

Other Products Available from GF Piping Systems



Fuseal® Corrosive Waste Piping System

Pipe, Fittings, Accessories
 Electrofusion
 Mechanical Joint

Excellent chemical and physical properties make the Fuseal system ideal for handling corrosive chemical waste solutions DWV applications. Fuseal is suitable anywhere a mixtures of acids, bases and solvents are drained.



Signet Instrumentation

Chlorine Dissolved Oxygen
 Turbidity Flow/Batch
 pH/ORP Conductivity/Resistivity
 Pressure Temperature
 Level

Our measurement offering will cover your needs: flow, pH, conductivity, level, temperature and various water quality parameters. Corresponding to our piping systems, most sensors are available in plastic and are therefore highly resistant to chemicals. Our plug-and-play measurement products are self-explanatory, easy to maintain and are offered with suitable installation fittings.



Actuation

With our modular set-up, valves and actuators can be combined flexibly and additional functionalities, like positioners or monitoring devices, can be added optionally. Naturally, we offer the whole range in all-plastic designs, which are capable of withstanding harsh environments. A wide range of pressure regulating valves and accessories complete our actuation portfolio.

Pipe Metric-To-Inch Conversion Chart

16 mm = 5/8"	40 mm = 1 1/4"	90 mm = 3"	225 mm = 8"	400 mm = 16"
20 mm = 1/2"	50 mm = 1 1/2"	110 mm = 4"	250 mm = 10"	450 mm = 18"
25 mm = 3/4"	63 mm = 2"	160 mm = 6"	315 mm = 12"	500 mm = 20"
32 mm = 1"	75 mm = 2 1/2"	200 mm = 8"	355 mm = 14"	

Go to www.gfpiping.com for more information!

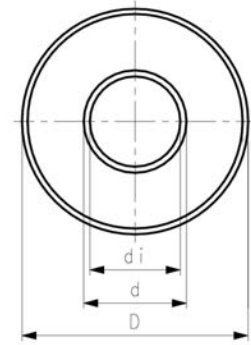
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COOL-FIT® ABS Plus

COOL-FIT ABS Plus Pipes

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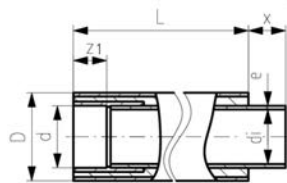
Pipe pre-insulated, ABS Metric, nominal pressure 150 psi (PN10) at 68F (20C)

Model:

- Elbow 90° pre-insulated, ABS metric
- Outer jacket impact and UV resistant Color: black
- Insulation made from PUR

d (mm)	D (mm)	PN (bar)	Part No.	USD / m	SP	weight (kg/m)	di (mm)	Refrigeration Size (inch)	closest inch (inch)
25	90	10	169 017 682	72.90	5	1.300	20.4	7/8	3/4
32	90	10	169 017 683	72.90	5	1.500	28.2	1 1/8	1
40	110	10	169 017 684	85.10	5	1.900	35.2	1 3/8	1 1/4
50	110	10	169 017 685	91.90	5	2.100	44.0	1 5/8	1 1/2
63	125	10	169 017 686	113.20	5	2.700	55.4	2 1/8	2
75	140	10	169 017 687	132.20	5	3.500	66.0	2 5/8	2 1/2
90	160	10	169 017 688	163.50	5	4.400	79.2	3 1/8	3
110	180	10	169 017 689	199.40	5	5.500	96.8	4 1/8	4
140	225	10	169 017 691	288.90	5	8.500	123.4		5
160	250	10	169 017 692	311.30	5	10.500	141.0	6	6
200	280	10	169 017 693	437.80	5	13.500	175.4		8
225	315	10	169 017 694	541.80	5	18.500	197.2		8

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Pipe pre-insulated, nominal pressure 90psi (PN6) at 68F (20C)

Model:

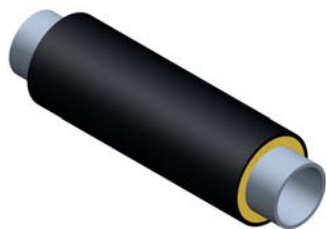
- Elbow 90° pre-insulated, ABS metric
- Insulation made from PUR
- Outer jacket impact and UV resistant. Color: black
- Insulated length: 5M (also available in 10M)
- Supplied with one end as bare pipe spigot and one end with socket coupling

d (mm)	D (mm)	PN (bar)	Part No.	USD / m	SP	weight (kg/m)
250	355	6	169 017 695	1,134.60	5	14.900
280	400	6	169 017 696	1,423.30	5	18.700
315	450	6	169 017 697	1,835.10	5	23.700

x (mm)	L (mm)	e (mm)	di (mm)	Z1 (mm)	closest inch (inch)
150	5000	9.6	230.8	130	10
165	5000	10.7	258.6	145	10
185	5000	12.1	290.8	165	12

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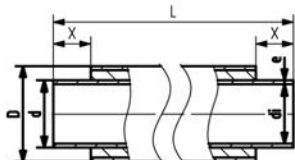
Pipe pre-insulated, nominal pressure 90psi (PN6) at 68F (20C)



Model:

- Elbow 90° pre-insulated, ABS metric
- Insulation made from PUR
- Outer jacket impact and UV resistant. Color: black
- Insulated length: 5M (also available in 10M)
- Supplied with both ends as bare pipe spigot

d (mm)	D (mm)	PN (bar)	Part No.	USD / m	SP weight (kg/m)	x (mm)	L (mm)	e (mm)	di (mm)	closest inch (inch)	
250	355	6	169 017 698	1,134.60	5	14.900	150	5000	9.6	230.8	10
280	400	6	169 017 699	1,423.30	5	18.700	165	5000	10.7	258.6	10
315	450	6	169 017 700	1,835.10	5	23.700	185	5000	12.1	290.8	12



COOL-FIT ABS Plus Fittings

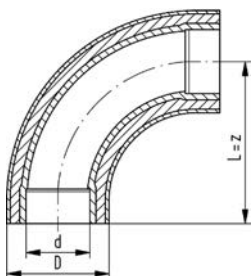
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COOL-FIT ABS Plus 90° Bend PN10

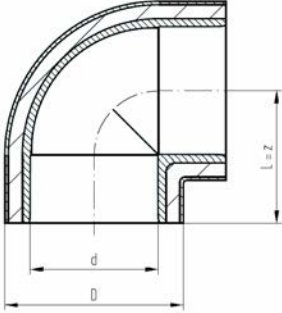
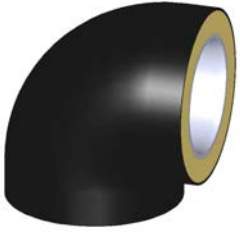
Model:

- Elbow 90° pre-insulated, ABS metric
 - Insulation made from PUR
 - Outer jacket impact and UV resistant Color: black
- Connecting dimensions = Pipe outer diameter ("d")

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	L (mm)	required Nipple	
25	90	10	738 001 107	80.70	1	0.403	¾	69	69	738901607
32	90	10	738 001 108	85.10	1	0.485	1	86	86	738901608
40	110	10	738 001 109	103.00	1	0.800	1 ¼	109	109	738901609
50	110	10	738 001 110	111.00	1	1.098	1 ½	131	131	738901610
63	125	10	738 001 111	136.60	1	1.673	2	164	164	738901611
75	140	10	738 001 112	173.60	1	2.555	2 ½	194	194	738901612
90	160	10	738 001 113	212.70	1	4.156	3	231	231	738901613
110	180	10	738 001 114	294.50	1	7.132	4	281	281	738901614
140	225	10	738 001 116	415.40	1	15.232	5	356	356	738901616
225	315	10	738 001 120	593.30	1	18.025	8	287	287	738901620



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COOL-FIT ABS Plus 90° Elbow PN10

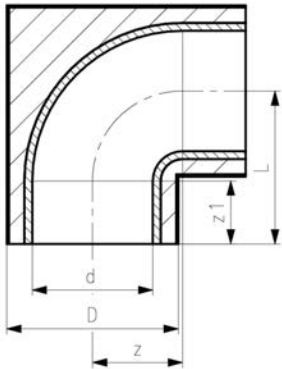
Model:

- Elbow 90° pre-insulated, ABS metric
- Insulation made from PUR
- outer jacket impact and UV resistant. Color: Black
- Compact design

Connecting dimensions = Pipe outer diameter ("d")

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	L (mm)	z (mm)	required Nipple	closest inch (inch)	
160	250	10	738 101 117	391.90	1	5.732	166	166	738901617	6
200	280	10	738 101 119	576.60	1	11.030	207	207	738901619	8

E



COOL-FIT ABS Plus 90° Elbow PN6

Model:

- Elbow 90° pre-insulated, ABS metric
- Insulation made from PUR
- Outer jacket impact and UV resistant Color: black
- Compact design

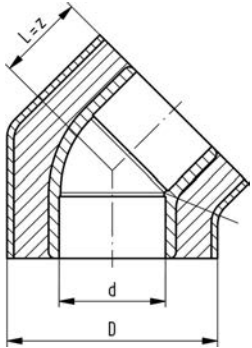
Connecting dimensions = Pipe outer diameter ("d")

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	L (mm)	z1 (mm)	z (mm)	closest inch (inch)	
250	355	6	738 101 121	3,055.40	1	22.046	263	130	131	10
280	400	6	738 001 122	3,389.80	1	39.683	357	145	210	10
315	450	6	738 001 123	3,931.70	1	52.911	401	165	237	12

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COOL-FIT ABS Plus 45° Elbow PN10**Model:**

- Elbow 90° pre-insulated, ABS metric
 - Insulation made from PUR
 - outer jacket impact and UV resistant. Color: Black
- Connecting dimensions = Pipe outer diameter ("d")

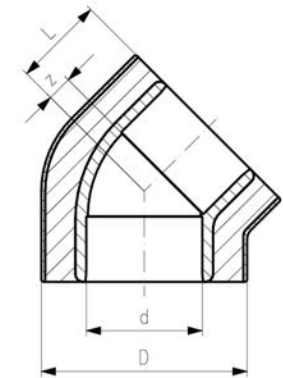


d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	L (mm)	required Nipple	
25	90	10	738 151 107	71.70	1	0.176	¾	25	25	738901607
32	90	10	738 151 108	75.10	1	0.227	1	30	30	738901608
40	110	10	738 151 109	85.10	1	0.366	1 ¼	36	36	738901609
50	110	10	738 151 110	86.40	1	0.425	1 ½	43	43	738901610
63	125	10	738 151 111	107.60	1	0.661	2	52	52	738901611
75	140	10	738 151 112	126.60	1	0.977	2 ½	61	61	738901612
90	160	10	738 151 113	159.10	1	1.526	3	71	71	738901613
110	180	10	738 151 114	200.50	1	2.132	4	89	89	738901614
140	225	10	738 151 116	277.70	1	4.336	5	108	108	738901616
160	250	10	738 151 117	344.90	1	6.402	6	122	122	738901617
200	280	10	738 151 119	474.70	1	8.128	8	149	149	738901619
225	315	10	738 151 120	510.50	1	10.185	8	168	168	738901620

E

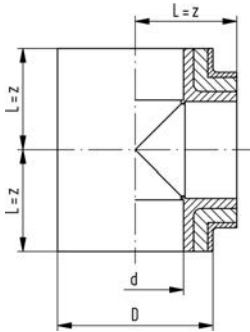
COOL-FIT ABS Plus 45° Elbow PN6**Model:**

- Elbow 90° pre-insulated, ABS metric
 - Insulation made from PUR
 - Outer jacket impact and UV resistant. Color: black
 - Compact design
- Connecting dimensions = Pipe outer diameter ("d")



d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	L (mm)
250	355	6	738 151 121	2,798.50	1	19.842	10	192
280	400	6	738 151 122	2,988.80	1	28.660	10	213
315	450	6	738 151 123	3,425.30	1	37.479	12	239

E



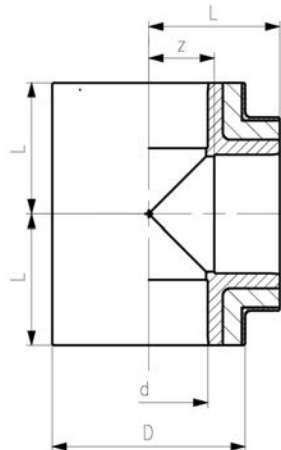
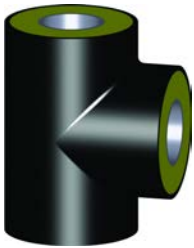
Tee 90° pre-insulated, ABS metric

Model:

- Elbow 90° pre-insulated, ABS metric
- Insulation made from PUR
- outer jacket impact and UV resistant. Color: Black

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	L (mm)	required Nipple	closest inch (inch)	
25	90	10	738 201 007	125.50	1	0.633	80	80	738901607	¾
32	90	10	738 201 008	125.50	1	0.644	80	80	738901608	1
40	110	10	738 201 009	128.90	1	1.036	90	90	738901609	1 ¼
50	110	10	738 201 010	132.20	1	1.140	90	90	738901610	1 ½
63	125	10	738 201 011	144.60	1	1.693	100	100	738901611	2
75	140	10	738 201 012	147.90	1	2.800	125	125	738901612	2 ½
90	160	10	738 201 013	175.90	1	3.527	140	140	738901613	3
110	180	10	738 201 114	212.70	1	5.090	122	122	738901614	4
140	225	10	738 201 116	437.80	1	8.023	147	147	738901616	5
160	250	10	738 201 117	518.40	1	11.257	167	167	738901617	6
200	280	10	738 201 119	680.70	1	14.991	207	207	738901619	8
225	315	10	738 201 120	761.20	1	22.487	233	233	738901620	8

E



Tee 90° pre-insulated ABS metric

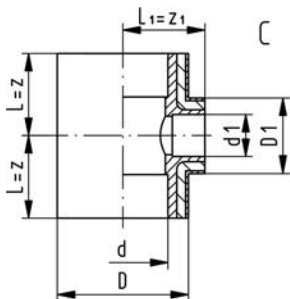
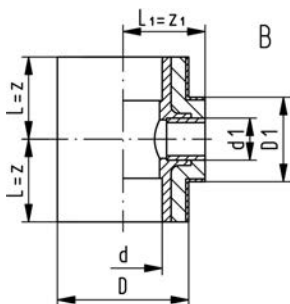
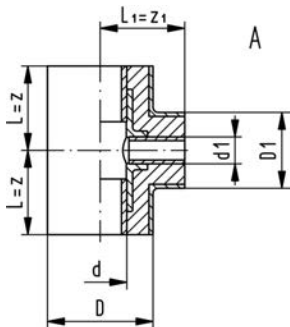
Model:

- Insulation made from PUR
- Outer jacket impact and UV resistant. Color: black
- Compact design

Connecting dimensions = Pipe outer diameter ("d")

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP weight (lb)	L (mm)	closest inch (inch)	z (mm)
250	355	6	738 201 121	2,451.40	1	32.307	263	10 132
280	400	6	738 201 122	2,820.90	1	46.297	298	10 152
315	450	6	738 201 123	3,436.50	1	59.525	332	12 160

E



Tee 90° reduced pre-insulated, ABS metric

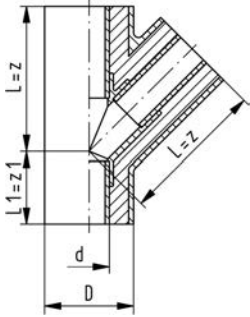
Model:

- Insulation made from PUR
- outer jacket impact and UV resistant. Color: Black
- Elbow 90° pre-insulated, ABS metric

d (mm)	d1 (mm)	D (mm)	D1 (mm)	PN (bar)	Type	Part No.	USD	weight (kg)
32	25	90	90	10	C	738 201 038	141.20	0.282
40	25	110	90	10	C	738 201 051	143.40	0.433
40	32	110	90	10	C	738 201 047	143.40	0.460
50	25	110	90	10	C	738 201 092	147.90	0.475
50	32	110	90	10	C	738 201 064	147.90	0.489
63	25	125	90	10	C	738 201 093	161.20	0.668
63	32	125	90	10	C	738 201 078	159.10	0.668
63	50	125	110	10	C	738 201 070	159.10	0.802
75	40	140	110	10	A	738 201 182	162.50	1.091
90	32	160	90	10	C	738 201 043	197.10	1.495
90	63	160	125	10	C	738 201 046	197.10	1.597
110	32	180	90	10	B	738 201 144	230.70	1.783
110	50	180	110	10	B	738 201 136	230.70	1.841
140	50	225	110	10	B	738 201 148	496.00	3.229
140	75	225	140	10	B	738 201 149	496.00	3.342
160	110	250	180	10	B	738 201 152	565.40	4.885
200	110	280	180	10	C	738 201 153	750.10	7.799
225	110	315	180	10	C	738 201 156	818.40	9.237
225	160	315	250	10	C	738 201 157	818.40	9.968

d (mm)	d1 (mm)	z (mm)	z1 (mm)	required Nipple	closest inch (inch)
32	25	80	80	1x738901607; 2x738901608	1 - ¾
40	25	90	90	1x738901607; 2x738901609	1 ¼ - ¾
40	32	90	90	1x738901608; 2x738901609	1 ¼ - 1
50	25	90	90	1x738901607; 2x738901610	1 ½ - ¾
50	32	90	90	1x738901608; 2x738901610	1 ½ - 1
63	25	100	100	1x738901607; 2x738901611	2 - ¾
63	32	100	100	1x738901608; 2x738901611	2 - 1
63	50	100	100	1x738901610; 2x738901611	2 - 1 ¼
75	40	115	110	1x738901109; 2x738901112	2 ½ - 1 ¼
90	32	140	140	1x738901608; 2x738901613	3 - 1
90	63	140	140	1x738901611; 2x738901613	3 - 2
110	32	117	130	1x738901108; 2x738901614	4 - 1
110	50	117	130	1x738901110; 2x738901614	4 - 1 ½
140	50	147	153	1x738901110; 2x738901616	5 - 1 ½
140	75	147	153	1x738901112; 2x738901616	5 - 2 ½
160	110	167	165	1x738901114; 2x738901617	6 - 4
200	110	213	193	1x738901614; 2x738901619	8 - 4
225	110	239	206	1x738901614; 2x738901620	8 - 4
225	160	239	206	1x738901617; 2x738901620	8 - 6

E



Tee 45° pre-insulated, ABS metric

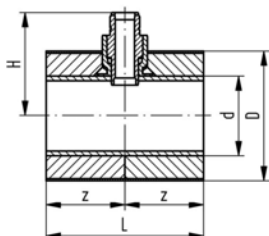
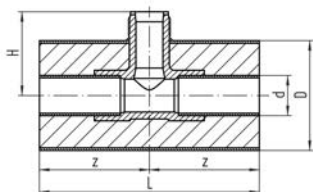
Model:

- Insulation made from PUR
- Outer jacket impact and UV resistant. Color: black
- * Connecting dimensions = Pipe inner diameter

	d (mm)	D (mm)	PN (bar)	Part No.	USD	SP	weight (lb)
*	63	125	10	738 251 111	593.30	1	2.822
*	75	140	10	738 251 112	657.20	1	4.409
*	90	160	10	738 251 113	796.00	1	6.054
*	110	180	10	738 251 114	957.20	1	9.764

	d (mm)	closest inch (inch)	L (mm)	z (mm)	L1 (mm)	z1 (mm)	required Nipple
*	63	2	200	200	100	100	738901111
*	75	2 ½	240	240	120	120	738901112
*	90	3	250	250	125	125	738901113
*	110	4	300	300	150	150	738901114

E



Signet Installation Fitting Type 310 pre-insulated, ABS metric

Model:

- Threaded outlet 1 1/4" NPSM
- Insulation made from PUR
- outer jacket impact and UV resistant. Color: Black

Range of use:

- Compatible Signet flow sensors: models 2551, 2537, 515, 8510, 2536, 8512
- Compatible Signet pH/ORP sensors: models 2724, 2725, 2726

Attention:

- Sensor length depends on installation fitting

Connecting dimensions = Pipe inner diameter

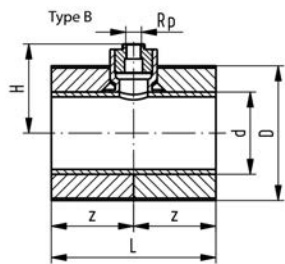
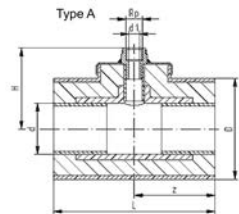
PN (bar)	d (mm)	DN (mm)	Part No.	USD	SP	weight (lb)
10	25	20	738 310 107	197.10	1	0.831
10	32	25	738 310 108	200.50	1	0.838
10	40	32	738 310 109	200.50	1	1.089
10	50	40	738 310 110	207.30	1	1.213
10	63	50	738 310 111	226.20	1	1.548
10	75	65	738 310 112	259.80	1	1.850
10	90	80	738 310 113	288.90	1	2.125
10	110	100	738 310 114	369.50	1	2.769
10	140	125	738 310 116	715.40	1	3.971
10	160	150	738 310 117	830.60	1	5.258
10	200	200	738 310 119	1,176.60	1	7.225
10	225	200	738 310 120	1,199.00	1	11.363

Type	Sensor Type	D (mm)	H (mm)	L (mm)	z (mm)	closest inch (inch)	required Nipple
A	flow X0, pH XX	90	78	220	110	3/4	738901107
A	flow X0, pH XX	90	81	220	110	1	738901108
A	flow X0, pH XX	110	85	220	110	1	738901109
A	flow X0, pH XX	110	89	220	110	1 1/2	738901110
A	flow X0, pH XX	125	95	220	110	2	738901111
B	flow X1	140	161	220	110	2 1/2	738901112
B	flow X1	160	171	220	110	3	738901113
B	flow X1	180	181	220	110	4	738901114
B	flow X1	225	193	220	110	5	738901116
B	flow X1	250	202	220	110	6	738901117
B	flow X1	280	211	250	125	8	738901119
B	flow X1	315	225	280	140	8	738901120

E
Type A



Type B



Installation Fitting Type 313
pre-insulated, ABS metric, BSP

Model:

- Insulation made from PUR
- outer jacket impact and UV resistant. Color: Black
- With 1/2 " Rp threaded branch for sensors (i.e. pressure)
- Outer jacket impact and UV resistant. Color: black

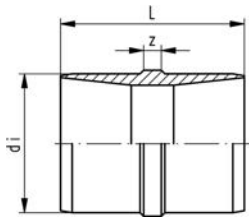
Range of use:

- compatible signet pressure sensors: type 2450-1 /-2 /-5

d (mm)	D (mm)	PN (bar)	Part No.	USD	SP	weight (lb)
25	90	10	738 313 007	229.60	1	0.728
32	90	10	738 313 008	235.20	1	0.882
40	110	10	738 313 009	235.20	1	1.102
50	110	10	738 313 010	243.00	1	1.257
63	125	10	738 313 011	265.50	1	1.962
75	140	10	738 313 012	317.00	1	1.691
90	160	10	738 313 013	346.00	1	2.119
110	180	10	738 313 114	450.10	1	2.597
140	225	10	738 313 116	865.50	1	3.816
160	250	10	738 313 117	980.60	1	4.912
200	280	10	738 313 119	1,441.80	0	7.956
225	315	10	738 313 120	1,441.80	1	10.240

d (mm)	Rp (inch)	L (mm)	H (mm)	z (mm)	required Nipple	closest inch (inch)	Type
25	½	160	112	80	2x738901607	¾	A
32	½	180	112	90	2x738901608	1	A
40	½	180	112	90	2x738901609	1 ¼	A
50	½	180	112	90	2x738901610	1 ½	A
63	½	200	100	100	2x738901611	2	A
75	½	250	147	125	2x738901612	2 ½	A
90	½	280	162	140	2x738901613	3	A
110	½	220	119	110	2x738901114	4	B
140	½	220	134	110	2x738901116	5	B
160	½	220	145	110	2x738901117	6	B
200	½	250	165	125	2x738901119	8	B
225	½	280	178	140	2x738901120	8	B

E



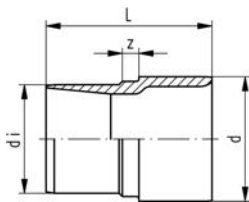
Barrel Nipple di-di, ABS

Model:

- To connect pipe inner diameters di

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	di (mm)	L (mm)	z (mm)	
25	10	738 901 107	2.70	10	0.020	¾	20	52	10
32	10	738 901 108	3.15	10	0.031	1	28	58	10
40	10	738 901 109	4.50	10	0.046	1 ¼	35	66	10
50	10	738 901 110	5.10	10	0.077	1 ½	44	76	10
63	10	738 901 111	8.45	10	0.130	2	55	90	10
75	10	738 901 112	19.60	10	0.192	2 ½	65	102	10
90	10	738 901 113	36.60	6	0.280	3	79	104	10
110	10	738 901 114	52.30	6	0.450	4	96	122	10
140	10	738 901 116	103.00	1	0.917	5	123	150	10
160	10	738 901 117	129.90	4	1.283	6	141	166	10
200	10	738 901 119	212.70	1	2.247	8	176	202	10
225	10	738 901 120	246.30	1	3.069	8	198	224	10

E



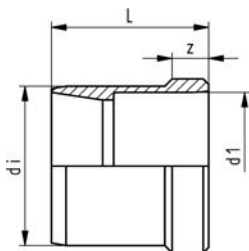
Adaptor Nipple d-di, ABS

Model:

- To connect d to pipe inner diameter di
- * Can also be used as a reducer di 160 to di 140

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	di (mm)	L (mm)	z (mm)	
25	10	738 901 607	2.80	10	0.018	¾	20	50	10
32	10	738 901 608	3.15	10	0.037	1	28	56	10
40	10	738 901 609	4.50	10	0.057	1 ¼	35	64	10
50	10	738 901 610	5.15	10	0.097	1 ½	44	74	10
63	10	738 901 611	8.45	18	0.181	2	55	88	10
75	10	738 901 612	19.60	8	0.280	2 ½	65	100	10
90	10	738 901 613	36.60	6	0.395	3	79	108	10
110	10	738 901 614	52.30	9	0.703	4	96	127	10
*	140	738 901 616	103.00	4	1.113	5	123	156	10
160	10	738 901 617	129.90	5	1.687	6	141	174	10
200	10	738 901 619	212.70	4	4.090	8	176	212	10
225	10	738 901 620	246.30	1	4.235	8	198	236	10

E



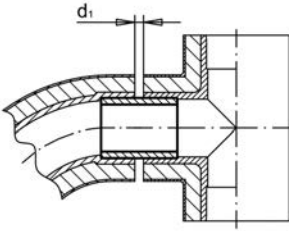
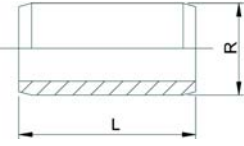
Reducing nipple di-dred ABS

Model:

- To connect pipe inner diameter di to next smaller size d

d (mm)	d1 (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	di (mm)	L (mm)	z (mm)	
32	25	10	738 911 341	39.30	5	0.013	1	28	34	10
40	32	10	738 911 346	33.60	5	0.020	1 ¼	35	38	10
50	40	10	738 911 352	33.50	5	0.031	1 ½	44	43	10
63	50	10	738 911 358	34.70	2	0.053	2	55	50	10
75	63	10	738 911 364	41.60	2	0.049	2 ½	65	56	10
90	75	10	738 911 370	50.50	2	0.071	3	79	57	10
110	90	10	738 911 376	66.20	2	0.150	4	96	66	10
140	110	10	738 911 385	104.30	5	0.481	5	123	80	10
200	160	10	738 911 392	217.30	5	0.935	8	176	106	10

E



Barrel nipple d-d ABS metric

Model:

- For jointing of typical fitting to fitting (d) connections
- For the shortest possible distance between fittings
- Overall length $L = 2 \times \text{socket depths} + 10\text{mm}$ inspection gap

d (mm)	PN (bar)	Part No.	USD	weight (lb)	d1 (mm)	L (mm)	closest inch (inch)
25	16	738 901 907	11.70	0.022	10	48	3/4
32	10	738 901 908	11.70	0.024	10	54	1
40	10	738 901 909	12.70	0.046	10	62	1 1/4
50	10	738 901 910	14.00	0.079	10	72	1 1/2
63	10	738 901 911	16.30	0.159	10	86	2
75	10	738 901 912	21.40	0.254	10	98	2 1/2
90	10	738 901 913	29.00	0.419	10	112	3
110	10	738 901 914	39.30	0.683	10	132	4
140	10	738 901 916	95.30	1.603	10	162	5
160	10	738 901 917	111.00	2.086	10	182	6
200	10	738 901 919	173.60	3.946	10	222	8
225	10	738 901 920	214.00	5.567	10	248	8
250	6	738 901 921	593.30	5.567	10	272	10
280	6	738 901 922	660.50	5.567	10	302	10
315	6	738 901 923	850.80	5.567	10	332	12

COOL-FIT ABS Plus Accessories

E



Shrink sleeve short, PE

Model:

- For a water- and steam-tight sealing in combination with buthylene rubber-based sealing tape
- For connections of the same pipe outer diameter
- Length: 100 mm
- For a water- and steam-tight sealing in combination with buthylene rubber-based sealing tape
- Length = 100 mm
- For connections of the same pipe outer diameter

d (mm)	D (mm)	Part No.	USD	SP	weight (lb)
25 - 32	90	738 011 113	19.60	1	0.077
40 - 50	110	738 011 114	19.60	1	0.115
63	125	738 011 115	22.00	1	0.168
75	140	738 011 116	22.00	1	0.161
90	160	738 011 117	24.40	1	0.194
110	180	738 011 118	24.40	1	0.192
140	225	738 011 120	28.90	1	0.267
160	250	738 011 121	32.50	1	0.287
200	280	738 011 122	33.50	1	0.295
225	315	738 011 123	35.90	1	0.287

E



Shrink sleeve, heavy duty, PE

Model:

- For a water- and steam-tight sealing in combination with buthylene rubber-based sealing tape
- Length: 100 mm
- "Heavy duty" version for high end applications
- For connections of the same pipe outer diameter

d (mm)	D (mm)	Part No.	USD	SP	weight (lb)	L (mm)
25 - 32	90	738 011 013	37.00	0	0.220	100
40 - 50	110	738 011 014	37.00	0	0.249	100
63	125	738 011 015	39.30	0	0.293	100
75	140	738 011 016	42.60	0	0.322	100
90	160	738 011 017	48.60	0	0.364	100
110	180	738 011 018	52.10	0	0.489	100
140	225	738 011 020	63.60	0	0.617	100
160	250	738 011 021	68.20	0	0.776	100
200	280	738 011 022	79.70	0	0.818	100
225	315	738 011 023	87.80	0	0.979	100
250	355	738 011 024	100.90	1	1.984	100
280	400	738 011 025	117.70	1	2.425	100
315	450	738 011 026	142.30	1	4.189	100
355	500	738 011 027	181.10	1	2.205	100
400	560	738 011 028	240.00	1	2.205	100
450	630	738 011 029	273.30	1	2.205	100

E



Shrink sleeve long, PE, black

Model:

- To provide a water tight seal in combination with sealing tape
- For straight connections only
- D-D1 connections can be realized with the sleeves listed in the table below
- Length: 265 mm

D (mm)	Part No.	USD weight (lb)	L closest inch (mm)	L closest inch (inch)	
110 - 160	738 011 167	34.10	0.635	200	4 - 6
180 - 225	738 011 170	40.40	0.216	200	7 - 8
250 - 315	738 011 173	42.80	1.499	200	10 - 12

	D 110	D 125	D 140	D 160	D 180	D 225	D 250	D 280	D 315
D1 90	738 011 167	738 011 167	738 011 167	738 011 167					
D1 110		738 011 167	738 011 167	738 011 167					
D1 125			738 011 167	738 011 167					
D1 140				738 011 167	738 011 170	738 011 170			
D1 160					738 011 170	738 011 170			
D1 180						738 011 170	738 011 173	738 011 173	
D1 225							738 011 173	738 011 173	738 011 173
D1 250								738 011 173	738 011 173
D1 280									738 011 173

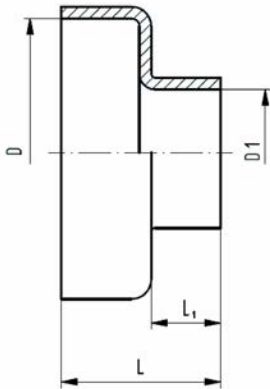
E



Shrink Cap PE

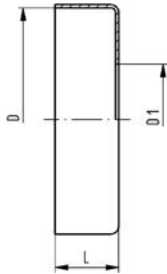
Model:

- To seal insulation and outer jacket pipe
- Can also be used for Reduced Tees
- No sealing tape required (included in Cap)
- Caution: Do not shrink onto ABS



D (mm)	D1 (mm)	Part No.	USD weight (lb)	L (mm)	L1 (mm)	L1 closest inch (inch)	
225 - 160	140 - 90	733 960 135	62.50	0.390	137	61	8 - 6
315 - 225	250 - 125	733 960 140	126.90	0.694	143	43	12 - 8

E



COOL-FIT Plus Insulation Cap, PE , black

Model:

- to seal the end of a COOL-FIT Plus pipe

d (mm)	D (mm)	D1 (mm)	Part No.	USD	weight (lb)	L (mm)	closest inch (inch)
25	90	24	733 960 171	25.50	0.057	35	¾
32	90	32	733 960 172	25.50	0.031	35	1
40	110	39	733 960 173	28.10	0.079	35	1 ¼
50	110	48	733 960 174	28.10	0.053	35	1 ½
63	125	59	733 960 175	28.10	0.099	35	2
75	140	70	733 960 176	32.40	0.064	35	2 ½
90	160	83	733 960 177	37.50	0.068	35	3
110	180	100	733 960 178	41.20	0.121	35	4
140	225	127	733 960 180	59.50	0.179	35	5
160	250	144	733 960 181	62.80	0.146	35	6
200	280	187	733 960 183	74.00	0.322	35	8
225	315	210	733 960 184	85.10	0.276	35	8
250	355	265	733 960 185	298.50	0.342	35	10
280	400	300	733 960 186	324.50	0.408	35	10
315	450	335	733 960 187	348.40	0.496	35	12
355	500	370	733 963 188	397.40	0.593	35	14
400	560	420	733 963 189	468.30	0.593	35	16
450	630	470	733 963 190	514.70	0.593	35	18

E

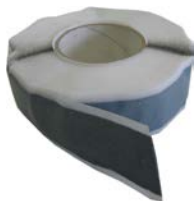


Gap filler

- 13 x 13mm, 2.5 m on a roll, sold in Box of 36 rolls
 - To insulate inspection gap at joints
- Price listed per 2,5m roll

d-d (mm)	D (mm)	Part No.	USD	SP weight (kg)
25 - 315	90 - 450	738 011 150	5.60	1 0.020

E



Sealing tape

Model:

- For a water- and steam-tight sealing of inspection gaps in combination with shrink sleeves/ - sockets
- Sealing tape: 40 mm width, buthylene rubber-based
- 30 M per Roll

D (mm)	d-d (mm)	Part No.	USD	weight (kg)	closest inch (inch)
90 - 450	25 - 315	738 011 152	166.90	2.134	¾ - 12

E



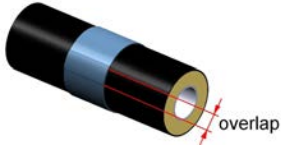
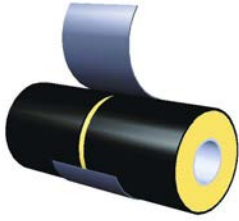
Silicon Glue

Model:

- For sealing and glueing end caps
- Cartridge 290ml

Standard	Part No.	USD	SP weight (lb)
290 ml	738 011 103	86.40	1 1.043

E



Coldshrink tape PE black

Model:

- For indoor use only
- Width (L) available in 100mm
- 15M (49.2 ft) per roll
- Does not require heat

D (mm)	d-d (mm)	Part No.	USD weight (lb)	closest inch (inch)	
90 - 450	25 - 315	738 011 107	109.80	3.799	¾ - 8



Hot shrink tape PE black

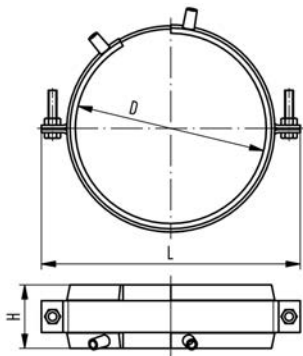
Model:

- For watertight sealing of outer pipe in underground installations
- Mastic backed
- 30 M per Roll
- Requires shrinking with burner or hot air gun
- Order sealing patches separately (738 011 109)

D (mm)	d-d (mm)	Part No.	USD weight (kg)	L (mm)	closest inch (inch)	
90 - 630	25 - 450	738 011 108	Call	3.000	150	¾ - 18

Aussenrohr/ casing pipe	Länge Schrumpfband length shrink tape
90	370
110	440
125	480
140	530
160	600
180	660
225	800
250	880
280	970
315	1080
355	1210
400	1350
450	1500
500	1660
560	1850
630	2070

E



COOL-FIT Fixed point (non stock)

- The product consists of two components: a welding band and a pipe bracket.
- Electro-fusion welded band as permanent connection to transmit the forces that occur in the pipe to the fixed point.
- The included pipe brackets are needed to deliver welding pressure during installation and give stability during operation.
- For welding, use an MSA 250, 300, 350, 400 or commercially available 220V fusion machines.
- If you use an MSA fusion machine from GF Piping Systems, use the 799 350 339 adapter.
- Please take note of the maximum allowed forces for this version in the table below.
- **Fixed point brackets and cross braces have to be calculated and obtained by the installer. They are not included in the fixed point set from GF.**

d (mm)	D (mm)	Part No.	USD	SP weight (kg)	max. Force (kN)	closest inch (inch)	L (mm)	H (mm)
25 - 32	90	738 912 013	196.10	1	0.895	¾ - 1	140	60
40 - 50	110	738 912 014	213.60	1	0.904	1 ¼ - 1 ½	170	60
63	125	738 912 015	248.10	1	1.103	2	185	60
75	140	738 912 016	276.60	1	1.188	2 ½	210	60
90	160	738 912 017	346.00	1	1.177	3	220	60
110	180	738 912 018	403.10	1	1.530	4	244	60
140	225	738 912 020	461.30	1	1.813	5	295	60
160	250	738 912 021	518.40	1	1.957	6	320	60
200	280	738 912 022	553.10	1	2.001	8	350	60
225	315	738 912 023	576.60	1	2.388	8	385	60
250	355	738 912 024	Call	1	2.388	10	420	60

D



COOL-FIT fixed point adapter

- Adapter for MSA electrofusion machine

Part No.	USD	SP weight (kg)
799 350 339	37.10	2 0.021

D



Deburring Tool

- The deburring tool is used to chamfer the inside of COOL-FIT ABS Plus pipes and fittings.

d-d (mm)	Weight (lb)	Part No.	USD	weight (kg)
		150 900 475	5.60	0.028



COOL-FIT® Pipe Calibration Tool

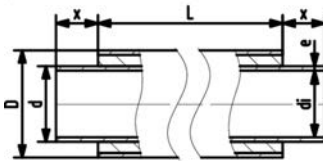
Model:

- To calibrate pipe inner diameters of COOL-FIT pipes
- including transportation case

d-d (mm)	Part No.	USD	SP weight (lb)	closest inch (inch)
200 - 225	790 205 001	Call	0 41.678	5 - 8

COOL-FIT PE Plus Pipes

E



COOL-FIT PE Plus pipe PN10

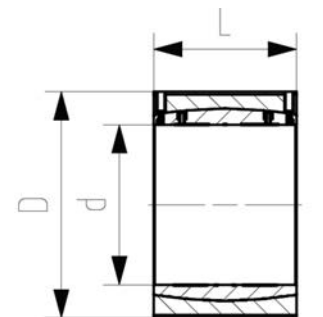
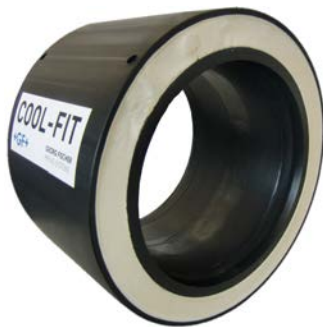
Model:

- Pre-Insulated PE100 SDR17 metric
- Insulation made from PUR
- Insulation length: 5.9M (optional: 10M)
- Outer jacket impact and UV resistant. Color: black

d (mm)	D (mm)	PN (bar)	Part No.	USD	di (mm)	x (mm)	closest inch (inch)
250	355	10	738 173 021	806.10	221.6	125	10
280	400	10	738 173 022	962.70	248.2	125	10
315	450	10	738 173 023	1,155.30	279.2	135	12
355	500	10	738 173 024	1,345.80	314.8	145	14
400	560	10	738 173 025	1,615.10	354.6	145	16
450	630	10	738 173 026	2,017.50	400.0	155	18

Fittings

E



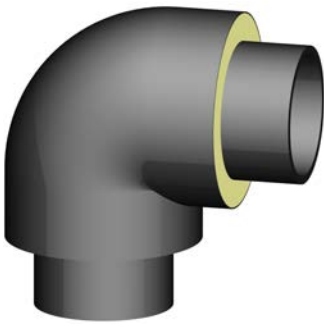
COOL-FIT PE Plus Electrofusion Coupling

Model:

- Pre-Insulated PE100 SDR17 metric
- Outer jacket impact resistant. Color: black
- Insulation made from PUR

d (mm)	Part No.	USD	D (mm)	PN (bar)	L (mm)	closest inch (inch)
250	738 911 821	729.80	355	10	247	10
280	738 911 822	843.20	400	10	252	10
315	738 911 823	941.80	450	10	267	12
355	738 911 824	1,286.80	500	10	290	14
400	738 911 875	1,524.70	560	10	294	16
450	738 911 876	1,843.70	630	10	326	18

E

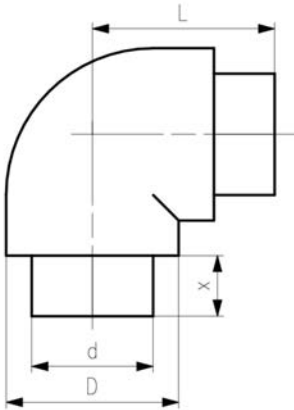


COOL-FIT PE Plus Bend 90° PN10

Model:

- Pre-Insulated PE100 SDR17 metric
- Outer jacket impact and UV resistant. Color: black
- Insulation made from PUR

d (mm)	D (mm)	PN (bar)	Part No.	USD	L (mm)	x (mm)	closest inch (inch)
250	355	10	738 003 121	2,814.90	375	125	10
280	400	10	738 003 122	3,188.10	430	125	10
315	450	10	738 003 123	3,701.80	470	135	12
355	500	10	738 003 124	4,627.70	900	145	14
400	560	10	738 003 125	5,700.20	980	145	16
450	630	10	738 003 126	8,007.20	1070	155	18



E

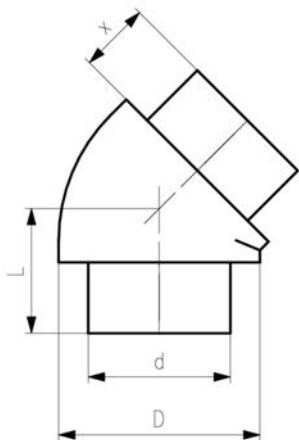


COOL-FIT PE Plus Bend 45° PN10

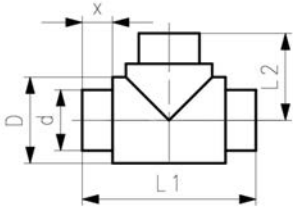
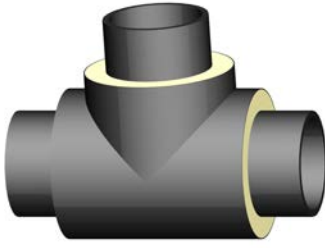
Model:

- Pre-Insulated PE100 SDR17 metric
- Outer jacket impact and UV resistant. Color: black
- Insulation made from PUR

d (mm)	D (mm)	PN (bar)	Part No.	USD	L (mm)	x (mm)	closest inch (inch)
250	355	10	738 053 121	2,594.20	440	123	10
280	400	10	738 053 122	2,857.90	460	126	10
315	450	10	738 053 123	3,251.20	535	133	12
355	500	10	738 053 124	4,320.30	620	145	14
400	560	10	738 053 175	5,313.20	650	147	16
450	630	10	738 053 176	7,663.90	680	163	18



E



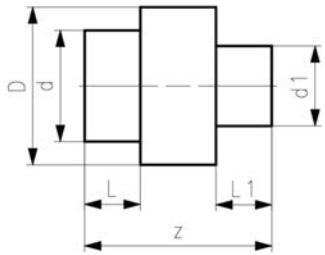
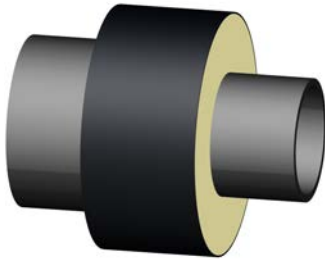
COOL-FIT PE Plus Tee PN10

Model:

- Pre-Insulated PE100 SDR17 metric
- Outer jacket impact and UV resistant. Color: black
- Insulation made from PUR

d (mm)	D (mm)	PN (bar)	Part No.	USD	x (mm)	L1 (mm)	L2 (mm)	closest inch (inch)
250	355	10	738 203 121	3,452.40	123	1000	500	10
280	400	10	738 203 122	4,171.20	126	1000	500	10
315	450	10	738 203 123	4,716.50	133	1000	500	12
355	500	10	738 203 124	6,310.80	145	1300	700	14
400	560	10	738 203 175	7,572.90	147	1300	700	16
450	630	10	738 203 176	15,025.80	163	1400	750	18

E



COOL-FIT PE Plus Reducer Long PN10

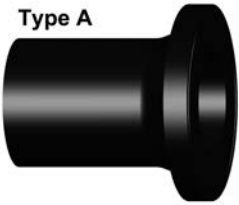
Model:

- Pre-Insulated PE100 SDR17 metric
- Outer jacket impact and UV resistant. Color: black
- Insulation made from PUR

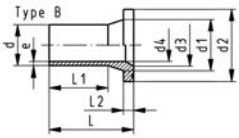
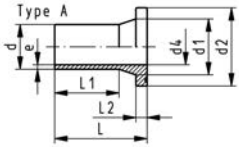
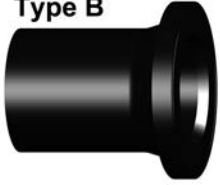
d (mm)	D (mm)	d1 (mm)	Part No.	USD	z (mm)	L1 (mm)	L (mm)
250	355	225	738 903 802	988.40	332	110	123
280	400	225	738 903 899	1,105.80	335	110	126
315	450	225	738 903 807	1,281.10	365	110	133
280	400	250	738 903 803	1,090.60	340	123	126
315	450	250	738 903 805	1,281.10	365	123	133
315	450	280	738 903 806	1,281.10	365	126	133
355	500	250	738 903 808	1,915.60	390	123	145
355	500	280	738 903 809	1,842.90	390	126	145
355	500	315	738 903 810	1,800.30	390	133	145
400	560	280	738 903 871	Call	415	126	147
400	560	315	738 903 872	Call	415	133	147
400	560	355	738 903 873	Call	420	145	147
450	630	280	738 903 874	Call	389	126	163
450	630	315	738 903 875	Call	390	133	163
450	630	355	738 903 876	Call	393	145	163
450	630	400	738 903 877	Call	395	147	163

A

Type A



Type B



Flange adaptor PE100 SDR17/17.6
Combined jointing face: flat and serrated

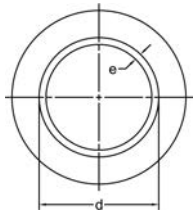
Model:

- Material: PE100
 - Long spigot for Butt fusion or Electrofusion
 - Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
 - Gasket d710-d1000: flat gasket EPDM No. 48 40 03
 - Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
 - Type A without chamfer, Type B with chamfer
- * Not suitable for butterfly valves type 037/038/039

d (mm)	Part No.	USD weight	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type		
225	753 800 095	Call	235	268	210	198	200	138	32	13.4	B		
250	753 800 096	85.10	285	320	245	220	220	148	35	14.8	B		
280	753 800 097	135.20	291	320	265	246	230	154	35	16.6	B		
*	315	753 800 098	178.10	12.059	335	370	300	277	242	166	36	18.7	B
**	355	753 800 099	299.90	35.715	373	430	340	312	261	179	30	21.1	B
**	400	753 800 100	529.20	22.708	427	483	385	352	290	196	33	23.7	B
**	450	753 800 101	1,384.70	34.833	514	585	396	333	195	60	26.7	A	

COOL-FIT ABS Lite Pipes

E



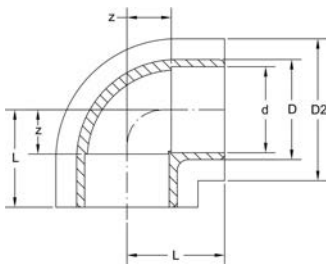
Pipes pre-insulated, COOL-FIT ABS metric (5 meters)

- Standard COOL-FIT ABS pipe with 1" thick flexible foam insulation.
- Color: Black insulation, pipe RAL 7001 gravel grey
- Length: Lengths of 16.4 feet (5 meters)
- Also available in 11/2" thick insulation. White insulation available, contact factory.

d (mm)	PN (bar)	Part No.	USD	e (mm)	closest inch (inch)	Refrigeration size (inch)
25	16	169 017 102	Call	2.30	¾	⅞
32	10	169 017 103	Call	2.70	1	1 ⅛
40	10	169 017 104	Call	3.80	1 ¼	1 ⅜
50	10	169 017 105	Call	3.00	1 ½	1 ⅝
63	10	169 017 106	Call	3.80	2	2 ⅛
75	10	169 017 107	Call	4.50	2 ½	2 ⅝
90	10	169 017 108	Call	5.40	3	3 ⅛
110	10	169 017 109	Call	6.60	4	4 ⅛
160	10	169 017 112	Call	9.90	6	6

Fittings

E



Elbow 90 pre-insulated, COOL-FIT ABS Lite metric

- Standard COOL-FIT ABS Elbow 90°, with 3/4" thick flexible foam insulation
- Color: Black insulation, fitting RAL 7001 gravel grey

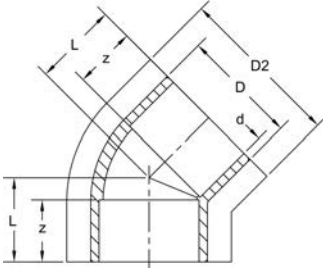
d (mm)	PN (bar)	Part No.	USD	weight (kg)	closest inch (inch)	L (inch)	D2 (inch)	z (inch)	D (inch)
63	150	738 102 111	Call	0.246	2	3	4	1	3
75	150	738 102 112	Call	0.382	2 ½	3	5	2	4
90	150	738 102 113	Call	0.550	3	4	5	2	4
110	150	738 102 114	Call	0.900	4	5	6	2	5
160	150	738 102 117	Call	2.500	6	7	8	3	7

E

Elbow 45° pre-insulated, COOL-FIT ABS Lite metric

- Standard COOL-FIT ABS Elbow 45°, with 3/4" thick flexible foam insulation
- Color: Black insulation, fitting RAL 7001 gravel grey

d (mm)	PN (bar)	Part No.	USD weight (kg)	D (inch)	D2 (inch)	closest inch (inch)	L (inch)	z (inch)	
63	150	738 152 111	Call	2.000	3	4	2	2	1
75	150	738 152 112	Call	0.258	4	5	2 ½	2	1
90	150	738 152 113	Call	0.001	4	6	3	3	1
110	150	738 152 114	Call	0.700	5	7	4	4	1
160	150	738 152 117	Call	1.900	7	9	6	5	1

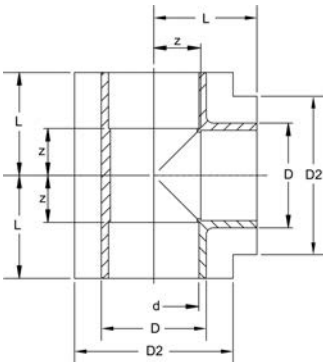


E

Tee 90° pre-insulated, COOL-FIT ABS Lite metric

- Standard COOL-FIT ABS Tee 90°, with 3/4" thick flexible foam insulation
- Color: Black insulation, fitting RAL 7001 gravel grey

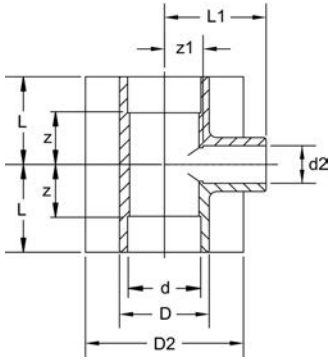
d (mm)	PN (bar)	Part No.	USD weight (kg)	closest inch (inch)	L (inch)	z (inch)	D (inch)	D2 (inch)	
63	150	738 202 111	Call	0.324	2	3	1	3	4
75	150	738 202 112	Call	0.500	2 ½	3	2	4	5
90	150	738 202 113	Call	0.001	3	4	2	4	6
110	150	738 202 114	Call	0.001	4	5	2	5	7
160	150	738 202 117	Call		6	7	3	8	9



E

Reducing Tee 90° pre-insulated, COOL-FIT ABS Lite metric

- Standard COOL-FIT ABS Reducing Tee 90°, with 1" thick flexible foam insulation
- Color: Black insulation, fitting RAL 7001 gravel grey

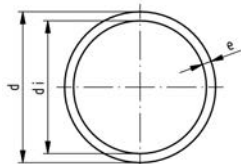


d (mm)	d2 (mm)	PN (bar)	Part No.	USD	weight (kg)
63	25	150	738 202 193	Call	0.020
63	32	150	738 202 178	Call	0.001
63	50	150	738 202 170	Call	0.001
75	40	150	738 202 182	Call	0.340
90	32	150	738 202 143	Call	0.794
90	63	150	738 202 146	Call	0.840
110	32	150	738 202 144	Call	0.500
110	50	150	738 202 136	Call	0.900
160	90	150	738 202 158	Call	2.500

z1 (inch)	D (inch)	D2 (inch)	L (inch)	z (inch)	L1 (inch)	closest inch (inch)
1	3	5	3	1	2	2 - ¾ - 2
1	3	5	3	1	2	2 - 1 - 2
1	3	5	3	1	3	2 - 1 ½ - 2
2	4	5	3	2	3	2 ½ - 1 ¼ - 2 ½
2	4	6	4	2	4	3 - 1 - 3
2	4	6	4	2	4	3 - 2 - 3
3	5	7	5	2	4	4 - 1 - 4
3	5	7	5	2	4	4 - 1 ½ - 4
4	8	9	7	3	6	6 - 3 - 6

COOL-FIT ABS Pipe

E



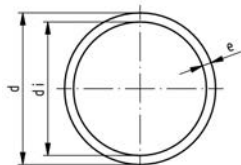
Pipe ABS Metric, nominal pressure 240 psi (PN16) at 68F (20C)

Model:

- Colour: RAL 7001, gravel grey
- Length: Lengths of 16.4 feet (5 meters)
- Minimum order quantity: 1 length
- PN6 (90PSI) / PN10 (150PSI) / PN16 (240PSI) at 20°C (68°F)

d (mm)	PN (bar)	Part No.	USD / m	weight (kg/m)	e (inch)	di (inch)	closest (inch)	Refrigeration size (inch)
16	16	169 017 080	8.15	0.095	0.071	0.49	3/8	1/2
20	16	169 017 081	11.15	0.152	0.091	0.61	1/2	5/8
25	16	169 017 082	11.15	0.195	0.091	0.80	3/4	7/8
32	16	700 262 397	11.20	0.820	0.114	1.03	1	1 1/8
40	16	700 262 398	15.10	1.210	0.146	1.28	1 1/4	1 3/8

E



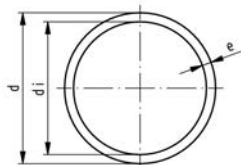
Pipe ABS Metric, nominal pressure 150 psi (PN10) at 68F (20C)

Model:

- Colour: RAL 7001, gravel grey
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d (mm)	PN (bar)	Part No.	USD / m	SP weight (kg/m)	e (mm)	di (mm)	Refrigeration size (inch)	closest inch (inch)
50	10	169 017 085	20.40	25	0.526	3.0	44.0	1 5/8
63	10	169 017 086	36.20	15	0.839	3.8	55.4	2 1/8
75	10	169 017 087	53.40	10	1.183	4.5	66.0	2 5/8
90	10	169 017 088	71.90	5	1.704	5.4	79.2	3 1/8
110	10	169 017 089	108.20	5	2.546	6.6	96.8	4 1/8
140	10	169 017 091	209.10	0	4.489	8.3	123.4	5
160	10	169 017 092	221.50	0	5.856	9.5	141.0	6
200	10	169 017 093	353.30	5	9.133	12.3	175.4	8
225	10	169 017 094	445.00	5	11.605	13.9	197.2	9

E



Pipe ABS Metric, nominal pressure 90 psi (PN6) at 68F (20C)

Model:

- Colour: RAL 7001, gravel grey
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d (mm)	PN (bar)	Part No.	USD / m	SP weight (kg/m)	di (mm)	e (mm)	closest inch (inch)
250	6	169 017 095	628.30	5	8.299	230.8	9.6
280	6	169 017 096	799.30	5	10.346	258.6	10.7
315	6	169 017 097	1,020.80	5	13.173	290.8	12.1

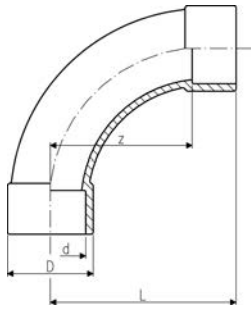
Fittings

E

Bend 90°, ABS metric



- Radius = 2 d
- * Available as long as our stock will last



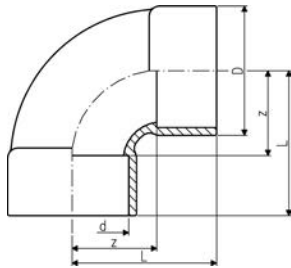
d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	D (mm)	L (mm)	z (mm)	closest inch (inch)		
20	16	729 000 106	13.60	10	0.060	27	58	40	1/2	
25	16	729 000 107	16.20	10	0.086	35	69	50	3/4	
32	10	729 000 108	22.40	10	0.123	38	86	64	1	
40	10	729 000 109	31.20	30	0.218	54	109	80	1 1/4	
50	10	729 000 110	39.70	10	0.505	61	131	100	1 1/2	
63	10	729 000 111	53.30	4	0.862	76	164	126	2	
75	10	729 000 112	108.20	5	1.312	90	194	150	2 1/2	
90	10	729 000 113	131.90	5	2.302	113	231	180	3	
110	10	729 000 114	220.50	5	4.632	137	281	220	4	
140	10	729 000 116	370.80	1	8.810	168	356	280	5	
*	160	10	729 000 117	469.70	1	12.346	191	406	320	6

E

Bend 90° short pattern ABS metric

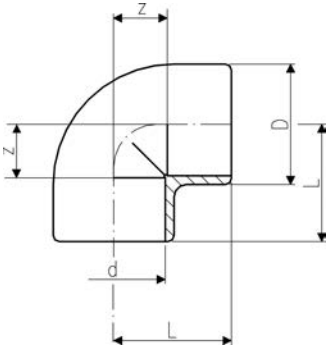


d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	D (mm)	L (mm)	
225	10	729 010 120	537.70	1	12.657	9	168	256	287
280	6	729 010 122	1,689.20	1	39.683	11	210	318	357
315	6	729 010 123	2,409.20	1	46.297	12	237	356	401



E

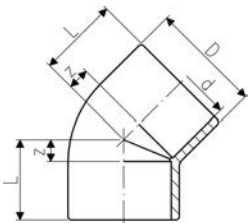
Elbow 90°, ABS metric



d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	D (mm)	L (mm)	z (mm)	closest inch (inch)	
20	16	729 100 106	3.70	10	0.022	26	27	11	½
25	16	729 100 107	3.70	10	0.040	31	33	14	¾
32	10	729 100 108	3.70	10	0.073	40	39	17	1
40	10	729 100 109	7.50	10	0.121	49	47	21	1 ¼
50	10	729 100 110	10.00	10	0.216	61	57	26	1 ½
63	10	729 100 111	16.20	10	0.410	76	72	33	2
75	10	729 100 112	38.60	5	0.661	90	84	40	2 ½
90	10	729 100 113	58.20	5	0.952	110	97	46	3
110	10	729 100 114	89.00	3	1.695	136	116	55	4
140	10	729 100 116	200.90	4	3.342	162	146	70	5
160	10	729 100 117	300.80	1	4.799	185	166	80	6
200	10	729 100 119	519.20	1	7.434	225	207	101	8
250	6	729 100 121	1,172.20	1	18.118	282	263	131	9

E

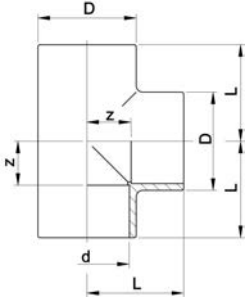
Elbow 45°, ABS metric



d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	D (mm)	L (mm)	closest inch (inch)	
20	16	729 150 106	4.90	10	0.020	5	25	21	½
25	16	729 150 107	4.90	10	0.029	6	31	25	¾
32	10	729 150 108	7.40	10	0.057	8	40	30	1
40	10	729 150 109	10.00	10	0.097	10	49	36	1 ¼
50	10	729 150 110	12.50	5	0.174	12	61	43	1 ½
63	10	729 150 111	18.70	10	0.315	14	76	52	2
75	10	729 150 112	43.50	5	0.496	17	89	61	2 ½
90	10	729 150 113	68.10	4	0.800	20	107	71	3
110	10	729 150 114	105.10	10	1.250	28	131	89	4
140	10	729 150 116	186.50	1	2.590	32	162	108	5
160	10	729 150 117	225.60	4	3.777	36	185	122	6
200	10	729 150 119	395.60	1	5.613	43	225	149	8
225	10	729 150 120	420.30	1	6.971	49	250	168	8
250	6	729 150 121	913.70	1	13.534	60	282	192	9
280	6	729 150 122	1,295.80	1	23.149	66	318	213	10
315	6	729 150 123	1,863.30	1	32.187	74	356	239	12

E

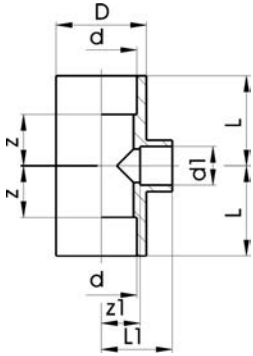
Tee 90° ABS metric



d (mm)	PN (bar)	Part No.	USD	SP	weight (lb)	z (mm)	D (mm)	L (mm)	closest inch (inch)
20	16	729 200 106	4.90	10	0.033	11	25	27	½
25	16	729 200 107	4.90	10	0.055	14	31	33	¾
32	10	729 200 108	6.20	10	0.093	17	40	39	1
40	10	729 200 109	10.00	10	0.172	21	49	47	1 ¼
50	10	729 200 110	13.70	5	0.295	26	61	57	1 ½
63	10	729 200 111	21.20	5	0.562	34	76	72	2
75	10	729 200 112	44.50	6	0.891	40	90	84	2 ½
90	10	729 200 113	74.30	4	1.464	47	107	98	3
110	10	729 200 114	109.20	6	2.227	55	133	116	4
140	10	729 200 116	264.80	1	5.666	71	169	147	5
160	10	729 200 117	395.60	1	8.272	81	193	167	6
200	10	729 200 119	593.30	1	9.802	101	225	207	8
225	10	729 200 120	629.40	1	15.124	114	256	233	8
250	6	729 200 121	1,432.80	1	24.668	132	282	263	9
280	6	729 200 122	2,000.30	1	26.431	152	318	298	10
315	6	729 200 123	3,000.40	1	44.092	168	356	332	12

E

Reducing Tee 90°, ABS metric

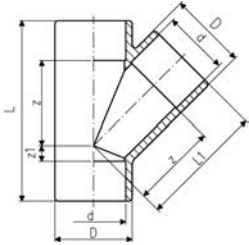


d (mm)	d1 (mm)	PN (bar)	Part No.	USD	SP	weight (lb)
25	20	16	729 200 134	6.20	10	0.066
32	25	10	729 200 138	10.00	10	0.108
40	25	10	729 200 151	13.80	10	0.183
40	32	10	729 200 147	12.50	10	0.187
50	25	10	729 200 010	19.90	5	0.304
50	32	10	729 200 164	16.20	5	0.311
63	25	10	729 200 011	25.90	10	0.542
63	32	10	729 200 178	24.90	5	0.564
63	50	10	729 200 170	24.90	5	0.595
75	40	10	729 200 182	53.10	9	0.875
90	32	10	729 200 143	90.40	6	1.479
90	63	10	729 200 146	90.40	5	1.576
110	32	10	729 200 144	131.90	3	2.445
110	50	10	729 200 136	131.90	3	2.520
140	50	10	729 200 148	359.50	1	5.406
140	75	10	729 200 149	359.50	1	5.463
160	110	10	729 200 152	461.50	1	9.491
160	90	10	729 200 158	458.40	1	7.564
200	110	10	729 200 153	703.50	1	14.745
225	110	10	729 200 156	741.60	1	17.849
225	160	10	729 200 157	741.60	1	16.502

d (mm)	d1 (mm)	z1 (mm)	z (mm)	L (mm)	L1 (mm)	D (mm)	closest inch (inch)
25	20	14	14	33	30	33	¾ - ½ - ¾
32	25	17	17	39	36	41	1 - ¾ - 1
40	25	23	23	49	42	50	1 ¼ - ¾ - 1 ¼
40	32	23	23	49	45	50	1 ¼ - 1 - 1 ¼
50	25	28	28	59	47	62	1 ½ - ¾ - 1 ½
50	32	28	28	59	50	62	1 ½ - 1 - 1 ½
63	25	34	34	73	53	77	2 - ¾ - 2
63	32	34	35	73	56	77	2 - 1 - 2
63	50	34	35	73	65	77	2 - 1 ½ - 2
75	40	41	40	84	66	92	2 ½ - 1 ¼ - 2 ½
90	32	55	46	97	77	110	3 - 1 - 3
90	63	55	46	97	93	110	3 - 2 - 3
110	32	67	56	117	89	133	4 - 1 - 4
110	50	67	56	117	98	133	4 - 1 ½ - 4
140	50	82	72	148	113	172	5 - 1 ½ - 5
140	75	78	72	148	122	172	5 - 2 ½ - 5
160	110	91	81	167	142	192	6 - 3 - 6
160	90	91	81	167	142	192	6 - 3 - 6
200	110	131	106	213	192	232	7 - 4 - 7
225	110	143	119	239	204	257	8 - 4 - 8
225	160	119	119	239	205	257	8 - 6 - 8

E

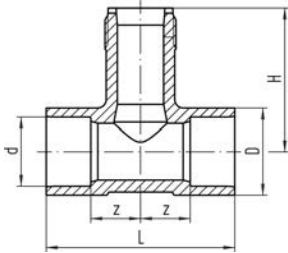
Tee 45° ABS metric



d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	D (mm)	L (mm)	L1 (mm)	closest inch (inch)	z (mm)	z1 (mm)	
20	10	729 250 106	12.50	10	0.060	28	68	46	½	30	6
25	10	729 250 107	12.50	10	0.095	33	83	55	¾	36	9
32	10	729 250 108	15.00	10	0.161	41	99	67	1	45	10
40	10	729 250 109	24.90	10	0.271	50	118	82	1 ¼	56	10
50	10	729 250 110	27.30	8	0.445	60	140	97	1 ½	66	12
63	10	729 250 111	43.50	5	0.736	74	175	123	2	85	14
75	6	729 250 112	85.50	5	1.334	91	207	145	2 ½	101	18
90	6	729 250 113	126.70	1	2.119	107	245	173	3	122	20
110	6	729 250 114	238.00	3	4.204	134	298	210	4	149	27

E

Signet Installation Fittings Type 310, ABS metric



Model:

- Threaded outlet 1 ¼" NPSM
- With solvent cement socket metric
- Material: ABS (price is per meter)

Range of use:

- Compatible Signet pH/ORP sensors: models 2724, 2725, 2726
- Compatible Signet flow sensors: models 2551, 2537, 515, 8510, 2536, 8512

Attention:

- Sensor length depends on installation fitting

DN (mm)	d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	
20	25	10	729 310 007	74.30	1	0.220
25	32	10	729 310 008	74.30	1	0.315
32	40	10	729 310 009	81.60	1	0.309
40	50	10	729 310 010	85.40	1	0.412
50	63	10	729 310 011	92.70	1	0.567

closest inch (inch)	z (mm)	Sensor Type	D (mm)	H (mm)	L (mm)
¾	32	flow X0, pH XX	35	78	100
1	33	flow X0, pH XX	44	81	110
1 ¼	29	flow X0, pH XX	51	85	110
1 ½	29	flow X0, pH XX	63	89	120
2	28	flow X0, pH XX	78	95	130

E

Signet Installation Fitting Type 312, ABS metric



Model:

- Saddle with threaded outlet 1 ¼" NPSM
- Top saddle for solvent cement bonding
- Material: ABS (price is per meter)

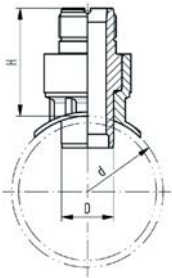
Range of use:

- Compatible Signet flow sensors: models 2551, 2537, 515, 8510, 2536, 8512

Attention:

- Sensor length depends on installation fitting

d (mm)	DN (mm)	PN (bar)	Part No.	USD	SP weight (lb)	D (mm)	H (mm)	Sensor Type	closest inch (inch)	
75	65	10	729 312 012	605.70	1	0.375	38	91	flow X1	2 ½
90	80	10	729 312 013	630.40	1	0.388	38	91	flow X1	3
110	100	10	729 312 014	655.10	1	0.379	38	91	flow X1	4
140	125	10	729 312 016	679.80	1	0.366	38	81	flow X1	5
160	150	10	729 312 017	715.90	1	0.366	38	77	flow X1	6
200	200	10	729 312 019	765.30	1	0.335	38	71	flow X1	8
225	200	10	729 312 020	814.80	1	0.432	38	67	flow X1	8



E

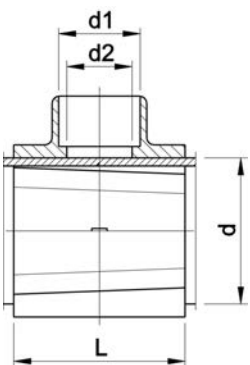
Branch Saddle, ABS metric



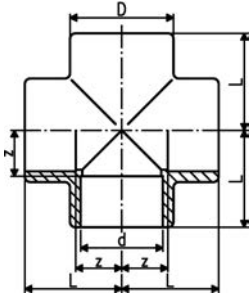
Model:

- For ABS pipes
- Outlet with solvent cement socket metric
- PN 10, ISO PSI
- Top saddle (ABS) for solvent cementing
- Bottom part and wedges made from PVC

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	d1 (mm)	d2 (mm)	Tapping-Ø (mm)	L (mm)
90	10	169 110 056	138.90	1	1.733	50	40	39 105
110	10	169 110 066	169.40	1	1.905	50	40	39 105
160	10	169 110 097	215.30	1	2.930	63	49	48 120
225	10	169 110 117	262.30	1	3.499	63	49	48 120



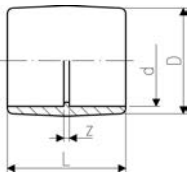
E



Cross ABS metric

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	D (mm)	L (mm)
32	10	729 300 108	21.20	10	0.154	17	43	39
63	10	729 300 111	54.60	5	0.791	34	79	72
90	10	729 300 113	219.40	5	2.066	48	106	97

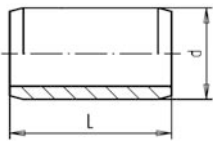
E



Coupling, ABS metric socket

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	D (mm)	L (mm)	z (mm)	closest inch (inch)
20	16	729 910 106	2.45	10	0.015	26	35	3
25	16	729 910 107	2.45	10	0.026	32	41	3
32	10	729 910 108	3.80	10	0.044	40	47	3
40	10	729 910 109	4.95	10	0.077	49	55	3
50	10	729 910 110	6.20	10	0.132	61	65	3
63	10	729 910 111	10.00	10	0.243	76	79	3
75	10	729 910 112	22.40	10	0.320	87	92	4
90	10	729 910 113	41.00	10	0.531	104	107	5
110	10	729 910 114	59.50	5	1.248	131	132	5
140	10	729 910 116	115.40	2	1.792	162	159	7
160	10	729 910 117	148.40	2	2.593	183	180	8
200	10	729 910 119	263.70	1	3.331	221	221	9
225	10	729 910 120	300.80	1	5.593	253	248	10
250	6	729 910 121	593.30	1	8.946	284	284	16
280	6	729 910 122	840.50	1	13.323	321	314	16
315	6	729 910 123	1,197.90	1	17.857	356	348	16

E



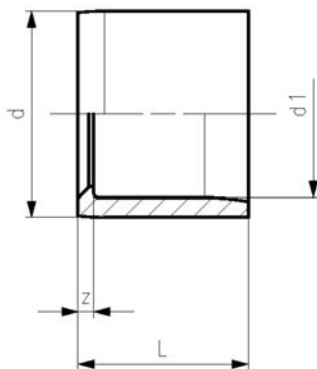
Barrel nipple ABS metric

Model:

- For the shortest possible distance between fittings
- Overall length $L = 2 \times$ socket length
- With solvent cement spigots on both sides

d (mm)	PN (bar)	Part No.	USD	weight (lb)	L (mm)	closest inch (inch)
20	16	729 900 906	7.50	0.018	32	1/2
25	16	729 900 907	10.00	0.018	38	3/4
32	10	729 900 908	10.00	0.015	44	1
40	10	729 900 909	11.20	0.035	52	1 1/4
50	10	729 900 910	12.50	0.071	62	1 1/2
63	10	729 900 911	13.70	0.130	76	2
75	10	729 900 912	18.70	0.209	88	2 1/2
90	10	729 900 913	24.90	0.355	102	3
110	10	729 900 914	34.80	0.622	122	4

E



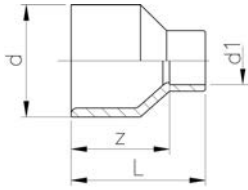
Reducing bush ABS metric

Model:

- With solvent cement spigot and socket metric

d (mm)	d1 (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	L (mm)	
25	20	16	729 900 337	2.50	10	0.011	3	19
32	20	10	729 900 342	3.80	10	0.024	6	22
32	25	10	729 900 341	3.80	10	0.018	4	22
40	20	10	729 900 348	4.95	10	0.035	10	26
40	25	10	729 900 347	4.95	10	0.035	7	26
40	32	10	729 900 346	4.95	10	0.026	4	26
50	20	10	729 900 355	4.95	10	0.057	15	31
50	25	10	729 900 354	6.20	10	0.024	12	31
50	32	10	729 900 353	4.95	10	0.077	9	31
50	40	10	729 900 352	4.95	10	0.049	5	31
63	32	10	729 900 360	7.50	10	0.132	16	38
63	40	10	729 900 359	7.50	10	0.112	12	38
63	50	10	729 900 358	7.50	10	0.095	7	36
75	50	10	729 900 365	12.50	10	0.181	13	44
75	63	10	729 900 364	12.50	10	0.134	7	44
90	50	10	729 900 372	24.90	10	0.315	20	51
90	63	10	729 900 371	24.90	10	0.284	14	51
90	75	10	729 900 370	24.90	10	0.220	7	51
110	63	10	729 900 378	31.20	5	0.509	24	61
110	90	10	729 900 376	31.20	5	0.432	10	61
140	110	10	729 900 385	92.70	5	1.012	15	76
160	110	10	729 900 390	108.20	6	1.459	25	86
160	140	10	729 900 388	121.60	5	0.904	10	86
200	160	10	729 900 392	157.60	1	1.808	20	106
225	160	10	729 900 396	223.60	2	3.640	33	119
225	200	10	729 900 181	223.60	0	2.244	13	119
250	225	6	729 900 303	692.20	4	2.853	12	131
280	250	6	729 900 306	729.30	1	5.512	15	146
315	280	6	729 900 312	778.70	1	6.288	17	164

E



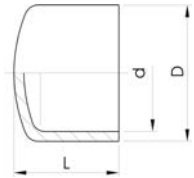
Reducing bush long ABS metric

Model:

- With solvent cement spigot and socket metric

d (mm)	d1 (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	L (mm)	closest inch (inch)	
32	20	10	729 910 342	3.80	10	0.031	30	46	1 - ½
40	25	10	729 910 347	4.95	10	0.057	36	55	1 ¼ - ¾
50	25	10	729 910 354	6.20	10	0.084	44	63	1 ⅓ - ¾
63	32	10	729 910 360	8.80	5	0.170	54	76	2 - 1
75	40	10	729 910 366	24.90	5	0.254	62	88	2 ½ - 1 ¼
90	63	10	729 910 371	36.10	5	0.474	74	112	3 - 2

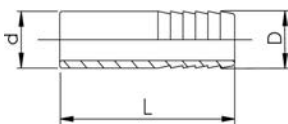
E



Cap ABS metric

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	D (mm)	L (mm)
20	16	729 960 106	2.45	10	0.015	30	25
25	16	729 960 107	2.45	10	0.029	37	30
32	10	729 960 108	3.80	10	0.042	44	34
40	10	729 960 109	6.20	10	0.075	55	41
50	10	729 960 110	8.80	10	0.101	64	44
63	10	729 960 111	11.15	5	0.194	80	54
75	10	729 960 112	27.30	5	0.254	87	65
90	10	729 960 113	33.50	5	0.481	112	77
110	10	729 960 114	52.20	5	1.100	145	101
140	10	729 960 116	90.40	10	1.940	163	114
160	10	729 960 117	124.70	2	2.513	188	130

E



Hose connector ABS metric

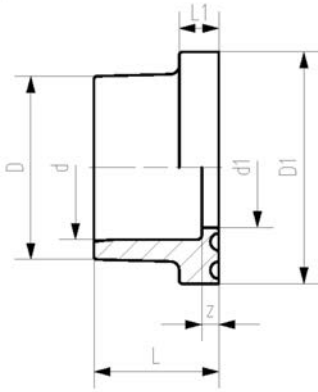
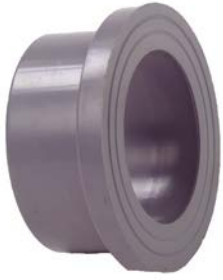
Model:

- With solvent cement spigot metric and parallel hose connection

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	D (mm)	L (mm)
20	10	729 960 406	4.95	10	0.026	20	73
25	10	729 960 407	4.95	10	0.033	25	79
32	10	729 960 408	4.95	10	0.060	30	89
40	10	729 960 409	8.70	10	0.057	40	100
32	10	729 960 508	Call	10	0.060	32	89

E

Flange Adaptor, ABS metric



Model:

- Counter part: Same flange adaptor
- Gasket: profile flange gasket EPDM code no. 748 440 706-723, FKM code no. 749 440 706-723
- Gasket: flat gasket EPDM code no. 748 400 306-323
- Joining faces flat/serrated

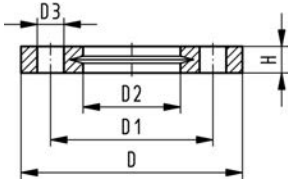
Note:

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

d (mm)	PN (bar)	Part No.	USD	SP	weight (lb)
20	10	729 790 106	2.50	10	0.015
25	10	729 790 107	3.70	10	0.033
32	10	729 790 108	3.70	10	0.044
40	10	729 790 109	6.20	10	0.062
50	10	729 790 110	10.00	10	0.084
63	10	729 790 111	18.70	10	0.150
75	10	729 790 112	26.00	10	0.256
90	10	729 790 113	32.20	10	0.408
110	10	729 790 114	42.10	10	0.672
140	10	729 790 116	98.80	6	1.179
*	160	729 790 117	111.30	2	1.810
*	200	729 790 119	119.50	2	2.476
225	10	729 790 120	232.80	2	2.932
250	6	729 790 121	484.10	1	3.746
280	6	729 790 122	771.50	1	4.813
315	6	729 790 123	837.40	1	7.322

d (mm)	D (mm)	D1 (mm)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)
20	27	34	16	21	6	3	½
25	33	41	21	24	7	3	¾
32	41	50	28	27	7	3	1
40	50	61	36	30	8	3	1 ¼
50	61	73	45	34	8	3	1 ½
63	76	90	57	41	9	3	2
75	91	106	69	47	10	3	2 ½
90	108	125	82	56	11	5	3
110	131	150	102	66	12	5	4
140	165	188	132	81	14	5	5
*	160	188	152	91	16	5	6
*	200	224	192	112	24	6	8
225	248	274	217	125	25	6	8
250	274	303	240	140	23	9	9
280	307	329	270	151	23	5	10
315	346	379	302	172	27	8	12

B



**V-Flange Ring
Socket Fusion**

Model:

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

AL: number of holes

* Combined version, metric-ANSI

All sizes suitable for butt fusion. Sizes 20-75mm also for socket fusion.

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

	Size (inch)	d (mm)	PN (bar)	Part No.	USD	SP	weight (lb)	
	1	½	20	16	727 701 406	16.70	56	0.201
	1	¾	25	16	727 701 407	18.00	38	0.265
	1	1	32	16	727 701 408	22.70	80	0.324
	1	1 ¼	40	16	727 701 409	26.30	40	0.542
	1	1 ½	50	16	727 701 410	27.40	30	0.659
	1	2	63	16	727 701 411	33.40	25	0.796
	1	2 ½	75	16	727 701 412	36.40	19	1.085
		3	90	16	727 701 413	44.40	14	1.334
		4	110	16	727 701 414	54.80	12	1.552
		6	160	16	727 700 417	81.40	220	2.315
	*	8	200	16	727 700 419	108.20	154	3.591
	*	8	225	16	727 700 420	119.50	154	3.086
		10	280	16	727 701 422	148.40	108	4.052
		12	315	16	727 701 423	216.30	56	7.676

	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC	
	1	95	60	28	16	4	M12	
	1	105	70	34	16	4	M12	
	1	115	79	42	16	4	M12	
	1	140	89	51	16	4	M16	
	1	150	98	62	16	4	M16	
	1	165	121	78	19	4	M16	
	1	185	140	92	19	4	M16	
		200	152	110	19	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
		406	362	310	26	38	12	M20
		483	432	348	26	42	12	M20

B

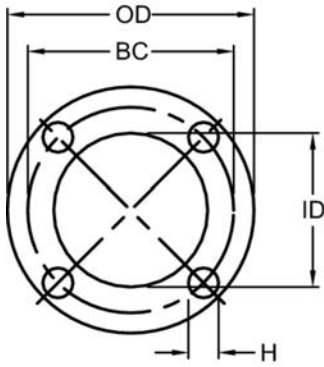
Flange Ring Galvanized Steel ANSI 150 Class



Model:

- Bolt circle class 150

Size (inch)	d (mm)	Part No.	USD	SP	OD (inch)	ID (inch)	lbs (lb)
5	140	150 900 465	172.10	1	10.00	6.22	5



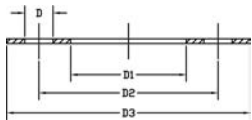
B

Full Face, Flange Gasket EPDM

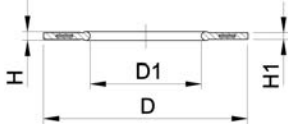


- Full Face Flange Gasket EPDM
- Connecting dimension: ANSI/ASME B 16.5 class 150 and BS 1560
- Bolt circle class 150
- AL: Number of holes

Size (inch)	D (inch)	D2 (inch)	D3 (inch)	D1 (inch)	AL	Part No.	USD	weight (lb)
1/2	1	2	4	1	4	150 400 306	4.95	0.002
3/4	1	3	4	1	4	150 400 307	4.95	0.066
1	1	3	4	1	4	150 400 308	4.95	0.077
1 1/4	1	4	5	2	4	150 400 309	6.20	0.088
1 1/2	1	4	5	2	4	150 400 310	7.50	0.088
2	1	5	6	2	4	150 400 311	8.70	0.141
2 1/2	1	6	7	3	4	150 400 312	11.20	0.194
3	1	6	8	4	4	150 400 313	13.70	0.216
4	1	8	9	5	8	150 400 314	18.70	0.278
5	1	9	10	6	8	150 400 316	23.60	0.002
6	1	10	11	7	8	150 400 317	24.90	0.348
8 & 9	1	12	14	9	8	150 400 319	36.10	0.549
10	1	14	16	11	12	150 400 321	47.00	0.002
12	1	17	19	13	12	150 400 323	69.30	0.620



B



Profile Flange Gasket, metric EPDM / FKM

Model:

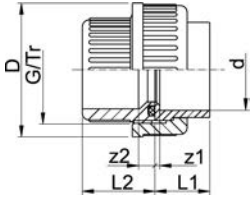
- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FKM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors

d (mm)	PN (bar)	DN (mm)	EPDM Part No.	USD	FKM Part No.	USD	weight (lb)
16	16	10	748 440 705	20.73	749 440 705	69.43	0.026
20	16	15	748 440 706	20.73	749 440 706	69.43	0.029
25	16	20	748 440 707	21.76	749 440 707	78.76	0.031
32	16	25	748 440 708	22.80	749 440 708	79.79	0.042
40	16	32	748 440 709	22.80	749 440 709	81.87	0.057
50	16	40	748 440 710	23.83	749 440 710	86.01	0.086
63	16	50	748 440 711	24.87	749 440 711	89.12	0.110
75	16	65	748 440 712	24.87	749 440 712	92.23	0.181
90	16	80	748 440 713	26.94	749 440 713	93.26	0.183
110	16	100	748 440 714	29.02	749 440 714	98.45	0.280
125	16	100	748 440 715	33.16	749 440 715	130.57	0.231
140	16	125	748 440 716	33.16	749 440 716	127.46	0.381
160 - 180	16	150	748 440 717	45.60	749 440 717	116.06	0.456
200	16	200	748 440 719	50.78	749 440 719	163.73	0.580
225	16	200	748 440 720	59.07	749 440 720	220.73	0.562
250	16	250	* 748 440 721	67.36	* 749 440 721	205.18	1.019
280	16	250	748 440 722	71.50	749 440 722	266.32	0.712
315	16	300	748 440 723	78.76	749 440 723	280.83	1.210

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	di FA (mm)
16	46	16	4	3	6 - 16
20	51	20	4	3	10 - 20
25	61	22	4	3	12 - 22
32	71	28	4	3	18 - 28
40	82	40	4	3	30 - 40
50	92	46	4	3	36 - 46
63	107	58	5	4	48 - 58
75	127	69	5	4	59 - 69
90	142	84	5	4	73 - 84
110	162	104	6	5	94 - 104
125	162	123	6	5	113 - 123
140	192	137	6	5	127 - 137
160 - 180	218	160	8	6	150 - 160
200	273	203	8	6	192 - 203
225	273	220	8	6	207 - 220
250	328	252	8	6	238 - 252
280	328	274	8	6	264 - 274
315	378	306	8	6	296 - 306

E



Union, ABS metric

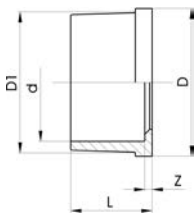
Model:

- Union End: Solvent cement socket metric
- Union bush: Solvent cement socket metric
- Gasket: O-ring EPDM code no. 748 410 006-016

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)
20	10	729 510 106	13.80	10 0.077
25	10	729 510 107	15.00	10 0.097
32	10	729 510 108	18.70	10 0.141
40	10	729 510 109	23.60	10 0.287
50	10	729 510 110	34.70	5 0.340
63	10	729 510 111	50.70	5 0.569
75	10	729 510 112	124.70	2 1.034
90	10	729 510 313	144.20	2 1.545
110	10	729 510 114	178.20	1 2.357

d (mm)	L1 (mm)	D (mm)	L2 (mm)	z1 (mm)	z2 (mm)	G/Tr (inch)	closest inch (inch)
20	21	43	26	4	10	1	½
25	24	53	29	5	10	1 1/4	¾
32	27	60	33	5	10	1 1/2	1
40	31	74	39	3	12	2	1 ¼
50	33	83	46	3	14	2 1/4	1 ½
63	40	103	58	3	18	2 3/4	2
75	47	135	62	3	18	Tr 108x5	2 ½
90	56	158	69	5	18	Tr 128x5	3
110	66	158	72	5	11	Tr 154x5	4

E



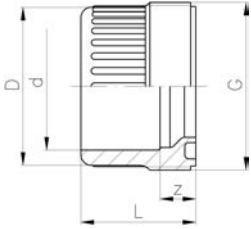
Union End, ABS metric

Model:

- Solvent cement socket metric
- For union 729 510 106-114, 729 510 156-164

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	L (mm)	D (mm)	D1 (mm)	closest inch (inch)
20	10	729 800 106	3.10	10 0.015	4	21	30	28	½
25	10	729 800 107	3.10	10 0.026	5	24	39	36	¾
32	10	729 800 108	4.15	10 0.035	5	27	44	41	1
40	10	729 800 109	5.15	10 0.093	3	31	57	53	1 ¼
50	10	729 800 110	8.30	10 0.099	3	34	63	59	1 ½
63	10	729 800 111	12.40	10 0.185	3	41	78	74	2
75	10	729 800 162	21.20	20 0.240	3	47	101	91	2 ½
90	10	729 800 163	23.60	12 0.392	5	56	121	108	3
110	10	729 800 164	29.80	10 0.650	5	66	146	131	4

E



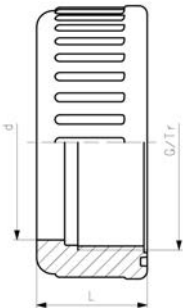
Union bush ABS metric

Model:

- Solvent cement socket metric
- For union 729 510 106-114
- Jointing face: With O-Ring groove

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	z (mm)	D (mm)	L (mm)	G/Tr (inch)	closest inch (inch)	
20	10	729 840 106	4.95	10	0.024	10	28	26	1	½
25	10	729 840 107	4.95	10	0.035	10	33	29	1 1/4	¾
32	10	729 840 108	7.40	10	0.060	10	41	33	1 1/2	1
40	10	729 840 109	8.70	10	0.101	12	50	39	2	1 ¼
50	10	729 840 110	12.40	10	0.128	14	62	46	2 1/4	1 ½
63	10	729 840 111	15.00	10	0.243	18	77	58	2 3/4	2
75	10	729 840 112	48.40	20	0.353	18	93	62	Tr108x5	2 ½
90	10	729 840 123	Call	12	0.604	18	110	69	Tr128x5	3
110	10	729 840 114	60.60	10	0.728	11	133	72	Tr154x6	4

E



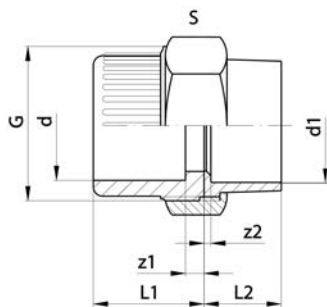
Union nut ABS

Model:

- For union 723 510 105-114

d (mm)	PN (bar)	Part No.	USD	SP weight (lb)	L (mm)	G/Tr (inch)	D (mm)	closest inch (inch)
16	10	729 890 405	6.20	10	0.020	21	3/4	¾
20	10	729 890 406	6.20	10	0.106	23	1	½
25	10	729 890 407	6.20	10	0.101	25	1 1/4	¾
32	10	729 890 408	6.20	10	0.055	27	1 1/2	1
40	10	729 890 409	7.20	10	0.132	30	2	1 ¼
50	10	729 890 410	11.30	10	0.220	34	2 1/4	1 ½
63	10	729 890 411	13.40	10	0.324	38	2 3/4	2
75	10	729 690 012	Call	0	0.423	40	Tr108x5	2 ½
90	10	729 690 013	Call	0	0.593	43	Tr128x5	3
110	10	729 690 014	Call	0	0.917	48	Tr154x6	4

E



Adaptor Union, Copper for sweating, ABS

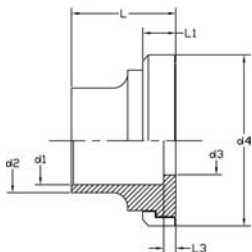
Model:

- Gasket: O-ring EPDM No. 48 41 00
- Union End: Copper Inch size socket
- Union Bush: Solvent cement socket ABS metric
- Union Nut: brass

d (mm)	d1 (inch)	Refrigeration Size (inch)	PN (bar)	Part No.	USD	weight (lb)
16	3/8	1/2	10	720 512 105	29.30	0.240
20	1/2	5/8	10	720 512 106	36.10	0.335
25	3/4	7/8	10	720 512 107	44.00	0.441
32	1	1 1/8	10	720 512 108	57.20	0.518
40	1 1/4	1 3/8	10	720 512 109	78.40	0.926
50	1 1/2	1 5/8	10	720 512 110	101.00	2.293
63	2	2 1/8	10	720 512 111	138.10	2.293

d (mm)	z2 (inch)	z1 (inch)	L2 (inch)	L1 (inch)	G (inch)	s (mm)	closest inch (inch)
16	0	0	1	1	3/4	32	3/8
20	0	0	1	1	1	40	1/2
25	0	0	1	1	1 1/4	50	3/4
32	0	0	1	1	1 1/2	52	1
40	0	0	1	2	2	66	1 1/4
50	0	1	2	2	2 1/4	72	1 1/2
63	0	1	2	2	3	86	2

E



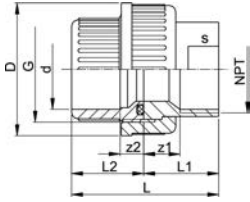
Copper Union End with ABS Adapter Ring for 546 Ball Valve

- This set has to be used in combination with the 546 ball valve
- Copper union end for sweating
- Perfect transition from 546 ball valve to copper

d (mm)	Part No.	USD	SP	weight (kg)
25	169 481 463	40.20	1	0.082
32	169 481 464	51.50	1	0.115
40	169 481 465	70.10	1	0.185
50	169 481 466	91.70	1	0.225
63	169 481 467	123.60	1	0.410

d1 (inch)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L3 (mm)	Refrigeration size (inch)
3/8	27	20	44	22	6	3	3/8
1	34	26	53	26	8	3	1 1/8
1 1/4	41	32	65	28	8	3	1 3/8
1 1/2	47	38	77	31	8	3	1 5/8
2	61	51	99	37	9	3	2 1/8

E

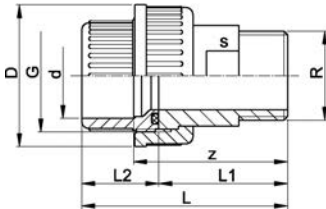


Adapter Union ABS Metric Socket x Stainless Steel Female NPT

- Union End: stainless steel (304L) female NPT tread
- Union Bush: solvent cement socket ABS metric
- Union Nut: ABS
- Gasket: O-ring EPDM

NPT (inch)	PN (bar)	d (mm)	Part No.	USD	SP weight (lb)
¾	150	25	729 541 007	41.20	5 0.340
1	150	32	729 541 008	49.50	10 0.397
1 ¼	150	40	150 541 009	123.60	1 0.287
1 ½	150	50	150 541 010	144.20	1 0.970
2	150	63	150 541 011	173.10	1 1.521

z2 (inch)	s (inch)	L (inch)	L1 (inch)	D (inch)	z1 (inch)	G (inch)	L2 (inch)
0	1 ¼	2	1	2	0	1 ¼	1
0	1 ½	2	1	2	0	1 ½	1
				3			
				4			



Adapter Union ABS Metric Socket x Stainless Steel Male NPT

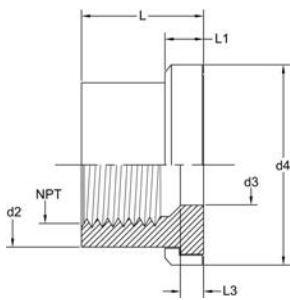
d (mm)	R (inch)	Part No.	USD	SP weight (kg)	z (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	G (inch)	s (mm)
20	½	150 541 706	67.00	1 0.126	44	43	60	34	26	1	24
25	¾	150 541 707	77.30	1 0.174	46	51	65	36	29	1 ¼	32
32	1	150 541 708	86.60	1 0.262	50	58	72	40	33	1 ½	37
40	¾	150 541 709	123.60	1 0.476	58	74	84	46	39	2	48
50	1 ½	150 541 710	144.20	1 0.535	62	83	93	48	46	2 ¼	54
63	2	150 541 711	173.10	1 0.861	73	100	111	55	58	2 ¾	69

E

Union End Stainless Steel Female NPT with Adapter Ring for 546 Ball Valve



- This set has to be used in combination with the 546 ball valve
- Stainless Steel (304L) union end with NPT thread
- Perfect transition from 546 ball valve to NPT



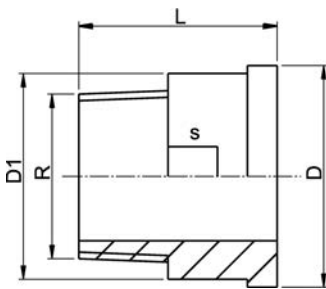
NPT (inch)	d (mm)	Part No.	USD	SP weight (kg)
¾	25	150 481 025	43.30	1 0.110
1	32	150 481 032	49.50	1 0.145
1 ¼	40	150 481 040	96.90	1 0.270
1 ½	50	150 481 050	118.50	1 0.330
2	63	150 481 063	169.00	1 0.510

d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L3 (mm)	Refrigeration size (inch)
36.07	21.08	43.94	25.91	6.09	5.08	¾
40.89	25.91	53.09	28.97	7.87	6.09	1 ¼
52.80	32.70	56.40	30.50	6.50	5.50	1 ½
58.00	40.10	62.20	34.20	7.10	5.90	1 ½
73.30	53.80	78.30	33.50	8.20	7.20	2

Union End Stainless Steel Male NPT with Adapter Ring for 546 Ball Valve



- This set has to be used in combination with the 546 ball valve
- Stainless Steel (304L) union end with NPT thread
- Perfect transition from 546 ball valve to NPT



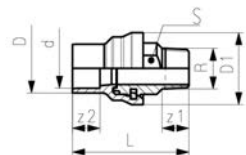
d (mm)	R (inch)	Part No.	USD	SP weight (kg)	D (mm)	D1 (mm)	L (mm)
25	¾	150 481 725	69.10	1 0.170	38.8	36.0	40.50
32	1	150 481 732	81.40	1 0.241	44.7	41.5	45.00
40	1 ¼	150 481 740	96.90	1 0.427	56.5	53.0	51.50
50	1 ½	150 481 750	118.50	1 0.504	62.6	59.0	53.50
63	2	150 481 763	169.00	1 0.826	78.4	74.0	57.50

E

Transition Male Adaptor ABS Socket/SS NPT

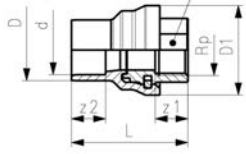


- With solvent cement spigot/socket metric and male thread NPT
- Gasket: O-ring EPDM
- For transition from ABS to stainless steel



d (mm)	D (mm)	NPT (inch)	PN (bar)	Part No.	USD	SP weight (lb)	z2 (inch)	lbs	z1 (inch)	L (inch)	S (mm)	
20	25	½	150	729 942 606	39.00	10	0.262	1	0	1	3	25
25	32	¾	150	729 942 607	41.40	5	0.461	1	1	1	3	30
32	40	1	150	729 942 608	53.10	5	0.703	1	1	1	4	36

E

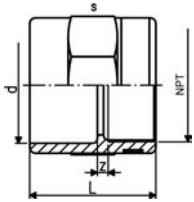


Transition Female Adaptor ABS Socket/SS NPT

- With solvent cement spigot/socket metric and female thread NPT
- Gasket: O-ring EPDM
- For transition from ABS to stainless steel

d (mm)	D (mm)	NPT (inch)	PN (bar)	Part No.	USD	SP weight (lb)	lbs	z1 (inch)	z2 (inch)	L (inch)	S (mm)	
20	25	½	150	729 942 106	37.70	10	0.207	0	1	1	2	25
25	32	¾	150	729 942 107	40.10	5	0.362	0	1	1	3	30
32	40	1	150	729 942 108	46.10	5	0.553	1	1	1	3	36

E

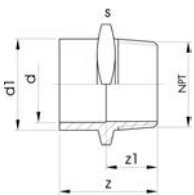


Female Adapter socket ABS metric x FNPT thread

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

PN (bar)	d (mm)	NPT (inch)	Part No.	USD	SP weight (kg)	s (inch)	z (inch)	L (inch)	closest inch (inch)	
150	20	½	729 914 206	46.00	0	0.001	1	0	1	½
150	25	¾	729 914 207	52.20	10	0.026	1	0	2	¾
150	32	1	729 914 208	59.50	0	0.040	2	0	2	1
150	40	1 ¼	729 914 209	65.70	0	0.060	2	0	2	1 ¼
150	50	1 ½	729 914 210	71.80	10	0.400	3	0	2	1 ½
150	63	2	729 914 211	79.20	0	0.160	3	0	3	2

E

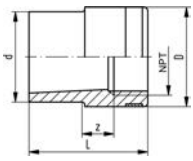


Adaptor spigot, male nipple ABS metric x MNPT thread

- With solvent cement spigot/socket metric and taper male tread NPT
- Connection for plastic threads
- Do not use thread sealing pastes that are harmful to ABS

PN (bar)	d (mm)	NPT (inch)	d1 (mm)	Part No.	USD	weight (kg)	z1 (inch)	closest inch (inch)	z (inch)	s (inch)
150	16	½	20	729 914 556	39.70	0.001	1	½	2	1
150	20	¾	25	729 914 557	45.90	0.040	1	¾	2	1
150	25	1	32	729 914 558	52.20	0.020	1	1	2	2
150	32	1 ¼	40	729 914 559	59.50	0.050	2	1 ¼	2	2
150	40	1 ½	50	729 914 560	65.70	0.082	2	1 ½	3	3
150	50	2	63	729 914 561	71.80	0.120	2	2	3	3

E

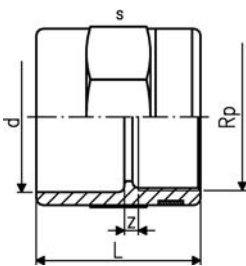


Reducing Adapter Bushing, spigot ABS metric x FNPT thread

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

PN (bar)	NPT (inch)	d (mm)	Part No.	USD	SP weight (kg)	z (inch)	D (inch)	L (inch)	closest inch (inch)	
150	3/8	20	729 914 434	45.90	0	0.001	1	1	1	1/2
150	1/2	25	729 914 437	52.20	0	0.001	1	1	2	3/4
150	3/4	32	729 914 441	59.50	10	0.027	1	1	2	1
150	1	40	729 914 446	65.70	10	0.050	2	2	2	1 1/4
150	1 1/4	50	729 914 452	71.80	10	0.080	2	2	3	1 1/2
150	1 1/2	63	729 914 458	79.20	5	0.128	2	2	3	2

E



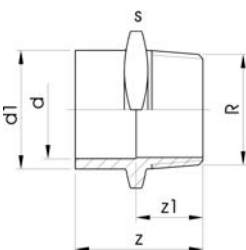
Female Adapter ABS metric Rp

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 ABS

d (mm)	Rp (inch)	PN (bar)	Part No.	USD	SP weight (lb)	closest inch (inch)	z (mm)	L (mm)	s (mm)	
20	1/2	10	729 910 206	8.70	10	0.044	1/2	4	35	32
25	3/4	10	729 910 207	8.70	10	0.055	3/4	3	40	36
32	1	10	729 910 208	12.40	10	0.099	1	3	45	46
40	1 1/4	10	729 910 209	15.00	10	0.148	1 1/4	5	51	55
50	1 1/2	10	729 910 210	18.70	10	0.218	1 1/2	7	59	65
63	2	10	729 910 211	23.60	5	0.368	2	7	69	80

E



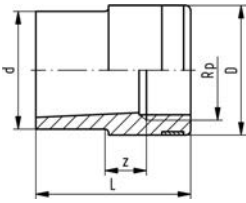
Adaptor Socket Nipple, ABS metric - R BSP

Model:

- With solvent cement spigot/socket metric and taper male thread R
- Do not use thread sealing pastes that are harmful to ABS

PN (bar)	d (mm)	R (inch)	d1 (mm)	Part No.	USD	SP weight (kg)	closest inch (inch)	z (mm)	z1 (mm)	s (mm)	
10	16	1/2	20	729 910 556	4.95	10	0.012	3/8	42	28	32
10	20	3/4	25	729 910 557	4.95	10	0.017	1/2	47	31	36
10	25	1	32	729 910 558	4.95	10	0.030	3/4	54	35	46
10	32	1 1/4	40	729 910 559	7.50	10	0.046	1	60	38	55
10	40	1 1/2	50	729 910 560	10.00	10	0.072	1 1/4	66	40	65
10	50	2	63	729 910 561	13.70	5	0.125	1 1/2	78	47	80

E



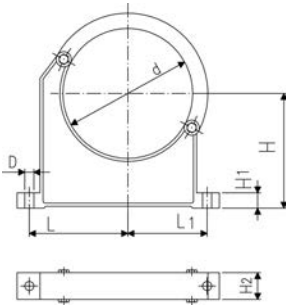
Reducing Bush, ABS metric - Rp BSP

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
- Do not use thread sealing pastes that are harmful to ABS

d (mm)	Rp (inch)	PN (bar)	Part No.	USD	SP weight (kg)	z (mm)	D (mm)	L (mm)
20	3/8	10	729 910 434	6.20	10	0.012	7	25
25	1/2	10	729 910 437	7.50	10	0.017	7	30
32	3/4	10	729 910 441	9.90	10	0.025	15	35
40	1	10	729 910 446	13.70	10	0.046	20	45
50	1 1/4	10	729 910 452	21.20	10	0.077	20	55
63	1 1/2	10	729 910 458	27.30	5	0.120	10	62

B



Pipe Clips Type 060, PP metric

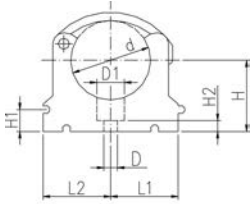
Model:

- 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 (mm)	Part No.	USD	SP weight (lb)	D (mm)	L (mm)	L1 (mm)	H (mm)	H1 (mm)	H2 (mm)	SC	closest inch (inch)	
90	* 167 060 038	12.95	10	0.317	9	89	71	105	15	33	M8	3
110	* 167 060 039	14.09	10	0.348	9	94	80	115	15	33	M8	4
125	167 060 040	14.70	10	0.549	11	116	91	130	20	35	M10	
140	167 060 041	24.40	10	0.573	11	121	98	130	20	35	M10	5
160	* 167 060 042	29.43	10	0.653	11	131	107	148	20	35	M10	6
180	167 060 043	30.40	10	0.721	11	143	115	163	20	35	M10	7
200	* 167 060 019	41.24	5	1.188	13	152	120	175	25	39	M12	8
225	* 167 060 020	47.05	5	0.392	13	165	132	175	25	39	M12	8
250	* 167 060 021	62.38	5	1.448	13	183	143	200	25	39	M12	9
280	167 060 022	66.80	5	0.467	13	198	156	200	25	39	M12	10
315	* 167 060 023	78.86	5	1.775	13	219	172	225	25	39	M12	12
355	* 167 060 024	84.46	5	2.758	17	275	209	258	30	50	M16	14
400	* 167 060 025	91.31	4	2.273	17	300	228	288	30	50	M16	16

B

Pipe Bracket Type 061, PP metric



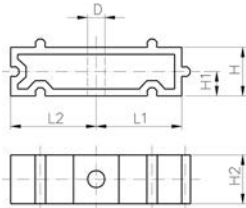
Model:

- 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 (mm)	Part No.	USD	SP	weight (lb)
*	10	167 061 003	Call	10	0.007
*	12	167 061 004	Call	10	0.007
*	16	* 167 061 035	1.24	10	0.015
*	20	* 167 061 036	1.24	10	0.015
*	25	* 167 061 037	1.24	10	0.020
*	32	* 167 061 038	2.49	10	0.026
	40	* 167 061 039	2.49	10	0.060
	50	* 167 061 040	3.73	10	0.068
	63	* 167 061 041	3.73	10	0.115
	75	* 167 061 012	7.25	10	0.126
	90	* 167 061 013	8.39	10	0.203
	110	* 167 061 014	9.43	10	0.258
	125	167 061 015	12.10	10	0.397
	140	167 061 016	15.60	10	0.494
	160	* 167 061 017	18.86	10	0.534

	d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L1 (mm)	L2 (mm)	SC	closest inch (inch)
*	10	5	8	20	10	6	12	11	14	M4	1/8
*	12	5	8	21	10	6	12	11	14	M5	1/4
*	16	6	11	27	10	6	16	14	17	M5	3/8
*	20	6	11	27	10	6	16	17	19	M5	1/2
*	25	6	11	30	10	6	16	19	22	M5	3/4
*	32	6	11	36	10	6	16	24	27	M5	1
	40	7	14	44	10	7	22	34	34	M6	1 1/4
	50	7	14	51	10	7	22	37	37	M6	1 1/2
	63	9	17	64	10	10	25	45	45	M8	2
	75	9	17	58	10	10	25	52	52	M8	2 1/2
	90	9	17	65	10	10	28	65	65	M8	3
	110	9	17	75	10	10	28	79	79	M8	4
	125	9	17	90	10	10	32	88	88	M8	
	140	9	17	110	10	10	32	98	98	M8	5
	160	9	17	108	10	10	32	109	109	M8	6

B



Spacer Type 061, PP

Model:

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

d (mm)	Inch (inch)	Part No.	USD	SP	weight (kg)	D (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	SC
10 - 12	1/8 - 1/4	167 061 153	Call	10	0.003	5	11	14	20	10	12	M4
16	3/8	* 167 061 155	1.24	10	0.005	6	14	17	20	10	16	M4
20	1/2	* 167 061 156	1.24	10	0.005	6	17	19	20	10	16	M4
25	3/4	* 167 061 157	1.24	10	0.007	6	19	22	20	10	16	M4
32	1	* 167 061 158	1.24	10	0.006	6	24	27	20	10	16	M4
40	1 1/4	* 167 061 159	1.24	1	0.015	7	34	34	20	10	22	M4
50	1 1/2	* 167 061 160	1.24	10	0.017	7	37	37	20	10	22	M4
63	2	* 167 061 161	2.49	10	0.020	9	45	45	20	10	25	M4
75	2 1/2	* 167 061 162	3.73	10	0.027	9	52	52	20	10	25	M4
90	3	* 167 061 163	4.77	10	0.039	9	65	65	20	10	28	M4
110	4	* 167 061 164	5.91	10	0.048	9	79	79	20	10	28	M4
125	4 1/2	167 061 165	6.70	10	0.059	9	88	88	20	10	32	M4
140	5	167 061 166	7.80	10	0.065	9	98	98	20	10	32	M4
160	6	* 167 061 167	9.43	10	0.071	9	109	109	20	10	32	M4

UNI-Plastgrip L PN10



Model:

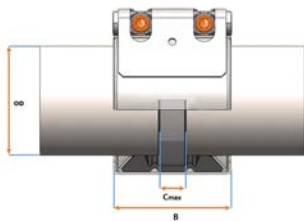
- Housing, Bars and Strip insert (option): Stainless Steel W5 (1.4571) Quality

Temperature/Pressure:

- Operating Temperature EPDM: -22° F to 257° F

Remark:

- **For safe installation on PE/PP/PB pipes use insert stiffeners**



OD nominal (mm)	EPDM Part No.	USD	SP	weight (kg)
40	779 732 006	151.50	0	0.4
50	779 732 008	151.50	0	0.5
63	779 732 010	164.80	0	0.6
75	779 732 012	233.90	0	1.4
90	779 732 014	233.90	0	1.5
110	779 732 016	249.30	0	1.7
140	779 732 020	232.80	0	3.5
160	779 732 022	259.60	0	3.7

OD nominal (mm)	M	PN (bar)	WP (bar)	C max. (mm)	OD min (mm)	OD max. (mm)	d (mm)	Torque (N/m)	B (mm)	H (mm)
40	M8	10	16	15	39.0	43.0	66	25	60	104
50	M8	10	16	15	47.5	52.5	74	25	60	112
63	M8	10	16	25	58.0	64.0	85	25	75	125
75	M10	10	16	30	72.0	80.0	108	40	95	164
90	M10	10	16	30	88.0	96.0	124	40	95	170
110	M10	10	16	30	104.0	112.0	141	40	95	187
140	M12	10	16	40	137.0	145.0	186	65	110	238
160	M12	10	16	40	157.0	165.0	205	65	110	255

Tools and Solvent Cement

B



COOL-FIT Cleaner

- 1 Quart, (32 Fl. Oz U.S.), (946mL)

Part No.	USD	weight
		(lb)
150 298 102	21.20	2.189

B



COOL-FIT Cement

- 1 Quart, (32 Fl. Oz U.S.), (946mL)

Part No.	USD	weight
		(lb)
150 298 101	24.90	2.438

B



Two-Component Adhesive/Sealer

- The Starter Kit includes two cartridges, one dispensing gun, and six mixing tips.

Description	Part No.	USD	SP	weight
				(kg)
Starter Kit	* 150 845 001	92.23	1	0.825
Adhesive 43mL	* 150 845 002	17.62	1	0.080
Mixing Tip	* 150 845 003	1.04	1	0.001
Dispensing Gun	* 150 845 004	56.99	1	0.235

D



Chamfering tools

- Chamfering tool with 15° bevel for plastic pipes (PVC, ABS, PP, PB, PE). Coated prism surface suitable for clean room applications. Fast and reliable adjustment to different pipe diameters and wall thickness.

Part No.	USD	weight	d-d
		(lb)	(mm)
* 790 309 003	471.50	2.258	16 - 200
* 790 309 004	616.58	5.617	63 - 400

D



Spare blade for chamfering tool

d-d (mm)	Description	Part No.	USD	SP	weight (kg)
16 - 400	Spare blade	* 790 309 015	33.37	0	0.010
16 - 400	Counter blade	790 309 016	19.10	1	0.012

D

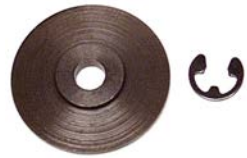


PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

Article	d-d (mm)	Part No.	USD	SP	weight (lb)	closest inch (inch)
PPC 63, s max. = 7.2 mm	10 - 63	* 790 109 001	108.81	1	1.907	1/8 - 2
PPC 110, s max. = 12.7 mm	50 - 110	* 790 109 002	231.09	1	3.580	1 1/2 - 4
PPC 160, s max. = 19.0 mm	110 - 160	* 790 109 003	275.65	1	4.877	4 - 6

D



Replacement cutting wheels

- for plastic pipe cutter

d-d (mm)	Article	Part No.	USD	SP	weight (kg)
10 - 63	SR 63 max. s = 7.2 mm	* 790 109 011	30.57	1	0.004
50 - 110	SR 110/160 max. s = 12.7 mm	* 790 109 012	50.57	1	0.015
110 - 160	SR 160 max. s = 19.0 mm	* 790 109 013	60.00	1	0.023

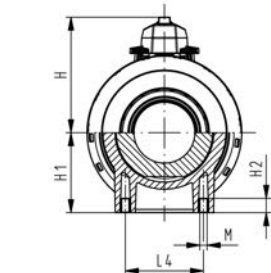
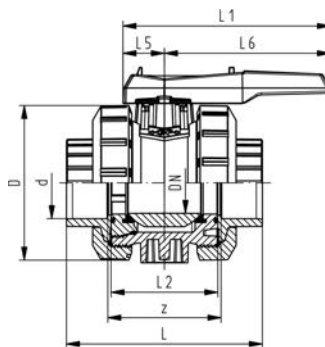
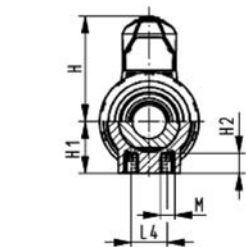
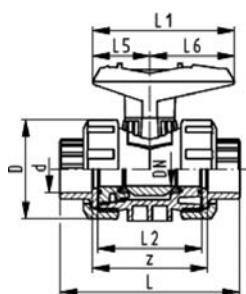
Manual Valves ABS

Ball Valves

E



DN10/15 - 50



Ball valve type 546 ABS

With mounting inserts
With solvent cement sockets metric

Model:

- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with Type 346 (DN10/15-50) and Type 370 (DN65-100)

Option:

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

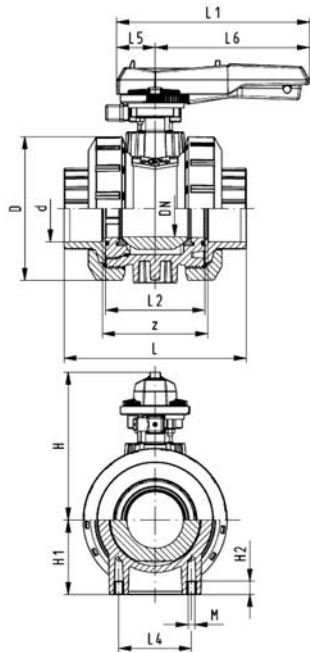
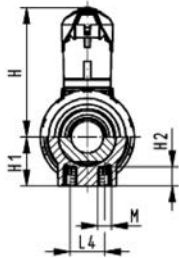
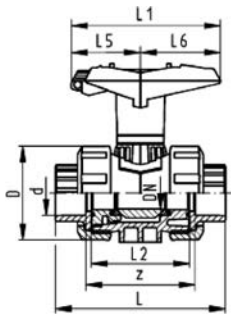
d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
16	10	169 546 061	50.00	1	0.247
20	10	169 546 062	50.00	1	0.251
25	10	169 546 063	61.00	1	0.414
32	10	169 546 064	71.00	1	0.600
40	10	169 546 065	93.00	1	1.060
50	10	169 546 066	117.00	1	1.448
63	10	169 546 067	147.00	1	2.646
75	10	169 546 068	378.00	1	7.635
90	10	169 546 069	451.00	1	12.566
110	10	169 546 070	548.00	1	15.399

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		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		107	2
75	166	149	85	15	233	270	136	70	64	206		144	2 1/2
90	200	161	105	15	254	270	141	70	64	206		151	3
110	238	178	123	22	301	320	164	120	64	256	M12	174	4

E



DN10/15 - 50



Ball valve type 546 ABS with lockable handle
With solvent cement sockets metric

Model:

- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with Type 346 (DN10/15-50) and Type 370 (DN65-100)
- Lockable hand lever with ratchet settings

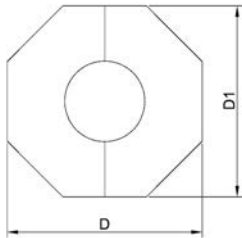
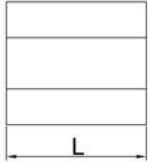
Option:

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

d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
16	10	^ 169 546 081	66.00	1	0.267
20	10	^ 169 546 082	66.00	1	0.271
25	10	^ 169 546 083	79.00	1	0.425
32	10	^ 169 546 084	93.00	1	0.602
40	10	^ 169 546 085	116.00	1	1.058
50	10	^ 169 546 086	138.00	1	1.466
63	10	^ 169 546 087	173.00	1	2.657
75	10	^ 169 546 088	426.00	1	9.259
90	10	^ 169 546 089	510.00	1	13.448
110	10	^ 169 546 090	620.00	1	20.723

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

E



546 Ball Valve Insulation Kit

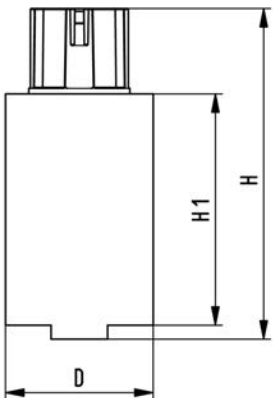
Model:

- Insulation made from PE
- Outer jacket UV resistant
- For Ball Valve Type 546

* handle extension for ball valve recommended, d75/90 161.490.920, d110 161.490.921

d (mm)	Part No.	USD	SP weight (lb)	L (mm)	D (mm)	closest inch (inch)	D1 (mm)	
25	738 990 138	47.40	1	0.220	108	89	¾ 87	
32	738 990 139	54.60	1	0.220	121	96	1 94	
40	738 990 140	75.20	1	0.220	143	110	1 ¼ 110	
50	738 990 141	75.20	1	0.220	156	122	1 ½ 120	
63	738 990 142	86.60	1	0.220	181	150	2 147	
*	75	738 990 143	127.80	1	0.220	235	190	2 ½ 185
*	90	738 990 144	162.80	1	0.220	255	226	3 221
*	110	738 990 145	214.30	1	2.425	300	268	4 262

B



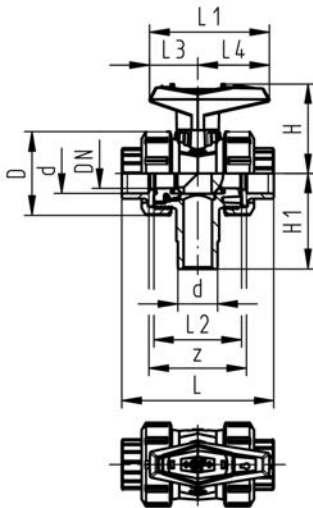
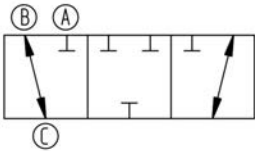
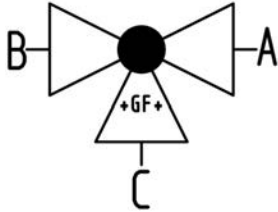
Handle extension for Ball valve type 546, 75-110mm

Model:

- Height Variable
- Multiple use in succession possible.

d-d (mm)	Part No.	USD	SP weight (lb)	H (mm)	D (mm)	H1 (mm)
75 - 90	161 490 920	117.00	1	0.712	143	58 100
-- 110	161 490 921	119.00	1	0.911	143	64 100

E



3-way Ball valve type 543 ABS Vertical/L-port with solvent cement sockets metric

Model:

- Vertical inlet solvent cement spigot metric
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 360° without turn limiter
- Delivery status B-C opened, see flow scheme

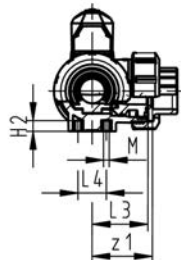
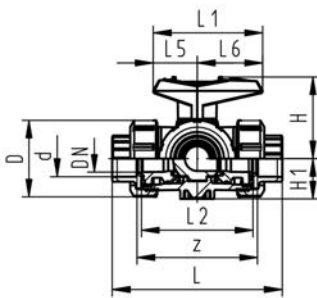
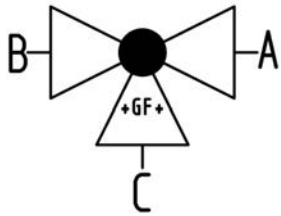
Mode of action:

- For interconnection of two inputs

d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
16	10	169 543 401	125.00	1	0.273
20	10	169 543 402	129.00	1	0.271
25	10	169 543 403	148.00	1	0.428
32	10	169 543 404	185.00	1	0.626
40	10	169 543 405	210.00	1	1.047
50	10	169 543 406	241.00	1	1.490
63	10	169 543 407	305.00	1	2.721

d (mm)	D (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	z (mm)	closest inch (inch)
16	50	57	62	92	77	56	32	45	64	3/8
20	50	57	62	95	77	56	32	45	64	1/2
25	58	67	72	111	97	66	39	58	74	3/4
32	68	73	77	123	97	71	39	58	79	1
40	84	90	87	146	128	85	54	74	95	1 1/4
50	97	97	97	157	128	89	54	74	95	1 1/2
63	124	116	112	183	152	101	66	87	107	2

E



3-way Ball valve type 543 ABS Horizontal/L-port with solvent cement sockets metric

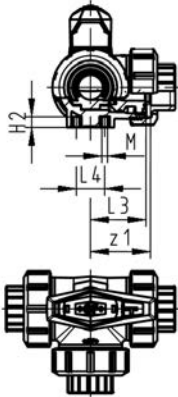
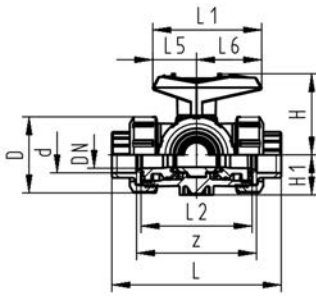
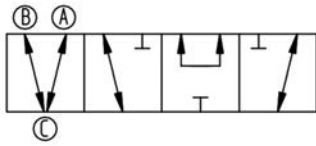
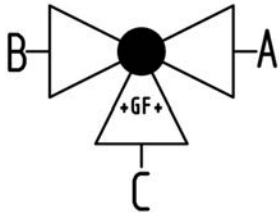
Model:

- 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)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
16	10	169 543 001	125.00	1	0.412
20	10	169 543 002	129.00	1	0.384
25	10	169 543 003	148.00	1	0.608
32	10	169 543 004	185.00	1	0.888
40	10	169 543 005	210.00	1	1.559
50	10	169 543 006	241.00	1	2.335
63	10	169 543 007	305.00	1	4.546

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 (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	109	77	73	36	25	32	45	6	81	40	3/8
20	50	57	28	8	112	77	73	36	25	32	45	6	81	40	1/2
25	58	67	32	8	131	97	86	43	25	39	58	6	94	47	3/4
32	68	73	36	8	151	97	99	50	25	39	58	6	107	54	1
40	84	90	45	9	181	128	120	60	45	54	74	8	130	65	1 1/4
50	97	97	51	9	205	128	137	69	45	54	74	8	143	72	1 1/2
63	124	116	65	9	261	152	179	89	45	66	87	8	185	92	2

E



3-way Ball valve type 543 ABS 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)	PN (bar)	EPDM Part No.	USD	SP weight (lb)
16	10	169 543 201	125.00	1 0.410
20	10	169 543 202	129.00	1 0.392
25	10	169 543 203	148.00	1 0.580
32	10	169 543 204	185.00	1 0.888
40	10	169 543 205	210.00	1 1.541
50	10	169 543 206	241.00	1 2.306
63	10	169 543 207	305.00	1 4.475

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 (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	57	28	8	109	77	73	36	25	32	45	6	81	40	3/8
20	50	57	28	8	112	77	73	36	25	32	45	6	81	40	1/2
25	58	67	32	8	131	97	86	43	25	39	58	6	94	47	3/4
32	68	73	36	8	151	97	99	50	25	39	58	6	107	54	1
40	84	90	45	9	181	128	120	60	45	54	74	8	130	65	1 1/4
50	97	97	51	9	205	128	137	69	45	54	74	8	143	72	1 1/2
63	124	116	65	9	261	152	179	89	45	66	87	8	185	92	2

Check Valves

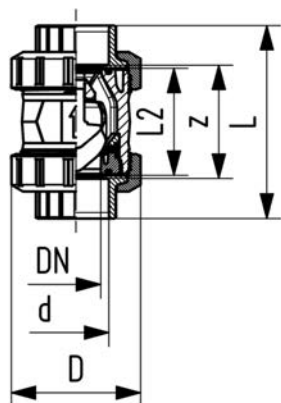
E

Check valve type 561 ABS 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



d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	169 561 001	81.00	1	0.198	50	92	56	64	3/8
20	10	169 561 002	81.00	1	0.198	50	95	56	64	1/2
25	10	169 561 003	98.00	1	0.419	58	110	65	72	3/4
32	10	169 561 004	107.00	1	0.485	68	123	71	79	1
40	10	169 561 005	129.00	1	0.838	84	146	85	94	1 1/4
50	10	169 561 006	160.00	1	1.235	97	157	89	95	1 1/2
63	10	169 561 007	226.00	1	2.183	124	183	101	107	2
75	10	^ 169 561 008	629.00	1	5.335	166	233	136	144	2 1/2
90	10	^ 169 561 009	787.00	1	8.532	200	254	141	151	3
110	10	^ 169 561 010	944.00	1	13.757	238	301	164	174	4

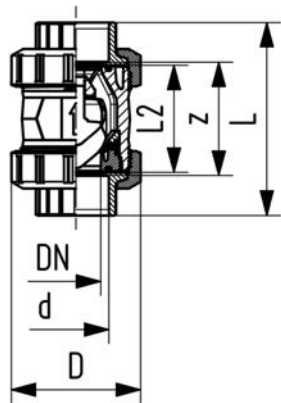
E

Check valve type 562 ABS with solvent cement sockets metric



Model:

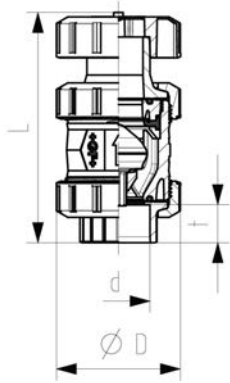
- For horizontal or vertical installation
- Sealing at a minimum water column of 1m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546



d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	10	169 562 001	129.00	1	0.198	50	92	56	64	3/8
20	10	169 562 002	129.00	1	0.198	50	95	56	64	1/2
25	10	169 562 003	155.00	1	0.419	58	110	65	72	3/4
32	10	169 562 004	169.00	1	0.485	68	123	71	79	1
40	10	169 562 005	203.00	1	0.838	84	146	85	94	1 1/4
50	10	169 562 006	250.00	1	1.235	97	157	89	95	1 1/2
63	10	169 562 007	356.00	1	2.183	124	183	101	107	2
75	10	^ 169 562 008	711.00	1	5.335	166	233	136	144	2 1/2
90	10	^ 169 562 009	889.00	1	8.532	200	254	141	151	3
110	10	^ 169 562 010	1,067.00	1	13.757	238	301	164	174	4

E

Ventilating and bleed valve type 591 ABS with solvent cement sockets metric



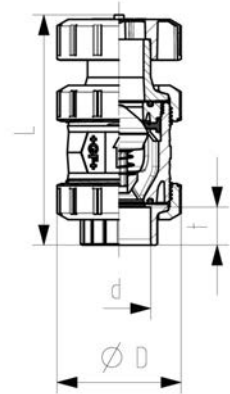
Model:

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

d (mm)	PN (bar)	EPDM Part No.	USD	SP weight (lb)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	^ 169 591 001	170.00	1	50	126	14	3/8
20	10	169 591 002	170.00	1	50	127	16	1/2
25	10	^ 169 591 003	241.00	1	58	142	18	3/4
32	10	169 591 004	296.00	1	68	155	22	1
40	10	^ 169 591 005	358.00	1	84	177	26	1 1/4
50	10	169 591 006	554.00	1	97	195	31	1 1/2
63	10	169 591 007	787.00	1	124	227	38	2
75	10	* 169 591 008	1,258.00	1	166	256	45	2 1/2
90	10	* 169 591 009	1,572.00	1	200	275	52	3
110	10	* 169 591 010	1,887.00	1	238	318	64	4

E

Ventilating and bleed valve type 595 ABS with solvent cement sockets metric



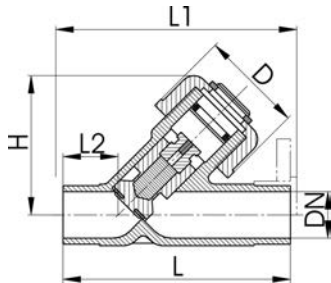
Model:

- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Spring Halar coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

d (mm)	PN (bar)	EPDM Part No.	USD	SP weight (lb)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	10	^ 169 595 001	194.00	1	50	126	14	3/8
20	10	169 595 002	194.00	1	50	127	16	1/2
25	10	^ 169 595 003	272.00	1	58	142	18	3/4
32	10	169 595 004	334.00	1	68	155	22	1
40	10	^ 169 595 005	404.00	1	84	177	26	1 1/4
50	10	169 595 006	627.00	1	97	195	31	1 1/2
63	10	169 595 007	889.00	1	124	227	38	2
75	10	* 169 595 008	1,421.00	1	166	256	45	2 1/2
90	10	* 169 595 009	1,777.00	1	200	275	52	3
110	10	* 169 595 010	2,133.00	1	238	318	64	4

Y-Strainer and Check

E



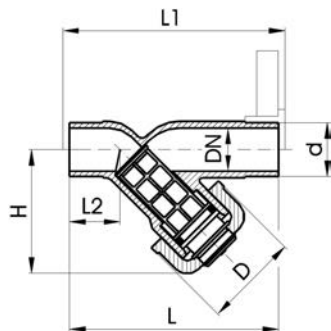
Angle seat Check valve type 303 ABS with solvent cement sockets metric

Model:

- For horizontal or vertical installation
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.

d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	closest inch (inch)
20	10	* 169 303 006	84.00	1	0.203	43	65	124	130	28	½
25	10	* 169 303 007	106.00	1	0.293	47	75	144	150	37	¾
32	10	* 169 303 008	127.00	1	0.483	56	90	154	160	37	1
40	10	* 169 303 009	156.00	1	0.767	64	102	174	180	44	1 ¼
50	10	* 169 303 010	226.00	1	1.356	82	123	194	200	48	1 ½
63	10	* 169 303 011	354.00	1	2.335	95	144	224	230	60	2

E



Line strainer type 305 ABS With solvent cement spigots metric

Model:

- Protects valves, pumps, etc. from becoming damaged
- Easy dismantling to clean or replace the screen
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.
- Stainless steel screen sold separately

d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	closest inch (inch)
20	10	* 169 305 302	79.00	1	0.179	48	65	124	130	28	½
25	10	* 169 305 303	92.00	1	0.265	54	76	144	150	37	¾
32	10	* 169 305 304	120.00	1	0.397	62	90	154	160	37	1
40	10	* 169 305 305	158.00	1	0.626	71	104	174	180	44	1 ¼
50	10	* 169 305 306	203.00	1	1.067	88	124	194	200	48	1 ½
63	10	* 169 305 307	273.00	1	1.720	103	148	224	230	60	2

A



Stainless Steel Screen for Type 306 30 mesh, 1/64" hole

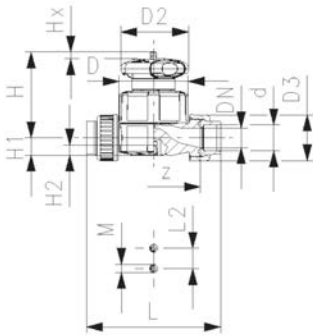
Model:

- Stainless Steel A4 Quality (AISI 316)
- For line strainers Type 306

d (mm)	Part No.	USD	D (mm)	L (mm)	closest inch (inch)
20	^ 161 486 100	11.00	14	39	½
25	^ 161 486 101	17.00	18	48	¾
32	^ 161 486 102	17.00	24	60	1
40	^ 161 486 103	20.00	30	71	1 ¼
50	^ 161 486 104	23.00	38	87	1 ½
63	^ 161 486 105	26.00	48	106	2

Diaphragm Valves

E



Diaphragm valve type 514 ABS 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:

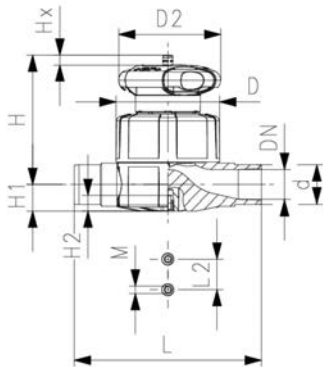
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
20	15	10	125	169 514 012	150.00	1	0.355
25	20	10	271	169 514 013	174.00	1	0.365
32	25	10	481	169 514 014	219.00	1	1.061
40	32	10	759	169 514 015	255.00	1	1.338
50	40	10	1263	169 514 016	348.00	1	1.408
63	50	10	1728	169 514 017	417.00	1	3.083

d (mm)	PTFE/EPDM Part No.	USD	SP	weight (lb)
20	* 169 514 032	290.00	1	0.805
25	* 169 514 033	348.00	1	1.056
32	* 169 514 034	428.00	1	2.383
40	* 169 514 035	522.00	1	2.992
50	* 169 514 036	683.00	1	5.234
63	* 169 514 037	846.00	1	6.859

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

E



Diaphragm valve type 515 ABS With solvent cement spigots metric

Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.

Option:

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

d (mm)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
20	15	10	125	169 515 012	116.00	1	0.308
25	20	10	271	169 515 013	139.00	1	0.400
32	25	10	481	169 515 014	174.00	1	0.509
40	32	10	759	169 515 015	209.00	1	1.143
50	40	10	1263	169 515 016	162.00	1	2.112
63	50	10	1728	169 515 017	335.00	1	1.805

d (mm)	PTFE/EPDM Part No.	USD	SP	weight (lb)
20	* 169 515 032	232.00	1	0.701
25	* 169 515 033	278.00	1	0.908
32	* 169 515 034	348.00	1	2.187
40	* 169 515 035	417.00	1	2.566
50	* 169 515 036	544.00	1	4.720
63	* 169 515 037	672.00	1	6.010

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	½
25	80	65	81	18	12	144	25	M6	10	¾
32	88	87	107	22	12	154	25	M6	13	1
40	101	87	115	26	15	174	45	M8	15	1 ¼
50	117	135	148	32	15	194	45	M8	19	1 ½
63	144	135	166	39	15	224	45	M8	25	2

E



Diaphragm valve type 317 ABS
With flanges metric

Model:

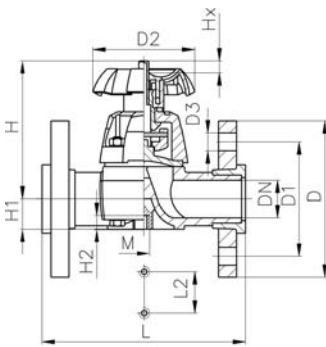
- Joining face flat
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Other dimensions available on request
- Operating temperature as low -22°F

Option:

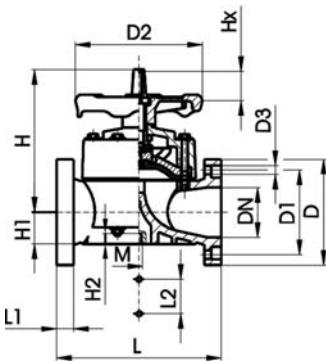
- Handwheel lockable DN15-65 (basic version not lockable)

*** 3# and 6# fixed flanges metric and inch ANSI B16.5**

	d (mm)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	weight (lb)	PTFE/EPDM Part No.	USD
	75	65	10	992	* 169 317 423	877.00	10.430	* 169 317 038	877.00
*	90	80	10	1700	* 169 317 024	1,326.00	18.409	* 169 317 039	1,326.00
	110	100	10	2700	* 169 317 025	1,873.00	25.726	* 169 317 040	1,873.00



DN 15-65



DN 80-100

	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)	closest inch (inch)
	75	185	145	152	18	201	46	15	290		70	M8	30	2 ½
*	90	200	160	270	18	265	57	23	310	35	120	M12	40	3
	110	225	180	270	18	304	69	23	350	35	120	M12	50	4

	d (mm)	AL
	75	4
*	90	8
	110	8

Butterfly Valves

E



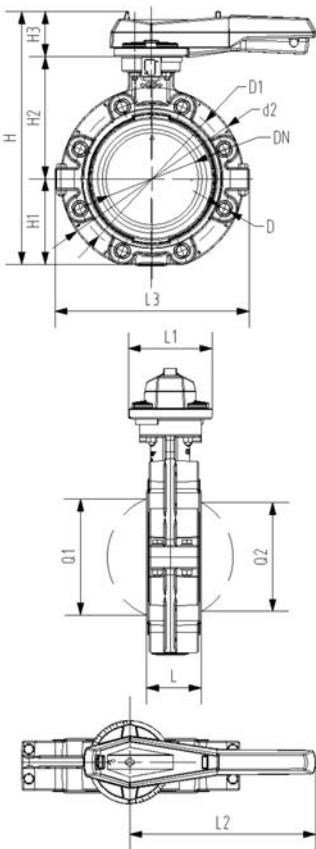
Lugstyle butterfly valve type 578 ABS Hand lever with ratchet settings

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

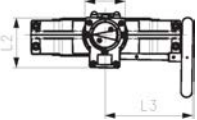
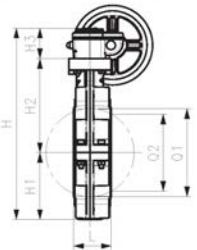
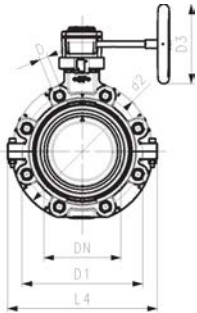


d	Size	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(inch)	(mm)	(bar)	(l/min)	Part No.			(lb)
63	2	50	10	1470	169 578 102	676.00	1	3.968
75	2 ½	65	10	2200	169 578 103	739.00	1	4.178
90	3	80	10	3000	169 578 104	828.00	1	4.963
110	4	100	10	6500	169 578 105	865.00	1	6.936
140	5	125	10	11500	169 578 106	1,237.00	1	10.274
160	6	150	10	16600	169 578 107	1,363.00	1	14.176
225	8	200	10	39600	169 578 108	1,951.00	1	19.015
	10	250	10	55200	169 578 109	4,806.00	1	43.052
	12	300	10	80000	169 578 110	6,247.00	1	57.554

d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
412	UNC 7/8	362.0	536	205	264	67	113	140	408	440	210	207
482	UNC 7/8	431.8	586	234	285	67	113	140	408	510	256	253

E

Lugstyle butterfly valve type 578 ABS
Reduction gear with handwheel



Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

d	Size	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(inch)	(mm)	(bar)	(l/min)	Part No.			(lb)
63	2	50	10	1470	169 578 122	1,784.00	1	7.643
75	2 ½	65	10	2200	169 578 123	1,913.00	1	7.959
90	3	80	10	3000	169 578 124	2,052.00	1	8.662
110	4	100	10	6500	169 578 125	2,103.00	1	10.657
140	5	125	10	11500	169 578 126	2,344.00	1	13.995
160	6	150	10	16600	169 578 127	2,497.00	1	17.877
225	8	200	10	39600	169 578 128	2,855.00	1	20.620
	10	250	10	55200	169 578 129	5,215.00	1	43.052
	12	300	10	80000	169 578 130	6,780.00	1	57.554

d2	D	D1	D3	H	H1	H2	H3	H4	L	L1	L2	L3	L4	Q1
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
160	UNC 5/8	120.6	150	273	77	134	62	23	45	78	112	179	165	40
180	UNC 5/8	139.7	150	285	83	140	62	23	46	78	112	179	182	54
195	UNC 5/8	152.4	150	297	89	146	62	23	49	78	112	179	210	67
226	UNC 5/8	190.5	150	335	106	167	62	23	56	78	112	179	240	88
258	UNC 3/4	215.9	150	364	121	181	62	23	64	78	112	179	272	113
284	UNC 3/4	241.3	160	384	133	189	62	23	72	78	112	179	300	139
341	UNC 3/4	298.4	160	431	159	210	62	23	73	78	112	179	360	178
412	UNC 7/8	362.0	200	524	205	264	55	23	113	130	140	440	200	210
482	UNC 7/8	431.8	200	574	234	285	55	23	113	130	140	510	200	256

Q2

(mm)

- 35
- 50
- 74
- 97
- 123
- 169
- 207
- 253



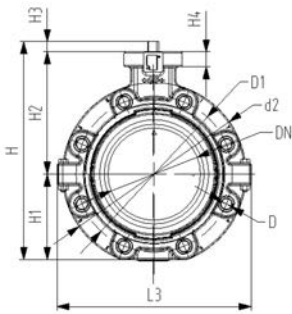
Lugstyle butterfly valve type 578 ABS
Bare shaft

Model:

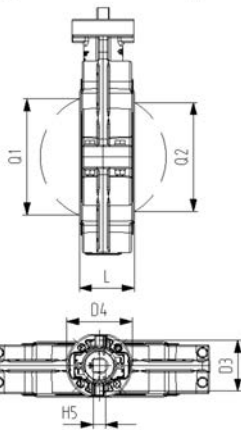
- Housing material: PP-GF30 with 316SS lug inserts
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Interface F07 according to DIN/ISO 5211

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

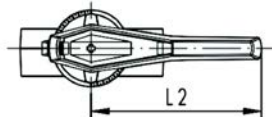
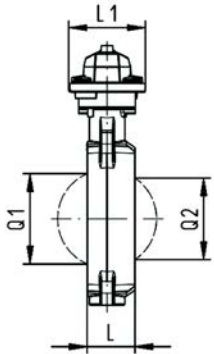
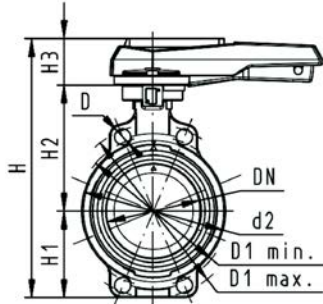


d	Size	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(inch)	(mm)	(bar)	(L/min)	Part No.			(kg)
63	2	50	10	1470	169 578 902	Call	1	1.299
75	2 ½	65	10	2200	169 578 903	Call	1	1.456
90	3	80	10	3000	169 578 904	Call	1	1.701
110	4	100	10	6500	169 578 905	Call	1	2.606
140	5	125	10	11500	169 578 906	Call	1	4.120
160	6	150	10	16600	169 578 907	Call	1	5.881
225	8	200	10	39600	169 578 908	Call	1	7.125
280	10	250	10	55200	169 578 909	Call	1	17.880
315	12	300	10	80000	169 578 910	Call	1	24.416



d2	D	D1	D3	D4	H	H1	H2	H3	H4	H5	L	L3	Q1	Q2
(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
160	UNC 5/8	120.6	70	90	238	77	134	27	23	11	45	165	40	
180	UNC 5/8	139.7	70	90	250	83	140	27	23	11	46	182	54	35
195	UNC 5/8	152.4	70	90	262	89	146	27	23	11	49	210	67	50
226	UNC 5/8	190.5	70	90	289	106	167	16	23	14	56	240	88	74
258	UNC 3/4	215.9	70	90	318	121	181	16	23	14	64	272	113	97
284	UNC 3/4	241.3	70	90	341	133	189	19	23	17	72	300	139	123
341	UNC 3/4	298.4	70	90	388	159	210	19	23	17	73	360	178	169
412	UNC 7/8	362.0	102	125	559	234	285	40	23	22	113	510	256	253
482	UNC 7/8	431.8	102	125	509	205	264	40	23	22	113	440	210	207

E



Butterfly valve type 567 ABS 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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	169 567 002	389.00	1	1.187
75	65	10	2200	169 567 003	408.00	1	1.282
90	80	10	3000	169 567 004	535.00	1	1.420
110	100	10	6500	169 567 005	560.00	1	2.020
140	125	10	11500	169 567 006	877.00	1	2.536
160	150	10	16600	169 567 007	1,241.00	1	3.337
225	200	10	39600	169 567 008	1,338.00	1	5.808
280	250	10	55200	169 567 009	3,078.00	1	14.328
315	300	10	80000	169 567 010	3,848.00	1	18.899

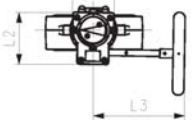
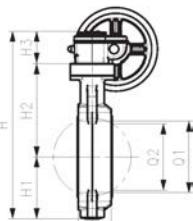
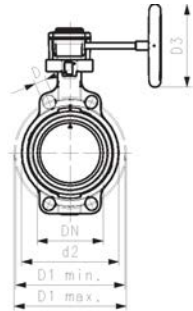
d (mm)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)	closest inch (inch)
63	104	19	120.0	125.0	265	77	134	54	45	106	205	40		2
75	115	19	139.7	145.0	277	83	140	54	46	106	205	54	35	2 ½
90	131	19	150.0	160.0	289	89	146	54	49	106	205	67	50	3
110	161	19	175.0	190.5	326	104	167	55	56	106	255	88	74	4
140	187	23	210.0	215.9	353	117	181	55	64	106	255	113	97	5
160	215	24	241.3	241.3	374	130	189	55	72	106	255	139	123	6
225	267	23	290.0	295.0	435	158	210	67	73	140	408	178	169	8
280	329	25	353.0	362.0	554	205	264	85	113	149	408	210	207	10
315	379	25	400.0	432.0	598	228	285	85	113	149	408	256	253	12

E

Butterfly valve type 567 ABS 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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	169 567 022	1,326.00	1	3.078
75	65	10	2200	169 567 023	1,326.00	1	3.201
90	80	10	3000	169 567 024	1,338.00	1	3.259
110	100	10	6500	169 567 025	1,362.00	1	3.493
140	125	10	11500	169 567 026	1,580.00	1	4.526
160	150	10	16600	169 567 027	1,630.00	1	5.118
225	200	10	39600	169 567 028	1,873.00	1	6.389
280	250	10	51000	169 567 029	4,309.00	1	12.998
315	300	10	73000	169 567 030	5,386.00	1	19.139

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	160	273	77	134	62	45	78	112	179	40
75	115	19	140	145	150	285	83	140	62	46	78	112	179	54
90	131	19	150	160	150	297	89	146	62	49	78	112	179	67
110	160	19	175	191	150	333	104	167	62	56	78	112	179	88
140	187	23	210	216	150	360	117	181	62	64	78	112	179	113
160	215	24	241	241	160	381	130	189	62	72	78	112	179	139
225	267	23	290	295	160	430	158	210	62	73	78	112	179	178
280	329	25	353	362	200	538	205	264	69	113	97	130	198	210
315	379	25	400	432	200	582	228	285	69	113	97	130	198	256

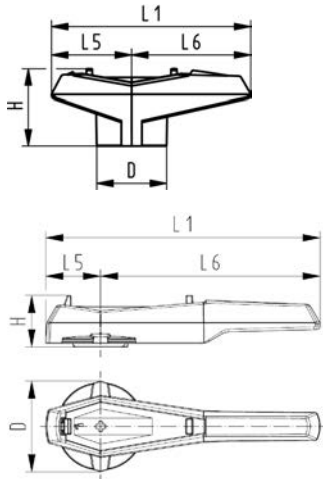
d (mm)	Q2 (mm)	closest inch (inch)
63		2
75	35	2 ½
90	50	3
110	74	4
140	97	5
160	123	6
225	169	8
280	207	10
315	253	12

Spare Parts

A



DN10/15 - 50



Standard handle 546

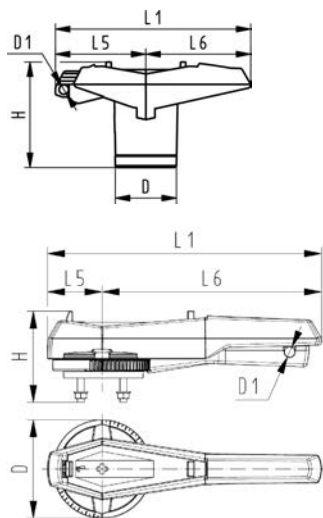
DN (mm)	d (mm)	red (K01) Part No.	USD	black (K02) Part No.	USD	weight (kg)
10 - 15	16 - 20	167 484 088	4.00	167 484 076	4.00	0.012
20	25	167 484 089	4.00	167 484 077	4.00	0.022
25	32	167 484 090	4.00	167 484 078	5.00	0.022
32	40	167 484 091	5.00	167 484 079	5.00	0.042
40	50	167 484 092	6.00	167 484 080	7.00	0.042
50	63	167 484 093	7.00	167 484 081	7.00	0.059
65	75	167 484 094	22.00	167 484 082	22.00	0.250
80	90	167 484 095	22.00	167 484 083	22.00	0.250
100	110	167 484 096	29.00	167 484 084	29.00	0.298

H (mm)	L5 (mm)	L1 (mm)	D (mm)	L6 (mm)
31	32	77	26	45
37	39	97	34	58
37	39	97	34	58
46	54	128	40	74
46	54	128	40	74
54	66	152	44	87
58	64	270	106	206
58	64	270	106	206
60	64	320	106	256

A



DN10/15 - 50



Multifunctional Handle Type 546 Red With ratchet settings lockable

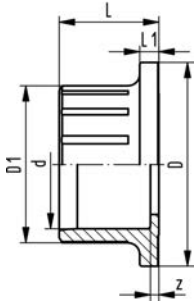
Note:

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

d-d (mm)	DN-DN (mm)	Part No.	USD	weight (kg)	D (mm)	D1 (mm)	H (mm)	L1 (mm)	L5 (mm)	L6 (mm)
16 - 20	10 - 15	167 484 100	19.00	0.026	26	5	53	87	42	45
-- 25	-- 20	167 484 101	21.00	0.045	34	5	59	108	50	58
-- 32	-- 25	167 484 102	22.00	0.047	34	5	59	108	50	58
-- 40	-- 32	167 484 103	24.00	0.091	40	5	69	140	66	75
-- 50	-- 40	167 484 104	27.00	0.080	40	5	69	140	66	75
-- 63	-- 50	167 484 105	29.00	0.124	44	5	80	165	78	87
-- 75	-- 65	161 486 689	53.00	0.468	115	12	105	270	64	206
-- 90	-- 80	161 486 690	78.00	0.467	115	12	105	270	64	206
110 - 140	100 - 125	161 486 691	90.00	0.543	115	12	107	320	64	256

E

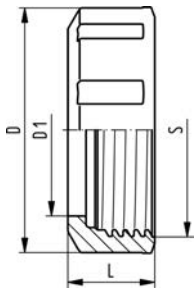
Valve end 546 and 543 ABS With solvent cement socket metric



d (mm)	PN (bar)	Part No.	USD	weight (kg)	D1 (mm)	z (mm)	L (mm)	D (mm)	L1 (mm)
16	10	169 480 775	3.00	0.006	23	4	18	38	4
20	10	169 480 776	3.00	0.008	27	4	20	38	4
25	10	169 480 777	4.00	0.012	33	4	22	44	5
32	10	169 480 778	4.00	0.019	41	4	26	53	5
40	10	169 480 779	6.00	0.031	51	5	31	65	5
50	10	169 480 780	11.00	0.047	62	3	34	77	6
63	10	169 480 781	12.00	0.086	77	3	41	99	7
75	10	169 480 782	29.00	0.175	92	4	49	125	9
90	10	169 480 783	35.00	0.292	110	5	57	150	10
110	10	169 480 784	46.00	0.495	134	5	69	180	11

E

Union nut 546 and 543 ABS

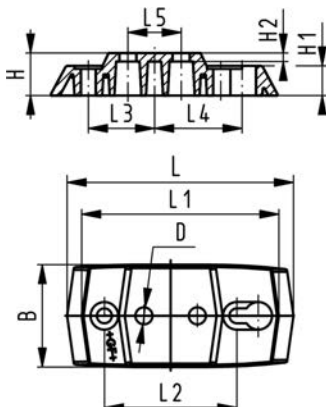


d (mm)	DN (mm)	Part No.	USD	weight (kg)	D (mm)	D1 (mm)	L (mm)	S (mm)
16 - 20	10 - 15	169 480 713	5.00	0.014	50	34	19	42
25	20	169 480 714	5.00	0.021	58	39	20	48
32	25	169 480 715	7.00	0.030	68	47	24	58
40	32	169 480 716	11.00	0.047	84	57	27	71
50	40	169 480 717	17.00	0.067	97	65	30	84
63	50	169 480 718	27.00	0.139	124	79	36	106
75	65	169 480 719	59.00	0.435	166	94	48	135
90	80	169 480 720	73.00	0.683	200	113	54	135
110	100	169 480 721	81.00	1.048	238	137	60	198

C

Type 546 Mounting Plate

- 2 mounting screws included



d-d (mm)	Inch (inch)	DN-DN (mm)	Part No.	USD	SP	weight (kg)
16 - 32	3/8 - 1	10 - 25	167 484 110	4.00	0	0.054
40 - 63	1 1/4 - 2	32 - 50	167 484 111	4.00	0	0.066

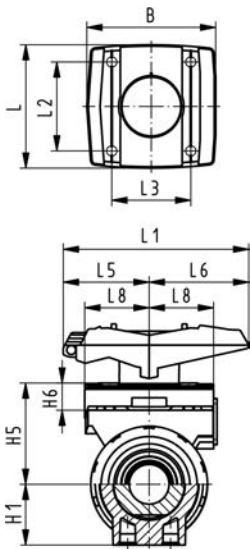
d-d (mm)	Inch (inch)	B (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)
16 - 32	3/8 - 1	48	8	20	14	4	106	92	62	31	41	25
40 - 63	1 1/4 - 2	54	9	20	14	4	149	134	104	52	62	45

Multifunctional modules

C



DN10/15 - 50



Multifunctional Module without limit switches

Model:

- Accessory to ball valve Type 546; requires Multifunction Handle
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Includes screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module in sizes 2½" - 4" has ISO F07 mounting flange.

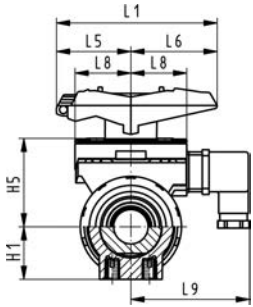
d-d (mm)	Inch (inch)	DN-DN (mm)	Part No.	USD	SP	weight (kg)
16 - 20	¾ - ½	10 - 15	167 482 680	5.00	1	0.069
25 - 32	¾ - 1	20 - 25	167 482 681	5.00	1	0.149
40 - 50	1 ¼ - 1 ½	32 - 40	167 482 682	8.00	1	0.168
63	2	50	167 482 683	9.00	1	0.209
75 - 90	2 ½ - 3	65 - 80	167 482 684	33.00	1	0.379
110	4	100	167 482 685	45.00	1	0.607

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

C



DN10/15 - 50



Multifunctional Module

With mechanical limit switches Ag Ni 1-240V AC/DC 6A

Model:

- Accessory to ball valve Type 546; requires Multifunction Handle
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Includes Plug 3P+E / Protection: IPI65
- Includes screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

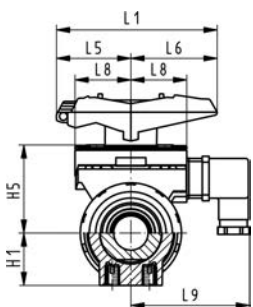
d-d (mm)	DN-DN (mm)	Inch (inch)	Part No.	USD	SP	weight (kg)
16 - 20	10 - 15	3/8 - 1/2	167 482 626	64.00	1	0.104
25 - 32	20 - 25	3/4 - 1	167 482 627	67.00	1	0.118
40 - 50	32 - 40	1 1/4 - 1 1/2	167 482 628	82.00	1	0.140
-- 63	-- 50	2	167 482 629	87.00	1	0.257
75 - 90	65 - 80	2 1/2 - 3	167 482 630	118.00	1	0.478
-- 110	-- 100	4	167 482 631	136.00	1	0.480

d-d (mm)	H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
16 - 20	27	50	87	42	45	34	73
25 - 32	30	53	108	50	58	38	77
40 - 50	44	72	140	66	75	41	80
-- 63	64	94	165	78	87	46	85
75 - 90	85	157	270	64	206		
-- 110	123	175	320	64	256		

C



DN10/15 - 50



Multifunctional Module

With mechanical limit switches Au 4-30V DC 100mA

Model:

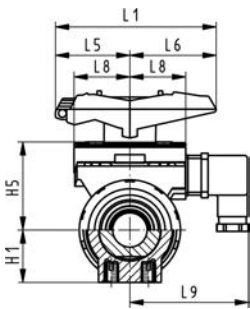
- Accessory to ball valve Type 546; requires Multifunction Handle
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Includes Plug 3P+E / Protection: IPI65
- Includes screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

DN-DN (mm)	d-d (mm)	Inch (inch)	Part No.	USD	SP	weight (kg)
10 - 15	16 - 20	3/8 - 1/2	167 482 635	64.00	1	0.103
20 - 25	25 - 32	3/4 - 1	167 482 636	67.00	1	0.120
32 - 40	40 - 50	1 1/4 - 1 1/2	167 482 637	82.00	1	0.138
-- 50	-- 63	2	167 482 638	87.00	1	0.175
65 - 80	75 - 90	2 1/2 - 3	167 482 639	118.00	1	0.460
-- 100	-- 110	4	167 482 640	136.00	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		



DN10/15 - 50



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

Model:

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

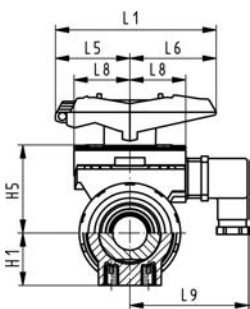
Inch (inch)	DN-DN (mm)	d-d (mm)	Part No.	USD	SP	weight (kg)
3/8 - 1/2	10 - 15	16 - 20	167 482 671	Call	1	0.097
3/4 - 1	20 - 25	25 - 32	167 482 672	Call	1	0.107
1 1/4 - 1 1/2	32 - 40	40 - 50	167 482 673	Call	1	0.135
2	-- 50	-- 63	167 482 674	Call	1	0.257
2 1/2 - 3	65 - 80	75 - 90	167 482 675	Call	1	0.460
4	-- 100	-- 110	167 482 676	Call	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		

C



DN10/15 - 50



Multifunctional Module With inductive limit switches PNP 5-30V DC 100mA

Model:

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

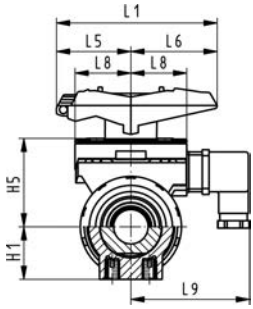
Inch (inch)	DN-DN (mm)	d-d (mm)	Part No.	USD	SP	weight (kg)
3/8 - 1/2	10 - 15	16 - 20	167 482 662	220.00	1	0.182
3/4 - 1	20 - 25	25 - 32	167 482 663	227.00	1	0.197
1 1/4 - 1 1/2	32 - 40	40 - 50	167 482 664	242.00	1	0.215
2	-- 50	-- 63	167 482 665	245.00	1	0.175
2 1/2 - 3	65 - 80	75 - 90	167 482 666	282.00	1	0.460
4	-- 100	-- 110	167 482 667	298.00	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		

C



DN10/15 - 50



Multifunctional Module
With inductive limit switches NPN 5-30V DC 100mA

Model:

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

Inch (inch)	DN-DN (mm)	d-d (mm)	Part No.	USD	SP	weight (kg)
3/8 - 1/2	10 - 15	16 - 20	167 482 653	220.00	1	0.110
3/4 - 1	20 - 25	25 - 32	167 482 654	227.00	1	0.120
1 1/4 - 1 1/2	32 - 40	40 - 50	167 482 655	242.00	1	0.135
2	-- 50	-- 63	167 482 656	245.00	1	0.175
2 1/2 - 3	65 - 80	75 - 90	167 482 657	282.00	1	0.460
4	-- 100	-- 110	167 482 658	298.00	1	0.480

H1 (mm)	H5 (mm)	L1 (mm)	L5 (mm)	L6 (mm)	L8 (mm)	L9 (mm)
27	50	87	42	45	34	73
30	53	108	50	58	38	77
44	72	140	66	75	41	80
64	94	165	78	87	46	85
85	157	270	64	206		
123	175	320	64	256		

Actuated Valves ABS

Electric Actuated Ball Valves



DN10/15 - 50

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

Model:

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

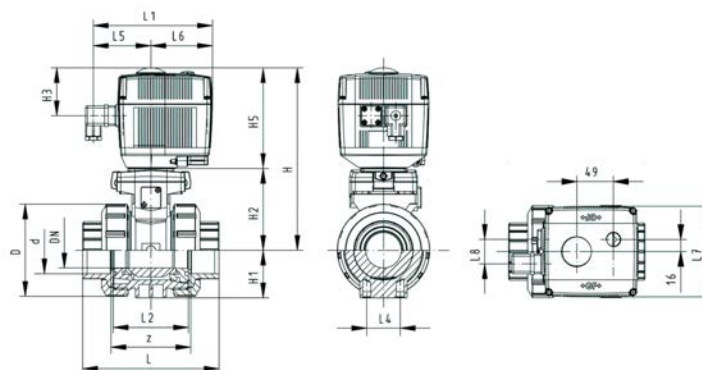
Option:

- Individual configuration of the valve (see diagram)

d	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(mm)	(bar)	(l/min)	Part No.			(kg)
16	10	10	70	199 107 082	Call	1	2.072
20	15	10	185	199 107 083	Call	1	2.072
25	20	10	350	199 107 084	Call	1	2.189
32	25	10	700	199 107 085	Call	1	2.261
40	32	10	1000	199 107 086	Call	1	2.465
50	40	10	1600	199 107 087	Call	1	2.648
63	50	10	3100	199 107 088	Call	1	3.222

d	D	H	H1	H2	H3	H5	L	L1	L2	L4	L5	L6	L7	L8	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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	closest inch
(mm)	(inch)
16	3/8
20	1/2
25	3/4
32	1
40	1 1/4
50	1 1/2
63	2



C



DN10/15 - 50

Ball valve type 107 ABS 24V
With manual emergency override
With solvent cement sockets metric

Model:

- Built 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

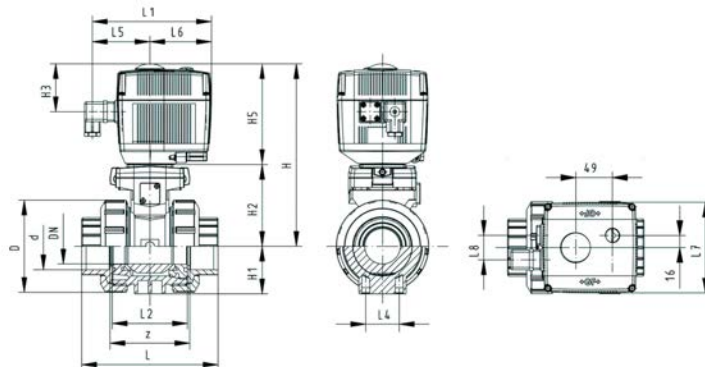
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 107 092	Call	1	2.072
20	15	10	185	199 107 093	Call	1	2.097
25	20	10	350	199 107 094	Call	1	2.189
32	25	10	700	199 107 095	Call	1	2.253
40	32	10	1000	199 107 096	Call	1	2.592
50	40	10	1600	199 107 097	Call	1	2.914
63	50	10	3100	199 107 098	Call	1	3.209

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



C



DN10/15 - 50



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

Model:

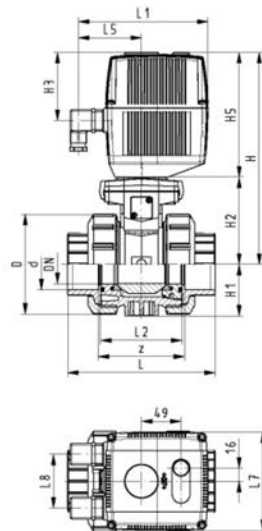
- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- EA21 for sizes 3/8" to 2", EA31 for sizes 2 1/2" to 4"
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

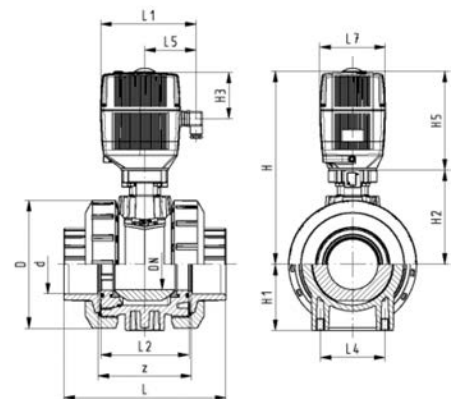
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 130 702	Call	1	2.100
20	15	10	185	199 130 703	Call	1	2.100
25	20	10	350	199 130 704	Call	1	2.200
32	25	10	700	199 130 705	Call	1	2.300
40	32	10	1000	199 130 706	Call	1	2.600
50	40	10	1600	199 130 707	Call	1	3.000
63	50	10	3100	199 130 708	Call	1	3.555
75	65	10	5000	199 130 709	Call	1	6.300
90	80	10	7000	199 130 710	Call	1	8.200
110	100	10	11000	199 130 711	Call	1	11.500

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

C



DN10/15 - 50



Ball valve type 130 ABS 24V
With manual emergency override
With solvent cement sockets metric

Model:

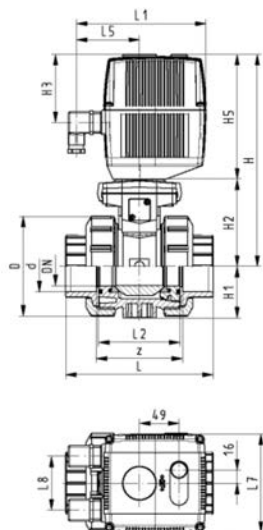
- Voltage 24 V AC/DC
- Control range 90 °
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- EA21 for sizes 3/8" to 2", EA31 for sizes 2 1/2" to 4"
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

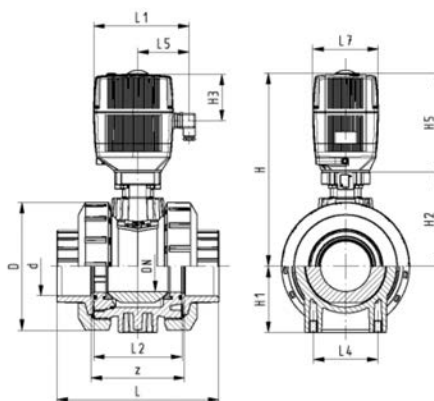
- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 130 742	Call	1	2.100
20	15	10	185	199 130 743	Call	1	2.100
25	20	10	350	199 130 744	Call	1	2.200
32	25	10	700	199 130 745	Call	1	2.300
40	32	10	1000	199 130 746	Call	1	2.600
50	40	10	1600	199 130 747	Call	1	3.000
63	50	10	3100	199 130 748	Call	1	3.535
75	65	10	5000	199 130 749	Call	1	6.300
90	80	10	7000	199 130 750	Call	1	8.200
110	100	10	11000	199 130 751	Call	1	11.500

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

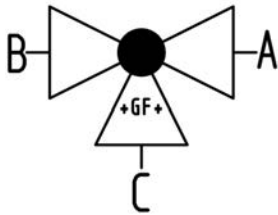


DN10/15-50



DN65-100

C



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

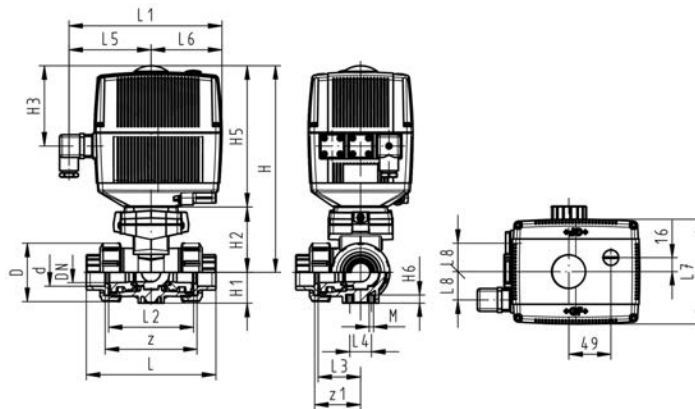
Model:

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

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	50	199 185 162	Call	1	2.065
20	15	10	75	199 185 163	Call	1	2.069
25	20	10	150	199 185 164	Call	1	2.171
32	25	10	280	199 185 165	Call	1	2.316
40	32	10	480	199 185 166	Call	1	2.649
50	40	10	620	199 185 167	Call	1	3.384
63	50	10	1230	199 185 168	Call	1	5.324

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	3/8
20	33	6	81	40	1/2
25	33	6	94	47	3/4
32	33	6	107	54	1
40	33	8	130	65	1 1/4
50	33	8	143	72	1 1/2
63	33	8	185	92	2



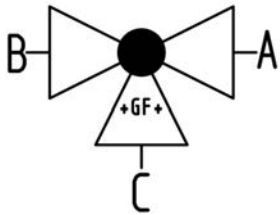
C



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

Model:

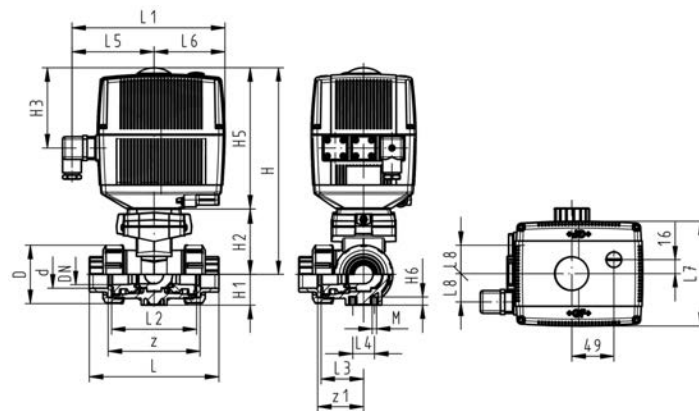
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90 °
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°
- For easy installation and removal
- Integrated stainless steel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



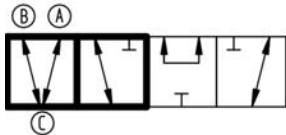
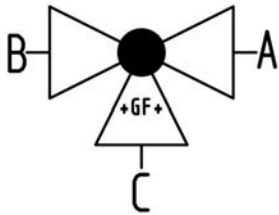
d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	50	199 185 342	Call	1	2.065
20	15	10	75	199 185 343	Call	1	2.069
25	20	10	150	199 185 344	Call	1	2.171
32	25	10	280	199 185 345	Call	1	2.704
40	32	10	480	199 185 346	Call	1	3.681
50	40	10	620	199 185 347	Call	1	3.370
63	50	10	1230	199 185 348	Call	1	4.042

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	3/8
20	33	6	81	40	1/2
25	33	6	94	47	3/4
32	33	6	107	54	1
40	33	8	130	65	1 1/4
50	33	8	143	72	1 1/2
63	33	8	185	92	2



C



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

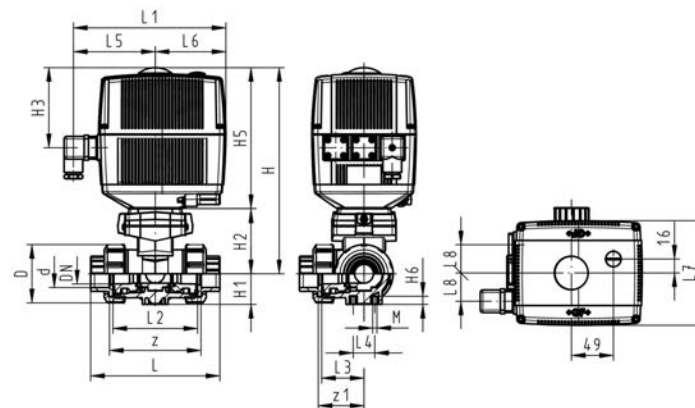
Model:

- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Basic position A-B-C opened, activated position B-C, 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)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	140	199 185 172	Call	1	2.064
20	15	10	200	199 185 173	Call	1	2.068
25	20	10	470	199 185 174	Call	1	2.169
32	25	10	793	199 185 175	Call	1	2.732
40	32	10	1290	199 185 176	Call	1	2.640
50	40	10	1910	199 185 177	Call	1	3.377
63	50	10	3100	199 185 178	Call	1	5.135

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	3/8
20	33	6	81	40	1/2
25	33	6	94	47	3/4
32	33	6	107	54	1
40	33	8	130	65	1 1/4
50	33	8	143	72	1 1/2
63	33	8	185	92	2



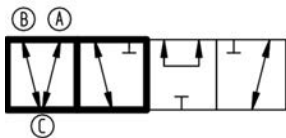
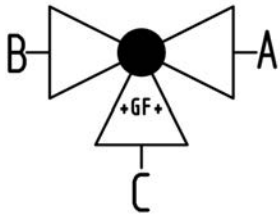
C



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

Model:

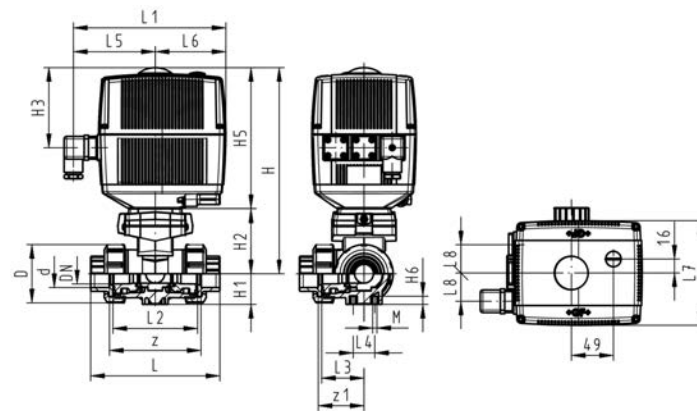
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90 °
- Basic position A-B-C opened, activated position B-C, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°
- For easy installation and removal
- Integrated stainless steel mounting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



d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	140	199 185 352	Call	1	2.064
20	15	10	200	199 185 353	Call	1	2.068
25	20	10	470	199 185 354	Call	1	2.169
32	25	10	793	199 185 355	Call	1	2.311
40	32	10	1290	199 185 356	Call	1	2.640
50	40	10	1910	199 185 357	Call	1	2.977
63	50	10	3100	199 185 358	Call	1	4.008

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	3/8
20	33	6	81	40	1/2
25	33	6	94	47	3/4
32	33	6	107	54	1
40	33	8	130	65	1 1/4
50	33	8	143	72	1 1/2
63	33	8	185	92	2

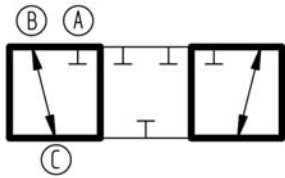
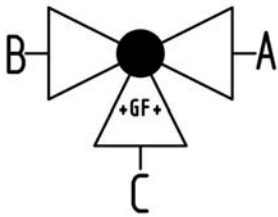




3-Way ball valve type 188 ABS
Vertical/L-port 100-230V
With manual emergency override
With solvent cement sockets metric

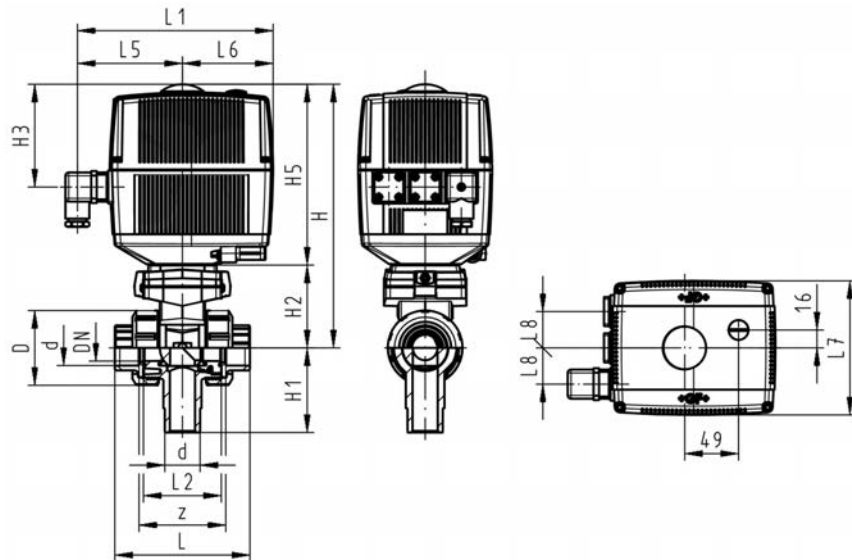
Model:

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



d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	49	199 188 162	Call	1	2.001
20	15	10	77	199 188 163	Call	1	2.004
25	20	10	146	199 188 164	Call	1	2.090
32	25	10	260	199 188 165	Call	1	2.179
40	32	10	437	199 188 166	Call	1	2.407
50	40	10	667	199 188 167	Call	1	2.609
63	50	10	1293	199 188 168	Call	1	3.212

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)	closest inch (inch)
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64	3/8
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64	1/2
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74	3/4
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79	1
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95	1 1/4
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95	1 1/2
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107	2

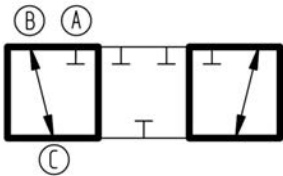
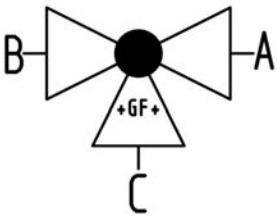




3-Way ball valve type 188 ABS
Vertical/L-port 24V
With manual emergency override
With solvent cement sockets metric

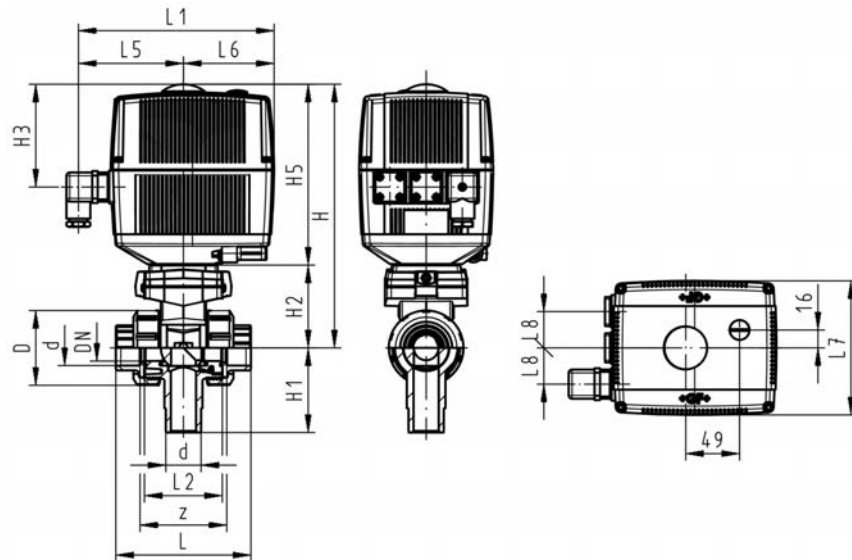
Model:

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



d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	49	199 188 452	Call	1	2.001
20	15	10	77	199 188 453	Call	1	2.004
25	20	10	146	199 188 454	Call	1	2.090
32	25	10	260	199 188 455	Call	1	2.179
40	32	10	437	199 188 456	Call	1	2.407
50	40	10	667	199 188 457	Call	1	2.609
63	50	10	1293	199 188 458	Call	1	3.212

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	z (mm)	closest inch (inch)
16	50	231	62	64	94	167	92	180	56	97	83	122	33	64	3/8
20	50	231	62	64	94	167	95	180	56	97	83	122	33	64	1/2
25	58	240	72	73	94	167	111	180	66	97	83	122	33	74	3/4
32	68	240	77	73	94	167	123	180	71	97	83	122	33	79	1
40	84	251	87	84	94	167	146	180	85	97	83	122	33	95	1 1/4
50	97	251	97	84	94	167	157	180	89	97	83	122	33	95	1 1/2
63	124	273	112	106	94	167	183	180	101	97	83	122	33	107	2



Pneumatic Actuated Ball Valves

C



DN10/15 - 50

Ball valve type 230 ABS 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° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

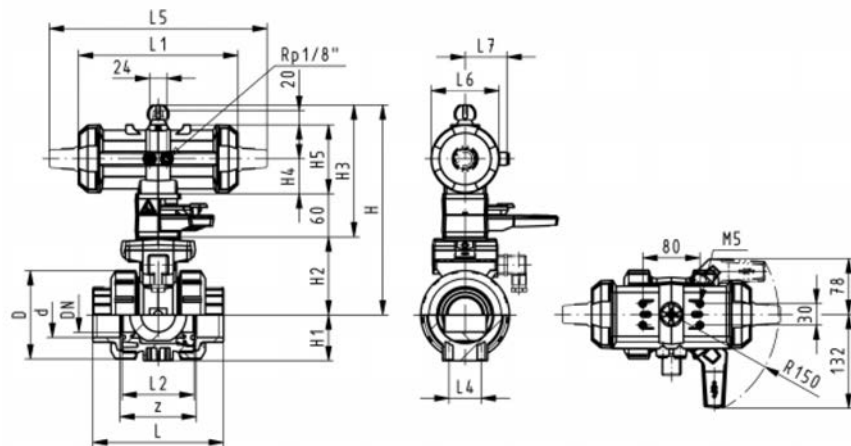
Option:

- Individual configuration of the valve (see diagram)

d	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(mm)	(bar)	(l/min)	Part No.			(kg)
16	10	10	70	199 230 702	463.00	1	1.459
20	15	10	185	199 230 703	463.00	1	1.459
25	20	10	350	199 230 704	475.00	1	1.576
32	25	10	700	199 230 705	486.00	1	1.394
40	32	10	1000	199 230 706	560.00	1	2.751
50	40	10	1600	199 230 707	584.00	1	3.073
63	50	10	3100	199 230 708	609.00	1	3.054

d	D	H	H1	H2	H3	H4	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
16	50	230	27	62	168	40	77	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	77	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	77	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	77	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	99	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	99	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	99	183	224	101	45	305	95	59	107

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



C



DN10/15 - 50

Ball valve type 230 ABS 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° < 1-2s
- For easy installation and removal
- Integrated stainless steel mounting inserts

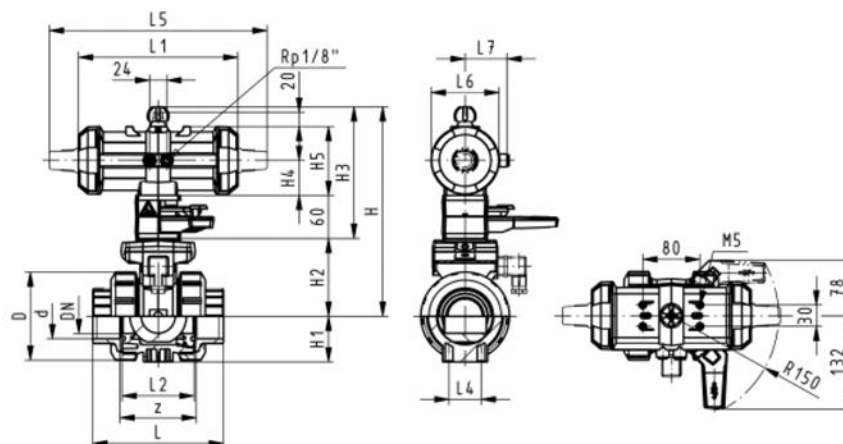
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 230 742	463.00	1	1.459
20	15	10	185	199 230 743	463.00	1	1.459
25	20	10	350	199 230 744	475.00	1	1.576
32	25	10	700	199 230 745	486.00	1	1.700
40	32	10	1000	199 230 746	560.00	1	2.751
50	40	10	1600	199 230 747	584.00	1	3.073
63	50	10	3100	199 230 748	609.00	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	5/8
20	3/4
25	1
32	1 1/4
40	1 1/2
50	2
63	2 1/2



C



DN10/15 - 50

**Ball valve type 230 ABS DA (Double acting)
With manual override
With solvent cement sockets metric**

Model:

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

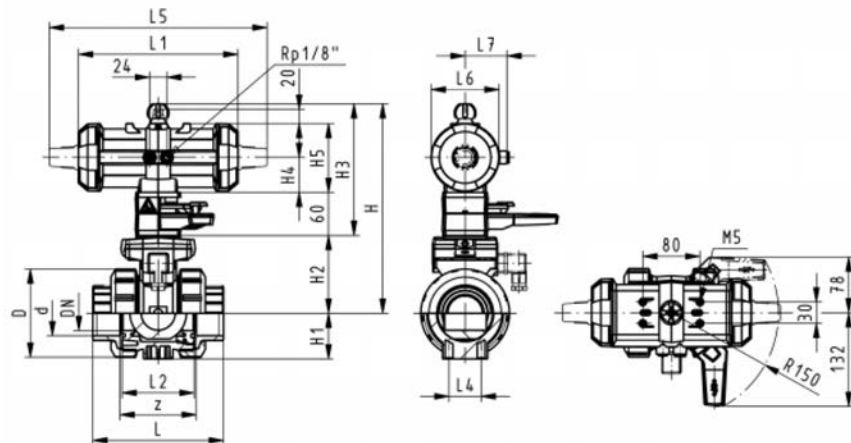
Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 230 782	451.00	1	1.459
20	15	10	185	199 230 783	451.00	1	1.459
25	20	10	350	199 230 784	463.00	1	1.576
32	25	10	700	199 230 785	475.00	1	1.700
40	32	10	1000	199 230 786	535.00	1	2.751
50	40	10	1600	199 230 787	548.00	1	3.073
63	50	10	3100	199 230 788	584.00	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



C



DN10/15 - 50



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

Model:

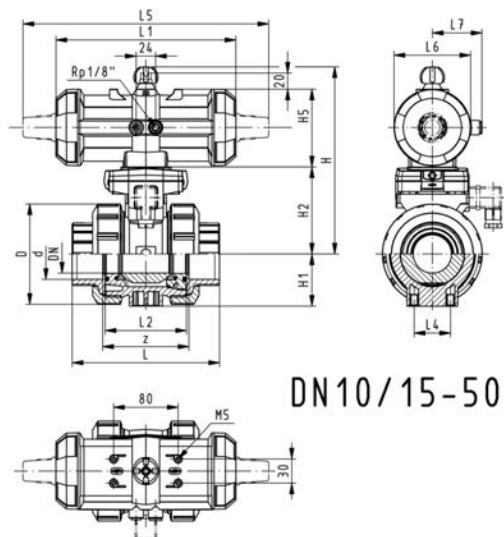
- Control time 90°<) 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

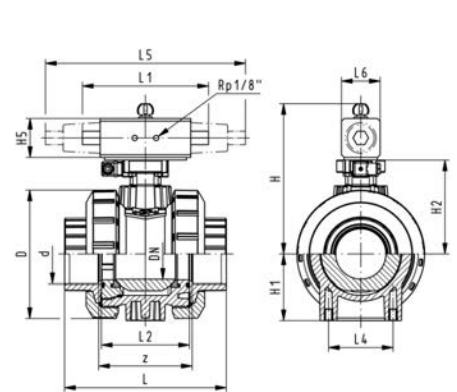
- Individual configuration of the valve (see diagram)

d	DN	PN	Cv-value	EPDM	USD	SP	weight
(mm)	(mm)	(bar)	(L/min)	Part No.			(kg)
16	10	10	70	199 230 822	305.00	1	1.459
20	15	10	185	199 230 823	305.00	1	1.459
25	20	10	350	199 230 824	317.00	1	1.576
32	25	10	700	199 230 825	342.00	1	1.700
40	32	10	1000	199 230 826	389.00	1	2.751
50	40	10	1600	199 230 827	414.00	1	3.073
63	50	10	3100	199 230 828	438.00	1	3.931
75	65	10	5000	199 230 829	778.00	1	6.700
90	80	10	7000	199 230 830	899.00	1	8.600
110	100	10	11000	199 230 831	899.00	1	12.900

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	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

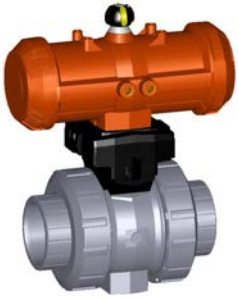


DN10/15-50



DN65-100

C



DN10/15 - 50



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

Model:

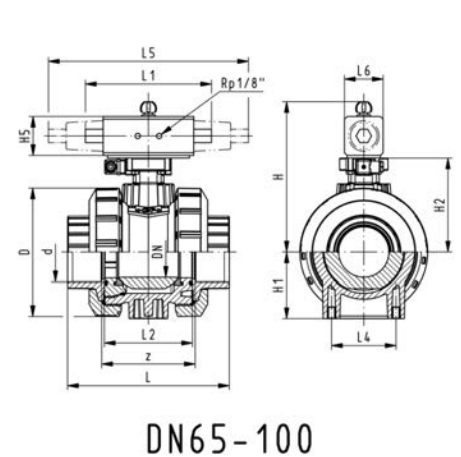
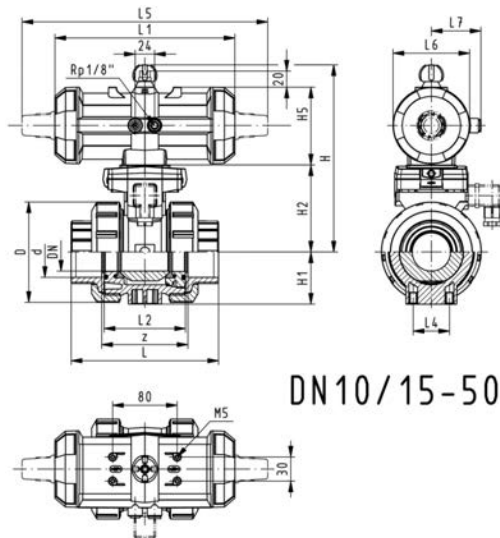
- Control time 90° < 1-2s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	70	199 230 862	305.00	1	1.459
20	15	10	185	199 230 863	305.00	1	1.459
25	20	10	350	199 230 864	317.00	1	1.576
32	25	10	700	199 230 865	342.00	1	1.700
40	32	10	1000	199 230 866	389.00	1	2.751
50	40	10	1600	199 230 867	414.00	1	3.073
63	50	10	3100	199 230 868	438.00	1	3.931
75	65	10	5000	^ 199 230 869	778.00	1	6.700
90	80	10	7000	^ 199 230 870	899.00	1	8.600
110	100	10	11000	^ 199 230 871	899.00	1	12.900

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



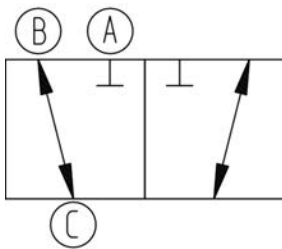
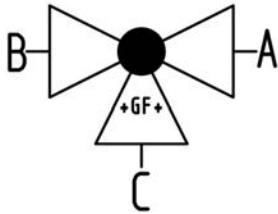
C



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

Model:

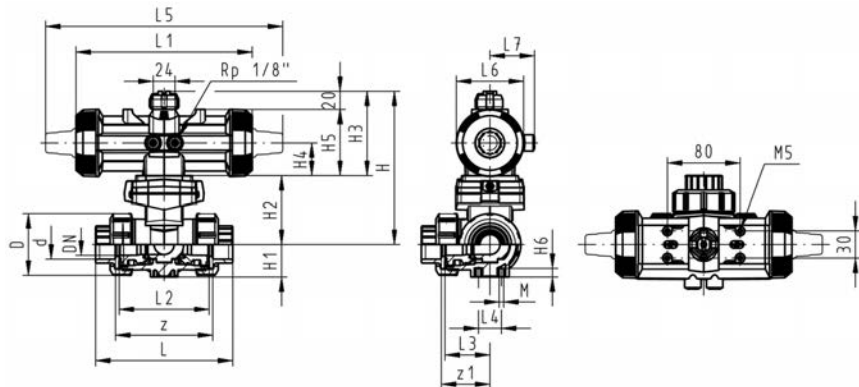
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	50	^ 199 285 162	548.00	1	1.058
20	15	10	75	^ 199 285 163	548.00	1	1.062
25	20	10	150	^ 199 285 164	560.00	1	1.164
32	25	10	280	^ 199 285 165	584.00	1	1.309
40	32	10	480	^ 199 285 166	645.00	1	2.318
50	40	10	620	^ 199 285 167	656.00	1	2.662
63	50	10	1230	^ 199 285 168	706.00	1	3.689

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



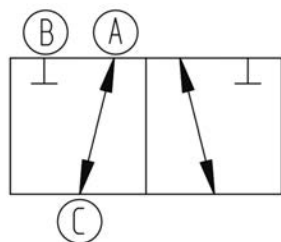
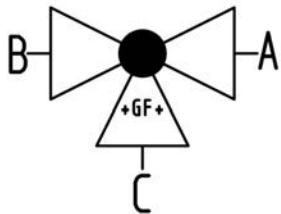
C



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

Model:

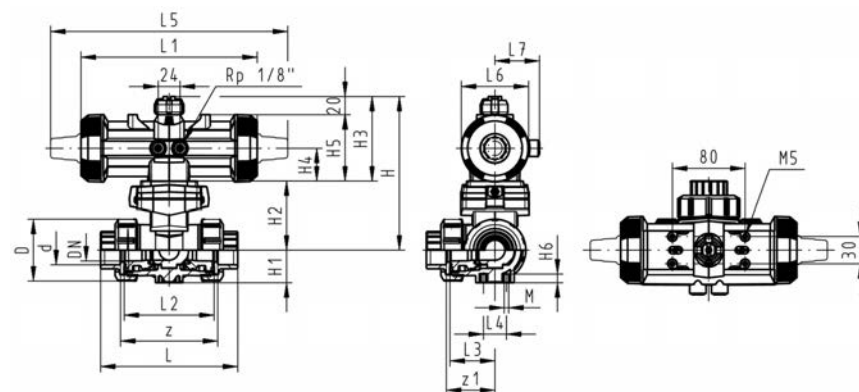
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90° 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	50	^ 199 285 342	510.00	1	0.867
20	15	10	75	^ 199 285 343	510.00	1	0.872
25	20	10	150	^ 199 285 344	548.00	1	0.974
32	25	10	280	^ 199 285 345	560.00	1	1.119
40	32	10	480	^ 199 285 346	609.00	1	1.894
50	40	10	620	^ 199 285 347	632.00	1	2.238
63	50	10	1230	^ 199 285 348	681.00	1	3.287

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



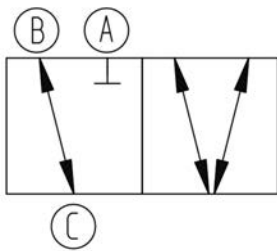
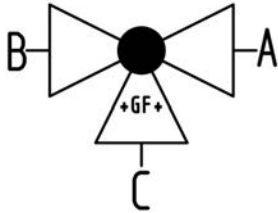
C



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

Model:

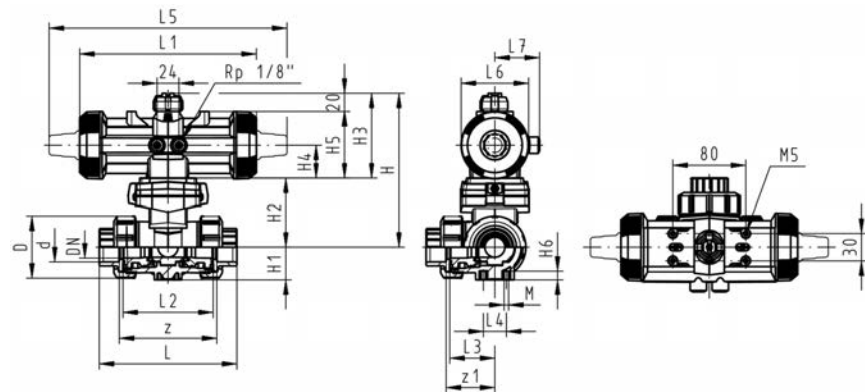
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position A-B-C opened, activated position B-C, see flow scheme
- Control time 90° 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	140	^ 199 285 172	548.00	1	1.057
20	15	10	200	^ 199 285 173	548.00	1	1.061
25	20	10	470	^ 199 285 174	560.00	1	1.162
32	25	10	793	^ 199 285 175	584.00	1	1.304
40	32	10	1290	^ 199 285 176	645.00	1	2.309
50	40	10	1910	^ 199 285 177	656.00	1	2.646
63	50	10	3100	^ 199 285 178	706.00	1	3.677

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



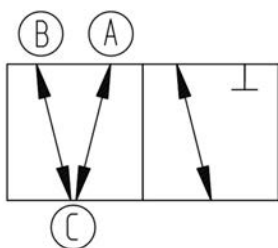
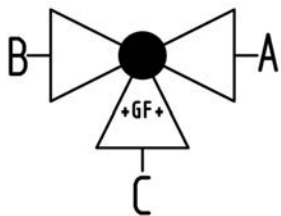
C



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

Model:

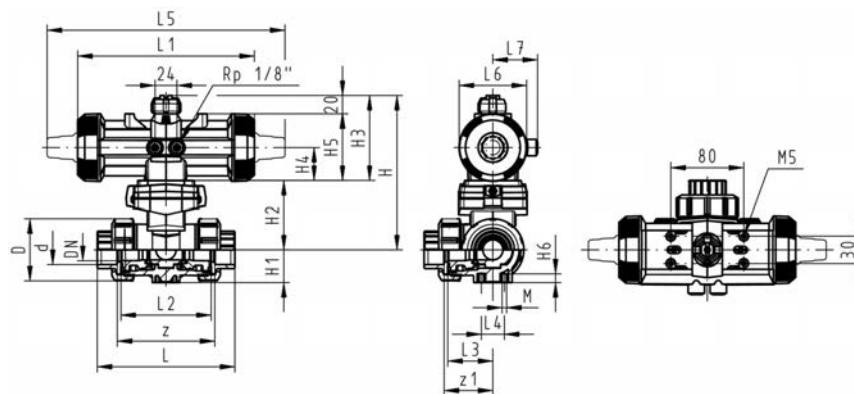
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C, see flow scheme
- Control time 90° 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d (mm)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
16	10	10	140	^ 199 285 352	510.00	1	0.866
20	15	10	200	^ 199 285 353	510.00	1	0.871
25	20	10	470	^ 199 285 354	548.00	1	0.972
32	25	10	793	^ 199 285 355	560.00	1	1.060
40	32	10	1290	^ 199 285 356	609.00	1	1.783
50	40	10	1910	^ 199 285 357	632.00	1	2.222
63	50	10	3100	^ 199 285 358	681.00	1	3.253

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



Pneumatic Actuated Diaphragm Valves

C



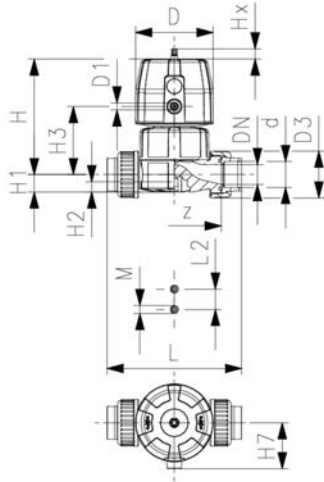
Diaphragm valve DIASTAR Six ABS FC (fail safe to close) with Union End Sockets metric

Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)



d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
20	6	169 614 012	233.00	1	1.153
25	6	169 614 013	247.00	1	2.174
32	6	169 614 014	260.00	1	2.590
40	6	169 614 015	326.00	1	4.359
50	6	169 614 016	405.00	1	5.501
63	6	169 614 017	500.00	1	7.628

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		140	14	1 1/4
50	120	1/8	193	32	15	119	69	222	45		160	16	1 1/2
63	120	1/8	205	39	15	132	69	266	45		190	16	2

C

Diaphragm valve DIASTAR Ten ABS FC (fail safe to close) with Union End Sockets metric

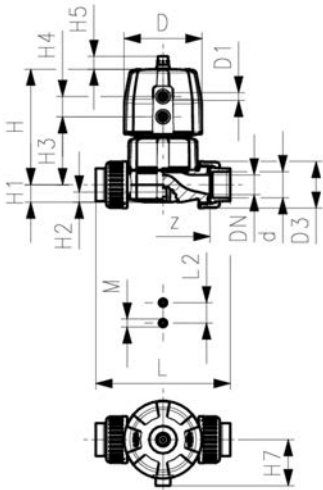


Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)

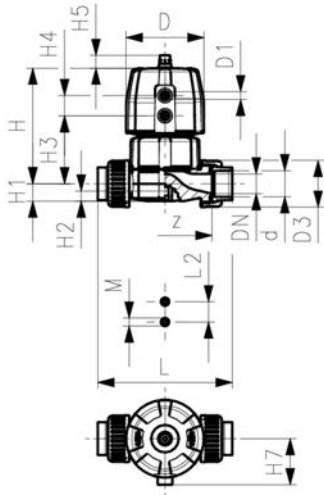


d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (lb)
20	10	169 624 012	331.00	1	1.210
25	10	169 624 013	354.00	1	2.339
32	10	169 624 014	371.00	1	2.749
40	10	169 624 015	467.00	1	4.689
50	10	169 624 016	579.00	1	8.009
63	10	169 624 017	713.00	1	9.658

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		140	15
50	150	1/4	214	32	15	119	36	26	88	222	45		160	19
63	150	1/4	226	39	15	132	36	26	88	266	45		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

C



Diaphragm valve DIASTAR Ten ABS FO (fail safe to open) with Union End Sockets metric

Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)

d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (kg)
20	10/10*	169 644 012	271.00	1	0.499
25	10/10*	169 644 013	265.00	1	0.887
32	10/10*	169 644 014	303.00	1	1.067
40	10/10*	169 644 015	350.00	1	1.767
50	10/10*	169 644 016	434.00	1	3.543
63	10/10*	169 644 017	535.00	1	4.291

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		140	15
50	150	1/4	214	32	15	119	36	26	88	222	45		160	19
63	150	1/4	226	39	15	132	36	26	88	266	45		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

C

Diaphragm valve DIASTAR Ten ABS DA (double acting) with Union End Sockets metric

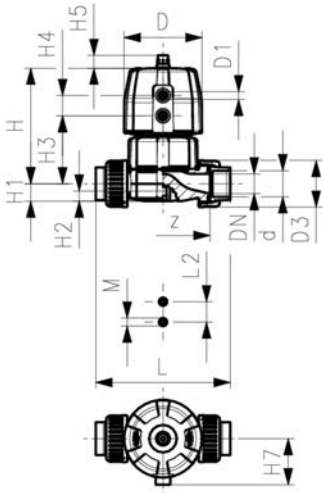


Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)



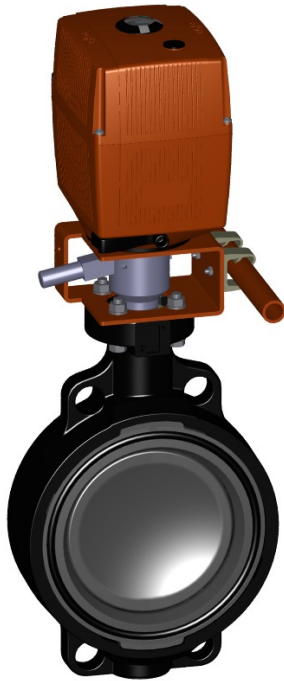
d (mm)	PN (bar)	EPDM Part No.	USD	SP	weight (kg)
20	10/10*	169 654 012	248.00	1	0.483
25	10/10*	169 654 013	265.00	1	0.851
32	10/10*	169 654 014	278.00	1	1.037
40	10/10*	169 654 015	350.00	1	1.707
50	10/10*	169 654 016	434.00	1	2.793
63	10/10*	169 654 017	535.00	1	3.541

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	⅜	101	14	12	60	24	16	43	128	25	M6	96	7
25	96	⅜	132	18	12	73	25	16	57	152	25	M6	114	10
32	96	⅜	143	22	12	84	25	16	57	166	25	M6	122	13
40	120	⅜	173	26	15	99	26	26	69	192	45		140	15
50	150	⅜	214	32	15	119	36	26	88	222	45		160	19
63	150	⅜	226	39	15	132	36	26	88	266	45		190	23

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

Electric Actuated Wafer Butterfly Valves

C



Butterfly valve type 140 ABS 100-230V With manual override

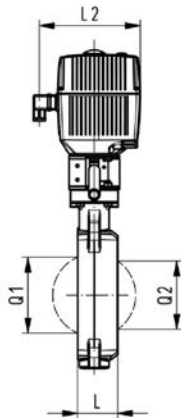
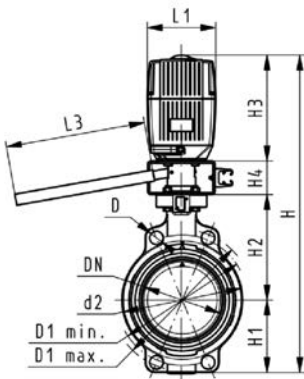
Model:

- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	199 140 482	Call	1	5.678
75	65	10	2200	199 140 483	Call	1	5.781
90	80	10	3000	199 140 484	Call	1	5.859
110	100	10	6500	199 140 485	Call	1	6.395
140	125	10	11500	199 140 486	Call	1	5.389
160	150	10	16600	199 140 487	Call	1	7.718
225	200	10	39600	199 140 488	Call	1	13.529

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)	closest inch (inch)
63	250	40		2
75	250	54	35	2 ½
90	250	67	50	3
110	250	88	74	4
140	250	113	97	5
160	250	139	123	6
225	250	178	169	8



C

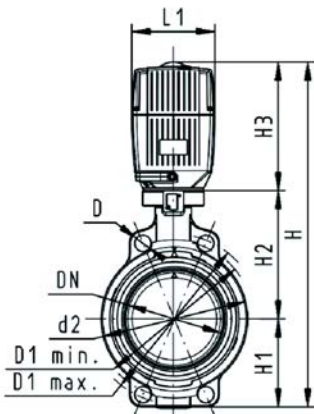


Butterfly valve type 140 ABS 100-230V Without manual override

Model:

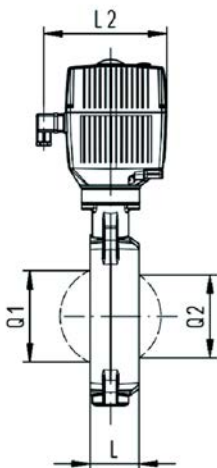
- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/90° EA42
- Actuator with integrated emergency manual override standard
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5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

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	199 140 502	1,667.00	1	3.121
75	65	10	2200	199 140 503	1,679.00	1	4.281
90	80	10	3000	199 140 504	1,704.00	1	4.359
110	100	10	6500	199 140 505	1,716.00	1	4.895
140	125	10	11500	199 140 506	1,801.00	1	4.376
160	150	10	16600	199 140 507	1,873.00	1	6.218
225	200	10	39600	199 140 508	2,300.00	1	12.029

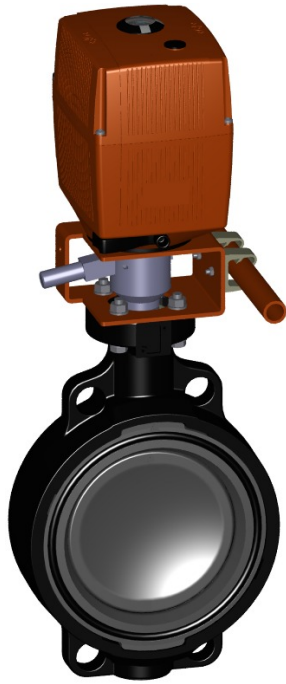


d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)
63	EA-31	104	19	120.0	125.0	400	77	134	188	45	122	180	40
75	EA-31	115	19	139.7	145.0	413	83	140	188	46	122	180	54
90	EA-31	131	19	150.0	160.0	428	89	146	188	49	122	180	67
110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

d (mm)	Q2 (mm)	closest inch (inch)
63		2
75	35	2 ½
90	50	3
110	74	4
140	97	5
160	123	6
225	169	8



C



**Butterfly valve type 140 ABS 24V
With manual override**

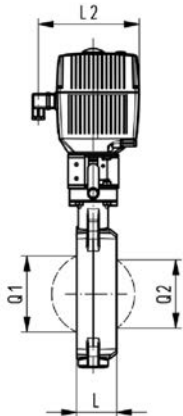
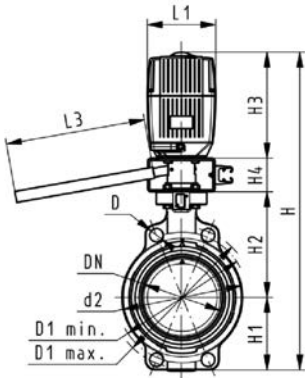
Model:

- Voltage 24 V AC/DC
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	199 140 522	Call	1	4.161
75	65	10	2200	199 140 523	Call	1	4.257
90	80	10	3000	199 140 524	Call	1	5.859
110	100	10	6500	199 140 525	Call	1	6.395
140	125	10	11500	199 140 526	Call	1	5.389
160	150	10	16600	199 140 527	Call	1	9.910
225	200	10	39600	199 140 528	Call	1	13.529

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)	closest inch (inch)
63	250	40		2
75	250	54	35	2 ½
90	250	67	50	3
110	250	88	74	4
140	250	113	97	5
160	250	139	123	6
225	250	178	169	8



C

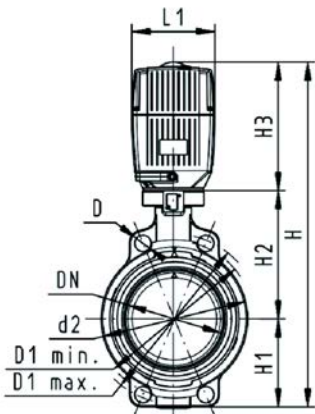


Butterfly valve type 140 ABS 24V
Without manual override

Model:

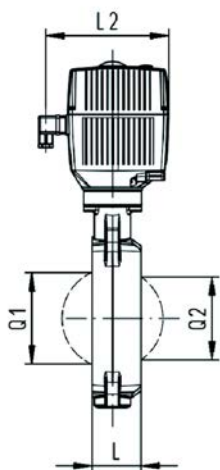
- Voltage 24 V AC/DC
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/90° EA42
- Actuator with integrated emergency manual override standard
- Overall length according to EN 558, ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class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

d (mm)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	199 140 542	Call	1	4.178
75	65	10	2200	199 140 543	Call	1	3.217
90	80	10	3000	199 140 544	Call	1	4.359
110	100	10	6500	199 140 545	Call	1	4.895
140	125	10	11500	199 140 546	Call	1	4.376
160	150	10	16600	199 140 547	Call	1	6.218
225	200	10	39600	199 140 548	Call	1	12.029



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)	closest inch (inch)
63		2
75	35	2 ½
90	50	3
110	74	4
140	97	5
160	123	6
225	169	8



Electric Actuated Lug Butterfly Valves

C



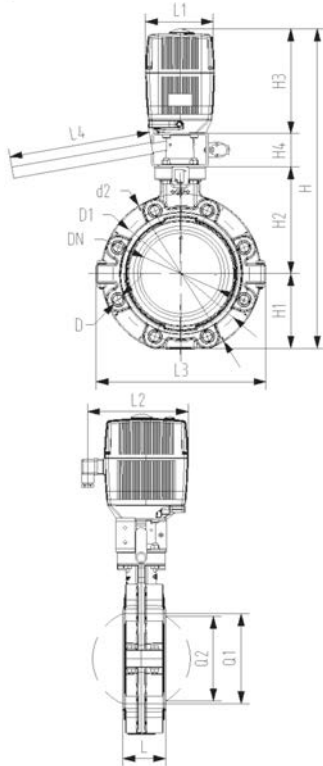
Lug Style Butterfly valve Type 144 ABS 100-230V With manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/90° EA42
- Actuator with integrated emergency manual override standard
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d (mm)	PN (bar)	Size (inch)	EPDM Part No.	USD
63	10	2	199 144 482	Call
75	10	2 ½	199 144 483	Call
90	10	3	199 144 484	Call
110	10	4	199 144 485	Call
140	10	5	199 144 486	Call
160	10	6	199 144 487	Call
225	10	8	199 144 488	Call

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	EA-31	160	UNC 5/8	120.6	459	77	134	188	60	45	122	180	165
75	EA-31	180	UNC 5/8	139.7	471	83	140	188	60	46	122	180	182
90	EA-31	195	UNC 5/8	152.4	483	89	146	188	60	49	122	180	210
110	EA-31	226	UNC 5/8	190.5	521	106	167	188	60	56	122	180	240
140	EA-31	258	UNC 3/4	215.9	550	121	181	188	60	64	122	180	272
160	EA-31	284	UNC 3/4	241.3	570	133	189	188	60	72	122	180	300
225	EA-42	341	UNC 3/4	298.4	637	159	210	208	60	73	122	180	360

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

C

Lug Style Butterfly valve Type 144 ABS 100-230V Without manual override

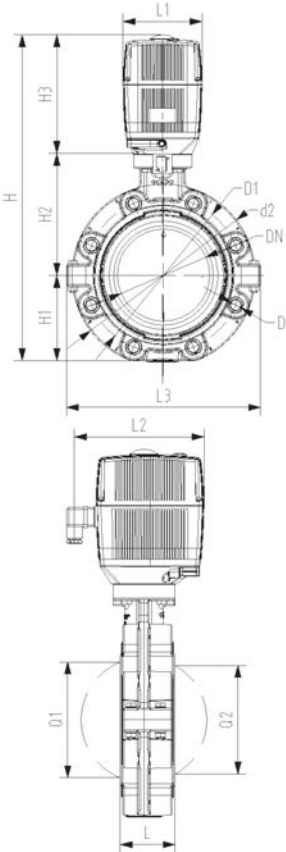


Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90 °
- Control time 15s/90° EA31
- Control time 25s/90° EA42
- Actuator with integrated emergency manual override standard
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d (mm)	PN (bar)	Size (inch)	EPDM Part No.	USD
63	10	2	199 144 502	Call
75	10	2 ½	199 144 503	Call
90	10	3	199 144 504	Call
110	10	4	199 144 505	Call
140	10	5	199 144 506	Call
160	10	6	199 144 507	Call
225	10	8	199 144 508	Call

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	160	UNC 5/8	120.6	399	77	134	188	45	122	180	165	40
75	EA-31	180	UNC 5/8	139.7	411	83	140	188	46	122	180	182	54
90	EA-31	195	UNC 5/8	152.4	423	89	146	188	49	122	180	210	67
110	EA-31	226	UNC 5/8	190.5	461	106	167	188	56	122	180	240	88
140	EA-31	258	UNC 3/4	215.9	490	121	181	188	64	122	180	272	113
160	EA-31	284	UNC 3/4	241.3	510	133	189	188	72	122	180	300	139
225	EA-42	341	UNC 3/4	298.4	577	159	210	208	73	122	180	360	178

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

Pneumatic Actuated Wafer Butterfly Valve

C

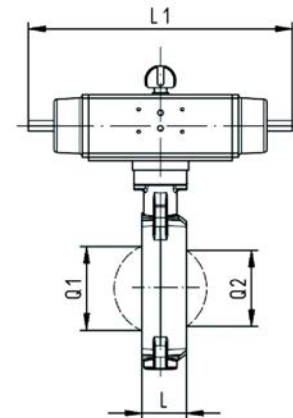
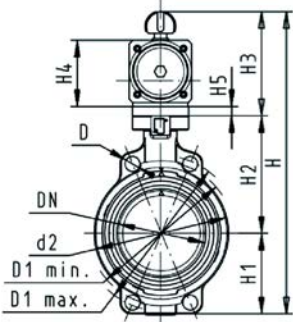


Butterfly valve type 240 ABS FC (Fail safe to close) Without manual override

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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	199 240 402	572.00	1	3.371
75	65	10	2200	199 240 403	670.00	1	3.100
90	80	10	3000	199 240 404	670.00	1	3.399
110	100	10	6500	199 240 405	681.00	1	5.133
140	125	10	11500	199 240 406	1,035.00	1	6.826
160	150	10	16600	199 240 407	1,035.00	1	9.779
225	200	10	39600	199 240 408	1,376.00	1	13.529
280	250	10	55200	199 240 409	Call	1	28.200
315	300	10	80000	199 240 410	Call	1	36.200



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	0	56	370
140	PA-45 FC	187	23	210	216	436	117	181	139	96	0	64	411
160	PA-50 FC	215	24	241	241	468	130	189	149	106	0	72	423
225	PA-55 FC	267	23	290	295	529	158	210	161	118	0	73	452
280	PA-65 FC	329	25	353	362	808	205	264	191	148	0	113	648
315	PA-70 FC	379	25	400	432	866	228	285	196	157	0	113	663

d (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)	closest inch (inch)
63	65	40		2
75	65	54	35	2 ½
90	72	67	50	3
110	80	88	74	4
140	90	113	97	5
160	100	139	123	6
225	112	178	169	8
280	137	210	207	10
315	145	256	253	12

C

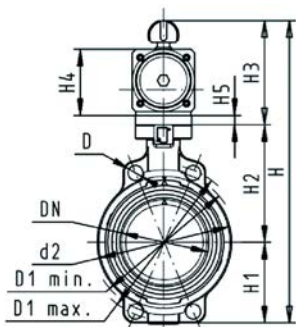


Butterfly valve type 240 ABS FO (Fail safe to open) Without manual override

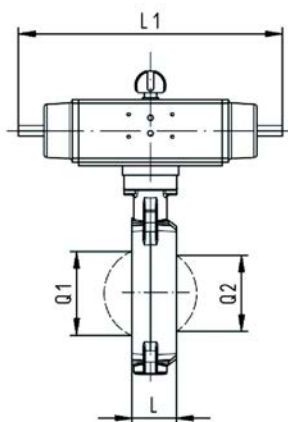
Model:

- 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)	DN (mm)	PN (bar)	Cv-value (L/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	^ 199 240 422	572.00	1	3.371
75	65	10	2200	^ 199 240 423	670.00	1	3.467
90	80	10	3000	^ 199 240 424	670.00	1	3.399
110	100	10	6500	^ 199 240 425	681.00	1	5.133
140	125	10	11500	^ 199 240 426	1,035.00	1	6.826
160	150	10	16600	^ 199 240 427	1,035.00	1	9.779
225	200	10	39600	^ 199 240 428	1,376.00	1	13.529



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)	closest inch (inch)
63	65	40		2
75	65	54	35	2 ½
90	72	67	50	3
110	80	88	74	4
140	90	113	97	5
160	100	139	123	6
225	112	178	169	8

C

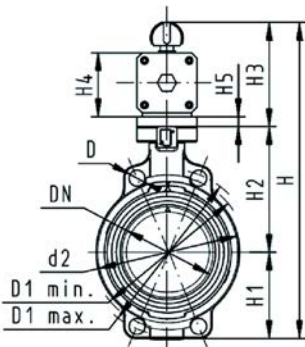


Butterfly valve type 240 ABS
DA (Double acting)
Without manual override

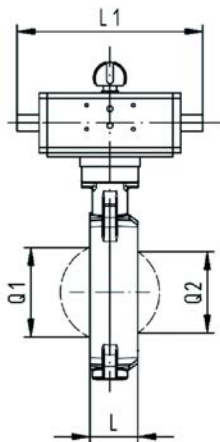
Model:

- 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)	DN (mm)	PN (bar)	Cv-value (l/min)	EPDM Part No.	USD	SP	weight (kg)
63	50	10	1470	^ 199 240 442	486.00	1	2.221
75	65	10	2200	^ 199 240 443	548.00	1	2.317
90	80	10	3000	^ 199 240 444	548.00	1	2.730
110	100	10	6500	^ 199 240 445	560.00	1	3.385
140	125	10	11500	^ 199 240 446	816.00	1	4.076
160	150	10	16600	^ 199 240 447	816.00	1	6.258
225	200	10	39600	^ 199 240 448	986.00	1	7.529



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)	closest inch (inch)
63	55	40		2
75	55	54	35	2 ½
90	60	67	50	3
110	65	88	74	4
140	72	113	97	5
160	80	139	123	6
225	90	178	169	8

Pneumatic Actuated Lug Butterfly Valve

C



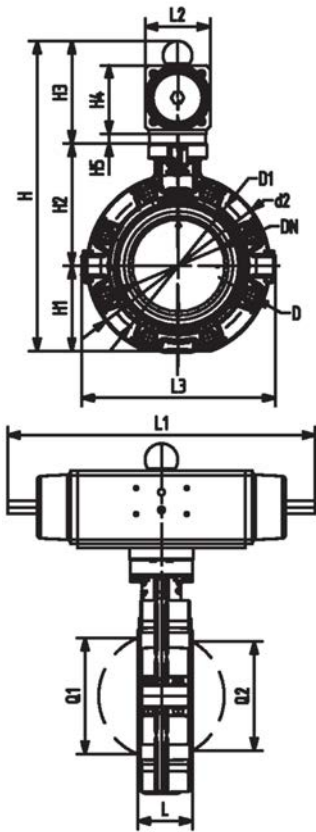
Lug Style butterfly valve Type 244 ABS FC (Fail safe to close) Without manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d (mm)	PN (bar)	Size (inch)	EPDM Part No.	USD
63	10	2	199 244 402	714.00
75	10	2 ½	199 244 403	841.00
90	10	3	199 244 404	841.00
110	10	4	199 244 405	854.00
140	10	5	199 244 406	1,313.00
160	10	6	199 244 407	1,313.00
225	10	8	199 244 408	1,772.00

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)
63	PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65
75	PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65
90	PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72
110	PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80
140	PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90
160	PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100
225	PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112

d (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	165	40	
75	182	54	35
90	210	67	50
110	240	88	74
140	272	113	97
160	300	139	123
225	360	178	169

General Terms and Conditions of Sale

Always check for the most current General Terms and Conditions and Warranty Statement at www.gfpiping.com under "Price Lists."

GF Piping Systems USA Terms and Conditions (Rev. 10/2016) supersede all previous Terms and Conditions for Georg Fischer LLC and Georg Fischer Harvel LLC.

It is the responsibility of the Distributor, Dealer, or Agent to provide a current copy of these Terms and Conditions to the Consumers of Georg Fischer Piping products.

Acceptance of Terms and Conditions

Acceptance by Customer of GF Piping Systems USA, (hereinafter "Seller") offer of Products for sale is hereby expressly conditioned upon Customer's acceptance of these General Terms and Conditions of Sale and these General Terms and Conditions of Sale will be deemed accepted, as written, despite any language in Customer's purchase order and/or other documentation which is either conflicting or supplemental, unless promptly after this offer, Customer specifically advises Seller of each term and condition not so accepted and Seller accepts Customer's conflicting and/or supplemental term(s) in writing.

Order Acceptance

Seller reserves the right to accept or reject any order. Possession of a price list by Customer does not constitute an offer to sell.

Credit Approval and Minimum Order Charge

Customer credit approval is required prior to any shipment.

The minimum order is \$100 net.

List Price, Discount or Freight Charges

List prices, discount, and freight terms are subject to change without notice. All prices are F.O.B. Seller's factory or authorized warehouse at Seller's discretion.

Payment Terms

Net 30, from date the invoice is issued unless otherwise stated in a specific quotation. No unauthorized deductions allowed, such as deductions for pending Return Material Transactions that are subject to review. Seller reserves the right to apply a finance charge to the balance of any past-due invoice (over 30 days from date of invoice) at a rate of 1.5% per month, 18% per annum. Payment terms on fusion machine rentals net 30; see rental agreement for more details.

Taxes

Seller charges Customer for all sales, excise and other taxes and governmental charges Seller is required to collect from Customer. Customers claiming exemption must furnish documentation required by law which is satisfactory to Seller to permit Seller to refrain from collecting such charges.

WARRANTY AND LIMITATIONS

Seller's Products are carefully inspected for manufacturing defects; however, it is not always possible to detect hidden defects.

Seller warrants that its products shall conform to the description of such products as provided to Customer by Seller through Seller's catalog, analytical data or other literature. **THIS WARRANTY IS EXCLUSIVE, AND SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR COURSE OF DEALING OR USAGE OF TRADE – WHICH ARE HEREBY DISCLAIMED.** Seller's warranties made in connection with this sale shall not be effective if Seller has determined, in its sole discretion, that Customer has misused the products in any manner, has failed to use the products in accordance with industry standards and practices, or has failed to use the products in accordance with instructions, if any, furnished by Seller. **Seller does not warrant any Products obtained through an unauthorized Distributor, Dealer, or Agent.**

LIMITATIONS OF REMEDY

Seller's sole and exclusive liability and Customer's exclusive remedy with respect to products proved to Seller's satisfaction to be defective or nonconforming shall be repair or replacement of such products without charge or refund of the purchase price, in Seller's sole discretion, upon the return of such products in accordance with Seller's instructions. **SELLER SHALL NOT IN ANY EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND RESULTING FROM ANY USE OR FAILURE OF THE PRODUCTS, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE INCLUDING, WITHOUT LIMITATION, LIABILITY FOR LOSS OF USE, LOSS OF WORK IN PROGRESS, DOWN TIME, LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS, LOSS OF PRODUCTS OF CUSTOMER OR OTHER USE OR ANY LIABILITY OF CUSTOMER TO A THIRD PARTY ON ACCOUNT OF SUCH LOSS, OR FOR ANY LABOR OR ANY OTHER EXPENSE, DAMAGE OR LOSS OCCASIONED BY SUCH PRODUCT INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE.** Any and all claims of Customer against Seller must be brought within one (1) year of Seller's tender of delivery, regardless of their nature.

Order Changes or Cancellations

Cancellation or modifications of orders may be possible only with prior written consent from Seller. Since all orders are individually entered for processing immediately upon receipt, Seller reserves the right to charge back to the Customer costs incurred from either order cancellation or order modification. Seller also reserves the right to consider all order additions as new orders and subject to all terms and conditions.

Seller will not cancel orders for custom or non-cancelable products if Seller has already produced the product or incurred expenses toward producing the product at the time the Customer seeks to cancel.

Delivery

Seller disclaims liability for consequential damages from late deliveries unless seller assumes liability for such damages in writing when the order is placed. Further, Seller disclaims liability where delivery delays caused by strike, differences with workmen, or causes beyond Seller's control, including but not limited to fires, floods, accidents, government actions, shortages of labor, raw materials, production facilities, or transportation. Where delivery delays are caused by labor problems, Seller is not obligated to seek or obtain any settlement which, in Seller's judgment, is not in Seller's best interest.

Standard Packaging

Seller will accept orders from Customer exclusively in multiples of the standard packaging quantity or boxed quantity. Seller reserves the right to reject any order that is not a standard packaging or boxed quantity of a Product.

Freight

Continental US – Full freight will be paid on the following orders:

1. Pipe \$7,500 net or greater in one of the following categories:

- | | | |
|--------------------|--|------------------------------------|
| a. PPro-Seal | f. PVC and CPVC, including shapes and rods | j. LXT |
| b. Contain-It | g. PVC and CPVC, metric | k. Blazemaster |
| c. Fuseal (1½"-6") | h. Duct | l. PE 100 |
| d. SYGEF | i. CTS | m. COOL-FIT ABS |
| e. PROGEF | | n. COOL-FIT ABS Plus Pre-insulated |

Combination of products from one shipping point to meet freight allowance is at the sole discretion of the seller.

2. Fittings, Valves, & Actuation \$1,500 net or greater

Freight allowed orders will be sent by a designated carrier of Seller's choice. Additional charges will be invoiced to Customer for special handling and air freight when requested. Standard Pipe lengths require long truck beds for shipping and may be shipped separately from valves and/or fittings purchased on the same order. Valves and/or fittings will be shipped using practical shipping methods.

Freight will not be paid on the following orders:

- | | |
|--|--|
| a. Signet Product | f. Fuseal Large Diameter: 8", 10", 12" Pipe and Fittings |
| b. Custom Products | g. COOL-FIT ABS Lite Pipe |
| c. Heat Exchangers | h. Double-See |
| d. PVC and CPVC Fabricated Fittings 14" and larger | i. International Orders |
| e. Fuseal Squared, Tanks and Accessories, and Special Fabrications | j. Fusion Machines and Accessories |

Unless otherwise specified, shipments are surface, prepaid and added to invoice.

Mode of Shipment and Packaging

Seller reserves the right to ship orders in the most economical manner, as long as the product is shipped on or before the promised ship date. If product ships after the promised ship date, Seller may automatically adjust the shipping method to help improve delivery of the delayed shipment, at no additional cost.

If Seller pays freight, Seller may hold shipment until all items become available. Customer bears extra cost of non-standard packaging or handling requested by Customer.

Transfer of Ownership

All products are FOB Seller's facility and title of merchandise transfers when product is loaded onto carrier. Claims for damaged merchandise should be made to carrier by Customer.

Assignment. Customer may not assign its rights under or interest in any purchase order without the prior written consent of Seller. These terms and conditions of sale shall be binding upon and inure to the benefit of Customer and Seller, their successors and permitted assigns.

Technical Documentation and Intellectual Property. Unless specified otherwise, technical documents such as drawings, descriptions, illustrations and the like, constitute only an approximate guide. Seller reserves the right to make any changes considered necessary. Seller expressly reserves any and all intellectual property rights therein.

Non-Conforming Shipments

Customer must notify Seller in writing within 7 days after receipt of shipments not conforming with Customer's order, stating specifically Customer's claim of non-conformity, or Customer is deemed to accept the shipment as is. If Seller is satisfied the shipment is non-conforming, Seller will (i) credit Customer for the price of defective goods or goods shipped but not ordered (including allocated outbound and return freight) upon return of goods; (ii) promptly ship omitted items waiving Seller's new order charges. Customer is required to make timely payment to Seller of any amount which is undisputed or not subject to such claims.

Return of Goods for Credit

Seller accepts returns of certain Engineered Piping Products, Valve and Actuation Products, Signet Instrumentation Products, Waste and Containment Products, and Vinyl Piping Products for a standard restock charge of 25%. Pipe is not returnable. Products denoted with a caret (^) symbol in front of the part number in the current Master Distributor Price List have a 40% restock and products denoted with an asterisk (*) symbol are non-cancelable/non-returnable. Only products purchased within the past twelve (12) months, in original "like new" packaging (full carton quantities), of current design, and listed in the current Master Distributor Price List shall be considered for returns. All products qualifying for return are subject to review for marketability (quantities in question in relationship to historical stock movement) before issuance of a Return Material Authorization (RMA) number. Returns due to Seller's product warranty or order entry/shipping error will not be charged a restock fee.

Product for credit consideration should be returned to Seller's originating location. All returns are subject to inspection upon receipt. No credit will be issued until the returned material has been inspected, accepted, and processed. Customers will be contacted if quantity differences and/or non-acceptable material are found during inspection. Any credit issued will reflect only quantities actually received and accepted by Seller.

Disposition (return to Customer or scrap) of returned product not accepted back by Seller must be provided by Customer within 10 business days, otherwise it will be subject to disposal. All material returns must be accompanied by a valid Return Material Authorization (RMA) number. RMA numbers may be obtained from the Customer Service Department. When requesting a RMA, the original purchase order number and date of purchase must be provided.

All material returns must be received within thirty (30) days of the RMA issuance.

All material returns must be shipped freight prepaid. No collect shipments will be accepted by Seller. Restock charges and prepaid freight do not apply to warranty defective merchandise or returns due to Seller order entry or shipping errors.

Return of Goods for Warranty Evaluation

When requesting a RMA for material evaluation, Customer must first complete and submit a Material Safety Disclosure sheet and Request For Evaluation form obtained from Customer Service. Material arriving to Seller without a valid RMA number will be returned to the customer/distributor, freight collect. RMA numbers must be clearly referenced on all shipping documents and shipping containers.

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The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

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C



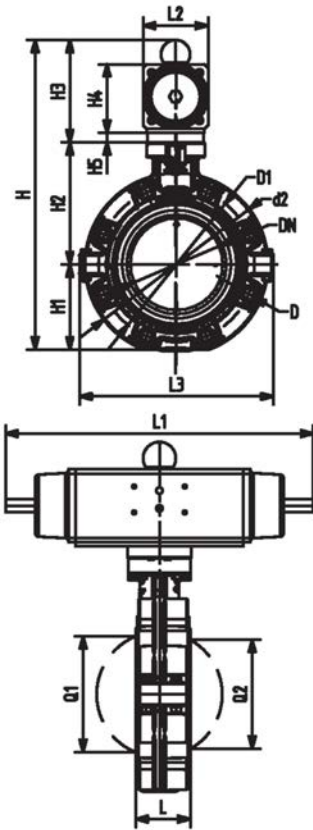
Lug Style butterfly valve type 244 ABS
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d (mm)	PN (bar)	Size (inch)	EPDM Part No.	USD
63	10	2	^ 199 244 422	714.00
75	10	2 ½	^ 199 244 423	841.00
90	10	3	^ 199 244 424	841.00
110	10	4	^ 199 244 425	854.00
140	10	5	^ 199 244 426	1,313.00
160	10	6	^ 199 244 427	1,313.00
225	10	8	^ 199 244 428	1,772.00

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)
63	PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276	65
75	PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276	65
90	PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326	72
110	PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370	80
140	PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411	90
160	PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423	100
225	PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452	112

d (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	165	40	
75	182	54	35
90	210	67	50
110	240	88	74
140	272	113	97
160	300	139	123
225	360	178	169

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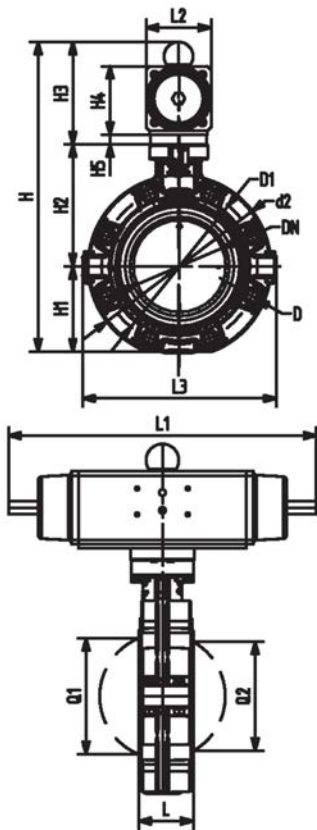
Lug Style butterfly valve type 244 ABS
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d (mm)	PN (bar)	Size (inch)	EPDM Part No.	USD
63	10	2	^ 199 244 442	626.00
75	10	2 ½	^ 199 244 443	702.00
90	10	3	^ 199 244 444	702.00
110	10	4	^ 199 244 445	727.00
140	10	5	^ 199 244 446	1,083.00
160	10	6	^ 199 244 447	1,083.00
225	10	8	^ 199 244 448	1,351.00

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	L1 (mm)	L2 (mm)
63	PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177	55
75	PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177	55
90	PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190	60
110	PA-45 DA	226	UNC 5/8	190.5	384	106	167	111	78		56	235	65
140	PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235	72
160	PA-55 DA	284	UNC 3/4	241.3	461	133	189	129	96		72	279	90
225	PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279	90

d (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	165	40	
75	182	54	35
90	210	67	50
110	72	88	74
140	272	113	97
160	300	139	123
225	360	178	169