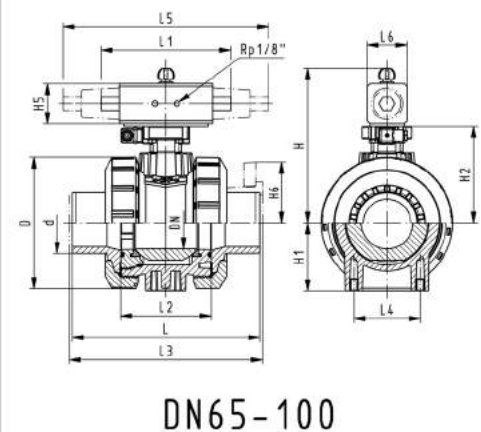
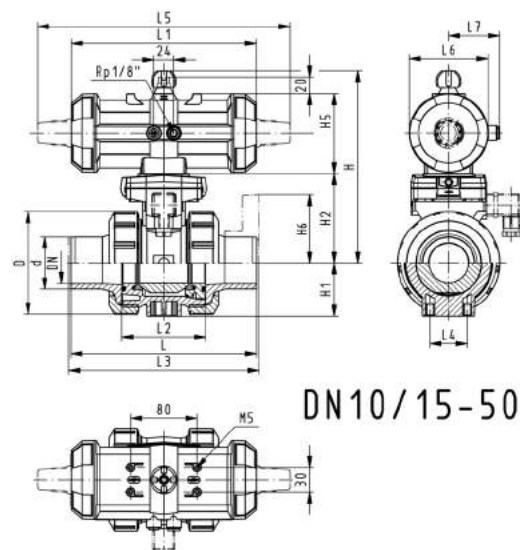
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 542	1	1.159	199 230 552	1	1.159	
20	15	10	185	199 230 543	1	1.159	199 230 553	1	1.159	
25	20	10	350	199 230 544	1	1.276	199 230 554	1	1.276	
32	25	10	700	199 230 545	1	1.400	199 230 555	1	1.400	
40	32	10	1000	199 230 546	1	2.451	199 230 556	1	2.451	
50	40	10	1600	199 230 547	1	2.773	199 230 557	1	2.773	
63	50	10	3100	199 230 548	1	3.314	199 230 558	1	3.631	
75	65	10	5000	199 230 549	1	8.300	199 230 559	1	8.300	
90	80	10	7000	199 230 550	1	11.000	199 230 560	1	11.000	
110	100	10	11000	199 230 551	1	16.700	199 230 561	1	16.700	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	closest inch [inch]
16	50	159	27	62	77	114	194	56	0	25	261	76	48	3/8
20	50	159	27	62	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	224	224	101	230	45	305	95	59	2
75	166	262	85	156	70	284		136	290	70	276	65		2 1/2
90	200	281	105	168	78	300		141	310	70	341	72		3
110	238	292	123	175	86	340		164	350	120	369	80		4



PF 3 39 696 032



DN10/15 - 50

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

Model:

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

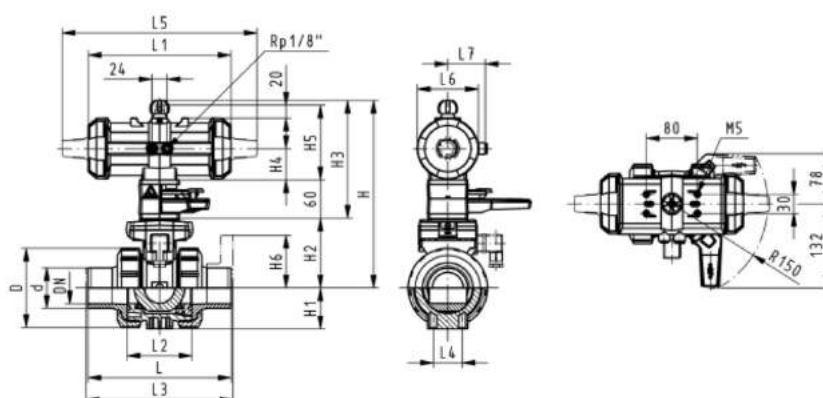
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 422	1	1.459	199 230 432	1	1.459	
20	15	10	185	199 230 423	1	1.459	199 230 433	1	1.459	
25	20	10	350	199 230 424	1	1.576	199 230 434	1	1.576	
32	25	10	700	199 230 425	1	1.700	199 230 435	1	1.700	
40	32	10	1000	199 230 426	1	2.751	199 230 436	1	2.751	
50	40	10	1600	199 230 427	1	3.073	199 230 437	1	3.073	
63	50	10	3100	199 230 428	1	3.931	199 230 438	1	3.931	

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

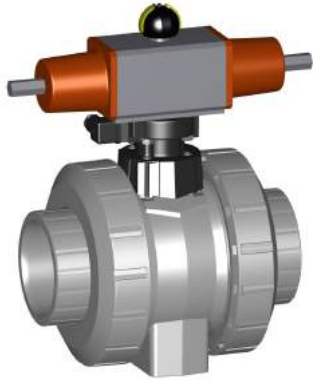
d [mm]	closest inch [inch]	
16	3/8	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	



PF 3 39 696 032



DN10/15 - 50



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

Model:

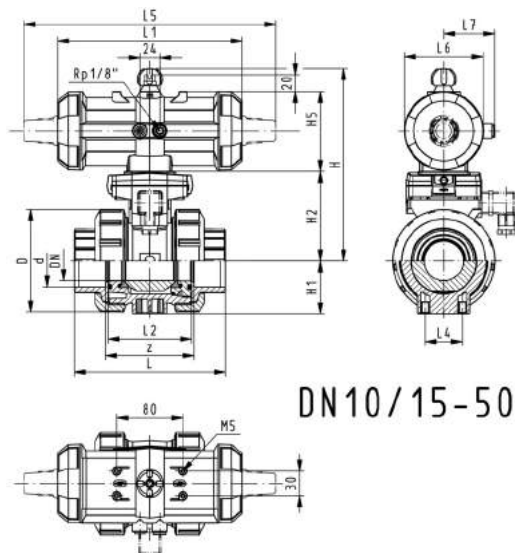
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

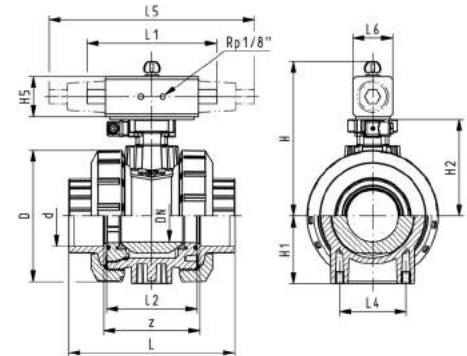
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 230 872	1	1.200	199 230 892	1	1.200	
1/2	15	10	185	199 230 873	1	1.200	199 230 893	1	1.200	
3/4	20	10	350	199 230 874	1	1.300	199 230 894	1	1.300	
1	25	10	700	199 230 875	1	1.400	199 230 895	1	1.400	
1 1/4	32	10	1000	199 230 876	1	2.500	199 230 896	1	2.500	
1 1/2	40	10	1600	199 230 877	1	2.800	199 230 897	1	2.800	
2	50	10	3100	199 230 878	1	3.700	199 230 898	1	3.700	
2 1/2	65	10	5000	199 230 879	1	8.200	199 230 899	1	8.200	
3	80	10	7000	199 230 880	1	11.000	199 230 900	1	11.000	
4	100	10	11000	199 230 881	1	16.500	199 230 901	1	16.500	

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

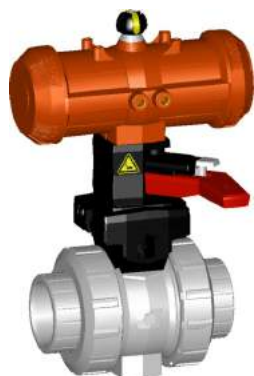


DN10/15-50



DN65-100

PF 3 39 696 032



DN10/15 - 50

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

Model:

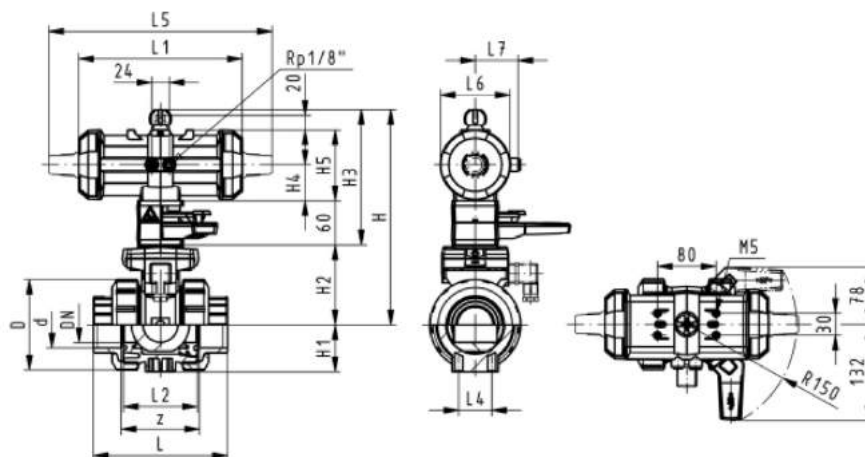
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	70	199 230 752	1	1.500	199 230 772	1	1.500
1/2	15	10	185	199 230 753	1	1.500	199 230 773	1	1.500
3/4	20	10	350	199 230 754	1	1.600	199 230 774	1	1.600
1	25	10	700	199 230 755	1	1.700	199 230 775	1	1.700
1 1/4	32	10	1000	199 230 756	1	2.800	199 230 776	1	2.800
1 1/2	40	10	1600	199 230 757	1	3.100	199 230 777	1	3.100
2	50	10	3100	199 230 758	1	4.000	199 230 778	1	4.000

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



PF 3 39 696 032



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

Model:

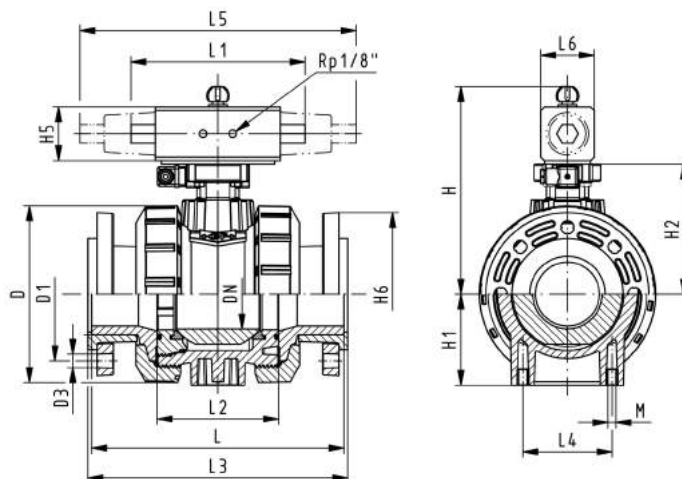
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504,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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	10	5000	199 234 609	1	12.300	199 234 619	1	12.300	
90	80	10	7000	199 234 610	1	15.800	199 234 620	1	15.800	
110	100	10	11000	199 234 611	1	23.200	199 234 621	1	23.200	

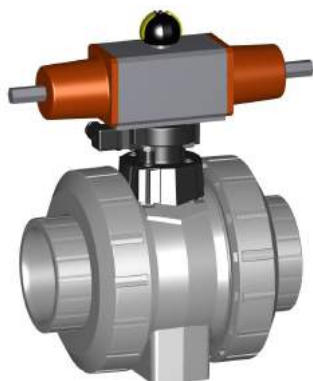
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	
75	166	262	85	156	70	93	284	136	290	70	276	65	
90	200	281	105	168	78	100	300	141	310	70	341	72	
110	238	292	123	175	86	110	340	164	350	120	369	80	



PF 3 39 696 032



DN10/15 - 50



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

Model:

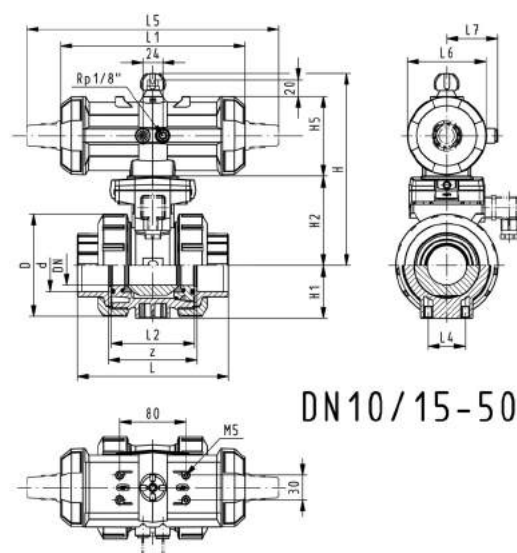
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

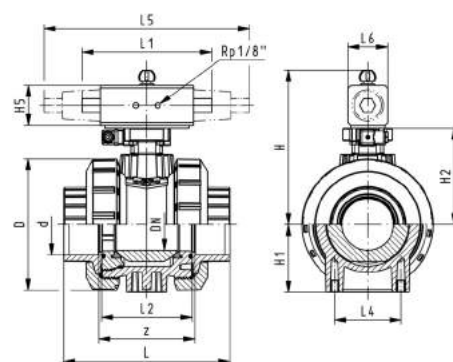
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 562	1	1.159	199 230 572	1	1.159	
20	15	10	185	199 230 563	1	1.159	199 230 573	1	1.159	
25	20	10	350	199 230 564	1	1.276	199 230 574	1	1.276	
32	25	10	700	199 230 565	1	1.400	199 230 575	1	1.400	
40	32	10	1000	199 230 566	1	2.451	199 230 576	1	2.451	
50	40	10	1600	199 230 567	1	2.773	199 230 577	1	2.773	
63	50	10	3100	199 230 568	1	3.631	199 230 578	1	3.631	
75	65	10	5000	199 230 569	1	8.100	199 230 579	1	8.100	
90	80	10	7000	199 230 570	1	10.800	199 230 580	1	10.800	
110	100	10	11000	199 230 571	1	16.500	199 230 581	1	16.500	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]	closest inch [inch]
16	50	159	27	62	77	92	194	56	25	261	76	48	64	3/8
20	50	159	27	62	77	95	194	56	25	261	76	48	64	1/2
25	58	168	30	71	77	110	194	65	25	261	76	48	72	3/4
32	68	168	36	71	77	123	194	71	25	261	76	48	79	1
40	84	202	44	84	99	146	224	85	45	305	95	59	94	1 1/4
50	97	202	51	84	99	157	224	89	45	305	95	59	95	1 1/2
63	124	225	64	106	99	183	224	101	45	305	95	59	107	2
75	166	262	85	156	70	233		136	70	276	65		144	2 1/2
90	200	281	105	168	78	254		141	70	341	72		151	3
110	238	292	123	175	86	301		164	120	369	80		174	4



DN10/15-50



DN65-100

PF 3 39 696 032



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

Model:

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

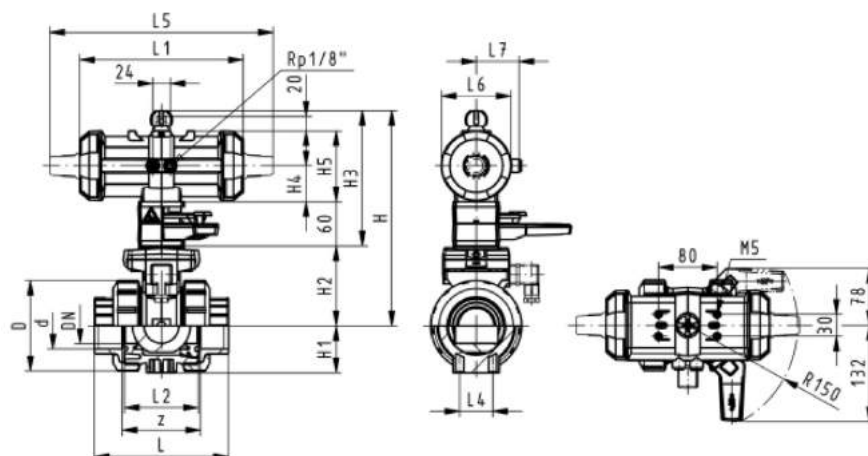
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 442	1	1.459	199 230 452	1	1.149	
20	15	10	185	199 230 443	1	1.459	199 230 453	1	1.459	
25	20	10	350	199 230 444	1	1.576	199 230 454	1	1.576	
32	25	10	700	199 230 445	1	1.700	199 230 455	1	1.700	
40	32	10	1000	199 230 446	1	2.751	199 230 456	1	2.751	
50	40	10	1600	199 230 447	1	3.073	199 230 457	1	3.073	
63	50	10	3100	199 230 448	1	3.931	199 230 458	1	3.931	

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

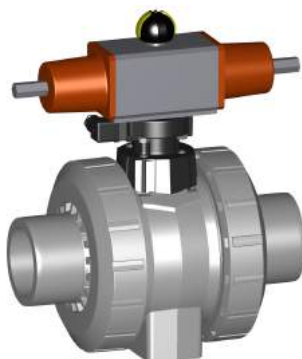
d [mm]	closest inch [inch]	
16	3/4	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	



PF 3 39 696 032



DN10/15 - 50



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

Model:

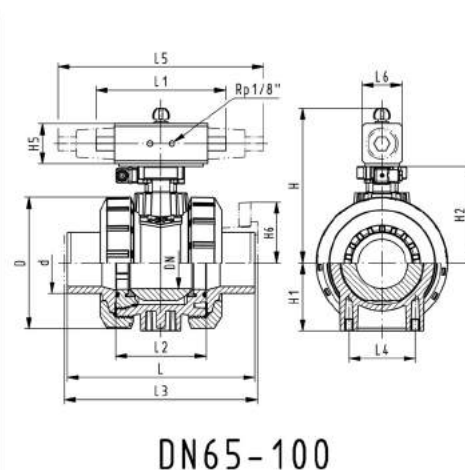
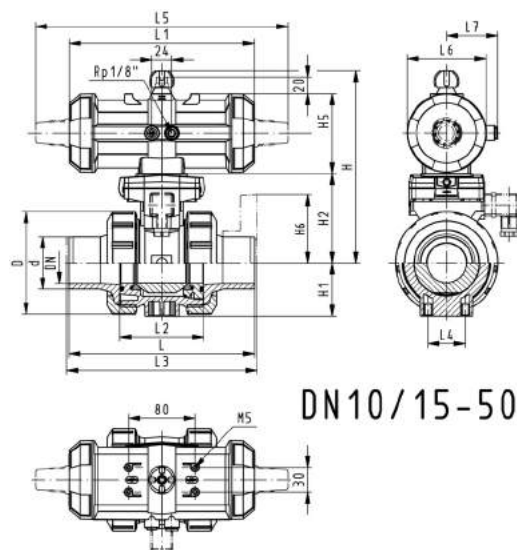
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 582	1	1.159	199 230 592	1	1.159	
20	15	10	185	199 230 583	1	1.159	199 230 593	1	1.159	
25	20	10	350	199 230 584	1	1.276	199 230 594	1	1.276	
32	25	10	700	199 230 585	1	1.400	199 230 595	1	1.400	
40	32	10	1000	199 230 586	1	2.451	199 230 596	1	2.451	
50	40	10	1600	199 230 587	1	2.773	199 230 597	1	2.773	
63	50	10	3100	199 230 588	1	3.631	199 230 598	1	3.631	
75	65	10	5000	199 230 589	1	8.300	199 230 599	1	8.300	
90	80	10	7000	199 230 590	1	11.000	199 230 600	1	11.000	
110	100	10	11000	199 230 591	1	16.700	199 230 601	1	16.700	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	closest inch [inch]
16	50	159	27	62	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	224	224	101	230	45	305	95	59	2
75	166	262	85	156	70	284		136	290	70	276	65		2 1/2
90	200	281	105	168	78	300		141	310	70	341	72		3
110	238	292	123	175	86	340		164	350	120	369	80		4



PF 3 39 696 032



DN10/15 - 50

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

Model:

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

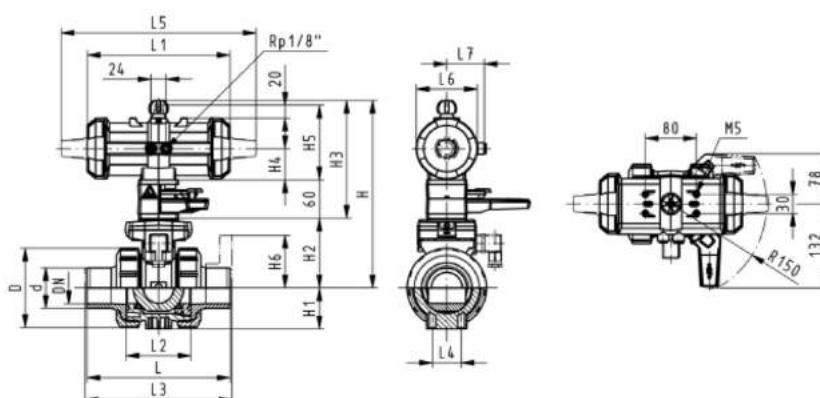
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 462	1	1.459	199 230 472	1	1.459	
20	15	10	185	199 230 463	1	1.459	199 230 473	1	1.459	
25	20	10	350	199 230 464	1	1.576	199 230 474	1	1.576	
32	25	10	700	199 230 465	1	1.700	199 230 475	1	1.700	
40	32	10	1000	199 230 466	1	2.751	199 230 476	1	2.751	
50	40	10	1600	199 230 467	1	3.073	199 230 477	1	3.073	
63	50	10	3100	199 230 468	1	3.931	199 230 478	1	3.931	

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

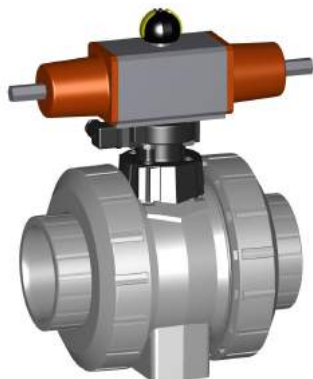
d [mm]	closest inch [inch]	
16	3/4	
20	1/2	
25	3/4	
32	1	
40	1 1/4	
50	1 1/2	
63	2	



PF 3 39 696 032



DN10/15 - 50



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

Model:

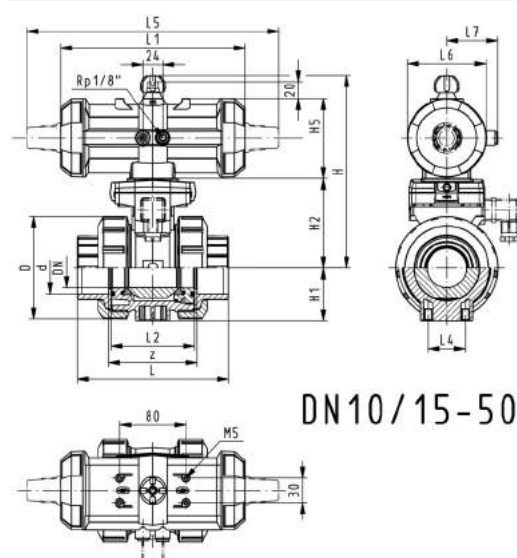
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

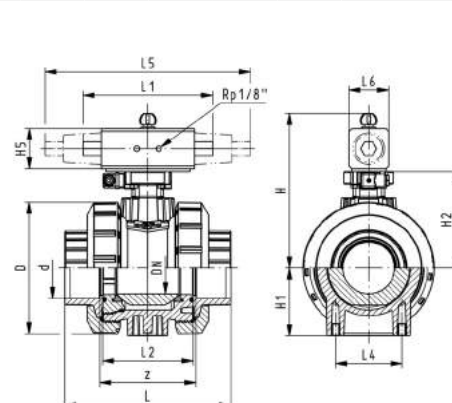
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	70	199 230 912	1	1.200	199 230 932	1	1.200
1/2	15	10	185	199 230 913	1	1.200	199 230 933	1	1.200
3/4	20	10	350	199 230 914	1	1.300	199 230 934	1	1.300
1	25	10	700	199 230 915	1	1.400	199 230 935	1	1.400
1 1/4	32	10	1000	199 230 916	1	2.500	199 230 936	1	2.500
1 1/2	40	10	1600	199 230 917	1	2.800	199 230 937	1	2.800
2	50	10	3100	199 230 918	1	3.700	199 230 938	1	3.700
2 1/2	65	10	5000	199 230 919	1	8.200	199 230 939	1	8.200
3	80	10	7000	199 230 920	1	11.000	199 230 940	1	11.000
4	100	10	11000	199 230 921	1	16.500	199 230 941	1	16.500

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



DN10/15-50



DN65-100

PF 3 39 696 032



DN10/15 - 50

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

Model:

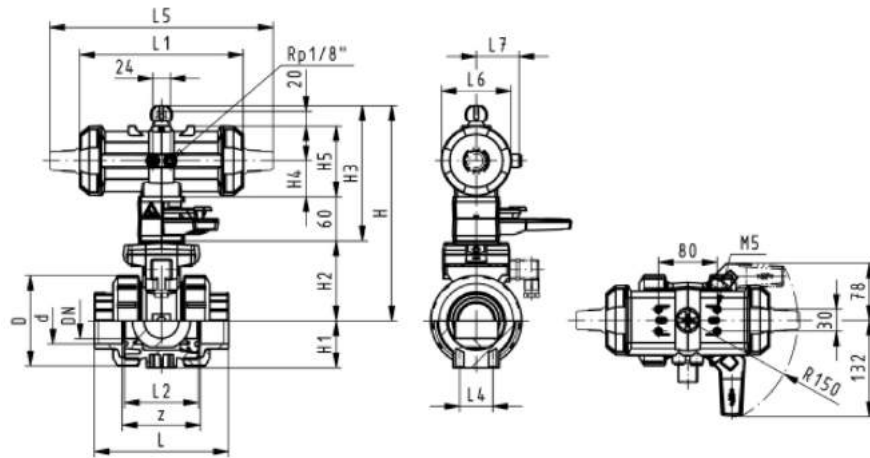
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 230 792	1	1.500	199 230 812	1	1.500	
1/2	15	10	185	199 230 793	1	1.500	199 230 813	1	1.500	
3/4	20	10	350	199 230 794	1	1.600	199 230 814	1	1.600	
1	25	10	700	199 230 795	1	1.700	199 230 815	1	1.700	
1 1/4	32	10	1000	199 230 796	1	2.800	199 230 816	1	2.800	
1 1/2	40	10	1600	199 230 797	1	3.100	199 230 817	1	3.100	
2	50	10	3100	199 230 798	1	4.000	199 230 818	1	4.000	

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



PF 3 39 696 032



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

Model:

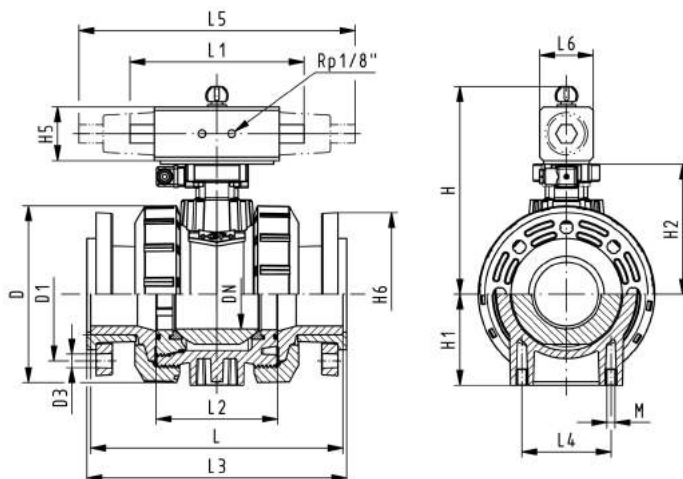
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504,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

Option:

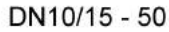
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	10	5000	199 234 629	1	12.300	199 234 639	1	12.300	
90	80	10	7000	199 234 630	1	15.800	199 234 640	1	15.800	
110	100	10	11000	199 234 631	1	23.200	199 234 641	1	23.200	

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



PF 3 39 696 032



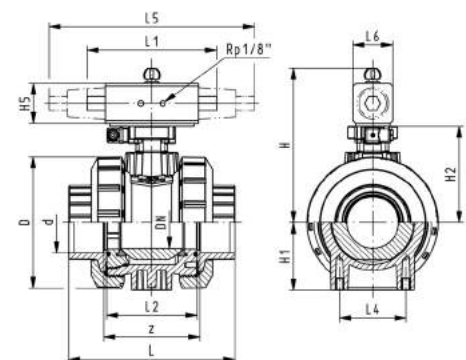
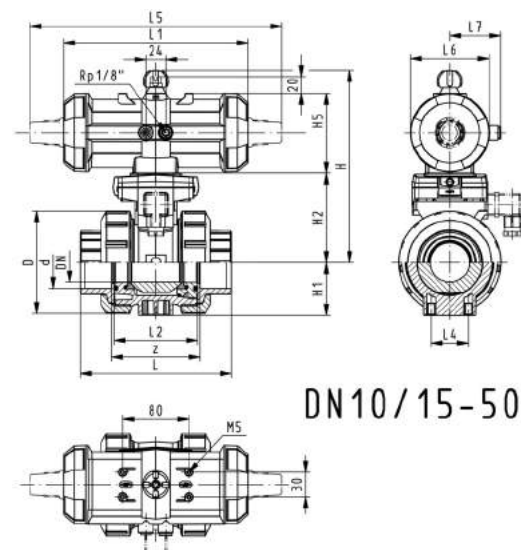
Model:

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

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 602	1	1.159	199 230 612	1	1.159	
20	15	10	185	199 230 603	1	1.159	199 230 613	1	1.159	
25	20	10	350	199 230 604	1	1.276	199 230 614	1	1.276	
32	25	10	700	199 230 605	1	1.400	199 230 615	1	1.400	
40	32	10	1000	199 230 606	1	2.451	199 230 616	1	1.738	
50	40	10	1600	199 230 607	1	2.773	199 230 617	1	1.991	
63	50	10	3100	199 230 608	1	3.631	199 230 618	1	3.631	
75	65	10	5000	199 230 609	1	7.000	199 230 619	1	7.000	
90	80	10	7000	199 230 610	1	10.200	199 230 620	1	10.200	
110	100	10	11000	199 230 611	1	14.700	199 230 621	1	14.700	

d	D	H	H1	H2	H5	L	L1	L2	L4	L5	L6	L7	z	closest inch	
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[inch]	
16	50	159	27	62	77	92	194	56	25	261	76	48	64	¾	
20	50	159	27	62	77	95	194	56	25	261	76	48	64	½	
25	58	168	30	71	77	110	194	65	25	261	76	48	72	¾	
32	68	168	36	71	77	123	194	71	25	261	76	48	79	1	
40	84	202	44	84	99	146	224	85	45	305	95	59	94	1 ¼	
50	97	202	51	84	99	157	224	89	45	305	95	59	95	1 ½	
63	124	225	64	106	99	183	224	101	45	305	95	59	107	2	
75	166	257	85	156	66	233	144	136	70		60		144	2 ½	
90	200	274	105	168	70	254	152	141	70		65		151	3	
110	238	273	123	175	78	301	169	164	120		72		174	4	



DN65-100



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

Model:

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

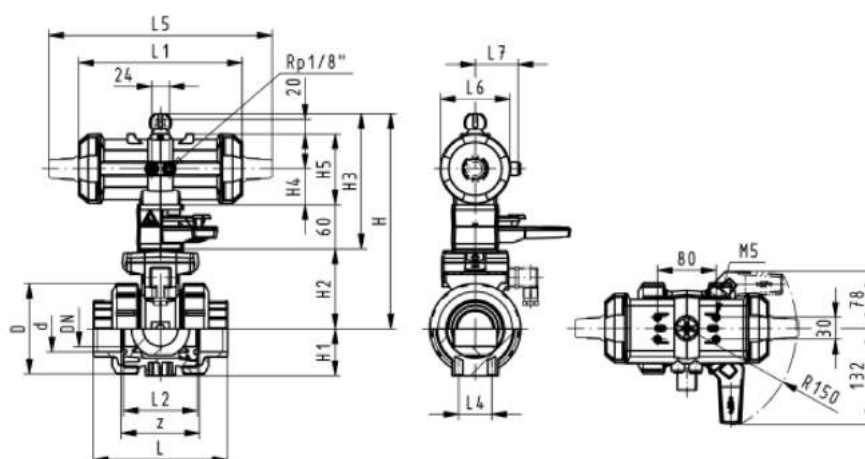
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 482	1	1.459	199 230 492	1	1.459	
20	15	10	185	199 230 483	1	1.459	199 230 493	1	1.459	
25	20	10	350	199 230 484	1	1.576	199 230 494	1	1.576	
32	25	10	700	199 230 485	1	1.269	199 230 495	1	1.700	
40	32	10	1000	199 230 486	1	2.751	199 230 496	1	2.751	
50	40	10	1600	199 230 487	1	3.073	199 230 497	1	3.073	
63	50	10	3100	199 230 488	1	3.931	199 230 498	1	3.931	

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



PF 3 39 696 032



DN10/15 - 50



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

Model:

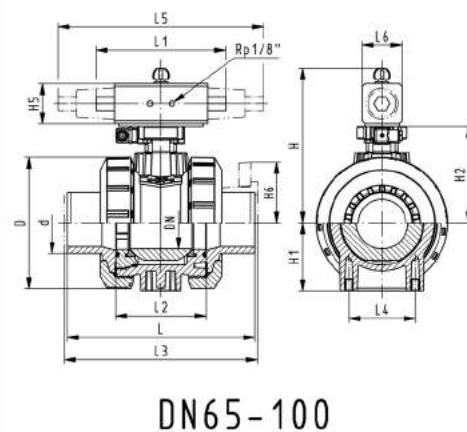
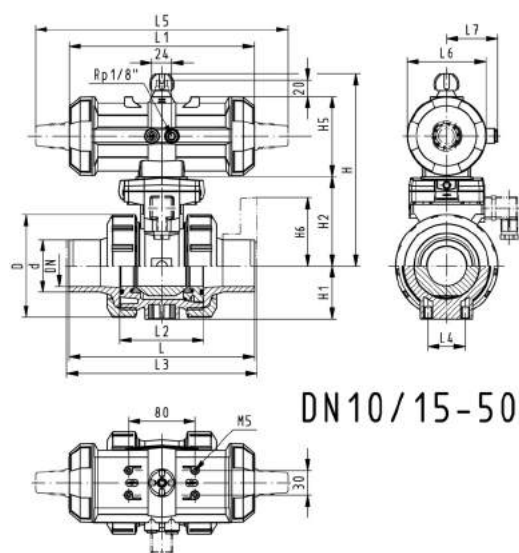
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 622	1	1.159	199 230 632	1	1.159	
20	15	10	185	199 230 623	1	1.159	199 230 633	1	1.159	
25	20	10	350	199 230 624	1	1.276	199 230 634	1	1.276	
32	25	10	700	199 230 625	1	1.400	199 230 635	1	1.052	
40	32	10	1000	199 230 626	1	2.451	199 230 636	1	2.451	
50	40	10	1600	199 230 627	1	2.773	199 230 637	1	2.773	
63	50	10	3100	199 230 628	1	3.631	199 230 638	1	3.631	
75	65	10	5000	199 230 629	1	7.200	199 230 639	1	7.200	
90	80	10	7000	199 230 630	1	10.400	199 230 640	1	10.400	
110	100	10	11000	199 230 631	1	15.000	199 230 641	1	15.000	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	closest inch [inch]
16	50	159	27	62	77	114	194	56	130	25	261	76	48	3/8
20	50	159	27	62	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	224	224	101	230	45	305	95	59	2
75	166	257	85	156	66	284	144	136	290	70		60		2 1/2
90	200	274	105	168	70	300	152	141	310	70		65		3
110	238	273	123	175	78	340	169	164	350	120		72		4



PF 3 39 696 032



DN10/15 - 50

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

Model:

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

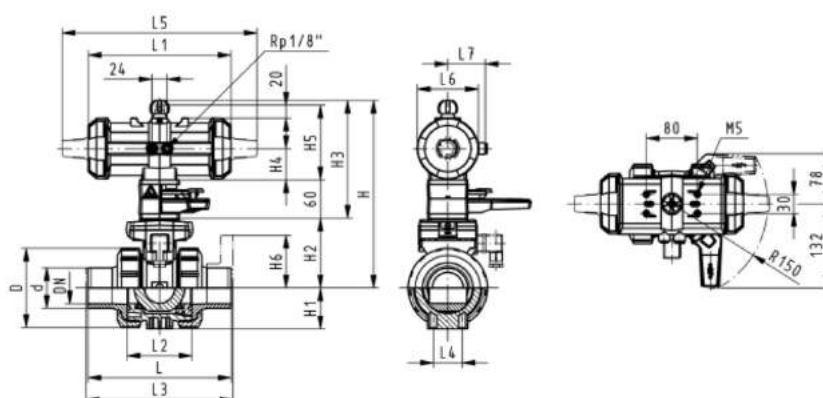
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	70	199 230 502	1	1.459	199 230 512	1	1.459	
20	15	10	185	199 230 503	1	1.459	199 230 513	1	1.459	
25	20	10	350	199 230 504	1	1.576	199 230 514	1	1.576	
32	25	10	700	199 230 505	1	1.700	199 230 515	1	1.700	
40	32	10	1000	199 230 506	1	2.751	199 230 516	1	2.751	
50	40	10	1600	199 230 507	1	3.073	199 230 517	1	3.073	
63	50	10	3100	199 230 508	1	3.931	199 230 518	1	3.931	

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

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



PF 3 39 696 032



DN10/15 - 50



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

Model:

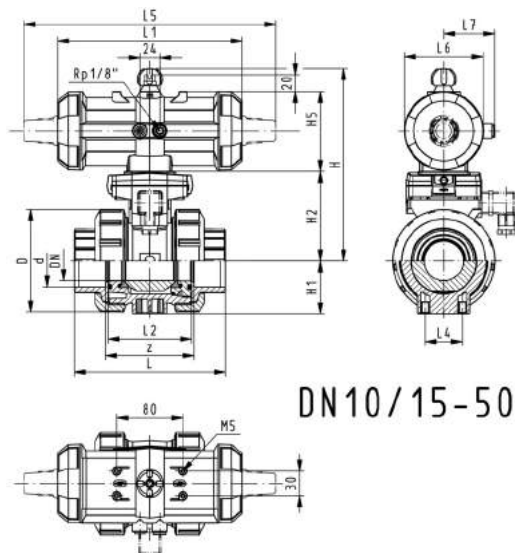
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

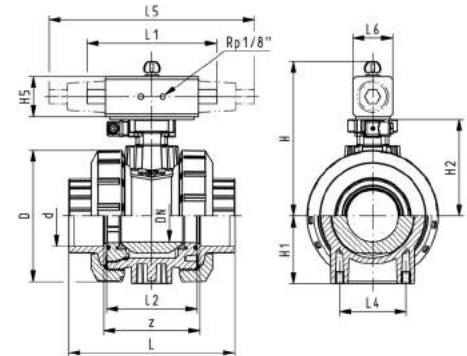
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
3/8	10	10	70	199 230 942	1	1.200	199 230 952	1	1.200	
1/2	15	10	185	199 230 943	1	1.200	199 230 953	1	1.200	
3/4	20	10	350	199 230 944	1	1.300	199 230 954	1	1.300	
1	25	10	700	199 230 945	1	1.400	199 230 955	1	1.400	
1 1/4	32	10	1000	199 230 946	1	2.500	199 230 956	1	2.500	
1 1/2	40	10	1600	199 230 947	1	2.800	199 230 957	1	2.800	
2	50	10	3100	199 230 948	1	3.700	199 230 958	1	3.700	
2 1/2	65	10	5000	199 230 949	1	7.100	199 230 959	1	7.100	
3	80	10	7000	199 230 950	1	10.300	199 230 960	1	10.300	
4	100	10	11000	199 230 951	1	14.800	199 230 961	1	14.800	

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

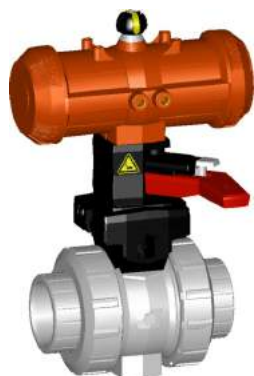


DN10/15-50



DN65-100

PF 3 39 696 032



DN10/15 - 50

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

Model:

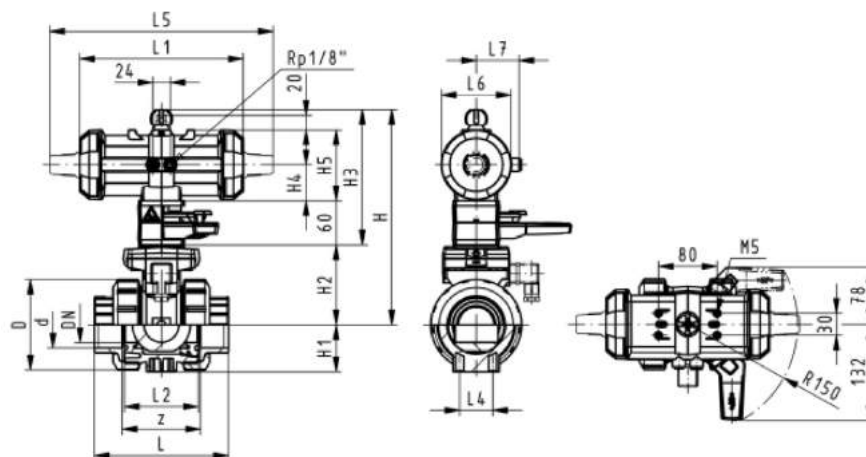
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
3/8	10	10	70	199 230 832	1	1.500	199 230 852	1	1.500
1/2	15	10	185	199 230 833	1	1.500	199 230 853	1	1.500
3/4	20	10	350	199 230 834	1	1.600	199 230 854	1	1.600
1	25	10	700	199 230 835	1	1.700	199 230 855	1	1.700
1 1/4	32	10	1000	199 230 836	1	2.800	199 230 856	1	2.800
1 1/2	40	10	1600	199 230 837	1	3.100	199 230 857	1	3.100
2	50	10	3100	199 230 838	1	4.000	199 230 858	1	4.000

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



PF 3 39 696 032



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

Model:

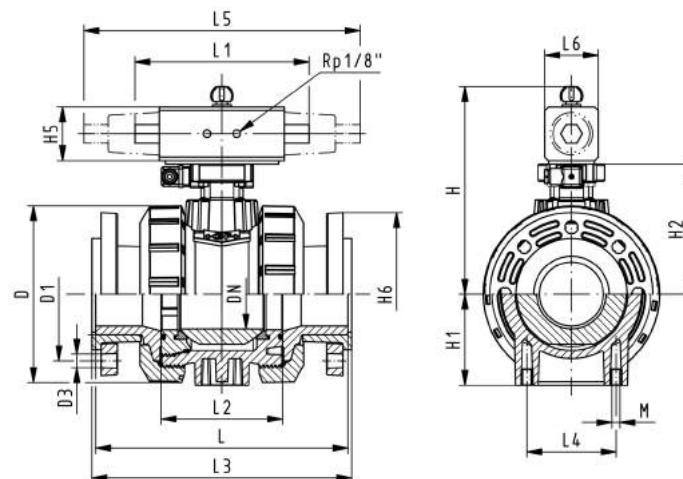
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504,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

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
75	65	10	5000	199 234 649	1	11.100	199 234 659	1	11.100	
90	80	10	7000	199 234 650	1	15.100	199 234 660	1	15.100	
110	100	10	11000	199 234 651	1	21.500	199 234 661	1	21.500	

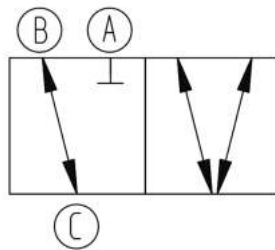
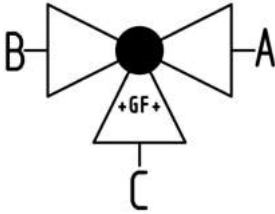
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]	
75	166	257	85	156	66	93	284	144	136	290	70	60	
90	200	274	105	168	70	100	300	152	141	310	70	65	
110	238	273	123	175	78	110	340	169	164	350	120	72	



PF 3 39 696 032

285

3-Way ball valve type 285 PVC-C Horizontal/T-port Without manual override With solvent cement sockets metric



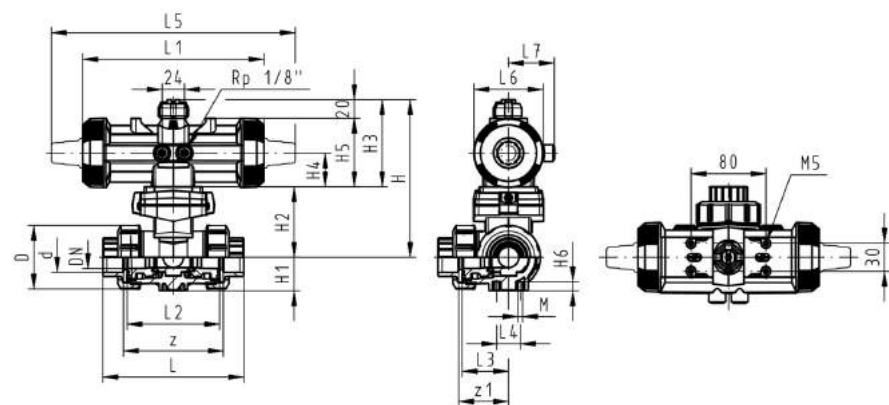
Model:

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

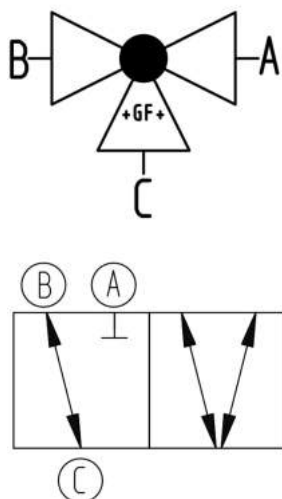
d [mm]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
16	10	10	140	199 285 142	1	1.135	199 285 152	1	1.135
20	15	10	200	199 285 143	1	1.141	199 285 153	1	1.141
25	20	10	470	199 285 144	1	1.278	199 285 154	1	1.278
32	25	10	793	199 285 145	1	1.479	199 285 155	1	1.479
40	32	10	1290	199 285 146	1	2.608	199 285 156	1	2.608
50	40	10	1910	199 285 147	1	3.088	199 285 157	1	3.088
63	50	10	3100	199 285 148	1	4.536	199 285 158	1	4.536

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

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	48	6	81	40	3/8
20	48	6	81	40	1/2
25	48	6	94	47	3/4
32	48	6	107	54	1
40	59	8	130	65	1 1/4
50	59	8	143	72	1 1/2
63	59	8	185	92	2



PF 3 39 981 032



3-Way ball valve type 285 PVC-C

Horizontal/T-port

Without manual override

With solvent cement spigots metric

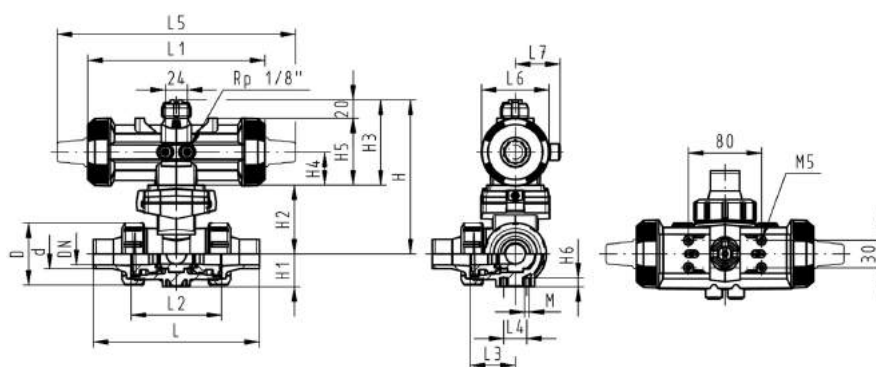
Model:

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

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 285 122	1	1.141	199 285 132	1	1.141	
20	15	10	200	199 285 123	1	1.151	199 285 133	1	1.151	
25	20	10	470	199 285 124	1	1.294	199 285 134	1	1.294	
32	25	10	793	199 285 125	1	1.505	199 285 135	1	1.505	
40	32	10	1290	199 285 126	1	2.630	199 285 136	1	2.630	
50	40	10	1910	199 285 127	1	3.156	199 285 137	1	3.156	
63	50	10	3100	199 285 128	1	4.673	199 285 138	1	4.673	

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

d [mm]	L7 [mm]	M	closest inch [inch]
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2



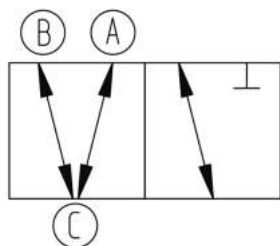
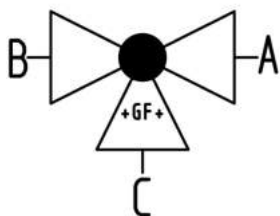
PF 3 39 981 032



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

Model:

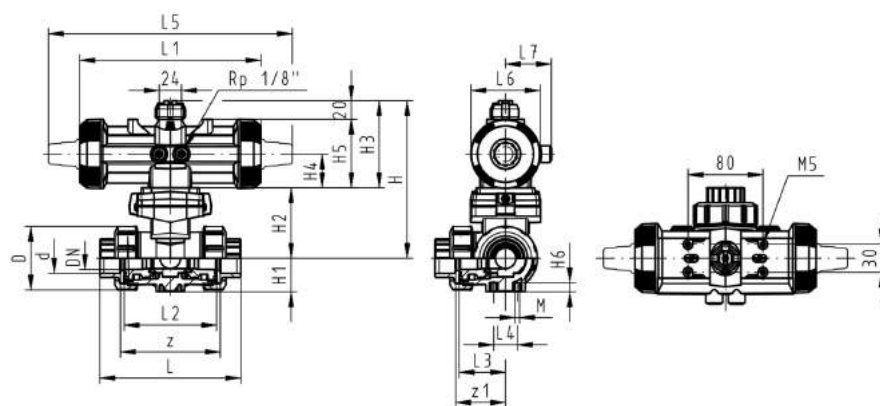
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 285 322	1	0.944	199 285 332	1	0.944	
20	15	10	200	199 285 323	1	0.951	199 285 333	1	0.951	
25	20	10	470	199 285 324	1	1.088	199 285 334	1	1.088	
32	25	10	793	199 285 325	1	1.289	199 285 335	1	1.289	
40	32	10	1290	199 285 326	1	2.184	199 285 336	1	2.184	
50	40	10	1910	199 285 327	1	2.664	199 285 337	1	2.664	
63	50	10	3100	199 285 328	1	4.112	199 285 338	1	4.112	

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

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	48	6	81	40	3/8
20	48	6	81	40	1/2
25	48	6	94	47	3/4
32	48	6	107	54	1
40	59	8	130	65	1 1/4
50	59	8	143	72	1 1/2
63	59	8	185	92	2



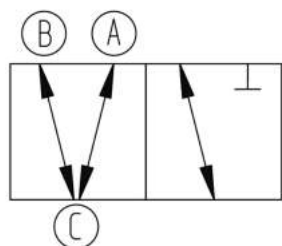
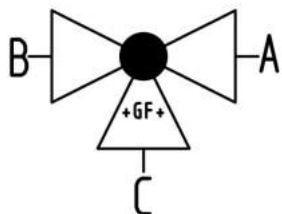
PF 3 39 981 032



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

Model:

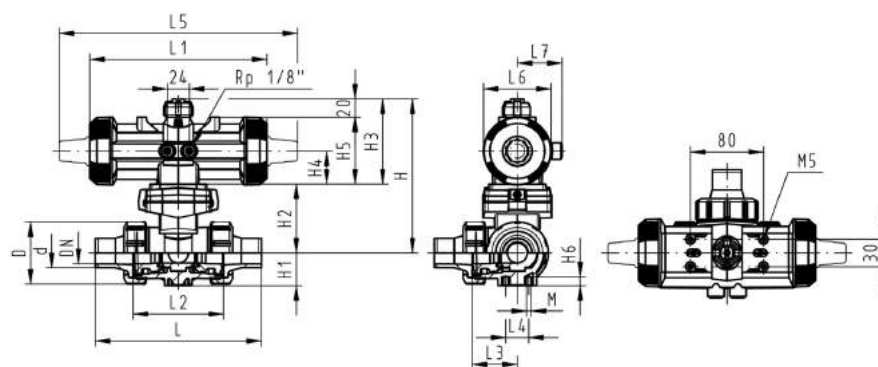
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	140	199 285 302	1	0.951	199 285 312	1	0.951	
20	15	10	200	199 285 303	1	0.961	199 285 313	1	0.961	
25	20	10	470	199 285 304	1	1.104	199 285 314	1	1.104	
32	25	10	793	199 285 305	1	1.315	199 285 315	1	1.315	
40	32	10	1290	199 285 306	1	2.206	199 285 316	1	2.206	
50	40	10	1910	199 285 307	1	2.732	199 285 317	1	2.732	
63	50	10	3100	199 285 308	1	4.249	199 285 318	1	4.249	

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

d [mm]	L7 [mm]	M	closest inch [inch]
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2



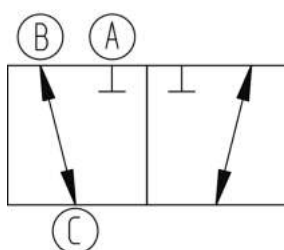
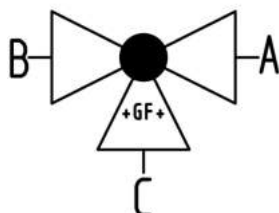
PF 3 39 981 032



3-Way ball valve type 285 PVC-C Horizontal/L-port Without manual override With solvent cement sockets metric

Model:

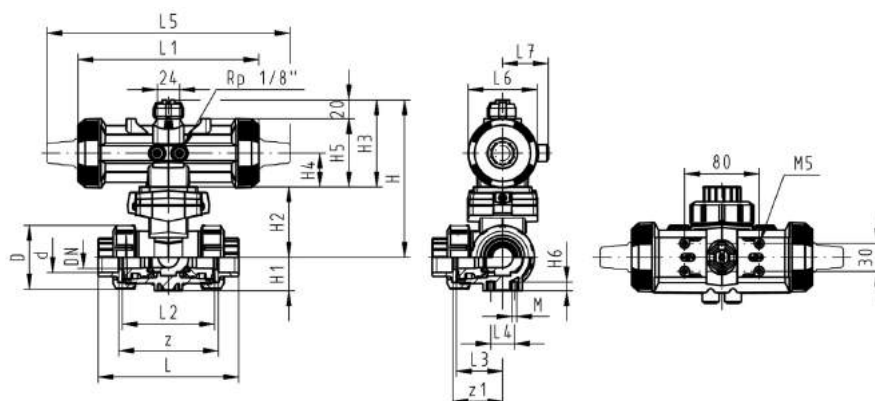
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



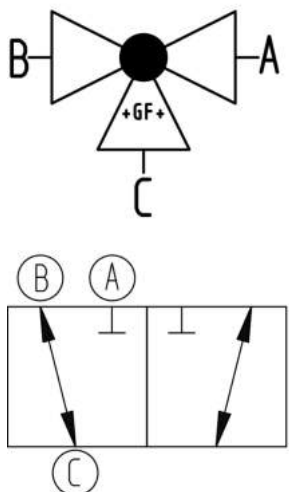
d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 285 102	1	1.136	199 285 112	1	1.136	
20	15	10	75	199 285 103	1	1.142	199 285 113	1	1.142	
25	20	10	150	199 285 104	1	1.280	199 285 114	1	1.280	
32	25	10	280	199 285 105	1	1.486	199 285 115	1	1.486	
40	32	10	480	199 285 106	1	2.619	199 285 116	1	2.619	
50	40	10	620	199 285 107	1	3.110	199 285 117	1	3.110	
63	50	10	1230	199 285 108	1	4.585	199 285 118	1	4.585	

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

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	48	6	81	40	3/8
20	48	6	81	40	1/2
25	48	6	94	47	3/4
32	48	6	107	54	1
40	59	8	130	65	1 1/4
50	59	8	143	72	1 1/2
63	59	8	185	92	2



PF 3 39 981 032



3-Way ball valve type 285 PVC-C

Horizontal/L-port

Without manual override

With solvent cement spigots metric

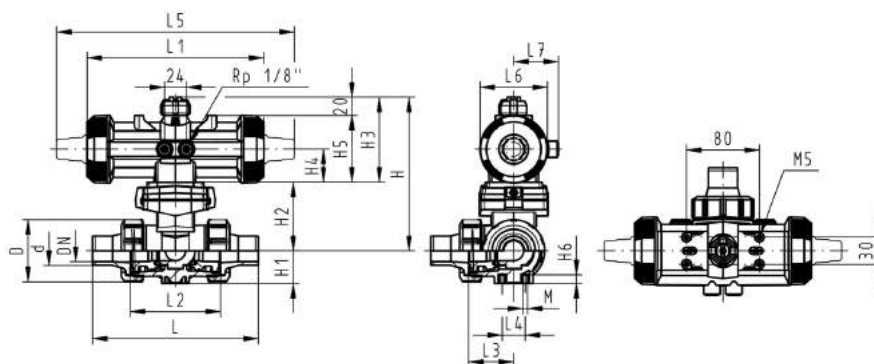
Model:

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

d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 285 082	1	1.142	199 285 092	1	1.142	
20	15	10	75	199 285 083	1	1.152	199 285 093	1	1.152	
25	20	10	150	199 285 084	1	1.296	199 285 094	1	1.296	
32	25	10	280	199 285 085	1	1.512	199 285 095	1	1.512	
40	32	10	480	199 285 086	1	2.642	199 285 096	1	2.642	
50	40	10	620	199 285 087	1	3.179	199 285 097	1	3.179	
63	50	10	1230	199 285 088	1	4.722	199 285 098	1	4.722	

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

d [mm]	L7 [mm]	M	closest inch [inch]
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2



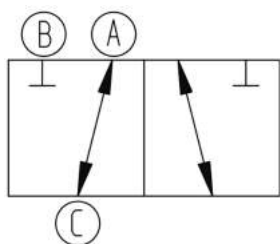
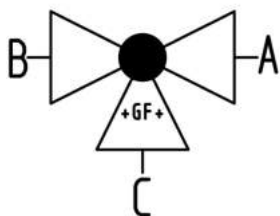
PF 3 39 981 032



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

Model:

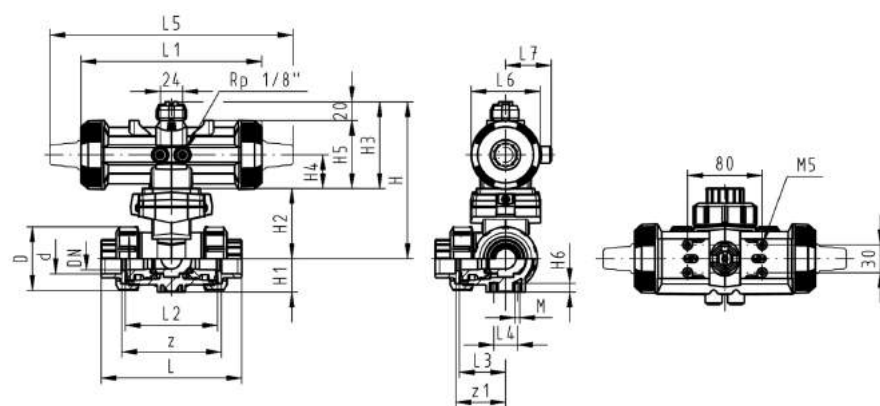
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 285 282	1	0.945	199 285 292	1	0.945	
20	15	10	75	199 285 283	1	0.952	199 285 293	1	0.952	
25	20	10	150	199 285 284	1	1.090	199 285 294	1	1.090	
32	25	10	280	199 285 285	1	1.296	199 285 295	1	1.296	
40	32	10	480	199 285 286	1	2.195	199 285 296	1	2.195	
50	40	10	620	199 285 287	1	2.686	199 285 297	1	2.686	
63	50	10	1230	199 285 288	1	4.161	199 285 298	1	4.161	

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

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]	closest inch [inch]
16	48	6	81	40	3/8
20	48	6	81	40	1/2
25	48	6	94	47	3/4
32	48	6	107	54	1
40	59	8	130	65	1 1/4
50	59	8	143	72	1 1/2
63	59	8	185	92	2



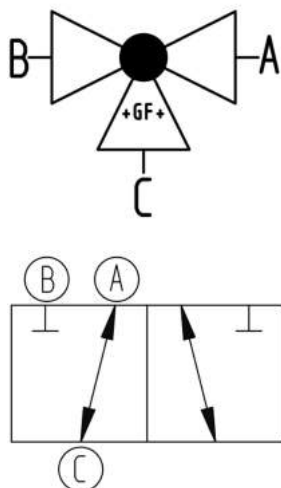
PF 3 39 981 032



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

Model:

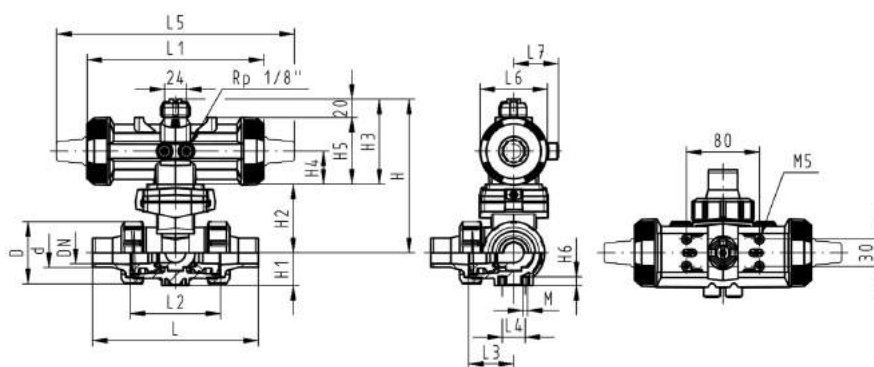
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]	
16	10	10	50	199 285 262	1	0.952	199 285 272	1	0.952	
20	15	10	75	199 285 263	1	0.962	199 285 273	1	0.962	
25	20	10	150	199 285 264	1	1.106	199 285 274	1	1.106	
32	25	10	280	199 285 265	1	1.322	199 285 275	1	1.322	
40	32	10	480	199 285 266	1	2.218	199 285 276	1	2.218	
50	40	10	620	199 285 267	1	2.755	199 285 277	1	2.755	
63	50	10	1230	199 285 268	1	4.298	199 285 278	1	4.298	

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

d [mm]	L7 [mm]	M	closest inch [inch]
16	48	6	3/8
20	48	6	1/2
25	48	6	3/4
32	48	6	1
40	59	8	1 1/4
50	59	8	1 1/2
63	59	8	2



PF 3 39 981 032

Diaphragm valves pneumatic New generation

Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close) Unions with solvent cement sockets metric

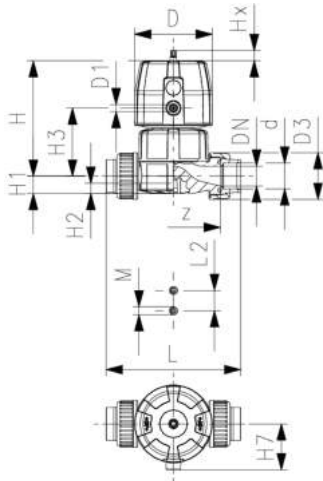


Model:

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

Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]								
20	15	6	125	163 614 012	1	0.577								
25	20	6	271	163 614 013	1	1.067								
32	25	6	481	163 614 014	1	1.302								
40	32	6	759	163 614 015	1	2.152								
50	40	6	960	163 614 016	1	2.795								
63	50	6	1181	163 614 017	1	3.972								

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch [inch]	
20	68	1/8	101	14	12	60	43	128	25	M6	96	7	1/2	
25	96	1/8	132	18	12	73	57	152	25	M6	114	10	3/4	
32	96	1/8	143	22	12	84	57	166	25	M6	122	13	1	
40	120	1/8	173	26	15	99	69	192	45	M8	140	14	1 1/4	
50	120	1/8	193	32	15	119	69	222	45	M8	160	16	1 1/2	
63	120	1/8	205	39	15	132	69	266	45	M8	190	16	2	

PF 3 39 212 201



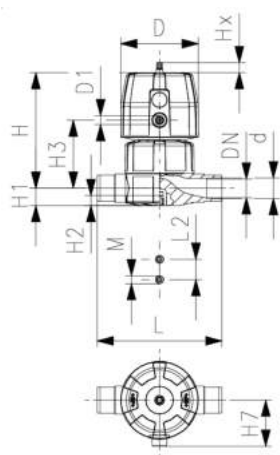
Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close) With solvent cement spigots metric

Model:

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

Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]
20	15	6	125	163 615 012	1	0.462
25	20	6	271	163 615 013	1	0.978
32	25	6	481	163 615 014	1	1.166
40	32	6	759	163 615 015	1	1.908
50	40	6	960	163 615 016	1	2.464
63	50	6	1181	163 615 017	1	3.431

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	68	1/8	101	14	12	60	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	69	174	45	M8	14	1 1/4
50	120	1/8	193	32	15	119	69	194	45	M8	16	1 1/2
63	120	1/8	205	39	15	132	69	224	45	M8	16	2

PF 3 39 212 201



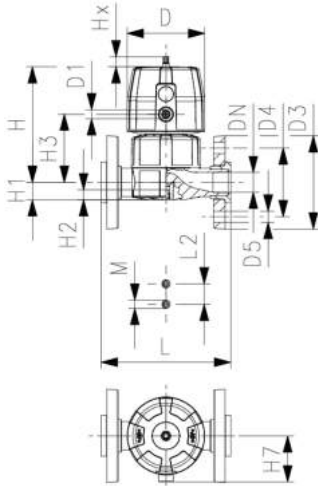
Diaphragm valve DIASTAR Six PVC-C FC (Fail safe to close) With backing flanges PP-V metric/BS

Model:

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

Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]
20	15	6	125	163 617 112	1	0.696
25	20	6	271	163 617 113	1	1.215
32	25	6	481	163 617 114	1	1.502
40	32	6	759	163 617 115	1	2.436
50	40	6	960	163 617 116	1	3.004
63	50	6	1181	163 617 117	1	4.399

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

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

PF 3 39 212 201



Diaphragm valve DIASTAR Ten PVC-C FC (Fail safe to close) Unions with solvent cement sockets metric

Model:

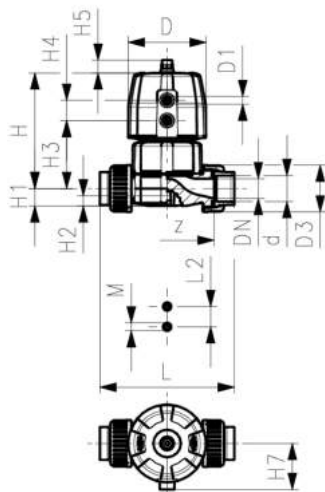
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN [psi]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]
20	15	150/150*	10/10*	125	163 624 012	1	0.572
25	20	150/150*	10/10*	271	163 624 013	1	1.142
32	25	150/150*	10/10*	481	163 624 014	1	1.376
40	32	150/150*	10/10*	759	163 624 015	1	2.305
50	40	150/150*	10/10*	1263	163 624 016	1	3.932
63	50	150/90*	10/6*	1728	163 624 017	1	4.893

d [mm]	PTFE/EPDM Code	SP	Weight [kg]
20	163 624 032	1	0.612
25	163 624 033	1	1.128
32	163 624 034	1	1.393
40	163 624 035	1	2.325
50	163 624 036	1	3.960
63	163 624 037	1	4.925

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

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

PF 3 39 212 201



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

Model:

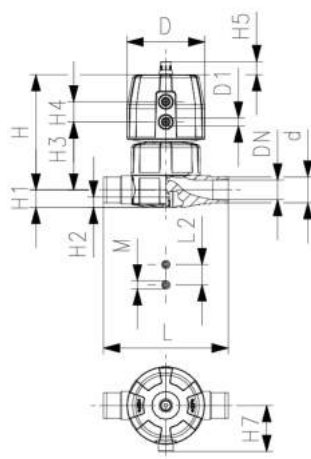
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN [psi]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	
20	15	150/150*	10/10*	125	163 625 012	1	0.510	
25	20	150/150*	10/10*	271	163 625 013	1	1.054	
32	25	150/150*	10/10*	481	163 625 014	1	1.238	
40	32	150/150*	10/10*	759	163 625 015	1	2.058	
50	40	150/150*	10/10*	1263	163 625 016	1	3.602	
63	50	150/90*	10/6*	1728	163 625 017	1	4.352	

d [mm]	PTFE/EPDM Code	SP	Weight [kg]	
20	163 625 032	1	0.538	
25	163 625 033	1	1.054	
32	163 625 034	1	1.259	
40	163 625 035	1	2.079	
50	163 625 036	1	3.631	
63	163 625 037	1	4.380	

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	68	⅝	101	14	12	60	24	16	43	124	25	M6	7	½
25	96	⅝	132	18	12	73	25	16	57	144	25	M6	10	¾
32	96	⅝	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	⅝	173	26	15	99	26	26	69	174	45	M8	15	1 ¼
50	150	¾	214	32	15	119	36	26	88	194	45	M8	19	1 ½
63	150	¾	226	39	15	132	36	26	88	224	45	M8	23	2

PF 3 39 212 201



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

Model:

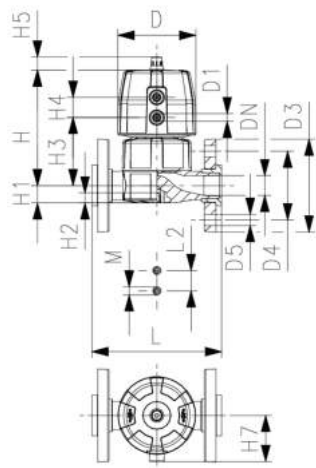
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN [psi]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]
20	15	150/150*	10/10*	125	163 627 112	1	0.722
25	20	150/150*	10/10*	271	163 627 113	1	1.290
32	25	150/150*	10/10*	481	163 627 114	1	1.574
40	32	150/150*	10/10*	759	163 627 115	1	2.586
50	40	150/150*	10/10*	1263	163 627 116	1	4.142
63	50	150/90*	10/6*	1728	163 627 117	1	5.320

d [mm]	PTFE/EPDM Code	SP	Weight [kg]
20	163 627 132	1	0.722
25	163 627 133	1	1.290
32	163 627 134	1	1.595
40	163 627 135	1	2.607
50	163 627 136	1	4.171
63	163 627 137	1	5.348

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

d [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	M6	7	1/2
25	M6	10	3/4
32	M6	13	1
40	M8	15	1 1/4
50	M8	19	1 1/2
63	M8	23	2

PF 3 39 212 201



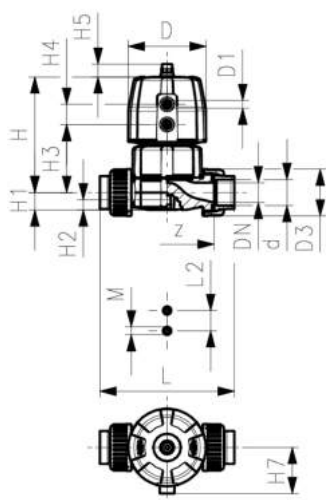
Diaphragm valve DIASTAR Ten PVC-C FO (Fail safe to open) Unions with solvent cement sockets metric

Model:

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

Option:

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



* PN: PTFE

Working Pressure: **one side**

d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 644 012	1	0.553	163 644 032	1	0.562	
25	20	10/10*	271	163 644 013	1	0.968	163 644 033	1	0.978	
32	25	10/10*	481	163 644 014	1	1.194	163 644 034	1	1.213	
40	32	10/10*	759	163 644 015	1	1.945	163 644 035	1	1.965	
50	40	10/10*	1263	163 644 016	1	3.326	163 644 036	1	3.870	
63	50	10/10*	1728	163 644 017	1	4.011	163 644 037	1	4.830	

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

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

PF 3 39 212 201



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

Model:

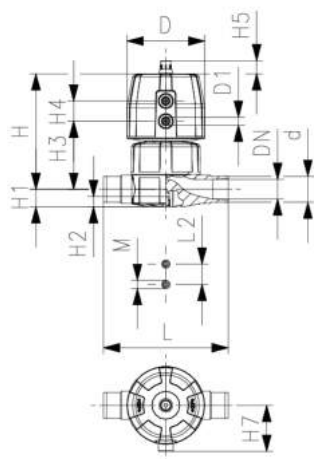
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 645 012	1	0.488	163 645 032	1	0.488	
25	20	10/10*	271	163 645 013	1	0.879	163 645 033	1	0.879	
32	25	10/10*	481	163 645 014	1	1.058	163 645 034	1	1.079	
40	32	10/10*	759	163 645 015	1	1.698	163 645 035	1	1.719	
50	40	10/10*	1263	163 645 016	1	3.512	163 645 036	1	3.541	
63	50	10/10*	1728	163 645 017	1	4.262	163 645 037	1	4.290	

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	15	1 1/4
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	19	1 1/2
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	23	2

PF 3 39 212 201



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

Model:

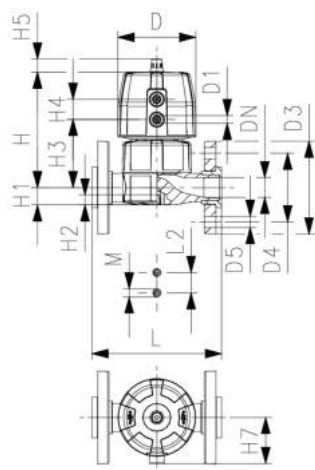
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]
20	15	10/10*	125	163 647 112	1	0.672	163 647 132	1	0.672
25	20	10/10*	271	163 647 113	1	1.116	163 647 133	1	1.116
32	25	10/10*	481	163 647 114	1	1.394	163 647 134	1	1.415
40	32	10/10*	759	163 647 115	1	2.226	163 647 135	1	2.247
50	40	10/10*	1263	163 647 116	1	4.052	163 647 136	1	4.081
63	50	10/10*	1728	163 647 117	1	5.230	163 647 137	1	4.768

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

d [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	M6	7	1/2
25	M6	10	3/4
32	M6	13	1
40	M8	15	1 1/4
50	M8	19	1 1/2
63	M8	23	2

PF 3 39 212 201



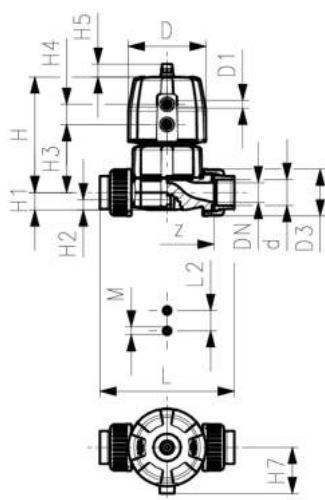
Diaphragm valve DIASTAR Ten PVC-C DA (Double acting) Unions with solvent cement sockets metric

Model:

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

Option:

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



* PN: PTFE

Working Pressure: **one side**

d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 654 012	1	0.537	163 654 032	1	0.546	
25	20	10/10*	271	163 654 013	1	0.932	163 654 033	1	0.942	
32	25	10/10*	481	163 654 014	1	1.164	163 654 034	1	1.183	
40	32	10/10*	759	163 654 015	1	1.885	163 654 035	1	1.905	
50	40	10/10*	1263	163 654 016	1	3.092	163 654 036	1	3.120	
63	50	10/10*	1728	163 654 017	1	4.053	163 654 037	1	4.080	

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

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

PF 3 39 212 201



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

Model:

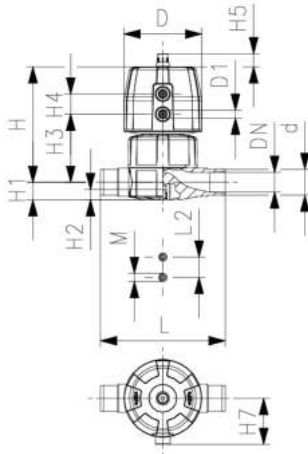
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 655 012	1	0.472	163 655 032	1	0.472	
25	20	10/10*	271	163 655 013	1	0.843	163 655 033	1	0.843	
32	25	10/10*	481	163 655 014	1	1.028	163 655 034	1	1.049	
40	32	10/10*	759	163 655 015	1	1.638	163 655 035	1	1.659	
50	40	10/10*	1263	163 655 016	1	2.762	163 655 036	1	2.791	
63	50	10/10*	1728	163 655 017	1	3.512	163 655 037	1	3.540	

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	68	1/8	101	14	12	60	24	16	43	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	96	1/8	143	22	12	84	25	16	57	154	25	M6	13	1
40	120	1/8	173	26	15	99	26	26	69	174	45	M8	15	1 1/4
50	150	1/4	214	32	15	119	36	26	88	194	45	M8	19	1 1/2
63	150	1/4	226	39	15	132	36	26	88	224	45	M8	23	2

PF 3 39 212 201



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

Model:

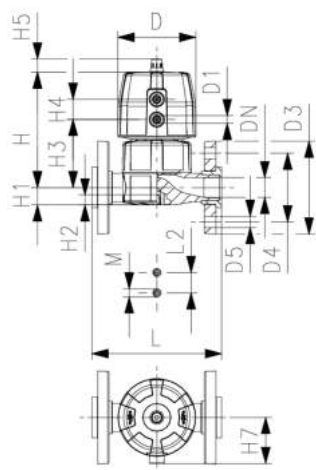
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

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

* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 657 112	1	0.656	163 657 132	1	0.656	
25	20	10/10*	271	163 657 113	1	1.080	163 657 133	1	1.080	
32	25	10/10*	481	163 657 114	1	1.364	163 657 134	1	1.441	
40	32	10/10*	759	163 657 115	1	2.166	163 657 135	1	2.187	
50	40	10/10*	1263	163 657 116	1	3.302	163 657 136	1	3.331	
63	50	10/10*	1728	163 657 117	1	4.480	163 657 137	1	4.508	

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

d [mm]	M	Lift = Hx [mm]	closest inch [inch]	
20	M6	7	1/2	
25	M6	10	3/4	
32	M6	13	1	
40	M8	15	1 1/4	
50	M8	19	1 1/2	
63	M8	23	2	

PF 3 39 212 201



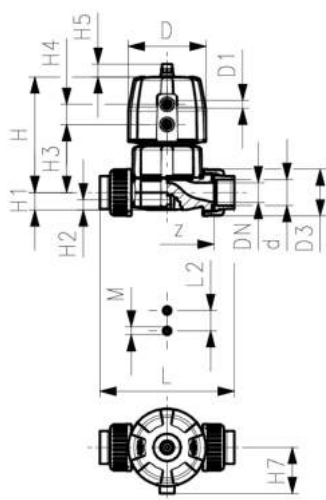
Diaphragm valve DIASTAR TenPlus PVC-C FC (Fail safe to close) Unions with solvent cement sockets metric

Model:

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

Option:

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



* PN: PTFE

Working Pressure: **both sides**

d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 684 012	1	1.004	163 684 032	1	1.012	
25	20	10/10*	271	163 684 013	1	1.142	163 684 033	1	1.153	
32	25	10/10*	481	163 684 014	1	1.968	163 684 034	1	1.987	
40	32	10/10*	759	163 684 015	1	3.375	163 684 035	1	3.395	
50	40	10/10*	1263	163 684 016	1	5.340	163 684 036	1	5.368	
63	50	10/10*	1728	163 684 017	1	6.300	163 684 037	1	6.327	

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	⅜	127	14	12	68	25	16	57	128	25	M6	96	7
25	96	⅜	132	18	12	73	25	16	57	152	25	M6	114	10
32	120	⅜	167	22	12	93	26	26	69	166	25	M6	122	13
40	150	¼	196	26	15	101	36	26	88	192	45	M8	140	15
50	180	¼	239	32	15	124	37	26	103	222	45	M8	160	19
63	180	¼	251	39	15	137	37	26	103	266	45	M8	190	23

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

PF 3 39 212 201



Diaphragm valve DIASTAR TenPlus PVC-C FC (Fail safe to close) With solvent cement spigots metric

Model:

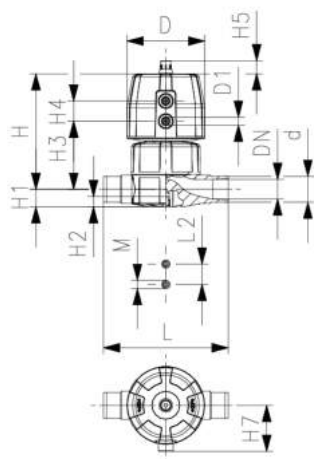
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

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

* PN: PTFE

Working Pressure: **both sides**



d [mm]	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 685 012	1	0.943	163 685 032	1	0.938	
25	20	10/10*	271	163 685 013	1	1.054	163 685 033	1	1.054	
32	25	10/10*	481	163 685 014	1	1.947	163 685 034	1	1.853	
40	32	10/10*	759	163 685 015	1	3.128	163 685 035	1	3.149	
50	40	10/10*	1263	163 685 016	1	5.010	163 685 036	1	5.039	
63	50	10/10*	1728	163 685 017	1	5.759	163 685 037	1	5.787	

d [mm]	D [mm]	D1_G [inch]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	M	Lift = Hx [mm]	closest inch [inch]
20	96	1/8	127	14	12	68	25	16	57	124	25	M6	7	1/2
25	96	1/8	132	18	12	73	25	16	57	144	25	M6	10	3/4
32	120	1/8	167	22	12	93	26	26	69	154	25	M6	13	1
40	150	1/4	196	26	15	101	36	26	88	174	45	M8	15	1 1/4
50	180	1/4	239	32	15	124	37	26	103	194	45	M8	19	1 1/2
63	180	1/4	251	39	15	137	37	26	103	224	45	M8	23	2

PF 3 39 212 201



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

Model:

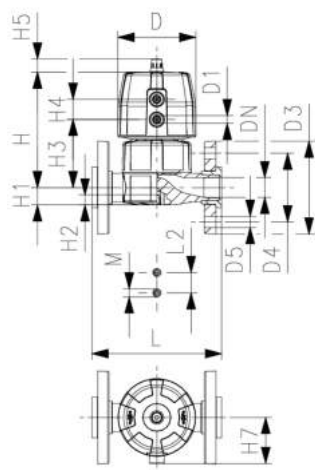
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

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

* PN: PTFE

Working Pressure: **both sides**



d [mm]	DN [mm]	PN* [bar]	kv-val- ue (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	PTFE/EPDM Code	SP	Weight [kg]	
20	15	10/10*	125	163 687 112	1	1.123	163 687 132	1	1.123	
25	20	10/10*	271	163 687 113	1	1.290	163 687 133	1	1.290	
32	25	10/10*	481	163 687 114	1	2.168	163 687 134	1	2.320	
40	32	10/10*	759	163 687 115	1	3.656	163 687 135	1	3.677	
50	40	10/10*	1263	163 687 116	1	5.550	163 687 136	1	5.579	
63	50	10/10*	1728	163 687 117	1	6.727	163 687 137	1	7.147	

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	L [mm]	L2 [mm]	
20	96	⅜	95	65	14	127	14	12	68	25	16	57	130	25	
25	96	⅜	105	75	14	132	18	12	73	25	16	57	150	25	
32	120	⅜	115	85	14	167	22	12	93	26	26	69	160	25	
40	150	¼	140	100	18	196	26	15	101	36	26	88	180	45	
50	180	¼	150	110	18	239	32	15	124	37	26	103	200	45	
63	180	¼	165	125	18	251	39	15	137	37	26	103	230	45	

d [mm]	M	Lift = Hx [mm]	closest inch [inch]	
20	M6	7	½	
25	M6	10	¾	
32	M6	13	1	
40	M8	15	1 ¼	
50	M8	19	1 ½	
63	M8	23	2	

PF 3 39 212 201

Diaphragm valves pneumatic

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

Model:

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

- With position indicator / Working pressure: **one side**

* With backing flanges PP-V

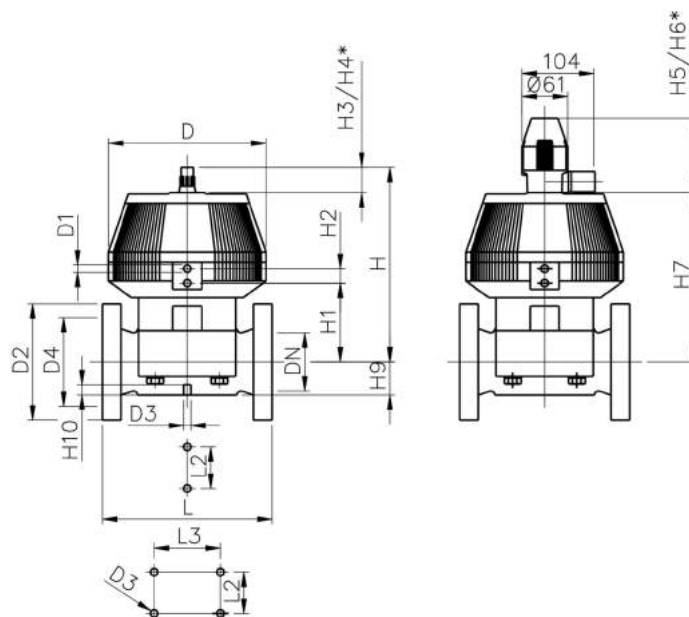
** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5



	d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	Weight [kg]	PTFE/EPDM Code	Weight [kg]
*	75	2 ½	65	10	992	199 025 697	13.600	199 025 727	13.600
**	90	3	80	10	1700	199 025 698	17.830	199 025 728	17.973
	110	4	100	6	2700	199 025 699	24.700	199 025 729	24.700

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

	d [mm]	H9 [mm]	H10 [mm]	L [mm]	L2 [mm]
*	75	46	15	290	70
**	90	57	15	310	120
	110	69	20	350	120



PF 3 39 212 109



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

Model:

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

• With position indicator / Working pressure: **one side**

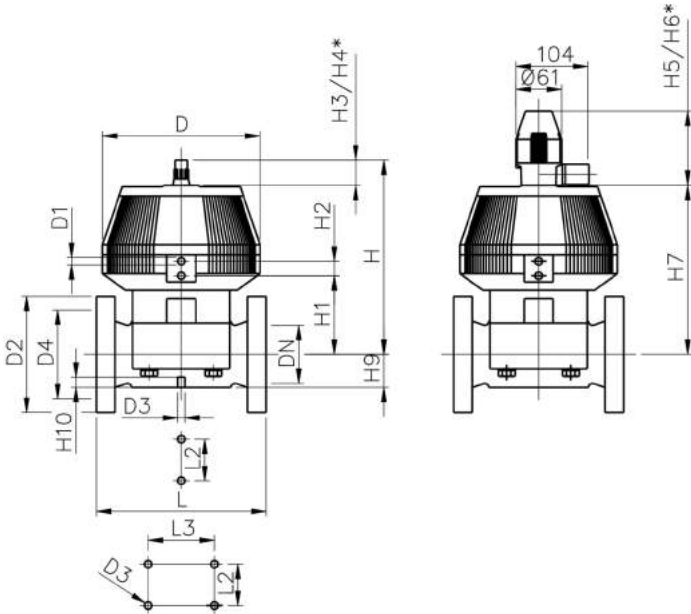
* With backing flanges PP-V

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

	d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	Weight [kg]	PTFE/EPDM Code	Weight [kg]	
*	75	2 ½	65	10	992	199 025 707	13.600	199 025 737	13.600	
**	90	3	80	10	1700	199 025 708	17.400	199 025 738	17.400	
	110	4	100	6	2700	199 025 709	24.700	199 025 739		

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

	d [mm]	H9 [mm]	H10 [mm]	L [mm]	L2 [mm]	
*	75	46	15	290	70	
**	90	57	15	310	120	
	110	69	20	350	120	



PF 3 39 212 110



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

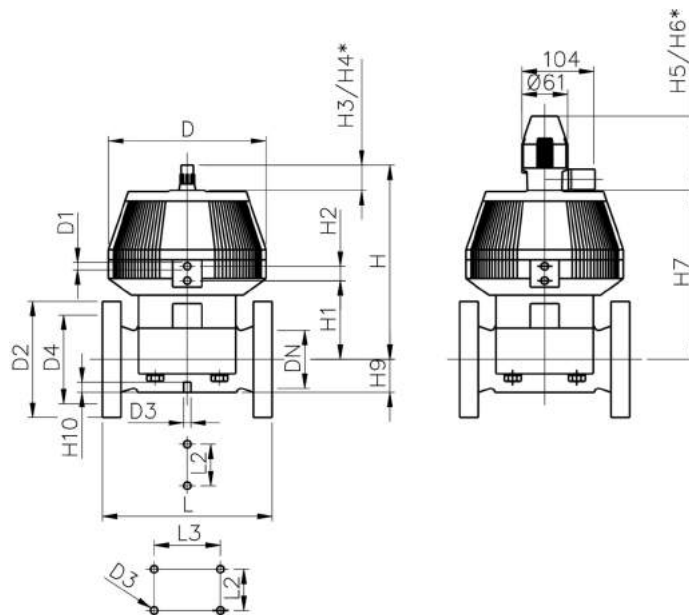
Model:

- Connecting dimension: ISO 7005 / EN 1092 / DIN 25 PN10 / BS4504
- With position indicator / Working pressure: **one side**
- * With backing flanges PP-V
- ** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

	d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	Weight [kg]	PTFE/EPDM Code	Weight [kg]
*	75	2 ½	65	10	992	199 025 717	12.529	199 025 747	13.600
**	90	3	80	10	1700	199 025 718	17.400	199 025 748	17.400
	110	4	100	6	2700	199 025 719	24.700	199 025 749	24.700

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

	d [mm]	H9 [mm]	H10 [mm]	L [mm]	L2 [mm]
*	75	46	15	290	70
**	90	57	15	310	120
	110	69	20	350	120



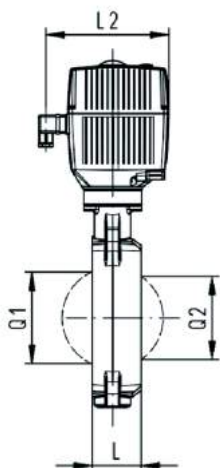
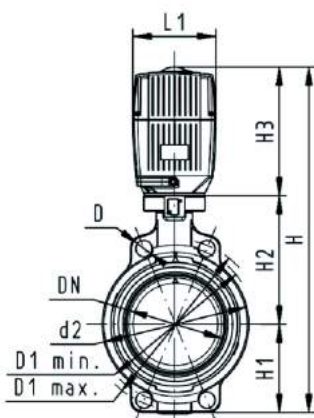
PF 3 39 212 111

Butterfly valves electric

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

Model:

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



d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 140 202	1	3.189	199 140 222	1	3.193
75	2 ½	65	10	2200	199 140 203	1	4.529	199 140 223	1	4.312
90	3	80	10	3000	199 140 204	1	4.484	199 140 224	1	4.491
110	4	100	10	6500	199 140 205	1	5.119	199 140 225	1	5.133
140	5	125	10	11500	199 140 206	1	4.719	199 140 226	1	4.737
160	6	150	10	16600	199 140 207	1	6.701	199 140 227	1	6.724
225	8	200	10	39600	199 140 208	1	12.966	199 140 228	1	12.994

d [mm]	PTFE Code
63	199 140 722
75	199 140 723
90	199 140 724
110	199 140 725
140	199 140 726
160	199 140 727
225	199 140 728

d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	104	19	120	125	400	77	134	188	45	122	180	40
75	EA-31	115	19	140	145	413	83	140	188	46	122	180	54
90	EA-31	131	19	150	160	428	89	146	188	49	122	180	67
110	EA-31	161	19	175	191	460	104	167	188	56	122	180	88
140	EA-31	187	23	210	216	487	117	181	188	64	122	180	113
160	EA-31	215	24	241	241	508	130	189	188	72	122	180	139
225	EA-42	267	23	290	295	575	158	210	208	73	122	180	178

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

PF 3 39 643 033

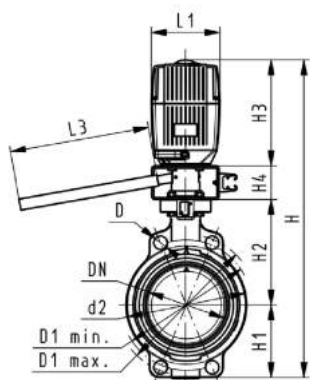


Butterfly valve type 140 PVC-C 100-230V With manual override

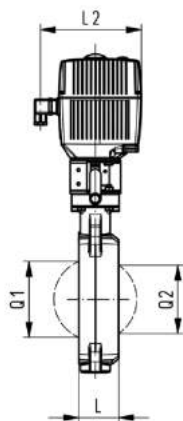
Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 140 162	1	5.678	199 140 182	1	4.233
75	2 ½	65	10	2200	199 140 163	1	5.801	199 140 183	1	5.812
90	3	80	10	3000	199 140 164	1	5.984	199 140 184	1	5.991
110	4	100	10	6500	199 140 165	1	6.619	199 140 185	1	6.633
140	5	125	10	11500	199 140 166	1	5.732	199 140 186	1	5.750
160	6	150	10	16600	199 140 167	1	8.201	199 140 187	1	8.224
225	8	200	10	39600	199 140 168	1	14.466	199 140 188	1	14.494



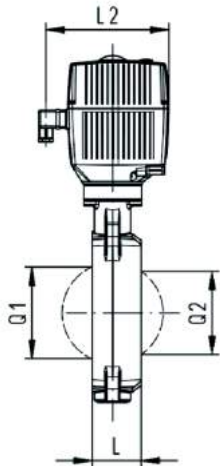
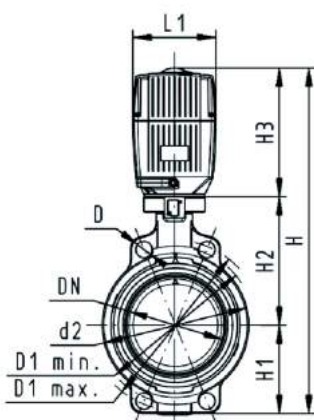
d [mm]	PTFE Code
63	199 140 762
75	199 140 763
90	199 140 764
110	199 140 765
140	199 140 766
160	199 140 767
225	199 140 768



d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	104	19	120	125	460	77	134	188	60	45	122	180
75	EA-31	115	19	140	145	473	83	140	188	60	46	122	180
90	EA-31	131	19	150	160	488	89	146	188	60	49	122	180
110	EA-31	161	19	175	191	520	104	167	188	60	56	122	180
140	EA-31	187	23	210	216	547	117	181	188	60	64	122	180
160	EA-31	215	24	241	241	568	130	189	188	60	72	122	180
225	EA-42	267	23	290	295	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 39 643 033



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

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 140 282	1	3.189	199 140 302	1	3.193
75	2 ½	65	10	2200	199 140 283	1	4.301	199 140 303	1	4.312
90	3	80	10	3000	199 140 284	1	4.484	199 140 304	1	4.491
110	4	100	10	6500	199 140 285	1	5.119	199 140 305	1	5.133
140	5	125	10	11500	199 140 286	1	4.719	199 140 306	1	4.737
160	6	150	10	16600	199 140 287	1	6.701	199 140 307	1	6.724
225	8	200	10	39600	199 140 288	1	12.966	199 140 308	1	12.994

d [mm]	PTFE Code
63	199 140 742
75	199 140 743
90	199 140 744
110	199 140 745
140	199 140 746
160	199 140 747
225	199 140 748

d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	104	19	120	125	400	77	134	188	45	122	180	40
75	EA-31	115	19	140	145	413	83	140	188	46	122	180	54
90	EA-31	131	19	150	160	428	89	146	188	49	122	180	67
110	EA-31	161	19	175	191	460	104	167	188	56	122	180	88
140	EA-31	187	23	210	216	487	117	181	188	64	122	180	113
160	EA-31	215	24	241	241	508	130	189	188	72	122	180	139
225	EA-42	267	23	290	295	575	158	210	208	73	122	180	178

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

PF 3 39 643 033

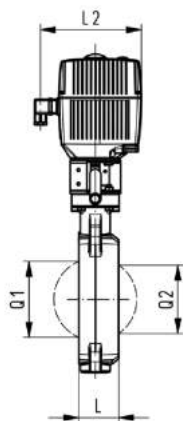
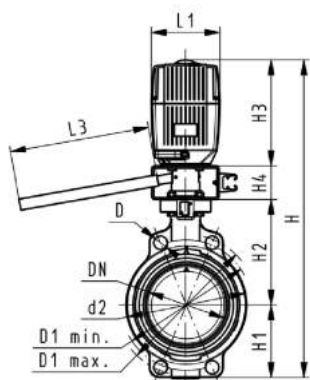


Butterfly valve type 140 PVC-C 24V With manual override

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 140 242	1	5.678	199 140 262	1	4.233
75	2 ½	65	10	2200	199 140 243	1	5.801	199 140 263	1	5.812
90	3	80	10	3000	199 140 244	1	5.984	199 140 264	1	5.991
110	4	100	10	6500	199 140 245	1	6.619	199 140 265	1	6.633
140	5	125	10	11500	199 140 246	1	5.732	199 140 266	1	5.750
160	6	150	10	16600	199 140 247	1	8.201	199 140 267	1	8.224
225	8	200	10	39600	199 140 248	1	14.466	199 140 268	1	14.494



d [mm]	PTFE Code
63	199 140 782
75	199 140 783
90	199 140 784
110	199 140 785
140	199 140 786
160	199 140 787
225	199 140 788

d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	104	19	120	125	460	77	134	188	60	45	122	180
75	EA-31	115	19	140	145	473	83	140	188	60	46	122	180
90	EA-31	131	19	150	160	488	89	146	188	60	49	122	180
110	EA-31	161	19	175	191	520	104	167	188	60	56	122	180
140	EA-31	187	23	210	216	547	117	181	188	60	64	122	180
160	EA-31	215	24	241	241	568	130	189	188	60	72	122	180
225	EA-42	267	23	290	295	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

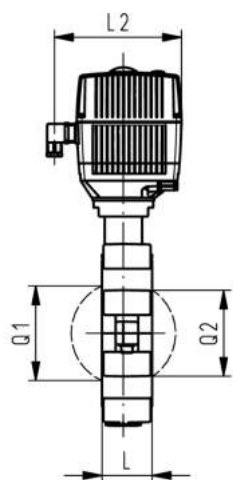
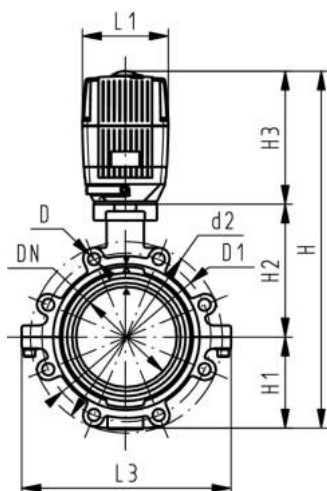
PF 3 39 643 033



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

Model:

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



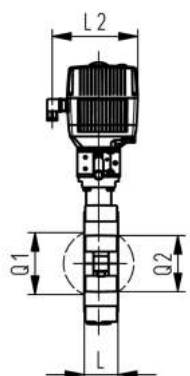
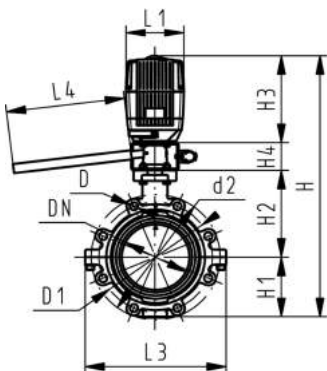
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 141 202	1	6.281	199 141 222	1	6.281
75	2 ½	65	10	2200	199 141 203	1	6.648	199 141 223	1	6.648
90	3	80	10	3000	199 141 204	1	7.702	199 141 224	1	7.702
110	4	100	10	6500	199 141 205	1	9.217	199 141 225	1	9.217
140	5	125	10	11500	199 141 206	1	11.205	199 141 226	1	11.205
160	6	150	10	16600	199 141 207	1	13.184	199 141 227	1	13.184
225	8	200	10	39600	199 141 208	1	22.942	199 141 228	1	22.942

d [mm]	PTFE Code
63	199 141 722
75	199 141 723
90	199 141 724
110	199 141 725
140	199 141 726
160	199 141 727
225	199 141 728

d [mm]	Actuator unit type	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	150	M16	125	399	77	134	188	45	122	180	150	40
75	EA-31	170	M16	145	411	83	140	188	46	122	180	160	54
90	EA-31	184	M16	160	423	89	146	188	49	122	180	205	67
110	EA-31	216	M16	180	459	104	167	188	56	122	180	244	88
140	EA-31	246	M16	210	486	117	181	188	64	122	180	272	113
160	EA-31	273	M20	240	507	130	189	188	72	122	180	297	139
225	EA-42	334	M20	295	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 39 643 034



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

Model:

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

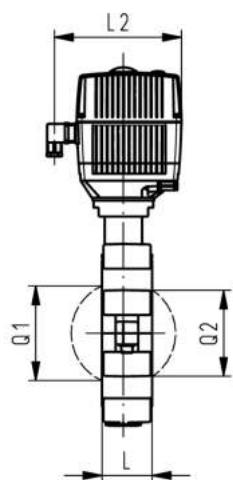
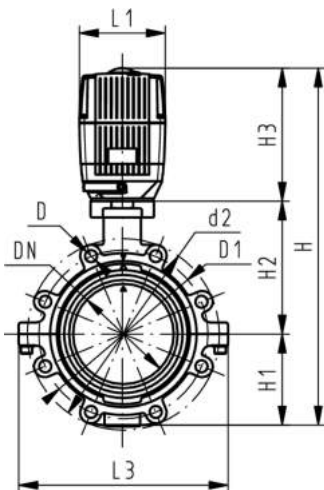
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 141 162	1	7.781	199 141 182	1	7.781
75	2 ½	65	10	2200	199 141 163	1	8.148	199 141 183	1	8.148
90	3	80	10	3000	199 141 164	1	9.202	199 141 184	1	9.202
110	4	100	10	6500	199 141 165	1	10.717	199 141 185	1	10.717
140	5	125	10	11500	199 141 166	1	12.705	199 141 186	1	12.705
160	6	150	10	16600	199 141 167	1	14.684	199 141 187	1	14.684
225	8	200	10	39600	199 141 168	1	24.442	199 141 188	1	24.442

d [mm]	PTFE Code
63	199 141 762
75	199 141 763
90	199 141 764
110	199 141 765
140	199 141 766
160	199 141 767
225	199 141 768

d [mm]	Actuator unit type	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	150	M16	125	459	77	134	188	60	45	122	180	150
75	EA-31	170	M16	145	471	83	140	188	60	46	122	180	160
90	EA-31	184	M16	160	483	89	146	188	60	49	122	180	205
110	EA-31	216	M16	180	519	104	167	188	60	56	122	180	244
140	EA-31	246	M16	210	546	117	181	188	60	64	122	180	272
160	EA-31	273	M20	240	567	130	189	188	60	72	122	180	297
225	EA-42	334	M20	295	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 39 643 034



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

Model:

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

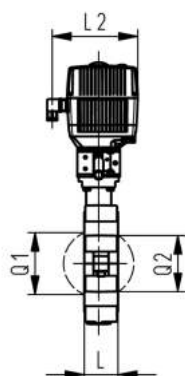
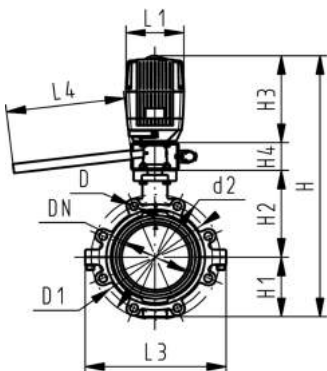
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 141 282	1	6.281	199 141 302	1	6.281
75	2 ½	65	10	2200	199 141 283	1	6.648	199 141 303	1	6.648
90	3	80	10	3000	199 141 284	1	7.702	199 141 304	1	7.702
110	4	100	10	6500	199 141 285	1	9.217	199 141 305	1	9.217
140	5	125	10	11500	199 141 286	1	11.205	199 141 306	1	11.205
160	6	150	10	16600	199 141 287	1	13.184	199 141 307	1	13.184
225	8	200	10	39600	199 141 288	1	22.942	199 141 308	1	22.942

d [mm]	PTFE Code
63	199 141 742
75	199 141 743
90	199 141 744
110	199 141 745
140	199 141 746
160	199 141 747
225	199 141 748

d [mm]	Actuator unit type	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	150	M16	125	399	77	134	188	45	122	180	150	40
75	EA-31	170	M16	145	411	83	140	188	46	122	180	160	54
90	EA-31	184	M16	160	423	89	146	188	49	122	180	205	67
110	EA-31	216	M16	180	459	104	167	188	56	122	180	244	88
140	EA-31	246	M16	210	486	117	181	188	64	122	180	272	113
160	EA-31	273	M20	240	507	130	189	188	72	122	180	297	139
225	EA-42	334	M20	295	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 39 643 034



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

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 141 242	1	7.781	199 141 262	1	7.781
75	2 ½	65	10	2200	199 141 243	1	8.148	199 141 263	1	8.148
90	3	80	10	3000	199 141 244	1	9.202	199 141 264	1	9.202
110	4	100	10	6500	199 141 245	1	10.717	199 141 265	1	10.717
140	5	125	10	11500	199 141 246	1	12.705	199 141 266	1	12.705
160	6	150	10	16600	199 141 247	1	14.684	199 141 267	1	14.684
225	8	200	10	39600	199 141 248	1	24.442	199 141 268	1	24.442

d [mm]	PTFE Code
63	199 141 782
75	199 141 783
90	199 141 784
110	199 141 785
140	199 141 786
160	199 141 787
225	199 141 788

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

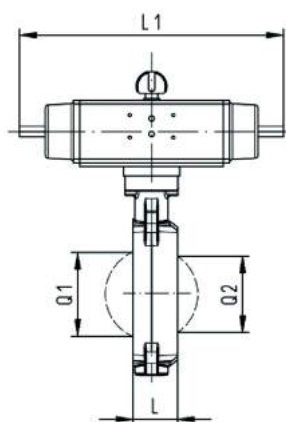
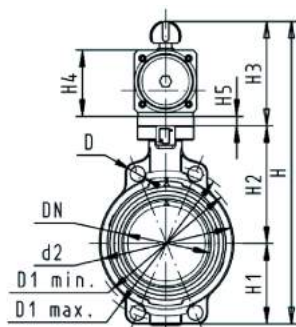
PF 3 39 643 034

Butterfly valves pneumatic

Butterfly valve type 240 PVC-C FC (Fail safe to close) Without manual override

Model:

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



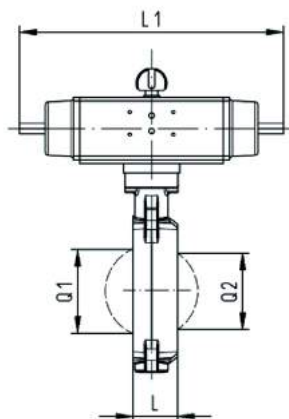
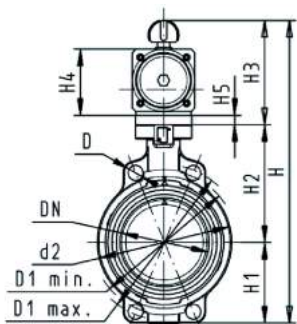
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 240 162	1	3.218	199 240 182	1	3.218
75	2 ½	65	10	2200	199 240 163	1	3.341	199 240 183	1	3.352
90	3	80	10	3000	199 240 164	1	3.524	199 240 184	1	3.531
110	4	100	10	6500	199 240 165	1	5.271	199 240 185	1	5.371
140	5	125	10	11500	199 240 166	1	7.169	199 240 186	1	5.943
160	6	150	10	16600	199 240 167	1	10.184	199 240 187	1	10.285
225	8	200	10	39600	199 240 168	1	14.466	199 240 188	1	14.494

d [mm]	PTFE Code
63	199 240 642
75	199 240 643
90	199 240 644
110	199 240 645
140	199 240 646
160	199 240 647
225	199 240 648

d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	104	19	120	125	327	77	134	117	70	15	45	276
75	PA-30 FC	115	19	140	145	340	83	140	117	70	15	46	276
90	PA-35 FC	131	19	150	160	361	89	146	126	78	15	49	326
110	PA-40 FC	161	19	175	191	400	104	167	129	86		56	370
140	PA-45 FC	187	23	210	216	436	117	181	139	96		64	411
160	PA-50 FC	215	24	241	241	468	130	189	149	106		72	423
225	PA-55 FC	267	23	290	295	529	158	210	161	118		73	452

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

PF 3 39 644 033



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

Model:

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

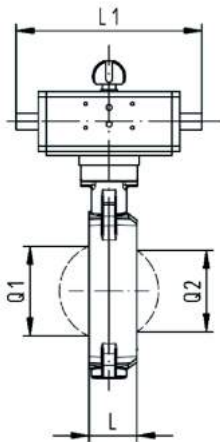
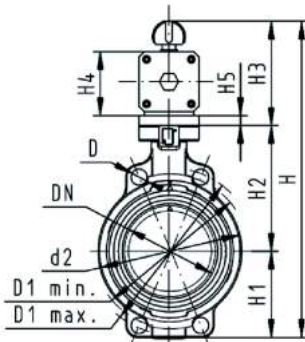
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 240 202	1	3.439	199 240 222	1	3.443
75	2 ½	65	10	2200	199 240 203	1	3.341	199 240 223	1	3.352
90	3	80	10	3000	199 240 204	1	3.524	199 240 224	1	3.531
110	4	100	10	6500	199 240 205	1	5.357	199 240 225	1	5.371
140	5	125	10	11500	199 240 206	1	7.169	199 240 226	1	7.187
160	6	150	10	16600	199 240 207	1	10.262	199 240 227	1	10.285
225	8	200	10	39600	199 240 208	1	14.466	199 240 228	1	14.494

d [mm]	PTFE Code
63	199 240 662
75	199 240 663
90	199 240 664
110	199 240 665
140	199 240 666
160	199 240 667
225	199 240 668

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

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

PF 3 39 644 033



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

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 240 242	1	5.184	199 240 262	1	2.293
75	2 ½	65	10	2200	199 240 243	1	2.191	199 240 263	1	2.202
90	3	80	10	3000	199 240 244	1	2.884	199 240 264	1	2.862
110	4	100	10	6500	199 240 245	1	3.609	199 240 265	1	3.623
140	5	125	10	11500	199 240 246	1	4.419	199 240 266	1	4.500
160	6	150	10	16600	199 240 247	1	6.741	199 240 267	1	6.764
225	8	200	10	39600	199 240 248	1	8.466	199 240 268	1	8.494

d [mm]	PTFE Code
63	199 240 682
75	199 240 683
90	199 240 684
110	199 240 685
140	199 240 686
160	199 240 687
225	199 240 688

d [mm]	Actuator unit type	d2 [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	104	19	120	125	317	77	134	107	60	15	45	177
75	PA-35 DA	115	19	140	145	330	83	140	107	60	15	46	177
90	PA-40 DA	131	19	150	160	348	89	146	113	66	15	49	190
110	PA-45 DA	161	19	175	191	372	104	167	102	71		56	235
140	PA-45 DA	187	23	210	216	408	117	181	111	78		64	235
160	PA-55 DA	215	24	241	241	448	130	189	129	86		72	279
225	PA-55 DA	267	23	290	295	507	158	210	139	96		73	279

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

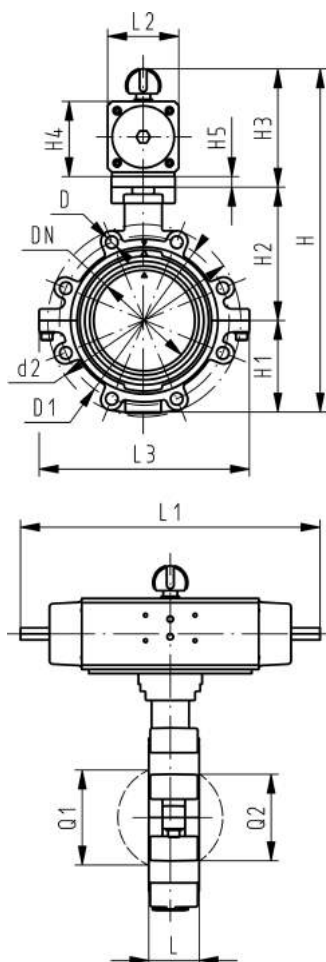
PF 3 39 644 031



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

Model:

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



d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 241 162	0	5.321	199 241 182	0	5.321
75	2 ½	65	10	2200	199 241 163	0	5.688	199 241 183	0	5.688
90	3	80	10	3000	199 241 164	0	6.742	199 241 184	0	6.742
110	4	100	10	6500	199 241 165	0	9.455	199 241 185	0	9.455
140	5	125	10	11500	199 241 166	0	12.445	199 241 186	0	12.445
160	6	150	10	16600	199 241 167	1	16.745	199 241 187	1	16.745
225	8	200	10	39600	199 241 168	0	24.442	199 241 188	0	24.442

d [mm]	PTFE Code
63	199 241 642
75	199 241 643
90	199 241 644
110	199 241 645
140	199 241 646
160	199 241 647
225	199 241 648

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

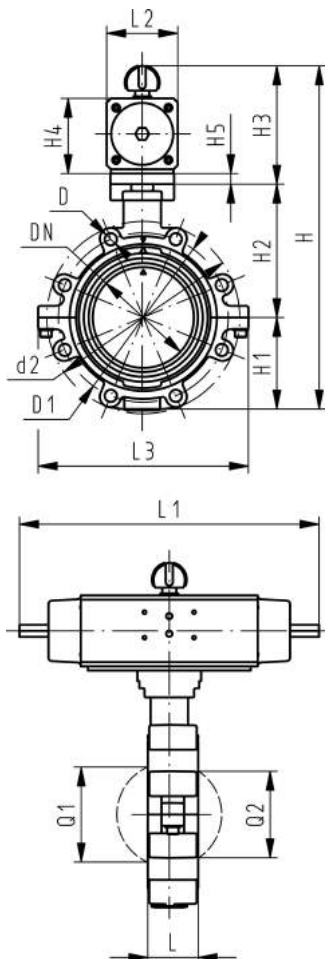
PF 3 39 644 034



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

Model:

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



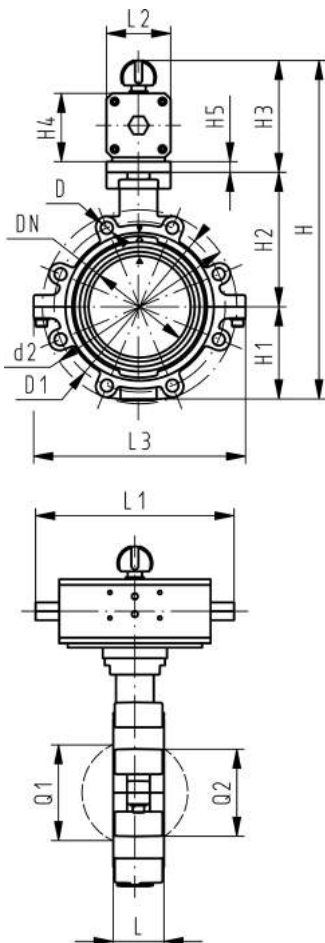
d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-val- ue ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 241 202	0	5.321	199 241 222	0	5.321
75	2 ½	65	10	2200	199 241 203	0	5.688	199 241 223	0	5.688
90	3	80	10	3000	199 241 204	0	6.742	199 241 224	0	6.742
110	4	100	10	6500	199 241 205	0	9.455	199 241 225	0	9.455
140	5	125	10	11500	199 241 206	0	12.445	199 241 226	0	12.445
160	6	150	10	16600	199 241 207	1	16.745	199 241 227	1	16.745
225	8	200	10	39600	199 241 208	0	24.442	199 241 228	0	24.442

d [mm]	PTFE Code
63	199 241 662
75	199 241 663
90	199 241 664
110	199 241 665
140	199 241 666
160	199 241 667
225	199 241 668

d [mm]	Actuator unit type	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	150	M16	125	328	77	134	117	70	15	45	276	65
75	PA-30 FO	170	M16	145	340	83	140	117	70	15	46	276	65
90	PA-35 FO	184	M16	160	361	89	146	126	78	15	49	326	72
110	PA-40 FO	216	M16	180	400	104	167	129	86		56	370	80
140	PA-45 FO	246	M16	210	437	117	181	139	96		64	411	90
160	PA-50 FO	273	M20	240	468	130	189	149	106		72	423	100
225	PA-55 FO	334	M20	295	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 39 644 034



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

Model:

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

d [mm]	Size [inch]	DN [mm]	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	SP	Weight [kg]	FPM Code	SP	Weight [kg]
63	2	50	10	1470	199 241 242	0	4.171	199 241 262	0	4.171
75	2 ½	65	10	2200	199 241 243	0	4.538	199 241 263	0	4.538
90	3	80	10	3000	199 241 244	0	6.073	199 241 264	0	6.073
110	4	100	10	6500	199 241 245	0	7.707	199 241 265	0	7.707
140	5	125	10	11500	199 241 246	0	9.695	199 241 266	0	9.695
160	6	150	10	16600	199 241 247	0	13.224	199 241 267	0	13.224
225	8	200	10	39600	199 241 248	0	18.442	199 241 268	0	18.442

d [mm]	PTFE Code
63	199 241 682
75	199 241 683
90	199 241 684
110	199 241 685
140	199 241 686
160	199 241 687
225	199 241 688

d [mm]	Actuator unit type	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	150	M16	125	318	77	134	107	60	15	45	177	55
75	PA-35 DA	170	M16	145	330	83	140	107	60	15	46	177	55
90	PA-40 DA	184	M16	160	348	89	146	113	66	15	49	190	60
110	PA-45 DA	216	M16	180	373	104	167	102	71		56	235	65
140	PA-45 DA	246	M16	210	409	117	181	111	78		64	235	72
160	PA-55 DA	273	M20	240	448	130	189	129	86		72	279	80
225	PA-55 DA	334	M20	295	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 39 644 034

Index

Code	Page
161 486 100	77
161 486 101	77
161 486 102	77
161 486 103	77
161 486 104	77
161 486 105	77
161 486 106	77
161 486 107	77
163 017 130	6
163 017 131	6
163 017 132	6
163 017 133	6
163 017 134	6
163 017 135	6
163 017 136	6
163 017 137	6
163 017 138	6
163 017 139	6
163 017 142	6
163 017 187	6
163 017 188	6
163 017 189	6
163 017 192	6
163 017 195	6
163 305 302	77
163 305 303	77
163 305 304	77
163 305 305	77
163 305 306	77
163 305 307	77
163 305 317	77
163 305 318	77
163 305 319	77
163 305 320	77
163 305 321	77
163 305 322	77
163 317 024	60
163 317 025	60
163 317 039	60
163 317 040	60
163 317 523	60
163 317 538	60
163 514 012	58
163 514 013	58
163 514 014	58
163 514 015	58
163 514 016	58
163 514 017	58
163 514 032	58
163 514 033	58
163 514 034	58
163 514 035	58
163 514 036	58
163 514 037	58
163 515 012	58
163 515 013	58
163 515 014	58
163 515 015	58
163 515 016	58
163 515 017	58
163 515 032	58
163 515 033	58
163 515 034	58
163 515 035	58
163 515 036	58
163 515 037	58
163 517 112	59
163 517 113	59

Code	Page
163 517 114	59
163 517 115	59
163 517 116	59
163 517 117	59
163 517 132	59
163 517 133	59
163 517 134	59
163 517 135	59
163 517 136	59
163 517 137	59
163 543 001	51
163 543 002	51
163 543 003	51
163 543 004	51
163 543 005	51
163 543 006	51
163 543 007	51
163 543 011	51
163 543 012	51
163 543 013	51
163 543 014	51
163 543 015	51
163 543 016	51
163 543 017	51
163 543 021	53
163 543 022	53
163 543 023	53
163 543 024	53
163 543 025	53
163 543 026	53
163 543 027	53
163 543 031	53
163 543 032	53
163 543 033	53
163 543 034	53
163 543 035	53
163 543 036	53
163 543 037	53
163 543 041	54
163 543 042	54
163 543 043	54
163 543 044	54
163 543 045	54
163 543 046	54
163 543 047	54
163 543 051	54
163 543 052	54
163 543 053	54
163 543 054	54
163 543 055	54
163 543 056	54
163 543 057	54
163 543 081	57
163 543 082	57
163 543 083	57
163 543 084	57
163 543 085	57
163 543 086	57
163 543 087	57
163 543 091	57
163 543 092	57
163 543 093	57
163 543 094	57
163 543 095	57
163 543 096	57
163 543 097	57
163 543 101	55
163 543 102	55

Code	Page
163 543 103	55
163 543 104	55
163 543 105	55
163 543 106	55
163 543 107	55
163 543 111	55
163 543 112	55
163 543 113	55
163 543 114	55
163 543 115	55
163 543 116	55
163 543 117	55
163 543 201	45
163 543 202	45
163 543 203	45
163 543 204	45
163 543 205	45
163 543 206	45
163 543 207	45
163 543 211	45
163 543 212	45
163 543 213	45
163 543 214	45
163 543 215	45
163 543 216	45
163 543 217	45
163 543 221	47
163 543 222	47
163 543 223	47
163 543 224	47
163 543 225	47
163 543 226	47
163 543 227	47
163 543 231	47
163 543 232	47
163 543 233	47
163 543 234	47
163 543 235	47
163 543 236	47
163 543 237	47
163 543 241	48
163 543 242	48
163 543 243	48
163 543 244	48
163 543 245	48
163 543 246	48
163 543 247	48
163 543 251	48
163 543 252	48
163 543 253	48
163 543 254	48
163 543 255	48
163 543 256	48
163 543 257	48
163 543 301	49
163 543 302	49
163 543 303	49
163 543 304	49
163 543 305	49
163 543 306	49
163 543 307	49
163 543 311	49
163 543 312	49
163 543 313	49
163 543 314	49
163 543 315	49
163 543 316	49
163 543 317	49

Index

Code	Page	Code	Page	Code	Page
163 543 381	52	163 546 073	38	163 546 389	40
163 543 382	52	163 546 074	38	163 546 390	40
163 543 383	52	163 546 075	38	163 546 391	40
163 543 384	52	163 546 076	38	163 546 392	40
163 543 385	52	163 546 077	38	163 546 393	40
163 543 386	52	163 546 078	38	163 546 394	40
163 543 387	52	163 546 079	38	163 546 395	40
163 543 391	52	163 546 080	38	163 546 396	40
163 543 392	52	163 546 081	39	163 546 397	40
163 543 393	52	163 546 082	39	163 546 398	40
163 543 394	52	163 546 083	39	163 546 399	40
163 543 395	52	163 546 084	39	163 546 400	40
163 543 396	52	163 546 085	39	163 546 401	42
163 543 397	52	163 546 086	39	163 546 402	42
163 543 401	46	163 546 087	39	163 546 403	42
163 543 402	46	163 546 088	39	163 546 404	42
163 543 403	46	163 546 089	39	163 546 405	42
163 543 404	46	163 546 090	39	163 546 406	42
163 543 405	46	163 546 091	39	163 546 407	42
163 543 406	46	163 546 092	39	163 546 408	42
163 543 407	46	163 546 093	39	163 546 409	42
163 543 411	46	163 546 094	39	163 546 410	42
163 543 412	46	163 546 095	39	163 546 411	42
163 543 413	46	163 546 096	39	163 546 412	42
163 543 414	46	163 546 097	39	163 546 413	42
163 543 415	46	163 546 098	39	163 546 414	42
163 543 416	46	163 546 099	39	163 546 415	42
163 543 417	46	163 546 100	39	163 546 416	42
163 543 421	56	163 546 108	41	163 546 417	42
163 543 422	56	163 546 109	41	163 546 418	42
163 543 423	56	163 546 110	41	163 546 419	42
163 543 424	56	163 546 118	41	163 546 420	42
163 543 425	56	163 546 119	41	163 561 001	67
163 543 426	56	163 546 120	41	163 561 002	67
163 543 427	56	163 546 168	44	163 561 003	67
163 543 431	56	163 546 169	44	163 561 004	67
163 543 432	56	163 546 170	44	163 561 005	67
163 543 433	56	163 546 178	44	163 561 006	67
163 543 434	56	163 546 179	44	163 561 007	67
163 543 435	56	163 546 180	44	163 561 008	67
163 543 436	56	163 546 341	43	163 561 009	67
163 543 437	56	163 546 342	43	163 561 010	67
163 543 441	50	163 546 343	43	163 561 011	67
163 543 442	50	163 546 344	43	163 561 012	67
163 543 443	50	163 546 345	43	163 561 013	67
163 543 444	50	163 546 346	43	163 561 014	67
163 543 445	50	163 546 347	43	163 561 015	67
163 543 446	50	163 546 348	43	163 561 016	67
163 543 447	50	163 546 349	43	163 561 017	67
163 543 451	50	163 546 350	43	163 561 018	67
163 543 452	50	163 546 351	43	163 561 019	67
163 543 453	50	163 546 352	43	163 561 020	67
163 543 454	50	163 546 353	43	163 561 021	68
163 543 455	50	163 546 354	43	163 561 022	68
163 543 456	50	163 546 355	43	163 561 023	68
163 543 457	50	163 546 356	43	163 561 024	68
163 546 061	38	163 546 357	43	163 561 025	68
163 546 062	38	163 546 358	43	163 561 026	68
163 546 063	38	163 546 359	43	163 561 027	68
163 546 064	38	163 546 360	43	163 561 028	68
163 546 065	38	163 546 381	40	163 561 029	68
163 546 066	38	163 546 382	40	163 561 030	68
163 546 067	38	163 546 383	40	163 561 031	68
163 546 068	38	163 546 384	40	163 561 032	68
163 546 069	38	163 546 385	40	163 561 033	68
163 546 070	38	163 546 386	40	163 561 034	68
163 546 071	38	163 546 387	40	163 561 035	68
163 546 072	38	163 546 388	40	163 561 036	68

Index

Code	Page
163 561 037	68
163 561 038	68
163 561 039	68
163 561 040	68
163 562 001	69
163 562 002	69
163 562 003	69
163 562 004	69
163 562 005	69
163 562 006	69
163 562 007	69
163 562 008	69
163 562 009	69
163 562 010	69
163 562 011	69
163 562 012	69
163 562 013	69
163 562 014	69
163 562 015	69
163 562 016	69
163 562 017	69
163 562 018	69
163 562 019	69
163 562 020	69
163 562 021	70
163 562 022	70
163 562 023	70
163 562 024	70
163 562 025	70
163 562 026	70
163 562 027	70
163 562 028	70
163 562 029	70
163 562 030	70
163 562 031	70
163 562 032	70
163 562 033	70
163 562 034	70
163 562 035	70
163 562 036	70
163 562 037	70
163 562 038	70
163 562 039	70
163 562 040	70
163 567 002	62
163 567 003	62
163 567 004	62
163 567 005	62
163 567 006	62
163 567 007	62
163 567 008	62
163 567 022	62
163 567 023	62
163 567 024	62
163 567 025	62
163 567 026	62
163 567 027	62
163 567 028	62
163 567 042	63
163 567 043	63
163 567 044	63
163 567 045	63
163 567 046	63
163 567 047	63
163 567 048	63
163 567 062	63
163 567 063	63
163 567 064	63

Code	Page
163 567 065	63
163 567 066	63
163 567 067	63
163 567 068	63
163 567 202	62
163 567 203	62
163 567 204	62
163 567 205	62
163 567 206	62
163 567 207	62
163 567 208	62
163 567 242	63
163 567 243	63
163 567 244	63
163 567 245	63
163 567 246	63
163 567 247	63
163 567 248	63
163 567 802	61
163 567 803	61
163 567 804	61
163 567 805	61
163 567 806	61
163 567 807	61
163 567 808	61
163 567 822	61
163 567 823	61
163 567 824	61
163 567 825	61
163 567 826	61
163 567 827	61
163 567 828	61
163 567 832	61
163 567 833	61
163 567 834	61
163 567 835	61
163 567 836	61
163 567 837	61
163 567 838	61
163 568 002	65
163 568 003	65
163 568 004	65
163 568 005	65
163 568 006	65
163 568 007	65
163 568 008	65
163 568 022	65
163 568 023	65
163 568 024	65
163 568 025	65
163 568 026	65
163 568 027	65
163 568 028	65
163 568 042	66
163 568 043	66
163 568 044	66
163 568 045	66
163 568 046	66
163 568 047	66
163 568 048	66
163 568 062	66
163 568 063	66
163 568 064	66
163 568 065	66
163 568 066	66
163 568 067	66
163 568 068	66
163 568 202	65

Code	Page
163 568 203	65
163 568 204	65
163 568 205	65
163 568 206	65
163 568 207	65
163 568 208	65
163 568 242	66
163 568 243	66
163 568 244	66
163 568 245	66
163 568 246	66
163 568 247	66
163 568 248	66
163 568 802	64
163 568 803	64
163 568 804	64
163 568 805	64
163 568 806	64
163 568 807	64
163 568 808	64
163 568 822	64
163 568 823	64
163 568 824	64
163 568 825	64
163 568 826	64
163 568 827	64
163 568 828	64
163 568 832	64
163 568 833	64
163 568 834	64
163 568 835	64
163 568 836	64
163 568 837	64
163 568 838	64
163 582 001	72
163 582 002	72
163 582 003	72
163 582 004	72
163 582 005	72
163 582 006	72
163 582 007	72
163 582 011	72
163 582 012	72
163 582 013	72
163 582 014	72
163 582 015	72
163 582 016	72
163 582 017	72
163 582 021	73
163 582 022	73
163 582 023	73
163 582 024	73
163 582 025	73
163 582 026	73
163 582 027	73
163 582 031	73
163 582 032	73
163 582 033	73
163 582 034	73
163 582 035	73
163 582 036	73
163 582 037	73
163 582 102	74
163 582 103	74
163 582 104	74
163 582 105	74
163 582 106	74
163 582 107	74

Index

Code	Page	Code	Page	Code	Page
163 582 112	74	163 595 005	71	163 627 136	140
163 582 113	74	163 595 006	71	163 627 137	140
163 582 114	74	163 595 007	71	163 644 012	141
163 582 115	74	163 595 008	71	163 644 013	141
163 582 116	74	163 595 009	71	163 644 014	141
163 582 117	74	163 595 010	71	163 644 015	141
163 582 122	75	163 595 011	71	163 644 016	141
163 582 123	75	163 595 012	71	163 644 017	141
163 582 124	75	163 595 013	71	163 644 032	141
163 582 125	75	163 595 014	71	163 644 033	141
163 582 126	75	163 595 015	71	163 644 034	141
163 582 127	75	163 595 016	71	163 644 035	141
163 582 132	75	163 595 017	71	163 644 036	141
163 582 133	75	163 595 018	71	163 644 037	141
163 582 134	75	163 595 019	71	163 645 012	142
163 582 135	75	163 595 020	71	163 645 013	142
163 582 136	75	163 614 012	135	163 645 014	142
163 582 137	75	163 614 013	135	163 645 015	142
163 586 001	76	163 614 014	135	163 645 016	142
163 586 002	76	163 614 015	135	163 645 017	142
163 586 003	76	163 614 016	135	163 645 032	142
163 586 004	76	163 614 017	135	163 645 033	142
163 586 005	76	163 615 012	136	163 645 034	142
163 586 006	76	163 615 013	136	163 645 035	142
163 586 007	76	163 615 014	136	163 645 036	142
163 586 011	76	163 615 015	136	163 645 037	142
163 586 012	76	163 615 016	136	163 647 112	143
163 586 013	76	163 615 017	136	163 647 113	143
163 586 014	76	163 617 112	137	163 647 114	143
163 586 015	76	163 617 113	137	163 647 115	143
163 586 016	76	163 617 114	137	163 647 116	143
163 586 017	76	163 617 115	137	163 647 117	143
163 586 102	76	163 617 116	137	163 647 132	143
163 586 103	76	163 617 117	137	163 647 133	143
163 586 104	76	163 624 012	138	163 647 134	143
163 586 105	76	163 624 013	138	163 647 135	143
163 586 106	76	163 624 014	138	163 647 136	143
163 586 107	76	163 624 015	138	163 647 137	143
163 586 112	76	163 624 016	138	163 654 012	144
163 586 113	76	163 624 017	138	163 654 013	144
163 586 114	76	163 624 032	138	163 654 014	144
163 586 115	76	163 624 033	138	163 654 015	144
163 586 116	76	163 624 034	138	163 654 016	144
163 586 117	76	163 624 035	138	163 654 017	144
163 591 001	71	163 624 036	138	163 654 032	144
163 591 002	71	163 624 037	138	163 654 033	144
163 591 003	71	163 625 012	139	163 654 034	144
163 591 004	71	163 625 013	139	163 654 035	144
163 591 005	71	163 625 014	139	163 654 036	144
163 591 006	71	163 625 015	139	163 654 037	144
163 591 007	71	163 625 016	139	163 655 012	145
163 591 008	71	163 625 017	139	163 655 013	145
163 591 009	71	163 625 032	139	163 655 014	145
163 591 010	71	163 625 033	139	163 655 015	145
163 591 011	71	163 625 034	139	163 655 016	145
163 591 012	71	163 625 035	139	163 655 017	145
163 591 013	71	163 625 036	139	163 655 032	145
163 591 014	71	163 625 037	139	163 655 033	145
163 591 015	71	163 627 112	140	163 655 034	145
163 591 016	71	163 627 113	140	163 655 035	145
163 591 017	71	163 627 114	140	163 655 036	145
163 591 018	71	163 627 115	140	163 655 037	145
163 591 019	71	163 627 116	140	163 657 112	146
163 591 020	71	163 627 117	140	163 657 113	146
163 595 001	71	163 627 132	140	163 657 114	146
163 595 002	71	163 627 133	140	163 657 115	146
163 595 003	71	163 627 134	140	163 657 116	146
163 595 004	71	163 627 135	140	163 657 117	146

Index

Code	Page
163 657 132	146
163 657 133	146
163 657 134	146
163 657 135	146
163 657 136	146
163 657 137	146
163 684 012	147
163 684 013	147
163 684 014	147
163 684 015	147
163 684 016	147
163 684 017	147
163 684 032	147
163 684 033	147
163 684 034	147
163 684 035	147
163 684 036	147
163 684 037	147
163 685 012	148
163 685 013	148
163 685 014	148
163 685 015	148
163 685 016	148
163 685 017	148
163 685 032	148
163 685 033	148
163 685 034	148
163 685 035	148
163 685 036	148
163 685 037	148
163 687 112	149
163 687 113	149
163 687 114	149
163 687 115	149
163 687 116	149
163 687 117	149
163 687 132	149
163 687 133	149
163 687 134	149
163 687 135	149
163 687 136	149
163 687 137	149
167 060 019	31
167 060 020	31
167 060 021	31
167 060 022	31
167 060 023	31
167 060 024	31
167 060 025	31
167 060 038	31
167 060 039	31
167 060 040	31
167 060 041	31
167 060 042	31
167 060 043	31
167 061 003	29
167 061 004	29
167 061 012	29
167 061 013	29
167 061 014	29
167 061 015	29
167 061 016	29
167 061 017	29
167 061 035	29, 32
167 061 036	29, 32
167 061 037	29, 32
167 061 038	29, 32
167 061 039	29, 32

Code	Page
167 061 040	29, 32
167 061 041	29, 32
167 061 153	29
167 061 155	29
167 061 156	29
167 061 157	29
167 061 158	29
167 061 159	29
167 061 160	29
167 061 161	29
167 061 162	29
167 061 163	29
167 061 164	29
167 061 165	29
167 061 166	29
167 061 167	29
173 061 003	30
173 061 004	30
173 061 005	30
173 061 006	30
173 061 007	30
173 061 008	30
173 061 009	30
173 061 010	30
173 061 011	30
173 061 012	30
173 061 013	30
173 061 014	30
173 061 015	30
173 061 016	30
173 061 017	30
173 061 153	31
173 061 155	31
173 061 156	31
173 061 157	31
173 061 158	31
173 061 159	31
173 061 160	31
173 061 161	31
173 061 162	31
173 061 163	31
173 061 164	31
173 061 165	31
173 061 166	31
173 061 167	31
199 025 697	150
199 025 698	150
199 025 699	150
199 025 707	151
199 025 708	151
199 025 709	151
199 025 717	152
199 025 718	152
199 025 719	152
199 025 727	150
199 025 728	150
199 025 729	150
199 025 737	151
199 025 738	151
199 025 739	151
199 025 747	152
199 025 748	152
199 025 749	152
199 104 102	102
199 104 103	102
199 104 104	102
199 104 105	102
199 104 106	102

Code	Page
199 104 107	102
199 104 108	102
199 104 112	102
199 104 113	102
199 104 114	102
199 104 115	102
199 104 116	102
199 104 117	102
199 104 118	102
199 104 142	102
199 104 143	102
199 104 144	102
199 104 145	102
199 104 146	102
199 104 147	102
199 104 148	102
199 104 152	102
199 104 153	102
199 104 154	102
199 104 155	102
199 104 156	102
199 104 157	102
199 104 158	102
199 107 102	80
199 107 103	80
199 107 104	80
199 107 105	80
199 107 106	80
199 107 107	80
199 107 108	80
199 107 112	80
199 107 113	80
199 107 114	80
199 107 115	80
199 107 116	80
199 107 117	80
199 107 118	80
199 107 122	81
199 107 123	81
199 107 124	81
199 107 125	81
199 107 126	81
199 107 127	81
199 107 128	81
199 107 132	81
199 107 133	81
199 107 134	81
199 107 135	81
199 107 136	81
199 107 137	81
199 107 138	81
199 107 142	83
199 107 143	83
199 107 144	83
199 107 145	83
199 107 146	83
199 107 147	83
199 107 148	83
199 107 152	83
199 107 153	83
199 107 154	83
199 107 155	83
199 107 156	83
199 107 157	83
199 107 158	83
199 107 162	84
199 107 163	84
199 107 164	84

Index

Code	Page	Code	Page	Code	Page
199 107 165	84	199 130 211	92	199 130 459	90
199 107 166	84	199 130 212	92	199 130 460	90
199 107 167	84	199 130 213	92	199 130 461	90
199 107 168	84	199 130 214	92	199 130 462	91
199 107 172	84	199 130 215	92	199 130 463	91
199 107 173	84	199 130 216	92	199 130 464	91
199 107 174	84	199 130 217	92	199 130 465	91
199 107 175	84	199 130 218	92	199 130 466	91
199 107 176	84	199 130 219	92	199 130 467	91
199 107 177	84	199 130 220	92	199 130 468	91
199 107 178	84	199 130 221	92	199 130 469	91
199 107 702	82	199 130 402	86	199 130 470	91
199 107 703	82	199 130 403	86	199 130 471	91
199 107 704	82	199 130 404	86	199 130 472	91
199 107 705	82	199 130 405	86	199 130 473	91
199 107 706	82	199 130 406	86	199 130 474	91
199 107 707	82	199 130 407	86	199 130 475	91
199 107 708	82	199 130 408	86	199 130 476	91
199 107 712	82	199 130 409	86	199 130 477	91
199 107 713	82	199 130 410	86	199 130 478	91
199 107 714	82	199 130 411	86	199 130 479	91
199 107 715	82	199 130 412	86	199 130 480	91
199 107 716	82	199 130 413	86	199 130 481	91
199 107 717	82	199 130 414	86	199 134 489	89
199 107 718	82	199 130 415	86	199 134 490	89
199 107 742	85	199 130 416	86	199 134 491	89
199 107 743	85	199 130 417	86	199 134 499	89
199 107 744	85	199 130 418	86	199 134 500	89
199 107 745	85	199 130 419	86	199 134 501	89
199 107 746	85	199 130 420	86	199 134 509	93
199 107 747	85	199 130 421	86	199 134 510	93
199 107 748	85	199 130 422	87	199 134 511	93
199 107 752	85	199 130 423	87	199 134 519	93
199 107 753	85	199 130 424	87	199 134 520	93
199 107 754	85	199 130 425	87	199 134 521	93
199 107 755	85	199 130 426	87	199 140 162	154
199 107 756	85	199 130 427	87	199 140 163	154
199 107 757	85	199 130 428	87	199 140 164	154
199 107 758	85	199 130 429	87	199 140 165	154
199 130 182	88	199 130 430	87	199 140 166	154
199 130 183	88	199 130 431	87	199 140 167	154
199 130 184	88	199 130 432	87	199 140 168	154
199 130 185	88	199 130 433	87	199 140 182	154
199 130 186	88	199 130 434	87	199 140 183	154
199 130 187	88	199 130 435	87	199 140 184	154
199 130 188	88	199 130 436	87	199 140 185	154
199 130 189	88	199 130 437	87	199 140 186	154
199 130 190	88	199 130 438	87	199 140 187	154
199 130 191	88	199 130 439	87	199 140 188	154
199 130 192	88	199 130 440	87	199 140 202	153
199 130 193	88	199 130 441	87	199 140 203	153
199 130 194	88	199 130 442	90	199 140 204	153
199 130 195	88	199 130 443	90	199 140 205	153
199 130 196	88	199 130 444	90	199 140 206	153
199 130 197	88	199 130 445	90	199 140 207	153
199 130 198	88	199 130 446	90	199 140 208	153
199 130 199	88	199 130 447	90	199 140 222	153
199 130 200	88	199 130 448	90	199 140 223	153
199 130 201	88	199 130 449	90	199 140 224	153
199 130 202	92	199 130 450	90	199 140 225	153
199 130 203	92	199 130 451	90	199 140 226	153
199 130 204	92	199 130 452	90	199 140 227	153
199 130 205	92	199 130 453	90	199 140 228	153
199 130 206	92	199 130 454	90	199 140 242	156
199 130 207	92	199 130 455	90	199 140 243	156
199 130 208	92	199 130 456	90	199 140 244	156
199 130 209	92	199 130 457	90	199 140 245	156
199 130 210	92	199 130 458	90	199 140 246	156

Index

Code	Page
199 140 247	156
199 140 248	156
199 140 262	156
199 140 263	156
199 140 264	156
199 140 265	156
199 140 266	156
199 140 267	156
199 140 268	156
199 140 282	155
199 140 283	155
199 140 284	155
199 140 285	155
199 140 286	155
199 140 287	155
199 140 288	155
199 140 302	155
199 140 303	155
199 140 304	155
199 140 305	155
199 140 306	155
199 140 307	155
199 140 308	155
199 140 722	153
199 140 723	153
199 140 724	153
199 140 725	153
199 140 726	153
199 140 727	153
199 140 728	153
199 140 742	155
199 140 743	155
199 140 744	155
199 140 745	155
199 140 746	155
199 140 747	155
199 140 748	155
199 140 762	154
199 140 763	154
199 140 764	154
199 140 765	154
199 140 766	154
199 140 767	154
199 140 768	154
199 140 782	156
199 140 783	156
199 140 784	156
199 140 785	156
199 140 786	156
199 140 787	156
199 140 788	156
199 141 162	158
199 141 163	158
199 141 164	158
199 141 165	158
199 141 166	158
199 141 167	158
199 141 168	158
199 141 182	158
199 141 183	158
199 141 184	158
199 141 185	158
199 141 186	158
199 141 187	158
199 141 188	158
199 141 202	157
199 141 203	157
199 141 204	157

Code	Page
199 141 205	157
199 141 206	157
199 141 207	157
199 141 208	157
199 141 222	157
199 141 223	157
199 141 224	157
199 141 225	157
199 141 226	157
199 141 227	157
199 141 228	157
199 141 242	160
199 141 243	160
199 141 244	160
199 141 245	160
199 141 246	160
199 141 247	160
199 141 248	160
199 141 262	160
199 141 263	160
199 141 264	160
199 141 265	160
199 141 266	160
199 141 267	160
199 141 268	160
199 141 282	159
199 141 283	159
199 141 284	159
199 141 285	159
199 141 286	159
199 141 287	159
199 141 288	159
199 141 302	159
199 141 303	159
199 141 304	159
199 141 305	159
199 141 306	159
199 141 307	159
199 141 308	159
199 141 722	157
199 141 723	157
199 141 724	157
199 141 725	157
199 141 726	157
199 141 727	157
199 141 728	157
199 141 742	159
199 141 743	159
199 141 744	159
199 141 745	159
199 141 746	159
199 141 747	159
199 141 748	159
199 141 762	158
199 141 763	158
199 141 764	158
199 141 765	158
199 141 766	158
199 141 767	158
199 141 768	158
199 141 782	160
199 141 783	160
199 141 784	160
199 141 785	160
199 141 786	160
199 141 787	160
199 141 788	160
199 185 082	99

Code	Page
199 185 083	99
199 185 084	99
199 185 085	99
199 185 086	99
199 185 087	99
199 185 088	99
199 185 092	99
199 185 093	99
199 185 094	99
199 185 095	99
199 185 096	99
199 185 097	99
199 185 098	99
199 185 102	98
199 185 103	98
199 185 104	98
199 185 105	98
199 185 106	98
199 185 107	98
199 185 108	98
199 185 112	98
199 185 113	98
199 185 114	98
199 185 115	98
199 185 116	98
199 185 117	98
199 185 118	98
199 185 122	95
199 185 123	95
199 185 124	95
199 185 125	95
199 185 126	95
199 185 127	95
199 185 128	95
199 185 132	95
199 185 133	95
199 185 134	95
199 185 135	95
199 185 136	95
199 185 137	95
199 185 138	95
199 185 142	94
199 185 143	94
199 185 144	94
199 185 145	94
199 185 146	94
199 185 147	94
199 185 148	94
199 185 152	94
199 185 153	94
199 185 154	94
199 185 155	94
199 185 156	94
199 185 157	94
199 185 158	94
199 185 262	100
199 185 263	100
199 185 264	100
199 185 265	100
199 185 266	100
199 185 267	100
199 185 268	100
199 185 272	100
199 185 273	100
199 185 274	100
199 185 275	100
199 185 276	100
199 185 277	100

Index

Code	Page	Code	Page	Code	Page
199 185 278	100	199 230 436	109	199 230 531	106
199 185 282	101	199 230 437	109	199 230 532	106
199 185 283	101	199 230 438	109	199 230 533	106
199 185 284	101	199 230 442	114	199 230 534	106
199 185 285	101	199 230 443	114	199 230 535	106
199 185 286	101	199 230 444	114	199 230 536	106
199 185 287	101	199 230 445	114	199 230 537	106
199 185 288	101	199 230 446	114	199 230 538	106
199 185 292	101	199 230 447	114	199 230 539	106
199 185 293	101	199 230 448	114	199 230 540	106
199 185 294	101	199 230 452	114	199 230 541	106
199 185 295	101	199 230 453	114	199 230 542	108
199 185 296	101	199 230 454	114	199 230 543	108
199 185 297	101	199 230 455	114	199 230 544	108
199 185 298	101	199 230 456	114	199 230 545	108
199 185 302	97	199 230 457	114	199 230 546	108
199 185 303	97	199 230 458	114	199 230 547	108
199 185 304	97	199 230 462	116	199 230 548	108
199 185 305	97	199 230 463	116	199 230 549	108
199 185 306	97	199 230 464	116	199 230 550	108
199 185 307	97	199 230 465	116	199 230 551	108
199 185 308	97	199 230 466	116	199 230 552	108
199 185 312	97	199 230 467	116	199 230 553	108
199 185 313	97	199 230 468	116	199 230 554	108
199 185 314	97	199 230 472	116	199 230 555	108
199 185 315	97	199 230 473	116	199 230 556	108
199 185 316	97	199 230 474	116	199 230 557	108
199 185 317	97	199 230 475	116	199 230 558	108
199 185 318	97	199 230 476	116	199 230 559	108
199 185 322	96	199 230 477	116	199 230 560	108
199 185 323	96	199 230 478	116	199 230 561	108
199 185 324	96	199 230 482	121	199 230 562	113
199 185 325	96	199 230 483	121	199 230 563	113
199 185 326	96	199 230 484	121	199 230 564	113
199 185 327	96	199 230 485	121	199 230 565	113
199 185 328	96	199 230 486	121	199 230 566	113
199 185 332	96	199 230 487	121	199 230 567	113
199 185 333	96	199 230 488	121	199 230 568	113
199 185 334	96	199 230 492	121	199 230 569	113
199 185 335	96	199 230 493	121	199 230 570	113
199 185 336	96	199 230 494	121	199 230 571	113
199 185 337	96	199 230 495	121	199 230 572	113
199 185 338	96	199 230 496	121	199 230 573	113
199 230 402	107	199 230 497	121	199 230 574	113
199 230 403	107	199 230 498	121	199 230 575	113
199 230 404	107	199 230 502	123	199 230 576	113
199 230 405	107	199 230 503	123	199 230 577	113
199 230 406	107	199 230 504	123	199 230 578	113
199 230 407	107	199 230 505	123	199 230 579	113
199 230 408	107	199 230 506	123	199 230 580	113
199 230 412	107	199 230 507	123	199 230 581	113
199 230 413	107	199 230 508	123	199 230 582	115
199 230 414	107	199 230 512	123	199 230 583	115
199 230 415	107	199 230 513	123	199 230 584	115
199 230 416	107	199 230 514	123	199 230 585	115
199 230 417	107	199 230 515	123	199 230 586	115
199 230 418	107	199 230 516	123	199 230 587	115
199 230 422	109	199 230 517	123	199 230 588	115
199 230 423	109	199 230 518	123	199 230 589	115
199 230 424	109	199 230 522	106	199 230 590	115
199 230 425	109	199 230 523	106	199 230 591	115
199 230 426	109	199 230 524	106	199 230 592	115
199 230 427	109	199 230 525	106	199 230 593	115
199 230 428	109	199 230 526	106	199 230 594	115
199 230 432	109	199 230 527	106	199 230 595	115
199 230 433	109	199 230 528	106	199 230 596	115
199 230 434	109	199 230 529	106	199 230 597	115
199 230 435	109	199 230 530	106	199 230 598	115

Index

Code	Page
199 230 599	115
199 230 600	115
199 230 601	115
199 230 602	120
199 230 603	120
199 230 604	120
199 230 605	120
199 230 606	120
199 230 607	120
199 230 608	120
199 230 609	120
199 230 610	120
199 230 611	120
199 230 612	120
199 230 613	120
199 230 614	120
199 230 615	120
199 230 616	120
199 230 617	120
199 230 618	120
199 230 619	120
199 230 620	120
199 230 621	120
199 230 622	122
199 230 623	122
199 230 624	122
199 230 625	122
199 230 626	122
199 230 627	122
199 230 628	122
199 230 629	122
199 230 630	122
199 230 631	122
199 230 632	122
199 230 633	122
199 230 634	122
199 230 635	122
199 230 636	122
199 230 637	122
199 230 638	122
199 230 639	122
199 230 640	122
199 230 641	122
199 230 752	111
199 230 753	111
199 230 754	111
199 230 755	111
199 230 756	111
199 230 757	111
199 230 758	111
199 230 772	111
199 230 773	111
199 230 774	111
199 230 775	111
199 230 776	111
199 230 777	111
199 230 778	111
199 230 792	118
199 230 793	118
199 230 794	118
199 230 795	118
199 230 796	118
199 230 797	118
199 230 798	118
199 230 812	118
199 230 813	118
199 230 814	118
199 230 815	118

Code	Page
199 230 816	118
199 230 817	118
199 230 818	118
199 230 832	125
199 230 833	125
199 230 834	125
199 230 835	125
199 230 836	125
199 230 837	125
199 230 838	125
199 230 852	125
199 230 853	125
199 230 854	125
199 230 855	125
199 230 856	125
199 230 857	125
199 230 858	125
199 230 872	110
199 230 873	110
199 230 874	110
199 230 875	110
199 230 876	110
199 230 877	110
199 230 878	110
199 230 879	110
199 230 880	110
199 230 881	110
199 230 892	110
199 230 893	110
199 230 894	110
199 230 895	110
199 230 896	110
199 230 897	110
199 230 898	110
199 230 899	110
199 230 900	110
199 230 901	110
199 230 912	117
199 230 913	117
199 230 914	117
199 230 915	117
199 230 916	117
199 230 917	117
199 230 918	117
199 230 919	117
199 230 920	117
199 230 921	117
199 230 932	117
199 230 933	117
199 230 934	117
199 230 935	117
199 230 936	117
199 230 937	117
199 230 938	117
199 230 939	117
199 230 940	117
199 230 941	117
199 230 942	124
199 230 943	124
199 230 944	124
199 230 945	124
199 230 946	124
199 230 947	124
199 230 948	124
199 230 949	124
199 230 950	124
199 230 951	124
199 230 952	124

Code	Page
199 230 953	124
199 230 954	124
199 230 955	124
199 230 956	124
199 230 957	124
199 230 958	124
199 230 959	124
199 230 960	124
199 230 961	124
199 234 609	112
199 234 610	112
199 234 611	112
199 234 619	112
199 234 620	112
199 234 621	112
199 234 629	119
199 234 630	119
199 234 631	119
199 234 639	119
199 234 640	119
199 234 641	119
199 234 649	126
199 234 650	126
199 234 651	126
199 234 659	126
199 234 660	126
199 234 661	126
199 240 162	161
199 240 163	161
199 240 164	161
199 240 165	161
199 240 166	161
199 240 167	161
199 240 168	161
199 240 182	161
199 240 183	161
199 240 184	161
199 240 185	161
199 240 186	161
199 240 187	161
199 240 188	161
199 240 202	162
199 240 203	162
199 240 204	162
199 240 205	162
199 240 206	162
199 240 207	162
199 240 208	162
199 240 222	162
199 240 223	162
199 240 224	162
199 240 225	162
199 240 226	162
199 240 227	162
199 240 228	162
199 240 242	163
199 240 243	163
199 240 244	163
199 240 245	163
199 240 246	163
199 240 247	163
199 240 248	163
199 240 262	163
199 240 263	163
199 240 264	163
199 240 265	163
199 240 266	163
199 240 267	163

Index

Code	Page	Code	Page	Code	Page
199 240 268	163	199 241 646	164	199 285 154	127
199 240 642	161	199 241 647	164	199 285 155	127
199 240 643	161	199 241 648	164	199 285 156	127
199 240 644	161	199 241 662	165	199 285 157	127
199 240 645	161	199 241 663	165	199 285 158	127
199 240 646	161	199 241 664	165	199 285 262	134
199 240 647	161	199 241 665	165	199 285 263	134
199 240 648	161	199 241 666	165	199 285 264	134
199 240 662	162	199 241 667	165	199 285 265	134
199 240 663	162	199 241 668	165	199 285 266	134
199 240 664	162	199 241 682	166	199 285 267	134
199 240 665	162	199 241 683	166	199 285 268	134
199 240 666	162	199 241 684	166	199 285 272	134
199 240 667	162	199 241 685	166	199 285 273	134
199 240 668	162	199 241 686	166	199 285 274	134
199 240 682	163	199 241 687	166	199 285 275	134
199 240 683	163	199 241 688	166	199 285 276	134
199 240 684	163	199 285 082	132	199 285 277	134
199 240 685	163	199 285 083	132	199 285 278	134
199 240 686	163	199 285 084	132	199 285 282	133
199 240 687	163	199 285 085	132	199 285 283	133
199 240 688	163	199 285 086	132	199 285 284	133
199 241 162	164	199 285 087	132	199 285 285	133
199 241 163	164	199 285 088	132	199 285 286	133
199 241 164	164	199 285 092	132	199 285 287	133
199 241 165	164	199 285 093	132	199 285 288	133
199 241 166	164	199 285 094	132	199 285 292	133
199 241 167	164	199 285 095	132	199 285 293	133
199 241 168	164	199 285 096	132	199 285 294	133
199 241 182	164	199 285 097	132	199 285 295	133
199 241 183	164	199 285 098	132	199 285 296	133
199 241 184	164	199 285 102	131	199 285 297	133
199 241 185	164	199 285 103	131	199 285 298	133
199 241 186	164	199 285 104	131	199 285 302	130
199 241 187	164	199 285 105	131	199 285 303	130
199 241 188	164	199 285 106	131	199 285 304	130
199 241 202	165	199 285 107	131	199 285 305	130
199 241 203	165	199 285 108	131	199 285 306	130
199 241 204	165	199 285 112	131	199 285 307	130
199 241 205	165	199 285 113	131	199 285 308	130
199 241 206	165	199 285 114	131	199 285 312	130
199 241 207	165	199 285 115	131	199 285 313	130
199 241 208	165	199 285 116	131	199 285 314	130
199 241 222	165	199 285 117	131	199 285 315	130
199 241 223	165	199 285 118	131	199 285 316	130
199 241 224	165	199 285 122	128	199 285 317	130
199 241 225	165	199 285 123	128	199 285 318	130
199 241 226	165	199 285 124	128	199 285 322	129
199 241 227	165	199 285 125	128	199 285 323	129
199 241 228	165	199 285 126	128	199 285 324	129
199 241 242	166	199 285 127	128	199 285 325	129
199 241 243	166	199 285 128	128	199 285 326	129
199 241 244	166	199 285 132	128	199 285 327	129
199 241 245	166	199 285 133	128	199 285 328	129
199 241 246	166	199 285 134	128	199 285 332	129
199 241 247	166	199 285 135	128	199 285 333	129
199 241 248	166	199 285 136	128	199 285 334	129
199 241 262	166	199 285 137	128	199 285 335	129
199 241 263	166	199 285 138	128	199 285 336	129
199 241 264	166	199 285 142	127	199 285 337	129
199 241 265	166	199 285 143	127	199 285 338	129
199 241 266	166	199 285 144	127	720 600 236	22
199 241 267	166	199 285 145	127	720 600 237	22
199 241 268	166	199 285 146	127	720 600 238	22
199 241 642	164	199 285 147	127	720 600 239	22
199 241 643	164	199 285 148	127	720 600 240	22
199 241 644	164	199 285 152	127	720 600 241	22
199 241 645	164	199 285 153	127	720 600 242	22

Index

Code	Page
720 600 243	22
720 600 246	21
720 600 247	21
720 600 248	21
720 600 249	21
720 600 250	21
720 600 251	21
720 600 252	21
720 600 253	21
720 600 257	21
720 600 258	21
720 600 268	21
723 000 106	7
723 000 107	7
723 000 108	7
723 000 109	7
723 000 110	7
723 000 111	7
723 000 112	7
723 000 113	7
723 000 114	7
723 000 117	7
723 010 120	7
723 100 105	8
723 100 106	8
723 100 107	8
723 100 108	8
723 100 109	8
723 100 110	8
723 100 111	8
723 100 112	8
723 100 113	8
723 100 114	8
723 100 117	8
723 100 206	12
723 100 207	12
723 100 208	12
723 100 209	12
723 100 210	12
723 100 211	12
723 150 105	8
723 150 106	8
723 150 107	8
723 150 108	8
723 150 109	8
723 150 110	8
723 150 111	8
723 150 112	8
723 150 113	8
723 150 114	8
723 150 117	8
723 150 120	8
723 200 009	10
723 200 010	10
723 200 011	10
723 200 105	8
723 200 106	8
723 200 107	8
723 200 108	8
723 200 109	8
723 200 110	8
723 200 111	8
723 200 112	8
723 200 113	8
723 200 114	8
723 200 117	8
723 200 120	8
723 200 134	10

Code	Page
723 200 135	10
723 200 137	10
723 200 138	10
723 200 142	10
723 200 145	10
723 200 147	10
723 200 151	10
723 200 164	10
723 200 170	10
723 200 178	10
723 200 184	10
723 250 106	9
723 250 107	9
723 250 108	9
723 250 109	9
723 250 110	9
723 250 111	9
723 250 112	9
723 250 113	9
723 250 114	9
723 300 108	9
723 300 111	9
723 310 006	13
723 310 007	13
723 310 008	13
723 310 009	13
723 310 010	13
723 310 011	13
723 310 036	13
723 310 037	13
723 310 038	13
723 310 039	13
723 310 040	13
723 310 041	13
723 510 105	14
723 510 106	14
723 510 107	14
723 510 108	14
723 510 109	14
723 510 110	14
723 510 111	14
723 510 112	14
723 510 114	14
723 510 130	14
723 510 131	14
723 510 132	14
723 510 133	14
723 510 134	14
723 510 135	14
723 510 136	14
723 510 137	14
723 510 139	14
723 510 155	14
723 510 156	14
723 510 157	14
723 510 158	14
723 510 159	14
723 510 160	14
723 510 161	14
723 510 162	14
723 510 163	14
723 510 164	14
723 510 180	14
723 510 181	14
723 510 182	14
723 510 183	14
723 510 184	14
723 510 185	14

Code	Page
723 510 186	14
723 510 187	14
723 510 188	14
723 510 189	14
723 510 205	15
723 510 206	15
723 510 207	15
723 510 208	15
723 510 209	15
723 510 210	15
723 510 211	15
723 510 230	15
723 510 231	15
723 510 232	15
723 510 233	15
723 510 234	15
723 510 235	15
723 510 236	15
723 510 313	14
723 510 338	14
723 514 105	15
723 514 106	15
723 514 107	15
723 514 108	15
723 514 109	15
723 514 110	15
723 514 111	15
723 514 130	15
723 514 131	15
723 514 132	15
723 514 133	15
723 514 134	15
723 514 135	15
723 514 136	15
723 530 306	17
723 530 307	17
723 530 308	17
723 530 309	17
723 530 310	17
723 530 311	17
723 530 806	18
723 530 807	18
723 530 808	18
723 530 809	18
723 530 810	18
723 530 811	18
723 540 205	16
723 540 206	16
723 540 207	16
723 540 208	16
723 540 209	16
723 540 210	16
723 540 211	16
723 540 230	16
723 540 231	16
723 540 232	16
723 540 233	16
723 540 234	16
723 540 235	16
723 540 236	16
723 540 705	16
723 540 706	16
723 540 707	16
723 540 708	16
723 540 709	16
723 540 710	16
723 540 711	16
723 540 730	16

Index

Code	Page	Code	Page	Code	Page
723 540 731	16	723 800 105	20	723 910 210	12
723 540 732	16	723 800 106	20	723 910 211	12
723 540 733	16	723 800 107	20	723 910 342	11
723 540 734	16	723 800 108	20	723 910 347	11
723 540 735	16	723 800 109	20	723 910 354	11
723 540 736	16	723 800 110	20	723 910 360	11
723 545 505	17	723 800 111	20	723 910 366	11
723 545 506	17	723 800 162	20	723 910 371	11
723 545 507	17	723 800 163	20	723 910 434	12
723 545 508	17	723 800 164	20	723 910 437	12
723 545 509	17	723 810 117	23	723 910 441	12
723 545 510	17	723 810 120	23	723 910 446	12
723 545 511	17	723 840 105	20	723 910 452	12
723 545 530	17	723 840 106	20	723 910 458	12
723 545 531	17	723 840 107	20	723 910 505	13
723 545 532	17	723 840 108	20	723 910 556	13
723 545 533	17	723 840 109	20	723 910 557	13
723 545 534	17	723 840 110	20	723 910 558	13
723 545 535	17	723 840 111	20	723 910 559	13
723 545 536	17	723 840 112	20	723 910 560	13
723 550 506	18	723 840 114	20	723 910 561	13
723 550 507	18	723 840 123	20	723 960 105	11
723 550 508	18	723 840 605	20	723 960 106	11
723 550 509	18	723 840 606	20	723 960 107	11
723 550 510	18	723 840 607	20	723 960 108	11
723 550 511	18	723 840 608	20	723 960 109	11
723 550 906	18	723 840 609	20	723 960 110	11
723 550 907	18	723 840 610	20	723 960 111	11
723 550 908	18	723 840 611	20	723 960 112	11
723 550 909	18	723 900 334	10	723 960 113	11
723 550 910	18	723 900 337	10	723 960 114	11
723 550 911	18	723 900 341	10	723 960 117	11
723 550 957	18	723 900 342	10	723 960 405	11
723 550 958	18	723 900 346	10	723 960 406	11
723 550 967	18	723 900 347	10	723 960 407	11
723 550 968	18	723 900 348	10	723 960 408	11
723 602 005	21	723 900 352	10	724 600 206	21
723 602 006	21	723 900 353	10	724 600 207	21
723 602 007	21	723 900 354	10	724 600 208	21
723 602 008	21	723 900 355	10	724 600 209	21
723 602 009	21	723 900 358	10	724 600 210	21
723 602 010	21	723 900 359	10	724 600 211	21
723 602 011	21	723 900 360	10	724 600 212	21
723 602 012	21	723 900 364	10	724 600 213	21
723 602 013	21	723 900 365	10	724 600 655	22
723 602 014	21	723 900 370	10	724 600 656	22
723 690 005	19	723 900 371	10	724 600 657	22
723 690 006	19	723 900 372	10	724 600 658	22
723 690 007	19	723 900 376	10	724 600 659	22
723 690 008	19	723 900 378	10	724 600 660	22
723 690 009	19	723 900 390	10	724 600 661	22
723 690 010	19	723 900 396	10	724 600 705	22
723 690 011	19	723 910 105	9	724 600 706	22
723 690 012	19	723 910 106	9	724 600 707	22
723 690 013	19	723 910 107	9	724 600 708	22
723 690 014	19	723 910 108	9	724 600 709	22
723 790 106	23	723 910 109	9	724 600 710	22
723 790 107	23	723 910 110	9	724 600 711	22
723 790 108	23	723 910 111	9	724 600 806	21
723 790 109	23	723 910 112	9	724 600 807	21
723 790 110	23	723 910 113	9	724 600 808	21
723 790 111	23	723 910 114	9	724 600 809	21
723 790 112	23	723 910 117	9	724 600 810	21
723 790 113	23	723 910 120	9	724 600 811	21
723 790 114	23	723 910 206	12	724 600 812	21
723 790 117	23	723 910 207	12	724 600 813	21
723 790 119	23	723 910 208	12	727 700 217	26
723 790 120	23	723 910 209	12	727 700 406	24

Index

Code	Page
727 700 407	24
727 700 408	24
727 700 409	24
727 700 410	24
727 700 411	24
727 700 412	24
727 700 413	24
727 700 414	24
727 700 416	24
727 700 417	24, 25
727 700 419	24, 25
727 700 420	24, 25
727 700 421	24
727 701 206	26
727 701 207	26
727 701 208	26
727 701 209	26
727 701 210	26
727 701 211	26
727 701 212	26
727 701 213	26
727 701 214	26
727 701 220	26
727 701 406	25
727 701 407	25
727 701 408	25
727 701 409	25
727 701 410	25
727 701 411	25
727 701 412	25
727 701 413	25
727 701 414	25
748 400 305	27
748 400 306	27
748 400 307	27
748 400 308	27
748 400 309	27
748 400 310	27
748 400 311	27
748 400 312	27
748 400 313	27
748 400 314	27
748 400 315	27
748 400 316	27
748 400 317	27
748 400 319	27
748 400 320	27
748 410 004	19
748 410 005	19
748 410 006	19
748 410 007	19
748 410 008	19
748 410 009	19
748 410 010	19
748 410 011	19
748 410 014	19
748 410 016	19
748 410 019	28
748 410 022	28
748 410 248	19
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

Code	Page
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
749 410 004	19
749 410 005	19
749 410 006	19
749 410 007	19
749 410 008	19
749 410 009	19
749 410 010	19
749 410 011	19
749 410 014	19
749 410 016	19
749 410 019	28
749 410 022	28
749 410 248	19
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
790 109 001	34
790 109 002	34
790 109 003	34
790 109 011	34
790 109 012	34
790 109 013	34
790 109 107	34
790 109 108	34
790 114 028	34
799 298 010	33
799 298 016	33
799 298 027	33
799 298 028	33
799 299 001	33
799 299 002	33
799 299 003	34
799 299 004	34
799 299 005	34
799 350 364	34
799 495 145	34
799 495 146	34

[illegible]

Notes

[illegible]

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.

Worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries

www.gfps.com

Argentina / Southern South America

Georg Fischer Central Plastics
Sudamérica S.R.L.
Buenos Aires, Argentina
Phone +54 11 4512 02 90
gfcentral.ps.ar@georgfischer.com
www.gfps.com/ar

Australia

George Fischer Pty Ltd
Riverwood NSW 2210 Australia
Phone +61 (0) 2 9502 8000
australia.ps@georgfischer.com
www.gfps.com/au

Austria

Georg Fischer
Rohrleitungssysteme GmbH
3130 Herzogenburg
Phone +43 (0) 2782 856 43-0
austria.ps@georgfischer.com
www.gfps.com/at

Belgium / Luxembourg

Georg Fischer NV/SA
1070 Bruxelles/Brüssel
Phone +32 (0) 2 556 40 20
be.ps@georgfischer.com
www.gfps.com/be

Brazil

Georg Fischer Sist. de Tub. Ltda.
04795-100 São Paulo
Phone +55 (0) 11 5525 1311
br.ps@georgfischer.com
www.gfps.com/br

Canada

Georg Fischer Piping Systems Ltd
Mississauga, ON L5T 2B2
Phone +1 (905) 670 8005
Fax +1 (905) 670 8513
ca.ps@georgfischer.com
www.gfps.com/ca

China

Georg Fischer Piping Systems Ltd
Shanghai 201319
Phone +86 21 3899 3899
china.ps@georgfischer.com
www.gfps.com/cn

Denmark / Iceland

Georg Fischer A/S
2630 Taastrup
Phone +45 (0) 70 22 19 75
info.dk.ps@georgfischer.com
www.gfps.com/dk

Finland

Georg Fischer AB
01510 VANTAA
Phone +358 (0) 9 586 58 25
Fax +358 (0) 9 586 58 29
info.fi.ps@georgfischer.com
www.gfps.com/fi

France

Georg Fischer SAS
95932 Roissy Charles de Gaulle Cedex
Phone +33 (0) 1 41 84 68 84
fr.ps@georgfischer.com
www.gfps.com/fr

Germany

Georg Fischer GmbH
73095 Albershausen
Phone +49 (0) 7161 302-0
info.de.ps@georgfischer.com
www.gfps.com/de

India

Georg Fischer Piping Systems Ltd
400 076 Mumbai
Phone +91 224007 2001
branchoffice@georgfischer.com
www.gfps.com/in

Indonesia

George Fischer Pte Ltd –
Representative Office
Phone +62 21 2900 8564
Fax +62 21 2900 8566
sgp.ps@georgfischer.com
www.gfps.com/sg

Italy

Georg Fischer S.p.A.
20063 Cernusco S/N (MI)
Phone +39 02 921 861
it.ps@georgfischer.com
www.gfps.com/it

Japan

Georg Fischer Ltd
556-0011 Osaka,
Phone +81 (0) 6 6635 2691
jp.ps@georgfischer.com
www.gfps.com/jp

Korea

GF Piping Systems
Georg Fischer Korea Co., Ltd.
Unit 2501, U-Tower
120 HeungdeokJungang-ro (Yeongdeok-dong)
Giheung-gu, Yongin-si, Gyeonggi-do, Korea
Phone: +82 31 8017 1450
Fax: +82 31 217 1454
kor.ps@georgfischer.com
www.gfps.com/kr

Malaysia

George Fischer (M) Sdn. Bhd.
40460 Shah Alam, Selangor Darul Ehsan
Phone +60 (0) 3 5122 5585
Fax +603 5122 5575
my.ps@georgfischer.com
www.gfps.com/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.gfps.com/mx

Middle East

Georg Fischer
Piping Systems (Switzerland) Ltd
Dubai, United Arab Emirates
Phone +971 4 289 49 60
gcc.ps@georgfischer.com
www.gfps.com/int

Netherlands

Georg Fischer N.V.
8161 PA Epe
Phone +31 (0) 578 678 222
nl.ps@georgfischer.com
www.gfps.com/nl

Norway

Georg Fischer AS
1351 Rud
Phone +47 67 18 29 00
no.ps@georgfischer.com
www.gfps.com/no

Philippines

George Fischer Pte Ltd
Representative Office
Phone +632 571 2365
Fax +632 571 2368
sgp.ps@georgfischer.com
www.gfps.com/sg

Poland

Georg Fischer Sp. z o.o.
05-090 Sekocin Nowy
Phone +48 (0) 22 31 31 0 50
poland.ps@georgfischer.com
www.gfps.com/pl

Romania

Georg Fischer
Piping Systems (Switzerland) Ltd
020257 Bucharest - Sector 2
Phone +40 (0) 21 230 53 80
ro.ps@georgfischer.com
www.gfps.com/int

Russia

Georg Fischer
Piping Systems (Switzerland) Ltd
Moscow 125047
Phone +7 495 258 60 80
ru.ps@georgfischer.com
www.gfps.com/ru

Singapore

George Fischer Pte Ltd
11 Tampines Street 92, #04-01/07
528 872 Singapore
Phone +65 6747 0611
Fax +65 6747 0577
sgp.ps@georgfischer.com
www.gfps.com/sg

Spain / Portugal

Georg Fischer S.A.
28046 Madrid
Phone +34 (0) 91 781 98 90
es.ps@georgfischer.com
www.gfps.com/es

Sweden

Georg Fischer AB
117 43 Stockholm
Phone +46 (0) 8 506 775 00
info.se.ps@georgfischer.com
www.gfps.com/se

Switzerland

Georg Fischer
Rohrleitungssysteme [Schweiz] AG
8201 Schaffhausen
Phone +41 (0) 52 631 30 26
ch.ps@georgfischer.com
www.gfps.com/ch

Taiwan

Georg Fischer Co., Ltd
San Chung Dist., New Taipei City
Phone +886 2 8512 2822
Fax +886 2 8512 2823
www.gfps.com/tw

United Kingdom / Ireland

George Fischer Sales Limited
Coventry, CV2 2ST
Phone +44 (0) 2476 535 535
uk.ps@georgfischer.com
www.gfps.com/uk

USA / Caribbean

Georg Fischer LLC
9271 Jeronimo Road
92618 Irvine, CA
Phone +1 714 731 88 00
Fax +1 714 731 62 01
us.ps@georgfischer.com
www.gfps.com/us

Vietnam

George Fischer Pte Ltd
Representative Office
136E Tran Vu, Ba Dinh District, Hanoi
Phone +84 4 3715 3290
Fax +84 4 3715 3285
sgp.ps@georgfischer.com
www.gfps.com/sg

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.gfps.com/int

The technical data are 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.