

**Product Range  
International  
2013**

**PVC-U  
piping systems for  
industrial application**

**Pipe, Fittings,  
Valves and Accessories**





# More than 50 Years of Application Know How



Our long experience in plastic piping systems applications is also for your security. Approvals and third party controls are guarantee for continuously high

quality. Many of our products have the necessary approvals of the relevant institutes and thanks to the batch identification they are traceable.

## Fields of applications

Our specialists are proving their wide material knowledge and their application experience day by day in various industries:

- Water treatment
- Waste water treatment
- Galvanics
- Chemical industry
- Automotive industry
- Electronic industry
- Energy
- Swimming pools
- Cellulose and paper industry
- Photo industry

- Textile industry
- Shipbuilding
- Beverage industry
- Exhaust gas cleaning
- Chlorine industry
- Cooling and air conditioning
- Refrigeration plants
- Food
- Mining

Do you miss your application in the above list? No problem. Please call us, and we will find a solution according to your specifications.

## Approvals

**kiwa**

**IIP**

**NF**



Lebensmittelzulassung

## Drinking water approvals

**WRAS**  
APPROVED PRODUCT

MAIRIE DE PARIS

**kiwa**

## Shipbuilding approvals



**BUREAU  
VERITAS**



Germanischer Lloyd



DET NORSKE VERITAS

**Lloyd's  
Register**

# Quality Products with Advantages



## Advantage of Wide Product Ranges

Fittings

Hand Operated Valves

Pipes

Jointing Systems

Actuated Valves

Measure and Control Technology

Machines and Tools

available in four standards: ISO/DIN, ASTM/ANSI, BS and JIS



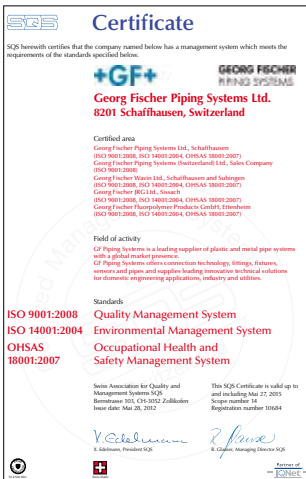
## Advantage of Quality

### Compound

Our own compound and strict quality controls for each raw material delivery form the basis for GF Piping Systems high quality products.

### Production Know-How

Due to know-how gathered over 50 years we are able to produce our products to exceptionally high tolerances.



Quality management system certified according to ISO 9001/EN 29001 and ISO 4001



Energy required for 100 m pressurised pipe

## Advantage for the Environment

In addition to the economical advantage of PVC-U, PVC-C and ABS there are also ecological advantages:  
 Preserving diminishing natural resources  
 Less energy required  
 Possibility of recycling  
 Very long life span



## Advantage of Production Quality Control Tests

Pressure Pulsation Testing 1000 h Test  
 Chemical Resistance Functions  
 Temperature Cycling Test  
 Cyclic Bending Test

Independently accredited test laboratory for components of plastic piping systems according to SN EN ISO 45001



# for Professional Users

## Advantage in Planning

### One-stop-shopping for complete systems

Many customers prefer to purchase the complete piping system from one supplier. Because only systems that are designed to complement each other guarantee easy planning, installing and efficient functioning of the piping system.

### CAD Product Library

For drawing and providing a list of orders GF Piping Systems CAD Product Library is an optimal solution. Can be used with AutoCAD and other CAD systems.



## Advantage of Choosing the Right Material

For maximum safety and optimal durability of a piping system the choice of raw material and pressure class of the pipe parts is highly important. The raw material's suitability to the medium can be checked with the help of our chemical resistance list.



## Advantage of Installation Technique

Cement jointing is simple, fast, economical and very reliable.

Over 100 million homogenous joints have been made over the total life time of piping systems, achieving the highest quality requirements.



## Advantage of Support

### Training

GF Piping Systems offers training possibilities at our regional sales companies, in our own training center in Schaffhausen or at your premises. For cement jointing we can also provide you with a training video.

### Worldwide Distribution

Sales companies, representatives and dealers from GF Piping Systems can supply you with complete technical advice, punctual distribution and fast service in almost every corner of the world.



# GF Piping Systems quality is no coincidence!

More than 50 years of research, development and experience have shaped our high standard of quality. You will find the solution to your problem in our extensive product range:

## Solvent Cemented Systems

### PVC-U

Unplasticised  
Polyvinyl Chloride

**Range of sizes:**  
6–400 mm, BS 3/8" – 8"

**Resistant to:**  
Acids and alkalis

**Recommended applications:**  
Drinking water, distilled water, general purpose water, waste water, coolant brines, sea water, construction of plant and apparatus, foodstuffs, beverages. Universally applicable plastic with the widest range of fittings and valves

**Not recommended for:**  
Aromatic solvents, ester, ketones, chlorinated hydrocarbons  
low temperature uses ( $< 0\text{ }^{\circ}\text{C}$ )  
high temperature uses ( $> 60\text{ }^{\circ}\text{C}$ )

### PVC-C

post-chlorinated PVC-U

**Range of sizes:**  
16–225 mm

**Resistant to:**  
Acids and alkalis at high temps (max.  $90\text{ }^{\circ}\text{C}$ ) and high concentrations

**Recommended applications:**  
Hot and aggressive mediums, high temperature, high corrosive environments, chemical industry generally (e.g. mixed acid waste) and hot water industrial applications

**Not recommended for:**  
Aromatic solvents, ester, ketones, chlorinated hydrocarbons  
low temperature uses ( $< 0\text{ }^{\circ}\text{C}$ )

### ABS

Acrylonitrile Butadiene  
Styrene

**Range of sizes:**  
16–315 mm  
BS 3/8" – 8"

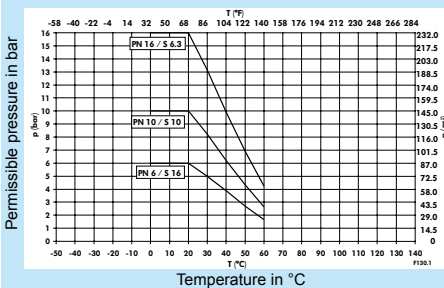
**Resistant to:**  
Alkalis, weak acids, and salts

**Recommended applications:**  
Low temperature brine, chilled water, refrigerants, air conditioning, drinking water, water treatment, process water, mining industry, and foodstuffs

**Not recommended for:**  
High temperature uses ( $> 60\text{ }^{\circ}\text{C}$ )  
bleaches, aromatic solvents, ester, ketones and alcohols

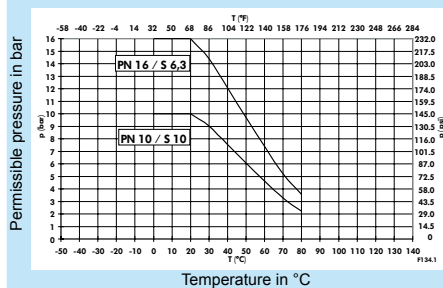
### Application Limits for Pipes and Fittings in PVC-U

25-year values with Design Factor C included at  $20\text{ }^{\circ}\text{C}$  water



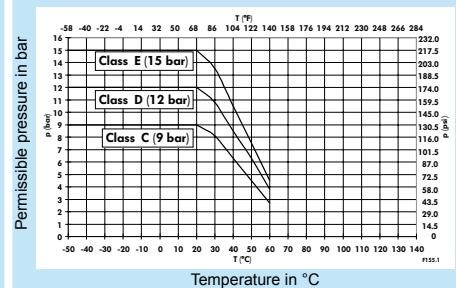
### Application Limits for Pipes and Fittings in PVC-C

25-year values with Design Factor C included at  $20\text{ }^{\circ}\text{C}$  water





























### Application Limits for Pipes and Fittings in ABS









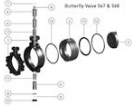




25-year values with Design Factor C included at  $20\text{ }^{\circ}\text{C}$  water

















# Plastic Piping Systems PVC-U














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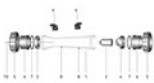
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# Fittings

## General information

### Materials

The material PVC-U conforms with the corresponding recommendations of the German Federal Board of Health.

### Standards

All the main dimensions of solvent cement fittings and adaptor pipe fittings, such as nominal bore, z dimensions, socket depth and diameter, are in accordance with ISO Recommendations, ISO Draft Resolutions for millimetre pipes and DIN 8063.

Solvent cement joint	Threaded joint	Flange joints
ISO 727 DIN 8063 DIN EN ISO 15493 NF T54-028/016 DIN EN 1452-3 ASTM D-2464 ANSI B 1.20.1	ISO 7/1 ISO 228/1 DIN 2999 UNI 338 BSI 21	DIN 2501/8063 ISO 7005 BS 4504 ANSI / B16.5

For PVC-U Fittings in British Standard please request our special literature.

### Joining

Solvent cement jointing:

Pipes with outside diameter tolerances in accordance with ISO 11922-3 can be readily jointed with GF Piping Systems fittings.

Threaded joint:

Threaded plastic fittings should be jointed to plastic pipes or to other plastic parts. Jointing to metal pipes or fittings is permissible only where there is little stress, and should be carried out with great care.

### Solvent Cement

A cement with gap-filling properties must be used. Our instructions for solvent connections are based on the use of TANGIT solvent cement.

### Nominal Pressure

Unless otherwise stated:

Conditional pressure for solvent cement fittings and adaptor fittings:

PN 16, i.e. 16 bar at 20°C (water).

Conditional pressure for threaded fittings:

PN 10, i.e. 10 bar at 20°C (water).

### Marking

Solvent cement and adaptor pipe fittings from GF Piping Systems are marked as follows:

- +GF+
- pipe o.d. or pipe thread size
- Material

Pressure rating:

M = PN 16

unmarked = PN 10

S 6.3/PN 16 = PN 16

S 10/PN 10 = PN 10

Threaded pipe fittings from GF Piping Systems are marked as follows:

- +GF+
- pipe thread size
- Material

Reducing fittings are marked in the following sequence (Fig. 1):

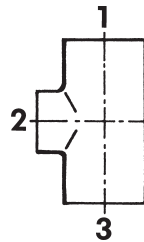


Fig. 1

Angle Marking

PVC fittings for solvent cement jointing from GF Piping Systems are being supplied with a 45° angle marking (Fig. 2).

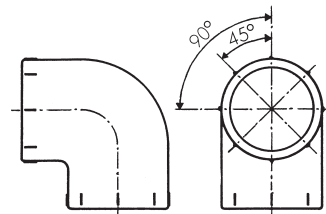


Fig. 2

### Dimensions

All dimensions are given in mm.

### Information Service

For detailed information see our Catalogue «Plastic Piping Systems».

### Quality Mark

The GF Piping Systems PVC-U fittings are tested to the following national standards institutes. The quality and test levels of our PVC-U fittings are constantly inspected by these institutes in our works.

BSI, Kite Mark, England

NF, Marque de qualité, France

KIWA, Netherlands

UNI, Istituto Italiano Plastici, Italy

ÖNORM, Austria Plastics Institute, Austria

DIBT, TÜV Bavaria, Germany

### Orders

Always quote the GF Piping Systems code number when placing orders.

### Ordering example

90° bend 721 000 111

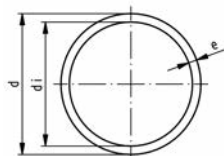
# List of abbreviations

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



## Pipes metric

61 01 71



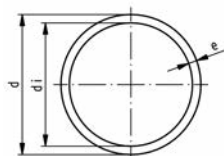
### Pipe PVC-U grey Series S6.3 SDR13.6 nominal pressure PN16

**Model:**

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	Size (NB) [inch]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
12		16	<b>161 017 104</b>	1.0	10.0	0.055
16		16	<b>161 017 105</b>	1.2	13.6	0.090
20		16	<b>161 017 106</b>	1.5	17.0	0.137
25		16	<b>161 017 107</b>	1.9	21.2	0.212
32		16	<b>161 017 108</b>	2.4	27.2	0.342
40		16	<b>161 017 109</b>	3.0	34.0	0.525
50		16	<b>161 017 110</b>	3.7	42.6	0.809
63		16	<b>161 017 111</b>	4.7	53.6	1.290
75	2 ½	16	<b>161 017 112</b>	5.6	58.2	1.820
90		16	<b>161 017 113</b>	6.7	76.6	2.610
110		16	<b>161 017 114</b>	8.1	93.8	3.900
125		16	<b>161 017 115</b>	9.2	106.6	5.010
140	5	16	<b>161 017 116</b>	10.3	119.4	6.270
160		16	<b>161 017 117</b>	11.8	136.4	8.170

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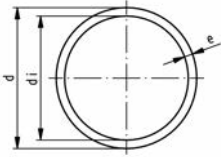
### Pipe PVC-U grey Series S4 SDR9 nominal pressure PN16

**Model:**

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- **Increased wall thickness for industrial use**
- Minimum order quantity: 1 length

d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
6	16	<b>161 017 126</b>	1.0	4.0	0.025
8	16	<b>161 017 127</b>	1.0	6.0	0.035
10	16	<b>161 017 128</b>	1.2	7.6	0.053
12	16	<b>161 017 129</b>	1.4	9.2	0.073
16	16	<b>161 017 130</b>	1.8	12.4	0.123
20	16	<b>161 017 131</b>	2.3	15.4	0.196
25	16	<b>161 017 132</b>	2.8	19.4	0.294
32	16	<b>161 017 133</b>	3.6	24.8	0.482
40	16	<b>161 017 134</b>	4.5	31.0	0.750
50	16	<b>161 017 135</b>	5.6	38.8	1.160
63	16	<b>161 017 136</b>	7.0	49.0	1.820
75	16	<b>161 017 137</b>	8.4	58.2	2.600
90	16	<b>161 017 138</b>	10.0	70.0	3.700
110	16	<b>161 017 139</b>	12.3	85.4	5.560

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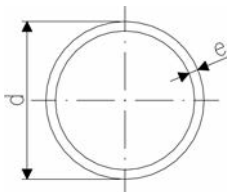


## Pipe PVC-U grey Series S10 SDR21 nominal pressure PN10

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
25	10	161 017 082	1.5	22.0	0.174
32	10	161 017 083	1.8	28.4	0.264
40	10	161 017 084	1.9	36.2	0.350
50	10	161 017 085	2.4	45.2	0.552
63	10	161 017 086	3.0	57.0	0.854
75	10	161 017 087	3.6	67.8	1.220
90	10	161 017 088	4.3	81.4	1.750
110	10	161 017 089	5.3	99.4	2.610
125	10	161 017 090	6.0	113.0	3.340
140	10	161 017 091	6.7	126.6	4.180
160	10	161 017 092	7.6	144.7	5.470
180	10	161 017 093	8.6	162.8	6.880
200	10	161 017 094	9.6	180.8	8.510
225	10	161 017 095	10.8	203.4	10.800
250	10	161 017 096	11.9	226.2	13.200
280	10	161 017 097	13.4	253.2	16.000
315	6	161 017 098	15.0	285.0	20.900

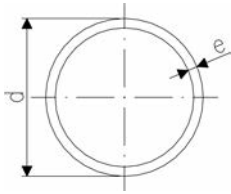


## Pipe PVC-U grey SDR34.3 nominal pressure PN6

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
50	6	161 017 060	1.8	46.4	0.422
63	6	161 017 061	1.9	59.2	0.562
75	6	161 017 062	2.2	70.6	0.782
90	6	161 017 063	2.7	84.6	1.130
110	6	161 017 064	3.2	103.6	1.640
125	6	161 017 065	3.7		
140	6	161 017 066	4.1	131.8	2.650
160	6	161 017 067	4.7	150.6	3.440
180	6	161 017 068	5.3	169.4	4.370
200	6	161 017 069	5.9	188.2	5.370
225	6	161 017 070	6.6	211.6	6.760
250	6	161 017 071	7.3	235.4	8.310
315	6	161 017 072	9.2	296.6	13.200
355	6	161 017 073	10.4	334.2	16.700
400	6	161 017 074	11.7	376.6	21.100

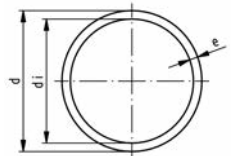


## Pipe PVC-U grey SDR51 nominal pressure PN4

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
75	4	<b>161 017 037</b>	1.8	71.4	0.642
90	4	<b>161 017 038</b>	1.8	86.4	0.774
110	4	<b>161 017 039</b>	2.2	105.6	1.160
125	4	<b>161 017 040</b>	2.5	120.0	1.480
140	4	<b>161 017 041</b>	2.8	134.4	1.840
160	4	<b>161 017 042</b>	3.2	153.6	2.410
180	4	<b>161 017 043</b>	3.6	172.8	3.020
200	4	<b>161 017 044</b>	4.0	192.0	3.700
225	4	<b>161 017 045</b>	4.5	216.0	4.700
250	4	<b>161 017 046</b>	4.9	240.2	5.650
280	4	<b>161 017 047</b>	5.5	269.0	7.110
315	4	<b>161 017 048</b>	6.2	302.6	9.020

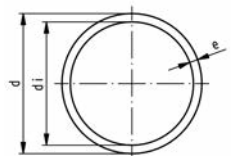


## Pipe PVC-U transparent Series S6.25 SDR13.5 nominal pressure PN16

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: transparent
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- The material used fulfills the requirements of DIN 8061 in all aspects except longterm pressure test
- Minimum order quantity: 1 length

d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
12	16	<b>192 017 104</b>	1.0	10.0	0.055
16	16	<b>192 017 105</b>	1.2	13.6	0.090
20	16	<b>192 017 106</b>	1.5	17.0	0.137
25	16	<b>192 017 107</b>	1.9	21.2	0.212
32	16	<b>192 017 108</b>	2.4	27.2	0.342
40	16	<b>192 017 109</b>	3.0	34.0	0.525
50	16	<b>192 017 110</b>	3.7	42.6	0.809
63	16	<b>192 017 111</b>	4.7	53.6	1.290



## Pipe PVC-U transparent Series S10 SDR21 nominal pressure PN10

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: transparent
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Minimum order quantity: 1 length

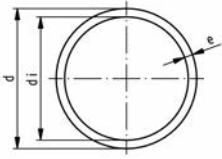
d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
25	10	<b>192 017 082</b>	1.5	22.0	0.174
32	10	<b>192 017 083</b>	1.8	28.4	0.264
40	10	<b>192 017 084</b>	1.9	36.2	0.366
50	10	<b>192 017 085</b>	2.4	45.2	0.552
63	10	<b>192 017 086</b>	3.0	57.0	0.854
75	10	<b>192 017 087</b>	3.6	67.8	1.220
90	10	<b>192 017 088</b>	4.3	81.4	1.750
110	10	<b>192 017 089</b>	5.3	99.4	2.610



## Pipe PVC-U transparent Series S16.7 SDR34.3 nominal pressure PN6

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: transparent
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- The material used fullfills the requirements of DIN 8061 in all aspects except longterm pressure test
- Minimum order quantity: 1 length



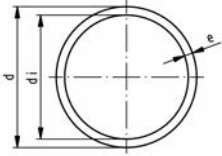
d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
50	6	<b>192 017 060</b>	1.8	46.4	0.422
160	6	<b>192 017 080</b>	4.7	150.6	3.440



## Pipe PVC-U transparent Series S25 SDR51 nominal pressure PN4

### Model:

- Material: PVC-U, Polyvinylchloride unplasticised DIN 8061
- Colour: transparent
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- The material used fullfills the requirements of DIN 8061 in all aspects except longterm pressure test
- Minimum order quantity: 1 length



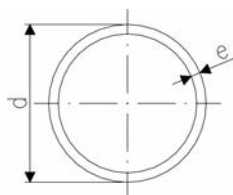
d [mm]	PN	Code	e [mm]	di [mm]	Weight [kg/m]
63	4	<b>192 017 036</b>	1.8	59.4	0.532
75	4	<b>192 017 037</b>	1.8	71.4	0.642
90	4	<b>192 017 038</b>	1.8	86.4	0.774
110	4	<b>192 017 039</b>	2.2	105.6	1.160
125	4	<b>192 017 040</b>	2.5	120.0	1.480
140	4	<b>192 017 041</b>	2.8	134.4	1.840
160	4	<b>192 017 042</b>	3.2	153.6	2.410
200	4	<b>192 017 044</b>	4.0	192.0	3.700
225	4	<b>192 017 045</b>	4.5	216.0	5.650
250	4	<b>192 017 046</b>	4.9	240.2	5.650
280	4	<b>192 017 047</b>	5.5	269.0	7.600

# Pipes Inch BS

## Pipe PVC-U grey class E 15 bar at 20°C



- Material: PVC-U, Polyvinylchloride unplasticised
- Dimensions: BS EN 1452 Part 1 &2 (formerly BS 3505)
- Pipe length: 6m with plain ends
- Minimum order quantity: 1 length

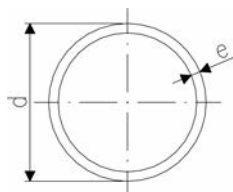


Size (NB) [inch]	PN	Code	kg/m	e [mm]	di [mm]	d [mm]
3/8	15	<b>161 018 080</b>	0.114	1.5	14.1	17.1
1/2	15	<b>161 018 082</b>	0.161	1.7	17.9	21.3
3/4	15	<b>161 018 083</b>	0.225	1.9	22.9	26.7
1	15	<b>161 018 084</b>	0.325	2.2	29.0	33.4
1 1/4	15	<b>161 018 085</b>	0.503	2.7	36.8	42.2
1 1/2	15	<b>161 018 086</b>	0.659	3.1	42.1	48.3
2	15	<b>161 018 087</b>	1.038	3.9	52.5	60.3
2 1/2	16	<b>161 017 112</b>	1.820	5.6	58.2	
3	15	<b>161 018 088</b>	2.245	5.7	77.5	88.9
4	15	<b>161 018 089</b>	3.667	7.3	99.7	114.3
5	16	<b>161 017 116</b>	6.215	10.3	119.4	

## Pipe PVC-U grey class D 12 bar at 20°C



- Material: PVC-U, Polyvinylchloride unplasticised
- Dimensions: BS EN 1452 Part 1 &2 (formerly BS 3505)
- Pipe length: 6m with plain ends
- Minimum order quantity: 1 length

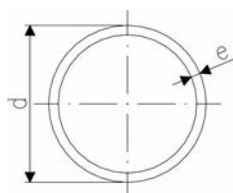


Size (NB) [inch]	PN	Code	kg/m	e [mm]	di [mm]	d [mm]
1 1/4	12	<b>161 018 059</b>	0.420	2.2	37.8	42.2
1 1/2	12	<b>161 018 060</b>	0.550	2.5	43.3	48.3
2	12	<b>161 018 061</b>	0.900	3.1	54.1	60.3
3	12	<b>161 018 063</b>	1.930	4.6	79.7	88.9
4	12	<b>161 018 064</b>	3.230	6	102.3	114.3

## Pipe PVC-U grey class C 9 bar at 20°C



- Material: PVC-U, Polyvinylchloride unplasticised
- Dimensions: BS EN 1452 Part 1 &2 (formerly BS 3505)
- Pipe length: 6m with plain ends
- Minimum order quantity: 1 length

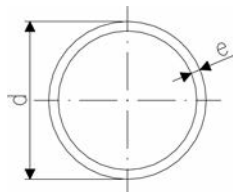


Size (NB) [inch]	PN	Code	kg/m	e [mm]	di [mm]	d [mm]
2	9	<b>161 018 036</b>	0.693	2.5	55.3	60.3
3	9	<b>161 018 038</b>	1.435	3.5	81.9	88.9
4	9	<b>161 018 039</b>	2.360	4.5	105.3	114.3
6	9	<b>161 018 042</b>	5.058	6.6	155.1	168.3
8	9	<b>161 018 045</b>	1.388	7.8	203.5	219.1

## Pipe PVC-U grey class 7 (T) 12 bar at 20°C



- Thick wall pipe to allow for threading
- Material: PVC-U, Polyvinylchloride unplasticised
- Dimensions: BS EN 1452 Part 1 &2 (formerly BS 3505)
- Pipe length: 6m with plain ends
- Minimum order quantity: 1 length



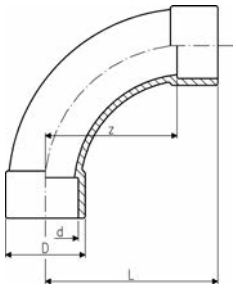
Size (NB) [inch]	PN	Code	kg/m	e [mm]	di [mm]	d [mm]
3/8	12	<b>161 018 255</b>	0.323	3.8	9.5	17.1
1/2	12	<b>161 018 256</b>	0.051	4	13.3	21.3
3/4	12	<b>161 018 257</b>	0.070	4.2	18.3	26.7
1	12	<b>161 018 258</b>	0.103	4.8	23.8	33.4
1 1/4	12	<b>161 018 259</b>	0.143	5.2	31.8	42.2
1 1/2	12	<b>161 018 260</b>	0.175	5.5	37.3	48.3
2	12	<b>161 018 261</b>	1.430	6	48.3	60.3



# Fittings metric

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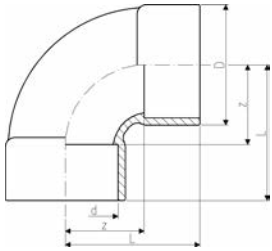
## Bend 90° PVC-U metric



d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20		16	721 000 106	10	0.029	40	27	56
25		16	721 000 107	10	0.049	50	33	69
32		16	721 000 108	10	0.074	64	38	86
40		16	721 000 109	30	0.121	80	47	106
50		16	721 000 110	5	0.298	100	61	131
63		16	721 000 111	17	0.516	126	76	164
75	2 ½	16	721 000 112	5	0.798	150	90	194
90		16	721 000 113	5	1.373	180	108	231
110		16	721 000 114	5	2.699	220	137	281
140	5	16	721 000 116	2	5.204	280	168	356
160		16	721 000 117	1	8.298	320	192	406

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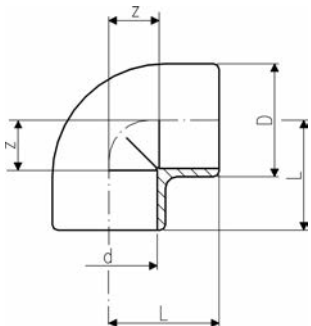
## Bend 90° short pattern PVC-U metric



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
225	10	721 010 120	1	7.554	168	256	287
280	10	721 010 122	1	16.987	210	318	357
315	6	721 010 123	1	21.567	237	356	402
400	6	721 010 125	1	30.000	300	442	521

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## Elbow 90° PVC-U metric



d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
6		16	721 100 101	10	0.004	4	11	16
8		16	721 100 102	10	0.004	5	13	17
10		16	721 100 103	10	0.004	6	14	18
12		16	721 100 104	10	0.006	7	17	19
16		16	721 100 105	10	0.007	9	21	23
20		16	721 100 106	10	0.012	11	25	27
25		16	721 100 107	10	0.024	14	32	33
32		16	721 100 108	10	0.043	17	40	39
40		16	721 100 109	10	0.062	23	47	49
50		16	721 100 110	10	0.106	26	59	57
63		16	721 100 111	10	0.205	33	73	71
75	2 ½	16	721 100 112	5	0.336	40	87	83
90		16	721 100 113	5	0.576	46	105	97
110		16	721 100 114	4	1.009	55	128	116
125		16	721 100 115	1	1.522	63	146	131
140	5	16	721 100 116	4	1.945	70	162	146
160		16	721 100 117	2	2.873	80	185	166
200		10	721 100 119	1	4.446	101	225	207
225		10	721 100 120	1	5.989	114	252	233
250		10	721 100 121	1	10.014	131	282	263

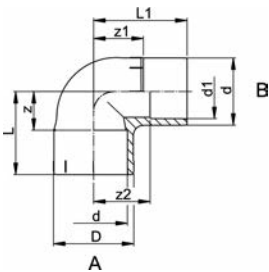
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**PRO-FIT elbow 90° PVC-U metric**



**Model:**

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	721 100 306	10	0.011	11	16	18	25	27	32
25	20	16	721 100 307	10	0.020	14	18	21	31	33	37
32	25	16	721 100 308	10	0.038	17	22	25	38	39	44
40	32	16	721 100 309	10	0.069	23	30	34	47	49	56
50	40	16	721 100 310	10	0.122	26	36	41	58	57	67
63	50	16	721 100 311	10	0.237	33	45	52	73	71	83

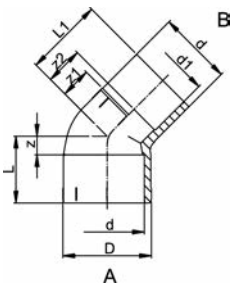
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**PRO-FIT elbow 45° PVC-U metric**



**Model:**

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	721 150 306	10	0.010	5	9	11	25	21	25
25	20	16	721 150 307	10	0.015	6	11	14	31	25	30
32	25	16	721 150 308	10	0.027	8	13	16	38	30	35
40	32	16	721 150 309	5	0.053	10	17	21	47	36	43
50	40	16	721 150 310	5	0.090	12	18	23	58	43	49
63	50	16	721 150 311	5	0.175	14	23	30	73	52	61

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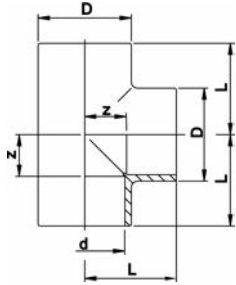
**Elbow 45° PVC-U metric**



d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16		16	721 150 105	10	0.008	5	21	19
20		16	721 150 106	10	0.011	5	25	21
25		16	721 150 107	10	0.017	6	31	25
32		16	721 150 108	10	0.021	8	38	30
40		16	721 150 109	10	0.048	10	47	36
50		16	721 150 110	5	0.086	12	59	43
63		16	721 150 111	5	0.160	14	73	52
75	2 ½	16	721 150 112	5	0.253	17	87	61
90		16	721 150 113	5	0.430	20	105	71
110		16	721 150 114	5	0.750	25	127	86
125		16	721 150 115	1	1.193	28	146	97
140	5	16	721 150 116	1	1.570	32	162	108
160		16	721 150 117	4	2.280	36	185	122
200		10	721 150 119	2	3.288	43	225	149
225		10	721 150 120	1	4.191	49	250	168
250		10	721 150 121	1	7.115	60	282	192
280		10	721 150 122	1	10.340	66	318	213
315		6	721 150 123	1	14.292	74	356	239
400		6	721 150 125	1	25.268	94	442	302

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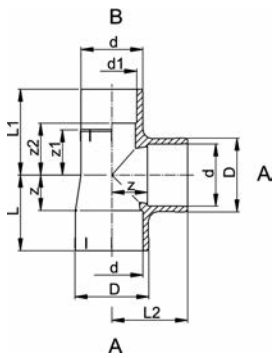
**Tee 90° equal PVC-U metric**



d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
6		16	721 200 101	10	0.004	4	11	16
8		16	721 200 102	10	0.008	5	13	17
10		16	721 200 103	10	0.008	6	16	18
12		16	721 200 104	10	0.011	7	19	19
16		16	721 200 105	10	0.011	9	21	23
20		16	721 200 106	10	0.019	11	25	27
25		16	721 200 107	10	0.029	14	31	33
32		16	721 200 108	10	0.055	17	38	39
40		16	721 200 109	10	0.100	23	48	49
50		16	721 200 110	10	0.156	26	58	57
63		16	721 200 111	10	0.291	33	73	71
75	2 ½	16	721 200 112	5	0.476	39	87	83
90		16	721 200 113	5	0.824	46	105	97
110		16	721 200 114	6	1.411	55	127	116
125		16	721 200 115	2	2.521	66	151	135
140	5	16	721 200 116	1	3.410	71	169	147
160		16	721 200 117	1	4.982	81	193	167
200		10	721 200 119	1	5.868	101	225	207
225		10	721 200 120	1	9.268	114	256	233
250		10	721 200 121	1	14.350	132	282	263
280		10	721 200 122	1	19.541	152	318	298
315		6	721 200 123	1	27.254	168	356	332
400		6	721 200 125	1	35.000	214	442	420

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**PRO-FIT tee 90° equal PVC-U metric**



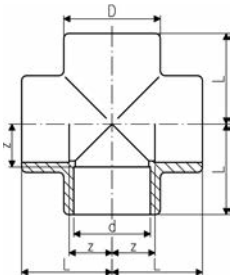
**Model:**

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	16	721 200 306	10	0.017	11	17	19	25	27	33	27
25	20	16	721 200 307	10	0.022	14	19	22	31	33	38	33
32	25	16	721 200 308	10	0.051	17	24	27	38	39	46	39
40	32	16	721 200 309	10	0.098	23	30	34	47	47	56	49
50	40	16	721 200 310	10	0.164	26	36	41	58	57	67	57
63	50	16	721 200 311	10	0.329	33	45	52	73	71	83	71

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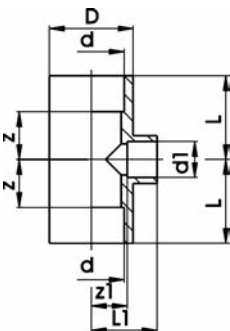
Cross PVC-U metric



d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
10		16	721 300 103	100	0.009	7	16	19
12		16	721 300 104	100	0.010	8	18	20
16		16	721 300 105	100	0.020	10	23	24
20		16	721 300 106	10	0.036	11	29	27
25		16	721 300 107	10	0.054	14	35	33
32		16	721 300 108	10	0.092	17	43	39
40		16	721 300 109	5	0.155	23	52	49
50		16	721 300 110	5	0.259	28	63	59
63		16	721 300 111	5	0.482	34	79	72
75	2 ½	10	721 300 112	3	0.725	40	92	83
90		10	721 300 113	4	1.221	48	106	97
110		10	721 300 114	4	2.111	59	128	117

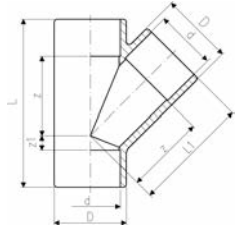
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Tee 90° reducing PVC-U metric



d [mm]	d1 [mm]	PN	d-d [inch]	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
25	20	16	-	721 200 134	10	0.038	14	14	33	33	30
32	20	16	-	721 200 141	10	0.061	17	17	41	39	33
32	25	16	-	721 200 138	10	0.063	17	17	41	39	36
40	20	16	-	721 200 155	10	0.103	23	23	50	49	39
40	25	16	-	721 200 151	10	0.107	23	23	50	49	42
40	32	16	-	721 200 147	10	0.109	23	23	50	49	45
50	20	16	-	721 200 009	5	0.179	28	28	62	59	44
50	25	16	-	721 200 010	5	0.183	28	28	62	59	47
50	32	16	-	721 200 164	5	0.189	28	28	62	59	50
50	40	16	-	721 200 161	5	0.208	28	28	62	59	54
63	25	16	-	721 200 011	10	0.332	35	34	77	73	53
63	32	16	-	721 200 178	5	0.336	35	34	77	73	56
63	40	16	-	721 200 174	5	0.347	35	34	77	73	60
63	50	16	-	721 200 170	5	0.354	35	34	77	73	65
75	32	16	-	721 200 181	9	0.535	40	41	92	84	63
75	40	16	-	721 200 182	9	0.555	40	41	92	84	67
75	50	16	-	721 200 183	8	0.541	40	41	92	84	72
75	63	16	-	721 200 184	8	0.570	40	41	92	84	79
90	32	16	-	721 200 142	6	0.855	46	55	110	97	77
90	50	16	-	721 200 144	6	0.907	46	55	110	97	86
90	63	16	-	721 200 145	5	0.931	46	55	110	97	93
90	75	16	-	721 200 146	5	0.959	46	55	110	97	99
110	32	16	-	721 200 135	3	1.441	56	67	133	117	89
110	50	16	-	721 200 136	3	1.471	56	67	133	117	98
110	63	16	-	721 200 132	3	1.522	56	65	133	117	103
110	75	16	-	721 200 133	3	1.543	56	65	133	117	109
110	90	16	-	721 200 137	3	1.634	56	65	133	117	116
125	50	16	-	721 200 139	4	1.970	64	75	151	133	106
125	90	16	-	721 200 140	4	2.200	64	75	151	133	126
140	50	16	-	721 200 148	1	3.235	72	82	172	148	113
140	75	16	-	721 200 149	1	3.319	72	78	172	148	122
140	110	16	5 - 2 ½	721 200 150	1	3.422	72	74	172	148	135
160	110	16	-	721 200 152	1	4.305	81	81	192	167	142
200	110	10	-	721 200 153	1	8.782	107	131	232	213	192
200	160	10	-	721 200 154	1	8.036	107	106	232	213	192
225	110	10	-	721 200 156	1	10.619	120	143	257	239	204
225	160	10	-	721 200 157	1	9.707	120	119	257	239	205
250	160	10	-	721 200 159	1	14.520	132	151	282	263	237
250	200	10	-	721 200 162	1	12.213	132	131	282	263	237
280	160	10	-	721 200 165	1	18.402	120	180	318	266	266
280	225	10	-	721 200 167	1	16.145	120	148	318	266	268
315	160	6	-	721 200 169	1	22.189	120	197	356	284	283
315	225	6	-	721 200 172	1	20.154	120	165	356	284	284
400	225	6	-	721 200 176	1	40.000	163	258	442	369	377
400	315	6	-	721 200 180	1	35.000	163	213	442	369	377

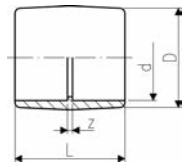
21 25 01



**Tee 45° PVC-U metric**

d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
10		10	721 250 103	100	0.013	18	4	16	46	30
12		10	721 250 104	100	0.014	21	4	18	49	33
16		10	721 250 105	100	0.022	25	5	23	58	39
20		10	721 250 106	10	0.035	30	6	28	68	46
25		10	721 250 107	10	0.056	36	9	33	83	55
32		10	721 250 108	10	0.096	45	10	41	99	67
40		10	721 250 109	10	0.159	56	10	50	118	82
50		10	721 250 110	10	0.265	66	12	60	140	97
63		10	721 250 111	5	0.439	85	14	74	175	123
75	2 ½	6	721 250 112	5	0.816	101	18	91	207	145
90		6	721 250 113	1	1.275	122	20	107	245	173
110		6	721 250 114	3	2.579	149	27	134	298	210
125		6	721 250 115	2	3.616	167	30	147	335	236
140	5	6	721 250 116	1	5.628	190	34	168	376	266
160		6	721 250 117	1	7.187	213	41	190	428	300
200		6	721 250 119	1	12.314	265	48	232	527	372
225		6	721 250 120	1	15.735	296	54	260	590	416
250		6	721 250 121	1	20.350	330	60	286	654	462

21 91 01

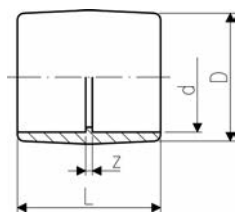


**Socket equal PVC-U metric**

<sup>1</sup> Socket d355 and d400 fabricated from pipe

d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
6		16	721 910 101	10	0.004	3	12	27
8		16	721 910 102	10	0.005	3	14	27
10		16	721 910 103	1	0.004	3	16	27
12		16	721 910 104	1	0.004	3	19	27
16		16	721 910 105	10	0.007	3	22	31
20		16	721 910 106	10	0.011	3	26	35
25		16	721 910 107	10	0.015	3	32	41
32		16	721 910 108	10	0.027	3	39	47
40		16	721 910 109	10	0.045	3	48	55
50		16	721 910 110	10	0.064	3	58	65
63		16	721 910 111	10	0.118	3	73	79
75	2 ½	16	721 910 112	10	0.188	4	87	92
90		16	721 910 113	10	0.328	5	105	107
110		16	721 910 114	5	0.554	6	128	128
125		16	721 910 115	3	0.825	7	142	145
140	5	16	721 910 116	2	1.118	7	162	159
160		16	721 910 117	2	1.540	8	183	180
200		10	721 910 119	3	2.559	9	221	221
225		10	721 910 120	2	3.519	10	253	248
250		10	721 910 121	1	5.394	16	284	284
280		10	721 910 122	1	8.312	16	321	314
315		6	721 910 123	1	10.388	16	356	348
<sup>1</sup> 355		6	721 910 124	-	10.706	68	377	454
<sup>1</sup> 400		6	721 910 125	-	11.326	73	425	505

52 91 01

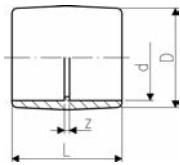


**Socket equal PVC-U transparent metric**

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	752 910 105	10	0.009	3	23	31
20	16	752 910 106	1	0.012	3	27	35
25	16	752 910 107	1	0.016	3	32	41
32	16	752 910 108	1	0.027	3	40	47
40	16	752 910 109	1	0.061	3	52	55
50	16	752 910 110	1	0.068	3	60	65
63	16	752 910 111	5	0.115	3	75	79



## 21 91 31



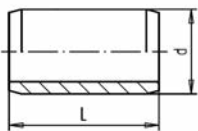
## Adaptor socket PVC-U metric Inch/BS

### Model:

- With solvent cement sockets metric and BS inch

d [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	3/8	16	<b>721 913 105</b>	10	0.010	5	23	35
20	1/2	16	<b>721 913 106</b>	10	0.012	5	27	38
25	3/4	16	<b>721 913 107</b>	10	0.020	5	33	45
32	1	16	<b>721 913 108</b>	10	0.031	5	41	51
40	1 1/4	16	<b>721 913 109</b>	10	0.054	5	51	60
50	1 1/2	16	<b>721 913 110</b>	10	0.074	4	59	65
63	2	16	<b>721 913 111</b>	5	0.155	5	75	79
90	3	16	<b>721 913 113</b>	10	0.340	6	104	108
110	4	16	<b>721 913 115</b>	5	0.488	4	128	128

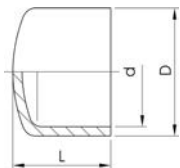
## 21 90 09



## Barrel nipple PVC-U metric

d [mm]	d [inch]	PN	Code	SP	kg	L [mm]
16		16	<b>721 900 905</b>	-	0.002	28
20		16	<b>721 900 906</b>	-	0.005	32
25		16	<b>721 900 907</b>	-	0.009	38
32		16	<b>721 900 908</b>	-	0.015	44
40		16	<b>721 900 909</b>	-	0.027	52
50		16	<b>721 900 910</b>	-	0.050	62
63		16	<b>721 900 911</b>	-	0.092	76
75	2 1/2	16	<b>721 900 912</b>	-	0.156	88
90		16	<b>721 900 913</b>	-	0.260	102
110		16	<b>721 900 914</b>	-	0.455	122
125		16	<b>721 900 915</b>	-	0.673	138
140	5	16	<b>721 900 916</b>	-	0.932	152
160		16	<b>721 900 917</b>	-	1.565	192
200		10	<b>721 900 919</b>	-	1.779	212
225		10	<b>721 900 920</b>	-	2.566	238

## 21 96 01

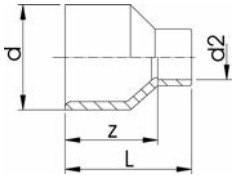


## Cap PVC-U metric

d [mm]	d [inch]	PN	Code	SP	kg	D [mm]	L [mm]
12		16	<b>721 960 104</b>	10	0.004	19	15
16		16	<b>721 960 105</b>	10	0.005	23	21
20		16	<b>721 960 106</b>	10	0.008	27	24
25		16	<b>721 960 107</b>	10	0.013	33	28
32		16	<b>721 960 108</b>	10	0.020	40	32
40		16	<b>721 960 109</b>	10	0.029	47	38
50		16	<b>721 960 110</b>	10	0.051	59	45
63		16	<b>721 960 111</b>	5	0.095	74	56
75	2 1/2	16	<b>721 960 112</b>	5	0.152	87	65
90		16	<b>721 960 113</b>	5	0.269	105	77
110		16	<b>721 960 114</b>	12	0.457	128	94
140	5	10	<b>721 960 116</b>	10	1.036	164	92
160		10	<b>721 960 117</b>	2	1.534	188	130
200		10	<b>721 960 119</b>	3	2.614	230	170
225		10	<b>721 960 120</b>	2	3.320	257	185
280		10	<b>721 960 122</b>	1	6.200	318	230
315		6	<b>721 960 123</b>	1	8.500	356	255

## 21 91 03

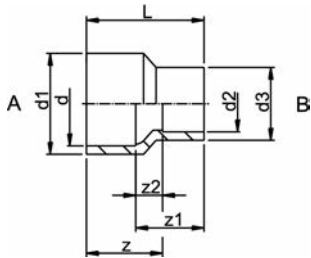
## Reducing bush long PVC-U metric



d [mm]	d2 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
8	6	16	721 910 323	10	0.003	15	27
10	6	16	721 910 326	10	0.003	15	27
10	8	16	721 910 325	10	0.003	15	27
20	16	16	721 910 334	10	0.009	21	35
25	20	16	721 910 337	10	0.015	25	41
32	25	16	721 910 341	10	0.024	30	49
40	32	16	721 910 346	10	0.044	36	58
50	40	16	721 910 352	10	0.074	44	70
63	50	16	721 910 358	5	0.148	54	85
75	63	16	721 910 364	5	0.211	62	100
90	75	16	721 910 370	5	0.335	74	118
140	110	16	721 910 385	2	0.808	111	172

## 21 91 09

## PRO-FIT reducing bush PVC-U metric



### Model:

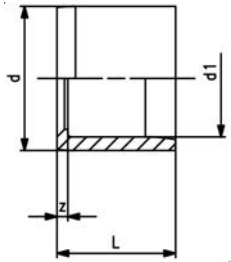
- Outlet: A and B = Solvent cemented spigot in combination with reducing socket metric

d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	L [mm]
10	14	8	12	16	721 910 903	10	0.003	15	15	3	27
12	16	8	12	16	721 910 905	10	0.004	18	18	6	30
12	16	10	16	16	721 910 906	10	0.004	18	18	6	30
16	20	10	16	16	721 910 908	10	0.003	21	19	7	33
16	20	12	16	16	721 910 909	10	0.004	21	19	7	33
20	25	12	16	16	721 910 910	10	0.008	25	21	9	37
20	25	16	20	16	721 910 911	10	0.008	25	23	9	39
25	32	12	16	16	721 910 912	10	0.014	30	23	11	42
25	32	16	20	16	721 910 913	10	0.015	30	26	12	44
25	32	20	25	16	721 910 914	10	0.017	30	27	11	46
32	40	16	20	16	721 910 915	10	0.025	36	28	14	50
32	40	20	25	16	721 910 916	10	0.026	36	30	14	52
32	40	25	32	16	721 910 917	10	0.031	36	33	14	55
40	50	20	25	16	721 910 918	10	0.045	44	34	18	60
40	50	25	32	16	721 910 919	10	0.052	44	37	18	63
40	50	32	40	16	721 910 920	10	0.058	44	40	18	66
50	63	25	32	16	721 910 921	5	0.092	54	42	23	73
50	63	32	40	16	721 910 922	5	0.098	54	45	23	76
50	63	40	50	16	721 910 923	5	0.111	54	49	23	80
63	75	32	40	16	721 910 924	5	0.127	62	46	24	84
63	75	40	50	16	721 910 925	50	0.139	62	50	24	88
63	75	50	63	16	721 910 926	1	0.167	62	55	24	93
75	90	40	50	16	721 910 927	10	0.224	74	56	30	100
75	90	50	63	16	721 910 928	10	0.253	74	61	30	105
75	90	63	75	16	721 910 929	10	0.265	74	68	30	112

21 90 03

**Reducing bush short PVC-U metric****Model:**

- With solvent cement spigot and socket metric



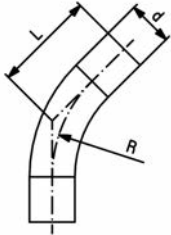
d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
* 12	8	16	<b>721 900 329</b>	1	0.002	2	14
* 16	12	16	<b>721 900 331</b>	10	0.002	2	14
* 20	16	16	<b>721 900 334</b>	10	0.002	2	16
* 25	20	16	<b>721 900 337</b>	10	0.004	3	19
* 32	20	16	<b>721 900 342</b>	10	0.014	6	22
* 32	25	16	<b>721 900 341</b>	10	0.009	3	22
40	20	16	<b>721 900 348</b>	10	0.021	10	26
40	25	16	<b>721 900 347</b>	10	0.021	7	26
* 40	32	16	<b>721 900 346</b>	10	0.016	4	26
50	20	16	<b>721 900 355</b>	10	0.037	15	31
50	25	16	<b>721 900 354</b>	10	0.034	12	31
50	32	16	<b>721 900 353</b>	10	0.036	9	31
* 50	40	16	<b>721 900 352</b>	10	0.030	5	31
63	32	16	<b>721 900 360</b>	10	0.064	16	38
63	40	16	<b>721 900 359</b>	10	0.067	12	38
* 63	50	16	<b>721 900 358</b>	10	0.058	7	38
75	50	16	<b>721 900 365</b>	10	0.109	13	44
* 75	63	16	<b>721 900 364</b>	10	0.078	6	44
90	50	16	<b>721 900 372</b>	10	0.181	20	51
90	63	16	<b>721 900 371</b>	10	0.183	13	51
* 90	75	16	<b>721 900 370</b>	10	0.135	7	51
110	50	16	<b>721 900 379</b>	5	0.316	30	61
110	63	16	<b>721 900 378</b>	5	0.308	23	61
110	75	16	<b>721 900 377</b>	20	0.295	17	61
* 110	90	16	<b>721 900 376</b>	5	0.259	10	61
125	90	16	<b>721 900 381</b>	5	0.465	18	69
* 125	110	16	<b>721 900 380</b>	5	0.267	8	69
140	90	16	<b>721 900 386</b>	5	0.562	25	76
* 140	110	16	<b>721 900 385</b>	5	0.605	15	76
* 140	125	16	<b>721 900 384</b>	5	0.331	7	76
160	90	16	<b>721 900 391</b>	5	0.751	35	86
160	110	16	<b>721 900 390</b>	5	0.883	25	86
* 160	140	16	<b>721 900 388</b>	5	0.551	10	86
200	110	10	<b>721 900 393</b>	3	1.985	45	108
200	125	10	<b>721 900 325</b>	3	2.024	37	108
200	140	10	<b>721 900 394</b>	3	1.928	29	108
200	160	10	<b>721 900 392</b>	2	1.085	20	108
225	110	10	<b>721 900 397</b>	4	2.544	57	120
225	125	10	<b>721 900 399</b>	4	2.563	49	120
225	140	10	<b>721 900 398</b>	4	2.609	41	120
225	160	10	<b>721 900 396</b>	2	2.199	31	119
* 225	200	10	<b>721 900 181</b>	4	1.360	13	119
250	125	10	<b>721 900 326</b>	4	3.150	11	133
250	140	10	<b>721 900 300</b>	4	3.200	54	133
250	160	10	<b>721 900 301</b>	4	3.390	44	133
* 250	200	10	<b>721 900 302</b>	4	3.198	24	133
* 250	225	10	<b>721 900 303</b>	4	1.686	11	133
280	140	10	<b>721 900 307</b>	1	4.157	69	148
280	160	10	<b>721 900 308</b>	1	4.170	60	148
280	200	10	<b>721 900 304</b>	1	4.577	39	148
* 280	225	10	<b>721 900 305</b>	1	4.409	27	146
* 280	250	10	<b>721 900 306</b>	1	2.515	14	148
315	160	6	<b>721 900 313</b>	1	5.188	77	166
315	200	6	<b>721 900 309</b>	1	5.480	57	166
315	225	6	<b>721 900 310</b>	1	5.968	44	166
315	250	6	<b>721 900 311</b>	1	6.481	32	166
315	280	6	<b>721 900 312</b>	1	4.055	28	167
355	315	6	<b>721 900 315</b>	1	5.792	23	206
400	250	6	<b>721 900 319</b>	1	11.528	60	206
400	280	6	<b>721 900 320</b>	1	11.366	60	206
400	315	6	<b>721 900 321</b>	1	13.006	42	206
* 400	355	6	<b>721 900 322</b>	1	7.524	22	206

# Fittings Inch BS

21 15 11

## Long radius bend 45° PVC-U Inch BS

Other angles and sizes are available on request

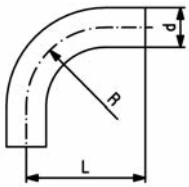


d [inch]	PN	Code	kg	R [mm]	L [mm]
1/2	15	<b>721 151 176</b>	0.175	51	50
3/4	15	<b>721 151 177</b>	0.321	76	63
1	15	<b>721 151 178</b>	0.508	102	75
1 1/4	15	<b>721 151 179</b>	0.103	127	100
1 1/2	15	<b>721 151 180</b>	0.152	152	112
2	15	<b>721 151 181</b>	0.328	203	150
2 1/2	15	<b>721 151 182</b>	1.444	255	200
3	15	<b>721 151 183</b>	1.125	305	238
4	15	<b>721 151 184</b>	2.202	406	301
6	9	<b>721 151 185</b>	10.260	610	451

21 00 16

## Long radius bend 90° PVC-U Inch BS

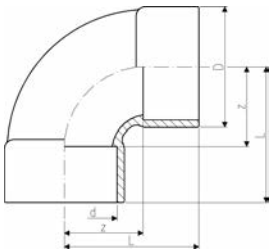
Other angles and sizes are available on request



d [inch]	PN	Code	kg	R [mm]	L [mm]
1/2	15	<b>721 001 656</b>	0.029	51	71
3/4	15	<b>721 001 657</b>	0.046	76	108
1	15	<b>721 001 658</b>	0.073	102	133
1 1/4	15	<b>721 001 659</b>	0.143	127	170
1 1/2	15	<b>721 001 660</b>	0.220	152	201
2	15	<b>721 001 661</b>	0.480	203	272
2 1/2	15	<b>721 001 662</b>	1.444	255	340
3	15	<b>721 001 663</b>	1.500	305	402
4	15	<b>721 001 664</b>	3.146	406	544
6	9	<b>721 001 665</b>	12.825	610	817

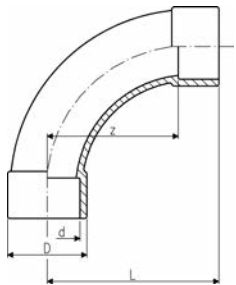
21 01 11

## Bend 90° short pattern PVC-U Inch BS



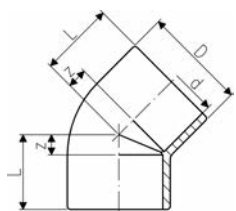
d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
8	9	<b>721 011 120</b>	1	8.297	168	256	287

21 00 11

**Bend 90° PVC-U Inch BS**

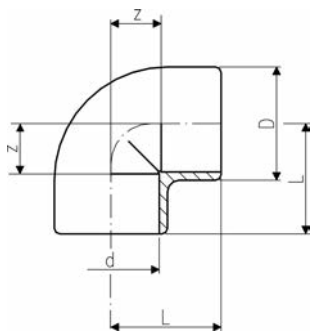
d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
½	15	721 001 106	10	0.026	40	29	58
¾	15	721 001 107	10	0.047	50	35	71
1	15	721 001 108	10	0.069	64	43	88
1 ¼	15	721 001 109	5	0.206	80	54	109
1 ½	15	721 001 110	5	0.312	100	64	131
2	15	721 001 111	5	0.556	126	76	163
2 ½	16	721 000 112	5	0.798	150	90	194
3	15	721 001 113	5	1.763	180	113	231
4	15	721 001 115	2	7.448	220	137	284
5	16	721 000 116	2	5.204	280	168	356
6	15	721 001 117	1	7.700	320	201	411

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**Elbow 45° PVC-U Inch BS**

d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
¾	15	721 151 105	10	0.008	4	22	19
½	15	721 151 106	10	0.012	5	27	21
¾	15	721 151 107	10	0.020	6	33	25
1	15	721 151 108	10	0.037	8	41	30
1 ¼	15	721 151 109	10	0.060	10	51	37
1 ½	15	721 151 110	5	0.089	11	58	41
2	15	721 151 111	5	0.137	14	72	50
2 ½	16	721 150 112	5	0.253	17	87	61
3	15	721 151 113	5	0.534	20	107	70
4	15	721 151 115	10	0.957	25	134	89
5	16	721 150 116	1	1.570	32	162	108
6	15	721 151 117	2	2.900	38	198	129
8	9	721 151 120	1	5.214	52	250	168

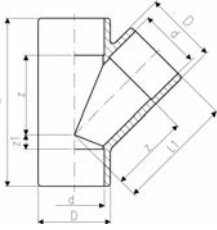
21 10 11

**Elbow 90° PVC-U Inch BS**

d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
¾	15	721 101 105	10	0.016	10	24	25
½	15	721 101 106	10	0.022	13	27	30
¾	15	721 101 107	10	0.025	14	33	34
1	15	721 101 108	10	0.038	17	40	39
1 ¼	15	721 101 109	10	0.079	22	51	49
1 ½	15	721 101 110	10	0.116	26	58	56
2	15	721 101 111	1	0.215	32	72	68
2 ½	16	721 100 112	5	0.336	40	87	83
3	15	721 101 113	5	0.606	46	107	97
4	15	721 101 115	6	1.343	59	137	122
5	16	721 100 116	4	1.945	70	162	146
6	15	721 101 117	1	4.121	86	201	176

21 25 11

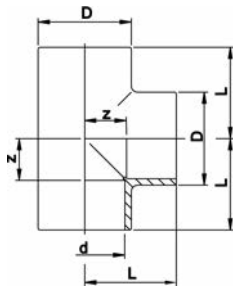
**Tee 45° PVC-U Inch BS**



d [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
1/2	9	<b>721 251 106</b>	10	0.035	30	6	28	68	46
3/4	9	<b>721 251 107</b>	10	0.052	35	8	33	83	55
1	9	<b>721 251 108</b>	10	0.090	43	8	41	99	67
1 1/4	9	<b>721 251 109</b>	10	0.145	55	9	50	118	82
1 1/2	9	<b>721 251 110</b>	10	0.274	67	13	60	140	97
2	9	<b>721 251 111</b>	10	0.476	87	16	74	175	123
2 1/2	6	<b>721 250 112</b>	5	0.816	101	18	91	207	145
3	6	<b>721 251 113</b>	1	1.324	122	20	107	245	173
4	6	<b>721 251 115</b>	3	2.403	147	25	134	298	210
5	6	<b>721 250 116</b>	1	5.628	190	34	168	376	266

21 20 11

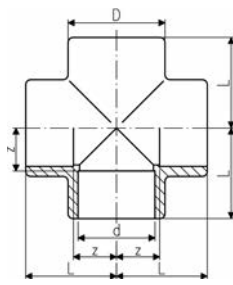
**Tee 90° equal PVC-U Inch BS**



d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
3/8	15	<b>721 201 105</b>	10	0.018	10	25	25
1/2	15	<b>721 201 106</b>	10	0.036	13	30	30
3/4	15	<b>721 201 107</b>	10	0.051	16	35	37
1	15	<b>721 201 108</b>	10	0.079	19	43	43
1 1/4	15	<b>721 201 109</b>	10	0.105	22	50	51
1 1/2	15	<b>721 201 110</b>	5	0.157	26	57	56
2	15	<b>721 201 111</b>	5	0.294	32	72	68
2 1/2	16	<b>721 200 112</b>	5	0.476	39	87	83
3	15	<b>721 201 113</b>	5	0.847	46	107	97
4	15	<b>721 201 115</b>	8	2.002	59	138	122
5	16	<b>721 200 116</b>	1	3.410	71	169	147
6	15	<b>721 201 117</b>	1	5.521	86	202	176
8	9	<b>721 201 120</b>	1	10.742	114	256	233

21 30 11

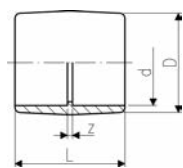
**Cross PVC-U Inch BS**



d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
3/4	12	<b>721 301 107</b>	10	0.050	14	36	33
1	12	<b>721 301 108</b>	10	0.081	17	44	39
1 1/4	12	<b>721 301 109</b>	5	0.130	22	53	49
1 1/2	12	<b>721 301 110</b>	5	0.299	30	64	60
2	12	<b>721 301 111</b>	5	0.556	37	80	74
2 1/2	10	<b>721 300 112</b>	3	0.725	40	92	83

21 91 11

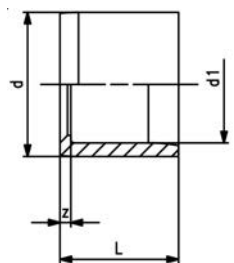
Socket equal PVC-U Inch BS



d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
3/8	15	721 911 105	10	0.007	3	23	32
1/2	15	721 911 106	10	0.011	3	27	36
3/4	15	721 911 107	10	0.018	3	33	45
1	15	721 911 108	10	0.029	3	41	51
1 1/4	15	721 911 109	10	0.048	3	51	57
1 1/2	15	721 911 110	10	0.070	3	58	63
2	15	721 911 111	5	0.128	3	72	77
2 1/2	16	721 910 112	10	0.188	4	87	92
3	15	721 911 113	10	0.350	7	104	107
4	15	721 911 115	15	0.606	8	134	135
5	16	721 910 116	2	1.118	7	162	159
6	15	721 911 117	2	1.800	11	197	192
8	9	721 911 120	1	4.140	10	253	248

21 91 13

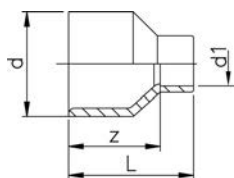
Reducing bush short pattern PVC-U Inch BS



d [inch]	d1 [inch]	PN	Code Code	SP	kg	z [mm]	L [mm]
* 1/2	3/8	15	721 901 334	10	0.003	2	18
* 3/4	3/8	15	721 901 338	10	0.013	5	21
* 3/4	1/2	15	721 901 337	10	0.006	3	21
1	3/8	15	721 901 343	10	0.013	8	24
* 1	1/2	15	721 901 342	10	0.015	6	24
* 1	3/4	15	721 901 341	10	0.010	3	24
1 1/4	3/8	15	721 901 349	10	0.024	13	29
1 1/4	1/2	15	721 901 348	10	0.023	11	29
1 1/4	3/4	15	721 901 347	10	0.025	8	29
* 1 1/4	1	15	721 901 346	10	0.018	5	29
1 1/2	1/2	15	721 901 355	10	0.033	13	30
1 1/2	3/4	15	721 901 354	10	0.034	10	30
* 1 1/2	1	15	721 901 353	10	0.038	6	30
* 1 1/2	1 1/4	15	721 901 352	10	0.018	2	30
2	3/4	15	721 901 361	10	0.060	16	37
2	1	15	721 901 360	10	0.063	13	37
* 2	1 1/4	15	721 901 359	10	0.070	8	37
* 2	1 1/2	15	721 901 358	10	0.051	6	37
* 2 1/2	2	15	721 901 364	10	0.094	8	45
3	1	15	721 901 374	10	0.178	3	50
3	1 1/2	15	721 901 372	10	0.176	3	50
3	2	15	721 901 371	10	0.178	3	50
* 3	2 1/2	15	721 901 370	10	0.124	6	51
* 4	3	15	721 901 381	20	0.340	13	64
* 5	4	15	721 901 384	12	0.530	13	76
* 6	5	15	721 901 388	5	0.830	15	91
8	6	9	721 901 396	2	1.769	33	119

21 91 13

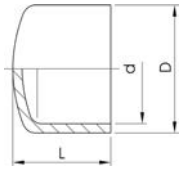
Reducing bush long pattern PVC-U Inch BS



d [inch]	d1 [inch]	PN	Code	SP	kg	z [mm]	L [mm]
5	3	15	721 911 386	10	0.730	111	162
6	4	15	721 911 389	6	1.312	133	197



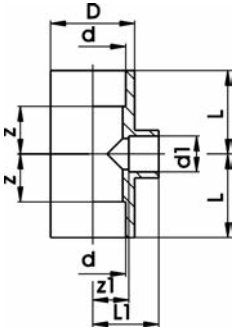
21 96 11



## Cap PVC-U Inch BS

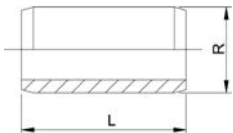
d [inch]	PN	Code	SP	kg	D [mm]	L [mm]
3/8	15	<b>721 961 105</b>	10	0.007	26	23
1/2	15	<b>721 961 106</b>	10	0.009	30	25
3/4	15	<b>721 961 107</b>	10	0.016	37	30
1	15	<b>721 961 108</b>	10	0.025	44	34
1 1/4	15	<b>721 961 109</b>	10	0.038	55	41
1 1/2	15	<b>721 961 110</b>	80	0.071	62	44
2	15	<b>721 961 111</b>	10	0.133	78	54
2 1/2	16	<b>721 960 112</b>	5	0.152	87	65
3	15	<b>721 961 113</b>	10	0.323	112	77
4	15	<b>721 962 115</b>	5	0.762	145	101
5	10	<b>721 960 116</b>	10	1.036	164	92

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## Tee 90° reducing Inch BS

d-d [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
3/4 - 1/2	15	<b>721 201 134</b>	10	0.034	14	14	33	33	30
1 - 1/2	15	<b>721 201 141</b>	10	0.056	17	17	41	39	33
1 - 3/4	15	<b>721 201 138</b>	10	0.058	17	17	41	39	36
1 1/4 - 3/4	15	<b>721 201 151</b>	-	0.132	22	22	50	49	42
1 1/4 - 1	15	<b>721 201 147</b>	-	0.128	29	28	62	59	44
1 1/2 - 1/2	15	<b>721 201 009</b>	5	0.206	29	28	62	59	50
1 1/2 - 3/4	15	<b>721 201 010</b>	-	0.185	37	34	77	73	53
1 1/2 - 1	15	<b>721 201 164</b>	20	0.211	37	34	77	73	56
2 - 3/4	15	<b>721 201 011</b>	10	0.385	37	32	77	73	53
2 - 1	15	<b>721 201 178</b>	5	0.380	37	32	77	73	56
2 - 1 1/2	15	<b>721 201 170</b>	-	0.511	38	32	73	68	68
4 - 3	15	<b>721 201 137</b>	-	1.990	72	59	138	122	122
5 - 2 1/2	16	<b>721 200 149</b>	1	3.319	72	78	172	148	122



## Barrel nipple PVC-U Inch BS

### Model:

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

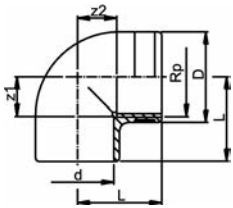
d [inch]	PN	Code	SP	kg	L [mm]
3/8	16	<b>721 901 905</b>	-	0.002	29
1/2	16	<b>721 901 906</b>	-	0.004	33
3/4	16	<b>721 901 907</b>	-	0.008	39
1	16	<b>721 901 908</b>	-	0.015	45
1 1/4	16	<b>721 901 909</b>	-	0.027	54
1 1/2	16	<b>721 901 910</b>	-	0.050	60
2	16	<b>721 901 911</b>	-	0.098	72
2 1/2	16	<b>721 900 912</b>	-	0.156	88
3	16	<b>721 901 913</b>	-	0.226	101
4	16	<b>721 901 914</b>	-	0.476	126
5	16	<b>721 900 916</b>	-	0.932	152



# Adaptor fittings metric

21 10 02

## Elbow 90° PVC-U metric Rp



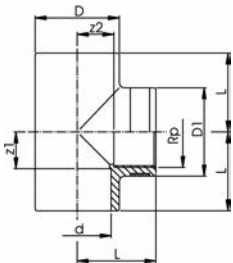
**Model:**

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

d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
12	1/4	16	721 100 204	10	0.010	7	7	20	19
16	3/8	16	721 100 205	10	0.015	9	9	25	23
20	1/2	16	721 100 206	10	0.023	13	11	30	27
25	3/4	16	721 100 207	10	0.035	16	15	35	33
32	1	16	721 100 208	10	0.060	19	19	45	39
40	1 1/4	16	721 100 209	10	0.122	23	27	55	50
50	1 1/2	16	721 100 210	5	0.187	27	36	62	58
63	2	16	721 100 211	10	0.324	33	46	75	73

21 20 02

## Tee 90° PVC-U metric Rp



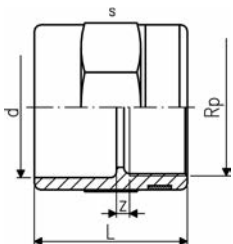
**Model:**

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

d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	D1 [mm]	L [mm]
12	1/4	16	721 200 204	10	0.015	7	7	17	20	19
16	3/8	16	721 200 205	10	0.027	9	9	21	25	23
20	1/2	16	721 200 206	10	0.029	11	13	26	30	29
25	3/4	16	721 200 207	10	0.043	14	15	32	35	33
32	1	16	721 200 208	10	0.080	17	19	40	45	39
40	1 1/4	16	721 200 209	10	0.134	23	26	47	55	49
50	1 1/2	16	721 200 210	5	0.212	27	36	59	59	59
63	2	16	721 200 211	5	0.379	33	46	74	75	71

21 91 02

## Adaptor socket PVC-U metric Rp

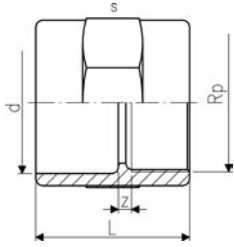


**Model:**

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

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
12	1/4	16	721 910 204	10	0.010	4	27	22
16	3/8	16	721 910 205	10	0.016	5	31	27
20	1/2	16	721 910 206	10	0.025	5	36	32
25	3/4	16	721 910 207	10	0.032	5	40	36
32	1	16	721 910 208	10	0.057	5	45	46
40	1 1/4	16	721 910 209	10	0.087	5	51	55
50	1 1/2	16	721 910 210	10	0.126	7	59	65
63	2	16	721 910 211	5	0.206	7	69	80

## 21 91 60



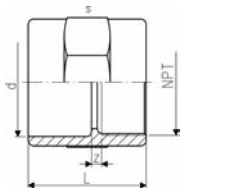
## Adaptor socket PVC-U metric Rp

### Model:

- With solvent cement socket metric and parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
75	2 ½	10	<b>721 916 012</b>	10	0.220	7	82	90
90	3	10	<b>721 916 013</b>	5	0.365	9	94	110
110	4	10	<b>721 916 014</b>	5	0.536	9	110	130

## 21 91 42



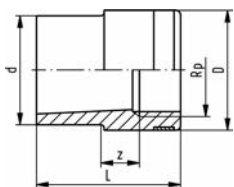
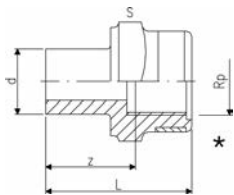
## Adaptor socket PVC-U metric NPT

### Model:

- With solvent cement socket metric and NPT (ASTM) taper female thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
20	½	10	<b>721 914 206</b>	10	0.021	5	35	32
25	¾	10	<b>721 914 207</b>	10	0.028	6	40	36
32	1	10	<b>721 914 208</b>	10	0.049	6	45	46
40	1 ¼	10	<b>721 914 209</b>	10	0.076	6	51	55
50	1 ½	10	<b>721 914 210</b>	10	0.110	10	59	65
63	2	10	<b>721 914 211</b>	5	0.175	10	69	80

## 21 91 04



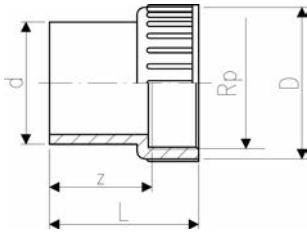
## Reducing bush PVC-U metric Rp

### Model:

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

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	s [mm]
* 12	¼	16	<b>721 910 404</b>	10	0.008	0	20	27	22
20	¾	16	<b>721 910 434</b>	10	0.014	7	25	35	
25	½	16	<b>721 910 437</b>	10	0.021	7	30	41	
32	¾	16	<b>721 910 441</b>	10	0.032	15	35	48	
40	1	16	<b>721 910 446</b>	10	0.058	20	45	56	
50	1 ¼	16	<b>721 910 452</b>	10	0.097	20	55	66	
63	1 ½	16	<b>721 910 458</b>	5	0.151	10	62	77	

## 21 90 04



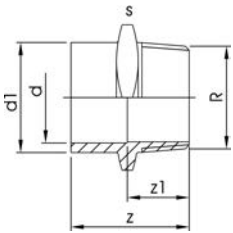
## Adaptor bush equal PVC-U metric Rp

### Model:

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

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	1/2	10	721 900 406	10	0.012	22	28	37
25	3/4	10	721 900 407	10	0.018	25	34	41
32	1	10	721 900 408	10	0.035	29	42	48
40	1 1/4	10	721 900 409	10	0.063	34	52	56
50	1 1/2	10	721 900 410	10	0.097	40	62	61
63	2	10	721 900 411	5	0.170	49	77	74

## 21 91 05



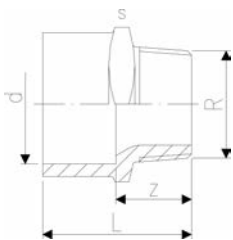
## Adaptor socket nipple PVC-U metric R

### Model:

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

d [mm]	d1 [mm]	R [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	s [mm]
12	16	3/8	16	721 910 555	10	0.010	35	23	27
16	20	1/2	16	721 910 556	10	0.016	42	28	32
20	25	3/4	16	721 910 557	10	0.023	47	31	36
25	32	1	16	721 910 558	10	0.040	54	35	46
32	40	1 1/4	16	721 910 559	10	0.061	60	38	55
40	50	1 1/2	16	721 910 560	10	0.094	66	40	65
50	63	2	16	721 910 561	5	0.164	78	47	80

## 21 91 07



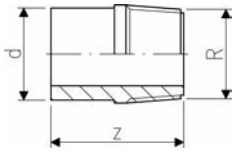
## Adaptor bush equal PVC-U metric R

### Model:

- With solvent cement socket metric and taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	d [inch]	Code	SP	kg	z [mm]	L [mm]	s [mm]
16	3/8	16	3/8	721 910 705	10	0.011	20	34	27
20	1/2	16	1/2	721 910 706	10	0.018	24	40	32
25	3/4	16	3/4	721 910 707	10	0.025	25	44	36
32	1	16	1	721 910 708	10	0.039	28	50	46
40	1 1/4	16	1 1/4	721 910 709	10	0.061	31	57	55
50	1 1/2	16	1 1/2	721 910 710	10	0.092	32	63	65
63	2	16	2	721 910 711	5	0.161	38	76	80
75	2 1/2	10	2 1/2	721 910 712	5	0.227	42	86	90
90	3	10	3	721 910 713	5	0.389	46	97	110
110	4	10	4	721 910 714	5	0.572	53	114	130

21 91 35



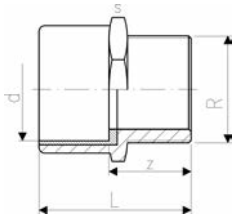
## Adaptor nipple PVC-U metric R

**Model:**

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

d [mm]	R [inch]	PN	Code	SP	kg	z [mm]		
16	3/8	10	721 913 505	10	0.006	31		
20	1/2	10	721 913 506	10	0.010	35		
25	3/4	10	721 913 507	10	0.017	40		
32	1	10	721 913 508	10	0.026	46		

20 91 07



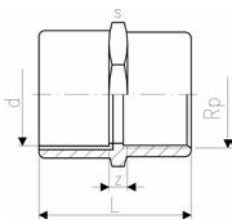
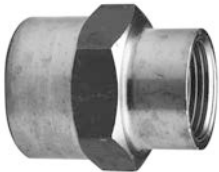
## Adaptor socket brass/PVC-U metric R

**Model:**

- Brass with taper male thread R and PVC-U solvent cement socket insert, metric
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]		
40	1 1/4	16	720 910 709	1	0.437	36	64	58		
50	1 1/2	16	720 910 710	1	0.671	38	72	70		
63	2	16	720 910 711	1	1.035	43	84	85		

20 91 02



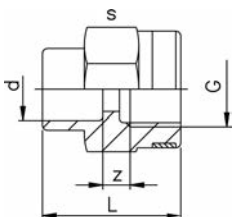
## Adaptor socket brass/PVC-U metric Rp

**Model:**

- Brass with parallel female thread Rp and PVC-U solvent cement socket insert, metric
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]		
40	1 1/4	16	720 910 209	1	0.482	17	66	58		
50	1 1/2	16	720 910 210	1	0.737	19	74	70		
63	2	16	720 910 211	1	1.130	19	86	83		

21 91 62



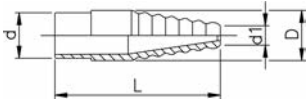
## Manometer adaptor sockets PVC-U metric G

**Model:**

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

d [mm]	G [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]		
12	1/4	16	721 916 204	10	0.010	4	27	22		
16	1/2	16	721 916 206	10	0.026	7	36	32		

## 21 96 03



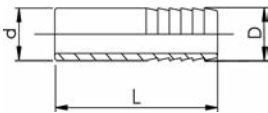
## Hose connector PVC-U metric

### Model:

- With solvent cement spigot metric and tapered hose connection

d [mm]	PN	Code	SP	kg	d1 [mm]	D [mm]	L [mm]
10	16	<b>721 960 303</b>	10	0.004	6	12	51
12	16	<b>721 960 304</b>	10	0.004	6	12	51
16	16	<b>721 960 305</b>	10	0.007	8	16	57
20	16	<b>721 960 306</b>	10	0.016	11	22	73

## 21 96 04



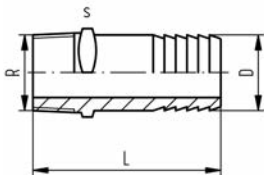
## Hose connector PVC-U metric

### Model:

- With solvent cement spigot metric and parallel hose connection

d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
10	16	<b>721 960 403</b>	10	0.002	8	47
12	16	<b>721 960 404</b>	10	0.003	12	51
16	16	<b>721 960 405</b>	10	0.008	16	57
20	16	<b>721 960 406</b>	10	0.016	20	73
25	16	<b>721 960 407</b>	10	0.021	25	79
32	16	<b>721 960 408</b>	10	0.035	30	89
40	16	<b>721 960 409</b>	5	0.060	40	100
50	16	<b>721 960 410</b>	5	0.112	50	105
63	16	<b>721 960 411</b>	5	0.180	60	120

## 21 96 07

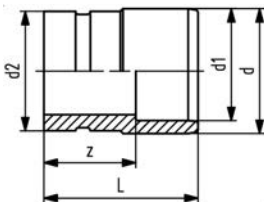


## Hose connector PVC-U R

### Model:

- With taper male thread R
- With parallel hose connector
- Do not use thread sealing pastes that are harmful to PVC-U

R [inch]	PN	Code	SP	kg	D [mm]	L [mm]	s [mm]
1/4	10	<b>721 960 704</b>	10	0.003	12	59	14
3/8	10	<b>721 960 705</b>	10	0.006	16	67	19
1/2	10	<b>721 960 706</b>	10	0.019	20	86	22
3/4	10	<b>721 960 707</b>	10	0.026	25	92	27
1	10	<b>721 960 708</b>	5	0.048	30	103	36
1 1/4	10	<b>721 960 709</b>	5	0.079	40	115	46



## Adaptor fitting PVC-U metric - victaulic

### Model:

- With solvent cement spigot and socket metric
- For metal couplings (type Victaulic)

d [mm]	d1 [mm]	d2 [inch]	PN	Code	SP	kg	L [mm]	z [mm]
50	40	1 1/2	10	<b>721 910 090</b>	30	0.150	71	44.5
63	50	2	10	<b>721 910 091</b>	40	0.200	78	46.5
75	63	2 1/2	10	<b>721 910 092</b>	30	0.250	84	46.2

21 94 01

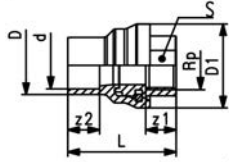


## Adaptor Fitting PVC-U/stainless steel Rp



**Model:**

- Adaptor fitting PVC-U
- Adaptor fitting equally suitable as socket and spigot
- Stainless steel WN 1.4404 (3162) with parallel female thread Rp
- Gasket: O-ring EPDM No. 48 41 01



d	D	PN	Rp	Code	SP	kg	z1	z2	D1	L	S
[mm]	[mm]		[inch]				[mm]	[mm]	[mm]	[mm]	[mm]
20	25	16	1/2	721 940 106	10	0.095	17.0	16.5	40	69.5	25
25	32	16	3/4	721 940 107	5	0.171	19.0	19.0	50	83.2	30
32	40	16	1	721 940 108	5	0.262	22.0	22.5	59	95.5	36

21 94 06

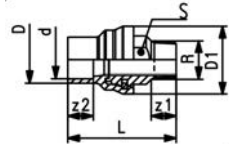


## Adaptor Fitting PVC-U/stainless steel R



**Model:**

- Adaptor fitting PVC-U
- Adaptor fitting equally suitable as socket and spigot
- Stainless steel WN 1.4404 (3162) with taper male thread R
- Gasket: O-ring EPDM No. 48 41 01



d	D	PN	R	Code	SP	kg	z1	z2	D1	L	S
[mm]	[mm]		[inch]				[mm]	[mm]	[mm]	[mm]	[mm]
20	25	16	1/2	721 940 606	10	0.120	17.0	16.5	40	69.5	25
25	32	16	3/4	721 940 607	5	0.213	19.0	19.0	50	83.2	30
32	40	16	1	721 940 608	5	0.320	22.0	22.5	59	95.5	36

21 95 01

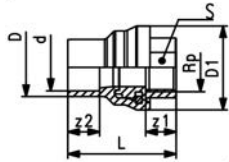


## Adaptor Fitting PVC-U/brass Rp



**Model:**

- Adaptor fitting PVC-U
- Adaptor fitting equally suitable as socket and spigot
- Brass with parallel female thread Rp
- Gasket: O-ring EPDM No. 48 41 01



d	D	PN	Rp	Code	SP	kg	z1	z2	D1	L	S
[mm]	[mm]		[inch]				[mm]	[mm]	[mm]	[mm]	[mm]
20	25	16	1/2	721 950 106	10	0.098	17.0	16.5	40	54.5	25
25	32	16	3/4	721 950 107	5	0.181	18.5	19.0	50	65.2	30
32	40	16	1	721 950 108	5	0.270	21.5	22.5	59	76.5	36

21 95 06

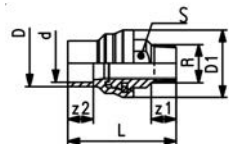


## Adaptor Fitting PVC-U/brass R



**Model:**

- Adaptor fitting PVC-U
- Adaptor fitting equally suitable as socket and spigot
- Brass with taper male thread R
- Gasket: O-ring EPDM No. 48 41 01

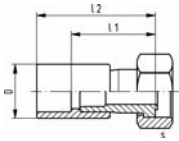


d	D	PN	R	Code	SP	kg	z1	z2	D1	L	S
[mm]	[mm]		[inch]				[mm]	[mm]	[mm]	[mm]	[mm]
20	25	16	1/2	721 950 606	10	0.129	17.0	16.5	40	69.5	25
25	32	16	3/4	721 950 607	5	0.232	19.0	19.0	50	83.2	30
32	40	16	1	721 950 608	5	0.390	22.0	22.5	59	95.5	36



# Adaptor fittings Inch BS

21 55 14



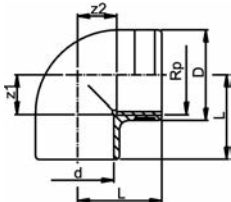
## Tap connector PVC-U Inch BS Rp

**Model:**

- With solvent cement socket BS Inch and brass parallel female thread Rp

d [inch]	Rp [inch]	Code Code	SP	kg	D [mm]	I1 [mm]	I2 [mm]	s [mm]
3/8	1/2	<b>721 551 405</b>	-	0.040	23	39	55	24
1/2	3/4	<b>721 551 406</b>	-	0.042	27	43	60	31

21 10 12



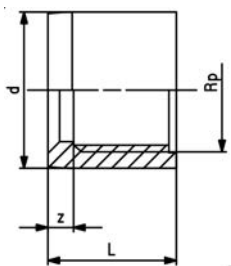
## Elbow 90° PVC-U Inch BS Rp

**Model:**

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

d [inch]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
1/2	1/2	15	<b>721 101 206</b>	150	0.022	10	15	30	27
3/4	3/4	15	<b>721 101 207</b>	100	0.033	13	19	35	33
1	1	15	<b>721 101 208</b>	10	0.051	16	24	45	39

## Reducing bush short PVC-U Inch BS Rp



**Model:**

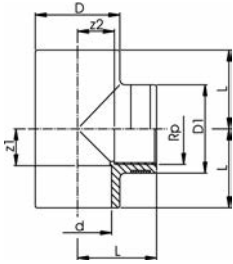
- With solvent cement spigot BS and parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [inch]	Rp [inch]	PN	Code Code	SP	kg	z [mm]	L [mm]
1/2	3/8	15	<b>721 901 534</b>	10	0.003	3	18
3/4	1/2	15	<b>721 901 537</b>	10	0.007	5	21
1	3/4	15	<b>721 901 541</b>	10	0.011	4	24
1	1/2	15	<b>721 901 542</b>	10	0.017	8	24



21 20 12

## Tee 90° PVC-U Inch BS Rp



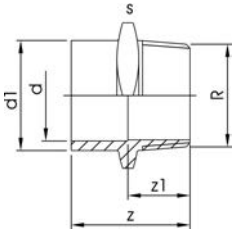
### Model:

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

d [inch]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	D1 [mm]	L [mm]
3/8	3/8	16	<b>721 201 205</b>	10	0.028	10	14	25	25	26
1/2	1/2	16	<b>721 201 206</b>	10	0.028	10	13	30	26	29
3/4	3/4	16	<b>721 201 207</b>	10	0.039	13	15	35	32	33
1	1	16	<b>721 201 208</b>	60	0.111	17	19	45	40	39

21 91 15

## Adaptor socket nipple PVC-U Inch BS R



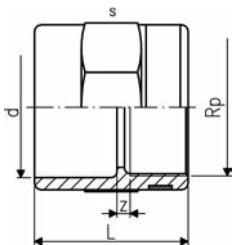
### Model:

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

d [inch]	d1 [inch]	R [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	s [mm]
1/4	3/8	3/8	15	<b>721 911 555</b>	-	0.011	36	21	27
3/8	1/2	1/2	15	<b>721 911 556</b>	10	0.019	43	28	32
1/2	3/4	3/4	15	<b>721 911 557</b>	10	0.019	48	31	36
3/4	1	1	15	<b>721 911 558</b>	10	0.040	55	35	46

21 91 10

## Adaptor socket PVC-U Inch BS Rp



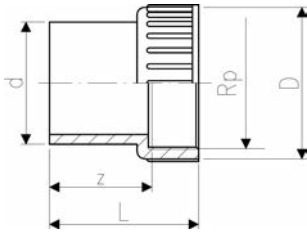
### Model:

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

d [inch]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
3/8	3/8	15	<b>721 911 005</b>	10	0.016	4	31	27
1/2	1/2	15	<b>721 911 006</b>	10	0.024	4	35	32
3/4	3/4	15	<b>721 911 007</b>	10	0.030	3	40	36
1	1	15	<b>721 911 008</b>	10	0.055	3	45	46
1 1/4	1 1/4	15	<b>721 911 009</b>	10	0.083	3	51	55
1 1/2	1 1/2	15	<b>721 911 010</b>	10	0.127	8	59	65
2	2	15	<b>721 911 011</b>	5	0.215	8	69	80

21 90 14

## Adaptor bush equal PVC-U Inch BS Rp



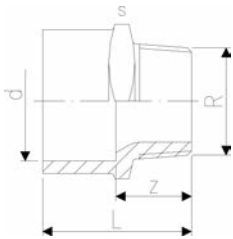
**Model:**

- With solvent cement spigot BS Inch and parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [inch]	Rp [inch]	PN	Code Code	SP	kg	z [mm]	D [mm]	L [mm]
1/2	1/2	15	721 901 406	10	0.012	21	28	37
3/4	3/4	15	721 901 407	10	0.019	23	34	41
1	1	15	721 901 408	10	0.036	27	42	48
1 1/4	1 1/4	15	721 901 409	10	0.065	33	52	56
1 1/2	1 1/2	15	721 901 410	10	0.092	38	62	61
2	2	15	721 901 411	5	0.160	47	77	74

21 91 17

## Adaptor bush equal PVC-U Inch BS R



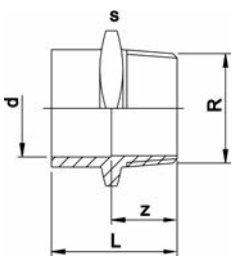
**Model:**

- With solvent cement socket BS Inch and taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [inch]	R [inch]	PN	Code Code	SP	kg	z [mm]	L [mm]	s [mm]
3/8	3/8	15	721 911 705	10	0.013	20	34	27
1/2	1/2	15	721 911 706	10	0.017	24	40	32
3/4	3/4	15	721 911 707	10	0.022	25	44	36
1	1	15	721 911 708	10	0.037	28	50	46
1 1/4	1 1/4	15	721 911 709	10	0.055	31	57	55
1 1/2	1 1/2	15	721 911 710	10	0.097	32	63	65
2	2	15	721 911 711	5	0.176	38	76	80
2 1/2	2 1/2	10	721 910 712	5	0.227	42	86	90

21 91 17

## Adaptor bush reducing PVC-U Inch BS R

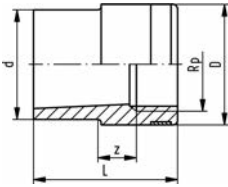


**Model:**

- With solvent cement socket BS Inch and taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [inch]	R [inch]	PN	Code Code	SP	kg	z [mm]	L [mm]	s [mm]
1/2	3/4	15	721 911 737	120	0.050	22	40	36
3/4	1	15	721 911 741	70	0.034	27	48	46
1	1 1/4	15	721 911 746	70	0.052	29	53	55
1 1/4	1 1/2	15	721 911 752	60	0.060	29	58	65
1 1/2	2	15	721 911 758	75	0.071	34	64	80

21 91 14



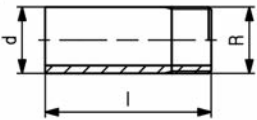
## Reducing bush PVC-U Inch BS

### Model:

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

d [inch]	Rp [inch]	PN	Code Code	SP	kg	D [mm]	L [mm]	z [mm]
3/8	1/2	16	<b>721 911 434</b>	10	0.020	30	40	8

21 91 39



## Adaptor nipple PVC-U Inch BS R

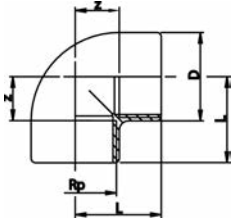
### Model:

- With solvent cement spigot BS Inch and taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [inch]	R [inch]	PN	Code Code	SP	kg	L [mm]
3/8	3/8	15	<b>721 913 905</b>	-	0.007	43
1/2	1/2	15	<b>721 913 906</b>	-	0.013	50
3/4	3/4	15	<b>721 913 907</b>	-	0.022	56
1	1	15	<b>721 913 908</b>	-	0.034	63
1 1/4	1 1/4	15	<b>721 913 909</b>	-	0.060	75
1 1/2	1 1/2	15	<b>721 913 910</b>	-	0.082	88
2	2	15	<b>721 913 911</b>	-	0.111	88
3	3	15	<b>721 913 913</b>	-	0.253	128
4	4	15	<b>721 913 915</b>	-	0.486	153

# Threaded fittings metric

21 10 16



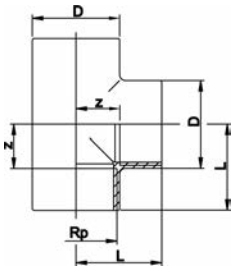
## Elbow 90° PVC-U Rp

**Model:**

- With parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
3/8	10	721 101 605	10	0.013	9	23	23
1/2	10	721 101 606	10	0.017	12	27	27
3/4	10	721 101 607	10	0.029	15	33	33
1	10	721 101 608	10	0.042	19	39	39
1 1/4	10	721 101 609	10	0.070	27	48	49
1 1/2	10	721 101 610	5	0.178	35	61	59
2	10	721 101 611	5	0.322	44	75	72

21 20 16



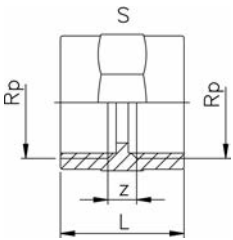
## Tee 90° equal PVC-U Rp

**Model:**

- With parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
3/8	10	721 201 605	10	0.016	9	23	23
1/2	10	721 201 606	10	0.027	12	28	27
3/4	10	721 201 607	10	0.039	15	33	33
1	10	721 201 608	5	0.072	19	41	39
1 1/4	10	721 201 609	10	0.117	27	50	49
1 1/2	10	721 201 610	10	0.267	36	62	60
2	10	721 201 611	10	0.485	44	77	72

21 91 06



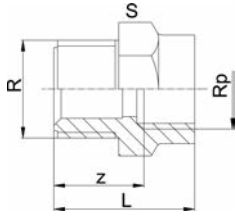
## Socket PVC-U Rp

**Model:**

- With parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
1/4	10	721 910 604	10	0.010	7	27	22
3/8	10	721 910 605	10	0.015	7	29	27
1/2	10	721 910 606	10	0.024	9	35	32
3/4	10	721 910 607	10	0.029	9	39	36
1	10	721 910 608	10	0.053	11	45	46
1 1/4	10	721 910 609	10	0.076	11	49	55
1 1/2	10	721 910 610	10	0.106	11	49	65
2	10	721 910 611	5	0.180	11	57	80

## 21 91 08



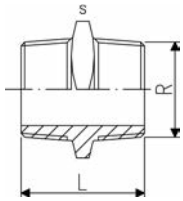
## Reducing bush PVC-U R Rp

### Model:

- With taper male thread R and parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

PN	R [inch]	Rp [inch]	Code	SP	kg	z [mm]	L [mm]	s [mm]
10	1/2	3/8	721 910 834	10	0.014	25	36	27
10	3/4	1/2	721 910 837	10	0.021	25	39	32
10	1	1/2	721 910 842	10	0.029	31	45	32
10	1	3/4	721 910 841	10	0.031	29	45	36
10	1 1/4	1	721 910 846	10	0.050	32	50	46
10	1 1/2	1 1/4	721 910 852	10	0.065	35	55	55
10	2	1 1/2	721 910 858	5	0.127	45	65	65

## 21 91 19



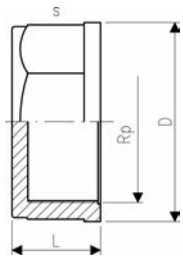
## Threaded nipple R PVC-U

### Model:

- With taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

R [inch]	PN	Type	Code	SP	kg	L [mm]	s [mm]
3/8	10	A	721 911 905	10	0.007	37	19
1/2	10	A	721 911 906	10	0.012	45	22
3/4	10	A	721 911 907	10	0.019	49	27
1	10	A	721 911 908	10	0.034	57	36
1 1/4	10	A	721 911 909	10	0.052	62	46
1 1/2	10	A	721 911 910	10	0.070	67	50
2	10	A	721 911 911	10	0.126	76	65

## 21 96 06



## Cap PVC-U Rp

### Model:

- With parallel female thread Rp
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

Rp [inch]	PN	Code	SP	kg	D [mm]	L [mm]	s [mm]
1/8	10	721 960 603	10	0.013	20	14	17
1/4	10	721 960 604	10	0.024	25	16	22
3/8	10	721 960 605	10	0.012	31	19	27
1/2	10	721 960 606	10	0.018	37	21	32
3/4	10	721 960 607	10	0.024	42	24	36
1	10	721 960 608	10	0.040	50	26	46
1 1/4	10	721 960 609	10	0.060	60	29	55
1 1/2	10	721 960 610	10	0.072	65	31	60
2	10	721 960 611	5	0.127	81	36	75

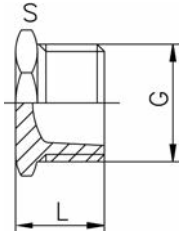
21 96 09

## Plug PVC-U G



### Model:

- With parallel male thread G
- Connection to plastic threads only
- Flat gasket necessary for sealing
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes



G [inch]	PN	Code	SP	kg	L [mm]	s [mm]
3/8	10	<b>721 960 905</b>	10	0.005	21	22
1/2	10	<b>721 960 906</b>	10	0.001	25	27
3/4	10	<b>721 960 907</b>	10	0.018	29	36
1	10	<b>721 960 908</b>	10	0.029	32	41
1 1/4	10	<b>721 960 909</b>	10	0.048	36	50
1 1/2	10	<b>721 960 910</b>	10	0.070	37	60
2	10	<b>721 960 911</b>	5	0.120	42	75

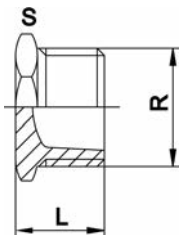
21 96 19

## Plug PVC-U R



### Model:

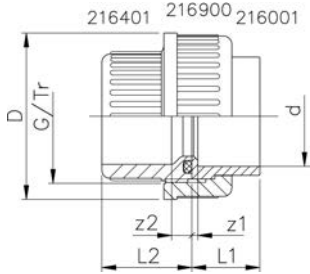
- With taper male thread R
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes



R [inch]	PN	Code	SP	kg	L [mm]	s [mm]
3/8	10	<b>721 961 905</b>	10	0.006	21	22
1/2	10	<b>721 961 906</b>	10	0.011	25	27
3/4	10	<b>721 961 907</b>	10	0.020	29	36
1	10	<b>721 961 908</b>	10	0.030	32	41
1 1/4	10	<b>721 961 909</b>	10	0.048	36	50
1 1/2	10	<b>721 961 910</b>	10	0.071	37	60
2	10	<b>721 961 911</b>	5	0.119	42	75

# Unions metric

21 51 01



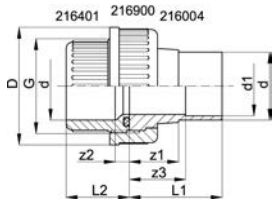
## Union for solvent cement jointing PVC-U metric

**Model:**

- Union End: solvent socket metric
- Union Bush: Solvent socket metric
- Jointing face: With O-ring groove
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	d [inch]	PN	EPDM Code	FPM Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
10		16	721 510 103	721 510 128	10	0.020	3	10	31	15	22	5/8
12		16	721 510 104	721 510 129	10	0.019	3	10	31	15	22	5/8
16		16	721 510 105	721 510 130	10	0.025	3	10	35	17	24	3/4
20		16	721 510 106	721 510 131	10	0.042	3	10	43	19	26	1
25		16	721 510 107	721 510 132	10	0.058	3	10	51	22	29	1 1/4
32		16	721 510 108	721 510 133	10	0.084	3	10	58	25	33	1 1/2
40		16	721 510 109	721 510 134	10	0.152	3	12	72	29	39	2
50		16	721 510 110	721 510 135	2	0.207	3	14	83	34	46	2 1/4
63		16	721 510 111	721 510 136	10	0.361	3	18	100	41	58	2 3/4
75	2 1/2	10	721 510 112	721 510 137	2	0.621	3	18	135	47	62	Tr108x5
90		10	721 510 313	721 510 338	2	0.929	5	18	158	56	69	Tr128x5
110		10	721 510 114	721 510 139	1	1.492	5	11	188	66	72	Tr154x6

21 51 03



## PRO-FIT union PVC-U metric

**Model:**

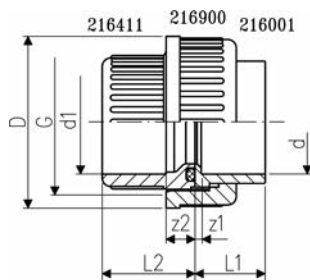
- Union End: Solvent cemented spigot in combination with reducing socket metric
- Union Bush: Solvent socket metric
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	kg
* 16	12	16	721 510 305	721 510 330	10	0.029
* 20	16	16	721 510 306	721 510 331	10	0.044
* 25	20	16	721 510 307	721 510 332	10	0.073
* 32	25	16	721 510 308	721 510 333	10	0.095
40	32	16	721 510 309	721 510 334	10	0.171
50	40	16	721 510 310	721 510 335	10	0.250
63	50	16	721 510 311	721 510 336	10	0.449

d [mm]	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
* 16	22	10	24	35	36	24	3/4
* 20	24	10	26	43	40	26	1
* 25	25	10	28	51	44	29	1 1/4
* 32	27	10	30	58	49	33	1 1/2
40	31	12	35	74	57	39	2
50	35	14	40	83	66	46	2 1/4
63	39	18	46	100	77	58	2 3/4



## 21 51 31



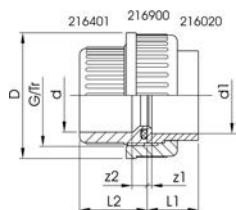
## Adaptor union PVC-U metric Inch BS

### Model:

- Union End: Solvent cement socket metric
- Union Bush: Solvent cement socket BS inch
- Gasket: O-ring EPDM No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)

d [mm]	d1 [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	15	721 513 105	10	0.025	3	8	35	17	24	3/4
20	1/2	15	721 513 106	10	0.040	3	9	43	19	26	1
25	3/4	15	721 513 107	10	0.065	3	9	51	22	29	1 1/4
32	1	15	721 513 108	10	0.090	3	9	58	25	33	1 1/2
40	1 1/4	15	721 513 109	10	0.155	3	10	72	29	39	2
50	1 1/2	15	721 513 110	5	0.200	3	10	83	34	46	2 1/4
63	2	15	721 513 111	10	0.341	3	10	100	41	58	2 3/4

## 21 51 41



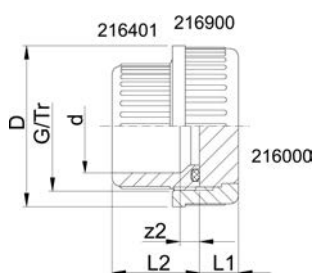
## Union for solvent cement jointing PVC-U metric/ASTM

### Model:

- Union End: Solvent cement socket ASTM
- Union Bush: Solvent socket metric
- Gasket: O-ring EPDM No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)

d [mm]	d1 [inch]	PN	Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	16	721 514 105	0.022	3	10	35	22	24	3/4
20	1/2	16	721 514 106	0.042	3	10	43	25	26	1
25	3/4	16	721 514 107	0.065	3	10	51	28	29	1 1/4
32	1	16	721 514 108	0.103	3	10	58	32	33	1 1/2
40	1 1/4	16	721 514 109	0.174	3	12	72	35	39	2
50	1 1/2	16	721 514 110	0.239	3	14	83	38	46	2 1/4
63	2	16	721 514 111	0.356	3	18	100	41	58	2 3/4

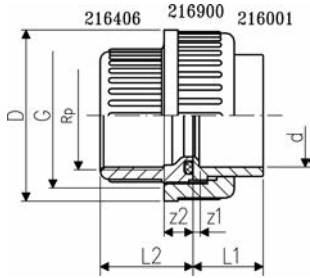
## 21 51 00



## Union with union end blank PVC-U metric

d [mm]	PN	EPDM Code	FPM Code	SP	kg	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
10	16	721 510 003	721 510 028	10	0.020	9	31	10	22	5/8
12	16	721 510 004	721 510 029	10	0.020	9	31	15	22	5/8
16	16	721 510 005	721 510 030	10	0.026	10	35	10	24	3/4
20	16	721 510 006	721 510 031	10	0.041	10	43	11	26	1
25	16	721 510 007	721 510 032	10	0.068	10	51	11	29	1 1/4
32	16	721 510 008	721 510 033	10	0.095	10	58	12	33	1 1/2
40	16	721 510 009	721 510 034	10	0.159	12	72	13	39	2
50	16	721 510 010	721 510 035	5	0.227	14	83	16	46	2 1/4
63	16	721 510 011	721 510 036	10	0.405	18	100	18	58	2 3/4
75	10	721 510 012	721 510 037	2	0.693	18	135	22	62	Tr108x5
90	10	721 510 213	721 510 238	2	1.022	18	158	24	69	Tr128x5
110	10	721 510 014	721 510 039	1	1.573	11	188	26	72	Tr154x6

## 21 51 02



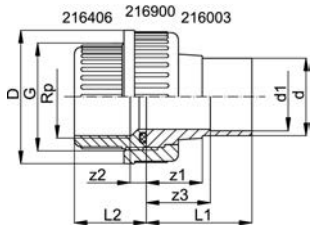
## Adaptor union PVC-U metric Rp

### Model:

- Union End: Solvent cement socket metric
- Union Bush: Parallel female thread Rp
- Gasket: O-Ring No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	Rp [inch]	PN	EPDM Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
12	1/4	10	721 510 204	10	0.019	3	12	31	15	22	5/8
16	3/8	10	721 510 205	10	0.020	3	13	35	17	24	3/4
20	1/2	10	721 510 206	10	0.040	3	13	43	19	26	1
25	3/4	10	721 510 207	10	0.057	3	14	51	22	29	1 1/4
32	1	10	721 510 208	10	0.084	3	15	58	25	33	1 1/2
40	1 1/4	10	721 510 209	10	0.147	3	19	72	29	39	2
50	1 1/2	10	721 510 210	2	0.218	3	26	83	34	46	2 1/4
63	2	10	721 510 211	2	0.383	3	33	100	41	58	2 3/4

## 21 51 04



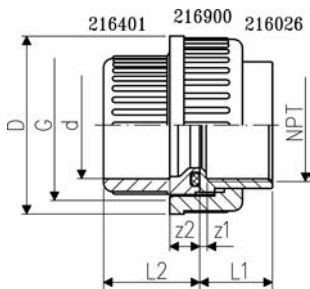
## PRO-FIT adaptor union PVC-U metric Rp

### Model:

- Union End: Solvent cemented spigot in combination with reducing socket metric
- Union Bush: Threaded socket with parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	d1 [mm]	Rp [inch]	PN	EPDM Code	SP	kg	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
* 16	12	3/8	10	721 510 405	10	0.032	22	13	24	35	36	24	3/4
* 20	16	1/2	10	721 510 406	10	0.046	24	13	26	43	40	26	1
* 25	20	3/4	10	721 510 407	10	0.079	25	14	28	51	44	29	1 1/4
* 32	25	1	10	721 510 408	10	0.116	27	15	30	58	49	32	1 1/2
40	32	1 1/4	10	721 510 409	10	0.192	31	19	35	74	57	38	2
50	40	1 1/2	10	721 510 410	10	0.263	35	26	40	83	66	45	2 1/4
63	50	2	10	721 510 411	10	0.496	39	33	46	100	77	56	2 3/4

## 21 51 42



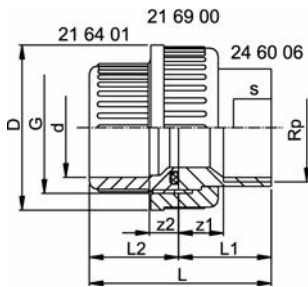
## Adaptor union PVC-U metric NPT

### Model:

- Union End: Taper female thread NPT (ASTM)
- Union Bush: Solvent socket metric
- Gasket: O-ring EPDM No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	NPT [inch]	PN	EPDM Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	10	721 514 205	0.026	4	10	35	17	24	3/4
20	1/2	10	721 514 206	0.042	2	10	43	19	26	1
25	3/4	10	721 514 207	0.068	4	10	51	22	29	1 1/4
32	1	10	721 514 208	0.093	4	10	58	25	33	1 1/2
40	1 1/4	10	721 514 209	0.150	6	12	72	29	39	2
50	1 1/2	10	721 514 210	0.228	11	14	83	34	46	2 1/4
63	2	10	721 514 211	0.387	17	18	100	41	58	2 3/4

## 21 54 02



## Adaptor union PVC-U/stainless steel metric Rp

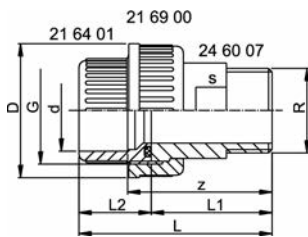
### Model:

- Union End: Stainless Steel 1.4404 (316L), parallel female thread Rp
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	Rp [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	721 540 205	721 540 230	-	0.053
20	1/2	16	721 540 206	721 540 231	-	0.096
25	3/4	16	721 540 207	721 540 232	-	0.134
32	1	16	721 540 208	721 540 233	-	0.212
40	1 1/4	16	721 540 209	721 540 234	-	0.343
50	1 1/2	16	721 540 210	721 540 235	-	0.455
63	2	16	721 540 211	721 540 236	-	0.721

d [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	9	10	35	43	19	24	3/4	19
20	11	10	43	50	24	26	1	24
25	11	10	51	55	26	29	1 1/4	29
32	12	10	58	61	29	33	1 1/2	36
40	14	12	72	71	33	39	2	45
50	15	14	83	79	34	46	2 1/4	54
63	15	18	100	95	39	58	2 3/4	63

## 21 54 07



## Adaptor union PVC-U/stainless steel metric R

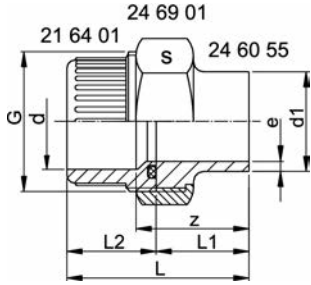
### Model:

- Union End: Stainless Steel 1.4404 (316L), taper male thread R
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	R [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	721 540 705	721 540 730	-	0.073
20	1/2	16	721 540 706	721 540 731	-	0.126
25	3/4	16	721 540 707	721 540 732	-	0.170
32	1	16	721 540 708	721 540 733	-	0.262
40	1 1/4	16	721 540 709	721 540 734	-	0.472
50	1 1/2	16	721 540 710	721 540 735	-	0.535
63	2	16	721 540 711	721 540 736	-	0.931

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	40	35	54	30	24	3/4	19
20	44	43	60	34	26	1	24
25	46	51	65	36	29	1 1/4	32
32	50	58	72	40	33	1 1/2	37
40	58	72	84	46	39	2	48
50	62	83	93	48	46	2 1/4	54
63	73	100	111	55	58	2 3/4	69

21 54 55



## Adaptor union PVC-U/stainless steel metric Welding end

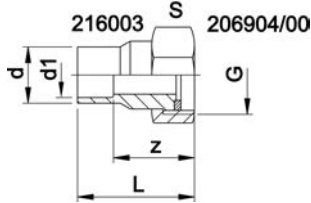
**Model:**

- Union End: Stainless Steel 1.4404 (316L) with welding end
- Union Bush: Solvent cement socket PVC-U metric
- Union Nut: Stainless Steel WN 1.4404 (316L)
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	kg
16	17	16	721 545 505	721 545 530	-	0.101
20	21	16	721 545 506	721 545 531	-	0.168
25	27	16	721 545 507	721 545 532	-	0.198
32	34	16	721 545 508	721 545 533	-	0.313
40	42	16	721 545 509	721 545 534	-	0.493
50	48	16	721 545 510	721 545 535	-	0.605
63	60	16	721 545 511	721 545 536	-	0.902

d [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	G [inch]	s [mm]
16	28	42	18	24	1.6	3/4	32
20	32	48	22	26	2.0	1	41
25	33	52	23	29	2.0	1 1/4	46
32	36	58	26	33	2.0	1 1/2	55
40	38	64	26	39	2.0	2	68
50	42	73	28	46	2.0	2 1/4	74
63	50	88	32	58	2.6	2 3/4	88

21 55 03



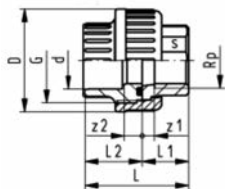
## Tap connectors PVC-U/brass metric G

**Model:**

- Union End: PVC-U, solvent cement socket / spigot metric
- Union Nut: brass with female thread G
- Gasket: flat gasket EPDM No. 48 40 02

d [mm]	d1 [mm]	G [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
16	12	1/2	16	721 550 305	10	0.031	22	34	24
20	16	3/4	16	721 550 306	10	0.049	24	38	30
25	20	1	16	721 550 307	10	0.079	27	43	38

21 55 05



## Adaptor union PVC-U/brass metric Rp

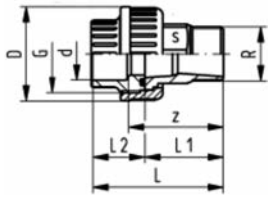
**Model:**

- Union nut: PVC-U
- Union bush: Solvent cement socket metric
- Union End: Brass with parallel female thread Rp
- Gasket: O-ring EPDM No. 48 41 00



d [mm]	Rp [inch]	PN	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
20	1/2	16	721 550 506	10	0.088	43	48	22	26	7	10	1	25
25	3/4	16	721 550 507	5	0.145	51	54	25	29	9	10	1 1/4	30
32	1	16	721 550 508	5	0.175	58	60	27	33	8	11	1 1/2	36
40	1 1/4	16	721 550 509	2	0.322	72	70	31	39	10	13	2	46
50	1 1/2	16	721 550 510	2	0.467	83	81	35	46	13	15	2 1/4	55
63	2	16	721 550 511	5	0.776	100	98	40	58	14	20	2 3/4	65
75	2 1/2	16	721 550 512	2	1.360	127	109	47	62	16	18	Tr 108x5	85
90	3	16	721 550 513	2	2.003	150	121	52	69	18	18	Tr 128x5	95

21 55 09



## Adaptor union PVC-U/brass metric R

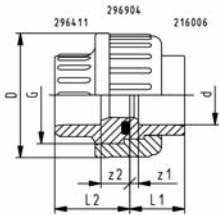


**Model:**

- Union nut: PVC-U
- Union Bush: Solvent cement socket PVC-U metric
- Union End: Brass with taper male thread R
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	R [inch]	PN	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	G [inch]	s [mm]
20	1/2	10	721 550 906	10	0.125	43	63	37	26	47	1	25
25	1/2	10	721 550 957	5	0.196	51	66	37	29	47	1 1/4	30
25	3/4	10	721 550 907	5	0.196	51	71	42	29	52	1 1/4	30
25	1	10	721 550 967	5	0.307	51	75	46	29	56	1 1/4	30
32	1/2	10	721 550 958	5	0.297	58	70	37	33	48	1 1/2	36
32	3/4	10	721 550 968	5	0.297	58	75	42	33	53	1 1/2	36
32	1	10	721 550 908	5	0.283	58	79	46	33	57	1 1/2	36
40	1 1/4	10	721 550 909	2	0.502	72	91	52	39	65	2	46
50	1 1/2	10	721 550 910	2	0.681	83	102	56	46	71	2 1/4	55
63	2	10	721 550 911	8	1.101	100	125	67	58	87	2 3/4	65
75	2 1/2	10	721 550 912	2	1.706	127	139	77	62	95	Tr 108x5	85
90	3	10	721 550 913	1	2.662	150	155	86	69	104	Tr 125x8	95

21 51 06



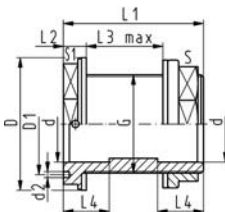
## Thread union PVC-U Rp Rp

**Model:**

- Union End: Parallel female thread Rp
- Union Bush: Parallel female thread Rp
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
1/4	10	721 510 604	10	0.019	3	12	31	22	15	5/8
3/8	10	721 510 605	10	0.027	3	13	35	24	17	3/4
1/2	10	721 510 606	10	0.042	3	13	43	26	19	1
3/4	10	721 510 607	10	0.065	3	14	51	29	22	1 1/4
1	10	721 510 608	10	0.093	3	15	58	32	25	1 1/2
1 1/4	10	721 510 609	10	0.160	3	19	72	38	29	2
1 1/2	10	721 510 610	2	0.220	3	26	83	45	34	2 1/4
2	10	721 510 611	2	0.415	3	33	100	56	41	2 3/4

610504



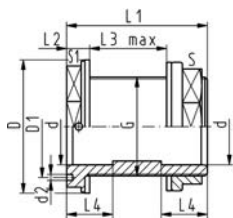
## Tank adaptor for fix position stop Compact PVC-U metric

**Model:**

- End connection: solvent cement socket, metric
- Gasket: flat gasket EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head
- FPM flat gasket available for tank adaptor type 050

d [mm]	PN	EPDM Code	SP	kg
16	16	161 050 445	75	0.048
20	16	161 050 446	50	0.066
25	16	161 050 447	70	0.170
32	16	161 050 448	50	0.144
40	16	161 050 449	30	0.238
50	16	161 050 450	20	0.260
63	16	161 050 451	15	0.398





d [mm]	d2 [mm]	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	58	11	28	14	3/4	32	40	28
20	5	54	35	61	12	28	16	1	40	50	35
25	5	60	42	65	13	28	19	1 1/4	50	55	43
32	5	69	49	67	13	28	22	1 1/2	56	65	49
40	5	84	59	72	13	29	26	2	69	80	61
50	5	92	70	76	15	30	31	2 1/4	76	85	67
63	5	108	82	84	15	35	38	2 3/4	95	100	83

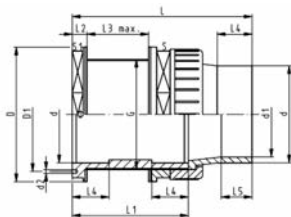
610503



## Tank adaptor for fix position stop PVC-U, Union end with spigot / reducing socket metric

### Model:

- End connection: union with union end spigot/reducing socket, metric
- Gaskets: flat gaskets EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head
- FPM flat gaskets available for tank adaptor type 050



d [mm]	d1 [mm]	PN	EPDM Code	SP	kg
16	12	16	161 050 345	1	0.068
20	16	16	161 050 346	1	0.102
25	20	16	161 050 347	1	0.157
32	25	16	161 050 348	1	0.220
40	32	16	161 050 349	1	0.353
50	40	16	161 050 350	1	0.438
63	50	16	161 050 351	1	0.680

d [mm]	d2 [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	L5 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	96	58	11	19	14	12	3/4	32	40	28
20	5	54	35	104	61	12	17	16	14	1	40	50	35
25	5	60	42	112	65	13	18	19	16	1 1/4	50	55	43
32	5	69	49	119	67	13	19	22	19	1 1/2	56	65	49
40	5	84	59	132	72	13	16	26	22	2	69	80	61
50	5	92	70	145	76	15	16	31	26	2 1/4	76	85	67
63	5	108	82	163	84	15	19	38	31	2 3/4	95	100	83

610503

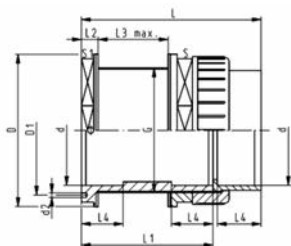


## Tank adaptor for fix position stop PVC-U with O-Ring gasket

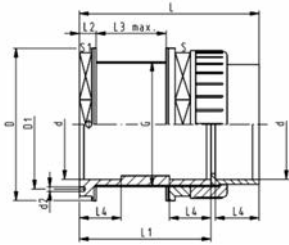


### Model:

- End connection: union with solvent cement socket, metric
- Gaskets: O-Ring EPDM, flat gasket EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head
- For round tanks



d [mm]	PN	Code	SP	kg
16	16	161 050 385	1	0.040
20	16	161 050 386	1	0.070
25	16	161 050 387	1	0.160
32	16	161 050 388	1	0.200
40	16	161 050 389	1	0.240
50	16	161 050 390	1	0.400
63	16	161 050 391	1	0.530



d [mm]	d2 [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	77	58	11	19	14	3/4	32	40	28
20	5	54	35	83	61	12	17	16	1	40	50	35
25	5	60	42	90	65	13	18	19	1 1/4	50	55	43
32	5	69	49	95	67	13	19	22	1 1/2	56	65	49
40	5	84	59	104	72	13	16	26	2	69	80	61
50	5	92	70	113	76	15	16	31	2 1/4	76	85	67
63	5	108	82	128	84	15	19	38	2 3/4	95	100	83

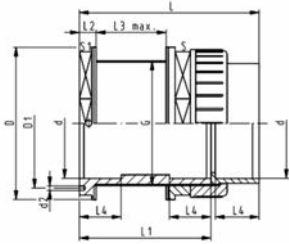
610502



## Tank adaptor for fix position stop PVC-U, Union end with socket metric

### Model:

- End connection: union with solvent cement socket, metric
- Gaskets: flat gaskets EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head
- FPM flat gaskets available for tank adaptor type 050



d [mm]	PN	Code	SP	kg
16	16	<b>161 050 245</b>	1	0.064
20	16	<b>161 050 246</b>	1	0.070
25	16	<b>161 050 247</b>	1	0.100
32	16	<b>161 050 248</b>	1	0.196
40	16	<b>161 050 249</b>	1	0.328
50	16	<b>161 050 250</b>	1	0.395
63	16	<b>161 050 251</b>	1	0.530

d [mm]	d2 [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	77	58	11	19	14	3/4	32	40	28
20	5	54	35	83	61	12	17	16	1	40	50	35
25	5	60	42	90	65	13	18	19	1 1/4	50	55	43
32	5	69	49	95	67	13	19	22	1 1/2	56	65	49
40	5	84	59	104	72	13	16	26	2	69	80	61
50	5	92	70	113	76	15	16	31	2 1/4	76	85	67
63	5	108	82	128	84	15	19	38	2 3/4	95	100	83

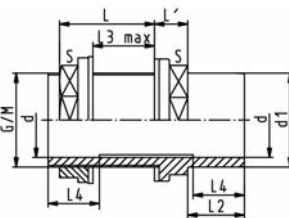
610502



## Tank adaptor for adjustable stop PVC-U metric

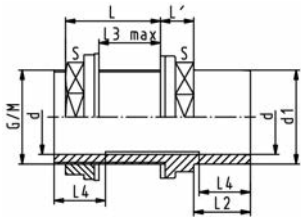
### Model:

- End connection: solvent cement socket and spigot, metric
- Gasket: flat gasket EPDM
- Washer: PP



d [mm]	d1 [mm]	Code	SP	kg
20	25	<b>161 050 206</b>	75	0.046
25	32	<b>161 050 207</b>	1	0.066
32	40	<b>161 050 208</b>	1	0.106
40	50	<b>161 050 209</b>	35	0.190
50	63	<b>161 050 210</b>	25	0.248
63	75	<b>161 050 211</b>	15	0.352
75	90	<b>161 050 212</b>	20	0.539
90	110	<b>161 050 213</b>	1	1.083
110	125	<b>161 050 214</b>	6	1.350





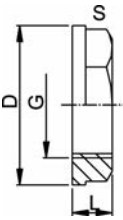
d [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	M	s [mm]	Diameter of bore in tank side [mm]
20	42	13	19	23	16	3/4		32	28
25	45	15	22	23	19	1		40	35
32	49	17	26	24	22	1 1/4		50	43
40	48	19	31	21	26	1 3/4		60	55
50	52	21	38	21	31	2		69	61
63	53	23	44	23	38	2 1/2		85	77
75	56	26	51	20	44	3		100	89
90	62	32	61	20	51		M113	125	115
110	66	36	69	22	61		M133	147	135

61 49 06

## Backing nut PVC-U tank adaptor

**Model:**

- With G thread ISO 228/1
- Spare part for tank adaptor type 050



G [inch]	M	Code	SP	kg	D [mm]	L [mm]	s [mm]
3/4		<b>161 490 630</b>	400	0.007	39	13	32
1		<b>161 490 632</b>	200	0.012	48	15	40
1 1/4		<b>161 490 634</b>	100	0.019	58	17	50
1 1/2		<b>161 490 635</b>	100	0.027	65	18	56
1 3/4		<b>161 490 636</b>	75	0.036	72	19	64
2		<b>161 490 637</b>	50	0.043	79	21	69
2 1/4		<b>161 490 638</b>	50	0.053	86	21	76
2 1/2		<b>161 490 639</b>	25	0.063	94	23	85
2 3/4		<b>161 490 640</b>	25	0.092	106	25	95
3		<b>161 490 641</b>	20	0.101	112	26	100
4		<b>161 490 644</b>	10	0.164	139	32	126

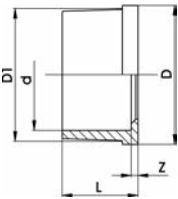
21 60 01

## Union end PVC-U metric

**Model:**

- Solvent cement socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 514

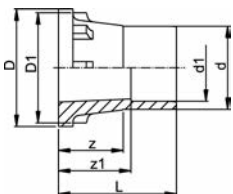
\* for Adaptor Unions 21 53 02, 21 53 07, 21 55 02, 21 55 07 old version



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
10	16	<b>721 500 103</b>	10	0.004	3	20	18	15
12	16	<b>721 500 104</b>	10	0.003	3	20	18	15
16	16	<b>721 500 105</b>	10	0.003	3	24	22	17
20	16	<b>721 500 106</b>	10	0.008	3	30	28	19
25	16	<b>721 500 107</b>	10	0.014	3	39	36	22
32	16	<b>721 500 108</b>	10	0.020	3	45	42	25
40	16	<b>721 500 109</b>	10	0.037	3	57	53	29
50	16	<b>721 500 110</b>	10	0.039	3	63	59	34
63	16	<b>721 500 111</b>	10	0.072	3	78	74	41
75	10	<b>721 500 162</b>	20	0.140	3	101	90	47
90	10	<b>721 500 163</b>	12	0.242	5	121	108	56
110	10	<b>721 500 164</b>	10	0.390	5	146	131	66
* 75	10	<b>721 600 112</b>	110	0.155	3	97	90	47
* 90	10	<b>721 600 113</b>	-	0.188	5	110	105	56

## 21 60 04

## Union end with spigot PVC-U metric



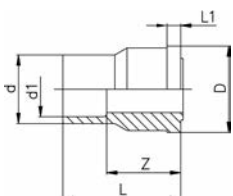
### Model:

- Solvent cement spigot in combination with reducing socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 514

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	D1 [mm]	L [mm]
* 16	12	16	<b>721 500 405</b>	10	0.001	22	24	24	22	36
* 20	16	16	<b>721 500 406</b>	10	0.009	24	26	30	28	40
* 25	20	16	<b>721 500 407</b>	10	0.026	25	28	39	36	44
* 32	25	16	<b>721 500 408</b>	10	0.200	27	30	45	42	49
40	32	16	<b>721 500 409</b>	10	0.055	31	35	57	53	57
50	40	16	<b>721 500 410</b>	10	0.085	35	40	63	59	66
63	50	16	<b>721 500 411</b>	10	0.108	39	46	79	74	77

## 21 60 03

## Union end PVC-U metric



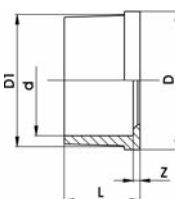
### Model:

- For tap connector No. 21 55 03

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	L1 [mm]
16	12	16	<b>721 600 305</b>	-	0.005	22	19	34	3
20	16	16	<b>721 600 306</b>	-	0.009	24	24	38	5
25	20	16	<b>721 600 307</b>	-	0.016	27	30	43	5

## 21 60 20

## Union end PVC-U ASTM

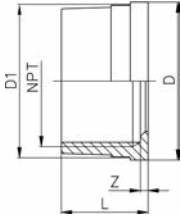


### Model:

- With solvent cement socket ASTM

d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
3/8	16	<b>721 602 005</b>	-	0.005	3	24	22	22
1/2	16	<b>721 602 006</b>	-	0.029	3	30	28	25
3/4	16	<b>721 602 007</b>	-	0.015	3	39	36	28
1	16	<b>721 602 008</b>	10	0.023	3	45	42	32
1 1/4	16	<b>721 602 009</b>	-	0.034	3	57	53	35
1 1/2	16	<b>721 602 010</b>	-	0.047	3	63	59	38
2	16	<b>721 602 011</b>	-	0.075	3	78	74	41
2 1/2	10	<b>721 602 012</b>	-	0.164	3	101	90	47
3	10	<b>721 602 013</b>	-	0.255	5	121	108	56
3 1/2	10	<b>721 602 014</b>	-	0.334	5	146	131	66

## 21 60 26



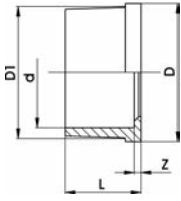
## Union end PVC-U NPT ASTM

### Model:

- Taper female thread NPT (ASTM)

NPT [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
3/8	10	<b>721 602 655</b>	-	0.005	4	24	22	17
1/2	10	<b>721 602 656</b>	-	0.009	2	30	28	19
3/4	10	<b>721 602 657</b>	-	0.015	4	39	36	22
1	10	<b>721 602 658</b>	-	0.025	3	45	42	25
1 1/4	10	<b>721 602 659</b>	-	0.040	6	57	53	29
1 1/2	10	<b>721 602 660</b>	-	0.055	11	63	59	34
2	10	<b>721 602 661</b>	-	0.128	17	78	74	41

## 21 60 11



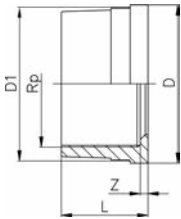
## Union end PVC-U Inch BS

### Model:

- Solvent cement socket BS inch

d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
3/8	15	<b>721 601 105</b>	-	0.001	3	24	22	19
1/2	15	<b>721 601 106</b>	-	0.008	3	30	27	21
3/4	15	<b>721 601 107</b>	10	0.013	3	38	36	24
1	15	<b>721 601 108</b>	-	0.018	3	44	41	27
1 1/4	15	<b>721 601 109</b>	1	0.033	3	56	53	32
1 1/2	15	<b>721 601 110</b>	5	0.051	3	62	59	33
2	15	<b>721 601 111</b>	-	0.077	3	78	74	40

## 21 60 06



## Union end PVC-U Rp

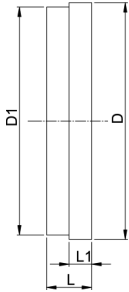
### Model:

- Parallel female thread Rp

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
1/4	10	<b>721 600 654</b>	-	0.004	5	20	18	15
3/8	10	<b>721 600 655</b>	-	0.005	6	24	22	17
1/2	10	<b>721 600 656</b>	1430	0.010	6	30	28	19
3/4	10	<b>721 600 657</b>	-	0.012	7	39	36	22
1	10	<b>721 600 658</b>	-	0.019	8	45	42	25
1 1/4	10	<b>721 600 659</b>	-	0.038	10	57	53	29
1 1/2	10	<b>721 600 660</b>	-	0.057	11	63	59	34
2	10	<b>721 600 661</b>	-	0.102	18	78	74	41

21 60 00

## Union end blank PVC-U



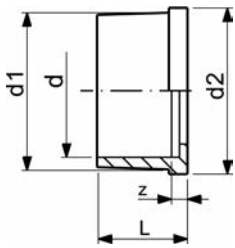
### Model:

- For unions, tank adaptor and daphragm valve type 514
- Flat sealing faces

d [mm]	DN [mm]	Inch	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]
10/12		1/8	16	<b>721 600 004</b>	-	0.006	20	18	9	4
16	10	3/8	16	<b>721 600 005</b>	-	0.004	24	22	10	5
20	15	1/2	16	<b>721 600 006</b>	-	0.009	30	28	11	5
25	20	3/4	16	<b>721 600 007</b>	-	0.017	39	36	11	6
32	25	1	16	<b>721 600 008</b>	-	0.025	45	42	12	6
40	32	1 1/4	16	<b>721 600 009</b>	-	0.042	57	53	13	7
50	40	1 1/2	16	<b>721 600 010</b>	-	0.061	63	59	16	7
63	50	2	16	<b>721 600 011</b>	-	0.108	78	74	18	8
75	65	2 1/2	10	<b>721 600 012</b>	-	0.216	101	90	22	10
90	80	3	10	<b>721 600 013</b>	-	0.333	121	108	24	11
110	100	4	10	<b>721 600 014</b>	-	0.530	146	131	26	12

34 60 01

## Union end PE80

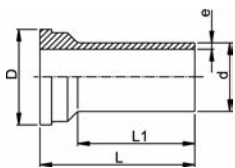


### Model:

- With fusion socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 514

d [mm]	PN	Code	SP	kg	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	z [mm]
20	10	<b>734 600 106</b>	-	0.006	28	30	19	5	5
25	10	<b>734 600 107</b>	-	0.013	36	39	21	5	5
32	10	<b>734 600 108</b>	-	0.015	42	45	23	6	5
40	10	<b>734 600 109</b>	-	0.026	53	57	25	6	5
50	10	<b>734 600 110</b>	-	0.025	59	63	28	7	5
63	10	<b>734 600 111</b>	-	0.044	74	79	32	8	5

## Union end long PE100



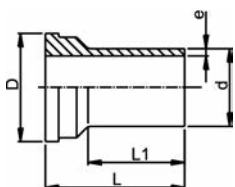
### Model:

- For butt-, IR Plus® and electrofusion
- Suitable for unions, tank connectors and diaphragm valves Type 514

d [mm]	PN	FM	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	<b>753 508 616</b>	10	0.006	30	67	52	1,9
25	16	IR	<b>753 508 617</b>	10	0.019	39	71	53	2,3
32	16	IR	<b>753 508 618</b>	10	0.027	45	73	55	2,9
40	16	IR	<b>753 508 619</b>	10	0.048	57	81	60	3,7
50	16	IR	<b>753 508 620</b>	10	0.069	63	87	66	4,6
63	16	IR	<b>753 508 621</b>	10	0.120	78	93	70	5,8

53 60 86

## Union end PE100 S5/SDR11

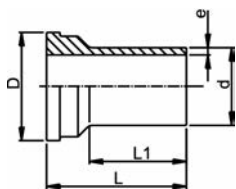


### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.

d [mm]	PN	FM	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	<b>753 508 606</b>	10	0.011	30	54	38	1,9
25	16	IR	<b>753 508 607</b>	10	0.018	39	57	42	2,3
32	16	IR	<b>753 508 608</b>	10	0.027	45	60	41	2,9
40	16	IR	<b>753 508 609</b>	10	0.044	57	63	42	3,7
50	16	IR	<b>753 508 610</b>	10	0.061	63	66	44	4,6

table continued next page



d [mm]	PN	FM	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
63	16	IR	<b>753 508 611</b>	10	0.100	78	69	45	5,8
75	10	IR	<b>753 608 612</b>	-	0.147	101	66	34	6,8
90	10	IR	<b>753 608 613</b>	-	0.156	101	66	45	8,2
110	10	IR	<b>753 608 614</b>	-	0.226	121	66	40	10,0

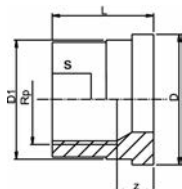
## 24 60 06

### Union end stainless steel Rp



#### Model:

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



Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	s [mm]
3/8	16	<b>724 600 655</b>	10	0.030	9	24	22	19	19
1/2	16	<b>724 600 656</b>	10	0.060	11	30	28	24	24
3/4	16	<b>724 600 657</b>	10	0.092	11	39	36	26	29
1	16	<b>724 600 658</b>	10	0.137	12	45	42	29	36
1 1/4	16	<b>724 600 659</b>	10	0.226	14	57	53	33	45
1 1/2	16	<b>724 600 660</b>	10	0.314	15	63	59	34	54
2	16	<b>724 600 661</b>	45	0.438	15	78	74	39	63

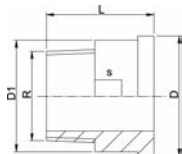
## 24 60 07

### Union end stainless steel R



#### Model:

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



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

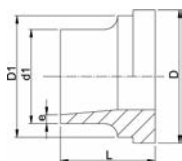
## 24 60 55

### Union end stainless steel Welding end



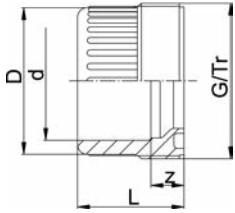
#### Model:

- Material: Stainless Steel 1.4404 (316L)



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

## 21 64 01



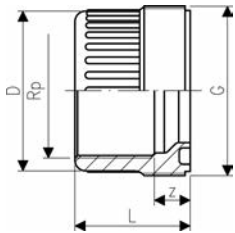
## Union bush PVC-U metric

### Model:

- Solvent cement socket metric
- Jointing face: With O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	G/Tr
10	16	<b>721 840 103</b>	10	0.002	10	20	22	5/8
12	16	<b>721 840 104</b>	10	0.007	10	20	22	5/8
16	16	<b>721 840 105</b>	10	0.009	10	24	24	3/4
20	16	<b>721 840 106</b>	10	0.014	10	29	26	1
25	16	<b>721 840 107</b>	10	0.020	10	34	29	1 1/4
32	16	<b>721 840 108</b>	10	0.032	10	42	33	1 1/2
40	16	<b>721 840 109</b>	10	0.057	12	52	39	2
50	16	<b>721 840 110</b>	10	0.073	14	62	46	2 1/4
63	16	<b>721 840 111</b>	10	0.137	18	78	58	2 3/4
75	10	<b>721 840 112</b>	20	0.210	18	93	62	Tr108x5
90	10	<b>721 840 123</b>	12	0.355	18	110	69	Tr128x5
110	10	<b>721 840 114</b>	10	0.445	11	133	72	Tr154x6

## 21 64 06



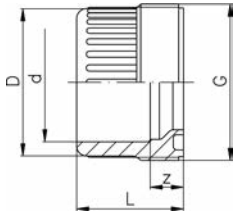
## Union bush PVC-U Rp

### Model:

- With parallel female thread Rp
- Jointing face: With O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	G [inch]
1/4	10	<b>721 840 604</b>	10	0.007	12	20	22	5/8
3/8	10	<b>721 840 605</b>	10	0.009	13	24	24	3/4
1/2	10	<b>721 840 606</b>	10	0.013	13	29	26	1
3/4	10	<b>721 840 607</b>	10	0.026	14	34	29	1 1/4
1	10	<b>721 840 608</b>	10	0.036	15	42	32	1 1/2
1 1/4	10	<b>721 840 609</b>	10	0.063	19	53	38	2
1 1/2	10	<b>721 840 610</b>	10	0.098	26	63	45	2 1/4
2	10	<b>721 840 611</b>	10	0.187	33	78	56	2 3/4

## 21 64 11



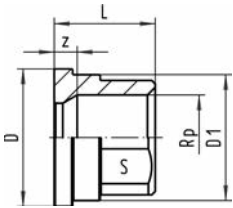
## Union bush PVC-U Inch BS

### Model:

- Solvent cement socket BS inch
- Jointing face: With O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00

d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	G [inch]
3/8	15	<b>721 841 105</b>	10	0.010	8	24	24	3/4"
1/2	15	<b>721 841 106</b>	10	0.012	9	29	26	1"
3/4	15	<b>721 841 107</b>	10	0.021	9	34	29	1 1/4"
1	15	<b>721 841 108</b>	10	0.031	9	42	33	1 1/2"
1 1/4	15	<b>721 841 109</b>	10	0.056	10	52	39	2"
1 1/2	15	<b>721 841 110</b>	10	0.075	10	62	46	2 1/4"
2	15	<b>721 841 111</b>	10	0.139	10	78	58	2 3/4"

## 20 60 02



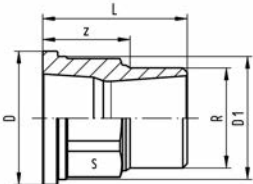
## Union end brass Rp

### Model:

- Union End: Brass with parallel female thread Rp

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

## 20 60 02



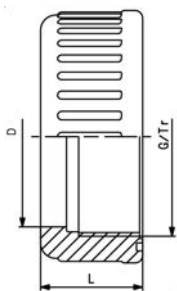
## Union end brass R

### Model:

- Union End: Brass with taper male thread R

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

## 21 69 00



## Union nut PVC-U

- \* for Adaptor unions PVC-U / malleable iron only

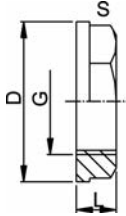
d [mm]	PN	Code	SP	kg	L [mm]	G [inch]	Tr	D [mm]
10 - 12	16	<b>721 890 004</b>	10	0.009	19	5/8		19
16	16	<b>721 890 005</b>	10	0.011	21	3/4		22
20	16	<b>721 890 006</b>	10	0.020	23	1		28
25	16	<b>721 890 007</b>	10	0.020	24	1 1/4		36
32	16	<b>721 890 008</b>	10	0.030	26	1 1/2		41
40	16	<b>721 890 009</b>	10	0.049	29	2		53
50	16	<b>721 890 010</b>	10	0.087	34	2 1/4		59
63	16	<b>721 890 011</b>	10	0.138	38	2 3/4		74
75	10	<b>721 890 012</b>	20	0.256	40		Tr 108x5	92
90	10	<b>721 890 013</b>	12	0.370	43		Tr 128x5	110
* 90	10	<b>721 890 023</b>	12	0.355	43		Tr 128x5	105
110	10	<b>721 890 014</b>	10	0.574	48		Tr 154x6	133



61 49 06

**Backing nut PVC-U tank adaptor****Model:**

- With G thread ISO 228/1
- Spare part for tank adaptor type 050

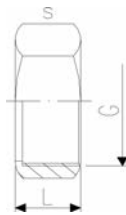


G [inch]	M	Code	SP	kg	D [mm]	L [mm]	s [mm]	
¾		<b>161 490 630</b>	400	0.007	39	13	32	
1		<b>161 490 632</b>	200	0.012	48	15	40	
1 ¼		<b>161 490 634</b>	100	0.019	58	17	50	
1 ½		<b>161 490 635</b>	100	0.027	65	18	56	
1 ¾		<b>161 490 636</b>	75	0.036	72	19	64	
2		<b>161 490 637</b>	50	0.043	79	21	69	
2 ¼		<b>161 490 638</b>	50	0.053	86	21	76	
2 ½		<b>161 490 639</b>	25	0.063	94	23	85	
2 ¾		<b>161 490 640</b>	25	0.092	106	25	95	
3		<b>161 490 641</b>	20	0.101	112	26	100	
4		<b>161 490 644</b>	10	0.164	139	32	126	

24 69 01

**Union nut stainless steel 1.4404 (316L)**

\* Octagon union nut



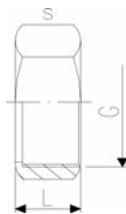
d [mm]	PN	Code	SP	kg	L [mm]	G [inch]	s [mm]	closest inch	
16	16	<b>724 690 105</b>	10	0.060	19	¾	32	¾	
20	16	<b>724 690 106</b>	10	0.105	21	1	41	½	
25	16	<b>724 690 107</b>	10	0.091	23	1 ¼	46	¾	
32	16	<b>724 690 108</b>	10	0.170	24	1 ½	55	1	
* 40	16	<b>724 690 109</b>	10	0.218	27	2	68	1 ¼	
* 50	16	<b>724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

20 69 00

**Union nut, brass**

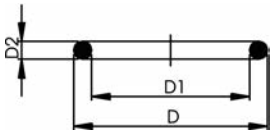
20 69 04

- d12 - d20 for tap connector No. 21 55 03



d [mm]	G [inch]	PN	Code	SP	kg	L [mm]	s [mm]	
16	½	16	<b>720 690 405</b>	1	0.024	16	24	
16	¾	16	<b>720 690 005</b>	1	0.040	17	30	
20	1	16	<b>720 690 006</b>	250	0.065	19	38	
25	1 ¼	16	<b>720 690 007</b>	1	0.105	20	47	
32	1 ½	16	<b>720 690 008</b>	1	0.102	22	52	
40	2	16	<b>720 690 009</b>	1	0.199	25	66	
50	2 ¼	16	<b>720 690 010</b>	1	0.268	25	72	
63	2 ¾	16	<b>720 690 011</b>	1	0.280	27	87	
75	3 ½	16	<b>720 690 012</b>	1	0.675	34	110	

EPDM 48 41 00  
FPM 49 41 00



## O-Ring gasket

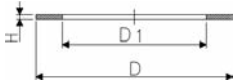
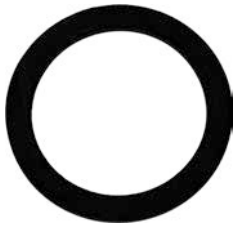
### Model:

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

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

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch
10 - 12	8	<b>748 410 004</b>	<b>749 410 004</b>	-	0.001	18	12	2.62	1/4
16	10	<b>748 410 005</b>	<b>749 410 005</b>	-	0.001	21	16	2.62	3/8
20	15	<b>748 410 006</b>	<b>749 410 006</b>	-	0.001	27	20	3.53	1/2
25	20	<b>748 410 007</b>	<b>749 410 007</b>	100	0.002	35	28	3.53	3/4
32	25	<b>748 410 008</b>	<b>749 410 008</b>	100	0.002	40	33	3.53	1
40	32	<b>748 410 009</b>	<b>749 410 009</b>	-	0.007	51	41	5.34	1 1/4
50	40	<b>748 410 010</b>	<b>749 410 010</b>	-	0.060	58	47	5.34	1 1/2
63	50	<b>748 410 011</b>	<b>749 410 011</b>	100	0.003	70	60	5.34	2
75	65	<b>748 410 014</b>	<b>749 410 014</b>	100	0.012	93	82	5.34	2 1/2
90	80	<b>748 410 015</b>	<b>749 410 015</b>	100	0.015	112	101	5.34	3
110	100	<b>748 410 016</b>	<b>749 410 016</b>	50	0.031	134	120	6.99	4

EPDM 48 40 00  
FPM 49 40 00



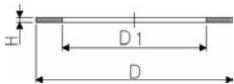
## Flat gasket

### Model:

- Hardness approx. 65° Shore
- For adaptor unions

Inch	D [mm]	D1 [mm]	H [mm]	EPDM Code	FPM Code	kg
1/4	20	13	2	<b>748 400 004</b>	-	0.001
3/8	24	17	2	<b>748 400 005</b>	<b>749 400 005</b>	0.001
1/2	30	21	3	<b>748 400 006</b>	<b>749 400 006</b>	0.003
3/4	38	27	3	<b>748 400 007</b>	<b>749 400 007</b>	0.004
1	44	32	3	<b>748 400 008</b>	<b>749 400 008</b>	0.002
1 1/4	55	42	3	<b>748 400 009</b>	<b>749 400 009</b>	0.003
1 1/2	62	46	3	<b>748 400 010</b>	<b>749 400 010</b>	0.007
2	78	60	3	<b>748 400 011</b>	<b>749 400 011</b>	0.006
2 1/2	97	75	3	<b>748 400 012</b>	<b>749 400 012</b>	0.009
3	109	88	3	<b>748 400 013</b>	<b>749 400 013</b>	0.011

EPDM 48 40 02



## Flat gasket

### Model:

- Hardness approx. 65° Shore
- For tap connectors No. 21 55 03

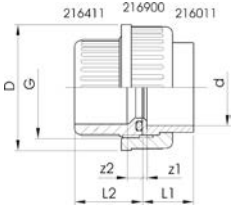
### Attention:

- For tap connector d16 - 1/2": 748 400 030
- For tap connector d20 - 3/4": 748 400 005
- For tap connector d25 - 1": 748 400 006

EPDM Code	SP	kg	D [mm]	D1 [mm]	H [mm]
<b>748 400 030</b>	-	0.001	18	14	2
<b>748 400 005</b>	1	0.001			
<b>748 400 006</b>	1	0.001			

# Unions Inch BS

21 51 11



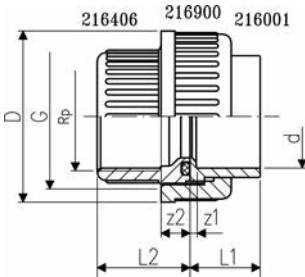
## Union for solvent cement jointing PVC-U Inch BS

**Model:**

- Union End: Solvent cement socket BS Inch
- Union Bush: Solvent cement socket BS Inch
- Gasket: O-Ring EPDM No. 48 41 00

d [inch]	PN	EPDM Code	FPM Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
3/8	15	721 511 105	721 511 130	-	0.025	3	8	35	19	24	3/4
1/2	15	721 511 106	721 511 131	-	0.040	3	9	43	21	26	1
3/4	15	721 511 107	721 511 132	-	0.064	3	9	51	24	29	1 1/4
1	15	721 511 108	721 511 133	10	0.088	3	9	58	27	33	1 1/2
1 1/4	15	721 511 109	721 511 134	5	0.133	3	10	72	32	39	2
1 1/2	15	721 511 110	721 511 135	5	0.204	3	10	83	33	46	2 1/4
2	15	721 511 111	721 511 136	10	0.366	3	10	100	40	58	2 3/4
2 1/2	10	721 510 112	721 510 137	2	0.621	3	18	135	47	62	Tr108x5

21 51 12

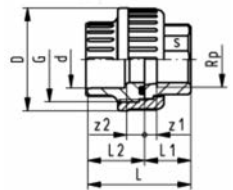


## Adaptor union PVC-U Inch BS Rp

**Model:**

- Union End: Solvent cement socket BS Inch
- Union Bush: Parallel female thread Rp
- Gasket: O-Ring No. 48 41 00
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U

d [inch]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
3/8	3/8	10	721 511 205	10	0.025	3	13	35	17	24	3/4
1/2	1/2	10	721 511 206	10	0.042	3	13	43	19	26	1
3/4	3/4	10	721 511 207	10	0.068	3	14	51	22	29	1 1/4
1	1	10	721 511 208	10	0.094	3	15	58	25	32	1 1/2
1 1/4	1 1/4	10	721 511 209	10	0.168	3	19	72	29	38	2
1 1/2	1 1/2	10	721 511 210	2	0.223	3	26	83	34	45	2 1/4
2	2	10	721 511 211	2	0.405	3	33	100	41	56	2 3/4



## Adaptor union PVC-U/brass Inch BS Rp

**Model:**

- Union nut: PVC-U
- Union Bush: Solvent cement socket BS Inch
- Union End: Brass with parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00



d [inch]	Rp [inch]	PN* [bar]	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
1/2	1/2	15	721 551 506	10	0.093	43	48	22	26	7	9	1	25
3/4	3/4	15	721 551 507	5	0.145	51	54	25	29	9	8	1 1/4	30
1	1	15	721 551 508	5	0.193	58	60	27	33	8	9	1 1/2	36
1 1/4	1 1/4	15	721 551 509	2	0.344	72	70	31	39	10	11	2	46
1 1/2	1 1/2	15	721 551 510	2	0.509	83	75	35	41	13	11	2 1/4	55
2	2	15	721 551 511	5	0.776	100	88	40	48	14	12	2 3/4	65
	2 1/2		721 550 512	2	1.360	127	109	47	62	16	18	Tr 108x5	85
3	3	15	721 551 513	2	2.120	150	121	52	69	18	19	Tr 128x5	95

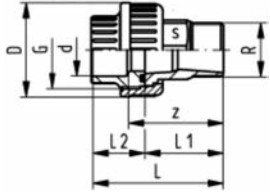


## Adaptor union PVC-U/brass Inch BS R



### Model:

- Union nut: PVC-U
- Union Bush: Solvent cement socket BS inch
- Union End: Brass with taper male thread R
- Gasket: O-ring EPDM No. 48 41 00



d [inch]	R [inch]	PN* [bar]	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	G [inch]	s [mm]
1/2	1/2	15	721 551 906	10	0.132	43	63	37	26	46	1	25
3/4	3/4	15	721 551 907	5	0.196	51	71	42	29	50	1 1/4	30
1	1	15	721 551 908	5	0.297	58	79	46	33	55	1 1/2	36
1 1/4	1 1/4	15	721 551 909	2	0.519	72	91	52	39	63	2	46
1 1/2	1 1/2	15	721 551 910	2	0.723	83	97	56	41	67	2 1/4	55
2	2	15	721 551 911	8	1.091	100	115	67	48	78	2 3/4	65
	2 1/2		721 550 912	2	1.706	127	139	77	62	95	Tr 108x5	85
3	3	15	721 551 913	1	2.788	150	155	86	69	104	Tr 128x5	95

21 53 13

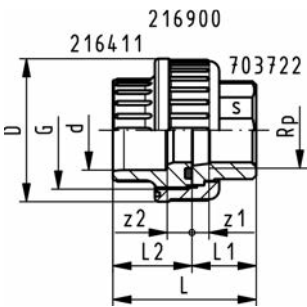


## Adaptor union PVC-U/malleable iron galvanised Inch BS Rp



### Model:

- Union nut: PVC-U
- Union Bush: Solvent cement socket BS Inch
- Union End: malleable iron with parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00



d [inch]	Rp [inch]	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
1/2	1/2	721 531 306	10	0.120	43	48	22	26	9	10	1	25
3/4	3/4	721 531 307	5	0.190	51	51	22	29	7	10	1 1/4	31
1	1	721 531 308	5	0.250	58	58	26	33	9	10	1 1/2	38
1 1/4	1 1/4	721 531 309	2	0.400	72	69	31	39	12	12	2	48
1 1/2	1 1/2	721 531 310	2	0.510	83	78	33	46	14	14	2 1/4	54
2	2	721 531 311	5	0.780	100	91	35	58	11	18	2 3/4	67
	2 1/2	721 530 312	2	1.008	127	101	39	62	12	18	Tr 108x5	85
3	3	721 531 313	2	1.740	150	114	45	69	15	19	Tr 128x5	96

21 53 18

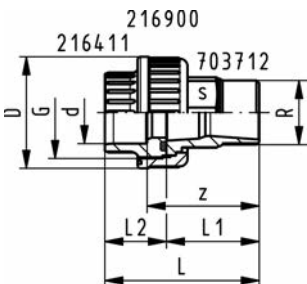


## Adaptor union PVC-U/malleable iron galvanised Inch BS R



### Model:

- Union nut: PVC-U
- Union Bush: Solvent cement socket BS Inch
- Union End: Malleable iron with taper male thread R
- Gasket: O-Ring EPDM No. 48 41 00



d [inch]	R [inch]	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	G [inch]	s [mm]
1/2	1/2	721 531 806	10	0.156	43	66	40	26	50	1	25
3/4	3/4	721 531 807	5	0.230	51	72	43	29	53	1 1/4	31
1	1	721 531 808	5	0.330	58	80	48	33	58	1 1/2	38
1 1/4	1 1/4	721 531 809	2	0.480	72	95	57	39	69	2	48
1 1/2	1 1/2	721 531 810	2	0.683	83	104	59	46	73	2 1/4	54
2	2	721 531 811	8	1.082	100	118	62	58	80	2 3/4	67
	2 1/2	721 530 812	2	1.441	127	137	75	62	93	Tr 108x5	85
3	3	721 531 813	1	1.891	150	149	80	69	99	Tr 128x5	96

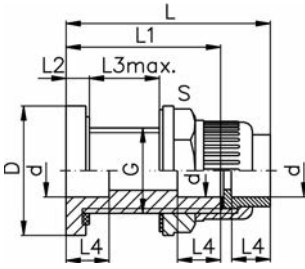
61 05 02



## Tank adaptor for fix position stop PVC-U Inch BS

**Model:**

- End connection: Union with solvent cement socket BS Inch
- Gasket: flat gasket EPDM
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)



d [inch]	Code Code	SP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	s [mm]	Diameter of bore in tank side [mm]
1/2	<b>161 050 226</b>	1	0.122	56	89	67	11	30	16	1"	46	35
3/4	<b>161 050 227</b>	1	0.100	65	97	72	12	32	19	1 1/4"	50	43
1	<b>161 050 228</b>	1	0.231	70	103	75	12	33	22	1 1/2"	60	49
1 1/4	<b>161 050 229</b>	1	0.240	95	111	78	12	32	26	2"	80	61
1 1/2	<b>161 050 230</b>	1	0.463	95	119	82	13	32	31	2 1/4"	80	67
2	<b>161 050 231</b>	1	0.692	115	131	87	13	33	38	2 3/4"	95	83

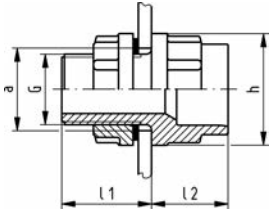
61 10 87



## Tank adaptor for adjustable stop PVC-U Inch BS

**Model:**

- With solvent cement socket BS Inch and parallel female thread G
- Gasket: flat gasket EPDM
- Gasket: O-Ring FPM No. 49 41 00 (to be ordered separately)

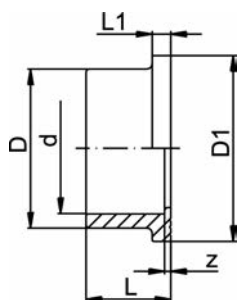


d [inch]	PN	Code Code	SP	kg	h [mm]	l1 [mm]	l2 [mm]	a [mm]	G [inch]
1/2	15	<b>161 108 706</b>	10	0.050	37	34	24	23	1/2
3/4	15	<b>161 108 707</b>	10	0.048	42	34	29	28	3/4

# Flange Adaptors and Flanges metric

21 79 01 / 21 80 01

## Flange adaptor PVC-U Combined jointing face flat and serrated metric



### Model:

- Solvent cement socket metric
- d63 - d400: Combined Jointing face flat and serrated
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07 or Flat gasket EPDM No. 48 40 03 Only use O-ring EPDM No. 48 41 01, FPM No. 49 41 01 in combination with counterpart Flange Adaptor No. 21 81 01
- Flange: PVC-U No. 21 70 00, PP with steel ring No. 27 70 02, Backing Flange PP-V for socket systems metric No. 27 70 04

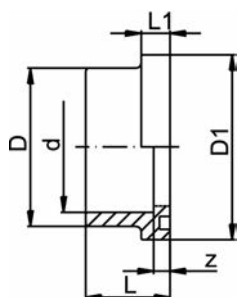
\* bevel on pipe may be needed if used with butterfly valve type 037/038/039

**Note: The flat gasket affects the maximum allowable operating pressure!**

d [mm]	d [inch]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
16		10	16	721 800 105	10	0.006	3	22	29	17	6
20		15	16	721 800 106	10	0.009	3	27	34	19	6
25		20	16	721 800 107	10	0.015	3	33	41	22	7
32		25	16	721 800 108	10	0.024	3	41	50	25	7
40		32	16	721 800 109	10	0.039	3	50	61	29	8
50		40	16	721 800 110	10	0.056	3	61	73	34	8
63		50	16	721 790 111	10	0.103	3	77	90	41	9
75	2 ½	65	16	721 790 112	10	0.159	3	91	106	47	10
90		80	16	721 790 113	10	0.253	5	108	125	56	11
110		100	16	721 790 114	10	0.417	5	131	150	66	12
125		100	16	721 790 115	5	0.533	5	148	170	74	13
140	5	125	16	721 790 116	6	0.725	5	165	188	81	14
* 160		150	16	721 790 117	2	1.093	5	188	213	91	16
* 200		200	10	721 790 119	2	1.443	6	224	250	112	24
225		200	10	721 790 120	2	1.743	6	248	274	125	25
* 250		250	10	721 790 121	1	2.203	9	274	303	140	23
280		250	10	721 790 122	1	2.930	5	308	329	151	23
* 315		300	6	721 790 123	1	4.455	8	346	379	172	27
355		350	6	721 790 124	1	5.963	10	384	430	194	32
400		400	6	721 790 125	1	9.041	10	438	482	216	34

21 81 01

## Flange adaptor PVC-U Jointing face with O-ring groove metric



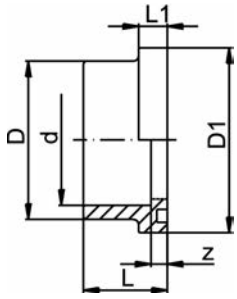
### Model:

- Solvent cement socket metric
- Counterpart: Flange Adaptor flat No. 21 80 01 Combined Flange Adaptor (d160, d200, d225, d280, d315)
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01
- Flange: PVC-U No. 21 70 00, PP/Steel Nr. 27 70 02, PP-V for socket systems metric No. 27 70 04

d [mm]	DN [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
16	10		16	721 810 105	10	0.008	6	22	29	20	9
20	15		16	721 810 106	100	0.011	6	27	34	22	9
25	20		16	721 810 107	10	0.018	6	33	41	25	10
32	25		16	721 810 108	10	0.027	6	41	50	28	10

table continued next page





d [mm]	DN [mm]	d [inch]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
40	32		16	721 810 109	10	0.046	8	50	61	34	13
50	40		16	721 810 110	10	0.068	8	61	73	39	13
63	50		16	721 810 111	10	0.120	8	77	90	46	14
75	65	2 1/2	16	721 810 112	10	0.183	8	91	106	52	15
90	80		16	721 810 113	10	0.286	10	108	125	61	16
110	100		16	721 810 114	10	0.478	11	131	150	72	18
125	100		16	721 810 115	5	0.607	11	148	170	80	19
140	125	5	16	721 810 116	6	0.804	11	165	188	87	20
160	150		16	721 810 117	12	1.226	11	188	213	97	22
200	200		10	721 810 119	2	1.593	12	224	250	118	30
225	200		10	721 810 120	2	1.878	12	248	274	131	31
250	250		10	721 810 121	1	2.175	9	274	303	140	23
280	250		10	721 810 122	1	3.170	13	308	329	158	30
315	300		6	721 810 123	1	4.891	17	346	379	180	35

## 21 70 00

## Backing flange PVC-U metric

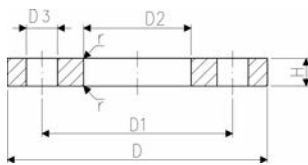
### Model:

- For socket systems
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Maximum medium- or ambient temperature 45 °C
- Bolt circle PN 10

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

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

AL: number of holes



d [mm]	DN [mm]	Inch	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL	SC
16	10	3/8	10	721 700 005	0.053	90	60	23	14	10	1	4	M12
20	15	1/2	10	721 700 006	0.067	95	65	28	14	11	1	4	M12
25	20	3/4	10	721 700 007	0.092	105	75	34	14	12	2	4	M12
32	25	1	10	721 700 008	0.133	115	85	42	14	14	2	4	M12
40	32	1 1/4	10	721 700 009	0.198	140	100	51	18	15	2	4	M16
50	40	1 1/2	10	721 700 010	0.247	150	110	62	18	16	2	4	M16
63	50	2	10	721 700 011	0.312	165	125	78	18	18	3	4	M16
75	65	2 1/2	10	721 700 012	0.376	185	145	92	18	19	3	4	M16
90	80	3	10	721 700 013	0.464	200	160	110	18	20	3	8	M16
110	100	4	10	721 700 014	0.543	220	180	133	18	22	3	8	M16
125	125	4 1/2	10	721 700 015	0.904	250	210	150	18	26	5	8	M16
140	125	5	10	721 700 016	0.765	250	210	167	18	26	4	8	M16
160	150	6	10	721 700 017	1.009	285	240	190	22	28	4	8	M20
200	200	7	10	721 700 019	1.669	340	295	226	22	32	4	8	M20
225	200	8	10	721 700 020	1.377	340	295	250	22	32	4	8	M20
250	250	9	6	721 700 021	2.376	395	350	277	22	36	4	12	M20
250	225	9	6	721 700 136	1.800	370	325	277	22	36	4	8	M20
280	250	10	6	721 700 137	1.746	395	350	310	22	36	4	12	M20
315	300	12	6	721 700 138	2.349	445	400	348	22	36	4	12	M20
355	350	14	6	721 700 139	3.485	505	460	388	22	38	5	16	M20
400	400	16	6	721 700 140	4.526	565	515	442	26	42	5	16	M24

## 21 70 22

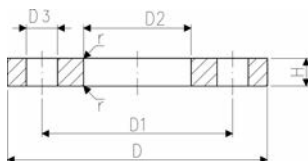
## Backing flange PVC-U Inch ANSI

### Model:

- For socket systems
- For Flange Adaptors BS/ANSI
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Bolt circle class 150

\* Only for use with metric flange adaptors

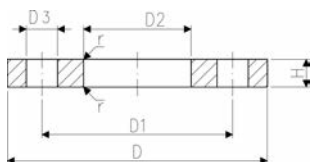
AL: number of holes



Inch	DN [mm]	d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL
1/2	15		10	721 702 206	90	0.068	95	60	28	16	11	1	4
3/4	20		10	721 702 207	50	0.090	105	70	34	16	12	2	4
1	25		10	721 702 208	40	0.128	115	79	42	16	14	2	4
1 1/4	32		10	721 702 209	25	0.203	140	89	51	16	15	2	4
1 1/2	40		10	721 702 210	20	0.238	150	98	62	16	16	2	4

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Inch	DN [mm]	d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL
2	50		10	721 702 211	30	0.302	165	121	78	19	18	3	4
2 1/2	65		10	721 702 212	27	0.369	185	140	92	19	19	3	4
3	80		10	721 702 213	20	0.509	200	152	110	19	20	3	4
4	100		10	721 702 214	30	0.516	220	190	138	19	22	3	8
* 4	100	110	10	161 483 180	30	0.538	220	190	133	19	22	3	8
5	125		10	721 702 216	12	0.737	250	216	167	22	26	4	8
6	150		10	721 702 217	9	1.910	285	241	200	22	28	4	8
8	200		10	721 702 220	8	1.360	340	298	250	22	32	4	8

27 70 04  
27 70 05

## Backing flange PP-V For socket systems metric

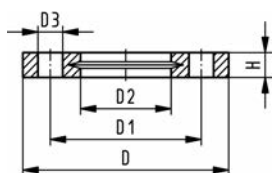
### Model:

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

\* Combined version, metric-ANSI

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)



d [mm]	DN [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
<sup>1)</sup> 20	15	16	727 700 406	56	0.093	95	65.0	28	14	16	4	M12
<sup>1)</sup> 25	20	16	727 700 407	38	0.120	105	75.0	34	14	17	4	M12
<sup>1)</sup> 32	25	16	727 700 408	80	0.151	115	85.0	42	14	18	4	M12
<sup>1)</sup> 40	32	16	727 700 409	40	0.244	140	100.0	51	18	20	4	M16
<sup>1)</sup> 50	40	16	727 700 410	30	0.297	150	110.0	62	18	22	4	M16
<sup>1)</sup> 63	50	16	727 700 411	25	0.362	165	125.0	78	18	24	4	M16
<sup>1)</sup> 75	65	16	727 700 412	19	0.487	185	145.0	92	18	26	4	M16
90	80	16	727 700 413	15	0.550	200	160.0	110	18	27	8	M16
110	100	16	727 700 414	13	0.640	220	180.0	133	18	28	8	M16
140	125	16	727 700 416	10	0.781	250	210.0	167	18	30	8	M16
160	150	16	727 700 417	1	1.050	285	241.0	190	22	32	8	M20
* 200	200	16	727 700 419	-	1.629	340	296.5	226	22	34	8	M20
* 225	200	16	727 700 420	-	1.400	340	296.5	250	22	34	8	M20
250	250	16	727 700 421	-	2.229	395	350.0	277	22	38	12	M20
280	250	16	727 700 422	-	1.651	395	350.0	310	22	38	12	M20
315	300	16	727 700 423	-	2.461	445	400.0	348	22	42	12	M20
355	350	10	727 700 424	-	3.000	515	460.0	388	22	46	16	M20
400	400	10	727 700 425	-	5.135	574	515.0	442	26	50	16	M24

27 70 02

## Backing flange PP-Steel For socket systems metric

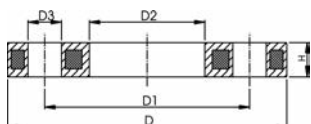
### Model:

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

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

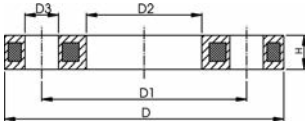
<sup>2)</sup> Connecting dimension: ISO 2536, bolt circle acc. DN225, suitable for flange adaptor d250/DN250

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.216	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.279	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.429	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.621	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.722	150	110	62	18	20	4	M16
63	50	16	727 700 211	1.084	165	125	78	18	20	4	M16
75	65	16	727 700 212	1.349	185	145	92	18	20	4	M16
90	80	16	727 700 213	1.369	200	160	110	18	20	8	M16
110	100	16	727 700 214	1.522	220	180	133	18	20	8	M16

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d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
125	125	16	727 700 215	2.475	250	210	150	18	24	8	M16
140	125	16	727 700 216	2.033	250	210	167	18	24	8	M16
160	150	16	727 700 217	3.167	285	240	190	22	24	8	M20
200	200	16	727 700 219	6.143	340	295	226	22	27	8	M20
225	200	16	727 700 220	4.448	340	295	250	22	27	8	M20
250	250	16	727 700 021	7.179	395	350	277	22	30	12	M20
250	225	16	727 700 221	8.340	395	325	277	22	30	8	M20
280	250	16	727 700 222	5.547	395	350	310	22	30	12	M20
315	300	16	727 700 223	6.980	445	400	348	22	34	12	M20
355	350	16	727 700 224	12.465	515	460	388	23	40	16	M20
400	400	16	727 700 225	17.607	574	515	442	26	40	16	M24

27 70 14  
27 70 15



## Backing flange PP-V For socket systems Inch ANSI

### Model:

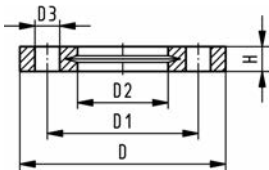
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- 727701414, 727700417, 727700419: only for use with original metric flange adaptors

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

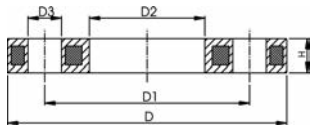
AL: number of holes

\* Combined version, metric-ANSI

Inch	DN [mm]	d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	20	16	727 701 406	0.091	95	60.0	28	16	16	4	M12
3/4	20	25	16	727 701 407	0.120	105	70.0	34	16	17	4	M12
1	25	32	16	727 701 408	0.147	115	79.0	42	16	18	4	M12
1 1/4	32	40	16	727 701 409	0.246	140	89.0	51	16	20	4	M16
1 1/2	40	50	16	727 701 410	0.299	150	98.0	62	16	22	4	M16
2	50	63	16	727 701 411	0.361	165	121.0	78	19	24	4	M16
2 1/2	65	75	16	727 701 412	0.492	185	140.0	92	19	26	4	M16
3	80	90	16	727 701 413	0.605	200	152.0	110	19	27	4	M16
4	100	110	16	727 701 414	0.704	229	190.0	133	19	28	8	M16
6	150	160	16	727 700 417	1.050	285	241.0	190	22	32	8	M20
* 8	200	200	16	727 700 419	1.629	340	296.5	226	22	34	8	M20
* 8	200	225	16	727 700 420	1.400	340	296.5	250	22	34	8	M20
10	250	280	16	727 701 422	1.838	406	362.0	310	26	38	12	M20
12	300	315	16	727 701 423	3.482	483	432.0	348	26	42	12	M20



27 70 12



## Backing flange PP-Steel For socket systems Inch/ANSI

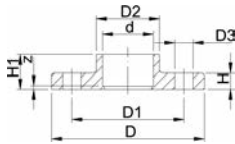
### Model:

- For Flange Adaptors BS/ANSI
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- 727701214, 727700217: only for use with original metric flange adaptors

AL: number of holes

d [inch]	DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	SC
1/2	15	20	16	<b>727 701 206</b>	0.213	60	28	16	95	12	4	M12
3/4	20	25	16	<b>727 701 207</b>	0.260	70	34	16	105	12	4	M12
1	25	32	16	<b>727 701 208</b>	0.416	79	42	16	115	16	4	M12
1 1/4	32	40	16	<b>727 701 209</b>	0.730	89	51	16	140	16	4	M16
1 1/2	40	50	16	<b>727 701 210</b>	0.809	98	62	16	150	18	4	M16
2	50	63	16	<b>727 701 211</b>	0.866	121	78	19	165	18	4	M16
2 1/2	65	75	16	<b>727 701 212</b>	1.117	140	92	19	185	18	4	M16
3	80	90	16	<b>727 701 213</b>	1.492	152	110	19	200	20	4	M16
4	100	110	16	<b>727 701 214</b>	1.695	190	133	19	229	20	8	M16
6	150	160	16	<b>727 700 217</b>	3.167	240	190	22	285	24	8	M20
8	200	225	16	<b>727 701 220</b>	4.473	298	250	22	340	27	8	M20

21 73 02



## Fixed flange PVC-U Jointing face flat metric

### Model:

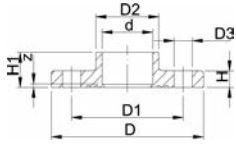
- Solvent cement socket metric
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10
- **Bolt circle PN 10**

\* Combined Flange, connecting dimensions EN1092 PN 10 and ANSI B 16.5 Class 150

d [mm]	DN [mm]	Inch	PN	Code	kg
20	15	1/2	16	<b>721 730 206</b>	0.098
25	20	3/4	16	<b>721 730 207</b>	0.130
32	25	1	16	<b>721 730 208</b>	0.183
40	32	1 1/4	16	<b>721 730 209</b>	0.305
50	40	1 1/2	16	<b>721 730 210</b>	0.365
63	50	2	16	<b>721 730 211</b>	0.510
* 75	65	2 1/2	10	<b>721 730 212</b>	0.520
* 90	80	3	10	<b>721 730 213</b>	0.720
* 110	100	4	10	<b>721 730 214</b>	0.920
* 140	125	5	10	<b>721 730 216</b>	1.380
* 160	150	6	10	<b>721 730 217</b>	2.039

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	z [mm]	H [mm]	H1 [mm]	AL	SC
20	95	65	27	14	3	12	19	4	M12
25	105	75	33	14	3	13	22	4	M12
32	115	85	41	14	3	14	25	4	M12
40	140	100	51	18	3	17	29	4	M16
50	150	110	62	18	3	17	34	4	M16
63	165	125	77	18	3	20	41	4	M16
* 75	185	142	91	22	3	21	47	4	M16
* 90	200	156	108	22	5	22	56	8	M16
* 110	220	186	131	24	5	24	66	8	M16
* 140	250	215	165	23	5	28	91	8	M16
* 160	285	240	188	23	5	30	91	8	M20

21 74 01



## Fixed flange PVC-U Combined jointing face: flat and serrated metric

**Model:**

- Solvent cement socket metric
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10
- **Bolt circle PN 10**

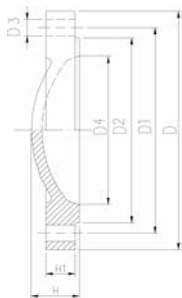
\* Combined Flange, connecting dimensions EN1092 PN 10 and ANSI B 16.5 Class 150  
d75 - d110: bolt hole as long hole version

AL: number of holes

d [mm]	DN [mm]	d [inch]	PN	Code	kg
20	15		16	<b>721 740 106</b>	0.100
25	20		16	<b>721 740 107</b>	0.130
32	25		16	<b>721 740 108</b>	0.185
40	32		16	<b>721 740 109</b>	0.306
50	40		16	<b>721 740 110</b>	0.368
63	50		16	<b>721 740 111</b>	0.513
* 75	65	2 1/2	10	<b>721 740 112</b>	0.536
* 90	80	3	10	<b>721 740 113</b>	0.710
* 110	100	4	10	<b>721 740 114</b>	0.941
* 140	125	5	10	<b>721 740 116</b>	1.395
* 160	150	6	10	<b>721 740 117</b>	2.029

d [mm]	D [mm]	D1 [mm]	D1 max. [mm]	D1 min. [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]	AL	SC
20	95	65			27	14	12	19	3	4	M12
25	105	75			33	14	13	22	3	4	M12
32	115	85			41	14	14	25	3	4	M12
40	140	100			51	18	17	29	3	4	M16
50	150	110			62	18	17	34	3	4	M16
63	165	125			77	18	20	41	3	4	M16
* 75	185		139.5	144.0	91	19	21	47	3	4	M16
* 90	200		152.5	159.0	108	19	22	56	5	8	M16
* 110	220		181.0	190.5	131	24	24	66	5	8	M20
* 140	250	215			165	23	28	91	5	8	M20
* 160	285	240			188	23	30	91	5	8	M20

21 70 05



## Blanking Flanges, PVC-U Jointing face serrated, metric

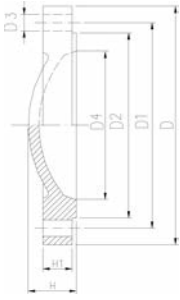
**Model:**

- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- **d63 to d160: combined jointing face (serrated and flat)**
- d250: connecting dimension: ISO 2536
- **Bolt circle PN 10**

\* Combined Flange, connecting dimensions EN1092 PN 10 and ANSI B 16.5 Class 150  
d20 - d110: bolt hole as long hole version

AL: number of holes

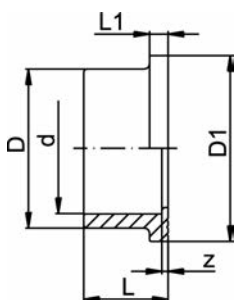
d [mm]	DN [mm]	Inch	PN	Code	kg
* 20	15	1/2	10	<b>721 700 506</b>	0.075
* 25	20	3/4	10	<b>721 700 507</b>	0.097
* 32	25	1	10	<b>721 700 508</b>	0.145
* 40	32	1 1/4	10	<b>721 700 509</b>	0.214
* 50	40	1 1/2	10	<b>721 700 510</b>	0.298
* 63	50	2	10	<b>721 700 511</b>	0.352
* 75	65	2 1/2	10	<b>721 700 512</b>	0.538
* 90	80	3	10	<b>721 700 513</b>	0.679
* 110	100	4	10	<b>721 700 514</b>	0.870
* 140	125	5	10	<b>721 700 516</b>	1.286
* 160	150	6	10	<b>721 700 517</b>	1.761
225	200	8	10	<b>721 700 520</b>	2.731
250	250	10	10	<b>721 700 521</b>	3.329
280	250	10	10	<b>721 700 522</b>	3.769
315	300	12	6	<b>721 700 523</b>	4.856
355	350	14	6	<b>721 700 524</b>	6.972
400	400	16	6	<b>721 700 525</b>	9.125



d [mm]	D [mm]	D1 [mm]	D1 min. [mm]	D1 max. [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL
* 20	95		61.0	63.0	34	16	15	15	12	4
* 25	105		70.0	73.0	41	16	20	16	13	4
* 32	115		79.0	83.0	50	16	25	19	15	4
* 40	140		91.0	100.0	61	18	34	20	16	4
* 50	150		101.0	110.0	74	18	44	22	17	4
* 63	165		121.0	124.0	91	19	57	25	20	4
* 75	185		140.0	145.0	106	22	69	29	21	4
* 90	200		152.0	160.0	125	22	82	32	22	8
* 110	220		180.0	191.0	150	24	102	36	24	8
* 140	250	215			184	23	120	41	28	8
* 160	285	240			212	23	152	45	30	8
225	340	295			273	22	213	63	36	8
250	370	325			303	22	238	63	36	8
280	395	350			328	22	266	65	36	12
315	445	400			378	22	299	65	36	12
355	505	460			430	22	341	67	38	16
400	565	515			482	26	384	71	42	16

## Flange adaptors Inch BS

21 79 11



### Flange adaptor PVC-U

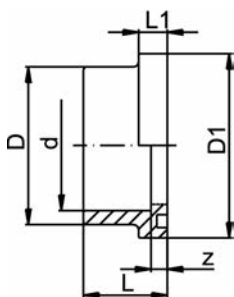
#### Combined jointing face flat and serrated Inch BS

**Model:**

- Counterpart:  
Flange Adaptor serrated BS Inch No. 21 79 11  
Flange Adaptor serrated metric No. 21 79 01
- Gasket: Flat gasket EPDM No. 48 40 03

d [inch]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
1/2	15	15	<b>721 791 106</b>	10	0.009	3	27	34	21	6
3/4	20	15	<b>721 791 107</b>	10	0.014	3	33	41	24	7
1	25	15	<b>721 791 108</b>	10	0.023	3	41	50	27	7
1 1/4	32	15	<b>721 791 109</b>	10	0.035	3	50	61	32	8
1 1/2	40	15	<b>721 791 110</b>	10	0.058	3	61	73	33	8
2	50	15	<b>721 791 111</b>	5	0.107	3	77	91	40	9
2 1/2	65	16	<b>721 790 112</b>	10	0.159	3	91	106	47	10
3	80	15	<b>721 791 113</b>	20	0.269	5	108	125	56	11
4	100	15	<b>721 791 115</b>	10	0.422	5	136	155	69	12
5	125	16	<b>721 790 116</b>	6	0.725	5	165	188	81	14
6	150	15	<b>721 791 117</b>	10	1.172	5	198	217	96	16
8	200	9	<b>721 791 120</b>	2	2.028	6	248	274	122	20
10	250	9	<b>721 791 122</b>	1	3.677	9	307	329	151	23
12	300	6	<b>721 791 123</b>	1	3.418	4	346	379	172	27

21 81 11



### Flange adaptor PVC-U

#### Jointing face with O-ring groove Inch BS

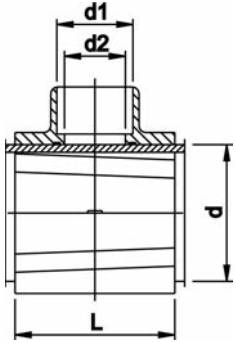
**Model:**

- Counterpart: Flange Adaptor flat BS No. 21 80 11
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01
- Flange: PVC-U ANSI No. 21 70 22, PP-Steel ANSI No. 27 70 12, PP-V ANSI No. 27 70 14

d [inch]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
2	50	15	<b>721 811 111</b>	5	0.125	8	77	91	46	14
2 1/2	65	16	<b>721 810 112</b>	10	0.183	8	91	106	52	15
5	125	16	<b>721 810 116</b>	6	0.804	11	165	188	87	20
8	200	9	<b>721 811 120</b>	-	2.070	12	248	274	128	26

# Branch and tapping saddles

21 111

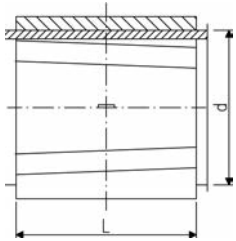


## Branch saddle

- Outlet with solvent cement socket metric
- For operating pressure up to 10 bar water
- Top saddle with rubber seal
- Seal: NBR (Nitrile-Rubber) shore hardness: 60 ±5 Shore A

d [mm]	Code	SP	kg	d1 [mm]	d2 [mm]	L [mm]
63	<b>161 111 035</b>	1	0.697	40	22	105
63	<b>161 111 036</b>	1	0.733	50	22	105
75	<b>161 111 046</b>	1	0.778	50	31	105
90	<b>161 111 055</b>	1	0.829	40	31	105
90	<b>161 111 056</b>	1	0.867	50	31	105
110	<b>161 111 065</b>	1	0.935	40	31	105
110	<b>161 111 066</b>	1	0.970	50	40	105
110	<b>161 111 067</b>	1	1.003	63	40	105
160	<b>161 111 095</b>	1	1.252	40	31	120
160	<b>161 111 096</b>	1	1.281	50	40	120
160	<b>161 111 097</b>	1	1.488	63	40	120
225	<b>161 111 116</b>	1	1.587	50	40	120
225	<b>161 111 117</b>	1	1.756	63	40	120

21 110 200



## Repair saddle

- For operating pressure up to 10 bar water
- For repair of damaged pipes
- Saddle halves can be solvent cemented
- Cementing only possible on dry mains without pressure

d [mm]	Code	SP	kg	Max. pipe aperture [mm]	L [mm]
63	<b>161 110 230</b>	1	0.663	39	105
90	<b>161 110 250</b>	1	0.761	48	105
110	<b>161 110 260</b>	1	0.900	48	105
160	<b>161 110 290</b>	1	1.369	60	120
225	<b>161 110 310</b>	1	1.490	60	120



# Sensor-Installation Fittings

21 31 20



## Installation fitting type 312 PVC-U metric glue on saddle

### Model:

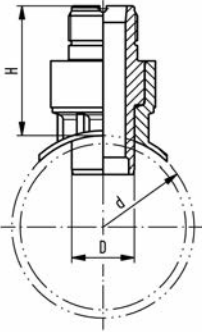
- Material: PVC-U
- Saddle with threaded outlet 1 ¼" NPSM
- Top saddle for solvent cement bonding

### Range of use:

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

### Attention:

- sensor length depends on installation fitting



d [mm]	DN [mm]	PN	Code	SP	kg	D [mm]	H [mm]	Sensor Type
75	65	10	721 312 012	1	0.220	38	89	flow X1
90	80	10	721 312 013	1	0.228	38	89	flow X1
110	100	10	721 312 014	1	0.225	38	89	flow X1
125	100	10	721 312 015	1	0.218	38	81	flow X1
140	125	10	721 312 016	1	0.213	38	79	flow X1
160	150	10	721 312 017	1	0.217	38	76	flow X1
200	200	10	721 312 019	1	0.192	38	69	flow X1
225	200	10	721 312 020	1	0.297	38	141	flow X2
250	250	10	721 312 021	1	0.295	38	137	flow X2
315	300	10	721 312 023	1	0.290	38	127	flow X2

21 31 00



## Installation fitting type 310 PVC-U For socket systems metric

### Model:

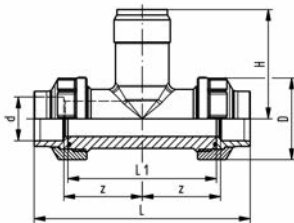
- Material: PVC-U
- Threaded outlet 1 ¼" NPSM
- Union end with solvent cement socket PVC-U

### Range of use:

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

### Attention:

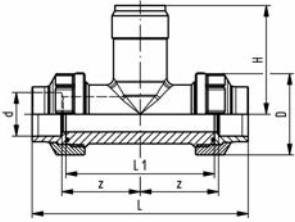
- sensor length depends on installation fitting



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
20	15	16	721 310 006	721 310 036	0.181
25	20	16	721 310 007	721 310 037	0.226
32	25	16	721 310 008	721 310 038	0.304
40	32	16	721 310 009	721 310 039	0.479
50	40	16	721 310 010	721 310 040	0.571
63	50	16	721 310 011	721 310 041	0.881

d [mm]	DN [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
20	15	43	48	128	90	76	flow X0, pH XX
25	20	51	53	144	100	78	flow X0, pH XX
32	25	58	58	160	110	81	flow X0, pH XX
40	32	72	58	168	110	85	flow X0, pH XX
50	40	83	63	188	120	89	flow X0, pH XX
63	50	100	68	212	130	95	flow X0, pH XX

21 31 03



## Installation fitting type 310 PVC-U For socket systems Inch BS

### Model:

- Material: PVC-U
- Threaded outlet 1 ¼" NPSM
- Union end with solvent cement socket PVC-U

### Range of use:

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

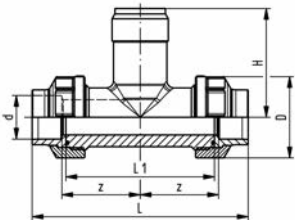
### Attention:

- sensor length depends on installation fitting

d [inch]	DN [mm]	PN	EPDM Code	FPM Code	kg
½	15	15	721 310 306	721 310 336	0.181
¾	20	15	721 310 307	721 310 337	0.244
1	25	15	721 310 308	721 310 338	0.299
1 ¼	32	15	721 310 309	721 310 339	0.440
1 ½	40	15	721 310 310	721 310 340	0.579
2	50	15	721 310 311	721 310 341	1.011

d [inch]	DN [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
½	15	43	48	131	90	76	flow X0, pH XX
¾	20	51	53	147	100	78	flow X0, pH XX
1	25	58	58	164	110	81	flow X0, pH XX
1 ¼	32	72	58	171	110	85	flow X0, pH XX
1 ½	40	83	63	188	120	89	flow X0, pH XX
2	50	100	68	211	130	95	flow X0, pH XX

21 31 04



## Installation fitting type 310 PVC-U for socket systems Inch ASTM

### Model:

- Material: PVC-U
- Threaded outlet 1 ¼" NPSM
- Union end with solvent cement socket PVC-U

### Range of use:

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

### Attention:

- sensor length depends on installation fitting

d [inch]	DN [mm]	PN	EPDM Code	FPM Code	kg
½	15	16	721 310 406	721 310 436	0.181
¾	20	16	721 310 407	721 310 437	0.244
1	25	16	721 310 408	721 310 438	0.333
1 ¼	32	16	721 310 409	721 310 439	0.440
1 ½	40	16	721 310 410	721 310 440	0.700
2	50	16	721 310 411	721 310 441	1.011

d [inch]	DN [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
½	15	43	48	140	90	76	flow X0, pH XX
¾	20	51	53	156	100	78	flow X0, pH XX
1	25	58	58	174	110	81	flow X0, pH XX
1 ¼	32	72	58	180	110	85	flow X0, pH XX
1 ½	40	83	63	196	120	89	flow X0, pH XX
2	50	100	68	212	130	95	flow X0, pH XX

# Find the fitting solution with the Configurator

**Ball valve**  
A01 Ball valve 546

**Material**  
B01 PVC-U

**Dimension**  
C05 DN 10 3/8"  
C06 DN 15 1/2"  
C07 DN 20 3/4"  
C08 DN 25 1"  
C09 DN 32 1 1/4"  
C10 DN 40 1 1/2"  
C11 DN 50 2"

**Version**  
D01 standard, PTFE ball seal  
D02 oilfree, PTFE ball seal  
D03 silicon-free / paint compatible, PTFE ball seal for inch ASTM  
D04 silicon-free / paint compatible, PVDF ball seal for metric

**Seals**  
E01 EPDM seals  
E02 FPM seals

**Threaded inserts**  
F01 without threaded inserts  
F02 with threaded inserts

**Connecting parts**  
G01 PVC-U Cement socket metric  
G02 PVC-U Cement socket JIS  
G03 PVC-U Cement socket inch ASTM  
G04 PVC-U Cement socket inch BS  
G05 PVC-U Cement spigot metric  
G06 PVC-U Threaded socket Rp  
G07 PVC-U Threaded socket Rp reinforced  
G08 PVC-U Threaded socket Rc  
G09 PVC-U Threaded socket NPT  
G30 PP-H Fusion socket metric  
G32 PP-H Socket fusion spigot metric  
G33 PP-H Threaded socket Rp reinforced  
G34 PP-H Threaded socket NPT reinforced  
G35 PP-H Butt fusion spigot SDR11 metric IR-PLUS  
G36 PP-H Butt fusion spigot SDR17.6 metric  
G37 PP-H Butt fusion spigot long SDR11 metric  
G40 PE-100 Fusion socket metric  
G41 PE-100 Butt fusion spigot SDR11 metric  
G42 PE-100 Butt fusion spigot SDR17.6 metric  
G43 PE-100 Butt fusion spigot long SDR11 metric  
G60 Fixed flange PVC-U serrated metric  
G61 Fixed flange PVC-U flat metric  
G62 Fixed flange PVC-U JIS  
G70 Backing flange PVC-U metric  
G71 Backing flange PVC-U inch ANSI  
G72 Backing flange PP-steel metric

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

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

**Mounting plate**  
L01 without mounting plate  
L02 with mounting plate

## Example:

Type 546 PVC-U, dimension DN 32  
PTFE ball seal, EPDM seals,  
with threaded inserts and mounting plate,  
connecting part left: PVC-U cement socket metric,  
right: PE-100 butt fusion spigot lang SDR11 metric  
**That's all it takes to configure your ball valve.**



A01 B01 C09 D01 E01 F02 G01 G41 I05 K L01

left right

**Pneumatische Antriebe PA11/PA21**  
P01 PA 11/21 FC  
P02 PA 11/21 FO  
P03 PA 11/21 DA

**Manual override**  
Q01 without manual override  
Q02 with manual override

**Stroke limiter**  
R01 without stroke limiter  
R02 with stroke limiter

P02 Q01 R01 =



# Copiable

## Configurator GF Piping Systems Ball Valve Type 546 PVC-U

### Ball valve

- A01 Ball valve 546
- A02 Linear Ball Valve 110

### Material

- B01 PVC-U

### Dimension

- C05 DN 10 3/8"
- C06 DN 15 1/2"
- C07 DN 20 3/4"
- C08 DN 25 1"
- C09 DN 32 1 1/4"
- C10 DN 40 1 1/2"
- C11 DN 50 2"

### Version

- D01 standard, PTFE ball seal
- D02 oilfree, PTFE ball seal
- D03 silicon-free / paint compatible, PTFE ball seal for inch ASTM
- D04 silicon-free / paint compatible, PVDF ball seal for metric

### Seals

- E01 EPDM seals
- E02 FPM seals
- E03 FFPM (Kalrez) seals

### Threaded inserts

- F01 without threaded inserts
- F02 with threaded inserts

### Connection parts

- G01 PVC-U Cement socket metric
- G02 PVC-U Cement socket JIS
- G03 PVC-U Cement socket inch ASTM
- G04 PVC-U Cement socket inch BS
- G05 PVC-U Cement spigot metric
- G06 PVC-U Threaded socket Rp
- G07 PVC-U Threaded socket Rp reinforced
- G08 PVC-U Threaded socket Rc
- G09 PVC-U Threaded socket NPT
- G30 PP-H Fusion socket metric
- G32 PP-H Socket fusion spigot metric
- G33 PP-H Threaded socket Rp reinforced
- G34 PP-H Threaded socket NPT reinforced
- G35 PP-H Butt fusion spigot SDR11 metric IR-PLUS
- G36 PP-H Butt fusion spigot SDR17.6 metric
- G37 PP-H Butt fusion spigot long SDR11 metric
- G40 PE-100 Fusion socket metric
- G41 PE-100 Butt fusion spigot SDR11 metric
- G42 PE-100 Butt fusion spigot SDR17.6 metric
- G43 PE-100 Butt fusion spigot long SDR11 metric
- G60 Fixed flange PVC-U serrated metric
- G61 Fixed flange PVC-U flat metric
- G62 Fixed flange PVC-U JIS
- G70 Backing flange PVC-U metric
- G71 Backing flange PVC-U inch ANSI
- G72 Backing flange PP-steel metric
- G73 Backing flange PP-steel inch ANSI
- G80 PVC-U Valve end blank

### Multi-funktional module

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

### Handle

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

### Mounting plate

- L01 without mounting plate
- L02 with mounting plate

<b>A01</b>	<b>B01</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>G</b>	<b>I</b>	<b>K</b>	<b>L</b>
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left

right

You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for your application, we put together a selection menu for you (the maximum working pressure of the whole valve is determined by the maximum permissible nominal pressure of the connection part).

**We supply what you put together.**

# Ball valves type 546 metric

## Ball valve type 546 PVC-U

### With mounting inserts

### With solvent cement sockets metric



DN10/15 - 50

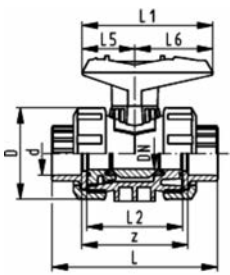


#### Model:

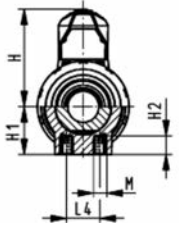
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

#### Option:

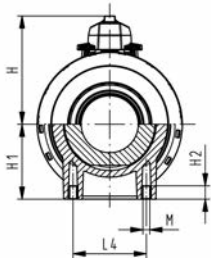
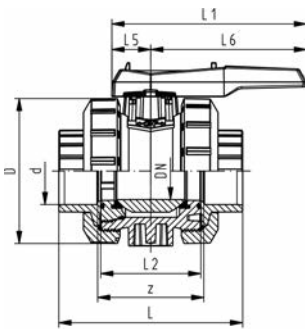
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16		10	16	71	<b>161 546 061</b>	<b>161 546 071</b>	0.156
20		15	16	185	<b>161 546 062</b>	<b>161 546 072</b>	0.158
25		20	16	350	<b>161 546 063</b>	<b>161 546 073</b>	0.242
32		25	16	700	<b>161 546 064</b>	<b>161 546 074</b>	0.345
40		32	16	1000	<b>161 546 065</b>	<b>161 546 075</b>	0.615
50		40	16	1600	<b>161 546 066</b>	<b>161 546 076</b>	0.844
63	2 1/2	50	16	3100	<b>161 546 067</b>	<b>161 546 077</b>	1.552
75		65	16	5000	<b>161 546 068</b>	<b>161 546 078</b>	3.563
90		80	16	7000	<b>161 546 069</b>	<b>161 546 079</b>	5.376
110		100	16	11000	<b>161 546 070</b>	<b>161 546 080</b>	11.600



d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	57	27	12	92	77	56	25	32	45	6	64	3/8
20	50	57	27	12	95	77	56	25	32	45	6	64	1/2
25	58	67	30	12	110	97	65	25	39	58	6	72	3/4
32	68	73	36	12	123	97	71	25	39	58	6	79	1
40	84	90	44	15	146	128	85	45	54	74	8	94	1 1/4
50	97	97	51	15	157	128	89	45	54	74	8	95	1 1/2
63	124	116	64	15	183	152	101	45	66	87	8	107	2
75	166	149	85	15	233	270	136	70	64	206	8	144	2 1/2
90	200	161	105	15	254	270	141	70	64	206	8	151	3
110	238	178	123	22	301	320	164	120	64	256	12	174	4





DN10/15 - 50



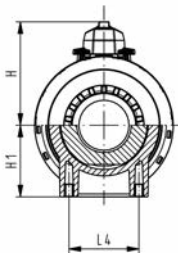
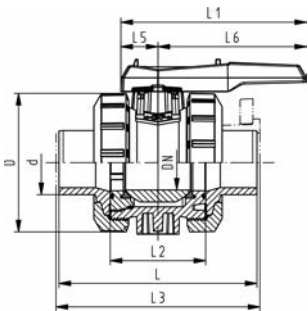
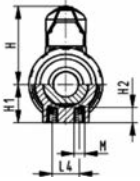
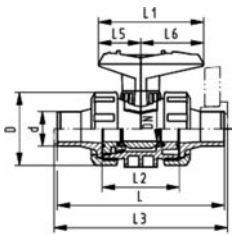
## Ball valve type 546 PVC-U With mounting inserts With solvent cement spigots metric

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	<b>161 546 721</b>	<b>161 546 731</b>	0.157
20	15	16	185	<b>161 546 722</b>	<b>161 546 732</b>	0.157
25	20	16	350	<b>161 546 723</b>	<b>161 546 733</b>	0.242
32	25	16	700	<b>161 546 724</b>	<b>161 546 734</b>	0.347
40	32	16	1000	<b>161 546 725</b>	<b>161 546 735</b>	0.620
50	40	16	1600	<b>161 546 726</b>	<b>161 546 736</b>	0.845
63	50	16	3100	<b>161 546 727</b>	<b>161 546 737</b>	1.550
75	65	16	5000	<b>161 546 728</b>	<b>161 546 738</b>	5.100
90	80	16	7000	<b>161 546 729</b>	<b>161 546 739</b>	7.500
110	100	16	11000	<b>161 546 730</b>	<b>161 546 740</b>	11.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	closest inch
16	50	57	27	12	114	77	56	130	25	32	45	M6	3/8
20	50	57	27	12	124	77	56	130	25	32	45	M6	1/2
25	58	67	30	12	144	97	65	150	25	39	58	M6	3/4
32	68	73	36	12	154	97	71	160	25	39	58	M6	1
40	84	90	44	15	174	128	85	180	45	54	74	M8	1 1/4
50	97	97	51	15	194	128	89	200	45	54	74	M8	1 1/2
63	124	116	64	15	224	152	101	230	45	66	87	M8	2
75	166	149	85	15	284	270	136	290	70	64	206	M8	2 1/2
90	200	161	105	15	300	270	141	310	70	64	206	M8	3
110	238	178	123	22	340	320	164	350	120	64	256	M12	4



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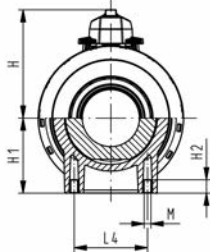
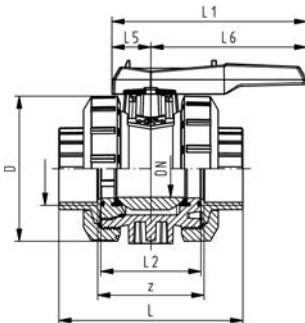
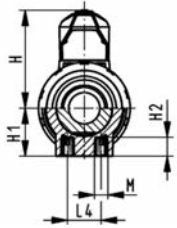
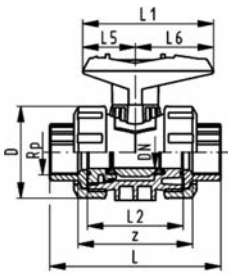
## Ball valve type 546 PVC-U With mounting inserts With threaded sockets Rp

### Model:

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

### Option:

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



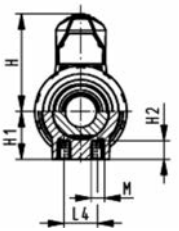
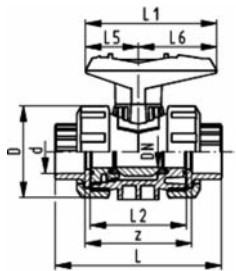
Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	71	161 546 741	161 546 751	0.152
1/2	15	10	185	161 546 742	161 546 752	0.152
3/4	20	10	350	161 546 743	161 546 753	0.232
1	25	10	700	161 546 744	161 546 754	0.332
1 1/4	32	10	1000	161 546 745	161 546 755	0.605
1 1/2	40	10	1600	161 546 746	161 546 756	0.805
2	50	10	3100	161 546 747	161 546 757	1.465
2 1/2	65	10	5000	161 546 748	161 546 758	5.000
3	80	10	7000	161 546 749	161 546 759	7.500
4	100	10	11000	161 546 750	161 546 760	11.700

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





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## Ball valve type 546 PVC-U With mounting inserts With fusion sockets PE100 metric

### Model:

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

### Option:

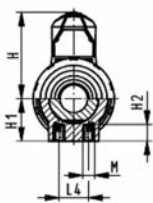
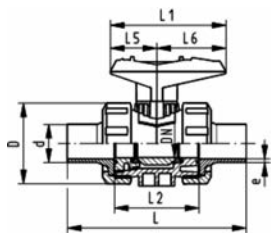
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	<b>161 546 761</b>	<b>161 546 771</b>	0.150
20	15	16	185	<b>161 546 762</b>	<b>161 546 772</b>	0.151
25	20	16	350	<b>161 546 763</b>	<b>161 546 773</b>	0.220
32	25	16	700	<b>161 546 764</b>	<b>161 546 774</b>	0.329
40	32	16	1000	<b>161 546 765</b>	<b>161 546 775</b>	0.550
50	40	16	1600	<b>161 546 766</b>	<b>161 546 776</b>	0.750
63	50	16	3100	<b>161 546 767</b>	<b>161 546 777</b>	1.360

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	57	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	108	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	137	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	113	2



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## Ball valve type 546 PVC-U With mounting inserts With butt fusion spigots PE100 SDR11 metric

### Model:

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

### Option:

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

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	<b>161 546 782</b>	<b>161 546 792</b>	0.153
25	20	16	350	<b>161 546 783</b>	<b>161 546 793</b>	0.220
32	25	16	700	<b>161 546 784</b>	<b>161 546 794</b>	0.333
40	32	16	1000	<b>161 546 785</b>	<b>161 546 795</b>	0.586
50	40	16	1600	<b>161 546 786</b>	<b>161 546 796</b>	0.826
63	50	16	3100	<b>161 546 787</b>	<b>161 546 797</b>	1.517

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
20	50	57	27	12	130	77	56	25	32	45	M6	1,9	1/2
25	58	67	30	12	134	97	65	25	39	58	M6	2,3	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	2,9	1
40	84	90	44	15	171	128	85	45	54	74	M8	3,7	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	4,6	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	5,8	2



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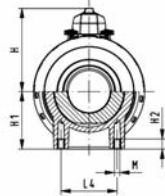
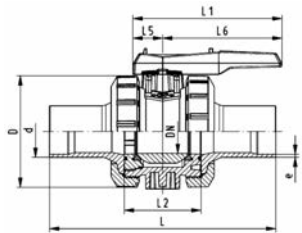
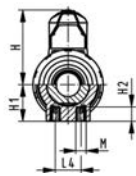
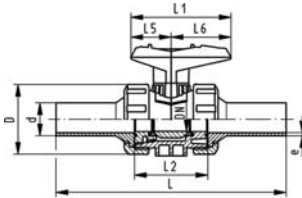
## Ball valve type 546 PVC-U With mounting inserts With butt fusion spigots long PE100 SDR11 metric

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	<b>161 546 822</b>	<b>161 546 832</b>	0.150
25	20	16	350	<b>161 546 823</b>	<b>161 546 833</b>	0.220
32	25	16	700	<b>161 546 824</b>	<b>161 546 834</b>	0.310
40	32	16	1000	<b>161 546 825</b>	<b>161 546 835</b>	0.550
50	40	16	1600	<b>161 546 826</b>	<b>161 546 836</b>	0.750
63	50	16	3100	<b>161 546 827</b>	<b>161 546 837</b>	1.360
75	65	16	5000	<b>161 546 828</b>	<b>161 546 838</b>	5.000
90	80	16	7000	<b>161 546 829</b>	<b>161 546 839</b>	7.500
110	100	16	11000	<b>161 546 830</b>	<b>161 546 840</b>	11.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
20	50	57	27	12	193	77	56	25	32	45	M6	2,25	1/2
25	58	67	30	12	216	97	65	25	39	58	M6	2,3	3/4
32	68	73	36	12	223	97	71	25	39	58	M6	2,9	1
40	84	90	44	15	249	128	85	45	54	74	M8	3,7	1 1/4
50	97	97	51	15	271	128	89	45	54	74	M8	4,6	1 1/2
63	124	116	64	15	321	152	101	45	66	87	M8	5,8	2
75	166	149	85	15	386	270	136	70	64	206	M8	6,8	2 1/2
90	200	161	105	15	421	270	141	70	64	206	M8	8,2	3
110	238	178	123	22	484	320	164	120	64	256	M12	10,0	4



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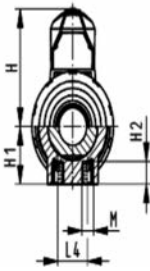
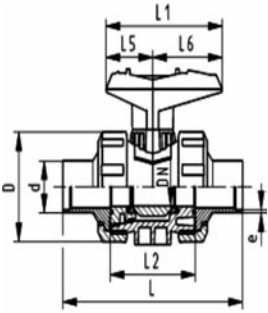
## Ball valve type 546 PVC-U With mounting inserts With butt fusion spigots PE100 SDR17.6 metric

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
40	32	10	1000	<b>161 546 805</b>	<b>161 546 815</b>	0.550
50	40	10	1600	<b>161 546 806</b>	<b>161 546 816</b>	0.750
63	50	10	3100	<b>161 546 807</b>	<b>161 546 817</b>	1.501

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	closest inch
40	84	90	44	15	171	128	85	45	54	74	M8	2,3	1 ¼
50	97	97	51	15	191	128	89	45	54	74	M8	2,9	1 ½
63	124	116	64	15	220	152	101	45	66	87	M8	3,6	2



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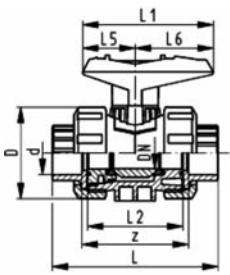
## Ball valve type 546 PVC-U without mounting inserts With solvent cement sockets metric

### Model:

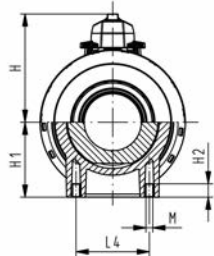
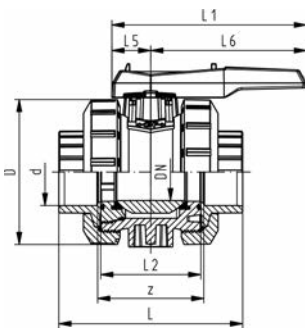
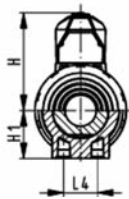
- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	161 546 001	161 546 011	0.150
20	15	16	185	161 546 002	161 546 012	0.152
25	20	16	350	161 546 003	161 546 013	0.237
32	25	16	700	161 546 004	161 546 014	0.343
40	32	16	1000	161 546 005	161 546 015	0.603
50	40	16	1600	161 546 006	161 546 016	0.851
63	50	16	3100	161 546 007	161 546 017	1.542
75	65	16	5000	161 546 008	161 546 018	3.794
90	80	16	7000	161 546 009	161 546 019	7.400
110	100	16	11000	161 546 010	161 546 020	11.600



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



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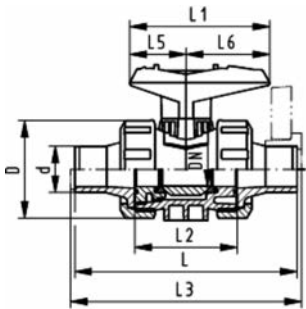
## Ball valve type 546 PVC-U without mounting inserts With solvent cement spigots metric

### Model:

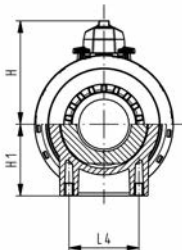
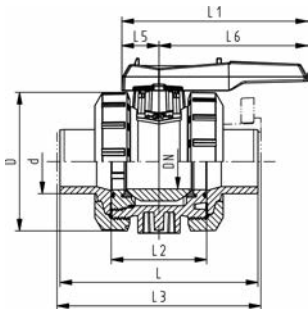
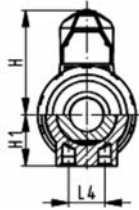
- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	<b>161 546 041</b>	<b>161 546 051</b>	0.155
20	15	16	185	<b>161 546 042</b>	<b>161 546 052</b>	0.155
25	20	16	350	<b>161 546 043</b>	<b>161 546 053</b>	0.240
32	25	16	700	<b>161 546 044</b>	<b>161 546 054</b>	0.345
40	32	16	1000	<b>161 546 045</b>	<b>161 546 055</b>	0.615
50	40	16	1600	<b>161 546 046</b>	<b>161 546 056</b>	0.840
63	50	16	3100	<b>161 546 047</b>	<b>161 546 057</b>	1.545
75	65	16	5000	<b>161 546 048</b>	<b>161 546 058</b>	5.100
90	80	16	7000	<b>161 546 049</b>	<b>161 546 059</b>	7.500
110	100	16	11000	<b>161 546 050</b>	<b>161 546 060</b>	11.900



d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch
16	50	57	27	114	77	56		25	32	45	3/8
20	50	57	27	124	77	56	130	25	32	45	1/2
25	58	67	30	144	97	65	150	25	39	58	3/4
32	68	73	36	154	97	71	160	25	39	58	1
40	84	90	44	174	128	85	180	45	54	74	1 1/4
50	97	97	51	194	128	89	200	45	54	74	1 1/2
63	124	116	64	224	152	101	230	45	66	87	2
75	166	149	85	284	270	136	290	70	64	206	2 1/2
90	200	161	105	300	270	141	310	70	64	206	3
110	238	178	123	340	320	164	350	120	64	256	4



DN10/15 - 50



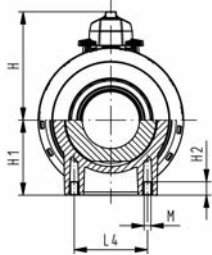
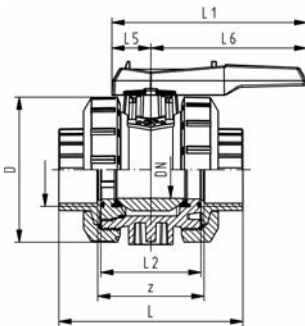
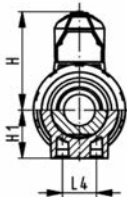
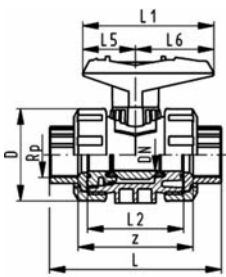
## Ball valve type 546 PVC-U without mounting inserts With threaded sockets Rp

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

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



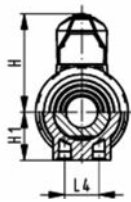
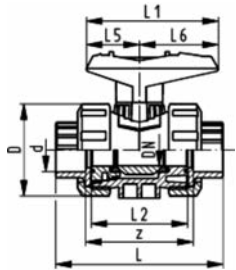
Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	71	161 546 021	161 546 031	0.150
1/2	15	10	185	161 546 022	161 546 032	0.150
3/4	20	10	350	161 546 023	161 546 033	0.230
1	25	10	700	161 546 024	161 546 034	0.330
1 1/4	32	10	1000	161 546 025	161 546 035	0.600
1 1/2	40	10	1600	161 546 026	161 546 036	0.800
2	50	10	3100	161 546 027	161 546 037	1.460
2 1/2	65	10	5000	161 546 028	161 546 038	5.000
3	80	10	7000	161 546 029	161 546 039	7.500
4	100	10	11000	161 546 030	161 546 040	11.700

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





DN10/15 - 50



## Ball valve type 546 PVC-U without mounting inserts With fusion sockets PE100 metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

### Option:

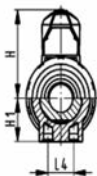
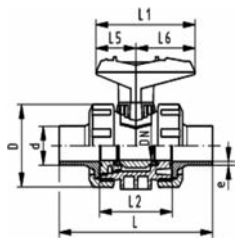
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	800 000 101	800 000 111	0.170
20	15	16	185	800 000 102	800 000 112	0.170
25	20	16	350	800 000 103	800 000 113	0.240
32	25	16	700	800 000 104	800 000 114	0.340
40	32	16	1000	800 000 105	800 000 115	0.610
50	40	16	1600	800 000 106	800 000 116	0.850
63	50	16	3100	800 000 107	800 000 117	1.550

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]	closest inch
16	50	57	27	93	77	56	25	32	45	67	3/8
20	50	57	27	95	77	56	25	32	45	66	1/2
25	58	67	30	108	97	65	25	39	58	77	3/4
32	68	73	36	119	97	71	25	39	58	83	1
40	84	90	44	137	128	85	45	54	74	99	1 1/4
50	97	97	51	147	128	89	45	54	74	105	1 1/2
63	124	116	64	168	152	101	45	66	87	113	2



DN10/15 - 50



## Ball valve type 546 PVC-U without mounting inserts With butt fusion spigots PE100 SDR11 metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

### Option:

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

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	800 000 142	800 000 152	0.160
25	20	16	350	800 000 143	800 000 153	0.240
32	25	16	700	800 000 144	800 000 154	0.340
40	32	16	1000	800 000 145	800 000 155	0.600
50	40	16	1600	800 000 146	800 000 156	0.830
63	50	16	3100	800 000 147	800 000 157	1.560

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]	closest inch
20	50	57	27	130	77	56	25	32	45	1,9	1/2
25	58	67	30	134	97	65	25	39	58	2,3	3/4
32	68	73	36	150	97	71	25	39	58	3	1
40	84	90	44	171	128	85	45	54	74	3,7	1 1/4
50	97	97	51	191	128	89	45	54	74	4,6	1 1/2
63	124	116	64	220	152	101	45	66	87	5,8	2





DN10/15 - 50



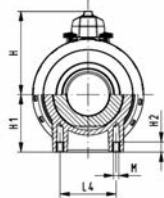
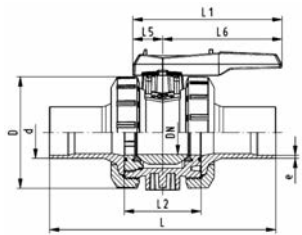
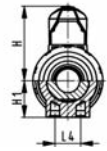
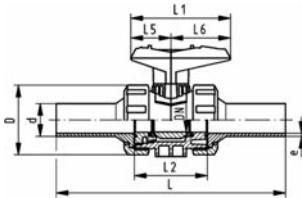
## Ball valve type 546 PVC-U without mounting inserts With butt fusion spigots long PE100 SDR11 metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

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

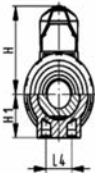
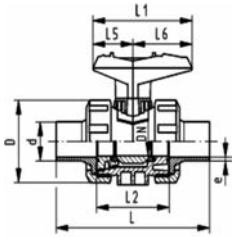


d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	800 000 282	800 000 292	0.170
25	20	16	350	800 000 283	800 000 293	0.250
32	25	16	700	800 000 284	800 000 294	0.370
40	32	16	1000	800 000 285	800 000 295	0.640
50	40	16	1600	800 000 286	800 000 296	0.910
63	50	16	3100	800 000 287	800 000 297	1.634
75	65	16	5000	800 000 288	800 000 298	5.000
90	80	16	7000	800 000 289	800 000 299	7.500
110	100	16	11000	800 000 290	800 000 300	11.800

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]	closest inch
20	50	57	27	193	77	56	25	32	45	2,25	1/2
25	58	67	30	216	97	65	25	39	58	2,3	3/4
32	68	73	36	223	97	71	25	39	58	3	1
40	84	90	44	249	128	85	45	54	74	3,7	1 1/4
50	97	97	51	271	128	89	45	54	74	4,6	1 1/2
63	124	116	64	321	152	101	45	66	87	5,8	2
75	166	149	85	386	270	136	70	64	206	6,8	2 1/2
90	200	161	105	421	270	141	70	64	206	8,2	3
110	238	178	123	484	320	164	120	64	256	10	4



DN10/15 - 50



## Ball valve type 546 PVC-U without mounting inserts With butt fusion spigots PE100 SDR17.6 metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

### Option:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
40	32	10	1000	800 000 125	800 000 135	0.600	
50	40	10	1600	800 000 126	800 000 136	0.830	
63	50	10	3100	800 000 127	800 000 137	1.560	

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]	closest inch	
40	84	90	44	171	128	85	45	54	74	2,3	1 ¼	
50	97	97	51	191	128	89	45	54	74	2,9	1 ½	
63	124	116	64	220	152	101	45	66	87	3,6	2	



DN10/15 - 50



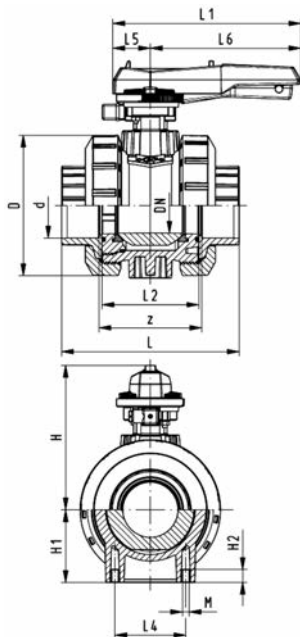
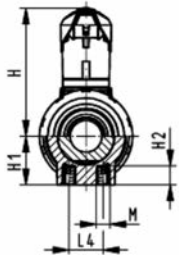
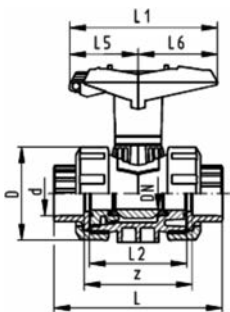
## Ball valve type 546 PVC-U With lockable handle With solvent cement sockets metric

### Model:

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

### Option:

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

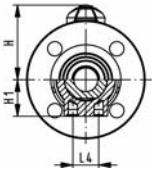
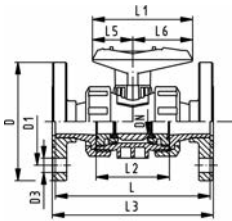


d [mm]	Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16		10	16	71	161 546 081	161 546 091	0.165
20		15	16	185	161 546 082	161 546 092	0.165
25		20	16	350	161 546 083	161 546 093	0.255
32		25	16	700	161 546 084	161 546 094	0.355
40		32	16	1000	161 546 085	161 546 095	0.640
50		40	16	1600	161 546 086	161 546 096	0.840
63		50	16	3100	161 546 087	161 546 097	1.500
75	2 ½	65	16	5000	161 546 088	161 546 098	5.200
90		80	16	7000	161 546 089	161 546 099	7.700
110		100	16	11000	161 546 090	161 546 100	12.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	closest inch
16	50	79	27	12	92	87	56	25	42	45	M6	64	¾
20	50	79	27	12	95	87	56	25	42	45	M6	64	½
25	58	88	30	12	110	108	65	25	50	58	M6	72	¾
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 ¼
50	97	119	51	15	157	140	89	45	66	75	M8	95	1 ½
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 ½
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



DN10/15 - 50



## Ball valve type 546 PVC-U without mounting inserts With fixed flanges PVC-U serrated metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346
- Overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

### Option:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	800 000 182	800 000 192	0.370
25	20	16	350	800 000 183	800 000 193	0.510
32	25	16	700	800 000 184	800 000 194	0.727
40	32	16	1000	800 000 185	800 000 195	1.230
50	40	16	1600	800 000 186	800 000 196	1.621
63	50	16	3100	800 000 187	800 000 197	2.653

d [mm]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch
20	95	65	14	57	27	124	77	56	130	25	32	45	1/2
25	105	75	14	67	30	144	97	65	150	25	39	58	3/4
32	115	85	14	73	36	154	97	71	160	25	39	58	1
40	140	100	18	90	44	174	128	85	180	45	54	74	1 1/4
50	150	110	18	97	51	194	128	89	200	45	54	74	1 1/2
63	165	125	18	116	64	224	152	101	230	45	66	87	2



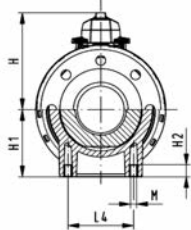
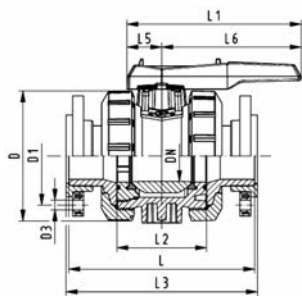
## Ball valve type 546 PVC-U With mounting inserts With backing flanges PP-st metric

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	16	5000	161 546 948	161 546 958	9.100
90	80	16	7000	161 546 949	161 546 959	12.400
110	100	16	11000	161 546 950	161 546 960	18.500

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch
75	166	149	85	284	270	136	290	70	64	206	1 1/4
90	200	161	105	300	270	141	310	70	64	206	1 1/2
110	238	178	123	340	320	164	350	120	64	256	2

# Ball valves type 546 Inch BS

## Ball valve type 546 PVC-U With solvent cement sockets Inch BS

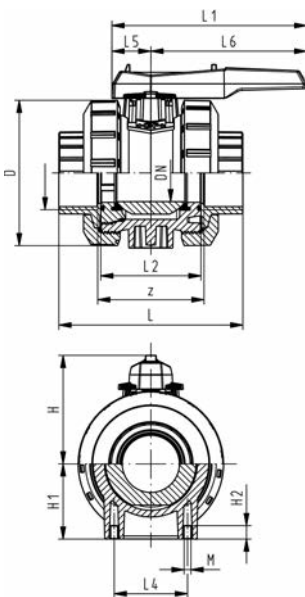
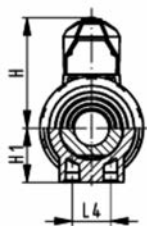
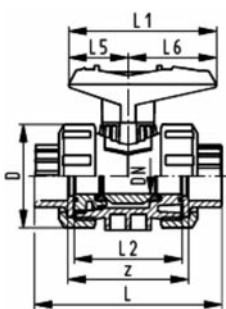


### Model:

- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Without mounting inserts

### Option:

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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	<b>161 546 201</b>	<b>161 546 211</b>	0.150
1/2	15	16	185	<b>161 546 202</b>	<b>161 546 212</b>	0.150
3/4	20	16	350	<b>161 546 203</b>	<b>161 546 213</b>	0.230
1	25	16	700	<b>161 546 204</b>	<b>161 546 214</b>	0.336
1 1/4	32	16	1000	<b>161 546 205</b>	<b>161 546 215</b>	0.585
1 1/2	40	16	1600	<b>161 546 206</b>	<b>161 546 216</b>	0.815
2	50	16	3100	<b>161 546 207</b>	<b>161 546 217</b>	1.577
	65	16	5000	<b>161 546 008</b>	<b>161 546 018</b>	3.794
3	80	16	7000	<b>161 546 209</b>	<b>161 546 219</b>	7.400
4	100	16	11000	<b>161 546 210</b>	<b>161 546 220</b>	11.600

Inch	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]
3/8	50	57	27	92	77	56	25	32	45	60
1/2	50	57	27	95	77	56	25	32	45	60
3/4	58	67	30	110	97	65	25	39	58	69
1	68	73	36	123	97	71	25	39	58	75
1 1/4	84	90	44	146	128	85	45	54	74	89
1 1/2	97	97	51	157	128	89	45	54	74	97
2	124	116	64	183	152	101	45	66	87	110
	166	149	85	233	270	136	70	64	206	144
3	200	161	105	254	270	141	70	64	206	151
4	238	178	123	301	320	164	120	64	256	174



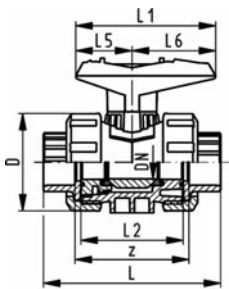
## Ball valve type 546 PVC-U With mounting inserts With solvent cement sockets inch BS

### Model:

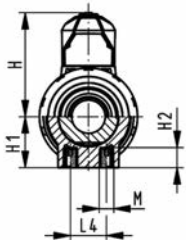
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Integrated stainless steel mounting inserts

### Option:

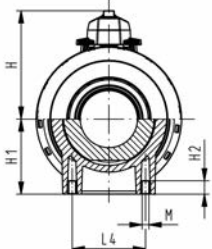
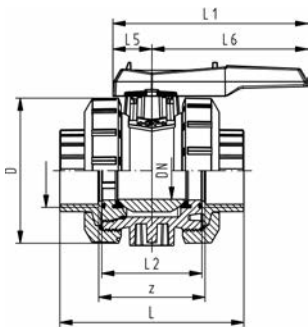
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

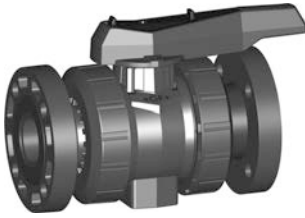


Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	<b>161 546 241</b>	<b>161 546 251</b>	0.150
1/2	15	16	185	<b>161 546 242</b>	<b>161 546 252</b>	0.150
3/4	20	16	350	<b>161 546 243</b>	<b>161 546 253</b>	0.230
1	25	16	700	<b>161 546 244</b>	<b>161 546 254</b>	0.330
1 1/4	32	16	1000	<b>161 546 245</b>	<b>161 546 255</b>	0.585
1 1/2	40	16	1600	<b>161 546 246</b>	<b>161 546 256</b>	0.862
2	50	16	3100	<b>161 546 247</b>	<b>161 546 257</b>	1.582
2 1/2	65	16	5000	<b>161 546 068</b>	<b>161 546 078</b>	3.563
3	80	16	7000	<b>161 546 249</b>	<b>161 546 259</b>	5.404
4	100	16	11000	<b>161 546 250</b>	<b>161 546 260</b>	8.581



Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	12	92	77	56	25	32	45	6	67
1/2	50	57	27	12	95	77	56	25	32	45	6	61
3/4	58	67	30	12	110	97	65	25	39	58	6	70
1	68	73	36	12	123	97	71	25	39	58	6	76
1 1/4	84	90	44	15	146	128	85	45	54	74	8	90
1 1/2	97	97	51	15	157	128	89	45	54	74	8	94
2	124	116	64	15	183	152	101	45	66	87	8	107
2 1/2	166	149	85	15	233	270	136	70	64	206	8	144
3	200	161	105	15	254	270	141	70	64	206	8	151
4	238	178	123	22	301	320	164	120	64	256	12	174





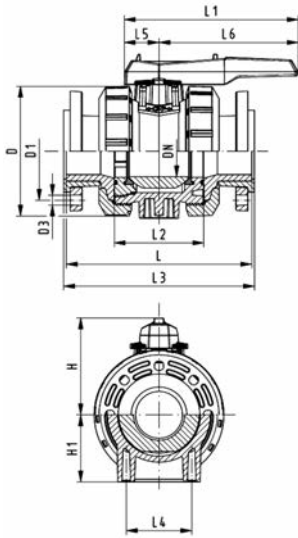
## Ball valve type 546 PVC-U With mounting inserts With backing flanges PVC-U ASTM/ANSI

### Model:

- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
2 1/2	65	10	5000	<b>161 546 168</b>	<b>161 546 178</b>	7.300	
3	80	10	7000	<b>161 546 169</b>	<b>161 546 179</b>	10.020	
4	100	10	11000	<b>161 546 170</b>	<b>161 546 180</b>	16.400	

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





DN10/15 - 50



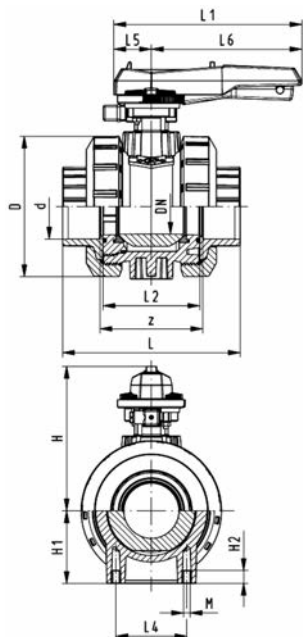
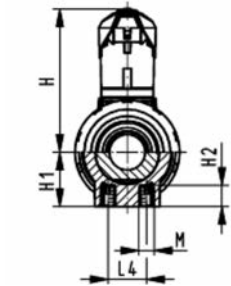
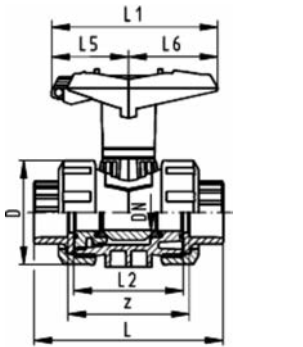
## Ball valve type 546 PVC-U With lockable handle With solvent cement sockets Inch BS

### Model:

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

### Option:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	161 546 221	161 546 231	0.165
1/2	15	16	185	161 546 222	161 546 232	0.165
3/4	20	16	350	161 546 223	161 546 233	0.255
1	25	16	700	161 546 224	161 546 234	0.355
1 1/4	32	16	1000	161 546 225	161 546 235	0.625
1 1/2	40	16	1600	161 546 226	161 546 236	0.855
2	50	16	3100	161 546 227	161 546 237	1.535
2 1/2	65	16	5000	161 546 088	161 546 098	5.200
3	80	16	7000	161 546 229	161 546 239	7.700
4	100	16	11000	161 546 230	161 546 240	12.000

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	79	27	12	92	87	56	25	42	45	M6	60
1/2	50	79	27	12	95	87	56	25	42	45	M6	60
3/4	58	88	30	12	110	108	65	25	50	58	M6	69
1	68	94	36	12	123	108	71	25	50	58	M6	75
1 1/4	84	113	44	15	146	140	85	45	66	75	M8	89
1 1/2	97	119	51	15	157	140	89	45	66	75	M8	97
2	124	141	64	15	183	165	101	45	78	87	M8	110
2 1/2	166	224	85	15	233	270	136	70	64	206	M8	144
3	200	235	105	15	254	270	141	70	64	206	M8	151
4	238	245	123	22	301	320	164	120	64	256	M12	174

# Ball valves type 546 ASTM/ANSI

## Ball valve type 546 PVC-U With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT



DN10/15 - 50

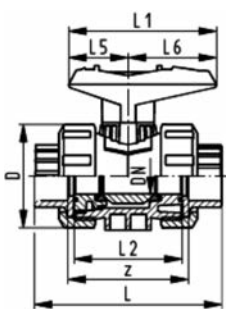


### Model:

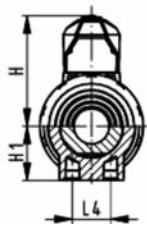
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Without mounting inserts
- Threaded valve ends are only enclosed for DN10/15-50

### Option:

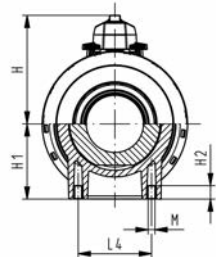
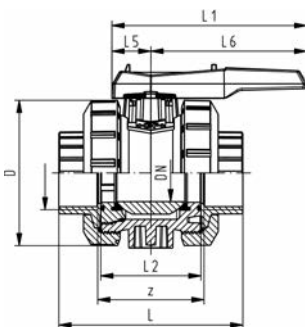
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	<b>161 546 301</b>	<b>161 546 311</b>	0.180
1/2	15	16	185	<b>161 546 302</b>	<b>161 546 312</b>	0.226
3/4	20	16	350	<b>161 546 303</b>	<b>161 546 313</b>	0.243
1	25	16	700	<b>161 546 304</b>	<b>161 546 314</b>	0.425
1 1/4	32	16	1000	<b>161 546 305</b>	<b>161 546 315</b>	0.730
1 1/2	40	16	1600	<b>161 546 306</b>	<b>161 546 316</b>	0.990
2	50	16	3100	<b>161 546 307</b>	<b>161 546 317</b>	1.929
2 1/2	65	16	5000	<b>161 546 308</b>	<b>161 546 318</b>	4.900
3	80	16	7000	<b>161 546 309</b>	<b>161 546 319</b>	7.400
4	100	16	11000	<b>161 546 310</b>	<b>161 546 320</b>	11.500



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





DN10/15 - 50



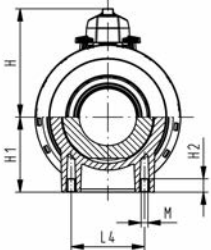
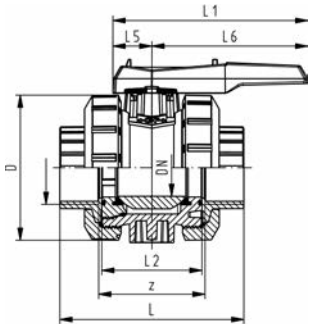
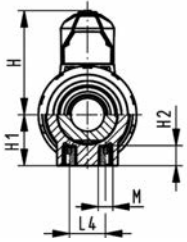
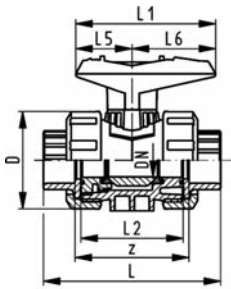
## Ball valve type 546 PVC-U With mounting inserts With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT

### Model:

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

### Option:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	<b>161 546 341</b>	<b>161 546 351</b>	0.184
1/2	15	16	185	<b>161 546 342</b>	<b>161 546 352</b>	0.200
3/4	20	16	350	<b>161 546 343</b>	<b>161 546 353</b>	0.342
1	25	16	700	<b>161 546 344</b>	<b>161 546 354</b>	0.486
1 1/4	32	16	1000	<b>161 546 345</b>	<b>161 546 355</b>	0.740
1 1/2	40	16	1600	<b>161 546 346</b>	<b>161 546 356</b>	0.850
2	50	16	3100	<b>161 546 347</b>	<b>161 546 357</b>	1.934
2 1/2	65	16	5000	<b>161 546 348</b>	<b>161 546 358</b>	4.900
3	80	16	7000	<b>161 546 349</b>	<b>161 546 359</b>	7.400
4	100	16	11000	<b>161 546 350</b>	<b>161 546 360</b>	9.707

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	12	105	77	56	25	32	45	6	67
1/2	50	57	27	12	105	77	56	25	32	45	6	61
3/4	58	67	30	12	121	97	65	25	39	58	6	70
1	68	73	36	12	133	97	71	25	39	58	6	76
1 1/4	84	90	44	15	154	128	85	45	54	74	8	90
1 1/2	97	97	51	15	164	128	89	45	54	74	8	94
2	124	116	64	15	183	152	101	45	66	87	8	107
2 1/2	166	149	85	15	233	270	136	70	64	206	8	144
3	200	161	105	15	254	270	141	70	64	206	8	151
4	238	178	123	22	301	320	164	120	64	256	12	174



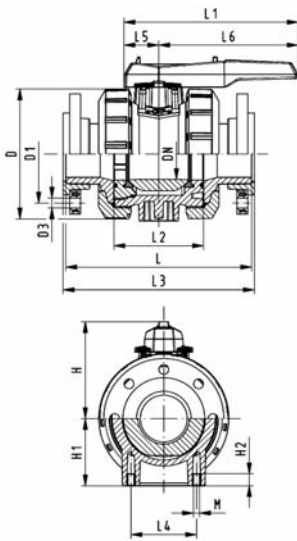
## Ball valve type 546 PVC-U With mounting inserts With backing flanges PP-st Inch ANSI

### Model:

- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

### Option:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
2 1/2	65	16	5000	<b>161 546 968</b>	<b>161 546 978</b>	9.200	
3	80	16	7000	<b>161 546 969</b>	<b>161 546 979</b>	12.700	
4	100	16	11000	<b>161 546 970</b>	<b>161 546 980</b>	19.000	

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



DN10/15 - 50



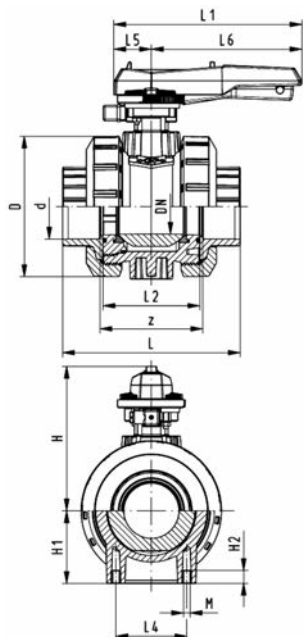
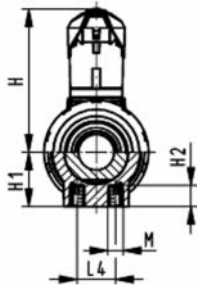
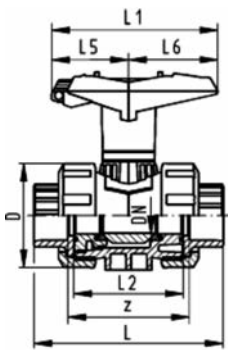
## Ball valve type 546 PVC-U With lockable handle With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT

### Model:

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

### Option:

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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	16	71	<b>161 546 361</b>	<b>161 546 371</b>	0.195
1/2	15	16	185	<b>161 546 362</b>	<b>161 546 372</b>	0.205
3/4	20	16	350	<b>161 546 363</b>	<b>161 546 373</b>	0.268
1	25	16	700	<b>161 546 364</b>	<b>161 546 374</b>	0.450
1 1/4	32	16	1000	<b>161 546 365</b>	<b>161 546 375</b>	0.770
1 1/2	40	16	1600	<b>161 546 366</b>	<b>161 546 376</b>	1.030
2	50	16	3100	<b>161 546 367</b>	<b>161 546 377</b>	1.820
2 1/2	65	16	5000	<b>161 546 368</b>	<b>161 546 378</b>	5.300
3	80	16	7000	<b>161 546 369</b>	<b>161 546 379</b>	7.700
4	100	16	11000	<b>161 546 370</b>	<b>161 546 380</b>	11.900

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	79	27	12	105	87	56	25	42	45	M6	67
1/2	50	79	27	12	105	87	56	25	42	45	M6	61
3/4	58	88	30	12	121	108	65	25	50	58	M6	70
1	68	94	36	12	133	108	71	25	50	58	M6	76
1 1/4	84	113	44	15	154	140	85	45	66	74	M8	90
1 1/2	97	119	51	15	164	140	89	45	66	74	M8	94
2	124	141	64	15	183	165	101	45	78	87	M8	107
2 1/2	166	224	85	15	233	270	136	70	64	206	M8	144
3	200	235	105	15	254	270	141	70	64	206	M8	151
4	238	245	123	22	301	320	164	120	64	256	M12	174

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## Configurator GF Piping Systems Ball Valve Type 546 PVC-U

You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for your application, we put together a selection menu for you (the maximum working pressure of the whole valve is determined by the maximum permissible nominal pressure of the connecting part).

### Ball valve

A01 Ball valve 546

### Material

B01 PVC-U

### Dimension

C05	d 16	DN 10	3/8"
C06	d 20	DN 15	1/2"
C07	d 25	DN 20	3/4"
C08	d 32	DN 25	1"
C09	d 40	DN 32	1 1/4"
C10	d 50	DN 40	1 1/2"
C11	d 63	DN 50	2"
C12	d 75	DN 65	2 1/2"
C13	d 90	DN 80	3"
C14	d 110	DN 100	4"
C15	d 160	DN 150	6"

### Version

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

### Seals

E01	EPDM seals
E02	FPM seals
E03	FFPM (KALREZ®) seals

### Threaded inserts

F01	without threaded inserts
F02	with threaded inserts

### Connecting parts

G01	PVC-U Cement socket metric
G03	PVC-U Cement socket inch ASTM
G04	PVC-U Cement socket inch BS
G05	PVC-U Cement spigot metric
G06	PVC-U Threaded socket Rp
G07	PVC-U Threaded socket Rp reinforced (DN10-50)
G09	PVC-U Threaded socket NPT
G30	PP-H Fusion socket metric
G32	PP-H Socket fusion spigot metric
G33	PP-H Threaded socket Rp
G34	PP-H Threaded socket NPT reinforced
G35	PP-H Butt fusion spigot SDR 11 metric IR-PLUS
G36	PP-H Butt fusion spigot SDR 17.6 metric (limited dimension range)
G37	PP-H Butt fusion spigot long SDR11 metric
G40	PE-100 Fusion socket metric
G41	PE-100 Butt fusion spigot SDR11 metric
G42	PE-100 Butt fusion spigot SDR17.6 metric (limited dimension range)
G43	PE-100 Butt fusion spigot long SDR11 metric
G44	PE-100 Butt fusion spigot long SDR17.6 metric (DN65-100)
G60	Fixed flange PVC-U serrated metric
G61	Fixed flange PVC-U flat metric
G70	Backing flange PVC-U metric
G71	Backing flange PVC-U inch ANSI
G72	Backing flange PP-steel metric
G73	Backing flange PP-steel ANSI
G78	Backing flange PVC-U JIS (DN65-100)
G80	PVC-U Valve end blank

### Multi-functional module

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

### Handle

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

### Mounting plate

L01	without mounting plate
L02	with mounting plate

<b>A01</b>	<b>B01</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>G</b>	<b>I</b>	<b>K</b>	<b>L</b>
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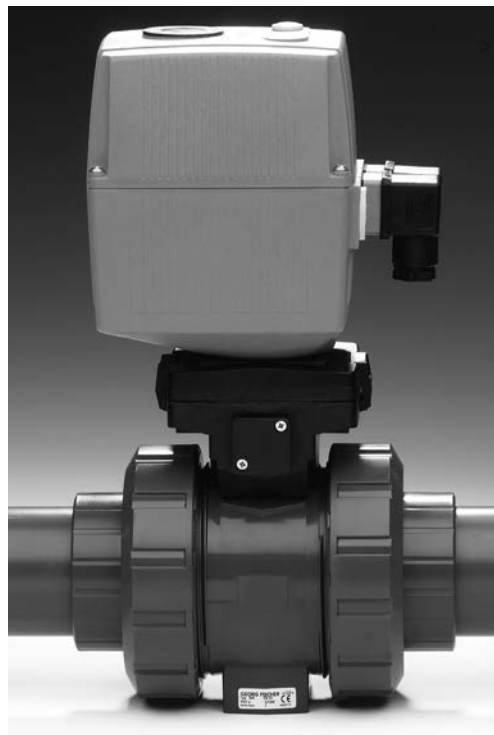
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## GF Piping Systems Ball Valve Type 546 with electric Actuator

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

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

**We supply what you put together.**



#### Electric Actuator EA11

- T01 EA11 24 V
- T02 EA11 100-230 V

#### Accessories EA11

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

#### Electric Actuator EA21/31

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

#### Accessories EA21

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

<b>T</b>	<b>U</b>	<b>T</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>



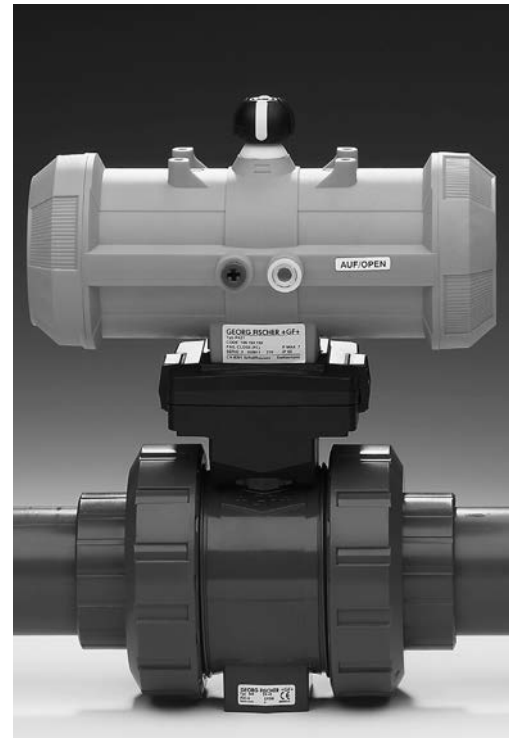
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## GF Piping Systems Ball Valve Type 546 with pneumatic Actuator

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

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

**We supply what you put together.**



#### Pneumatic actuators PA11/PA21

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

#### Manual override

- Q01 without manual override
- Q02 with manual override

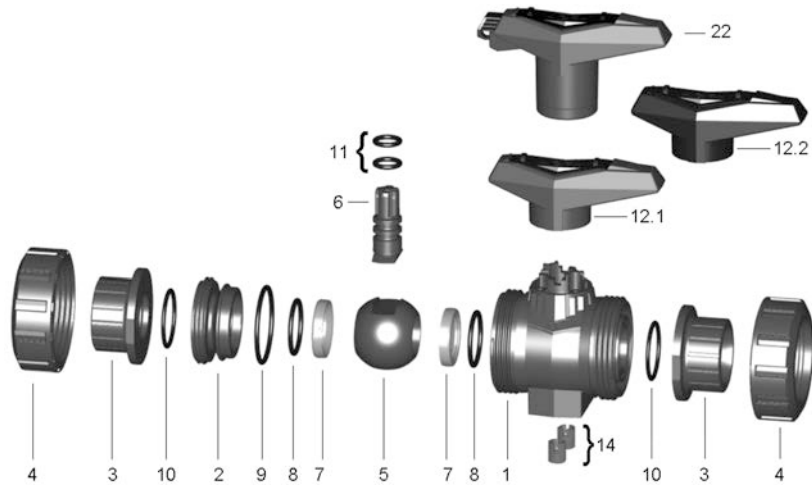
#### Stroke limiter

- R01 without stroke limiter
- R02 with stroke limiter

<b>P</b>	<b>Q</b>	<b>R</b>	
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# Spare parts ball valve type 546

## Spare parts ball valve type 546



### Central part

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 486 151	161 486 163	0.095
20	1/2	15	161 486 151	161 486 163	0.095
25	3/4	20	161 486 152	161 486 164	0.150
32	1	25	161 486 153	161 486 165	0.220
40	1 1/4	32	161 486 154	161 486 166	0.390
50	1 1/2	40	161 486 155	161 486 167	0.510
63	2	50	161 486 156	161 486 168	0.895
75	2 1/2	65	161 486 157	161 486 169	3.330
90	3	80	161 486 158	161 486 170	4.850
110	4	100	161 486 159	161 486 171	7.650

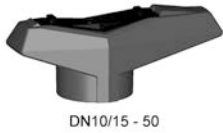


### Ball set

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 486 375	161 486 385	0.016
20	1/2	15	161 486 375	161 486 385	0.016
25	3/4	20	161 486 376	161 486 386	0.025
32	1	25	161 486 377	161 486 387	0.042
40	1 1/4	32	161 486 378	161 486 388	0.078
50	1 1/2	40	161 486 379	161 486 389	0.130
63	2	50	161 486 380	161 486 390	0.250
75	2 1/2	65	161 486 381	161 486 391	0.493
90	3	80	161 486 382	161 486 392	0.777
110	4	100	161 486 383	161 486 393	1.288



DN10/15 - 50



DN10/15 - 50



## Lever

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



## Face seal

### Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.001
20	1/2	15	748 410 059	749 410 059	0.001
25	3/4	20	748 410 106	749 410 106	0.001
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.002
50	1 1/2	40	748 410 003	749 410 003	0.001
63	2	50	748 410 231	749 410 231	0.008
75	2 1/2	65	748 410 119	749 410 119	0.010
90	3	80	748 410 023	749 410 023	0.012
110	4	100	748 410 254	749 410 254	0.030



## Seal set

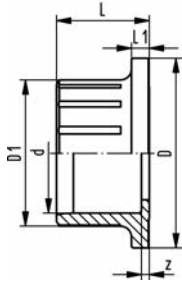
### Model:

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

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 486 400	161 486 410	0.006
20	1/2	15	161 486 400	161 486 410	0.006
25	3/4	20	161 486 401	161 486 411	0.015
32	1	25	161 486 402	161 486 412	0.008
40	1 1/4	32	161 486 403	161 486 413	0.010
50	1 1/2	40	161 486 404	161 486 414	0.023
63	2	50	161 486 405	161 486 415	0.031
75	2 1/2	65	161 486 406	161 486 416	0.051
90	3	80	161 486 407	161 486 417	0.034
110	4	100	161 486 408	161 486 418	0.058



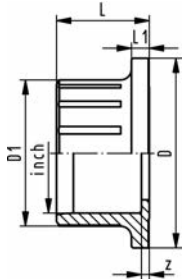
### Valve end 546 PVC-U (G01) With solvent cement socket metric



d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
16	16	<b>161 490 666</b>	0.011	38	23	18	4	4	
20	16	<b>161 490 667</b>	0.009	38	27	20	4	4	
25	16	<b>161 490 668</b>	0.012	44	33	23	5	4	
32	16	<b>161 490 669</b>	0.024	53	41	26	5	4	
40	16	<b>161 490 670</b>	0.042	65	51	31	5	5	
50	16	<b>161 490 671</b>	0.065	77	62	34	6	3	
63	16	<b>161 490 672</b>	0.118	99	77	41	7	3	
75	16	<b>161 490 673</b>	0.224	125	92	49	9	4	
90	16	<b>161 490 674</b>	0.377	150	110	57	10	5	
110	16	<b>161 490 675</b>	0.639	180	134	69	11	5	



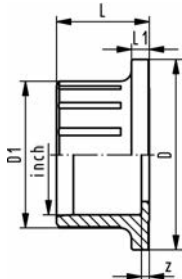
### Valve end 546 PVC-U (G03) With solvent cement socket Inch ASTM



Inch	d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
3/8	16	16	<b>161 490 712</b>	0.012	38	24	25	4	6	
1/2	20	16	<b>161 490 713</b>	0.014	38	30	25	4	2	
3/4	25	16	<b>161 490 714</b>	0.020	44	35	28	5	3	
1	32	16	<b>161 490 715</b>	0.031	53	43	31	5	3	
1 1/4	40	16	<b>161 490 716</b>	0.046	65	53	34	5	3	
1 1/2	50	16	<b>161 490 717</b>	0.066	77	60	38	6	3	
2	63	16	<b>161 490 718</b>	0.112	99	73	41	7	3	
2 1/2	75	16	<b>161 490 719</b>	0.241	125	92	49	9	4	
3	90	16	<b>161 490 720</b>	0.394	150	110	57	10	9	
4	110	16	<b>161 490 721</b>	0.582	180	134	69	11	11	



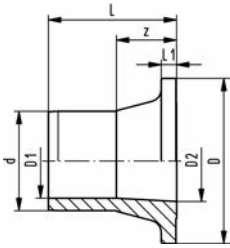
### Valve end 546 PVC-U (G04) With solvent cement socket Inch BS



Inch	d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
3/8	16	16	<b>161 490 734</b>	0.009	38	23	18	4	2	
1/2	20	16	<b>161 490 735</b>	0.010	38	27	20	4	2	
3/4	25	16	<b>161 490 736</b>	0.013	44	33	23	5	2	
1	32	16	<b>161 490 737</b>	0.021	53	41	26	5	2	
1 1/4	40	16	<b>161 490 738</b>	0.036	65	51	31	5	2	
1 1/2	50	16	<b>161 490 739</b>	0.071	77	62	34	6	4	
2	63	16	<b>161 490 740</b>	0.135	99	77	41	7	5	
	75	16	<b>161 490 673</b>	0.224	125	92	49	9	4	
3	90	16	<b>161 490 742</b>	0.393	150	110	57	10	6	
4	110	16	<b>161 490 743</b>	0.577	180	134	69	11	5	



## Valve end 546 PVC-U (G05) With solvent cement spigot metric



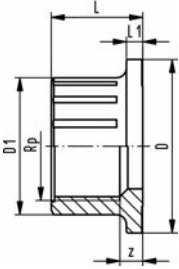
d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	161 490 701	0.011	38	10	16	29	4	15
20	16	161 490 702	0.015	38	14	16	34	4	18
25	16	161 490 703	0.021	44	19	20	39	5	20
32	16	161 490 704	0.031	53	24	26	42	5	20
40	16	161 490 705	0.050	65	31	33	45	5	19
50	16	161 490 706	0.082	77	39	41	53	6	22
63	16	161 490 707	0.161	99	49	51	62	7	24
75	16	161 490 708	0.302	125	58	65	74	9	30
90	16	161 490 709	0.467	150	70	90	80	10	28
110	16	161 490 710	0.747	180	86	100	88	11	27



## Valve end 546 PVC-U (G06) With threaded socket Rp

### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U



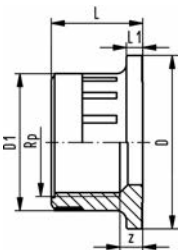
Rp [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	161 490 690	0.011	38	24	20	4	7
1/2	10	161 490 691	0.013	38	28	22	4	6
3/4	10	161 490 692	0.019	44	34	25	5	7
1	10	161 490 693	0.031	53	42	28	5	7
1 1/4	10	161 490 694	0.047	65	52	30	5	7
1 1/2	10	161 490 695	0.074	77	63	32	6	9
2	10	161 490 696	0.129	99	78	38	7	10
2 1/2	10	161 490 697	0.255	125	58	49	9	18
3	10	161 490 698	0.436	150	110	57	10	23
4	10	161 490 699	0.645	180	134	69	11	29



## Valve end 546 PVC-U (G07) With threaded socket Rp reinforced

### Model:

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PVC-U



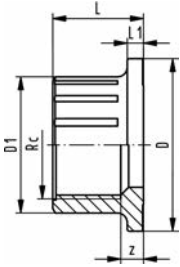
Rp [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	161 490 825	0.013	38	24	20	4	7
1/2	16	161 490 826	0.016	38	28	22	4	6
3/4	16	161 490 827	0.023	44	34	25	5	7
1	16	161 490 828	0.036	53	42	28	5	7
1 1/4	16	161 490 829	0.058	65	52	30	5	7
1 1/2	16	161 490 830	0.084	77	63	32	6	9
2	16	161 490 831	0.166	99	78	38	7	10



## Valve end 546 PVC-U (G08) With threaded socket Rc

### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U



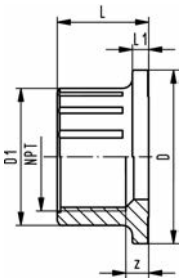
Rc [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
1/2	10	<b>161 490 755</b>	0.013	38	28	22	4	5
3/4	10	<b>161 490 756</b>	0.019	44	34	25	5	7
1	10	<b>161 490 757</b>	0.041	53	42	28	5	7
1 1/4	10	<b>161 490 758</b>	0.047	65	52	30	5	6
1 1/2	10	<b>161 490 759</b>	0.081	77	63	32	6	8
2	10	<b>161 490 760</b>	0.145	99	78	38	7	9
2 1/2	10	<b>161 490 761</b>	0.261	125	58	49	9	18
3	10	<b>161 490 762</b>	0.444	150	110	57	10	23
4	10	<b>161 490 763</b>	0.682	180	134	69	11	29



## Valve end 546 PVC-U (G09) With threaded socket NPT

### Model:

- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PVC-U



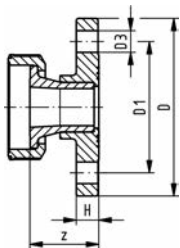
NPT [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	<b>161 490 723</b>	0.014	38	26	21	4	7
1/2	10	<b>161 490 724</b>	0.017	38	33	21	4	4
3/4	10	<b>161 490 725</b>	0.020	44	39	23	5	5
1	10	<b>161 490 726</b>	0.038	53	47	28	5	6
1 1/4	10	<b>161 490 727</b>	0.064	65	57	31	5	7
1 1/2	10	<b>161 490 728</b>	0.087	77	65	34	6	11
2	10	<b>161 490 729</b>	0.146	99	77	41	7	17
2 1/2	10	<b>161 490 730</b>	0.287	125	58	49	9	15
3	10	<b>161 490 731</b>	0.451	150	110	57	10	21
4	10	<b>161 490 732</b>	0.692	180	134	69	11	31



## Valve end 546 PVC-U (G60) Assembly with fixed flange PVC-U metric

### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- Combined jointing face: flat and serrated



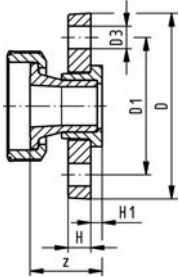
d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	<b>161 486 360</b>	0.131	95	65	14	12	37
25	20	16	<b>161 486 361</b>	0.175	105	75	14	13	42
32	25	16	<b>161 486 362</b>	0.254	115	85	14	15	45
40	32	16	<b>161 486 363</b>	0.417	140	100	18	17	48
50	40	16	<b>161 486 364</b>	0.548	150	110	18	18	56
63	50	16	<b>161 486 365</b>	0.862	165	125	18	20	65



## Valve end 546 PVC-U (G70) Assembly with backing flange PVC-U metric

### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



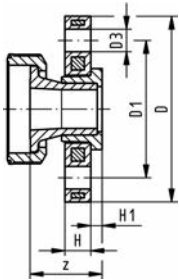
d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	161 486 265	0.110	95	65	14	11	6	37
25	20	16	161 486 266	0.155	105	75	14	12	7	42
32	25	16	161 486 267	0.230	115	85	14	14	7	45
40	32	16	161 486 268	0.360	140	100	18	15	8	48
50	40	16	161 486 269	0.500	150	110	18	16	8	56
63	50	16	161 486 270	0.770	165	125	18	18	9	65
75	65	10	161 486 271	1.429	185	145	18	19	10	77
90	80	10	161 486 272	2.109	200	160	18	20	11	85
110	100	10	161 486 273	3.067	220	180	18	22	12	93



## Valve end 546 PVC-U (G72) Assembly with backing flange PP-st metric

### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



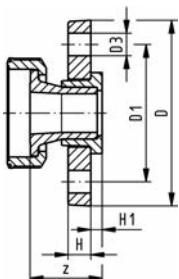
d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	161 486 285	0.259	95	65	14	12	6	37
25	20	16	161 486 286	0.325	105	75	14	12	7	42
32	25	16	161 486 287	0.530	115	85	14	16	7	45
40	32	16	161 486 288	0.786	140	100	18	16	8	48
50	40	16	161 486 289	1.070	150	110	18	18	8	56
63	50	16	161 486 290	1.529	165	125	18	18	9	65
75	65	16	161 486 291	2.319	185	145	18	18	10	77
90	80	16	161 486 292	2.905	200	160	18	20	11	85
110	100	16	161 486 293	4.079	220	180	18	20	12	93



## Valve end 546 PVC-U (G71) Assembly with backing flange PVC-U Inch ANSI

### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)



Inch	d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
1/2	20	16	161 486 275	0.110	95	60	14	11	6	37
3/4	25	16	161 486 276	0.150	105	70	14	12	7	42
1	32	16	161 486 277	0.220	115	79	14	14	7	45
1 1/4	40	16	161 486 278	0.375	140	89	18	15	8	48
1 1/2	50	16	161 486 279	0.495	150	98	18	16	8	56
2	63	16	161 486 280	0.760	165	121	18	18	9	65
2 1/2	75	10	161 486 281	1.429	185	140	19	19	10	77
3	90	10	161 486 282	3.136	200	152	19	20	11	85
4	110	10	161 486 283	4.214	220	190	19	22	12	93

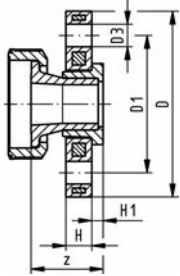




## Valve end 546 PVC-U (G73) Assembly with backing flange PP-st inch

### Model:

- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)



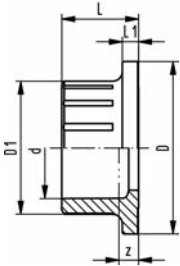
Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	15	16	<b>161 486 425</b>	0.250	95	60	16	12	6	37
¾	20	16	<b>161 486 426</b>	0.310	105	70	16	12	7	42
1	25	16	<b>161 486 427</b>	0.520	115	79	16	16	7	45
1 ¼	32	16	<b>161 486 428</b>	0.835	140	89	16	16	8	48
1 ½	40	16	<b>161 486 429</b>	1.110	150	98	16	18	8	56
2	50	16	<b>161 486 430</b>	1.385	165	121	19	18	9	65
2 ½	65	16	<b>161 486 431</b>	2.319	185	140	19	18	10	77
3	80	16	<b>161 486 432</b>	2.905	200	152	19	20	11	85
4	100	16	<b>161 486 433</b>	4.079	229	190	19	20	12	93



## Valve end 546 PP-H (G30) With fusion socket metric

### Model:

- Material: PP-H



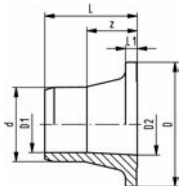
d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	10	<b>167 482 900</b>	0.006	38	23	19	4	5
20	10	<b>167 482 901</b>	0.007	38	27	20	4	5
25	10	<b>167 482 902</b>	0.011	44	33	22	5	6
32	10	<b>167 482 903</b>	0.011	53	41	24	5	6
40	10	<b>167 482 904</b>	0.025	65	51	26	5	7
50	10	<b>167 482 905</b>	0.040	77	62	29	6	8
63	10	<b>167 482 906</b>	0.070	99	77	34	7	6
75	10	<b>167 482 907</b>	0.168	125	92	49	9	20
90	10	<b>167 482 908</b>	0.272	150	110	57	10	24
110	10	<b>167 482 909</b>	0.467	180	134	69	11	30



## Valve end 546 PP-H (G32) With socket fusion spigot metric

### Model:

- Material: PP-H



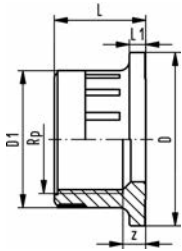
d [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	10	<b>167 482 922</b>	0.007	38	10	16	27	4	13	14
20	10	<b>167 482 923</b>	0.009	38	14	16	32	4	14	18
25	10	<b>167 482 924</b>	0.013	44	19	20	37	5	16	21
32	10	<b>167 482 925</b>	0.020	53	24	26	40	5	18	22
40	10	<b>167 482 926</b>	0.032	65	31	33	43	5	20	23
50	10	<b>167 482 927</b>	0.055	77	39	41	51	6	23	28
63	10	<b>167 482 928</b>	0.103	99	49	51	60	7	27	33
75	10	<b>167 482 929</b>	0.195	125	58	65	72	9	48	24
90	10	<b>167 482 930</b>	0.307	150	70	90	78	10	48	29
110	10	<b>167 482 931</b>	0.495	180	86	100	86	11	54	32



## Valve end 546 PP-H (G33) With threaded socket Rp reinforced

### Model:

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



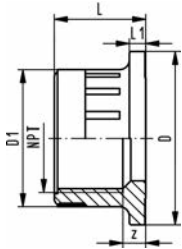
Rp [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>167 482 911</b>	0.013	38	24	20	4	7
1/2	16	<b>167 482 912</b>	0.009	38	28	21	4	6
3/4	16	<b>167 482 913</b>	0.016	44	34	23	5	7
1	16	<b>167 482 914</b>	0.024	53	42	28	5	7
1 1/4	16	<b>167 482 915</b>	0.037	65	52	31	5	7
1 1/2	16	<b>167 482 916</b>	0.052	77	63	34	6	9
2	16	<b>167 482 917</b>	0.118	99	78	41	7	10



## Valve end 546 PP-H (G34) With threaded socket NPT reinforced

### Model:

- Material: PP-H
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP



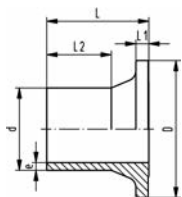
NPT [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>167 482 966</b>	0.008	38	26	20	4	7
1/2	16	<b>167 482 967</b>	0.012	38	33	21	4	4
3/4	16	<b>167 482 968</b>	0.016	44	39	23	5	5
1	16	<b>167 482 969</b>	0.027	53	47	28	5	6
1 1/4	16	<b>167 482 970</b>	0.037	65	57	31	5	7
1 1/2	16	<b>167 482 971</b>	0.052	77	65	34	6	11
2	16	<b>167 482 972</b>	0.091	99	77	41	7	17



## Valve end 546 PP-H (G35) With butt fusion spigot IR-Plus® SDR11 metric

### Model:

- Material: PP-H

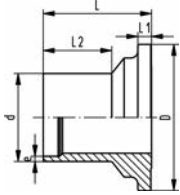


d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	10	<b>167 482 945</b>	0.007	38	1,9	37	4	25
25	IR	10	<b>167 482 946</b>	0.011	44	2,3	39	5	25
32	IR	10	<b>167 482 947</b>	0.020	53	2,9	40	5	25
40	IR	10	<b>167 482 948</b>	0.041	65	3,7	43	5	25
50	IR	10	<b>167 482 949</b>	0.052	77	4,6	51	6	25
63	IR	10	<b>167 482 950</b>	0.099	99	5,8	60	7	28
75	IR	10	<b>167 482 951</b>	0.193	125	6,8	65	9	41
90	IR	10	<b>167 482 952</b>	0.270	150	8,2	62	10	33
110	IR	10	<b>167 482 953</b>	0.421	180	10,0	69	11	37



### Valve end 546 PP-H (G36) With butt fusion spigot IR-Plus® SDR17,6 metric

Model:  
• Material: PP-H

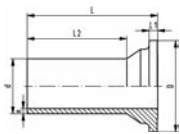


d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	IR	6	<b>167 482 937</b>	0.032	65	2,3	43	5	25
50	IR	6	<b>167 482 938</b>	0.050	77	2,9	51	6	25
63	IR	6	<b>167 482 939</b>	0.099	99	3,6	60	7	28
75	IR	6	<b>167 482 940</b>	0.189	125	4.3	65	9	41
90	IR	6	<b>167 482 941</b>	0.265	150	5.1	62	10	33
110	IR	6	<b>167 482 942</b>	0.418	180	6.3	69	11	37



### Valve end 546 PP-H (G37) With butt fusion spigot long SDR11 metric

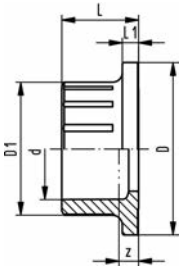
Model:  
• Material: PP-H



d [mm]	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	10	<b>167 482 956</b>	0.012	38	2,3	69	4	53
25	10	<b>167 482 957</b>	0.020	44	2,3	76	5	58
32	10	<b>167 482 958</b>	0.029	53	2,9	76	5	58
40	10	<b>167 482 959</b>	0.048	65	3,7	82	5	61
50	10	<b>167 482 960</b>	0.082	77	4,6	91	6	63
63	10	<b>167 482 961</b>	0.154	99	5,8	110	7	77



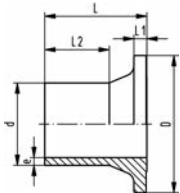
### Valve end 546 PE 100 (G40) With fusion socket metric



d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	<b>193 480 175</b>	0.007	38	23	19	4	5
20	16	<b>193 480 176</b>	0.007	38	27	20	4	5
25	16	<b>193 480 177</b>	0.012	44	33	22	5	6
32	16	<b>193 480 178</b>	0.017	53	41	24	5	6
40	16	<b>193 480 179</b>	0.026	65	51	26	5	7
50	16	<b>193 480 180</b>	0.050	77	62	29	6	8
63	16	<b>193 480 181</b>	0.075	99	77	34	7	8



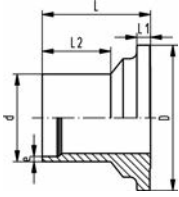
### Valve end 546 PE 100 (G41) With butt fusion spigot IR-Plus® SDR11 metric



d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	16	<b>193 480 102</b>	0.008	38	1,9	37	4	25
25	IR	16	<b>193 480 103</b>	0.013	44	2,3	39	5	25
32	IR	16	<b>193 480 104</b>	0.019	53	2,9	40	5	25
40	IR	16	<b>193 480 105</b>	0.030	65	3,7	43	5	25
50	IR	16	<b>193 480 106</b>	0.054	77	4,6	51	6	25
63	IR	16	<b>193 480 107</b>	0.096	99	5,8	60	7	28



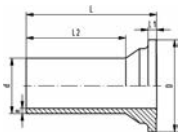
## Valve end 546 PE 100 (G42) With butt fusion spigot IR-Plus® SDR17,6 metric



d [mm]	FM	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	IR	10	<b>193 480 086</b>	0.030	65	2,3	43	5	25
50	IR	10	<b>193 480 087</b>	0.053	77	2,9	51	6	25
63	IR	10	<b>193 480 088</b>	0.096	99	3,6	60	7	28



## Valve end 546 PE 100 (G43) With butt fusion spigot long SDR11 metric



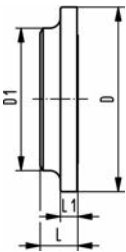
d [mm]	PN	Code	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	<b>193 480 152</b>	0.013	38	2,25	69	4	53
25	16	<b>193 480 153</b>	0.019	44	2,3	76	5	58
32	16	<b>193 480 154</b>	0.032	53	2,9	76	5	58
40	16	<b>193 480 155</b>	0.048	65	3,7	82	5	61
50	16	<b>193 480 156</b>	0.086	77	4,6	91	6	63
63	16	<b>193 480 157</b>	0.157	99	5,8	110	7	77
75	16	<b>193 480 158</b>	0.280	125	6,8	125	9	89
90	16	<b>193 480 159</b>	0.447	150	8,2	140	10	103
110	16	<b>193 480 160</b>	0.731	180	10,0	160	11	117



## Valve end blank 546 PVC-U (G80)

Model:

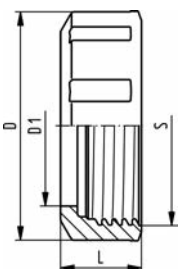
- Flat sealing faces



d [mm]	DN [mm]	Inch	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]
20	15	½	16	<b>161 490 837</b>	0.009	38	23	8	4
25	20	¾	16	<b>161 490 838</b>	0.014	44	33	10	5
32	25	1	16	<b>161 490 839</b>	0.021	53	41	11	5
40	32	1 ¼	16	<b>161 490 840</b>	0.034	65	51	11	5
50	40	1 ½	16	<b>161 490 841</b>	0.057	77	62	14	6
63	50	2	16	<b>161 490 842</b>	0.113	99	77	17	7



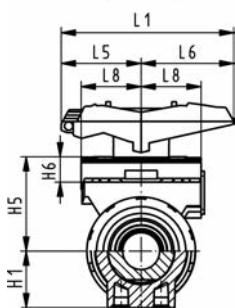
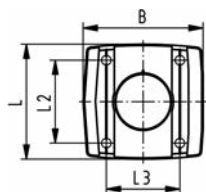
## Union nut 546 PVC-U



d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	L [mm]	S [mm]	Closest inch
16 - 20	10 - 15	<b>161 490 538</b>	0.019	50	34	19	42	¾ - ½
25	20	<b>161 490 539</b>	0.023	58	39	20	48	¾
32	25	<b>161 490 540</b>	0.041	68	47	24	58	1
40	32	<b>161 490 541</b>	0.066	84	57	27	71	1 ¼
50	40	<b>161 490 542</b>	0.092	97	65	30	84	1 ½
63	50	<b>161 490 543</b>	0.189	124	79	36	106	2
75	65	<b>161 490 544</b>	0.562	166	94	48	135	2 ½
90	80	<b>161 490 545</b>	0.882	200	113	54	135	3
110	100	<b>161 490 546</b>	1.355	238	137	60	198	4



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## Multifunctional module (I02) PP-GF Module empty

### Model:

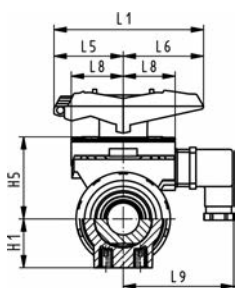
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional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

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 680</b>	0.069
25 - 32	3/4 - 1	20 - 25	<b>167 482 681</b>	0.149
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 682</b>	0.168
- 63	2	- 50	<b>167 482 683</b>	0.209
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 684</b>	0.379
- 110	4	- 100	<b>167 482 685</b>	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	



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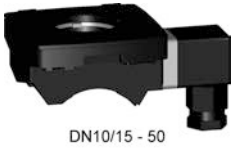


## Multifunctional module (I03) PP-GF With mechanical limit switches Ag Ni

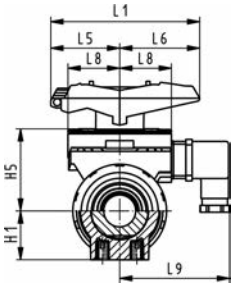
### Model:

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

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 626</b>	0.104	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 627</b>	0.118	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 628</b>	0.140	44	72	140	66	75	41	80
- 63	2	- 50	<b>167 482 629</b>	0.257	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	<b>167 482 630</b>	0.478	85	157	270	64	206		
- 110	4	- 100	<b>167 482 631</b>	0.480	123	175	320	64	256		



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

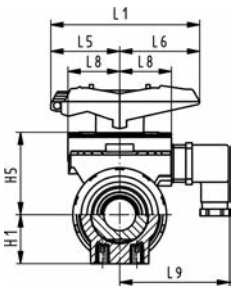
### Model:

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

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



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

### Model:

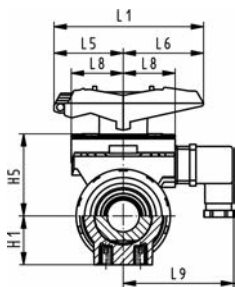
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece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

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





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

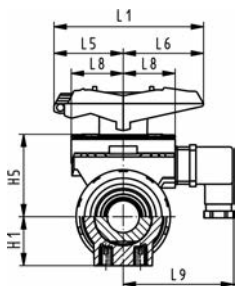
### Model:

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

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



DN10/15 - 50



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

### Model:

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

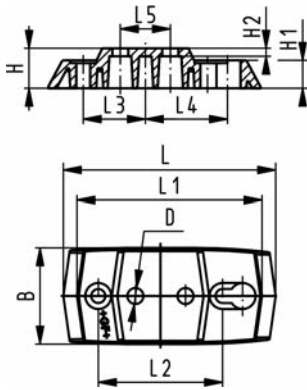
d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	<b>167 482 653</b>	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	<b>167 482 654</b>	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 482 655</b>	0.135	44	72	140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





## Mounting plate 546 and 543 PP-GF (L02)

- 2 mounting screws inclusive



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

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

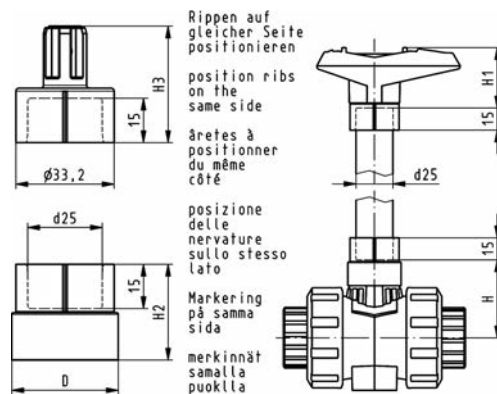


## Handle extension 546 and 543 PVC-U metric

### Model:

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

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





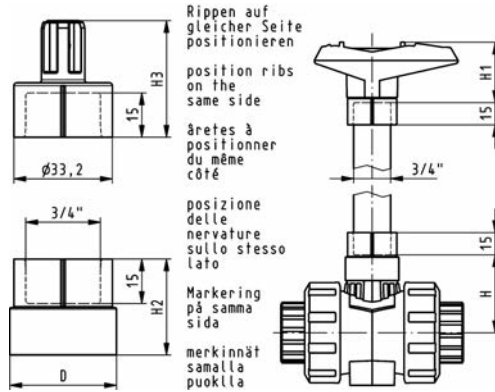
## Handle extension 546 PVC-U inch BS/ASTM

### Model:

- For Ball Valve Type 546

Includes upper and lower extension adapter, does not include 3/4" pipe

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

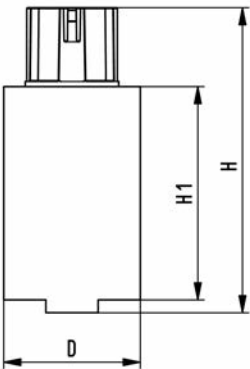


## Handle extension for ball valve type 546 PVC-U DN65 - DN100

### Model:

- Multiple use in succession possible
- Height variable

d-d [mm]	DN-DN [mm]	Code	kg	D [mm]	H [mm]	H1 [mm]
75 - 90	65 - 80	<b>161 490 920</b>	0.323	58	143	100
- 110	- 100	<b>161 490 921</b>	0.413	64	143	100

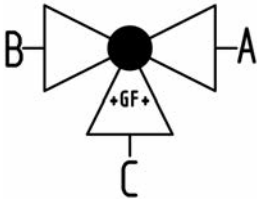


# Ball valves type 543 metric

## 3-Way ball valve type 543 PVC-U

### Horizontal/L-port

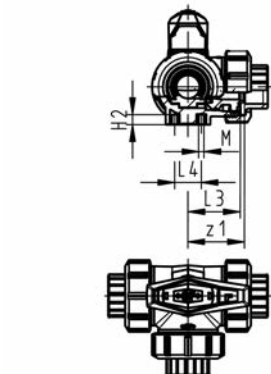
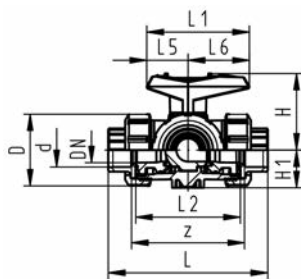
### With solvent cement sockets metric



#### Model:

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

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	161 543 001	161 543 011	0.245
20	15	10	75	161 543 002	161 543 012	0.251
25	20	10	150	161 543 003	161 543 013	0.361
32	25	10	280	161 543 004	161 543 014	0.551
40	32	10	480	161 543 005	161 543 015	0.938
50	40	10	620	161 543 006	161 543 016	1.388
63	50	10	1230	161 543 007	161 543 017	2.705



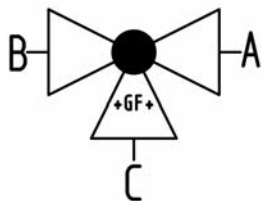
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	77	73	36	25	32	45	57	28	8	6	81	40	3/8
20	50	112	77	73	36	25	32	45	57	28	8	6	81	40	1/2
25	58	131	97	86	43	25	39	58	67	32	8	6	94	47	3/4
32	68	151	97	99	50	25	39	58	73	36	8	6	107	54	1
40	84	181	128	120	60	45	54	74	90	45	9	8	130	65	1 1/4
50	97	205	128	137	69	45	54	74	97	51	9	8	143	72	1 1/2
63	124	261	152	179	89	45	66	87	116	65	9	8	185	92	2



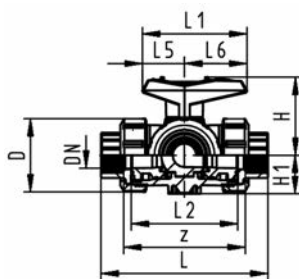
### 3-Way ball valve type 543 PVC-U Horizontal/L-port With threaded sockets Rp

**Model:**

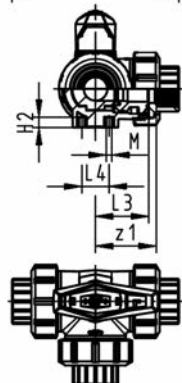
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	161 543 041	161 543 051	0.245
1/2	15	10	75	161 543 042	161 543 052	0.251
3/4	20	10	150	161 543 043	161 543 053	0.361
1	25	10	280	161 543 044	161 543 054	0.551
1 1/4	32	10	480	161 543 045	161 543 055	0.938
1 1/2	40	10	620	161 543 046	161 543 056	1.390
2	50	10	1230	161 543 047	161 543 057	2.705



Rp [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	113	77	73	36	25	32	45	57	28	8	6	87	43
1/2	50	117	77	73	36	25	32	45	57	28	8	6	85	42
3/4	58	135	97	86	43	25	39	58	67	32	8	6	100	50
1	68	155	97	99	50	25	39	58	73	36	8	6	113	57
1 1/4	84	179	128	120	60	45	54	74	90	45	9	8	134	67
1 1/2	97	201	128	137	69	45	54	74	97	51	9	8	155	78
2	124	255	152	179	89	45	66	87	116	65	9	8	199	99

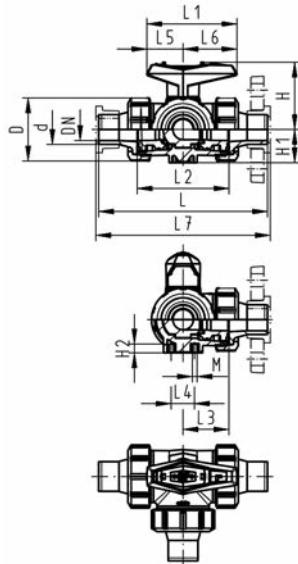
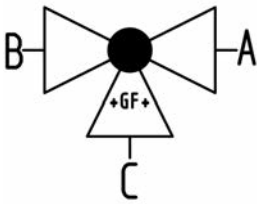




### 3-Way ball valve type 543 PVC-U Horizontal/L-port With solvent cement spigots metric

#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	161 543 021	161 543 031	0.251
20	15	10	75	161 543 022	161 543 032	0.260
25	20	10	150	161 543 023	161 543 033	0.376
32	25	10	280	161 543 024	161 543 034	0.575
40	32	10	480	161 543 025	161 543 035	0.959
50	40	10	620	161 543 026	161 543 036	1.453
63	50	10	1230	161 543 027	161 543 037	2.827

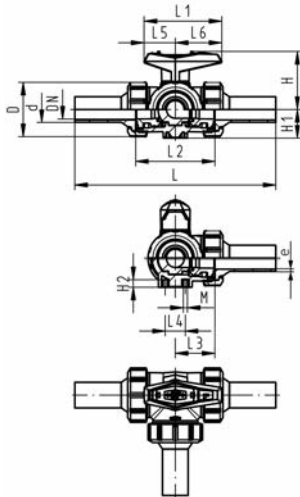
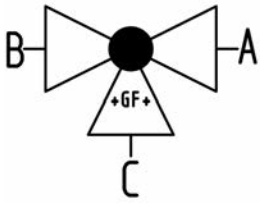
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	closest inch
16	50	131	77	73	36	25	32	45	137	57	28	8	6	3/8
20	50	141	77	73	36	25	32	45	147	57	28	8	6	1/2
25	58	165	97	86	43	25	39	58	171	67	32	8	6	3/4
32	68	182	97	99	50	25	39	58	188	73	36	8	6	1
40	84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



### 3-Way ball valve type 543 PVC-U Horizontal/L-port With butt fusion spigots long PE100 SDR11 metric

#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	<b>161 543 462</b>	<b>161 543 472</b>	0.254
25	20	10	150	<b>161 543 463</b>	<b>161 543 473</b>	0.370
32	25	10	280	<b>161 543 464</b>	<b>161 543 474</b>	0.563
40	32	10	480	<b>161 543 465</b>	<b>161 543 475</b>	0.953
50	40	10	620	<b>161 543 466</b>	<b>161 543 476</b>	1.444
63	50	10	1230	<b>161 543 467</b>	<b>161 543 477</b>	3.141

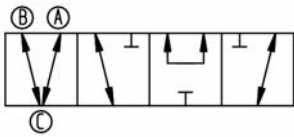
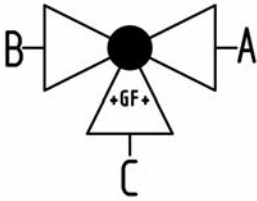
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]	closest inch
20	50	210	77	73	36	25	32	45	57	28	8	6	2.3	1/2
25	58	237	97	86	43	25	39	58	67	32	8	6	2.3	3/4
32	68	251	97	99	50	25	39	58	73	36	8	6	2.9	1
40	84	283	128	120	60	45	54	74	90	45	9	8	3.7	1 1/4
50	97	319	128	137	69	45	54	74	97	51	9	8	4.6	1 1/2
63	124	399	152	179	89	45	66	87	116	65	9	8	5.8	2



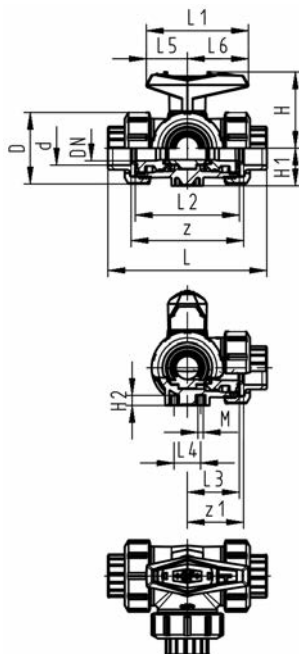
### 3-Way ball valve type 543 PVC-U Horizontal/T-port With solvent cement sockets metric

#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	161 543 201	161 543 211	0.244
20	15	10	200	161 543 202	161 543 212	0.250
25	20	10	470	161 543 203	161 543 213	0.359
32	25	10	793	161 543 204	161 543 214	0.544
40	32	10	1290	161 543 205	161 543 215	0.927
50	40	10	1910	161 543 206	161 543 216	1.369
63	50	10	3100	161 543 207	161 543 217	2.660



d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	77	73	36	25	32	45	57	28	8	6	81	40	3/8
20	50	112	77	73	36	25	32	45	57	28	8	6	81	40	1/2
25	58	131	97	86	43	25	39	58	67	32	8	6	94	47	3/4
32	68	151	97	99	50	25	39	58	73	36	8	6	107	54	1
40	84	181	128	120	60	45	54	74	90	45	9	8	130	65	1 1/4
50	97	205	128	137	69	45	54	74	97	51	9	8	143	72	1 1/2
63	124	261	152	179	89	45	66	87	116	65	9	8	185	92	2

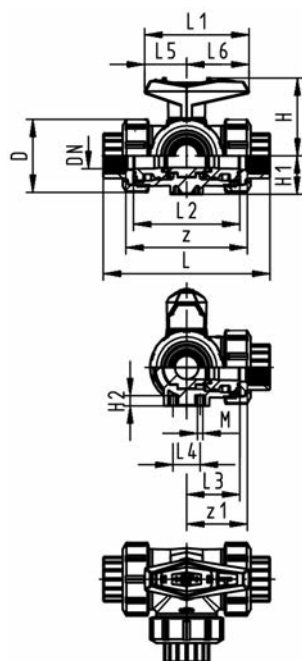
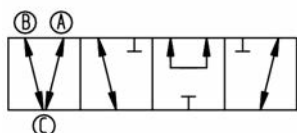
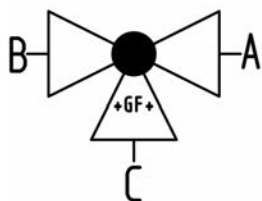




## 3-Way ball valve type 543 PVC-U Horizontal/T-port With threaded sockets Rp

### Model:

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



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>161 543 241</b>	<b>161 543 251</b>	0.244
1/2	15	10	200	<b>161 543 242</b>	<b>161 543 252</b>	0.250
3/4	20	10	470	<b>161 543 243</b>	<b>161 543 253</b>	0.359
1	25	10	793	<b>161 543 244</b>	<b>161 543 254</b>	0.544
1 1/4	32	10	1290	<b>161 543 245</b>	<b>161 543 255</b>	0.927
1 1/2	40	10	1910	<b>161 543 246</b>	<b>161 543 256</b>	1.400
2	50	10	3100	<b>161 543 247</b>	<b>161 543 257</b>	2.660

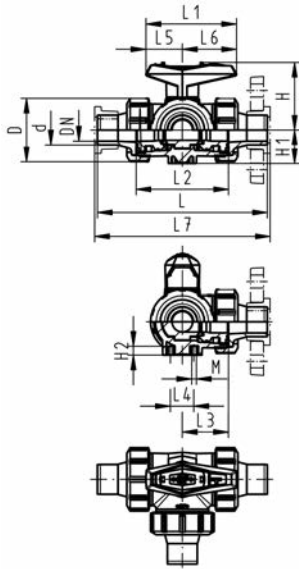
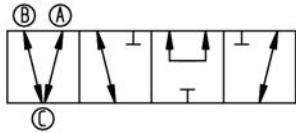
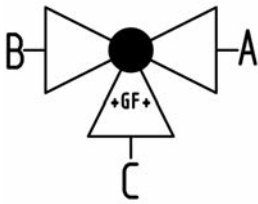
Rp [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	113	77	73	36	25	32	45	57	28	8	6	87	43
1/2	50	117	77	73	36	25	32	45	57	28	8	6	85	42
3/4	58	135	97	86	43	25	39	58	67	32	8	6	100	50
1	68	155	97	99	50	25	39	58	73	36	8	6	113	57
1 1/4	84	179	128	120	60	45	54	74	90	45	9	8	134	67
1 1/2	97	201	128	137	69	45	54	74	97	51	9	8	155	78
2	124	255	152	179	89	45	66	87	116	65	9	8	199	99



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

**Model:**

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

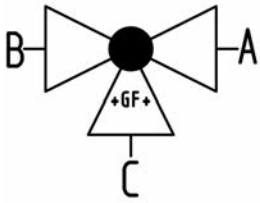


d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	161 543 221	161 543 231	0.250
20	15	10	200	161 543 222	161 543 232	0.259
25	20	10	470	161 543 223	161 543 233	0.374
32	25	10	793	161 543 224	161 543 234	0.568
40	32	10	1290	161 543 225	161 543 235	0.948
50	40	10	1910	161 543 226	161 543 236	1.432
63	50	10	3100	161 543 227	161 543 237	2.786

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

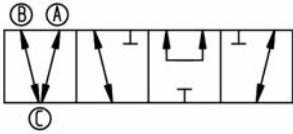


### 3-Way ball valve type 543 PVC-U Horizontal/T-port With butt fusion spigots long PE100 SDR11 metric

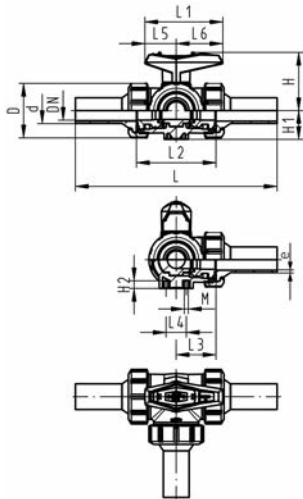


#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	<b>161 543 482</b>	<b>161 543 492</b>	0.253
25	20	10	470	<b>161 543 483</b>	<b>161 543 493</b>	0.368
32	25	10	793	<b>161 543 484</b>	<b>161 543 494</b>	0.556
40	32	10	1290	<b>161 543 485</b>	<b>161 543 495</b>	0.942
50	40	10	1910	<b>161 543 486</b>	<b>161 543 496</b>	1.423
63	50	10	3100	<b>161 543 487</b>	<b>161 543 497</b>	3.096



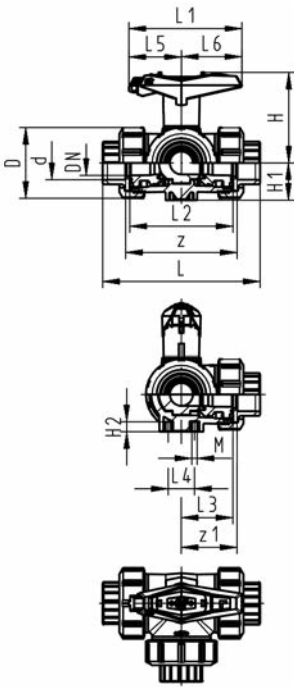
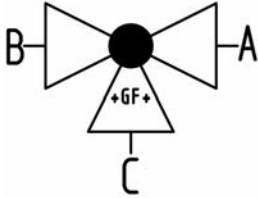
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]	closest inch
20	50	210	77	73	36	25	32	45	57	28	8	6	2.3	1/2
25	58	237	97	86	43	25	39	58	67	32	8	6	2.3	3/4
32	68	251	97	99	50	25	39	58	73	36	8	6	2.9	1
40	84	283	128	120	60	45	54	74	90	45	9	8	3.7	1 1/4
50	97	319	128	137	69	45	54	74	97	51	9	8	4.6	1 1/2
63	124	399	152	179	89	45	66	87	116	65	9	8	5.8	2



### 3-Way ball valve type 543 PVC-U Horizontal/L-port With lockable handle With solvent cement sockets metric

#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	161 543 161	161 543 171	0.259
20	15	10	75	161 543 162	161 543 172	0.265
25	20	10	150	161 543 163	161 543 173	0.378
32	25	10	280	161 543 164	161 543 174	0.568
40	32	10	480	161 543 165	161 543 175	0.961
50	40	10	620	161 543 166	161 543 176	1.413
63	50	10	1230	161 543 167	161 543 177	2.736

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	87	73	36	25	42	45	79	28	8	6	81	40	3/8
20	50	112	87	73	36	25	42	45	79	28	8	6	81	40	1/2
25	58	131	108	86	43	25	50	58	88	32	8	6	94	47	3/4
32	68	151	108	99	50	25	50	58	94	36	8	6	107	54	1
40	84	181	141	120	60	45	66	75	113	45	9	8	130	65	1 1/4
50	97	205	141	137	69	45	66	75	119	51	9	8	143	72	1 1/2
63	124	261	165	179	89	45	78	87	141	65	9	8	185	92	2



## 3-Way ball valve type 543 PVC-U

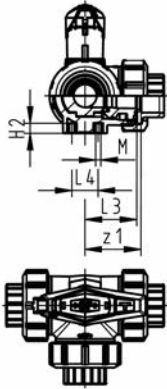
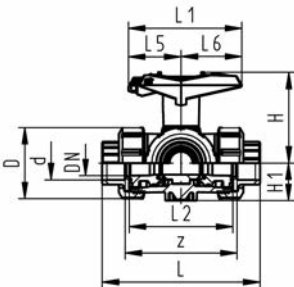
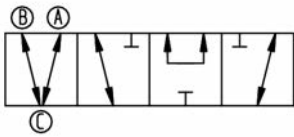
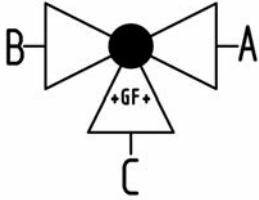
### Horizontal/T-port

### With lockable handle

### With solvent cement sockets metric

#### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	<b>161 543 361</b>	<b>161 543 371</b>	0.258
20	15	10	200	<b>161 543 362</b>	<b>161 543 372</b>	0.264
25	20	10	470	<b>161 543 363</b>	<b>161 543 373</b>	0.376
32	25	10	793	<b>161 543 364</b>	<b>161 543 374</b>	0.561
40	32	10	1290	<b>161 543 365</b>	<b>161 543 375</b>	0.950
50	40	10	1910	<b>161 543 366</b>	<b>161 543 376</b>	1.392
63	50	10	3100	<b>161 543 367</b>	<b>161 543 377</b>	2.691

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	87	73	36	25	42	45	79	28	8	6	81	40	3/8
20	50	112	87	73	36	25	42	45	79	28	8	6	81	40	1/2
25	58	131	108	86	43	25	50	58	88	32	8	6	94	47	3/4
32	68	151	108	99	50	25	50	58	94	36	8	6	107	54	1
40	84	181	141	120	60	45	66	75	113	45	9	8	130	65	1 1/4
50	97	205	141	137	69	45	66	75	119	51	9	8	143	72	1 1/2
63	124	261	165	179	89	45	78	87	141	65	9	8	185	92	2



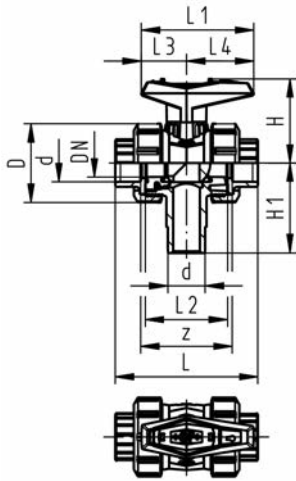
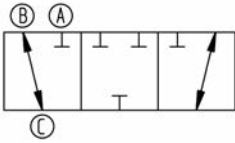
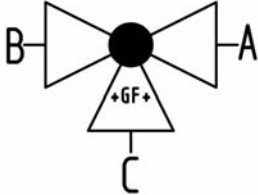
### 3-Way ball valve type 543 PVC-U Vertical/L-port With solvent cement sockets metric

**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]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	161 543 401	161 543 411	0.162
20	15	10	77	161 543 402	161 543 412	0.166
25	20	10	146	161 543 403	161 543 413	0.255
32	25	10	260	161 543 404	161 543 414	0.372
40	32	10	437	161 543 405	161 543 415	0.622
50	40	10	667	161 543 406	161 543 416	0.886
63	50	10	1293	161 543 407	161 543 417	1.617

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



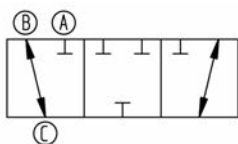
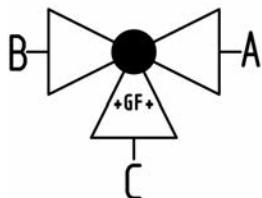
## 3-Way ball valve type 543 PVC-U Vertical/L-port With threaded sockets Rp

### Model:

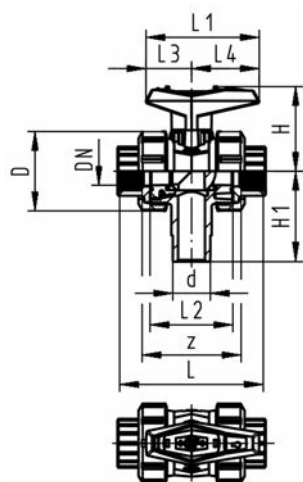
- Vertical inlet solvent cement spigot metric
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 360° without turn limiter
- Delivery status B-C opened, see flow scheme

### Mode of action:

- For interconnection of two inputs



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	49	<b>161 543 421</b>	<b>161 543 431</b>	0.162
1/2	15	10	77	<b>161 543 422</b>	<b>161 543 432</b>	0.166
3/4	20	10	146	<b>161 543 423</b>	<b>161 543 433</b>	0.255
1	25	10	260	<b>161 543 424</b>	<b>161 543 434</b>	0.372
1 1/4	32	10	437	<b>161 543 425</b>	<b>161 543 435</b>	0.622
1 1/2	40	10	667	<b>161 543 426</b>	<b>161 543 436</b>	0.886
2	50	10	1293	<b>161 543 427</b>	<b>161 543 437</b>	1.617



Rp [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]
3/8	50	96	77	56	32	45	57	62	69
1/2	50	99	77	56	32	45	57	62	67
3/4	58	115	97	66	39	58	67	72	78
1	68	127	97	71	39	58	73	77	85
1 1/4	84	144	128	85	54	74	90	87	100
1 1/2	97	153	128	89	54	74	97	97	106
2	124	177	152	101	66	87	116	112	121

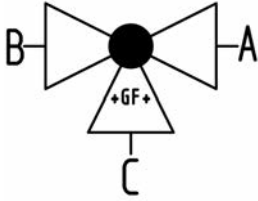




### 3-Way ball valve type 543 PVC-U Vertical/L-port With solvent cement spigots metric

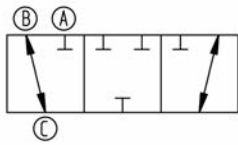
#### Model:

- 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

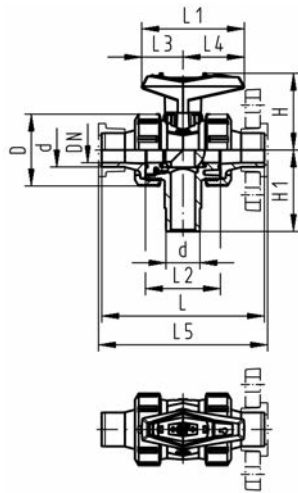


#### Mode of action:

- For interconnection of two inputs



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	161 543 441	161 543 451	0.166
20	15	10	77	161 543 442	161 543 452	0.172
25	20	10	146	161 543 443	161 543 453	0.265
32	25	10	260	161 543 444	161 543 454	0.388
40	32	10	437	161 543 445	161 543 455	0.636
50	40	10	667	161 543 446	161 543 456	0.928
63	50	10	1293	161 543 447	161 543 457	1.701



d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	closest inch
16	50	114	77	56	32	45	120	57	62	3/8
20	50	124	77	56	32	45	130	57	62	1/2
25	58	144	97	66	39	58	150	67	72	3/4
32	68	154	97	71	39	58	160	73	77	1
40	84	174	128	85	54	74	180	90	87	1 1/4
50	97	194	128	89	54	74	200	97	97	1 1/2
63	124	224	152	101	66	87	230	116	112	2



## 3-Way ball valve type 543 PVC-U

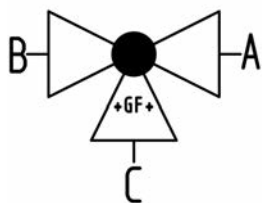
### Vertical/L-port

### With lockable handle

### With solvent cement sockets metric

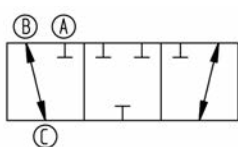
#### Model:

- 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
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status B-C opened, see flow scheme

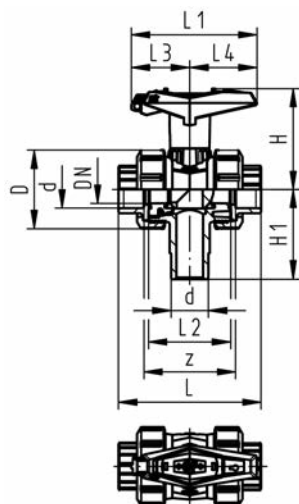


#### Mode of action:

- For interconnection of two inputs



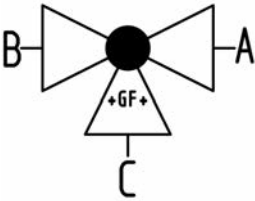
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	<b>161 543 501</b>	<b>161 543 511</b>	0.185
20	15	10	77	<b>161 543 502</b>	<b>161 543 512</b>	0.189
25	20	10	146	<b>161 543 503</b>	<b>161 543 513</b>	0.281
32	25	10	260	<b>161 543 504</b>	<b>161 543 514</b>	0.398
40	32	10	437	<b>161 543 505</b>	<b>161 543 515</b>	0.663
50	40	10	667	<b>161 543 506</b>	<b>161 543 516</b>	0.927
63	50	10	1293	<b>161 543 507</b>	<b>161 543 517</b>	1.666



d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]	closest inch
16	50	92	87	56	42	45	79	62	64	$\frac{3}{8}$
20	50	95	87	56	42	45	79	62	64	$\frac{1}{2}$
25	58	111	108	66	50	58	88	72	74	$\frac{3}{4}$
32	68	123	108	71	50	58	94	77	79	1
40	84	146	140	85	66	74	113	87	95	$1 \frac{1}{4}$
50	97	157	140	89	66	74	119	97	95	$1 \frac{1}{2}$
63	124	183	165	101	78	87	141	112	107	2

# Ball valves type 543 Inch BS

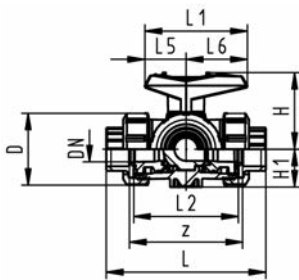
## 3-Way ball valve type 543 PVC-U Horizontal/L-port With solvent cement sockets BS



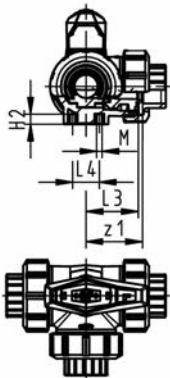
### Model:

- 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

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	161 543 061	161 543 071	0.245
1/2	15	10	75	161 543 062	161 543 072	0.251
3/4	20	10	150	161 543 063	161 543 073	0.361
1	25	10	280	161 543 064	161 543 074	0.551
1 1/4	32	10	480	161 543 065	161 543 075	0.938
1 1/2	40	10	620	161 543 066	161 543 076	1.390
2	50	10	1230	161 543 067	161 543 077	2.705



Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	109	77	73	36	25	32	45	57	28	8	6	77	38
1/2	50	112	77	73	36	25	32	45	57	28	8	6	77	38
3/4	58	131	97	86	43	25	39	58	67	32	8	6	90	45
1	68	151	97	99	50	25	39	58	73	36	8	6	103	52
1 1/4	84	181	128	120	60	45	54	74	90	45	9	8	124	62
1 1/2	97	205	128	137	69	45	54	74	97	51	9	8	145	73
2	124	261	152	179	89	45	66	87	116	65	9	8	189	94

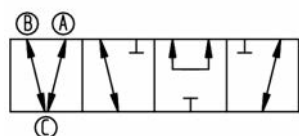
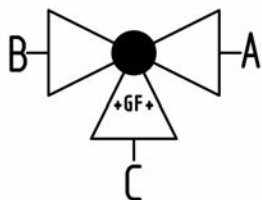




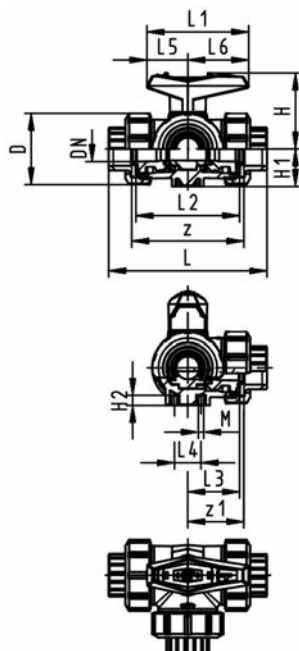
### 3-Way ball valve type 543 PVC-U Horizontal/T-port With solvent cement sockets BS

**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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>161 543 261</b>	<b>161 543 271</b>	0.244
1/2	15	10	200	<b>161 543 262</b>	<b>161 543 272</b>	0.250
3/4	20	10	470	<b>161 543 263</b>	<b>161 543 273</b>	0.359
1	25	10	793	<b>161 543 264</b>	<b>161 543 274</b>	0.544
1 1/4	32	10	1290	<b>161 543 265</b>	<b>161 543 275</b>	0.927
1 1/2	40	10	1910	<b>161 543 266</b>	<b>161 543 276</b>	1.391
2	50	10	3100	<b>161 543 267</b>	<b>161 543 277</b>	2.660



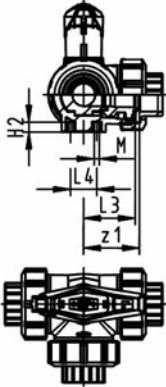
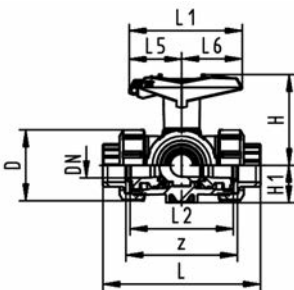
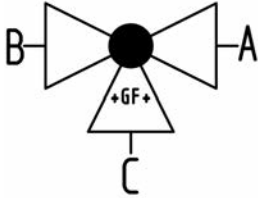
Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	109	77	73	36	25	32	45	57	28	8	6	77	38
1/2	50	112	77	73	36	25	32	45	57	28	8	6	77	38
3/4	58	131	97	86	43	25	39	58	67	32	8	6	90	45
1	68	151	97	99	50	25	39	58	73	36	8	6	103	52
1 1/4	84	181	128	120	60	45	54	74	90	45	9	8	124	62
1 1/2	97	205	128	137	69	45	54	74	97	51	9	8	145	73
2	124	261	152	179	89	45	66	87	116	65	9	8	189	94



### 3-Way ball valve type 543 PVC-U Horizontal/L-port With lockable handle With solvent cement sockets BS

#### Model:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	<b>161 543 861</b>	<b>161 543 871</b>	0.259
1/2	15	10	75	<b>161 543 862</b>	<b>161 543 872</b>	0.265
3/4	20	10	150	<b>161 543 863</b>	<b>161 543 873</b>	0.378
1	25	10	280	<b>161 543 864</b>	<b>161 543 874</b>	0.568
1 1/4	32	10	480	<b>161 543 865</b>	<b>161 543 875</b>	0.961
1 1/2	40	10	620	<b>161 543 866</b>	<b>161 543 876</b>	1.413
2	50	10	1230	<b>161 543 867</b>	<b>161 543 877</b>	2.736

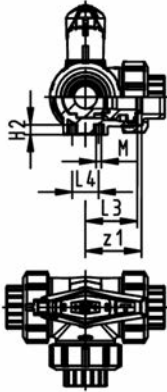
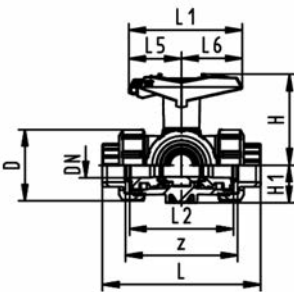
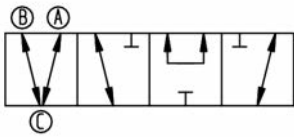
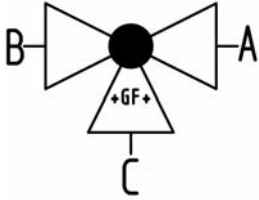
Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	109	87	73	36	25	42	45	79	28	8	6	77	38
1/2	50	112	87	73	36	25	42	45	79	28	8	6	77	38
3/4	58	131	108	86	43	25	50	58	88	32	8	6	90	45
1	68	151	108	99	50	25	50	58	94	36	8	6	103	52
1 1/4	84	181	141	120	60	45	66	75	113	45	9	8	124	62
1 1/2	97	205	141	137	69	45	66	75	119	51	9	8	145	73
2	124	261	165	179	89	45	78	87	141	65	9	8	189	94



### 3-Way ball valve type 543 PVC-U Horizontal/T-port With lockable handle With solvent cement sockets BS

**Model:**

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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	161 543 881	161 543 891	0.258
1/2	15	10	200	161 543 882	161 543 892	0.264
3/4	20	10	470	161 543 883	161 543 893	0.376
1	25	10	793	161 543 884	161 543 894	0.561
1 1/4	32	10	1290	161 543 885	161 543 895	0.950
1 1/2	40	10	1910	161 543 886	161 543 896	1.392
2	50	10	3100	161 543 887	161 543 897	2.691

Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	109	87	73	36	25	42	45	79	28	8	6	77	38
1/2	50	112	87	73	36	25	42	45	79	28	8	6	77	38
3/4	58	131	108	86	43	25	50	58	88	32	8	6	90	45
1	68	151	108	99	50	25	50	58	94	36	8	6	103	52
1 1/4	84	181	141	120	60	45	66	75	113	45	9	8	124	62
1 1/2	97	205	141	137	69	45	66	75	119	51	9	8	145	73
2	124	261	165	179	89	45	78	87	141	65	9	8	189	94



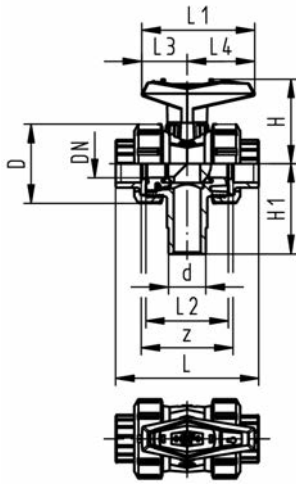
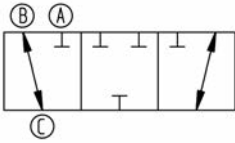
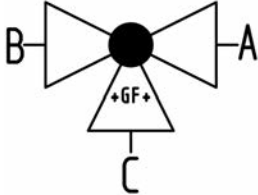
## 3-Way ball valve type 543 PVC-U Vertical/L-port With solvent cement sockets BS

### 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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	49	<b>161 543 601</b>	<b>161 543 611</b>	0.162
1/2	15	10	77	<b>161 543 602</b>	<b>161 543 612</b>	0.166
3/4	20	10	146	<b>161 543 603</b>	<b>161 543 613</b>	0.255
1	25	10	260	<b>161 543 604</b>	<b>161 543 614</b>	0.372
1 1/4	32	10	437	<b>161 543 605</b>	<b>161 543 615</b>	0.622
1 1/2	40	10	667	<b>161 543 606</b>	<b>161 543 616</b>	0.886
2	50	10	1293	<b>161 543 607</b>	<b>161 543 617</b>	1.617

Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]
3/8	50	92	77	56	32	45	57	62	60
1/2	50	95	77	56	32	45	57	62	60
3/4	58	111	97	66	39	58	67	72	69
1	68	123	97	71	39	58	73	77	75
1 1/4	84	146	128	85	54	74	90	87	89
1 1/2	97	157	128	89	54	74	97	97	97
2	124	183	152	101	66	87	116	112	110

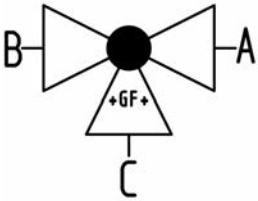


# Ball valves type 543 ASTM/ANSI

## 3-Way ball valve type 543 PVC-U

### Horizontal/L-port

### With solvent cement sockets ASTM

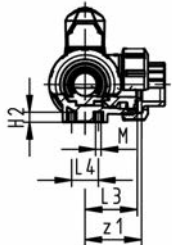
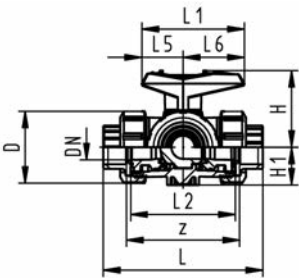


#### Model:

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	<b>161 543 081</b>	<b>161 543 091</b>	0.245
1/2	15	10	75	<b>161 543 082</b>	<b>161 543 092</b>	0.251
3/4	20	10	150	<b>161 543 083</b>	<b>161 543 093</b>	0.361
1	25	10	280	<b>161 543 084</b>	<b>161 543 094</b>	0.548
1 1/4	32	10	480	<b>161 543 085</b>	<b>161 543 095</b>	0.938
1 1/2	40	10	620	<b>161 543 086</b>	<b>161 543 096</b>	1.398
2	50	10	1230	<b>161 543 087</b>	<b>161 543 097</b>	2.705

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

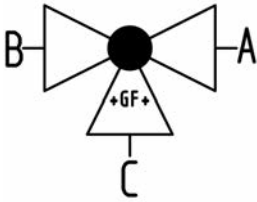




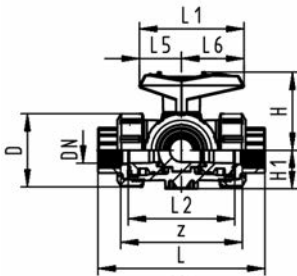
### 3-Way ball valve type 543 PVC-U Horizontal/L-port With threaded sockets NPT

#### Model:

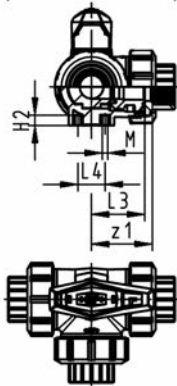
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	161 543 101	161 543 111	0.245
1/2	15	10	75	161 543 102	161 543 112	0.251
3/4	20	10	150	161 543 103	161 543 113	0.361
1	25	10	280	161 543 104	161 543 114	0.551
1 1/4	32	10	480	161 543 105	161 543 115	0.938
1 1/2	40	10	620	161 543 106	161 543 116	1.390
2	50	10	1230	161 543 107	161 543 117	2.705



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

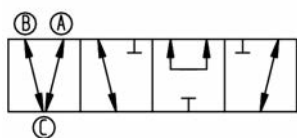
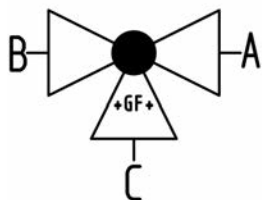




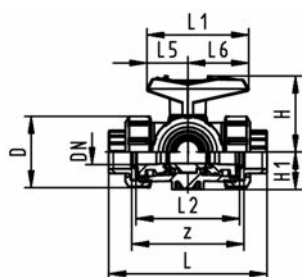
## 3-Way ball valve type 543 PVC-U Horizontal/T-port With solvent cement sockets ASTM

### Model:

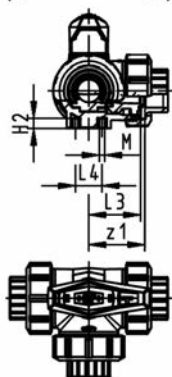
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>161 543 281</b>	<b>161 543 291</b>	0.244
1/2	15	10	200	<b>161 543 282</b>	<b>161 543 292</b>	0.250
3/4	20	10	470	<b>161 543 283</b>	<b>161 543 293</b>	0.359
1	25	10	793	<b>161 543 284</b>	<b>161 543 294</b>	0.544
1 1/4	32	10	1290	<b>161 543 285</b>	<b>161 543 295</b>	0.927
1 1/2	40	10	1910	<b>161 543 286</b>	<b>161 543 296</b>	1.369
2	50	10	3100	<b>161 543 287</b>	<b>161 543 297</b>	2.660



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

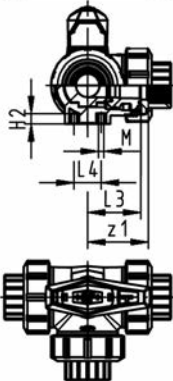
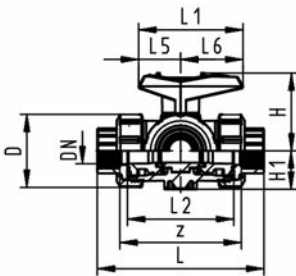
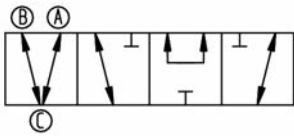
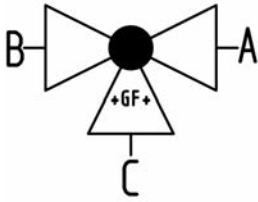




### 3-Way ball valve type 543 PVC-U Horizontal/T-port With threaded sockets NPT

#### Model:

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



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	161 543 301	161 543 311	0.244
1/2	15	10	200	161 543 302	161 543 312	0.255
3/4	20	10	470	161 543 303	161 543 313	0.359
1	25	10	793	161 543 304	161 543 314	0.544
1 1/4	32	10	1290	161 543 305	161 543 315	0.952
1 1/2	40	10	1910	161 543 306	161 543 316	1.369
2	50	10	3100	161 543 307	161 543 317	2.660

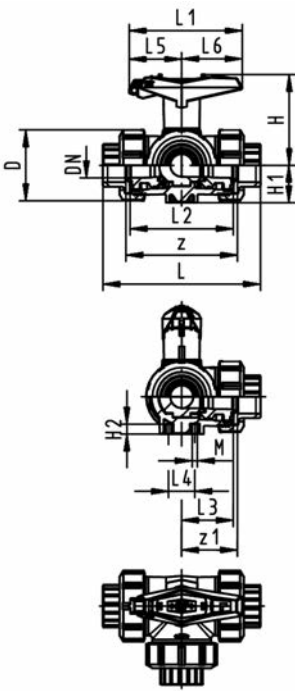
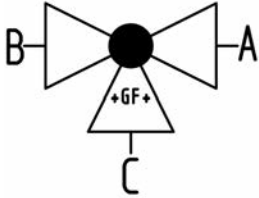
NPT [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	115	77	73	36	25	32	45	57	28	8	6	87	43
1/2	50	114	77	73	36	25	32	45	57	28	8	6	81	40
3/4	58	131	97	86	43	25	39	58	67	32	8	6	96	48
1	68	155	97	99	50	25	39	58	73	36	8	6	111	56
1 1/4	84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



### 3-Way ball valve type 543 PVC-U Horizontal/L-port With lockable handle With solvent cement sockets ASTM

**Model:**

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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	161 543 741	161 543 751	0.259
1/2	15	10	75	161 543 742	161 543 752	0.265
3/4	20	10	150	161 543 743	161 543 753	0.378
1	25	10	280	161 543 744	161 543 754	0.568
1 1/4	32	10	480	161 543 745	161 543 755	0.961
1 1/2	40	10	620	161 543 746	161 543 756	1.413
2	50	10	1230	161 543 747	161 543 757	2.736

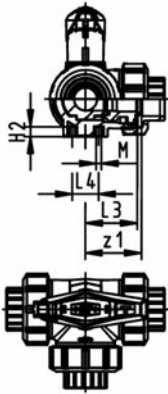
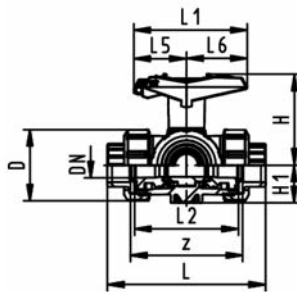
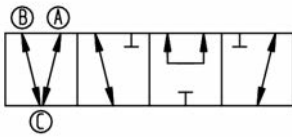
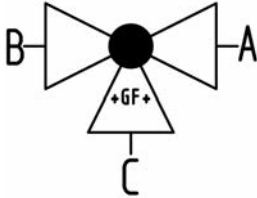
Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	123	87	73	36	25	42	45	79	28	8	6	85	42
1/2	50	122	87	73	36	25	42	45	79	28	8	6	77	38
3/4	58	141	108	86	43	25	50	58	88	32	8	6	92	46
1	68	161	108	99	50	25	50	58	94	36	8	6	105	53
1 1/4	84	187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



### 3-Way ball valve type 543 PVC-U Horizontal/T-port With lockable handle With solvent cement sockets ASTM

#### Model:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>161 543 761</b>	<b>161 543 771</b>	0.258
1/2	15	10	200	<b>161 543 762</b>	<b>161 543 772</b>	0.264
3/4	20	10	470	<b>161 543 763</b>	<b>161 543 773</b>	0.376
1	25	10	793	<b>161 543 764</b>	<b>161 543 774</b>	0.561
1 1/4	32	10	1290	<b>161 543 765</b>	<b>161 543 775</b>	0.950
1 1/2	40	10	1910	<b>161 543 766</b>	<b>161 543 776</b>	1.392
2	50	10	3100	<b>161 543 767</b>	<b>161 543 777</b>	2.691

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



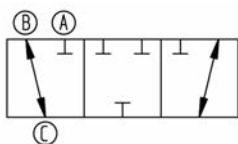
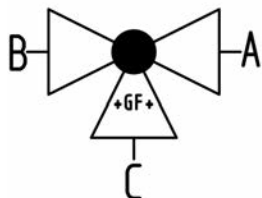
## 3-Way ball valve type 543 PVC-U Vertical/L-port With solvent cement sockets ASTM

### Model:

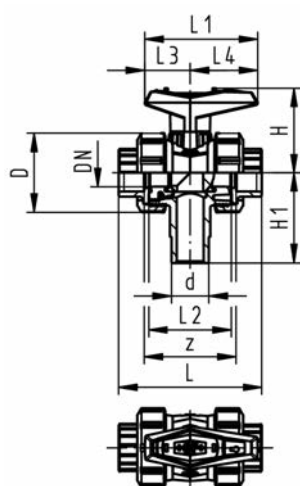
- Vertical inlet solvent cement spigot metric
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 360° without turn limiter
- Delivery status B-C opened, see flow scheme

### Mode of action:

- For interconnection of two inputs



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	49	<b>161 543 661</b>	<b>161 543 671</b>	0.162
1/2	15	10	77	<b>161 543 662</b>	<b>161 543 672</b>	0.166
3/4	20	10	146	<b>161 543 663</b>	<b>161 543 673</b>	0.255
1	25	10	260	<b>161 543 664</b>	<b>161 543 674</b>	0.372
1 1/4	32	10	437	<b>161 543 665</b>	<b>161 543 675</b>	0.622
1 1/2	40	10	667	<b>161 543 666</b>	<b>161 543 676</b>	0.886
2	50	10	1293	<b>161 543 667</b>	<b>161 543 677</b>	1.617



Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]
3/8	50	106	77	56	32	45	57	62	67
1/2	50	105	77	56	32	45	57	62	61
3/4	58	121	97	66	39	58	67	72	70
1	68	133	97	71	39	58	73	77	76
1 1/4	84	152	128	85	54	74	90	87	90
1 1/2	97	165	128	89	54	74	97	97	94
2	124	183	152	101	66	87	116	112	107





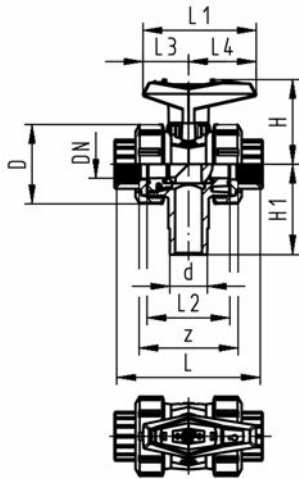
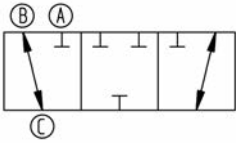
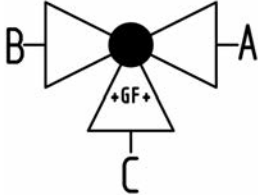
## 3-Way ball valve type 543 PVC-U Vertical/L-port With threaded sockets NPT

### 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

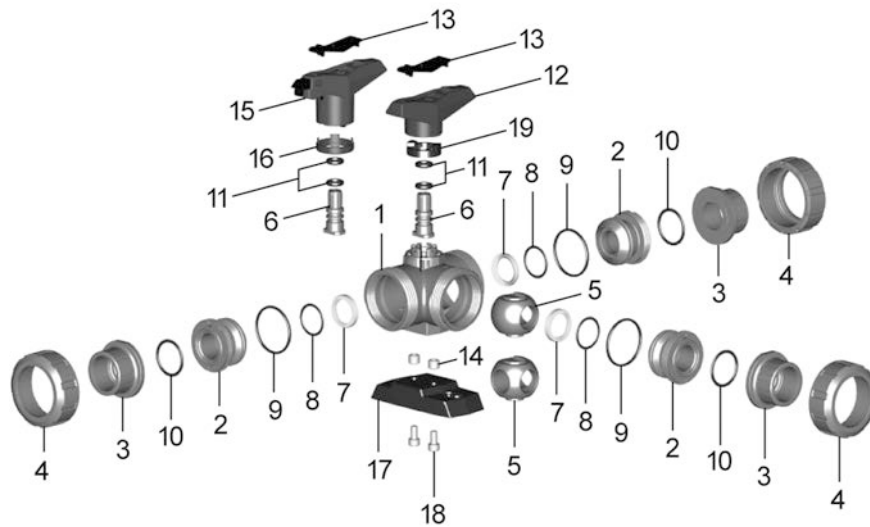


NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	49	<b>161 543 681</b>	<b>161 543 691</b>	0.162
1/2	15	10	77	<b>161 543 682</b>	<b>161 543 692</b>	0.166
3/4	20	10	146	<b>161 543 683</b>	<b>161 543 693</b>	0.255
1	25	10	260	<b>161 543 684</b>	<b>161 543 694</b>	0.372
1 1/4	32	10	437	<b>161 543 685</b>	<b>161 543 695</b>	0.622
1 1/2	40	10	667	<b>161 543 686</b>	<b>161 543 696</b>	0.886
2	50	10	1293	<b>161 543 687</b>	<b>161 543 697</b>	1.617

NPT [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]
3/8	50	98	77	56	32	45	57	62	70
1/2	50	98	77	56	32	45	57	62	64
3/4	58	112	97	66	39	58	67	72	76
1	68	127	97	71	39	58	73	77	83
1 1/4	84	146	128	85	54	74	90	87	99
1 1/2	97	157	128	89	54	74	97	97	111
2	124	183	152	101	66	87	116	112	135

# Spare parts ball valve type 543

## Spare parts ball valve type 543 horizontal



### Central part L-port

**Model:**

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 002	161 488 012	0.158
20	1/2	15	161 488 002	161 488 012	0.158
25	3/4	20	161 488 003	161 488 013	0.232
32	1	25	161 488 004	161 488 014	0.350
40	1 1/4	32	161 488 005	161 488 015	0.617
50	1 1/2	40	161 488 006	161 488 016	0.916
63	2	50	161 488 007	161 488 017	1.757



### Central part T-port

**Model:**

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 022	161 488 032	0.150
20	1/2	15	161 488 022	161 488 032	0.150
25	3/4	20	161 488 023	161 488 033	0.230
32	1	25	161 488 024	161 488 034	0.343
40	1 1/4	32	161 488 025	161 488 035	0.606
50	1 1/2	40	161 488 026	161 488 036	0.895
63	2	50	161 488 027	161 488 037	1.712



## Ball set L-port

### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 162	161 488 172	0.029
20	1/2	15	161 488 162	161 488 172	0.029
25	3/4	20	161 488 163	161 488 173	0.059
32	1	25	161 488 164	161 488 174	0.076
40	1 1/4	32	161 488 165	161 488 175	0.132
50	1 1/2	40	161 488 166	161 488 176	0.200
63	2	50	161 488 167	161 488 177	0.337



## Ball set T-port

### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 182	161 488 192	0.028
20	1/2	15	161 488 182	161 488 192	0.028
25	3/4	20	161 488 183	161 488 193	0.053
32	1	25	161 488 184	161 488 194	0.076
40	1 1/4	32	161 488 185	161 488 195	0.121
50	1 1/2	40	161 488 186	161 488 196	0.179
63	2	50	161 488 187	161 488 197	0.292



## Lever

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

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



## Face seal

### Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.001
20	1/2	15	748 410 059	749 410 059	0.001
25	3/4	20	748 410 106	749 410 106	0.001
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.002
50	1 1/2	40	748 410 003	749 410 003	0.001
63	2	50	748 410 231	749 410 231	0.008

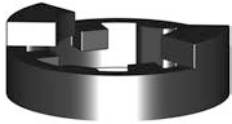


## Seal set

### Model:

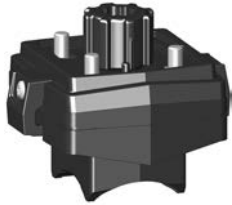
- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	<b>161 488 242</b>	<b>161 488 248</b>	0.011
20	1/2	15	<b>161 488 242</b>	<b>161 488 248</b>	0.011
25	3/4	20	<b>161 488 243</b>	<b>161 488 249</b>	0.011
32	1	25	<b>161 488 244</b>	<b>161 488 250</b>	0.014
40	1 1/4	32	<b>161 488 245</b>	<b>161 488 251</b>	0.014
50	1 1/2	40	<b>161 488 246</b>	<b>161 488 252</b>	0.070
63	2	50	<b>161 488 247</b>	<b>161 488 253</b>	0.032



## Turn limiter 90°

d [mm]	Inch	DN [mm]	Code	kg
16	3/8	10	<b>167 482 479</b>	0.001
20	1/2	15	<b>167 482 479</b>	0.001
25	3/4	20	<b>167 482 480</b>	0.002
32	1	25	<b>167 482 480</b>	0.002
40	1 1/4	32	<b>167 482 481</b>	0.004
50	1 1/2	40	<b>167 482 481</b>	0.004
63	2	50	<b>167 482 482</b>	0.004



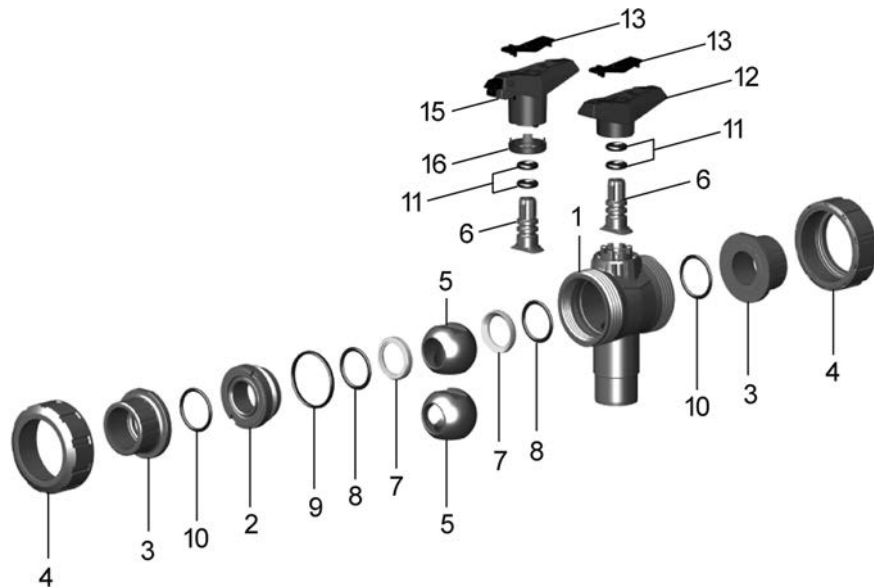
## Assembly kit

### Model:

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

d [mm]	Inch [inch]	DN [mm]	Code	kg
16 - 20	3/8 - 1/2	10 - 15	<b>167 484 941</b>	0.156
25 - 32	3/4 - 1	20 - 25	<b>167 484 942</b>	0.188
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 484 943</b>	0.211
63	2	50	<b>167 484 944</b>	0.270

## Spare parts ball valve type 543 vertical



### Central part L-port

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 041	161 488 051	0.104
20	3/8	15	161 488 042	161 488 052	0.104
25	3/4	20	161 488 043	161 488 053	0.169
32	1	25	161 488 044	161 488 054	0.238
40	1 1/4	32	161 488 045	161 488 055	0.408
50	1 1/2	40	161 488 046	161 488 056	0.570
63	2	50	161 488 047	161 488 057	0.985



### Central part diverter ball

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 061	161 488 071	0.103
20	1/2	15	161 488 062	161 488 072	0.103
25	3/4	20	161 488 063	161 488 073	0.167
32	1	25	161 488 064	161 488 074	0.231
40	1 1/4	32	161 488 065	161 488 075	0.397
50	1 1/2	40	161 488 066	161 488 076	0.549
63	2	50	161 488 067	161 488 077	0.940

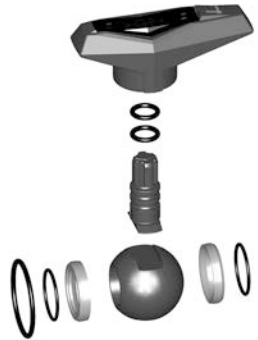


## Ball set L-port

### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 202	161 488 212	0.030
20	1/2	15	161 488 202	161 488 212	0.030
25	3/4	20	161 488 203	161 488 213	0.055
32	1	25	161 488 204	161 488 214	0.073
40	1 1/4	32	161 488 205	161 488 215	0.137
50	1 1/2	40	161 488 206	161 488 216	0.198
63	2	50	161 488 207	161 488 217	0.348



## Ball set T-Port

### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
16	3/8	10	161 488 222	161 488 232	0.025
20	1/2	15	161 488 222	161 488 232	0.025
25	3/4	20	161 488 223	161 488 233	0.046
32	1	25	161 488 224	161 488 234	0.053
40	1 1/4	32	161 488 225	161 488 235	0.098
50	1 1/2	40	161 488 226	161 488 236	0.120
63	2	50	161 488 227	161 488 237	0.183



## Lever

d [mm]	Inch	DN [mm]	Standard lever L-port red Code	Standard lever diverter ball red Code	Multifunctional-lever L-port red Code
16	3/8	10	167 484 688	167 484 788	167 484 642
20	1/2	15	167 484 688	167 484 788	167 484 642
25	3/4	20	167 484 689	167 484 789	167 484 643
32	1	25	167 484 690	167 484 790	167 484 644
40	1 1/4	32	167 484 691	167 484 791	167 484 645
50	1 1/2	40	167 484 692	167 484 792	167 484 646
63	2	50	167 484 693	167 484 793	167 484 647

d [mm]	Inch	DN [mm]	Multifunctional-lever diverter ball red Code	kg
16	3/8	10	167 484 742	0.026
20	1/2	15	167 484 742	0.026
25	3/4	20	167 484 743	0.045
32	1	25	167 484 744	0.045
40	1 1/4	32	167 484 745	0.082
50	1 1/2	40	167 484 746	0.082
63	2	50	167 484 747	0.104



## Face seal

### Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	<b>748 410 059</b>	<b>749 410 059</b>	0.001
20	1/2	15	<b>748 410 059</b>	<b>749 410 059</b>	0.001
25	3/4	20	<b>748 410 106</b>	<b>749 410 106</b>	0.001
32	1	25	<b>748 410 151</b>	<b>749 410 151</b>	0.002
40	1 1/4	32	<b>748 410 062</b>	<b>749 410 062</b>	0.002
50	1 1/2	40	<b>748 410 003</b>	<b>749 410 003</b>	0.001
63	2	50	<b>748 410 231</b>	<b>749 410 231</b>	0.008



## Seal set

### Model:

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

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	<b>161 486 400</b>	<b>161 486 410</b>	0.006
20	1/2	15	<b>161 486 400</b>	<b>161 486 410</b>	0.006
25	3/4	20	<b>161 486 401</b>	<b>161 486 411</b>	0.015
32	1	25	<b>161 486 402</b>	<b>161 486 412</b>	0.008
40	1 1/4	32	<b>161 486 403</b>	<b>161 486 413</b>	0.010
50	1 1/2	40	<b>161 486 404</b>	<b>161 486 414</b>	0.023
63	2	50	<b>161 486 405</b>	<b>161 486 415</b>	0.031



## Assembly kit

### Model:

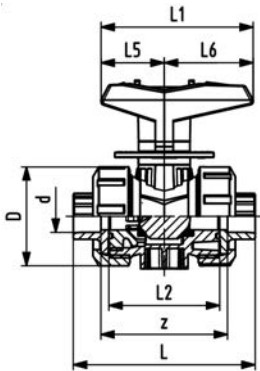
- Intermediate element for ball valve type 543 vertical and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d [mm]	Inch [inch]	DN [mm]	Code	kg
16 - 20	3/8 - 1/2	10 - 15	<b>167 484 945</b>	0.170
25 - 32	3/4 - 1	20 - 25	<b>167 484 946</b>	0.164
40 - 50	1 1/4 - 1 1/2	32 - 40	<b>167 484 947</b>	0.203
63	2	50	<b>167 484 948</b>	0.260



## Ball valves type 523 metric

### Metering ball valve type 523 PVC-U With mounting inserts With solvent cement sockets metric



#### Model:

- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

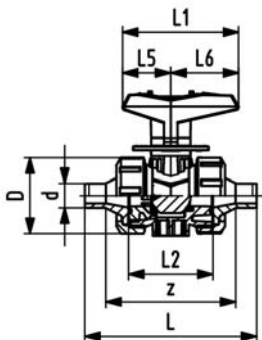
#### Option:

- Other materials on demand

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	11	161 523 401	161 523 411	0.170	
20	15	10	20	161 523 402	161 523 412	0.170	

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]	closest inch	
16	50	68	27	92	77	56	25	32	45	64	3/8	
20	50	68	27	95	77	56	25	32	45	64	1/2	

### Metering ball valve type 523 PVC-U With mounting inserts With solvent cement spigots metric



#### Model:

- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

#### Option:

- Other materials on demand

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	11	161 523 441	161 523 451	0.170	
20	15	10	20	161 523 442	161 523 452	0.170	

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch	
16	50	68	27	114	77	56		25	32	45	3/8	
20	50	68	27	124	77	56	130	25	32	45	1/2	



## Metering ball valve type 523 PVC-U With mounting inserts With threaded sockets Rp

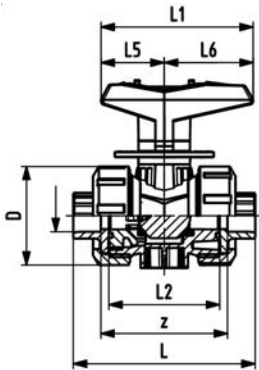


### Model:

- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

### Option:

- Other materials on demand



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	11	161 523 421	161 523 431	0.170
1/2	15	10	20	161 523 422	161 523 432	0.170

Rp [inch]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]
3/8	50	68	27	95	77	56	25	32	45	69
1/2	50	68	27	100	77	56	25	32	45	67



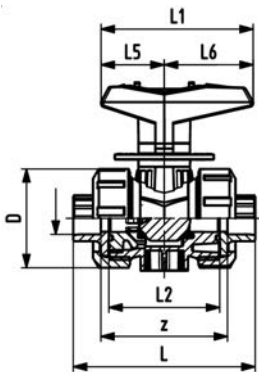
## Metering ball valve type 523 PVC-U With mounting inserts With solvent cement sockets Inch BS

### Model:

- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

### Option:

- Other materials on demand



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	11	161 523 501	161 523 511	0.170
1/2	15	10	20	161 523 502	161 523 512	0.170

Inch	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]
3/8	50	68	27	92	77	56	25	32	45	60
1/2	50	68	27	95	77	56	25	32	45	60



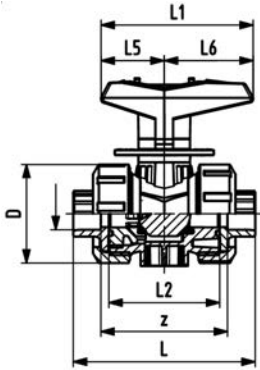
**Metering ball valve type 523 PVC-U**  
**With mounting inserts**  
**With solvent cement sockets Inch ASTM**  
**Inclusive 2 threaded valve ends NPT**

**Model:**

- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

**Option:**

- Other materials on demand



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
3/8	10	10	11	<b>161 523 521</b>	<b>161 523 531</b>	0.170	
1/2	15	10	20	<b>161 523 522</b>	<b>161 523 532</b>	0.170	

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	
3/8	50	68	27	12	105	77	56	25	32	45	6	67	
1/2	50	68	27	12	105	77	56	25	32	45	6	61	

# Spare parts metering ball valve type 523

## Spare parts metering ball valve type 523



### Central part

**Model:**

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body, union bush, ball, stem, ball-, backing-, body-, face- and stem seal, standard lever and threaded inserts stainless steel

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PP-H EPDM Code	PP-H FPM Code	kg	
16	3/8	10	161 485 351	161 485 361	167 485 371	167 485 381	0.065	
20	1/2	15	161 485 353	161 485 363	167 485 373	167 485 383	0.065	

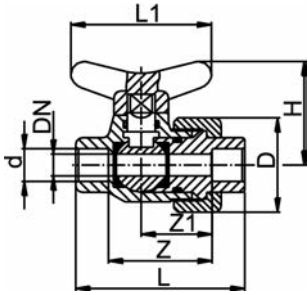
# Laboratory ball valve metric

## Laboratory ball valve type 322 PVC-U With solvent cement sockets metric



### Model:

- Disconnection one end only
- Ball seals PTFE



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	z [mm]	z1 [mm]	
10	6	10	<b>161 322 150</b>	<b>161 322 199</b>	0.043	34	52	45	38	26	15	
12	8	10	<b>161 322 200</b>	<b>161 322 249</b>	0.050	34	60	45	38	36	25	

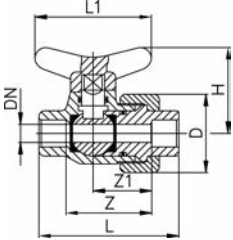
# Laboratory ball valve Inch BS

## Laboratory ball valve type 322 PVC-U With solvent cement sockets Inch BS/ASTM



**Model:**

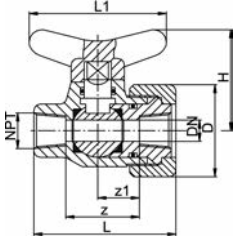
- Disconnection one end only
- Ball seals PTFE
- Angle of operation 90°



Inch	DN [mm]	PN	EPDM Code	FPM Code	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	H [mm]	
1/8	6	10	161 324 150	161 324 199	0.042	26	15	34	52	45	38	
1/4	8	10	161 324 200	161 324 249	0.045	36	25	34	60	45	38	

# Laboratory ball valve ASTM/ANSI

## Laboratory ball valve type 324 PVC-U With threaded sockets NPT



### Model:

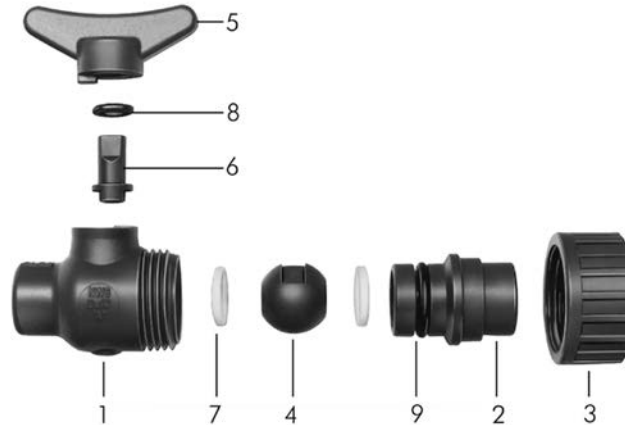
- Disconnection one end only
- Ball seals PTFE
- Angle of operation 90°

NPT [inch]	DN [mm]	PN	EPDM Code	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	H [mm]	
1/4	8	10	161 324 454	0.042	26	15	34	52	45	38	



# Spare parts laboratory ball valve type 322

## Spare parts laboratory ball valve type 322



### Ball set

#### Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (4), stem (6), ball- and stem seal (7-8)



d [mm]	Inch [inch]	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
10	1/8	6	161 482 978	161 482 980	0.010
12	1/4	8	161 482 978	161 482 980	0.010

### Lever



d [mm]	Inch [inch]	DN [mm]	PVC-U Code	kg
10	1/8	6	161 322 205	0.005
12	1/4	8	161 322 205	0.005

### Seal set

#### Model:

- Seal set consisting of: stem- and body seal (8-9)



d [mm]	Inch [inch]	DN [mm]	EPDM Code	FPM Code	kg
10	1/8	6	161 482 982	161 482 984	0.001
12	1/4	8	161 482 982	161 482 984	0.001

### Union nut



d [mm]	Inch [inch]	DN [mm]	PVC-U Code	kg
10	1/8	6	161 322 203	0.010
12	1/4	8	161 322 203	0.010

## Valve end with socket metric

d [mm]	Inch [inch]	DN [mm]	PVC-U Code	kg	
10	1/8	6	<b>161 322 152</b>	0.006	
12	1/4	8	<b>161 322 202</b>	0.008	

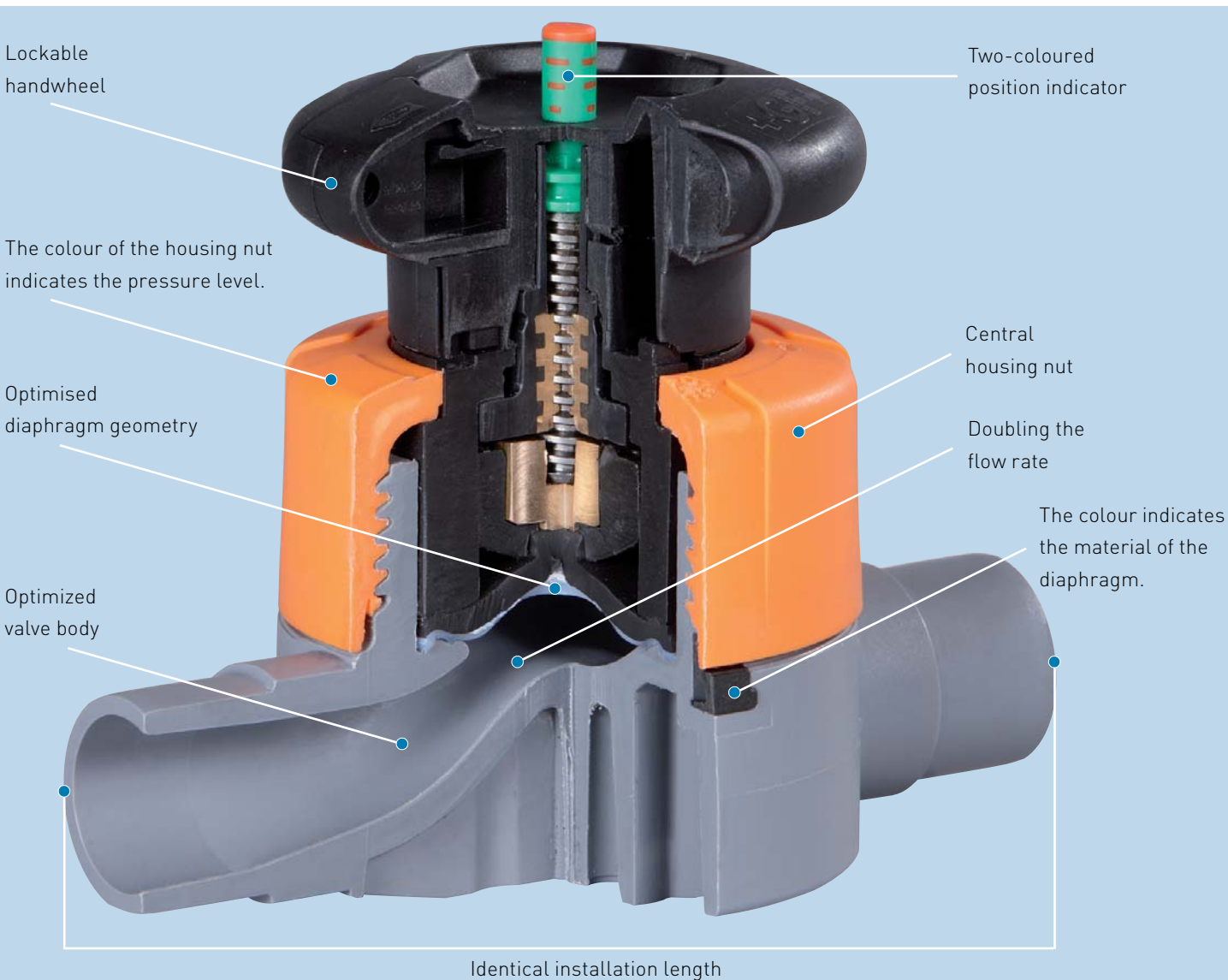
# Features

The sum of innovative developments guarantees the added value.

What is important and what isn't? GF Piping Systems asked about the requirements and that was the basis for developing the technical solutions. This way of proceeding is what makes the valve so extraordinary. In the new generation of diaphragm valves, there is something over and above

innovation in details that is crucial for success. The optimized valve body guarantees the sensational flow rate. The installation length is identical to the length in the previous model and this makes for problem-free backward-compatibility. The central housing nut holds everything together

with a new level of reliability. There are many other characteristics that make the new generation of diaphragm valves a globally successful product innovation.



Functions and configurations can differ from the illustration, depending on the type.

# Copiable Configurator GF Piping Systems Diaphragm Valve

## Valve body type

- A20 Type 514 - True Union Design
- A21 Type 515 - Spigots
- A22 Type 517 - Flanges

## Material

- B01 PVC-U
- B02 PVC-C
- B03 ABS

## Dimension

- C05 DN 10 3/8"
- C06 DN 15 1/2"
- C07 DN 20 3/4"
- C08 DN 25 1"
- C09 DN 32 1 1/4"
- C10 DN 40 1 1/2"
- C11 DN 50 2"

## Version

- D11 standard
- D05 silicone free / oil free

## Diaphragm

- E01 EPDM
- E02 FPM
- E11 NBR
- E12 PTFE/EPDM
- E04 PTFE/FPM

## Connecting parts

- H01 PVC-U Cemented socket metric
- H02 PVC-U Cemented socket JIS
- H03 PVC-U Cemented socket ASTM
- H04 PVC-U Cemented socket Zoll BS
- H05 PVC-U Cemented spigot metric
- H06 PVC-U Threaded socket Rp (ISO)
- H08 PVC-U Threaded socket Rc (JIS)
- H09 PVC-U Threaded socket NPT (ASTM)
- H11 PVC-C Cemented socket metric
- H13 PVC-C Cemented socket Zoll ASTM
- H14 PVC-C Cemented spigot metric
- H20 ABS Cemented socket metric
- H21 ABS Cemented socket Zoll BS
- H24 ABS Cemented spigot metric
- H40 PE-80 Fusion socket metric
- H41 PE-100 Butt fusion spigot SDR11 metric
- H43 PE-100 Butt fusion spigot long SDR11 metric
- H62 Fixed flange PVC-U JIS
- H70 Backing flange PVC-U metric with PVC-U endings
- H71 Backing flange PVC-U Zoll ANSI with PVC-U endings
- H71 PVCC Backing flange PVC-U Zoll ANSI with PVC-C endings
- H72 PVCC Backing flange PP-steel metric with PVC-U endings
- H72 PVCC Backing flange PP-steel metric with PVC-C endings
- H72 ABS Backing flange PP-steel metric with ABS endings
- H73 PVCC Backing flange PP-steel Zoll ANSI with PVC-U endings
- H73 PVCC Backing flange PP-steel Zoll ANSI with PVC-C endings
- H73 ABS Backing flange PP-steel Zoll ANSI with ABS endings
- H74 PVCC Backing flange PP-V metric with PVC-U endings
- H74 PVCC Backing flange PP-V metric with PVC-C endings
- H74 ABS Backing flange PP-V metric with ABS endings
- H74 PVCC Backing flange PP-V metric with PVC-C endings
- H75 PVCC Backing flange PP-V ANSI with PVC-U endings
- H75 PVCC Backing flange PP-V ANSI with PVC-C endings
- H78 PVCC Backing flange PP-GF JIS with PVC-U endings
- H80 PVC-U valve end blank

## Electrical feedback

- I33 Electrical feedback with Ag, Ni limit switches
- I34 Electrical feedback with Au limit switches

## Manual actuated: pressure tight housing

- K30 Bonnet pressure tight
- K31 Bonnet not pressure tight

## Pressure range

- M01 PN10
- M02 PN16

## Example:

Diaphragm valve with valve body type 515, PVC-U, EPDM diaphragm, DN25, cemented spigots metric, electrical feedback, pressure tight housing, PN10



**A21 B01 C08 D11 E01 H05 I33 K30 M01**

**P =**

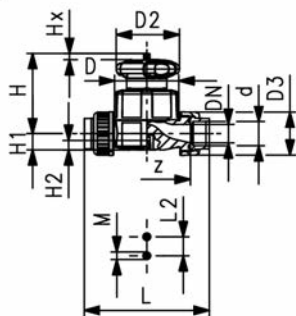


## Pneumatic Actuator DIASTAR

- P40 DIASTAR Six FC fail safe to close
- P43 DIASTAR Ten FC fail safe to close
- P44 DIASTAR Sixteen FC fail safe to close
- P45 DIASTAR Sixteen FO fail safe to open
- P46 DIASTAR Sixteen DA double acting
- P47 DIASTAR Ten FO fail safe to open
- P48 DIASTAR Ten DA double acting

# Diaphragm valves new generation metric

## Diaphragm valve type 514 PVC-U 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
- PN16 available as a configuration

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
16	10	10	125	161 514 001	161 514 011	161 514 031	161 514 061	0.310
20	15	10	125	161 514 002	161 514 012	161 514 032	161 514 062	0.302
25	20	10	271	161 514 003	161 514 013	161 514 033	161 514 063	0.691
32	25	10	481	161 514 004	161 514 014	161 514 034	161 514 064	0.691
40	32	10	759	161 514 005	161 514 015	161 514 035	161 514 065	0.982
50	40	10	1263	161 514 006	161 514 016	161 514 036	161 514 066	2.516
63	50	10	1728	161 514 007	161 514 017	161 514 037	161 514 067	2.546

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch
16	65	65	43	170	25	73	14	12	M6	142	7	3/8
20	65	65	43	128	25	73	14	12	M6	96	7	1/2
25	80	65	51	152	25	81	18	12	M6	114	10	3/4
32	88	87	58	166	25	107	22	12	M6	122	13	1
40	101	87	72	192	45	115	26	15	M8	140	15	1 1/4
50	117	135	83	222	45	148	32	15	M8	160	19	1 1/2
63	144	135	100	266	45	166	39	15	M8	190	25	2



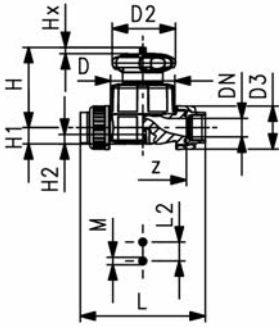
## Diaphragm valve type 514 PVC-U With threaded sockets Rp

### 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
- PN16 available as a configuration



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
1/2	15	10	125	161 514 402	161 514 412	161 514 432	161 514 462	0.400
3/4	20	10	271	161 514 403	161 514 413	161 514 433	161 514 463	0.522
1	25	10	481	161 514 404	161 514 414	161 514 434	161 514 464	1.163
1 1/4	32	10	759	161 514 405	161 514 415	161 514 435	161 514 465	1.429
1 1/2	40	10	1263	161 514 406	161 514 416	161 514 436	161 514 466	2.528
2	50	10	1728	161 514 407	161 514 417	161 514 437	161 514 467	3.449

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



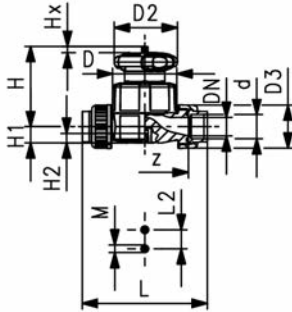
## Diaphragm valve type 514 PVC-U With fusion sockets PE80 metric

### 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
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	161 514 212	0.290
25	20	10	271	161 514 213	0.416
32	25	10	481	161 514 214	0.662
40	32	10	759	161 514 215	1.405
50	40	10	1263	161 514 216	2.492
63	50	10	1728	161 514 217	3.331

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch
20	65	65	43	128	25	73	14	12	M6	100	7	1/2
25	80	65	51	150	25	81	18	12	M6	118	10	3/4
32	88	87	58	162	25	107	22	12	M6	126	13	1
40	101	87	72	184	45	115	26	15	M8	144	15	1 1/4
50	117	135	83	210	45	148	32	15	M8	164	19	1 1/2
63	144	135	100	248	45	166	39	15	M8	194	25	2



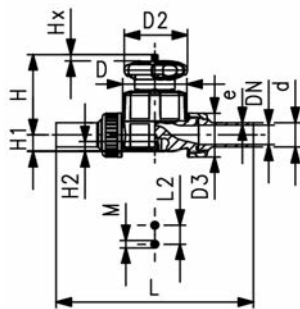
## Diaphragm valve type 514 PVC-U With butt and electro fusion ends PE100 SDR11 metric

### 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
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	161 514 312	0.357
25	20	10	271	161 514 313	0.431
32	25	10	481	161 514 314	0.683
40	32	10	759	161 514 315	1.443
50	40	10	1263	161 514 316	1.663
63	50	10	1728	161 514 317	2.568

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]	closest inch
20	65	65	43	196	25	73	14	12	M6	7	1,9	1/2
25	80	65	51	221	25	81	18	12	M6	10	2,3	3/4
32	88	87	58	234	25	107	22	12	M6	13	2,9	1
40	101	87	72	260	45	115	26	15	M8	15	3,7	1 1/4
50	117	135	83	284	45	148	32	15	M8	19	4,6	1 1/2
63	144	135	100	321	45	166	39	15	M8	25	5,8	2





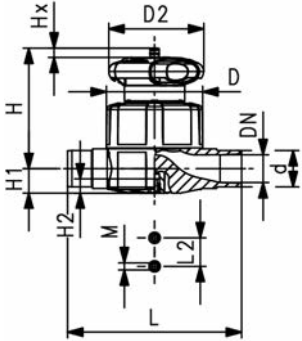
## Diaphragm valve type 515 PVC-U With solvent cement spigots metric

### Model:

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

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	<b>161 515 002</b>	<b>161 515 012</b>	<b>161 515 032</b>	<b>161 515 062</b>	0.243
25	20	10	271	<b>161 515 003</b>	<b>161 515 013</b>	<b>161 515 033</b>	<b>161 515 063</b>	0.444
32	25	10	481	<b>161 515 004</b>	<b>161 515 014</b>	<b>161 515 034</b>	<b>161 515 064</b>	1.032
40	32	10	759	<b>161 515 005</b>	<b>161 515 015</b>	<b>161 515 035</b>	<b>161 515 065</b>	0.785
50	40	10	1263	<b>161 515 006</b>	<b>161 515 016</b>	<b>161 515 036</b>	<b>161 515 066</b>	2.262
63	50	10	1728	<b>161 515 007</b>	<b>161 515 017</b>	<b>161 515 037</b>	<b>161 515 067</b>	2.963

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



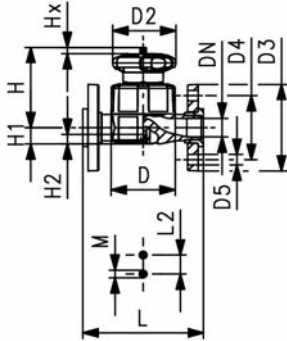
## Diaphragm valve type 517 PVC-U With backing flanges PVC-U metric/BS

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	161 517 002	161 517 012	161 517 032	161 517 062	0.493
25	20	10	271	161 517 003	161 517 013	161 517 033	161 517 063	0.660
32	25	10	481	161 517 004	161 517 014	161 517 034	161 517 064	0.895
40	32	10	759	161 517 005	161 517 015	161 517 035	161 517 065	1.352
50	40	10	1263	161 517 006	161 517 016	161 517 036	161 517 066	2.868
63	50	10	1728	161 517 007	161 517 017	161 517 037	161 517 067	2.943

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



## Diaphragm valve type 317 PVC-U With flanges PVC-U metric

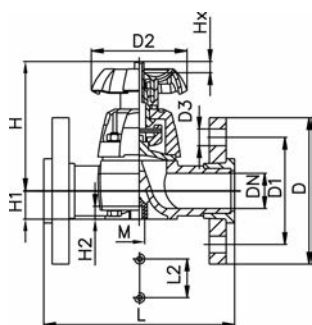
### Model:

- Flat sealing faces
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

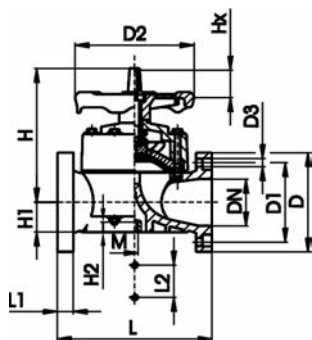
### Option:

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

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



DN 15-65



DN 80-100

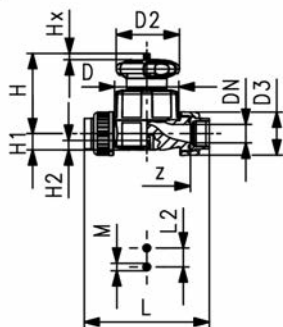
d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	NBR Code	EPDM Code	CSM Code
75	65	2 ½	10	992	161 317 508	161 317 523	161 317 553
* 90	80	3	10	1700	161 317 009	161 317 024	161 317 054
110	100	4	10	2700	161 317 010	161 317 025	161 317 055
* 160	150	6	7	6033	161 317 012	161 317 027	161 317 057

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	PTFE with EPDM supp. diaphragm Code	FPM Code	kg
75	65	2 ½	10	992	161 317 538	161 317 568	5.090
* 90	80	3	10	1700	161 317 039	161 317 069	9.700
110	100	4	10	2700	161 317 040	161 317 070	13.600
* 160	150	6	7	6033	161 317 042	161 317 072	27.000

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
75	185	145	152	18	290		70		201	46	15	M8	4	30
* 90	200	160	270	18	310	35	120		265	57	23	M12	8	40
110	225	180	270	18	350	35	120		304	69	23	M12	8	50
* 160	285	240	400	23	480	26	100	200	437	108	23	M12	8	70

# Diaphragm valves new generation Inch BS

## Diaphragm valve type 514 PVC-U With solvent cement sockets BS



### 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:

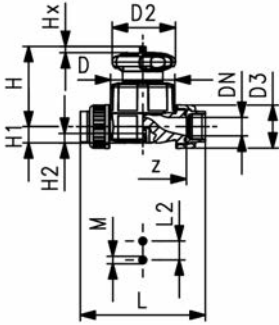
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches
- PN16 available as a configuration

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
1/2	15	10	125	<b>161 514 502</b>	<b>161 514 512</b>	<b>161 514 532</b>	<b>161 514 562</b>	0.396
3/4	20	10	271	<b>161 514 503</b>	<b>161 514 513</b>	<b>161 514 533</b>	<b>161 514 563</b>	0.432
1	25	10	481	<b>161 514 504</b>	<b>161 514 514</b>	<b>161 514 534</b>	<b>161 514 564</b>	0.687
1 1/4	32	10	759	<b>161 514 505</b>	<b>161 514 515</b>	<b>161 514 535</b>	<b>161 514 565</b>	1.419
1 1/2	40	10	1263	<b>161 514 506</b>	<b>161 514 516</b>	<b>161 514 536</b>	<b>161 514 566</b>	2.528
2	50	10	1728	<b>161 514 507</b>	<b>161 514 517</b>	<b>161 514 537</b>	<b>161 514 567</b>	3.409

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

# Diaphragm valves new generation ASTM/ANSI

## Diaphragm valve type 514 PVC-U With solvent cement sockets ASTM



### 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
- PN16 available as a configuration

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg					
1/2	15	10	125	<b>161 514 612</b>	<b>161 514 632</b>	0.299					
3/4	20	10	271	<b>161 514 613</b>	<b>161 514 633</b>	0.428					
1	25	10	481	<b>161 514 614</b>	<b>161 514 634</b>	0.695					
1 1/4	32	10	759	<b>161 514 615</b>	<b>161 514 635</b>	1.447					
1 1/2	40	10	1263	<b>161 514 616</b>	<b>161 514 636</b>	1.671					
2	50	10	1728	<b>161 514 617</b>	<b>161 514 637</b>	2.548					

Inch	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]	
1/2	65	65	43	141	25	73	14	12	M6	96	7	
3/4	80	65	51	165	25	81	18	12	M6	114	10	
1	88	87	58	179	25	107	22	12	M6	122	13	
1 1/4	101	87	72	204	45	115	26	15	M8	140	15	
1 1/2	117	135	83	230	45	148	32	15	M8	160	19	
2	144	135	100	268	45	166	39	15	M8	190	25	



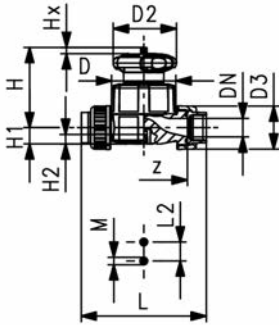
## Diaphragm valve type 514 PVC-U With threaded sockets NPT

### 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
- PN16 available as a configuration



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10	125	<b>161 514 712</b>	<b>161 514 732</b>	0.406	
3/4	20	10	271	<b>161 514 713</b>	<b>161 514 733</b>	0.540	
1	25	10	481	<b>161 514 714</b>	<b>161 514 734</b>	1.185	
1 1/4	32	10	759	<b>161 514 715</b>	<b>161 514 735</b>	1.453	
1 1/2	40	10	1263	<b>161 514 716</b>	<b>161 514 736</b>	2.584	
2	50	10	1728	<b>161 514 717</b>	<b>161 514 737</b>	3.525	

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



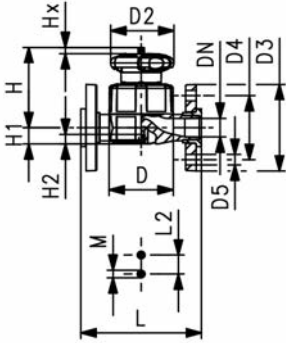
## Diaphragm valve type 517 PVC-U With backing flanges PVC-U Inch ANSI

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Flat sealing faces

### Option:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10	125	<b>161 517 612</b>	<b>161 517 632</b>	0.499
3/4	20	10	271	<b>161 517 613</b>	<b>161 517 633</b>	0.664
1	25	10	481	<b>161 517 614</b>	<b>161 517 634</b>	1.356
1 1/4	32	10	759	<b>161 517 615</b>	<b>161 517 635</b>	1.741
1 1/2	40	10	1263	<b>161 517 616</b>	<b>161 517 636</b>	2.892
2	50	10	1728	<b>161 517 617</b>	<b>161 517 637</b>	3.805

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
1/2	65	65	95	60	16	130	25	73	14	12	M6	7
3/4	80	65	105	70	16	150	25	81	18	12	M6	10
1	88	87	115	79	16	160	25	107	22	12	M6	13
1 1/4	101	87	140	89	16	180	45	115	26	15	M8	15
1 1/2	117	135	150	98	16	200	45	148	32	15	M8	19
2	144	135	165	121	19	230	45	166	39	15	M8	25





\*

## Diaphragm valve type 317 PVC-U With flanges PVC-U Inch ANSI

### Model:

- Flat sealing faces
- DN 15-65 with backing flange
- DN 80-150 with fixed flange
- Overall length according to EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

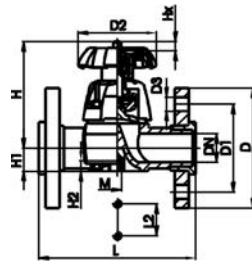
- Handwheel lockable DN15-65 (basic version not lockable)

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

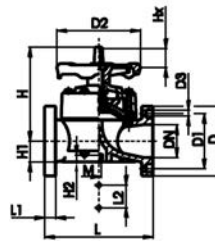


Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE with EPDM supp. diaphragm Code	kg
2 1/2	65	10	992	161 317 608	161 317 623	161 317 638	4.300
* 3	80	10	1700	161 317 009	161 317 024	161 317 039	10.251
4	100	6	2700	161 317 310	161 317 325	161 317 340	14.184
* 6	150	7	6033	161 317 012	161 317 027	161 317 042	35.000

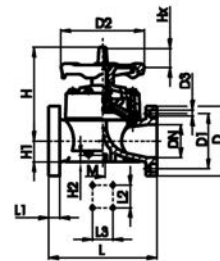
Inch	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
2 1/2	185	140	152	19	290		70		201	46	15	M8	4	30
* 3	200	160	270	18	310	35	120		265	57	23	M12	8	40
4	225	191	270	19	350	35	120		304	69	23	M12	8	50
* 6	285	240	400	23	480	26	100	200	437	108	23	M12	8	70



DN 15-65



DN 80-100



DN 150

# Spare parts diaphragm valves new generation

## Spare parts for hand-operated valves Type 514/515/517/519



### Bonnet complete



d [mm]	Inch	DN [mm]	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code	
20	1/2	15	198 151 742	198 151 752	198 151 842	
25	3/4	20	198 151 743	198 151 753	198 151 843	
32	1	25	198 151 744	198 151 754	198 151 844	
40	1 1/4	32	198 151 745	198 151 755	198 151 845	
50	1 1/2	40	198 151 746	198 151 756	198 151 846	
63	2	50	198 151 747	198 151 757	198 151 847	

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code	kg	
20	1/2	15	198 151 852	0.137	
25	3/4	20	198 151 853	0.177	
32	1	25	198 151 854	0.366	
40	1 1/4	32	198 151 855	0.390	
50	1 1/2	40	198 151 856	0.746	
63	2	50	198 151 857	1.016	

### Hand wheel



#### Model:

- Without position indicator

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



## Position indicator

d [mm]	Inch	DN [mm]	Code	kg
20	1/2	15	<b>167 484 992</b>	0.011
25	3/4	20	<b>167 484 993</b>	0.011
32	1	25	<b>167 484 994</b>	0.013
40	1 1/4	32	<b>167 484 995</b>	0.012
50	1 1/2	40	<b>167 484 996</b>	0.014
63	2	50	<b>167 484 997</b>	0.015



## Spindle assembly

### Model:

- Incl. position indicator and compressor

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



## Seal set

### Model:

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

d [mm]	Inch	DN [mm]	EPDM Code	kg
20	1/2	15	<b>198 000 892</b>	0.004
25	3/4	20	<b>198 000 893</b>	0.004
32	1	25	<b>198 000 894</b>	0.007
40	1 1/4	32	<b>198 000 895</b>	0.006
50	1 1/2	40	<b>198 000 896</b>	0.008
63	2	50	<b>198 000 897</b>	0.009

## Spare parts diaphragm

### For type 514/515/517/519



d [mm]	Inch	DN [mm]	NBR Code	EPDM Code	FPM Code	PTFE/EPDM Code	PTFE/EPDM HP Code
20	1/2	15	<b>745 500 012</b>	<b>748 500 012</b>	<b>749 500 012</b>	<b>747 502 012</b>	<b>747 502 032</b>
25	3/4	20	<b>745 500 013</b>	<b>748 500 013</b>	<b>749 500 013</b>	<b>747 502 013</b>	<b>747 502 033</b>
32	1	25	<b>745 500 014</b>	<b>748 500 014</b>	<b>749 500 014</b>	<b>747 502 014</b>	<b>747 502 034</b>
40	1 1/4	32	<b>745 500 015</b>	<b>748 500 015</b>	<b>749 500 015</b>	<b>747 502 015</b>	<b>747 502 035</b>
50	1 1/2	40	<b>745 500 016</b>	<b>748 500 016</b>	<b>749 500 016</b>	<b>747 502 016</b>	<b>747 502 036</b>
63	2	50	<b>745 500 017</b>	<b>748 500 017</b>	<b>749 500 017</b>	<b>747 502 017</b>	<b>747 502 037</b>

d [mm]	Inch	DN [mm]	PTFE/FPM Code	kg
20	1/2	15	<b>747 503 012</b>	0.013
25	3/4	20	<b>747 503 013</b>	0.021
32	1	25	<b>747 503 014</b>	0.044
40	1 1/4	32	<b>747 503 015</b>	0.045
50	1 1/2	40	<b>747 503 016</b>	0.069
63	2	50	<b>747 503 017</b>	0.118

## Spare parts for valve body type 514

### Valve body with true union



#### Model:

- Without connection parts

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	kg
20	1/2	15	161 492 062	163 482 052	0.132
25	3/4	20	161 492 063	163 482 053	0.198
32	1	25	161 492 064	163 482 054	0.268
40	1 1/4	32	161 492 065	163 482 055	0.430
50	1 1/2	40	161 492 066	163 482 056	0.633
63	2	50	161 492 067	163 482 057	1.134



### Union end

d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U BS Code	PVC-U ASTM Code	kg
20	1/2	15	721 500 106	721 601 106	721 602 006	0.029
25	3/4	20	721 500 107	721 601 107	721 602 007	0.015
32	1	25	721 500 108	721 601 108	721 602 008	0.023
40	1 1/4	32	721 500 109	721 601 109	721 602 009	0.034
50	1 1/2	40	721 500 110	721 601 110	721 602 010	0.047
63	2	50	721 500 111	721 601 111	721 602 011	0.075



### Union nut

d [mm]	Inch	DN [mm]	PVC-U Code	kg
20	1/2	15	721 890 006	0.020
25	3/4	20	721 890 007	0.020
32	1	25	721 890 008	0.030
40	1 1/4	32	721 890 009	0.049
50	1 1/2	40	721 890 010	0.087
63	2	50	721 890 011	0.138



### O-ring

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
20	1/2	15	748 410 006	749 410 006	0.001
25	3/4	20	748 410 007	749 410 007	0.002
32	1	25	748 410 008	749 410 008	0.002
40	1 1/4	32	748 410 009	749 410 009	0.007
50	1 1/2	40	748 410 010	749 410 010	0.060
63	2	50	748 410 011	749 410 011	0.003

## Spare parts for valve body type 515

### Valve body with spigot ends



d [mm]	Inch	DN [mm]	PVC-U solvent cement spigot Code	kg
20	½	15	<b>161 492 072</b>	0.115
25	¾	20	<b>161 492 073</b>	0.183
32	1	25	<b>161 492 074</b>	0.246
40	1 ¼	32	<b>161 492 075</b>	0.379
50	1 ½	40	<b>161 492 076</b>	0.602
63	2	50	<b>161 492 077</b>	1.055

## Spare parts for valve body type 517

### Flange adaptor flat

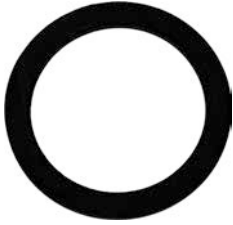


d [mm]	Inch	DN [mm]	PVC-U metric Code	kg
20	½	15	<b>721 800 106</b>	0.009
25	¾	20	<b>721 800 107</b>	0.015
32	1	25	<b>721 800 108</b>	0.024
40	1 ¼	32	<b>721 800 109</b>	0.039
50	1 ½	40	<b>721 800 110</b>	0.056
63	2	50	<b>721 790 111</b>	0.103

### Flange



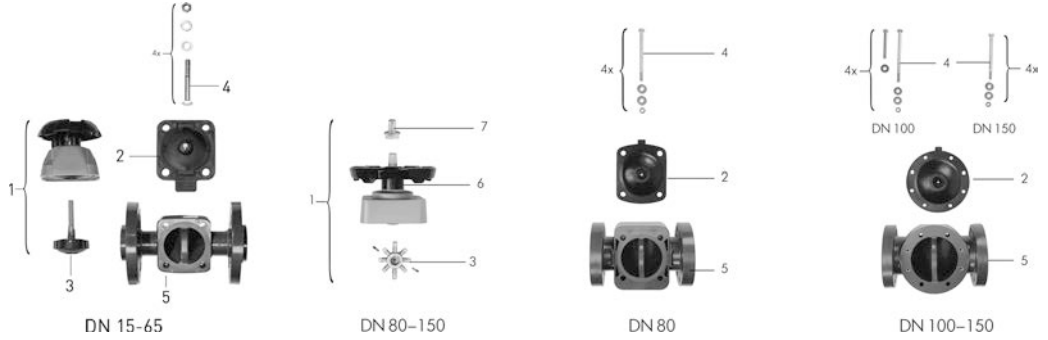
d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U ASTM Code	kg
20	½	15	<b>721 700 006</b>	<b>721 702 206</b>	0.068
25	¾	20	<b>721 700 007</b>	<b>721 702 207</b>	0.090
32	1	25	<b>721 700 008</b>	<b>721 702 208</b>	0.128
40	1 ¼	32	<b>721 700 009</b>	<b>721 702 209</b>	0.203
50	1 ½	40	<b>721 700 010</b>	<b>721 702 210</b>	0.238
63	2	50	<b>721 700 011</b>	<b>721 702 211</b>	0.302



## Flat gasket

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
20	¾	15	748 400 006	749 400 006	0.003
25	¾	20	748 400 007	749 400 007	0.004
32	1	25	748 400 008	749 400 008	0.002
40	1 ¼	32	748 400 009	749 400 009	0.003
50	1 ½	40	748 400 010	749 400 010	0.007
63	2	50	748 400 011	749 400 011	0.006

## Spare parts diaphragm valve type 317



## Bonnet complete

Model:

- Without diaphragm (1, 3)

d [mm]	Inch	DN [mm]	elastomer diaphragm Code	PTFE diaphragm Code	kg
75	2 ½	65	161 484 631	161 484 638	1.526
90	3	80	161 482 514	161 482 516	3.967
110	4	100	161 482 515	161 482 517	5.700
160	6	150	161 482 901	161 482 906	14.040



## Diaphragm (2)

d [mm]	Inch	DN [mm]	NBR Code	EPDM Code	FPM Code	PTFE/EPDM Code	PTFE/FPM Code
75	2 ½	65	161 480 231	161 481 028	161 481 098	161 480 240	161 481 932
90	3	80	161 480 232	161 481 029	161 481 099	161 480 241	-
110	4	100	161 480 233	161 481 030	161 481 100	161 480 242	-
160	6	150	161 482 751	161 482 754	161 481 102	161 482 760	-

d [mm]	Inch	DN [mm]	CSM Code	kg
75	2 ½	65	161 480 237	0.230
90	3	80	161 480 238	0.300
110	4	100	161 480 239	0.450
160	6	150	161 482 757	2.500



## Pressure spindle (3)

d [mm]	Inch	DN [mm]	elastomer diaphragm Code	PTFE diaphragm Code	kg
75	2 ½	65	161 484 694	161 484 702	0.134
90	3	80	161 483 008	161 483 020	0.335
110	4	100	161 483 009	161 483 021	0.495
125	6	150	161 483 011	161 483 023	4.500



## Fastening set (4)

**Model:**

- \* with support plate

d [mm]	Inch	DN [mm]	for PVC-U PVC-C ABS Code	kg
75	2 ½	65	<b>161 483 032</b>	0.679
90	3	80	<b>161 483 033</b>	0.845
110	4	100	<b>161 483 034</b>	1.440
160	6	150	<b>161 483 037</b>	0.400



## Valve body with backing/fixed flange (5)

Inch	d [mm]	DN [mm]	PVC-U metric Code	PVC-U BS Code	PVC-U ANSI B16.5 Code	kg
2 ½	75	65	<b>161 483 116</b>	<b>161 483 116</b>	<b>161 484 749</b>	2.619
3	90	80	<b>161 481 764</b>	<b>161 481 764</b>		4.370
4	110	100	<b>161 481 765</b>	<b>161 481 765</b>		6.484
6	160	150	<b>161 482 696</b>	<b>161 481 696</b>		11.380



## O-ring seal (6)

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

## Indicator cap (7)

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



## Handwheel with built-in locking mechanism For diaphragm valve type 314 / 315 / 317 / 319

d-d [mm]	DN-DN [mm]	d-d [inch]	Code	kg
63 - 75	50 - 65	2 - 2 ½	<b>167 481 946</b>	0.169



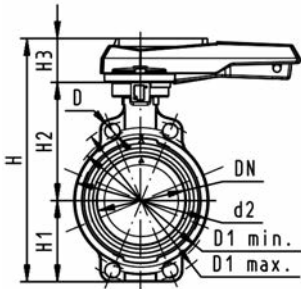
# Butterfly valves type 567 metric

## Butterfly valve type 567 PVC-U Hand lever with ratchet settings

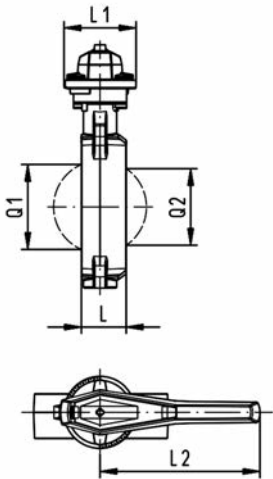


### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 567 002</b>	<b>161 567 022</b>	1.259
75	65	2 1/2	10	2200	<b>161 567 003</b>	<b>161 567 023</b>	1.799
90	80	3	10	3000	<b>161 567 004</b>	<b>161 567 024</b>	1.534
110	100	4	10	6500	<b>161 567 005</b>	<b>161 567 025</b>	2.235
140	125	5	10	11500	<b>161 567 006</b>	<b>161 567 026</b>	2.799
160	150	6	10	16600	<b>161 567 007</b>	<b>161 567 027</b>	3.791
225	200	8	10	39600	<b>161 567 008</b>	<b>161 567 028</b>	6.570
280	250	10	10	55200	<b>161 567 009</b>	<b>161 567 029</b>	12.998
315	300	12	10	80000	<b>161 567 010</b>	<b>161 567 030</b>	19.139



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

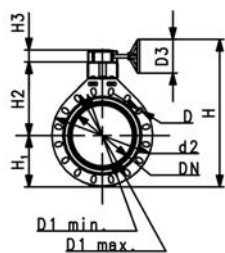
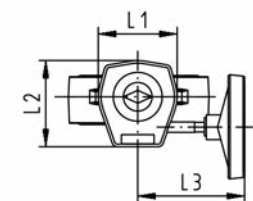
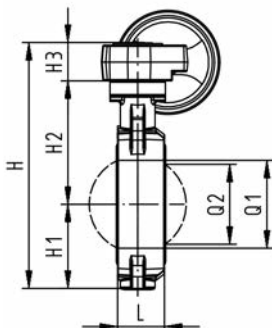
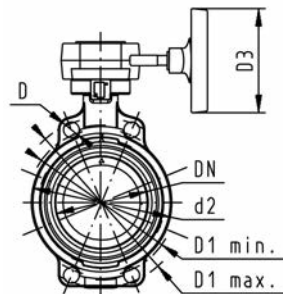


## Butterfly valve type 567 PVC-U Reduction gear with handwheel

### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 567 042</b>	<b>161 567 062</b>	3.082
75	65	2 ½	10	2200	<b>161 567 043</b>	<b>161 567 063</b>	3.186
90	80	3	10	3000	<b>161 567 044</b>	<b>161 567 064</b>	3.353
110	100	4	10	6500	<b>161 567 045</b>	<b>161 567 065</b>	3.973
140	125	5	10	11500	<b>161 567 046</b>	<b>161 567 066</b>	4.544
160	150	6	10	16600	<b>161 567 047</b>	<b>161 567 067</b>	5.181
225	200	8	10	39600	<b>161 567 048</b>	<b>161 567 068</b>	8.339
280	250	10	10	51000	<b>161 567 049</b>	<b>161 567 069</b>	15.115
315	300	12	10	73000	<b>161 567 050</b>	<b>161 567 070</b>	35.000
355	350	14	8	90000	<b>161 567 051</b>	<b>161 567 071</b>	55.000
400	400	16	8	115000	<b>161 567 052</b>	<b>161 567 072</b>	60.000



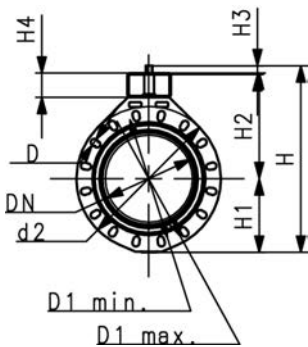
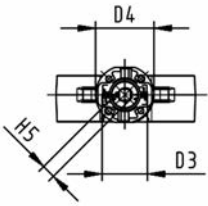
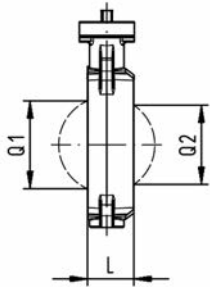
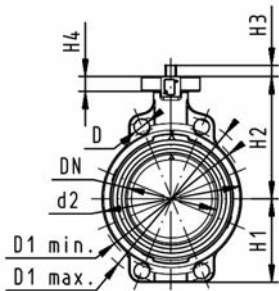
d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	19	120	125	104	150	77	134	50	45	110	120	155	40	
75	19	140	145	115	150	83	140	50	46	110	120	155	54	35
90	19	150	160	131	150	89	146	50	49	110	120	155	67	50
110	19	175	191	160	150	104	167	50	56	110	120	155	88	74
140	23	210	216	187	150	117	181	50	64	110	120	155	113	97
160	24	241	241	215	150	130	189	50	72	110	120	155	139	123
225	23	290	295	267	150	158	210	50	73	110	120	155	178	169
280	25	353	362	329	200	205	264	55	113	130	140	200	210	207
315	25	400	432	379	200	228	285	55	113	130	140	200	256	253
355	29	445	477	535	200	268	410	69	129	180	168	218	325	305
400	29	510	540	595	200	300	435	69	169	180	195	218	353	350



## Butterfly valve type 567 PVC-U Bare shaft

### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211
- Interface F12 for the Dimensions DN350-400 according to DIN/ISO 5211



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 567 802</b>	<b>161 567 822</b>	0.787
75	65	2 1/2	10	2200	<b>161 567 803</b>	<b>161 567 823</b>	0.895
90	80	3	10	3000	<b>161 567 804</b>	<b>161 567 824</b>	1.068
110	100	4	10	6500	<b>161 567 805</b>	<b>161 567 825</b>	2.092
140	125	5	10	11500	<b>161 567 806</b>	<b>161 567 826</b>	2.236
160	150	6	10	16600	<b>161 567 807</b>	<b>161 567 827</b>	3.238
225	200	8	10	39600	<b>161 567 808</b>	<b>161 567 828</b>	5.127
280	250	10	10	51000	<b>161 567 809</b>	<b>161 567 829</b>	11.735
315	300	12	10	73000	<b>161 567 810</b>	<b>161 567 830</b>	15.936
355	350	14	6	90000	<b>161 567 811</b>	<b>161 567 831</b>	45.000
400	400	16	6	115000	<b>161 567 812</b>	<b>161 567 832</b>	55.000

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	D4 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	Q1 [mm]	Q2 [mm]
63	19	120	125	104	70	90	77	134	27	23	11	45	40	
75	19	140	145	115	70	90	83	140	27	23	11	46	54	35
90	19	150	160	131	70	90	89	146	27	23	11	49	67	50
110	19	175	191	161	70	90	104	167	16	23	14	56	88	74
140	23	210	216	187	70	90	117	181	16	23	14	64	113	97
160	24	241	241	215	70	90	130	189	19	23	17	72	139	123
225	23	290	295	267	70	90	158	210	19	23	17	73	178	169
280	25	353	362	329	102	125	205	264	40	23	22	113	210	207
315	25	400	432	379	102	125	228	285	40	23	22	113	256	253
355	29	445	477	535	125	180	268	410	31	100	27	129	325	305
400	29	510	540	593	125	180	300	435	31	100	27	169	353	350

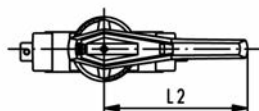
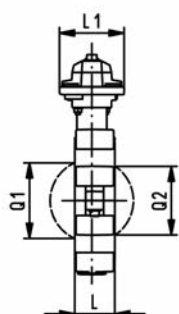
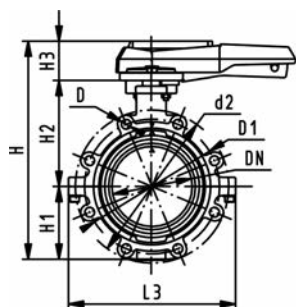
# Butterfly valves type 568 metric

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



### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 568 002</b>	<b>161 568 022</b>	3.130
75	65	2 ½	10	2200	<b>161 568 003</b>	<b>161 568 023</b>	3.484
90	80	3	10	3000	<b>161 568 004</b>	<b>161 568 024</b>	4.526
110	100	4	10	6500	<b>161 568 005</b>	<b>161 568 025</b>	6.067
140	125	5	10	11500	<b>161 568 006</b>	<b>161 568 026</b>	8.020
160	150	6	10	16600	<b>161 568 007</b>	<b>161 568 027</b>	10.024
225	200	8	10	39600	<b>161 568 008</b>	<b>161 568 028</b>	15.489

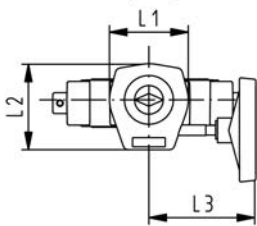
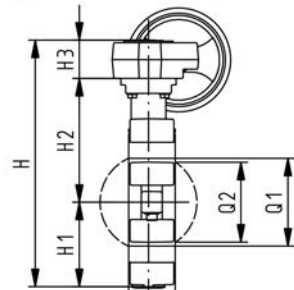
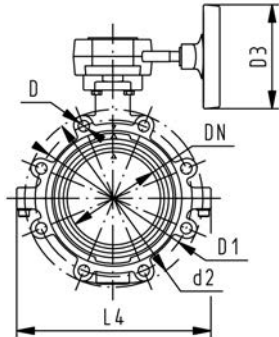
d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74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



## Lugstyle butterfly valve type 568 PVC-U Reduction gear with handwheel

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 568 042</b>	<b>161 568 062</b>	5.168
75	65	2 ½	10	2200	<b>161 568 043</b>	<b>161 568 063</b>	5.522
90	80	3	10	3000	<b>161 568 044</b>	<b>161 568 064</b>	6.564
110	100	4	10	6500	<b>161 568 045</b>	<b>161 568 065</b>	8.057
140	125	5	10	11500	<b>161 568 046</b>	<b>161 568 066</b>	10.010
160	150	6	10	16600	<b>161 568 047</b>	<b>161 568 067</b>	12.014
225	200	8	10	39600	<b>161 568 048</b>	<b>161 568 068</b>	16.942

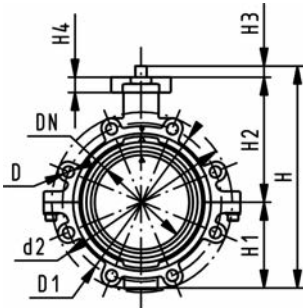
d [mm]	d2 [mm]	D	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	150	279	77	134	50	45	110	120	155	150	40	
75	170	M16	145	150	291	83	140	50	46	110	120	155	160	54	35
90	184	M16	160	150	303	89	146	50	49	110	120	155	205	67	50
110	216	M16	180	150	339	104	167	50	56	110	120	155	244	88	74
140	246	M16	210	150	366	117	181	50	64	110	120	155	272	113	97
160	273	M20	240	150	387	130	189	50	72	110	120	155	297	139	123
225	334	M20	295	150	436	158	210	50	73	110	120	155	360	178	169



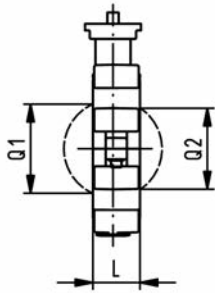
## Lugstyle butterfly valve type 568 PVC-U Bare shaft

### Model:

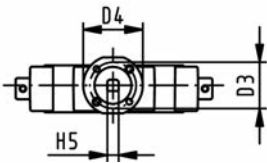
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Interface F07 according to DIN/ISO 5211



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 568 802</b>	<b>161 568 822</b>	2.908
75	65	2 ½	10	2200	<b>161 568 803</b>	<b>161 568 823</b>	3.262
90	80	3	10	3000	<b>161 568 804</b>	<b>161 568 824</b>	4.304
110	100	4	10	6500	<b>161 568 805</b>	<b>161 568 825</b>	5.797
140	125	5	10	11500	<b>161 568 806</b>	<b>161 568 826</b>	7.750
160	150	6	10	16600	<b>161 568 807</b>	<b>161 568 827</b>	9.754
225	200	8	10	39600	<b>161 568 808</b>	<b>161 568 828</b>	14.682



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



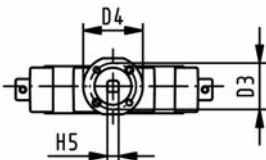
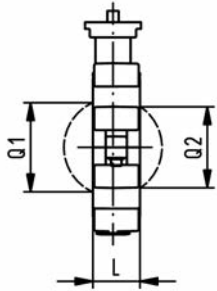
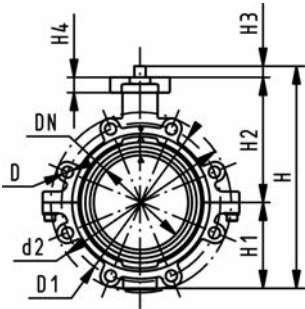
# Butterfly valves type 568 ASTM/ANSI

## Lugstyle butterfly valve type 568 PVC-U Bare shaft



### Model:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>161 568 902</b>	<b>161 568 922</b>	2.908
2 ½	65	10	2200	<b>161 568 903</b>	<b>161 568 923</b>	3.262
3	80	10	3000	<b>161 568 904</b>	<b>161 568 924</b>	3.675
4	100	10	6500	<b>161 568 905</b>	<b>161 568 925</b>	5.797
5	125	10	11500	<b>161 568 906</b>	<b>161 568 926</b>	7.750
6	150	10	16600	<b>161 568 907</b>	<b>161 568 927</b>	9.754
8	200	10	39600	<b>161 568 908</b>	<b>161 568 928</b>	14.682

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

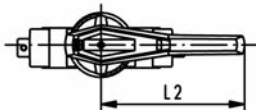
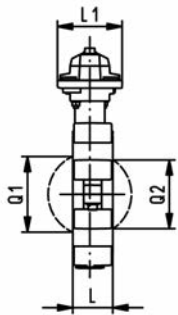
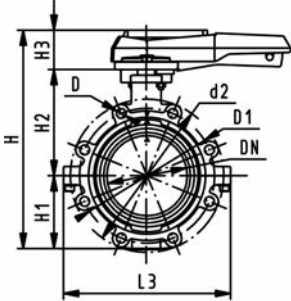




## Lugstyle butterfly valve type 568 PVC-U Hand lever with ratchet settings

### Model:

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



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>161 568 102</b>	<b>161 568 122</b>	3.130
2 ½	65	10	2200	<b>161 568 103</b>	<b>161 568 123</b>	3.484
3	80	10	3000	<b>161 568 104</b>	<b>161 568 124</b>	3.897
4	100	10	6500	<b>161 568 105</b>	<b>161 568 125</b>	7.571
5	125	10	11500	<b>161 568 106</b>	<b>161 568 126</b>	8.020
6	150	10	16600	<b>161 568 107</b>	<b>161 568 127</b>	10.024
8	200	10	39600	<b>161 568 108</b>	<b>161 568 128</b>	15.489

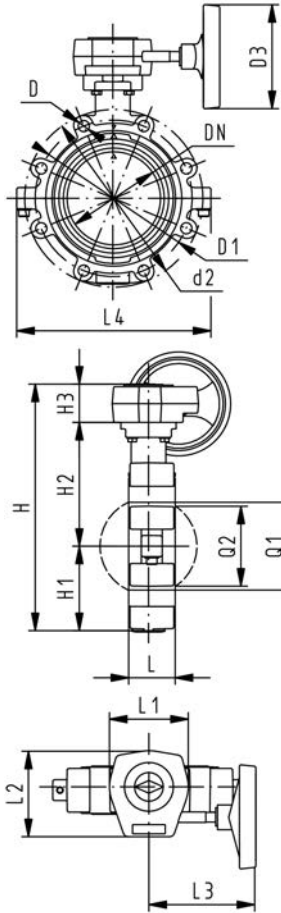
Inch	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40	
2 ½	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35
3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50
4	216	UNC 5/8	191	326	104	167	55	56	106	255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



## Lugstyle butterfly valve type 568 PVC-U Reduction gear with handwheel

### Model:

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



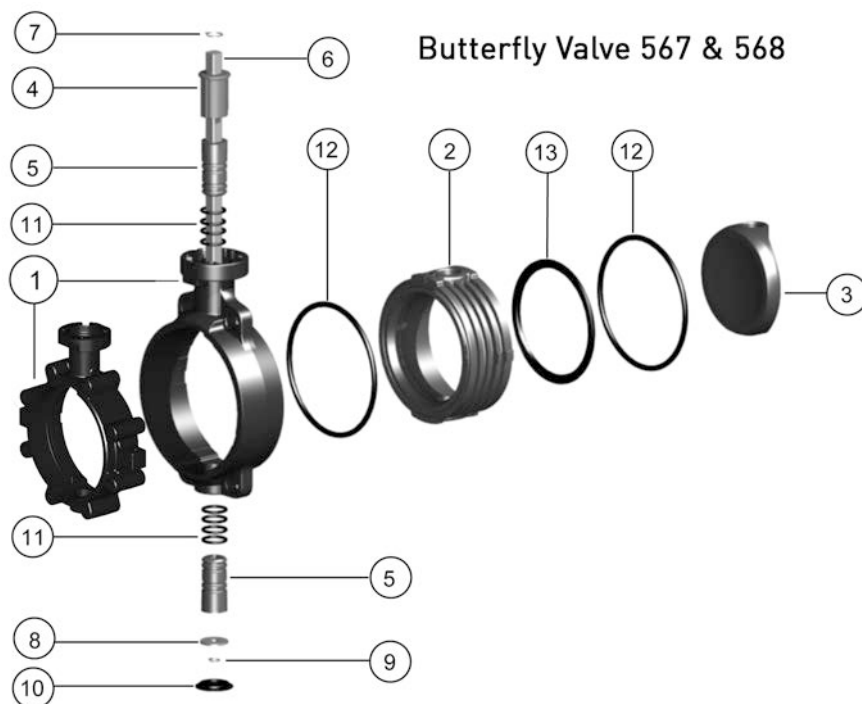
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>161 568 142</b>	<b>161 568 162</b>	5.168
2 ½	65	10	2200	<b>161 568 143</b>	<b>161 568 163</b>	5.522
3	80	10	3000	<b>161 568 144</b>	<b>161 568 164</b>	5.935
4	100	10	6500	<b>161 568 145</b>	<b>161 568 165</b>	8.057
5	125	10	11500	<b>161 568 146</b>	<b>161 568 166</b>	10.010
6	150	10	16600	<b>161 568 147</b>	<b>161 568 167</b>	12.014
8	200	10	39600	<b>161 568 148</b>	<b>161 568 168</b>	16.942

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

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

# Spare parts butterfly valves

## Spare parts butterfly valve type 567/568



### Inner body

#### Model:

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



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
63	2	50	161 486 861	161 486 873	0.150
75	2 ½	65	161 486 862	161 486 874	0.182
90	3	80	161 486 863	161 486 875	0.258
110	4	100	161 486 864	161 486 876	0.461
140	5	125	161 486 865	161 486 877	0.685
160	6	150	161 486 866	161 486 878	0.842
225	8	200	161 486 867	161 486 879	1.438
280	10	250	161 486 868	161 486 880	3.315
315	12	300	161 486 869	161 486 881	3.315

### Flange seal (12)

#### Model:

- included in delivery 1 pcs.



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
63	2	50	161 486 959	161 486 979	0.012
75	2 ½	65	161 486 960	161 486 980	0.014
90	3	80	161 486 961	161 486 981	0.016
110	4	100	161 486 962	161 486 982	0.036
125	5	125	161 486 963	161 486 983	0.043
160	6	150	161 486 964	161 486 984	0.050
225	8	200	161 486 965	161 486 985	0.064
280	10	250	161 486 966	161 486 986	0.091
315	12	300	161 486 967	161 486 987	0.104
355	14	350	748 410 318	749 410 318	0.001
400	16	400	748 410 319	749 410 319	0.002
450	18	450	748 410 320	749 410 320	0.002
500	20	500	748 410 321	749 410 321	0.002
630	24	600	748 410 322	749 410 322	0.002



### Disc (3)

d [mm]	Inch	DN [mm]	PVC-U Code	kg	
63	2	50	<b>161 490 889</b>	0.040	
75	2 ½	65	<b>161 490 890</b>	0.062	
90	3	80	<b>161 490 891</b>	0.100	
110	4	100	<b>161 490 892</b>	0.199	
140	5	125	<b>161 490 893</b>	0.356	
160	6	150	<b>161 490 894</b>	0.618	
225	8	200	<b>161 490 895</b>	1.162	
280	10	250	<b>161 490 896</b>	3.540	
315	12	300	<b>161 490 897</b>	6.393	
355	14	350	-		
400	16	400	-		
450	18	450	-		
500	20	500	-		
630	24	600	-		



### Bearing bush (5, 11)

**Model:**

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

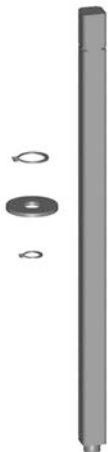
d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg	
63	2	50	<b>161 486 886</b>	<b>161 486 892</b>	0.031	
75	2 ½	65	<b>161 486 886</b>	<b>161 486 892</b>	0.031	
90	3	80	<b>161 486 886</b>	<b>161 486 892</b>	0.031	
110	4	100	<b>161 486 887</b>	<b>161 486 893</b>	0.055	
140	5	125	<b>161 486 887</b>	<b>161 486 893</b>	0.055	
160	6	150	<b>161 486 888</b>	<b>161 486 894</b>	0.115	
225	8	200	<b>161 486 888</b>	<b>161 486 894</b>	0.115	
280	10	250	<b>161 486 889</b>	<b>161 486 895</b>	0.178	
315	12	300	<b>161 486 889</b>	<b>161 486 895</b>	0.178	



### End stop PP glasfiber reinforced (4)

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





## Shaft set

### Model:

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

d [mm]	Inch	DN [mm]	Code	kg
63	2	50	<b>161 486 899</b>	0.225
75	2 ½	65	<b>161 486 900</b>	0.237
90	3	80	<b>161 486 901</b>	0.227
110	4	100	<b>161 486 902</b>	0.407
140	5	125	<b>161 486 903</b>	0.469
160	6	150	<b>161 486 904</b>	0.749
225	8	200	<b>161 486 905</b>	0.844
280	10	250	<b>161 486 906</b>	2.335
315	12	300	<b>161 486 907</b>	2.536
355	14	350	<b>161 486 908</b>	7.600
400	16	400	<b>161 486 909</b>	8.900
450	18	450	<b>161 486 926</b>	11.800
500	20	500	<b>161 486 927</b>	14.400
630	24	600	<b>161 486 928</b>	26.000



## Hand lever

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

## Intermediate element

### Gear operated with handwheel 567 / 568

d [mm]	DN [mm]	Code	kg
63	50	<b>198 000 621</b>	0.150
75	65	<b>198 000 621</b>	0.150
90	80	<b>198 000 621</b>	0.150
110	100	<b>198 000 622</b>	0.150
140	125	<b>198 000 622</b>	0.150
160	150	<b>198 000 599</b>	0.100
225	200	<b>198 000 599</b>	0.100
280	250	<b>198 000 880</b>	0.750
315	300	<b>198 000 880</b>	0.750

## Reduction gear with handwheel



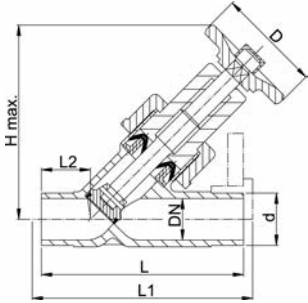
d [mm]	Inch	DN [mm]	Code	kg
75	2 ½	65	<b>161 482 408</b>	1.920
90	3	80	<b>161 482 408</b>	1.920
110	4	100	<b>161 482 408</b>	1.920
125	4 ½	125	<b>161 482 408</b>	1.920
160	6	150	<b>161 482 408</b>	1.920
225	8	200	<b>161 482 408</b>	1.920
280	10	250	<b>161 483 462</b>	3.322
315	12	300	<b>161 483 462</b>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

# Angle seat valves metric

## Angle seat valve type 300 PVC-U With solvent cement spigots metric

Model:

- Overall length EN 558



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	PE Code	PTFE Code	kg
16	10	10	41	<b>161 300 250</b>	<b>161 300 299</b>	0.128
20	15	10	95	<b>161 300 300</b>	<b>161 300 349</b>	0.168
25	20	10	180	<b>161 300 350</b>	<b>161 300 399</b>	0.255
32	25	10	327	<b>161 300 400</b>	<b>161 300 449</b>	0.389
40	32	10	484	<b>161 300 450</b>	<b>161 300 499</b>	0.590
50	40	10	725	<b>161 300 500</b>	<b>161 300 549</b>	1.000
63	50	10	1130	<b>161 300 550</b>	<b>161 300 599</b>	1.540
75	65	10	1700	<b>161 300 600</b>	<b>161 300 649</b>	2.713
90	80	10	2500	<b>161 300 650</b>	<b>161 300 699</b>	4.097

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H max. [mm]	closest inch
16	50	114	120	24	105	3/8
20	63	124	130	28	126	1/2
25	63	144	150	37	140	3/4
32	80	154	160	37	166	1
40	80	174	180	44	191	1 1/4
50	100	194	200	48	233	1 1/2
63	100	224	230	60	264	2
75	160	284	290	74	335	2 1/2
90	200	300	310	85	390	3



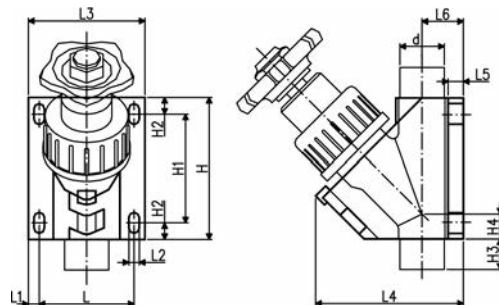
## Angle seat valve bracket type 123 PVC-U

Model:

- Can be fitted to existing installations without interrupting their operation
- Easily assembled without tools
- For Angle Seat Valves Type 300

d [mm]	DN [mm]	Code	kg
16	10	<b>161 123 250</b>	0.114
20	15	<b>161 123 300</b>	0.146
25	20	<b>161 123 350</b>	0.230
32	25	<b>161 123 400</b>	0.289
40	32	<b>161 123 450</b>	0.374

d [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	closest inch
16	62	8	7	78	67	10	22	76	55	11	15	9	3/8
20	65	9	7	82	74	10	25	86	65	11	17	11	1/2
25	73	9	8	91	87	11	30	100	76	12	20	17	3/4
32	84	9	8	102	104	13	35	102	78	12	23	14	1
40	90	9	8	107	122	15	42	116	85	16	27	17	1 1/4

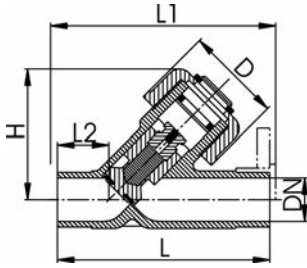




## Angle seat check valve type 303 PVC-U With solvent cement spigots metric

### Model:

- For horizontal or vertical installation
- Leakproof from: EPDM 2m, FPM 3m water column
- Specific gravity of piston approx. 2 kg/dm<sup>3</sup>
- Overall length EN 558



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	41	161 303 005	161 303 030	0.094
20	15	10	95	161 303 006	161 303 031	0.132
25	20	10	180	161 303 007	161 303 032	0.172
32	25	10	327	161 303 008	161 303 033	0.290
40	32	10	484	161 303 009	161 303 034	0.448
50	40	10	725	161 303 010	161 303 035	0.798
63	50	10	1130	161 303 011	161 303 036	1.345
75	65	10	1700	161 303 012	161 303 037	2.499
90	80	10	2500	161 303 013	161 303 038	3.540

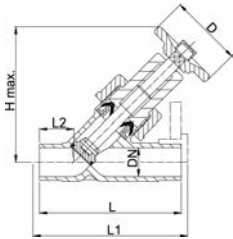
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	closest inch
16	39	114	120	24	58	$\frac{3}{8}$
20	43	124	130	28	65	$\frac{1}{2}$
25	47	144	150	37	75	$\frac{3}{4}$
32	56	154	160	37	90	1
40	64	174	180	44	102	1 $\frac{1}{4}$
50	82	194	200	48	123	1 $\frac{1}{2}$
63	95	224	230	60	144	2
75	92	284	290	74	186	2 $\frac{1}{2}$
90	104	300	310	85	204	3



# Angle seat valves ASTM/ANSI

## Angle seat valve type 301 PVC-U

### Transparent body with solvent cement spigots ASTM

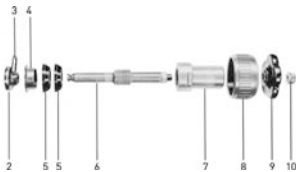
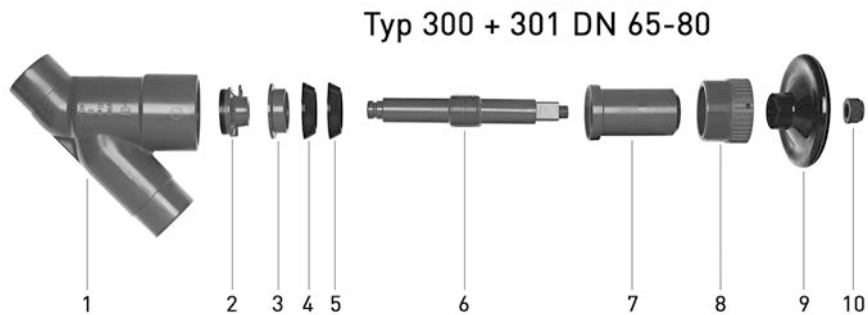
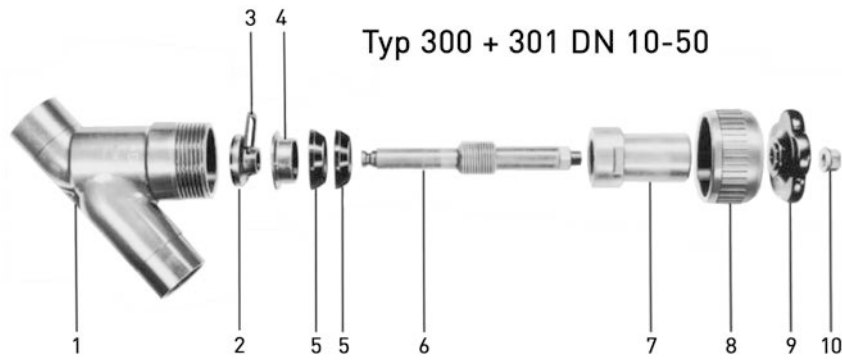


Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PE Code	PTFE Code	kg
1/2	15	10	95	<b>192 301 300</b>	<b>192 301 349</b>	0.180
3/4	20	10	180	<b>192 301 350</b>	<b>192 301 399</b>	0.250
1	25	10	327	<b>192 301 400</b>	<b>192 301 449</b>	0.385
1 1/4	32	10	484	<b>192 301 450</b>	<b>192 301 499</b>	0.605
1 1/2	40	10	725	<b>192 301 500</b>	<b>192 301 549</b>	0.970
2	50	10	1130	<b>192 301 550</b>	<b>192 301 599</b>	1.504
3	80	10	2500	<b>192 301 650</b>	<b>192 301 699</b>	3.417

Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H max. [mm]
1/2	63	143	149	37	126
3/4	63	160	166	45	140
1	80	174	180	47	166
1 1/4	80	188	194	53	191
1 1/2	100	205	211	54	233
2	100	225	231	63	264
3	200	311	321	90	390

# Spare parts angle seat valves

## Spare parts angle seat valve type 300/301



### Bonnet complete

**Model:**

- Bonnet complete consisting of: seal element PVC-U and seating PE, retaining pin, seal support ring, stem, threaded bush, union nut and handwheel nut in PVC-U, cup seal and handwheel in PE (2 -10)

d [mm]	Inch	DN [mm]	PVC-U/PE Code	kg
16	3/8	10	<b>161 482 250</b>	0.500
20	1/2	15	<b>161 482 251</b>	0.140
25	3/4	20	<b>161 482 252</b>	0.190
32	1	25	<b>161 482 253</b>	0.215
40	1 1/4	32	<b>161 482 254</b>	0.330
50	1 1/2	40	<b>161 482 255</b>	0.750
63	2	50	<b>161 482 256</b>	0.900
75	2 1/2	65	<b>161 482 257</b>	0.300
90	3	80	<b>161 482 258</b>	2.400



### Disc retaining pin set

**Model:**

- Disc retaining pin set consisting of: seal element and seating, retaining pin, screen support and cup seal (2-5)

d [mm]	Inch	DN [mm]	PE Code	PTFE Code	kg
16	3/8	10	<b>161 483 076</b>	<b>161 483 089</b>	0.012
20	1/2	15	<b>161 483 077</b>	<b>161 483 090</b>	0.015
25	3/4	20	<b>161 483 078</b>	<b>161 483 091</b>	0.022
32	1	25	<b>161 483 079</b>	<b>161 483 092</b>	0.031
40	1 1/4	32	<b>161 483 080</b>	<b>161 483 093</b>	0.053
50	1 1/2	40	<b>161 483 081</b>	<b>161 483 094</b>	0.091
63	2	50	<b>161 483 082</b>	<b>161 483 095</b>	0.144
75	2 1/2	65	<b>161 483 083</b>	<b>161 483 096</b>	0.500
90	3	80	<b>161 483 084</b>	<b>161 483 097</b>	0.273



## Stem set

### Model:

- Stem set consisting of: stem and threaded bush (6, 7)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 483 062</b>	0.026
20	1/2	15	<b>161 483 063</b>	0.039
25	3/4	20	<b>161 483 064</b>	0.054
32	1	25	<b>161 483 065</b>	0.075
40	1 1/4	32	<b>161 483 066</b>	0.144
50	1 1/2	40	<b>161 483 067</b>	0.241
63	2	50	<b>161 483 068</b>	0.379
75	2 1/2	65	<b>161 483 069</b>	0.585
90	3	80	<b>161 483 070</b>	0.903



## Body (1)

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-U transparent Code	kg
16	3/8	10	<b>161 300 251</b>	<b>192 480 000</b>	0.112
20	1/2	15	<b>161 300 301</b>	<b>192 480 001</b>	0.066
25	3/4	20	<b>161 300 351</b>	<b>192 480 002</b>	0.095
32	1	25	<b>161 300 401</b>	<b>192 301 401</b>	0.185
40	1 1/4	32	<b>161 300 451</b>	<b>192 301 451</b>	0.256
50	1 1/2	40	<b>161 300 501</b>	<b>192 301 501</b>	0.401
63	2	50	<b>161 300 551</b>	<b>192 301 551</b>	0.657
75	2 1/2	65	<b>161 300 601</b>	<b>192 301 601</b>	1.327
90	3	80	<b>161 300 651</b>	<b>192 301 651</b>	1.920



## Union nut

### Model:

- DN10-DN50 (8)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 300 258</b>	0.028
20	1/2	15	<b>161 300 308</b>	0.015
25	3/4	20	<b>161 300 358</b>	0.022
32	1	25	<b>161 300 408</b>	0.039
40	1 1/4	32	<b>161 300 458</b>	0.047
50	1 1/2	40	<b>161 300 508</b>	0.085
63	2	50	<b>161 300 558</b>	0.132



## Handwheel nut (10)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 300 260</b>	0.002
20	1/2	15	<b>721 960 603</b>	0.013
25	3/4	20	<b>721 960 603</b>	0.013
32	1	25	<b>721 960 603</b>	0.013
40	1 1/4	32	<b>721 960 604</b>	0.024
50	1 1/2	40	<b>721 960 604</b>	0.024
63	2	50	<b>721 960 605</b>	0.012
75	2 1/2	65	<b>721 960 606</b>	0.018
90	3	80	<b>721 960 607</b>	0.024



## Handwheel (9)

d [mm]	Inch	DN [mm]	Code	kg
16	3/8	10	<b>161 300 259</b>	0.030
20	1/2	15	<b>161 300 309</b>	0.040
25	3/4	20	<b>161 300 309</b>	0.040
32	1	25	<b>161 300 409</b>	0.062
40	1 1/4	32	<b>161 300 459</b>	0.750
50	1 1/2	40	<b>161 300 509</b>	0.125
63	2	50	<b>161 300 559</b>	0.120
75	2 1/2	65	<b>161 300 609</b>	0.310
90	3	80	<b>161 300 659</b>	0.630



## Plug

**Model:**

- DN65-DN80 (8)

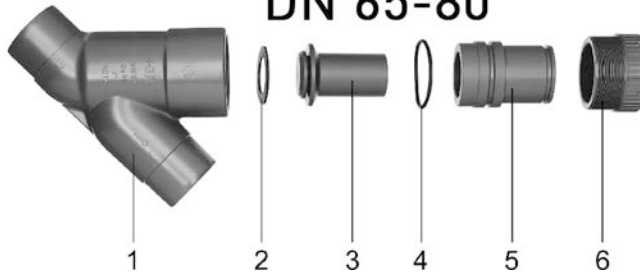
d [mm]	Inch	DN [mm]	PVC-U Code	kg
75	2 1/2	65	<b>161 300 608</b>	0.202
90	3	80	<b>161 300 658</b>	0.280

## Spare parts angle seat valve type 303/304

### DN 10-50



### DN 65-80



### Body (1)

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-U transparent Code	kg
16	3/8	10	161 480 699	192 480 000	0.112
20	1/2	15	161 480 700	192 480 001	0.066
25	3/4	20	161 480 701	192 480 002	0.095
32	1	25	161 300 401	192 301 401	0.185
40	1 1/4	32	161 300 451	192 301 451	0.256
50	1 1/2	40	161 300 501	192 301 501	0.401
63	2	50	161 300 551	192 301 551	0.657
75	2 1/2	65	161 300 601	192 301 601	1.327
90	3	80	161 300 651	192 301 651	1.920



### Flat gasket (2)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 480 664	161 480 673	0.004
20	1/2	15	161 480 665	161 480 674	0.001
25	3/4	20	161 480 666	161 480 675	0.005
32	1	25	161 480 667	161 480 676	0.001
40	1 1/4	32	161 480 668	161 480 677	0.004
50	1 1/2	40	161 480 669	161 480 678	0.006
63	2	50	161 480 670	161 480 679	0.008
75	2 1/2	65	161 480 671	161 480 680	0.015
90	3	80	161 480 672	161 480 681	0.020



### Piston (3)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	161 480 682	0.009
20	1/2	15	161 480 683	0.015
25	3/4	20	161 480 684	0.027
32	1	25	161 480 685	0.061
40	1 1/4	32	161 480 686	0.097
50	1 1/2	40	161 480 687	0.193
63	2	50	161 480 688	0.352
75	2 1/2	65	161 480 689	0.140
90	3	80	161 480 690	0.735



## O-ring (4)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	<b>748 410 059</b>	<b>749 410 059</b>	0.001
20	1/2	15	<b>748 410 106</b>	<b>749 410 106</b>	0.001
25	3/4	20	<b>748 410 001</b>	<b>749 410 001</b>	0.002
32	1	25	<b>748 410 007</b>	<b>749 410 007</b>	0.002
40	1 1/4	32	<b>748 410 002</b>	<b>749 410 002</b>	0.003
50	1 1/2	40	<b>748 410 102</b>	<b>749 410 102</b>	0.004
63	2	50	<b>748 410 101</b>	<b>749 410 101</b>	0.004
75	2 1/2	65	<b>748 410 119</b>	<b>749 410 119</b>	0.010
90	3	80	<b>748 410 014</b>	<b>749 410 014</b>	0.012



## Union nut

**Model:**

- DN10-DN50 (6)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 300 258</b>	0.028
20	1/2	15	<b>161 300 308</b>	0.015
25	3/4	20	<b>161 300 358</b>	0.022
32	1	25	<b>161 300 408</b>	0.039
40	1 1/4	32	<b>161 300 458</b>	0.047
50	1 1/2	40	<b>161 300 508</b>	0.085
63	2	50	<b>161 300 558</b>	0.132



## Plug

**Model:**

- DN65-DN80 (6)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
75	2 1/2	65	<b>161 305 604</b>	0.200
90	3	80	<b>161 305 654</b>	0.265



## Closure plug (5)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 480 648</b>	0.013
20	1/2	15	<b>161 480 649</b>	0.019
25	3/4	20	<b>161 480 650</b>	0.026
32	1	25	<b>161 480 651</b>	0.040
40	1 1/4	32	<b>161 480 652</b>	0.071
50	1 1/2	40	<b>161 480 653</b>	0.112
63	2	50	<b>161 480 654</b>	0.172
75	2 1/2	65	<b>161 490 412</b>	0.458
90	3	80	<b>161 490 413</b>	0.591



## Circlip (7)

d [mm]	Inch	DN [mm]	PVC-U Code	kg
16	3/8	10	<b>161 482 076</b>	0.001
20	1/2	15	<b>161 482 017</b>	0.001
25	3/4	20	<b>161 482 018</b>	0.003
32	1	25	<b>161 482 019</b>	0.001
40	1 1/4	32	<b>161 482 020</b>	0.003
50	1 1/2	40	<b>161 482 021</b>	0.003
63	2	50	<b>161 482 022</b>	0.004

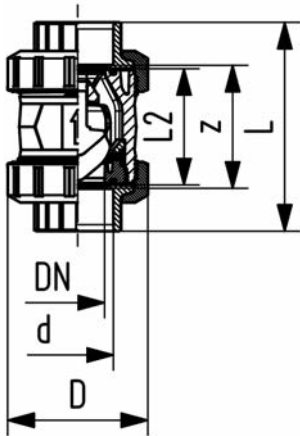
# Ball check valves metric

## Check valve type 561 PVC-U With transparent housing With solvent cement sockets metric



### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



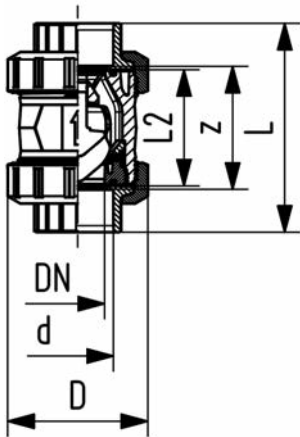
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
32	25	16	460	<b>192 561 004</b>	0.290	68	123	71	79	1
63	50	16	1670	<b>192 561 007</b>	1.330	124	183	101	107	2

## Check valve type 561 PVC-U With solvent cement sockets metric



### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

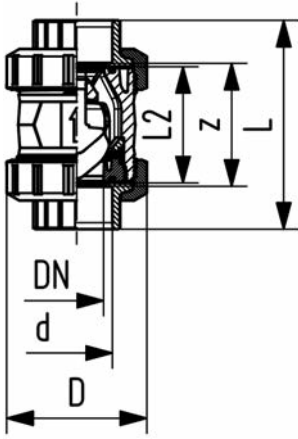


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	190	<b>161 561 001</b>	<b>161 561 011</b>	0.120
20	15	16	180	<b>161 561 002</b>	<b>161 561 012</b>	0.119
25	20	16	380	<b>161 561 003</b>	<b>161 561 013</b>	0.181
32	25	16	460	<b>161 561 004</b>	<b>161 561 014</b>	0.285
40	32	16	850	<b>161 561 005</b>	<b>161 561 015</b>	0.488
50	40	16	1080	<b>161 561 006</b>	<b>161 561 016</b>	0.750
63	50	16	1670	<b>161 561 007</b>	<b>161 561 017</b>	1.340
75	65	16	2950	<b>161 561 008</b>	<b>161 561 018</b>	3.170
90	80	16	3600	<b>161 561 009</b>	<b>161 561 019</b>	5.060
110	100	16	4150	<b>161 561 010</b>	<b>161 561 020</b>	8.170

d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
16	50	92	56	64	$\frac{3}{8}$
20	50	95	56	64	$\frac{1}{2}$
25	58	110	65	72	$\frac{3}{4}$
32	68	123	71	79	1
40	84	146	85	94	$1 \frac{1}{4}$
50	97	157	89	95	$1 \frac{1}{2}$

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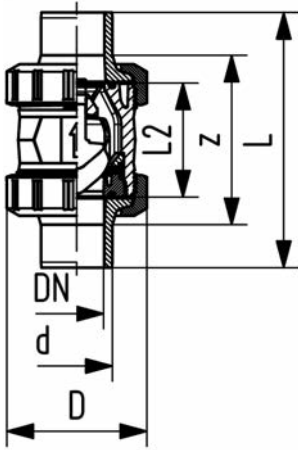
d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
63	124	183	101	107	2
75	166	233	136	144	2 ½
90	200	254	141	151	3
110	238	301	164	174	4



## Check valve type 561 PVC-U With solvent cement spigots metric

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



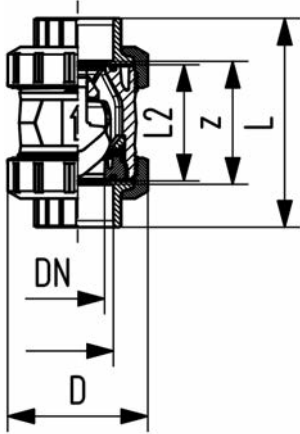
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch
16	10	16	190	<b>161 561 041</b>	<b>161 561 051</b>	0.130	50	114	56	¾
20	15	16	180	<b>161 561 042</b>	<b>161 561 052</b>	0.130	50	124	56	½
25	20	16	380	<b>161 561 043</b>	<b>161 561 053</b>	0.290	58	144	65	¾
32	25	16	460	<b>161 561 044</b>	<b>161 561 054</b>	0.320	68	154	71	1
40	32	16	850	<b>161 561 045</b>	<b>161 561 055</b>	0.530	84	174	85	1 ¼
50	40	16	1080	<b>161 561 046</b>	<b>161 561 056</b>	0.810	97	194	89	1 ½
63	50	16	1670	<b>161 561 047</b>	<b>161 561 057</b>	1.450	124	224	101	2
75	65	16	2950	<b>161 561 048</b>	<b>161 561 058</b>	3.380	166	284	136	2 ½
90	80	16	3600	<b>161 561 049</b>	<b>161 561 059</b>	5.340	200	300	141	3
110	100	16	4150	<b>161 561 050</b>	<b>161 561 060</b>	8.540	238	340	164	4



## Check valve type 561 PVC-U With threaded sockets Rp

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



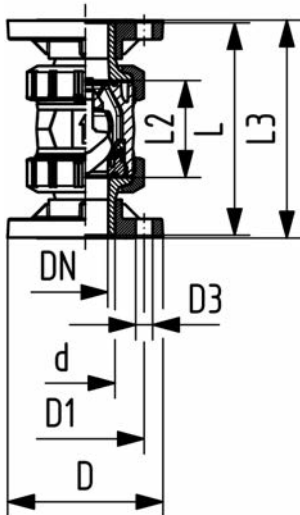
Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	10	190	<b>161 561 021</b>	<b>161 561 031</b>	0.130	50	95	56	69
1/2	15	10	180	<b>161 561 022</b>	<b>161 561 032</b>	0.130	50	100	56	67
3/4	20	10	380	<b>161 561 023</b>	<b>161 561 033</b>	0.280	58	114	65	78
1	25	10	460	<b>161 561 024</b>	<b>161 561 034</b>	0.300	68	127	71	85
1 1/4	32	10	850	<b>161 561 025</b>	<b>161 561 035</b>	0.520	84	146	85	100
1 1/2	40	10	1080	<b>161 561 026</b>	<b>161 561 036</b>	0.790	97	152	89	106
2	50	10	1670	<b>161 561 027</b>	<b>161 561 037</b>	1.400	124	177	101	121
2 1/2	65	10	2950	<b>161 561 028</b>	<b>161 561 038</b>	3.820	166	233	136	144
3	80	10	3600	<b>161 561 029</b>	<b>161 561 039</b>	5.180	200	254	141	151
4	100	10	4150	<b>161 561 030</b>	<b>161 561 040</b>	8.180	238	301	164	174



## Check valve type 561 PVC-U With fixed flanges metric

### Model:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	180	<b>161 561 082</b>	<b>161 561 092</b>	0.330
25	20	16	380	<b>161 561 083</b>	<b>161 561 093</b>	0.540
32	25	16	460	<b>161 561 084</b>	<b>161 561 094</b>	0.670
40	32	16	850	<b>161 561 085</b>	<b>161 561 095</b>	1.100
50	40	16	1080	<b>161 561 086</b>	<b>161 561 096</b>	1.490
63	50	16	1670	<b>161 561 087</b>	<b>161 561 097</b>	2.440

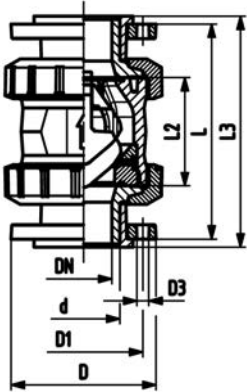
d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]	closest inch
20	95	65	14	124	56	130	1/2
25	105	75	14	144	65	150	3/4
32	115	85	14	154	71	160	1
40	140	100	18	174	85	180	1 1/4
50	150	110	18	194	89	200	1 1/2
63	165	125	18	224	101	230	2



## Check valve type 561 PVC-U With backing flanges PVC-U metric

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	16	2950	<b>161 561 408</b>	<b>161 561 418</b>	4.450
90	80	16	3600	<b>161 561 409</b>	<b>161 561 419</b>	6.770
110	100	16	4150	<b>161 561 410</b>	<b>161 561 420</b>	10.320

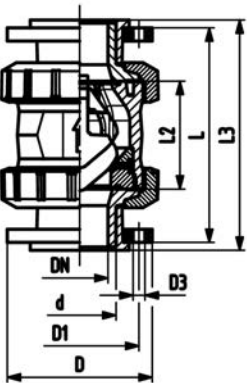
d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	closest inch
75	166	149	85	284	270	136	70	64	206	M8	1 ¼
90	200	161	105	300	270	141	70	64	206	M8	1 ½
110	238	178	123	340	320	164	120	64	256	M12	2



## Check valve type 561 PVC-U With backing flanges PP-st metric

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	2950	<b>161 561 428</b>	<b>161 561 438</b>	4.640
90	80	10	3600	<b>161 561 429</b>	<b>161 561 439</b>	5.810
110	100	10	4150	<b>161 561 430</b>	<b>161 561 440</b>	8.160

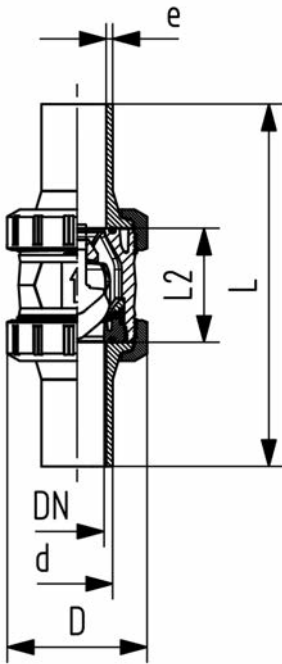
d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch
75	166	149	85	284	270	136	290	70	64	206	1 ¼
90	200	161	105	300	270	141	310	70	64	206	1 ½
110	238	178	123	340	320	164	350	120	64	256	2



## Check valve type 561 PVC-U With butt fusion spigots long PE100 SDR11 metric

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	180	<b>161 561 142</b>	<b>800 050 344</b>	0.130
25	20	16	380	<b>161 561 143</b>	<b>800 050 345</b>	0.250
32	25	16	460	<b>161 561 144</b>	<b>800 050 346</b>	0.320
40	32	16	850	<b>161 561 145</b>	<b>800 050 308</b>	0.530
50	40	16	1080	<b>161 561 146</b>	<b>800 050 347</b>	0.810
63	50	16	1670	<b>161 561 147</b>	<b>800 050 348</b>	1.530
75	65	10	2950	<b>161 561 148</b>	<b>800 050 837</b>	3.260
90	80	10	3600	<b>161 561 149</b>	<b>800 050 838</b>	5.170
110	100	10	4150	<b>161 561 150</b>	<b>800 050 839</b>	8.310

d [mm]	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch
20	50	193	56	2.3	1/2
25	58	216	65	2.3	3/4
32	68	223	71	3.0	1
40	84	249	85	3.7	1 1/4
50	97	271	89	4.6	1 1/2
63	124	321	101	5.8	2
75	166	386	136	6.8	1 1/4
90	200	421	141	8.2	1 1/2
110	238	484	164	10.0	2

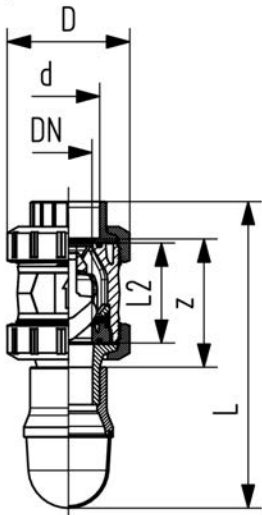


## Foot valve type 561 PVC-U With solvent cement sockets metric

### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
16	10	16	190	<b>161 561 901</b>	0.120	50	173	56	64	3/8
20	15	16	180	<b>161 561 902</b>	0.130	50	175	56	64	1/2
25	20	16	380	<b>161 561 903</b>	0.250	58	192	65	72	3/4
32	25	16	460	<b>161 561 904</b>	0.290	68	204	71	79	1
40	32	16	850	<b>161 561 905</b>	0.510	90	267	85	94	1 1/4
50	40	16	1080	<b>161 561 906</b>	0.750	90	282	83	95	1 1/2
63	50	16	1670	<b>161 561 907</b>	1.330	90	310	101	107	2



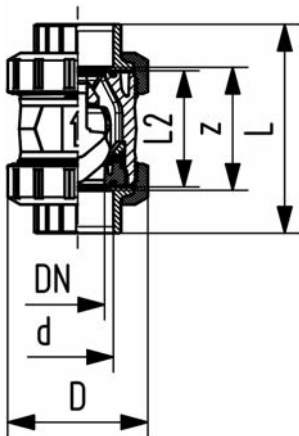
## Check valve type 562 PVC-U With solvent cement sockets metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360

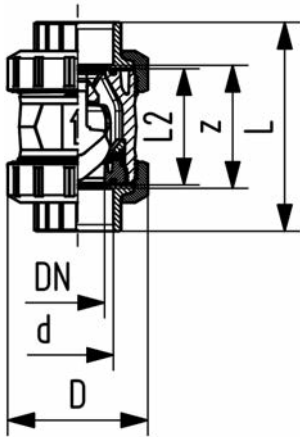


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	190	<b>161 562 001</b>	<b>161 562 011</b>	0.120
20	15	16	180	<b>161 562 002</b>	<b>161 562 012</b>	0.130
25	20	16	380	<b>161 562 003</b>	<b>161 562 013</b>	0.270
32	25	16	460	<b>161 562 004</b>	<b>161 562 014</b>	0.290
40	32	16	850	<b>161 562 005</b>	<b>161 562 015</b>	0.510
50	40	16	1080	<b>161 562 006</b>	<b>161 562 016</b>	0.750
63	50	16	1670	<b>161 562 007</b>	<b>161 562 017</b>	1.340
75	65	16	2950	<b>161 562 008</b>	<b>161 562 018</b>	3.170
90	80	16	3600	<b>161 562 009</b>	<b>161 562 019</b>	5.060
110	100	16	4150	<b>161 562 010</b>	<b>161 562 020</b>	8.170



d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
16	50	92	56	64	3/8
20	50	95	56	64	1/2
25	58	110	65	72	3/4
32	68	123	71	79	1
40	84	146	85	94	1 1/4

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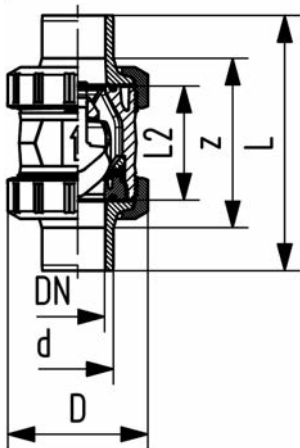
d [mm]	D [mm]	L [mm]	L2 [mm]	z [mm]	closest inch
50	97	157	89	95	1 ½
63	124	183	101	107	2
75	166	233	136	144	2 ½
90	200	254	141	151	3
110	238	301	164	174	4



## Check valve type 562 PVC-U With solvent cement spigots metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



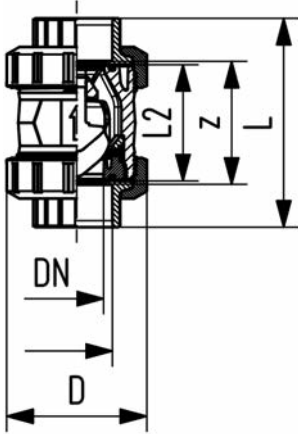
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	closest inch
16	10	16	190	<b>161 562 041</b>	<b>161 562 051</b>	0.130	50	114	56	¾
20	15	16	180	<b>161 562 042</b>	<b>161 562 052</b>	0.130	50	124	56	½
25	20	16	380	<b>161 562 043</b>	<b>161 562 053</b>	0.290	58	144	65	¾
32	25	16	460	<b>161 562 044</b>	<b>161 562 054</b>	0.320	68	154	71	1
40	32	16	850	<b>161 562 045</b>	<b>161 562 055</b>	0.530	84	174	85	1 ¼
50	40	16	1080	<b>161 562 046</b>	<b>161 562 056</b>	0.810	97	194	89	1 ½
63	50	16	1670	<b>161 562 047</b>	<b>161 562 057</b>	1.450	124	224	101	2
75	65	16	2950	<b>161 562 048</b>	<b>161 562 058</b>	3.380	166	284	136	2 ½
90	80	16	3600	<b>161 562 049</b>	<b>161 562 059</b>	5.340	200	300	141	3
110	100	16	4150	<b>161 562 050</b>	<b>161 562 060</b>	8.540	238	340	164	4



## Check valve type 562 PVC-U With threaded sockets Rp

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



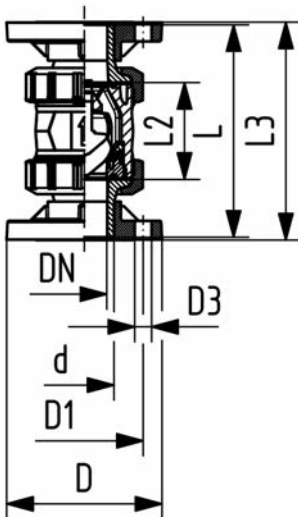
Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	Z [mm]
3/8	10	10	190	161 562 021	161 562 031	0.130	50	95	56	69
1/2	15	10	180	161 562 022	161 562 032	0.130	50	100	56	67
3/4	20	10	380	161 562 023	161 562 033	0.280	58	114	65	78
1	25	10	460	161 562 024	161 562 034	0.300	68	127	71	85
1 1/4	32	10	850	161 562 025	161 562 035	0.520	84	146	85	100
1 1/2	40	10	1080	161 562 026	161 562 036	0.790	97	152	89	106
2	50	10	1670	161 562 027	161 562 037	1.400	124	177	101	121
2 1/2	65	10	2950	161 562 028	161 562 038	3.820	166	233	136	144
3	80	10	3600	161 562 029	161 562 039	5.180	200	254	141	151
4	100	10	4150	161 562 030	161 562 040	8.180	238	301	164	174



## Check valve type 562 PVC-U With fixed flanges metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Installation length according to EN 558-1
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	180	161 562 082	161 562 092	0.330
25	20	16	380	161 562 083	161 562 093	0.540
32	25	16	460	161 562 084	161 562 094	0.670
40	32	16	850	161 562 085	161 562 095	1.100
50	40	16	1080	161 562 086	161 562 096	1.490
63	50	16	1670	161 562 087	161 562 097	2.440

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]	closest inch
20	95	65	14	124	56	130	1/2
25	105	75	14	144	65	150	3/4
32	115	85	14	154	71	160	1
40	140	100	18	174	85	180	1 1/4
50	150	110	18	194	89	200	1 1/2
63	165	125	18	224	101	230	2

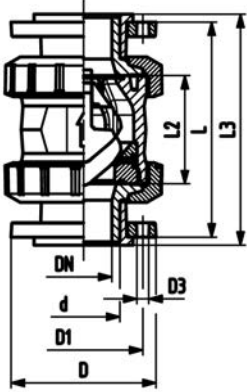




## Check valve type 562 PVC-U With backing flanges PVC-U metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg						
75	65	16	2950	<b>161 562 408</b>	<b>161 562 418</b>	4.450						
90	80	16	3600	<b>161 562 409</b>	<b>161 562 419</b>	6.770						
110	100	16	4150	<b>161 562 410</b>	<b>161 562 420</b>	10.320						

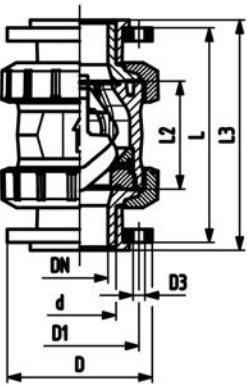
d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	closest inch		
75	166	149	85	284	270	136	70	64	206	M8	1 ¼		
90	200	161	105	300	270	141	70	64	206	M8	1 ½		
110	238	178	123	340	320	164	120	64	256	M12	2		



## Check valve type 562 PVC-U With backing flanges PP-st metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg						
75	65	10	2950	<b>161 562 428</b>	<b>161 562 438</b>	6.230						
90	80	10	3600	<b>161 562 429</b>	<b>161 562 439</b>	8.360						
110	100	10	4150	<b>161 562 430</b>	<b>161 562 440</b>	12.340						

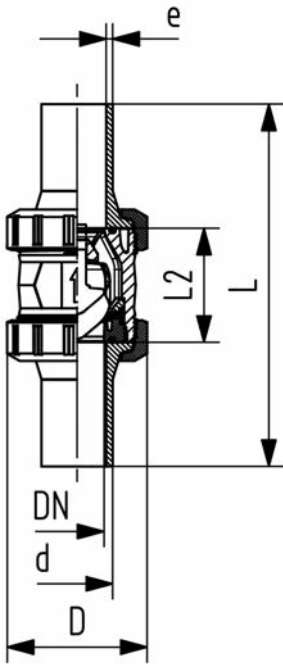
d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch		
75	166	149	85	284	270	136	290	70	64	206	1 ¼		
90	200	161	105	300	270	141	310	70	64	206	1 ½		
110	238	178	123	340	320	164	350	120	64	256	2		



## Check valve type 562 PVC-U With butt fusion spigots long PE100 SDR11 metric

### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]	closest inch
20	15	16	180	<b>161 562 142</b>	0.130	50	193	56	2.3	1/2
25	20	16	380	<b>161 562 143</b>	0.260	58	216	65	2.3	3/4
32	25	16	460	<b>161 562 144</b>	0.300	68	223	71	3.0	1
40	32	16	850	<b>161 562 145</b>	0.520	84	249	85	3.7	1 1/4
50	40	16	1080	<b>161 562 146</b>	0.780	97	271	89	4.6	1 1/2
63	50	16	1670	<b>161 562 147</b>	1.410	124	321	101	5.8	2

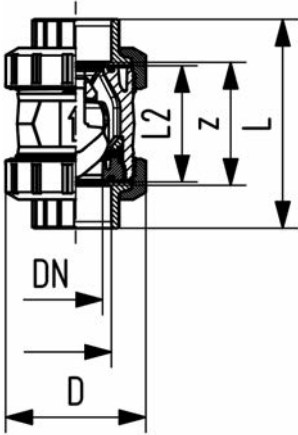
# Ball check valves Inch BS

## Check valve type 561 PVC-U With solvent cement sockets Inch BS



### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



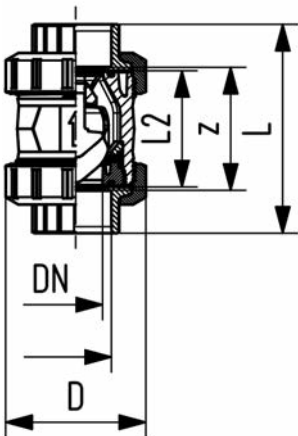
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	16	190	161 561 061	161 561 071	0.120	50	92	56	60
1/2	15	16	180	161 561 062	161 561 072	0.120	50	95	56	60
3/4	20	16	380	161 561 063	161 561 073	0.270	58	110	65	69
1	25	16	460	161 561 064	161 561 074	0.280	68	123	71	75
1 1/4	32	16	850	161 561 065	161 561 075	0.490	84	146	85	89
1 1/2	40	16	1080	161 561 066	161 561 076	0.770	97	157	89	97
2	50	16	1670	161 561 067	161 561 077	1.370	124	183	101	110
	65	16	2950	161 561 008	161 561 018	3.170	166	233	136	144
3	80	16	3600	161 561 069	161 561 079	5.090	200	254	141	151
4	100	16	4150	161 561 070	161 561 080	8.050	238	301	164	174

## Check valve type 562 PVC-U With solvent cement sockets Inch BS



### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	16	190	161 562 061	161 562 071	0.120	50	92	56	60
1/2	15	16	180	161 562 062	161 562 072	0.120	50	95	56	60
3/4	20	16	380	161 562 063	161 562 073	0.270	58	110	65	69
1	25	16	460	161 562 064	161 562 074	0.280	68	123	71	75
1 1/4	32	16	850	161 562 065	161 562 075	0.490	84	146	85	89
1 1/2	40	16	1080	161 562 066	161 562 076	0.770	97	157	89	97
2	50	16	1670	161 562 067	161 562 077	1.370	124	183	101	110
	65	16	2950	161 562 008	161 562 018	3.170	166	233	136	144
3	80	16	3600	161 562 069	161 562 079	5.090	200	254	141	151
4	100	16	4150	161 562 070	161 562 080	8.050	238	301	164	174

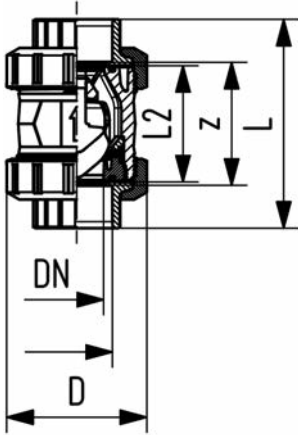
# Ball check valves ASTM/ANSI

## Check valve type 561 PVC-U With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT



### Model:

- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



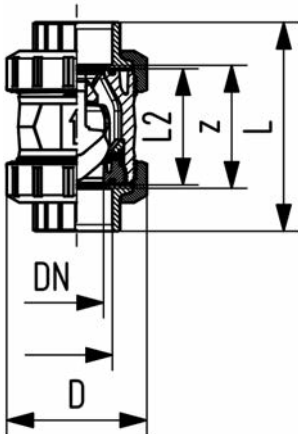
NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	16	190	161 561 101	161 561 111	0.130	50	105	56	67
1/2	15	16	180	161 561 102	161 561 112	0.130	50	105	56	61
3/4	20	16	380	161 561 103	161 561 113	0.280	58	121	65	70
1	25	16	460	161 561 104	161 561 114	0.300	68	133	71	76
1 1/4	32	16	850	161 561 105	161 561 115	0.510	84	154	85	90
1 1/2	40	16	1080	161 561 106	161 561 116	0.760	97	164	89	94
2	50	16	1670	161 561 107	161 561 117	1.330	124	183	101	107
2 1/2	65	16	2950	161 561 108	161 561 118	3.250	166	233	136	144
3	80	16	3600	161 561 109	161 561 119	5.100	200	254	141	151
4	100	16	4150	161 561 110	161 561 120	8.190	238	301	164	174

## Check valve type 562 PVC-U With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT



### Model:

- 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
- For horizontal or vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	16	190	161 562 101	161 562 111	0.130	50	105	56	67
1/2	15	16	180	161 562 102	161 562 112	0.130	50	105	56	61
3/4	20	16	380	161 562 103	161 562 113	0.280	58	121	65	70
1	25	16	460	161 562 104	161 562 114	0.300	68	133	71	76
1 1/4	32	16	850	161 562 105	161 562 115	0.510	84	154	85	90
1 1/2	40	16	1080	161 562 106	161 562 116	0.760	97	164	89	94
2	50	16	1670	161 562 107	161 562 117	1.330	124	183	101	107
2 1/2	65	16	2950	161 562 108	161 562 118	3.250	166	233	136	144
3	80	16	3600	161 562 109	161 562 119	5.100	200	254	141	151
4	100	16	4150	161 562 110	161 562 120	8.190	238	301	164	174

# Process control valves

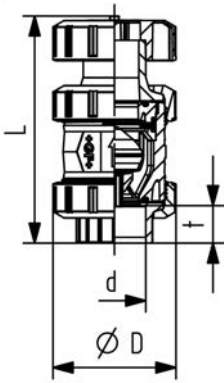
## Ventilating and bleed valve Type 591 PVC-U With solvent cement sockets metric



### Model:

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

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch
16	10	16	161 591 001	161 591 011	0.137	50	118	14	3/8
20	15	16	161 591 002	161 591 012	0.147	50	124	16	1/2
25	20	16	161 591 003	161 591 013	0.293	58	142	19	3/4
32	25	16	161 591 004	161 591 014	0.324	68	157	22	1
40	32	16	161 591 005	161 591 015	0.562	84	179	26	1 1/4
50	40	16	161 591 006	161 591 016	0.819	97	197	31	1 1/2
63	50	16	161 591 007	161 591 017	1.446	124	229	38	2
75	65	16	161 591 008	161 591 018	3.170	166	258	45	2 1/2
90	80	16	161 591 009	161 591 019	5.060	200	277	52	3
110	100	16	161 591 010	161 591 020	8.170	238	320	64	4



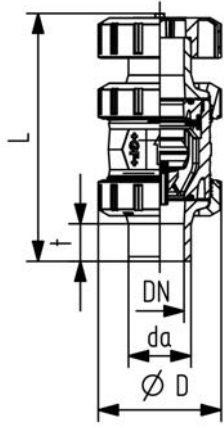
## Ventilating and bleed valve Type 591 PVC-U With solvent cement spigots metric



### Model:

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

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch
16	10	16	161 591 041	161 591 051	0.147	50	129	14	3/8
20	15	16	161 591 042	161 591 052	0.147	50	139	16	1/2
25	20	16	161 591 043	161 591 053	0.313	58	160	19	3/4
32	25	16	161 591 044	161 591 054	0.354	68	172	22	1
40	32	16	161 591 045	161 591 055	0.582	84	193	26	1 1/4
50	40	16	161 591 046	161 591 056	0.879	97	215	31	1 1/2
63	50	16	161 591 047	161 591 057	1.556	124	249	38	2
75	65	16	161 591 048	161 591 058	3.380	166	284	44	2 1/2
90	80	16	161 591 049	161 591 059	5.340	200	300	52	3
110	100	16	161 591 050	161 591 060	8.540	238	340	61	4



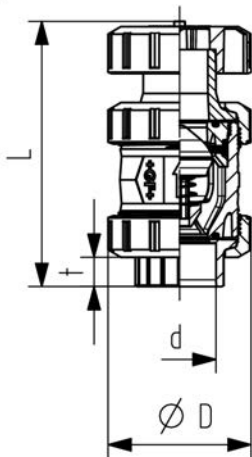


## Ventilating valve type 595 PVC-U With solvent cement sockets metric



### Model:

- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length



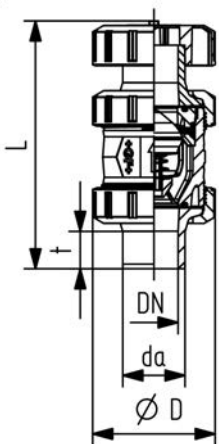
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch
16	10	16	161 595 001	161 595 011	0.137	50	118	14	3/8
20	15	16	161 595 002	161 595 012	0.147	50	124	16	1/2
25	20	16	161 595 003	161 595 013	0.293	58	142	19	3/4
32	25	16	161 595 004	161 595 014	0.324	68	157	22	1
40	32	16	161 595 005	161 595 015	0.562	84	179	26	1 1/4
50	40	16	161 595 006	161 595 016	0.819	97	197	31	1 1/2
63	50	16	161 595 007	161 595 017	1.446	124	229	38	2
75	65	16	161 595 008	161 595 018	3.170	166	258	45	2 1/2
90	80	16	161 595 009	161 595 019	5.060	200	277	52	3
110	100	16	161 595 010	161 595 020	8.170	238	320	64	4

## Ventilating valve type 595 PVC-U With solvent cement spigots metric



### Model:

- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch
16	10	16	161 595 041	161 595 051	0.147	50	129	14	3/8
20	15	16	161 595 042	161 595 052	0.147	50	139	16	1/2
25	20	16	161 595 043	161 595 053	0.313	58	160	19	3/4
32	25	16	161 595 044	161 595 054	0.354	68	172	22	1
40	32	16	161 595 045	161 595 055	0.582	84	193	26	1 1/4
50	40	16	161 595 046	161 595 056	0.879	97	215	31	1 1/2
63	50	16	161 595 047	161 595 057	1.556	124	249	38	2
75	65	16	161 595 048	161 595 058	3.380	166	284	44	2 1/2
90	80	16	161 595 049	161 595 059	5.340	200	300	52	3
110	100	16	161 595 050	161 595 060	8.540	238	340	61	4



# Process control valves

## Ventilating and bleed valve

### Type 591 PVC-U

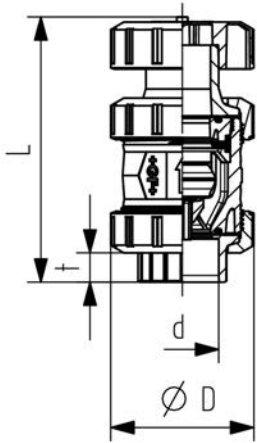
#### With solvent cement sockets Inch BS



#### Model:

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

Inch	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]
3/8	10	16	161 591 061	161 591 071	0.137	50	118	16
1/2	15	16	161 591 062	161 591 072	0.147	50	124	18
3/4	20	16	161 591 063	161 591 073	0.293	58	142	21
1	25	16	161 591 064	161 591 074	0.324	68	157	24
1 1/4	32	16	161 591 065	161 591 075	0.562	84	179	29
1 1/2	40	16	161 591 066	161 591 076	0.819	97	197	30
2	50	16	161 591 067	161 591 077	1.446	124	229	36
	65	16	161 591 008	161 591 018	3.170	166	258	45
3	80	16	161 591 069	161 591 079	5.060	200	277	51
4	100	16	161 591 070	161 591 080	8.170	238	320	64



## Ventilating valve type 595 PVC-U

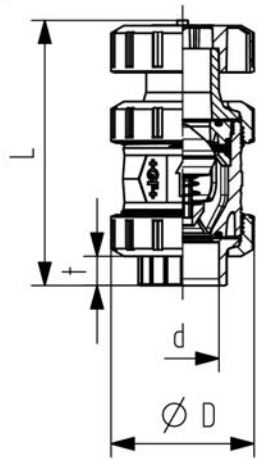
### With solvent cement sockets Inch BS



#### Model:

- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

Inch	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]
3/8	10	16	161 595 061	161 595 071	0.137	50	118	16
1/2	15	16	161 595 062	161 595 072	0.147	50	124	18
3/4	20	16	161 595 063	161 595 073	0.293	58	142	21
1	25	16	161 595 064	161 595 074	0.324	68	157	24
1 1/4	32	16	161 595 065	161 595 075	0.562	84	179	29
1 1/2	40	16	161 595 066	161 595 076	0.819	97	197	30
2	50	16	161 595 067	161 595 077	1.446	124	229	36
	65	16	161 595 008	161 595 018	3.170	166	258	45
3	80	16	161 595 069	161 595 079	5.060	200	277	51
4	100	16	161 595 070	161 595 080	8.170	238	320	64







## Ventilating and bleed valve type 591 PVC-U With BSP brass thread



### Model:

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

\* on request

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]	closest inch
* 16	10	16	<b>161 591 139</b>	<b>161 591 149</b>	0.137	50	135	13	3/8
20	15	16	<b>161 591 140</b>	<b>161 591 150</b>	0.147	50	140	14	1/2
25	20	16	<b>161 591 141</b>	<b>161 591 151</b>	0.293	58	157	16	3/4
32	25	16	<b>161 591 142</b>	<b>161 591 152</b>	0.324	68	168	18	1
* 40	32	16	<b>161 591 143</b>	<b>161 591 153</b>	0.562	84	189	20	1 1/4
50	40	16	<b>161 591 144</b>	<b>161 591 154</b>	0.819	97	211	23	1 1/2
63	50	16	<b>161 591 145</b>	<b>161 591 155</b>	1.446	124	245	27	2
* 75	65	16	<b>161 591 146</b>	<b>161 591 156</b>	3.170	166	280	48	2 1/2
* 90	80	16	<b>161 591 147</b>	<b>161 591 157</b>	5.060	200	296	49	3
* 110	100	16	<b>161 591 148</b>	<b>161 591 158</b>	8.170	238	336	54	4

# Process control valves

## Ventilating and bleed valve

### Type 591 PVC-U

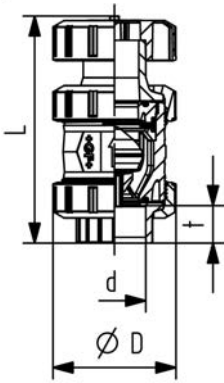
With solvent cement sockets Inch ASTM  
Inclusive 2 threaded valve ends NPT



#### Model:

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

NPT [inch]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]
3/8	10	16	161 591 101	161 591 111	0.147	50	111	19
1/2	15	16	161 591 102	161 591 112	0.147	50	119	23
3/4	20	16	161 591 103	161 591 113	0.303	58	137	25
1	25	16	161 591 104	161 591 114	0.334	68	152	28
1 1/4	32	16	161 591 105	161 591 115	0.562	84	176	31
1 1/2	40	16	161 591 106	161 591 116	0.829	97	193	35
2	50	16	161 591 107	161 591 117	1.436	124	229	38
2 1/2	65	16	161 591 108	161 591 118	3.250	166	258	45
3	80	16	161 591 109	161 591 119	5.100	200	277	48
4	100	16	161 591 110	161 591 120	8.190	238	320	58



## Ventilating valve type 595 PVC-U

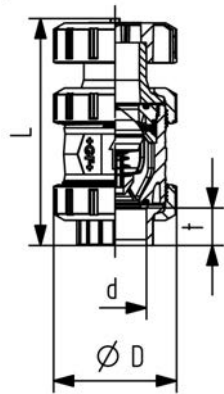
With solvent cement sockets Inch ASTM  
Inclusive 2 threaded valve ends NPT



#### Model:

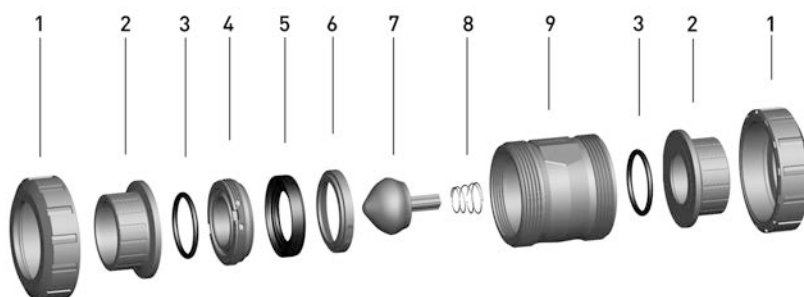
- With protection cap up to DN50 made of PP-GF, DN65-100 made of POM
- Spring loaded, spring made of NIMONIC 90, HALAR coated
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Compact installation length

NPT [inch]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	t [mm]
3/8	10	16	161 595 101	161 595 111	0.147	50	111	19
1/2	15	16	161 595 102	161 595 112	0.147	50	119	23
3/4	20	16	161 595 103	161 595 113	0.303	58	137	25
1	25	16	161 595 104	161 595 114	0.334	68	152	28
1 1/4	32	16	161 595 105	161 595 115	0.562	84	176	31
1 1/2	40	16	161 595 106	161 595 116	0.829	97	193	35
2	50	16	161 595 107	161 595 117	1.436	124	229	38
2 1/2	65	16	161 595 108	161 595 118	3.250	166	258	45
3	80	16	161 595 109	161 595 119	5.100	200	277	48
4	100	16	161 595 110	161 595 120	8.190	238	320	58



# Spare parts cone check valves

## Spare parts cone check valve type 561/562



### Central part without spring

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 485 201	161 485 211	163 485 201	163 485 211	169 485 201
20	1/2	15	161 485 201	161 485 211	163 485 201	163 485 211	169 485 201
25	3/4	20	161 485 202	161 485 212	163 485 202	163 485 212	169 485 202
32	1	25	161 485 203	161 485 213	163 485 203	163 485 213	169 485 203
40	1 1/4	32	161 485 204	161 485 214	163 485 204	163 485 214	169 485 204
50	1 1/2	40	161 485 205	161 485 215	163 485 205	163 485 215	169 485 205
63	2	50	161 485 206	161 485 216	163 485 206	163 485 216	169 485 206
75	2 1/2	65	161 485 207	161 485 217	163 485 207	163 485 217	169 485 207
90	3	80	161 485 208	161 485 218	163 485 208	163 485 218	169 485 208
110	4	100	161 485 209	161 485 219	163 485 209	163 485 219	169 485 209

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 485 201	167 485 211	175 485 211	0.080
20	1/2	15	167 485 201	167 485 211	175 485 211	0.080
25	3/4	20	167 485 202	167 485 212	175 485 212	0.220
32	1	25	167 485 203	167 485 213	175 485 213	0.200
40	1 1/4	32	167 485 204	167 485 214	175 485 214	0.350
50	1 1/2	40	167 485 205	167 485 215	175 485 215	0.520
63	2	50	167 485 206	167 485 216	175 485 216	0.920
75	2 1/2	65	167 485 207	167 485 217	175 485 217	1.130
90	3	80	167 485 208	167 485 218	175 485 218	1.800
110	4	100	167 485 209	167 485 219	175 485 219	2.960



### Central part with spring

#### Model:

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 485 221	161 485 231	163 485 221	163 485 231	169 485 221
20	1/2	15	161 485 221	161 485 231	163 485 221	163 485 231	169 485 221
25	3/4	20	161 485 222	161 485 232	163 485 222	163 485 232	169 485 222
32	1	25	161 485 223	161 485 233	163 485 223	163 485 233	169 485 223
40	1 1/4	32	161 485 224	161 485 234	163 485 224	163 485 234	169 485 224
50	1 1/2	40	161 485 225	161 485 235	163 485 225	163 485 235	169 485 225
63	2	50	161 485 226	161 485 236	163 485 226	163 485 236	169 485 226
75	2 1/2	65	161 485 227	161 485 237	163 485 227	163 485 237	169 485 227
90	3	80	161 485 228	161 485 238	163 485 228	163 485 238	169 485 228
110	4	100	161 485 229	161 485 239	163 485 229	163 485 239	169 485 229

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 485 231	167 485 241	175 485 231	0.050
20	1/2	15	167 485 231	167 485 241	175 485 231	0.050
25	3/4	20	167 485 232	167 485 242	175 485 232	0.130
32	1	25	167 485 233	167 485 243	175 485 233	0.110
40	1 1/4	32	167 485 234	167 485 244	175 485 234	0.190
50	1 1/2	40	167 485 235	167 485 245	175 485 235	0.280
63	2	50	167 485 236	167 485 246	175 485 236	0.510
75	2 1/2	65	167 485 237	167 485 247	175 485 237	1.130
90	3	80	167 485 238	167 485 248	175 485 238	1.800
110	4	100	167 485 239	167 485 249	175 485 239	2.960

## Cone (7)



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PP-Talkum 20% Code
16	3/8	10	161 491 151	163 482 151	169 482 151	167 485 151	167 485 351
20	1/2	15	161 491 151	163 482 151	169 482 151	167 485 151	167 485 351
25	3/4	20	161 491 152	163 482 152	169 482 152	167 485 152	167 485 352
32	1	25	161 491 153	163 482 153	169 482 153	167 485 153	167 485 353
40	1 1/4	32	161 491 154	163 482 154	169 482 154	167 485 154	167 485 354
50	1 1/2	40	161 491 155	163 482 155	169 482 155	167 485 155	167 485 355
63	2	50	161 491 156	163 482 156	169 482 156	167 485 156	167 485 356
75	2 1/2	65	161 491 157	163 482 157	169 482 157	167 485 157	167 485 357
90	3	80	161 491 158	163 482 158	169 482 158	167 485 158	167 485 358
110	4	100	161 491 159	163 482 159	169 482 159	167 485 159	167 485 359

d [mm]	Inch	DN [mm]	PVDF Code	kg
16	3/8	10	175 484 151	0.007
20	1/2	15	175 484 151	0.007
25	3/4	20	175 484 152	0.011
32	1	25	175 484 153	0.024
40	1 1/4	32	175 484 154	0.047
50	1 1/2	40	175 484 155	0.086
63	2	50	175 484 156	0.136
75	2 1/2	65	175 484 157	0.296
90	3	80	175 484 158	0.520
110	4	100	175 484 159	0.860

## Profile seal ring (5)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 436 001	749 436 001	0.005
20	1/2	15	748 436 001	749 436 001	0.005
25	3/4	20	748 436 002	749 436 002	0.006
32	1	25	748 436 003	749 436 003	0.011
40	1 1/4	32	748 436 004	749 436 004	0.016
50	1 1/2	40	748 436 005	749 436 005	0.025
63	2	50	748 436 006	749 436 006	0.048
75	2 1/2	65	748 436 007	749 436 007	0.121
90	3	80	748 436 008	749 436 008	0.177
110	4	100	748 436 009	749 436 009	0.261

## Seal set

### Model:

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

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 485 241	161 485 251	0.009
20	1/2	15	161 485 241	161 485 251	0.009
25	3/4	20	161 485 242	161 485 252	0.010
32	1	25	161 485 243	161 485 253	0.015
40	1 1/4	32	161 485 244	161 485 254	0.020
50	1 1/2	40	161 485 245	161 485 255	0.039
63	2	50	161 485 246	161 485 256	0.052
75	2 1/2	65	161 485 247	161 485 257	0.128
90	3	80	161 485 248	161 485 258	0.184
110	4	100	161 485 249	161 485 259	0.318



### Face seal (3)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.001
20	1/2	15	748 410 059	749 410 059	0.001
25	3/4	20	748 410 106	749 410 106	0.001
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.002
50	1 1/2	40	748 410 003	749 410 003	0.001
63	2	50	748 410 231	749 410 231	0.008
75	2 1/2	65	748 410 119	749 410 119	0.010
90	3	80	748 410 023	749 410 023	0.012
110	4	100	748 410 254	749 410 254	0.030



### Spring (8)

#### Model:

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

d [mm]	Inch	DN [mm]	Stainless steel V2A Code	V2A HALAR coated Code	NIMONIC 90 Code	kg
16	3/8	10	161 485 132	161 485 142	161 485 152	0.001
20	1/2	15	161 485 132	161 485 142	161 485 152	0.001
25	3/4	20	161 485 132	161 485 142	161 485 152	0.001
32	1	25	161 485 133	161 485 143	161 485 153	0.001
40	1 1/4	32	161 485 134	161 485 144	161 485 154	0.002
50	1 1/2	40	161 485 135	161 485 145	161 485 155	0.002
63	2	50	161 485 136	161 485 146	161 485 156	0.003
75	2 1/2	65	161 485 137	161 485 147	161 485 157	0.003
90	3	80	161 485 138	161 485 148	161 485 158	0.004
110	4	100	161 485 139	161 485 149	161 485 159	0.004



DN10/15 - 50

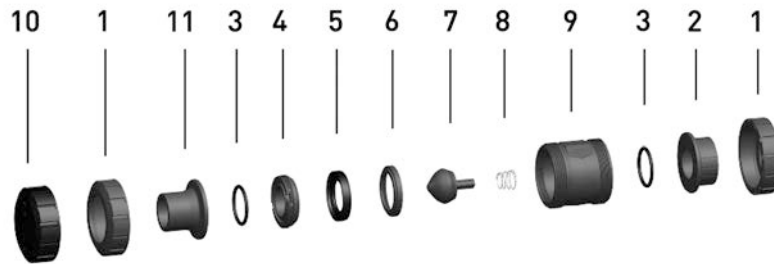


### Handle for dismantling

d [mm]	Inch	DN [mm]	red Code	black Code	kg
16	3/8	10	167 484 088	167 484 076	0.012
20	1/2	15	167 484 088	167 484 076	0.012
25	3/4	20	167 484 089	167 484 077	0.022
32	1	25	167 484 090	167 484 078	0.022
40	1 1/4	32	167 484 091	167 484 079	0.042
50	1 1/2	40	167 484 092	167 484 080	0.042
63	2	50	167 484 093	167 484 081	0.059
75	2 1/2	65	167 484 094	167 484 082	0.250
90	3	80	167 484 095	167 484 083	0.250
110	4	100	167 484 096	167 484 084	0.298

# Spare parts ventilating- and bleed valves

## Spare parts ventilating- and bleed valve type 591/595



### Central part without spring

**Model:**

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

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 485 261	161 485 271	163 485 261	163 485 271	169 485 261
20	1/2	15	161 485 261	161 485 271	163 485 261	163 485 271	169 485 261
25	3/4	20	161 485 262	161 485 272	163 485 262	163 485 272	169 485 262
32	1	25	161 485 263	161 485 273	163 485 263	163 485 273	169 485 263
40	1 1/4	32	161 485 264	161 485 274	163 485 264	163 485 274	169 485 264
50	1 1/2	40	161 485 265	161 485 275	163 485 265	163 485 275	169 485 265
63	2	50	161 485 266	161 485 276	163 485 266	163 485 276	169 485 266
75	2 1/2	65	161 485 267	161 485 277	163 485 267	163 485 277	169 485 267
90	3	80	161 485 268	161 485 278	163 485 268	163 485 278	169 485 268
110	4	100	161 485 269	161 485 279	163 485 269	163 485 279	169 485 269

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 485 261	167 485 271	175 485 271	0.080
20	1/2	15	167 485 261	167 485 271	175 485 271	0.080
25	3/4	20	167 485 262	167 485 272	175 485 272	0.240
32	1	25	167 485 263	167 485 273	175 485 273	0.200
40	1 1/4	32	167 485 264	167 485 274	175 485 274	0.350
50	1 1/2	40	167 485 265	167 485 275	175 485 275	0.520
63	2	50	167 485 266	167 485 276	175 485 276	0.920
75	2 1/2	65	167 485 267	167 485 277	175 485 277	2.060
90	3	80	167 485 268	167 485 278	175 485 278	3.290
110	4	100	167 485 269	167 485 279	175 485 279	5.390



### Central part with spring

**Model:**

- Central body consisting of: housing (9), union bush (4), support ring (6), floater (7), spring Nimonic 90 Halar coated (8), profile seal ring (5) and face seal (3)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 485 281	161 485 291	163 485 281	163 485 291	169 485 281
20	1/2	15	161 485 281	161 485 291	163 485 281	163 485 291	169 485 281
25	3/4	20	161 485 282	161 485 292	163 485 282	163 485 292	169 485 282
32	1	25	161 485 283	161 485 293	163 485 283	163 485 293	169 485 283
40	1 1/4	32	161 485 284	161 485 294	163 485 284	163 485 294	169 485 284
50	1 1/2	40	161 485 285	161 485 295	163 485 285	163 485 295	169 485 285
63	2	50	161 485 286	161 485 296	163 485 286	163 485 296	169 485 286
75	2 1/2	65	161 485 287	161 485 297	163 485 287	163 485 297	169 485 287
90	3	80	161 485 288	161 485 298	163 485 288	163 485 298	169 485 288
110	4	100	161 485 289	161 485 299	163 485 289	163 485 299	169 485 289

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg	
16	3/8	10	167 485 281	167 485 291	175 485 291	0.050	
20	1/2	15	167 485 281	167 485 291	175 485 291	0.050	
25	3/4	20	167 485 282	167 485 292	175 485 292	0.130	
32	1	25	167 485 283	167 485 293	175 485 293	0.110	
40	1 1/4	32	167 485 284	167 485 294	175 485 294	0.190	
50	1 1/2	40	167 485 285	167 485 295	175 485 295	0.280	
63	2	50	167 485 286	167 485 296	175 485 296	0.510	
75	2 1/2	65	167 485 287	167 485 297	175 485 297	1.130	
90	3	80	167 485 288	167 485 298	175 485 298	1.800	
110	4	100	167 485 289	167 485 299	175 485 299	2.960	



## Cone (7)

Model:

- For type 595

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	
16	3/8	10	161 491 151	163 482 151	169 482 151	167 485 151	
20	1/2	15	161 491 151	163 482 151	169 482 151	167 485 151	
25	3/4	20	161 491 152	163 482 152	169 482 152	167 485 152	
32	1	25	161 491 153	163 482 153	169 482 153	167 485 153	
40	1 1/4	32	161 491 154	163 482 154	169 482 154	167 485 154	
50	1 1/2	40	161 491 155	163 482 155	169 482 155	167 485 155	
63	2	50	161 491 156	163 482 156	169 482 156	167 485 156	
75	2 1/2	65	161 491 157	163 482 157	169 482 157	167 485 157	
90	3	80	161 491 158	163 482 158	169 482 158	167 485 158	
110	4	100	161 491 159	163 482 159	169 482 159	167 485 159	

d [mm]	Inch	DN [mm]	PVDF Code	kg	
16	3/8	10	175 484 151	0.007	
20	1/2	15	175 484 151	0.007	
25	3/4	20	175 484 152	0.011	
32	1	25	175 484 153	0.024	
40	1 1/4	32	175 484 154	0.047	
50	1 1/2	40	175 484 155	0.086	
63	2	50	175 484 156	0.136	
75	2 1/2	65	175 484 157	0.296	
90	3	80	175 484 158	0.520	
110	4	100	175 484 159	0.860	



## Floater (7)

Model:

- For type 591

d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code	kg	
16	3/8	10	167 485 151	175 484 161	0.005	
20	1/2	15	167 485 151	175 484 161	0.005	
25	3/4	20	167 485 152	175 484 162	0.008	
32	1	25	167 485 153	175 484 163	0.016	
40	1 1/4	32	167 485 154	175 484 164	0.017	
50	1 1/2	40	167 485 155	175 484 165	0.024	
63	2	50	167 485 156	175 484 166	0.039	
75	2 1/2	65	167 485 157	175 484 167	0.098	
90	3	80	167 485 158	175 484 168	0.162	
110	4	100	167 485 159	175 484 169	0.325	





## Profile seal ring (5)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 436 001	749 436 001	0.005
20	1/2	15	748 436 001	749 436 001	0.005
25	3/4	20	748 436 002	749 436 002	0.006
32	1	25	748 436 003	749 436 003	0.011
40	1 1/4	32	748 436 004	749 436 004	0.016
50	1 1/2	40	748 436 005	749 436 005	0.025
63	2	50	748 436 006	749 436 006	0.048
75	2 1/2	65	748 436 007	749 436 007	0.121
90	3	80	748 436 008	749 436 008	0.177
110	4	100	748 436 009	749 436 009	0.261



## Protective cap (10)

### Model:

- Protects the piping system from dirt particles out of the ambient air  
Can also be used as tool for opening and closing the valve union bushing

d [mm]	Inch	DN [mm]	PP-GF Code	kg
16	3/8	10	167 485 361	0.017
20	1/2	15	167 485 361	0.017
25	3/4	20	167 485 362	0.023
32	1	25	167 485 363	0.034
40	1 1/4	32	167 485 364	0.052
50	1 1/2	40	167 485 365	0.069
63	2	50	167 485 366	0.103



## Seal set

### Model:

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

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 485 241	161 485 251	0.009
20	1/2	15	161 485 241	161 485 251	0.009
25	3/4	20	161 485 242	161 485 252	0.010
32	1	25	161 485 243	161 485 253	0.015
40	1 1/4	32	161 485 244	161 485 254	0.020
50	1 1/2	40	161 485 245	161 485 255	0.039
63	2	50	161 485 246	161 485 256	0.052
75	2 1/2	65	161 485 247	161 485 257	0.128
90	3	80	161 485 248	161 485 258	0.184
110	4	100	161 485 249	161 485 259	0.318



## Face seal (3)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.001
20	1/2	15	748 410 059	749 410 059	0.001
25	3/4	20	748 410 106	749 410 106	0.001
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.002
50	1 1/2	40	748 410 003	749 410 003	0.001
63	2	50	748 410 231	749 410 231	0.008
75	2 1/2	65	748 410 119	749 410 119	0.010
90	3	80	748 410 023	749 410 023	0.012
110	4	100	748 410 254	749 410 254	0.030



## Spring (8)

### Model:

- Material: V2A, code: 1.4310, HALAR® coated

d [mm]	Inch	DN [mm]	NIMONIC 90 HALAR coated Code	kg
16	3/8	10	<b>161 485 112</b>	0.001
20	1/2	15	<b>161 485 112</b>	0.001
25	3/4	20	<b>161 485 112</b>	0.001
32	1	25	<b>161 485 113</b>	0.001
40	1 1/4	32	<b>161 485 114</b>	0.002
50	1 1/2	40	<b>161 485 115</b>	0.002
63	2	50	<b>161 485 116</b>	0.003
75	2 1/2	65	<b>161 485 117</b>	0.003
90	3	80	<b>161 485 118</b>	0.004
110	4	100	<b>161 485 119</b>	0.004



DN10/15 - 50

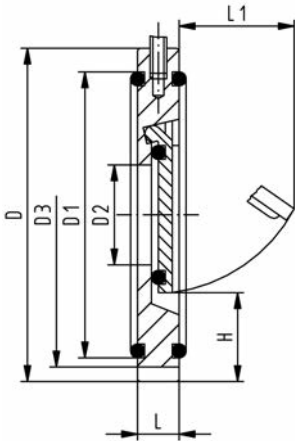


## Handle for dismantling

d [mm]	Inch	DN [mm]	red Code	black Code	kg
16	3/8	10	<b>167 484 088</b>	<b>167 484 076</b>	0.012
20	1/2	15	<b>167 484 088</b>	<b>167 484 076</b>	0.012
25	3/4	20	<b>167 484 089</b>	<b>167 484 077</b>	0.022
32	1	25	<b>167 484 090</b>	<b>167 484 078</b>	0.022
40	1 1/4	32	<b>167 484 091</b>	<b>167 484 079</b>	0.042
50	1 1/2	40	<b>167 484 092</b>	<b>167 484 080</b>	0.042
63	2	50	<b>167 484 093</b>	<b>167 484 081</b>	0.059
75	2 1/2	65	<b>167 484 094</b>	<b>167 484 082</b>	0.250
90	3	80	<b>167 484 095</b>	<b>167 484 083</b>	0.250
110	4	100	<b>167 484 096</b>	<b>167 484 084</b>	0.298

# Wafer check valves metric

## Wafer check valve type 369 PVC-U Without spring



### Model:

- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- The using of PVC-U pipe PN16 is only possible up to d63
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	kg
40	32	1 ¼	6	161 369 002	161 369 022	0.108
50	40	1 ½	10	161 369 003	161 369 023	0.202
63	50	2	10	161 369 004	161 369 024	0.277
75	65	2 ½	10	161 369 005	161 369 025	0.386
90	80	3	10	161 369 006	161 369 026	0.591
110	100	4	10	161 369 007	161 369 027	0.667
140	125	5	10	161 369 009	161 369 029	0.856
160	150	6	6	161 369 010	161 369 030	1.207
225	200	8	6	161 369 011	161 369 031	2.306
280	250	10	6	161 369 012	161 369 032	3.915
315	300	12	6	161 369 013	161 369 033	5.300

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure horizontal [mbar]	Minimum water column for sealing [m]
40	85	59	18	85	15	22	25	10	1	2.0
50	105	74	22	95	16	27	27	10	1	2.0
63	124	90	32	109	18	40	29	10	1	2.0
75	137	110	40	129	20	55	31	10	1	2.0
90	175	130	54	144	20	67	32	10	1	2.0
110	175	150	70	164	23	67	31	10	1	2.0
140	195	178	92	195	23	94	35	10	1	2.0
160	222	192	105	220	26	100	41	10	1	2.0
225	279	256	154	275	35	152	38	18	1	2.0
280	340	306	192	330	40	180	41	18	1	2.0
315	410	342	227	380	45	215	41	18	1	2.0



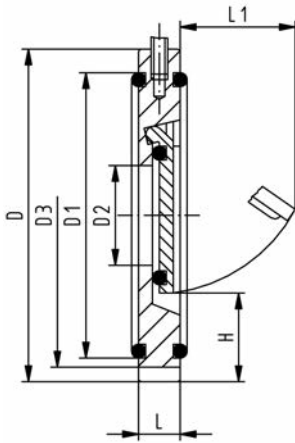
## Wafer check valve type 369 PVC-U With V4A spring (stainless steel 316)

### Model:

- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- The using of PVC-U pipe PN16 is only possible up to d63



d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	kg
40	32	1 ¼	6	161 369 042	161 369 062	0.107
50	40	1 ½	10	161 369 043	161 369 063	0.206
63	50	2	10	161 369 044	161 369 064	0.250
75	65	2 ½	10	161 369 045	161 369 065	0.320
90	80	3	10	161 369 046	161 369 066	0.390
110	100	4	10	161 369 047	161 369 067	0.684
140	125	5	10	161 369 049	161 369 069	0.750
160	150	6	6	161 369 050	161 369 070	1.100
225	200	8	6	161 369 051	161 369 071	2.100
280	250	10	6	161 369 052	161 369 072	3.500
315	300	12	6	161 369 053	161 369 073	5.300

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure horizontal [mbar]	Minimum water column for sealing [m]
40	85	59	18	85	15	22	25	30	20	2.0
50	105	74	22	95	16	27	27	30	20	2.0
63	124	90	32	109	18	40	29	30	20	2.0
75	137	110	40	129	20	55	31	30	20	2.0
90	175	125	54	144	20	67	32	30	20	2.0
110	175	150	70	164	23	67	31	30	20	2.0
140	195	178	92	195	23	94	35	30	20	2.0
160	222	192	105	220	26	100	41	30	20	2.0
225	279	256	154	275	35	152	38	38	20	2.0
280	340	306	192	330	40	180	41	38	20	2.0
315	410	342	227	380	45	215	41	38	20	2.0



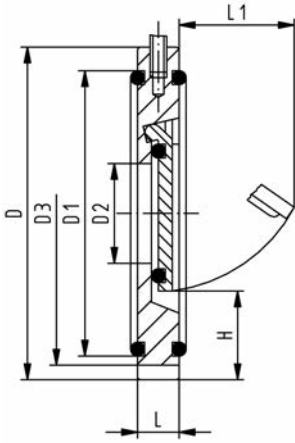
## Wafer check valve type 369 PVC-U With Hastelloy C spring

### Model:

- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### Installation instruction:

- Installation between ISO/DIN (all dimensions) and ANSI flange adaptors (all except DN32 and DN125)
- Installation with ANSI flange adaptor: for wafer check valves DN40 to DN80 you have to use ANSI flange adaptors with the next bigger dimension (example DN40 wafer check valve between DN50 ANSI flange adaptor)
- Centering by body diameter (ISO/DIN by D3, ANSI by D)
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- The using of PVC-U pipe PN16 is only possible up to d63

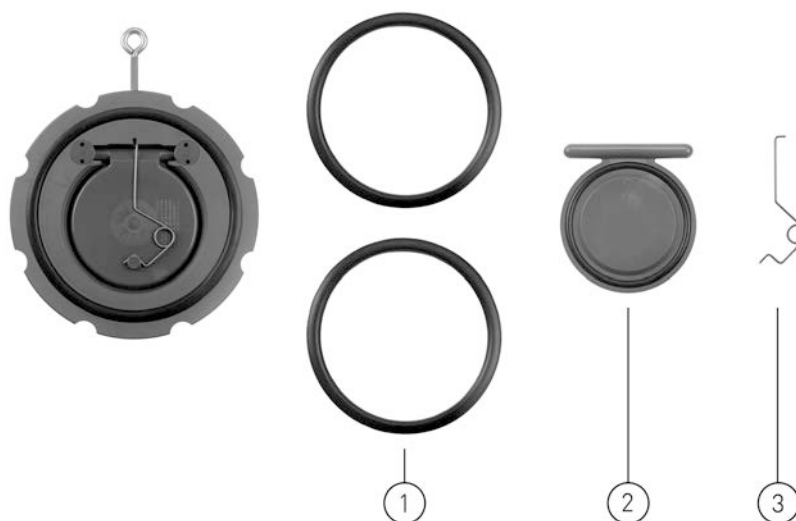


d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	kg
40	32	1 ¼	6	161 369 082	161 369 102	0.130
50	40	1 ½	10	161 369 083	161 369 103	0.160
63	50	2	10	161 369 084	161 369 104	0.277
75	65	2 ½	10	161 369 085	161 369 105	0.320
90	80	3	10	161 369 086	161 369 106	0.390
110	100	4	10	161 369 087	161 369 107	0.550
140	125	5	10	161 369 089	161 369 109	0.750
160	150	6	6	161 369 090	161 369 110	1.100
225	200	8	6	161 369 091	161 369 111	2.100
280	250	10	6	161 369 092	161 369 112	3.500
315	300	12	6	161 369 093	161 369 113	5.300

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	H [mm]	Opening pressure vertical [mbar]	Opening pressure horizontal [mbar]	Minimum water column for sealing [m]
40	85	59	18	85	15	22	25	30	20	2.0
50	105	74	22	95	16	27	27	30	20	2.0
63	124	90	32	109	18	40	29	30	20	2.0
75	137	110	40	129	20	55	31	30	20	2.0
90	175	125	54	144	20	67	32	30	20	2.0
110	175	150	70	164	23	67	31	30	20	2.0
140	195	178	92	195	23	94	35	30	20	2.0
160	222	192	105	220	26	100	41	30	20	2.0
225	279	256	154	275	35	152	38	38	20	2.0
280	340	306	192	330	40	180	41	38	20	2.0
315	410	342	227	380	45	215	41	38	20	2.0

# Spare parts wafer check valves

## Spare parts wafer check valve type 369



### Seal set (1)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
40	1 ¼	32	161 484 875	161 484 887	0.025
50	1 ½	40	161 484 876	161 484 888	0.030
63	2	50	161 484 877	161 484 889	0.045
75	2 ½	65	161 484 878	161 484 890	0.012
90	3	80	161 484 879	161 484 891	0.040
110	4	100	161 484 880	161 484 892	0.018
140	5	125	161 484 881	161 484 893	0.033
160	6	150	161 484 882	161 484 894	0.034
225	8	200	161 484 883	161 484 895	0.040
280	10	250	161 484 884	161 484 896	0.069
315	12	300	161 484 885	161 484 897	0.071

### Disc set (2)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	kg
40	1 ¼	32	161 369 122	161 369 142	0.005
50	1 ½	40	161 369 123	161 369 143	0.009
63	2	50	161 369 124	161 369 144	0.018
75	2 ½	65	161 369 125	161 369 145	0.036
90	3	80	161 369 126	161 369 146	0.047
110	4	100	161 369 127	161 369 147	0.098
140	5	125	161 369 128	161 369 148	0.142
160	6	150	161 369 129	161 369 149	0.217
225	8	200	161 369 130	161 369 150	0.525
280	10	250	161 369 131	161 369 151	0.927
315	12	300	161 369 132	161 369 152	1.287

### Spring (3)



d [mm]	Inch	DN [mm]	V4A Code	Hastelloy C Code	kg
40	1 ¼	32	161 484 900	161 484 912	0.100
50	1 ½	40	161 484 901	161 484 913	0.001
63	2	50	161 484 902	161 484 914	0.002
75	2 ½	65	161 484 903	161 484 915	0.011
90	3	80	161 484 904	161 484 916	0.001
110	4	100	161 484 905	161 484 917	0.005

table continued next page

<b>d</b> [mm]	<b>Inch</b>	<b>DN</b> [mm]	<b>V4A</b> <b>Code</b>	<b>Hastelloy C</b> <b>Code</b>	<b>kg</b>	
140	5	125	<b>161 484 905</b>	<b>161 484 917</b>	0.005	
160	6	150	<b>161 484 907</b>	<b>161 484 919</b>	0.002	
225	8	200	<b>161 484 908</b>	<b>161 484 920</b>	0.023	
280	10	250	<b>161 484 909</b>	<b>161 484 921</b>	0.032	
315	12	300	<b>161 484 910</b>	<b>161 484 922</b>	0.035	



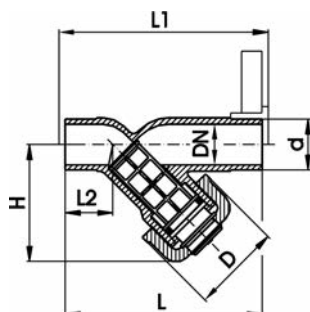
# Strainers



## Line strainer type 305 PVC-U With solvent cement spigots metric

### Model:

- Protects valves, pumps, etc. from becoming soiled
- Easy dismantling for cleaning the screens
- **Screen perforation need be ordered separately**
- Overall length according to EN 558
- supplied with 0.8mm screen in the UK



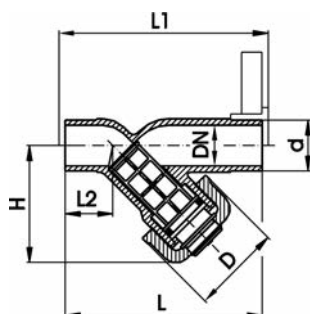
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	closest inch
20	15	10	161 305 300	161 305 349	0.134	43	124	130	28	65	1/2
25	20	10	161 305 350	161 305 399	0.215	47	144	150	37	76	3/4
32	25	10	161 305 400	161 305 449	0.257	56	154	160	37	90	1
40	32	10	161 305 450	161 305 499	0.386	64	174	180	44	104	1 1/4
50	40	10	161 305 500	161 305 549	0.632	82	194	200	48	124	1 1/2
63	50	10	161 305 550	161 305 599	1.045	95	224	230	60	148	2
75	65	10	161 305 600	161 305 649	1.871	106	284	290	74	188	2 1/2
90	80	10	161 305 650	161 305 699	2.585	120	300	310	85	205	3



## Line strainer type 305 PVC-U Transparent body with solvent cement spigots metric

### Model:

- Protects valves, pumps, etc. from becoming soiled
- Easy dismantling for cleaning the screens
- **Screen perforation need be ordered separately**
- Overall length according to EN 558
- supplied with 0.8mm screen in the UK



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	closest inch
20	15	10	192 305 300	192 305 349	0.100	43	124	130	28	65	1/2
25	20	10	192 305 350	192 305 399	0.170	47	144	150	37	76	3/4
32	25	10	192 305 400	192 305 449	0.227	56	154	160	37	90	1
40	32	10	192 305 450	192 305 499	0.346	64	174	180	44	104	1 1/4
50	40	10	192 305 500	192 305 549	0.594	82	194	200	48	124	1 1/2
63	50	10	192 305 550	192 305 599	0.972	95	224	230	60	148	2
75	65	10	192 305 600	192 305 649	1.838	106	284	290	74	188	2 1/2
90	80	10	192 305 650	192 305 699	2.565	120	300	310	85	205	3



## Cylindrical screen type 305 PVC-U Screen perforations 0.5 mm

- For line strainers Type 305

d [mm]	Inch	DN [mm]	kv-value (Δp=1 bar) [l/min]	Code	kg	D [mm]	L [mm]
20	1/2	15	35	161 305 339	0.001	14	39
25	3/4	20	65	161 305 389	0.007	18	48
32	1	25	90	161 305 439	0.003	24	60
40	1 1/4	32	155	161 305 489	0.004	30	71
50	1 1/2	40	225	161 305 539	0.007	38	87
63	2	50	370	161 305 589	0.009	48	106
75	2 1/2	65	575	161 305 639	0.012	61	100
90	3	80	955	161 305 689	0.016	73	118



## Cylindrical screen type 305 PVC-U Screen perforations 0.8 mm

- For line strainers Type 305

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	closest inch
20	15	35	<b>161 305 338</b>	0.005	14	39	1/2
25	20	65	<b>161 305 388</b>	0.007	18	48	3/4
32	25	90	<b>161 305 438</b>	0.003	24	60	1
40	32	155	<b>161 305 488</b>	0.004	30	71	1 1/4
50	40	225	<b>161 305 538</b>	0.006	38	87	1 1/2
63	50	370	<b>161 305 588</b>	0.003	48	106	2
75	65	575	<b>161 305 638</b>	0.012	61	100	2 1/2
90	80	955	<b>161 305 688</b>	0.015	73	118	3



## Cylindrical screen type 305 PVC-U Screen perforations 1.4 mm

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	closest inch
20	15	35	<b>161 305 337</b>	0.001	14	39	1/2
25	20	65	<b>161 305 387</b>	0.003	18	48	3/4
32	25	90	<b>161 305 437</b>	0.003	24	60	1
40	32	155	<b>161 305 487</b>	0.004	30	71	1 1/4
50	40	225	<b>161 305 537</b>	0.005	38	87	1 1/2
63	50	370	<b>161 305 587</b>	0.008	48	106	2
75	65	575	<b>161 305 637</b>	0.011	61	100	2 1/2
90	80	955	<b>161 305 687</b>	0.013	73	118	3



## Cylindrical screen type 305 PVC-U Screen perforations 2.2 mm

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	closest inch
20	15	35	<b>161 305 336</b>	0.005	14	39	1/2
25	20	65	<b>161 305 386</b>	0.003	18	48	3/4
32	25	90	<b>161 305 436</b>	0.003	24	60	1
40	32	155	<b>161 305 486</b>	0.003	30	71	1 1/4
50	40	225	<b>161 305 536</b>	0.005	38	87	1 1/2
63	50	370	<b>161 305 586</b>	0.008	48	106	2
75	65	575	<b>161 305 636</b>	0.009	61	100	2 1/2
90	80	955	<b>161 305 686</b>	0.013	73	118	3



## Screen stainless steel Screen perforation 0.5 mm

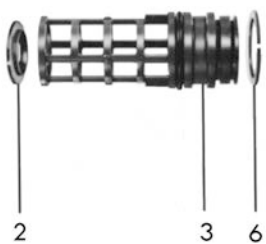
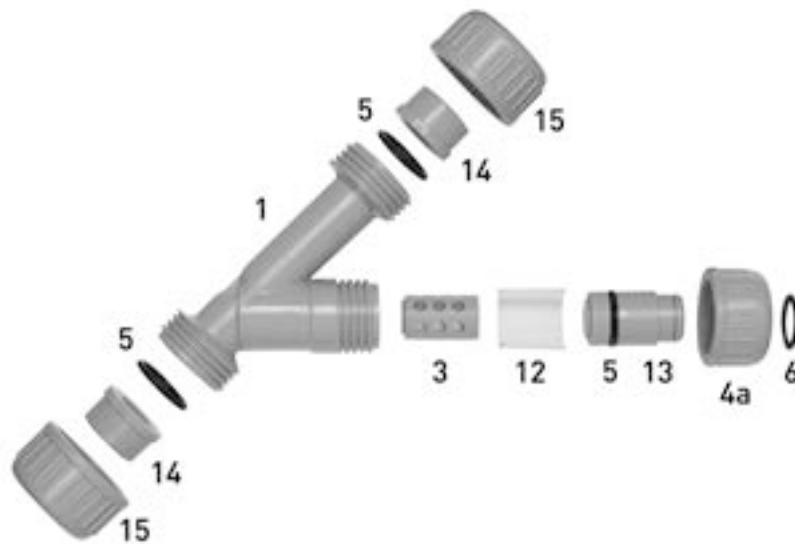
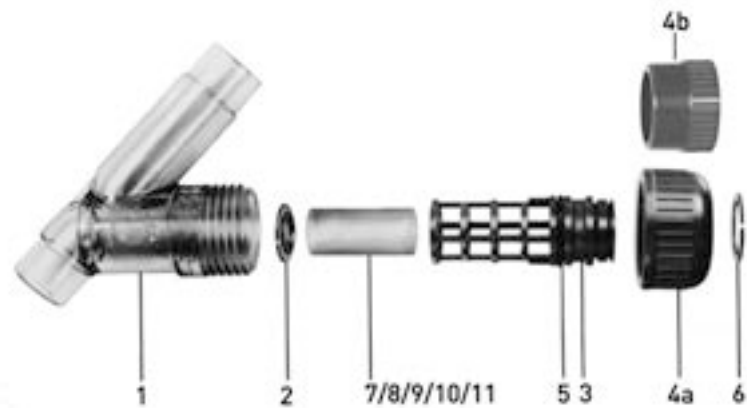
### Model:

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

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	closest inch
20	15	35	<b>161 486 100</b>	0.002	14	39	1/2
25	20	60	<b>161 486 101</b>	0.004	18	48	3/4
32	25	85	<b>161 486 102</b>	0.006	24	60	1
40	32	130	<b>161 486 103</b>	0.008	30	71	1 1/4
50	40	200	<b>161 486 104</b>	0.014	38	87	1 1/2
63	50	330	<b>161 486 105</b>	0.019	48	106	2
75	65	460	<b>161 486 106</b>	0.026	61	100	2 1/2
90	80	665	<b>161 486 107</b>	0.034	73	118	3

# Spare parts line strainer

## Spare parts line strainer type 305/306



### Screen set

#### Model:

- Screen set PVC-U and PVC-C DN15-DN50 consisting of: screen (3), screen support ring (2) and circlip (6), PVC-U DN65-DN80: screen (3) and screen support ring (2).  
PP-H DN15-DN50: screen basket compl. with screen (3) and circlip (6)

d [mm]	Inch	DN [mm]	PVC-U Code	kg	
20	½	15	<b>161 483 126</b>	0.110	
25	¾	20	<b>161 483 127</b>	0.070	
32	1	25	<b>161 483 128</b>	0.255	
40	1 ¼	32	<b>161 483 129</b>	0.135	
50	1 ½	40	<b>161 483 130</b>	0.140	
63	2	50	<b>161 483 131</b>	0.140	
75	2 ½	65	<b>161 483 132</b>	0.320	
90	3	80	<b>161 483 133</b>	0.384	



## Body (1)

d [mm]	Inch	DN [mm]	PVC-U transparent Code	PVC-U transparent ASTM Code	kg
20	1/2	15	192 300 301	192 480 001	0.066
25	3/4	20	192 300 351	192 480 002	0.095
32	1	25	192 300 401	192 301 401	0.185
40	1 1/4	32	192 300 451	192 301 451	0.256
50	1 1/2	40	192 300 501	192 301 501	0.401
63	2	50	192 300 551	192 301 551	0.657
75	2 1/2	65	192 300 601		1.305
90	3	80	192 300 651		1.920



## Screen cage (3)

Model:

- Screen cage in PVC-U, PVC-C and PP-H



d [mm]	Inch	DN [mm]	PVC-U Code	kg
20	1/2	15	161 305 303	0.018
25	3/4	20	161 305 353	0.025
32	1	25	161 305 403	0.035
40	1 1/4	32	161 305 453	0.055
50	1 1/2	40	161 305 503	0.088
63	2	50	161 305 553	0.132
75	2 1/2	65	161 305 603	0.309
90	3	80	161 305 653	0.372



## Valve nut (4a/15)

Model:

- Union nut PVC-U DN15-DN50, PP-H

d [mm]	Inch	DN [mm]	Cap nut PVC-U (4a) Code	kg
20	1/2	15	161 300 308	0.015
25	3/4	20	161 300 358	0.022
32	1	25	161 300 408	0.039
40	1 1/4	32	161 300 458	0.047
50	1 1/2	40	161 300 508	0.085
63	2	50	161 300 558	0.132



## Body seal (5)

Model:

- Body seal vor PVC-U and PP-H

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
20	1/2	15	748 410 006	749 410 006	0.001
25	3/4	20	748 410 001	749 410 001	0.002
32	1	25	748 410 007	749 410 007	0.002
40	1 1/4	32	748 410 002	749 410 002	0.003
50	1 1/2	40	748 410 003	749 410 003	0.001
63	2	50	748 410 012	749 410 012	0.008
75	2 1/2	65	748 410 013	749 410 013	0.011
90	3	80	748 410 014	749 410 014	0.012



## Screen perforation (7-11)

d [mm]	Inch	DN [mm]	PVC-U 0.5mm (7) Code	PVC-U 0.8mm (8) Code	PVC-U 1.4mm (9) Code
20	1/2	15	<b>161 305 339</b>	<b>161 305 338</b>	<b>161 305 337</b>
25	3/4	20	<b>161 305 389</b>	<b>161 305 388</b>	<b>161 305 387</b>
32	1	25	<b>161 305 439</b>	<b>161 305 438</b>	<b>161 305 437</b>
40	1 1/4	32	<b>161 305 489</b>	<b>161 305 488</b>	<b>161 305 487</b>
50	1 1/2	40	<b>161 305 539</b>	<b>161 305 538</b>	<b>161 305 537</b>
63	2	50	<b>161 305 589</b>	<b>161 305 588</b>	<b>161 305 587</b>
75	2 1/2	65	<b>161 305 639</b>	<b>161 305 638</b>	<b>161 305 637</b>
90	3	80	<b>161 305 689</b>	<b>161 305 688</b>	<b>161 305 687</b>

d [mm]	Inch	DN [mm]	PVC-U 2.2mm (10) Code	stainless steel 0.5mm AISI 316 (11) Code	kg
20	1/2	15	<b>161 305 336</b>	<b>161 486 100</b>	0.002
25	3/4	20	<b>161 305 386</b>	<b>161 486 101</b>	0.004
32	1	25	<b>161 305 436</b>	<b>161 486 102</b>	0.006
40	1 1/4	32	<b>161 305 486</b>	<b>161 486 103</b>	0.008
50	1 1/2	40	<b>161 305 536</b>	<b>161 486 104</b>	0.014
63	2	50	<b>161 305 586</b>	<b>161 486 105</b>	0.019
75	2 1/2	65	<b>161 305 636</b>	<b>161 486 106</b>	0.026
90	3	80	<b>161 305 686</b>	<b>161 486 107</b>	0.034



## Plug (4b)

### Model:

- Only for PVC-U DN65-DN80

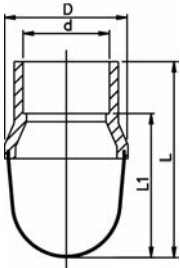
d [mm]	Inch	DN [mm]	PVC-U Code	kg
75	2 1/2	65	<b>161 305 604</b>	0.200
90	3	80	<b>161 305 654</b>	0.265

# Screen assemblies and Inspection glass

## Screen assembly type 050 PVC-U With solvent cement sockets metric



DN 15 - 50



DN 15-50

d [mm]	DN [mm]	Inch	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	L1 [mm]	perforations $\emptyset$ [mm]
20	15	1/2	105	<b>161 050 026</b>	0.035	50	80	64	2
25	20	3/4	228	<b>161 050 027</b>	0.039	50	83	64	2
32	25	1	390	<b>161 050 028</b>	0.046	50	86	64	2
40	32	1 1/4	563	<b>161 050 029</b>	0.147	90	131	105	2
50	40	1 1/2	813	<b>161 050 030</b>	0.172	90	136	105	2
63	50	2	1590	<b>161 050 031</b>	0.192	90	143	105	2

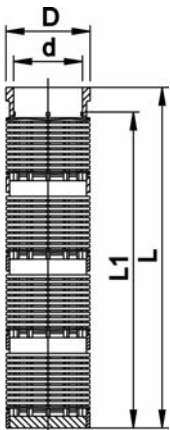
## Screen assembly type 050 PVC-U With solvent cement sockets metric

### Model:

- <sup>1</sup> Screen with 1 extension and end plate, solvent cemented
- <sup>2</sup> Screen with 2 extensions and end plate, solvent cemented
- <sup>3</sup> Screen with 3 extensions and end plate, solvent cemented



DN65-100



DN 65-100

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	L1 [mm]	lamina width [mm]	closest inch
<sup>1</sup> 75	65	9640	<b>161 050 032</b>	0.837	110	260	216	2.5	2 1/2
<sup>2</sup> 90	80	14790	<b>161 050 033</b>	0.944	110	345	312	2.5	3
<sup>3</sup> 110	100	15213	<b>161 050 034</b>	1.338	125	490	460	2.5	4



DN65-100

## Screen assembly type 050 PVC-U With solvent cement sockets BS/ASTM

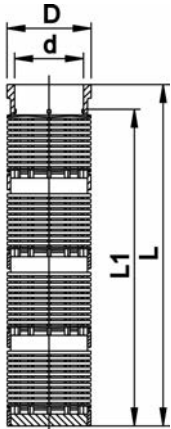
### Model:

- Modular extensions can be lengthened as required
- <sup>2</sup> Screen with 2 extensions and end plate, solvent cemented

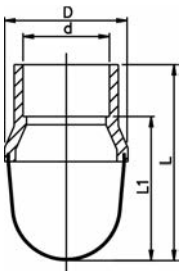
Inch	d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	
3	90	80	14790	<b>161 050 053</b>	0.930	

Inch	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	lamina width [mm]
3	110	312	345	90	103	2.5



DN 65-100



DN 15-50

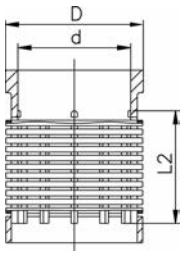
## Screen assembly type 050 PVC-U Complete with barrel nipple metric/ASTM

Inch	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	kg	D [mm]	L [mm]	L1 [mm]	perforations $\varnothing$ [mm]
1/2	15	105	<b>161 050 186</b>	0.045	50	64	80	2
3/4	20	228	<b>161 050 187</b>	0.041	50	64	83	2
1	25	390	<b>161 050 188</b>	0.073	50	64	86	2
1 1/4	32	563	<b>161 050 189</b>	0.145	90	105	131	2
1 1/2	40	813	<b>161 050 190</b>	0.228	90	105	136	2
2	50	1590	<b>161 050 191</b>	0.319	90	105	143	2





## Screen type 050 PVC-U With solvent cement sockets metric

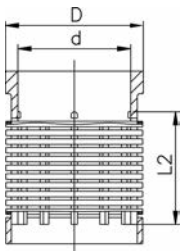


Inch	d [mm]	DN [mm]	Code	kg	D [mm]	L2 [mm]	lamina width [mm]
2 1/2	75	65	<b>161 090 024</b>	0.447	110	90	
3	90	80	<b>161 090 002</b>	0.303	110	90	3
4	110	100	<b>161 090 003</b>	0.469	125	135	3



## Screen type 050 PVC-U With solvent cement sockets BS/ASTM

- For Screen Assemblies Type 050, PVC-U, DN 65-100

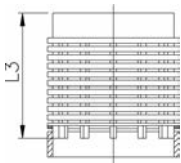


d [mm]	Inch	DN [mm]	Code	kg	D [mm]	L2 [mm]	lamina width [mm]
75	2 1/2	65	<b>161 090 024</b>	0.447	110	90	2.5
90	3	80	<b>161 090 016</b>	0.300	110	90	2.5
110	4	100	<b>161 090 017</b>	0.440	125	135	2.5



## Extention type 050 PVC-U

- For Screen Assemblies Type 050, PVC-U, DN 65-100

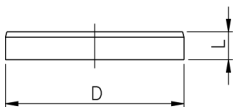


d-d [mm]	DN-DN [mm]	Inch	Code	kg	L3 [mm]
75 - 110	65 - 100	2 1/2 - 4	<b>161 090 019</b>	0.249	103

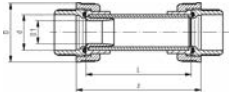


## Plate type 050 PVC-U

- For Screen Assemblies Type 050, PVC-U, DN 65-100



d-d [mm]	DN-DN [mm]	Inch	Code	kg	D [mm]	L [mm]
75 - 110	65 - 100	2 1/2 - 4	<b>161 090 018</b>	0.155	100	16



## Inspection glass type 001 PVC-U

### Model:

- For visual inspection of the medium in the pipeline
- For horizontal or vertical installation

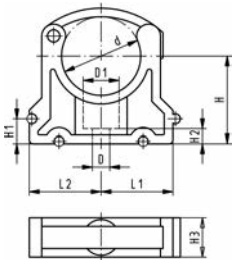
d [mm]	DN [mm]	PN	EPDM Code	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	closest inch
50	40	10	<b>199 001 240</b>	0.567	178	83	29	150	1 ½

# Pipe Clips metric

## KLIP-IT pipe clip type 061H PP metric

**Model:**

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- **Minimum order quantity: standard packagings SP**
- d16 - d63: height designed for Ball Valve Type 546 und 543
- \* d16 to d32 without bracket



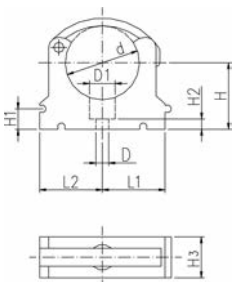
d [mm]	Code	SP	kg
* 16	<b>167 061 035</b>	1	0.007
* 20	<b>167 061 036</b>	1	0.007
* 25	<b>167 061 037</b>	10	0.009
* 32	<b>167 061 038</b>	10	0.012
40	<b>167 061 039</b>	10	0.027
50	<b>167 061 040</b>	10	0.031
63	<b>167 061 041</b>	10	0.052

d [mm]	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	HoH +/- 2mm [mm]	SC	closest inch
* 16	6	11	14	17	27	10	6	16	17.0	M5	3/8
* 20	6	11	17	19	27	10	6	16	21.4	M5	1/2
* 25	6	11	19	22	30	10	6	16	26.9	M5	3/4
* 32	6	11	24	27	36	10	6	16	36.7	M5	1
40	7	14	34	34	44	10	7	22	44.4	M6	1 1/4
50	7	14	37	37	51	10	7	22	52.3	M6	1 1/2
63	9	17	45	45	64	10	10	25	66.7	M8	2

## KLIP-IT Pipe Clips Type 061, PP metric

**Model:**

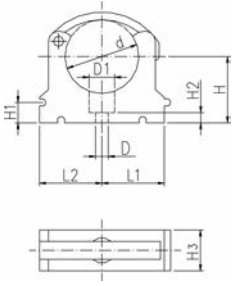
- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- d16 - d63: Height designed for Ball Valve Type 546 and 543
- **Minimum order quantity: standard packagings SP**



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

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

table continued next page



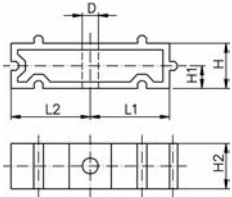
d [mm]	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	closest inch
110	9	17	79	79	75	10	10	28	M8	4
125	9	17	88	88	90	10	10	32	M8	
140	9	17	98	98	110	10	10	32	M8	5
160	9	17	109	109	108	10	10	32	M8	6



## KLIP-IT spacer type 061 PP

### Model:

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



d [mm]	Inch [inch]	Code	SP	kg
10 - 12	1/8 - 1/4	<b>167 061 153</b>	10	0.003
16	3/8	<b>167 061 155</b>	10	0.005
20	1/2	<b>167 061 156</b>	10	0.005
25	3/4	<b>167 061 157</b>	10	0.007
32	1	<b>167 061 158</b>	10	0.006
40	1 1/4	<b>167 061 159</b>	10	0.015
50	1 1/2	<b>167 061 160</b>	10	0.017
63	2	<b>167 061 161</b>	10	0.020
75	2 1/2	<b>167 061 162</b>	10	0.027
90	3	<b>167 061 163</b>	10	0.039
110	4	<b>167 061 164</b>	10	0.048
125	4 1/2	<b>167 061 165</b>	10	0.059
140	5	<b>167 061 166</b>	10	0.065
160	6	<b>167 061 167</b>	10	0.071

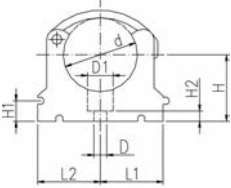
d [mm]	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	HoH +/- 2mm [mm]	SC
10 - 12	5	11	14	20	10	12	1.0	M4
16	6	14	17	20	10	16	17.0	M5
20	6	17	19	20	10	16	21.4	M5
25	6	19	22	20	10	16	26.9	M5
32	6	24	27	20	10	16	36.7	M5
40	7	34	34	20	10	22	44.4	M6
50	7	37	37	20	10	22	52.3	M6
63	9	45	45	20	10	25	66.7	M8
75	9	52	52	20	10	25	81.2	M8
90	9	65	65	20	10	28	100.0	M8
110	9	79	79	20	10	28	127.3	M8
125	9	88	88	20	10	32	142.9	M8
140	9	98	98	20	10	32	161.4	M8
160	9	109	109	20	10	32	185.1	M8



## KLIP-IT pipe clip type 061 PE metric

### Model:

- Material: Clip PE and safety clip PP black, bolts galvanized
- **Minimum order quantity: standard packaging SP**
- Height not designed for ball valve 546 and 543. Please use spacer 73 06 11.



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

d [mm]	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	HoH +/- 2mm [mm]	SC
* 10	5	8	11	14	20	10	6	12	1.0	M4
* 12	5	8	11	14	21	10	6	12	1.0	M5
* 16	6	11	14	17	23	10	6	16	17.0	M5
* 20	6	11	17	19	25	10	6	16	21.4	M5
* 25	6	11	19	22	28	10	6	16	26.9	M5
* 32	6	11	24	27	31	10	6	16	36.7	M5
40	7	14	34	34	35	10	7	22	44.4	M6
50	7	14	37	37	40	10	7	22	52.3	M6
63	9	17	45	45	52	10	10	25	66.7	M8
75	9	17	52	52	58	10	10	25	81.2	M8
90	9	17	65	65	65	10	10	28	100.0	M8
110	9	17	79	79	75	10	10	28	127.3	M8
125	9	17	88	88	90	10	10	32	142.9	M8
140	9	17	98	98	110	10	10	32	161.4	M8
160	9	17	109	109	108	10	10	32	185.1	M8

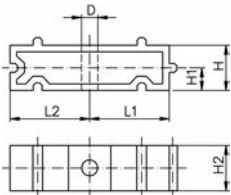
## 73 06 11



## KLIP-IT spacer type 061 PE

### Model:

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



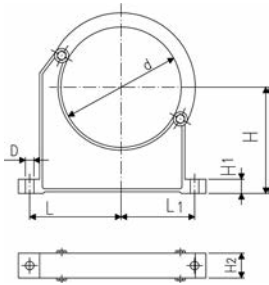
d [mm]	Inch	Code	SP	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
16	1/8-1/4	<b>173 061 153</b>	10	0.003	5	11	14	20	10	12	M4
20	3/8	<b>173 061 155</b>	10	0.005	6	14	17	20	10	16	M5
25	1/2	<b>173 061 156</b>	10	0.005	6	17	19	20	10	16	M5
32	3/4	<b>173 061 157</b>	10	0.006	6	19	22	20	10	16	M5
40	1	<b>173 061 158</b>	10	0.008	6	24	27	20	10	16	M5
50	1 1/4	<b>173 061 159</b>	10	0.016	7	34	34	20	10	22	M6
63	1 1/2	<b>173 061 160</b>	10	0.017	7	37	37	20	10	22	M6
75	2	<b>173 061 161</b>	10	0.025	9	45	45	20	10	25	M8
90	2 1/2	<b>173 061 162</b>	10	0.027	9	52	52	20	10	25	M8
110	3	<b>173 061 163</b>	10	0.040	9	65	65	20	10	28	M8
125	4	<b>173 061 164</b>	10	0.050	9	79	79	20	10	28	M8
140	4 1/2	<b>173 061 165</b>	10	0.059	9	88	88	20	10	32	M8
160	5	<b>173 061 166</b>	10	0.065	9	98	98	20	10	32	M8
	6	<b>173 061 167</b>	10	0.078	9	109	109	20	10	32	M8



## Pipe clip type 060 PP metric

### Model:

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



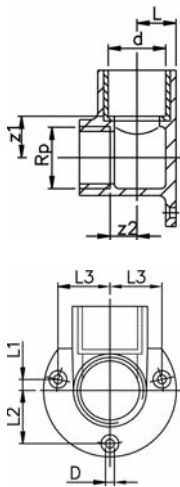
d [mm]	d [inch]	Code	SP	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	closest inch
90	3	<b>167 060 038</b>	10	0.144	9	89	71	105	15	33	M 8	3
110		<b>167 060 039</b>	10	0.158	9	94	80	115	15	33	M 8	4
125		<b>167 060 040</b>	10	0.249	11	116	91	130	20	35	M10	
140	5	<b>167 060 041</b>	10	0.260	11	121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

## 60 1002

## Wall Mounting Brackets, Brass/PVC-U

### Model:

- Brass, with parallel female thread Rp and PVC-U solvent socket insert metric



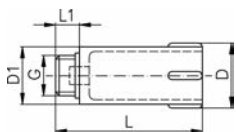
d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
# 16	3/8	16	<b>160 100 250</b>	10	0.252	21	9	5	14	6	19	18
20	1/2	16	<b>160 100 300</b>	5	0.278	22	9	5	16	6	19	18
25	3/4	16	<b>160 100 350</b>	5	0.258	25	11	5	17	5	24	23

## 9 150 000

## Wall Inlet Plugs, PVC-U

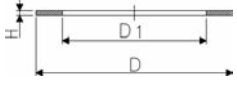
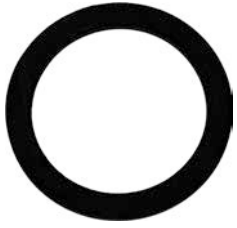
### Model:

- Gasket: flat gasket Code No. 748 400 001, EPDM
- Use: for all fittings with parallel female thread in accordance with ISO 7
- The wall inlet plug has a parallel male thread G



G [inch]	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]
1/2	<b>799 150 003</b>	10	0.044	39	32	87	11

48 40 00



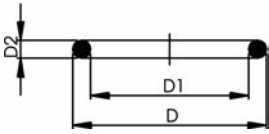
## Flat Gaskets

G [inch]	EPDM Code	SP	kg	D [mm]	D1 [mm]	H [mm]	
1/2	748 400 001	100	0.002	28	22	3	



# Seals

EPDM 48 41 00  
FPM 49 41 00



## O-Ring gasket

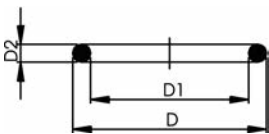
### Model:

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

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

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch
10 - 12	8	748 410 004	749 410 004	-	0.001	18	12	2.62	¼
16	10	748 410 005	749 410 005	-	0.001	21	16	2.62	⅜
20	15	748 410 006	749 410 006	-	0.001	27	20	3.53	½
25	20	748 410 007	749 410 007	100	0.002	35	28	3.53	¾
32	25	748 410 008	749 410 008	100	0.002	40	33	3.53	1
40	32	748 410 009	749 410 009	-	0.007	51	41	5.34	1 ¼
50	40	748 410 010	749 410 010	-	0.060	58	47	5.34	1 ½
63	50	748 410 011	749 410 011	100	0.003	70	60	5.34	2
75	65	748 410 014	749 410 014	100	0.012	93	82	5.34	2 ½
90	80	748 410 015	749 410 015	100	0.015	112	101	5.34	3
110	100	748 410 016	749 410 016	50	0.031	134	120	6.99	4

EPDM 48 41 01  
FPM 49 41 01



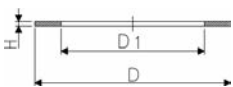
## O-Ring gasket

### Model:

- For Flange Adaptors
- Hardness approx. 65° Shore

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	closest inch
16	10	748 410 000	749 410 000	-	0.005	26	19	3.53	⅜
20	15	748 410 001	749 410 001	100	0.002	31	23	3.53	½
25	20	748 410 007	749 410 007	100	0.002	35	28	3.53	¾
32	25	748 410 002	749 410 002	100	0.003	43	36	3.53	1
40	32	748 410 003	749 410 003	-	0.001	55	44	5.34	1 ¼
50	40	748 410 012	749 410 012	100	0.008	64	53	5.34	1 ½
63	50	748 410 013	749 410 013	100	0.011	80	69	5.34	2
75	65	748 410 014	749 410 014	100	0.012	93	82	5.34	2 ½
90	80	748 410 015	749 410 015	100	0.015	112	101	5.34	3
110	100	748 410 016	749 410 016	50	0.031	134	120	6.99	4
125	100	748 410 017	749 410 017	200	0.036	150	136	6.99	
140	125	748 410 018	749 410 018	200	0.039	166	152	6.99	5
160	150	748 410 019	749 410 019	200	0.044	191	177	6.99	6
200	200	748 410 163	749 410 163	-	0.048	236	222	6.99	8
225	200	748 410 022	749 410 022	150	0.060	255	241	6.99	8
250	250	748 410 182	749 410 182	-	0.066	280	266	6.99	9
280	250	748 410 173	749 410 173	-	0.076	306	292	6.99	10
315	300	748 410 174	749 410 174	-	0.083	356	342	6.99	12

EPDM 48 40 00  
FPM 49 40 00



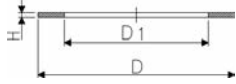
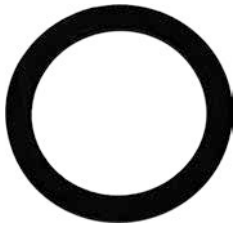
## Flat gasket

### Model:

- Hardness approx. 65° Shore
- For adaptor unions

Inch	D [mm]	D1 [mm]	H [mm]	EPDM Code	FPM Code	kg
¼	20	13	2	748 400 004	-	0.001
⅜	24	17	2	748 400 005	749 400 005	0.001
½	30	21	3	748 400 006	749 400 006	0.003
¾	38	27	3	748 400 007	749 400 007	0.004
1	44	32	3	748 400 008	749 400 008	0.002
1 ¼	55	42	3	748 400 009	749 400 009	0.003
1 ½	62	46	3	748 400 010	749 400 010	0.007
2	78	60	3	748 400 011	749 400 011	0.006
2 ½	97	75	3	748 400 012	749 400 012	0.009
3	109	88	3	748 400 013	749 400 013	0.011

## EPDM 48 40 02



## Flat gasket

### Model:

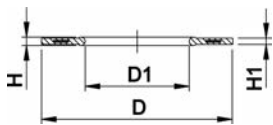
- Hardness approx. 65° Shore
- For tap connectors No. 21 55 03

### Attention:

- For tap connector d16 - 1/2": 748 400 030
- For tap connector d20 - 3/4": 748 400 005
- For tap connector d25 - 1": 748 400 006

EPDM Code	SP	kg	D [mm]	D1 [mm]	H [mm]
748 400 030	-	0.001	18	14	2
748 400 005	1	0.001			
748 400 006	1	0.001			

## EPDM 48 44 07 FPM 49 44 07



## Profile flange gasket metric

### Model:

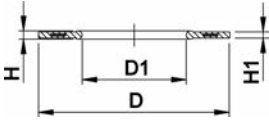
- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	16	748 440 705	749 440 705	0.012
20	15	16	748 440 706	749 440 706	0.013
25	20	16	748 440 707	749 440 707	0.014
32	25	16	748 440 708	749 440 708	0.019
40	32	16	748 440 709	749 440 709	0.026
50	40	16	748 440 710	749 440 710	0.039
63	50	16	748 440 711	749 440 711	0.050
75	65	16	748 440 712	749 440 712	0.082
90	80	16	748 440 713	749 440 713	0.083
110	100	16	748 440 714	749 440 714	0.127
125	100	16	748 440 715	749 440 715	0.105
140	125	16	748 440 716	749 440 716	0.173
160 / 180	150	16	748 440 717	749 440 717	0.207
200	200	16	748 440 719	749 440 719	0.263
225	200	16	748 440 720	749 440 720	0.255
250	250	16	748 440 721	749 440 721	0.482
280	250	16	748 440 722	749 440 722	0.323
315	300	16	748 440 723	749 440 723	0.549
355	350	16	748 440 724	749 440 724	0.870
400	400	16	748 440 725	749 440 725	1.088
450	500	16	748 440 726	749 440 726	0.718
500	500	16	748 440 727	749 440 727	0.718
560	600	16	748 440 728	749 440 728	0.923
630	600	16	748 440 729	749 440 729	0.923

d [mm]	DN [mm]	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]	Closest inch
16	10	46	16	4	3	6 - 16	
20	15	51	20	4	3	10 - 20	
25	20	61	22	4	3	12 - 22	
32	25	71	28	4	3	18 - 28	
40	32	82	40	4	3	30 - 40	
50	40	92	46	4	3	36 - 46	
63	50	107	58	5	4	48 - 58	
75	65	127	69	5	4	59 - 69	
90	80	142	84	5	4	73 - 84	
110	100	162	104	6	5	94 - 104	
125	100	162	123	6	5	113 - 123	
140	125	192	137	6	5	127 - 137	
160 / 180	150	218	160	8	6	150 - 160	6
200	200	273	203	8	6	192 - 203	
225	200	273	220	8	6	207 - 220	8 - 9
250	250	328	252	8	6	238 - 252	

table continued next page



<b>d</b> [mm]	<b>DN</b> [mm]	<b>D</b> [mm]	<b>D1</b> [mm]	<b>H</b> [mm]	<b>H1</b> [mm]	<b>di FA</b> [mm]	<b>Closest inch</b>
280	250	328	274	8	6	264 - 274	
315	300	378	306	8	6	296 - 306	
355	350	438	355	10	7	340 - 355	
400	400	489	400	10	7	385 - 400	
450	500	594	403	10	7	393 - 403	
500	500	594	447	10	7	437 - 447	
560	600	695	494	10	7	484 - 494	
630	600	695	555	10	7	545 - 555	

## Solvent Cements and Tools

99 29 80



### Tangit solvent cement for PVC-U

- Tin à 0.25 and 0.5 kg (Net)

Code	SP	kg	Description
799 298 000	-	0.125	tube: 0.125 kg
799 298 001	12	0.310	tin: 0.25 kg
799 298 002	-	0.590	tin: 0.50 kg
799 298 003	6	1.000	tin: 1.00 kg

99 29 80



### Tangit Cleaner

**Model:**

- For PVC-U, PVC-C, ABS
- 1 litre tin

Code	kg
799 298 010	0.868

99 29 80



### Tangit Dytex special solvent cement

**Model:**

- For PVC-U, PVC-C
- Tin à 675g
- Special solving cement, transparent
- For concentrated acids and strong oxidizing agents the use of Dytex is recommended

Code	SP	kg
799 298 016	6	0.668



### Tangit Dytex solvent/cleaner

**Model:**

- For PVC-U, PVC-C
- Tin à 500ml

Code	SP	kg
799 298 017	1	0.675

99 29 80



### Cap for cement

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

Code	kg
799 298 028	0.030

99 29 90



## Round brush

d-d [mm]		Code	kg	Closest inch	
6 - 10	4 mm (for Fittings 6-10mm)	<b>799 299 001</b>	0.004	- 1/8	
12 - 32	8 mm (for Fittings 12-32mm)	<b>799 299 002</b>	0.006	1/4 - 1	

99 29 90



## Flat Brushes

d-d [mm]		Code	kg	Closest inch	
40 - 63	25x3 mm (for Fittings 40-63mm)	<b>799 299 003</b>	0.015	1 1/4 - 2	
75 - 225	50x5 mm (for Fittings 75-225mm)	<b>799 299 004</b>	0.035	2 1/2 - 8	
250 - 400	75x6 mm (for Fittings 250-400mm)	<b>799 299 005</b>	0.053	9 - 16	

90 10 90



## Replacement cutting wheels

- for plastic pipe cutter

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



## Chamfering Tool

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

## Cutter for Chamfering Tool

Size	d-d [mm]	Code	SP	kg
1+2	16 - 250	<b>708 402 217</b>	-	0.009

# One system - many options

Georg Fischer presents the new 567/568 type series of butterfly valves with a comprehensive range of products and a multitude of interesting combination possibilities. We can offer you, for example, manual valves with hand lever or reduction gear. The program also includes pneumatically or electrically actuated valves from DN50 to DN200.

Our system's modular design principle allows you to exchange individual system components – fast, easily and at very little expense. You also have a choice of materials: PVC-U, PVC-C, ABS, or  $\beta$ -PP-H and PVDF. Our standard sealing materials are EPDM and FPM, but other materials are available on request.

All the customary installation pipe standards are supplied:

- metric: DIN, EN, ISO
- inch: BS, ASTM
- JIS (only wafer-type valves)

With this wide range of products to choose from you can always be sure of having the best possible solution for your application. The new butterfly valves type 567/568 from Georg Fischer Piping Systems conform to the following international standards:

prEN ISO 16136  
Industrial valves – butterfly valves in thermoplastic materials ISO9393  
Thermoplastic valves – pressure test methods and requirements EN558  
Face-to-face length of butterfly valves corresponds to EN558  
Approvals pending:  
DIBt, NSF61, TA Luft



**Standard Lug-type butterfly valve/ end installation**  
Type 568

**Standard Wafer-type butterfly valve**  
Type 567

**Butterfly valve with fine adjustment**

**Butterfly valve with reduction gear**

**Butterfly valve with pneumatic actuator – single acting**

**Butterfly valve with pneumatic actuator – double acting; optional manual override**

**Butterfly valve with electric actuator; optional manual override and electric position indicator**

# Ball valves electric metric

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



DN10/15 - 50

### Model:

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

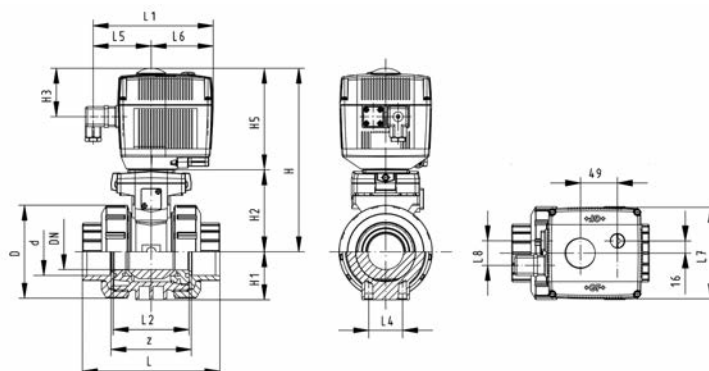
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 002	199 107 012	2.072
20	15	10	185	199 107 003	199 107 013	2.072
25	20	10	350	199 107 004	199 107 014	2.232
32	25	10	700	199 107 005	199 107 015	2.189
40	32	10	1000	199 107 006	199 107 016	2.592
50	40	10	1600	199 107 007	199 107 017	2.914
63	50	10	3100	199 107 008	199 107 018	2.914

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







DN10/15 - 50

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

### Model:

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

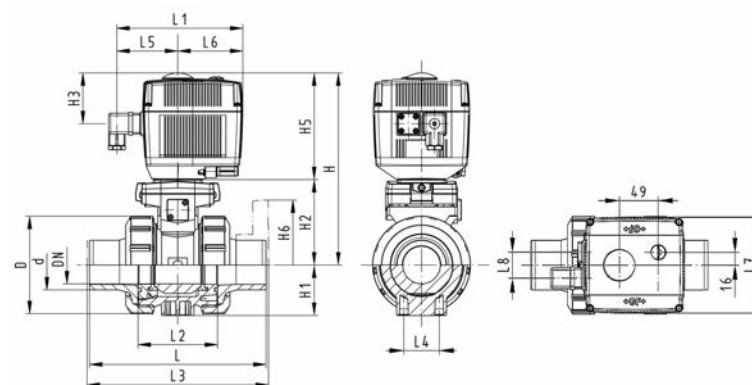
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 022	199 107 032	2.072
20	15	10	185	199 107 023	199 107 033	2.072
25	20	10	350	199 107 024	199 107 034	2.189
32	25	10	700	199 107 025	199 107 035	2.189
40	32	10	1000	199 107 026	199 107 036	2.592
50	40	10	1600	199 107 027	199 107 037	2.914
63	50	10	3100	199 107 028	199 107 038	3.772

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

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





DN10/15 - 50

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

### Model:

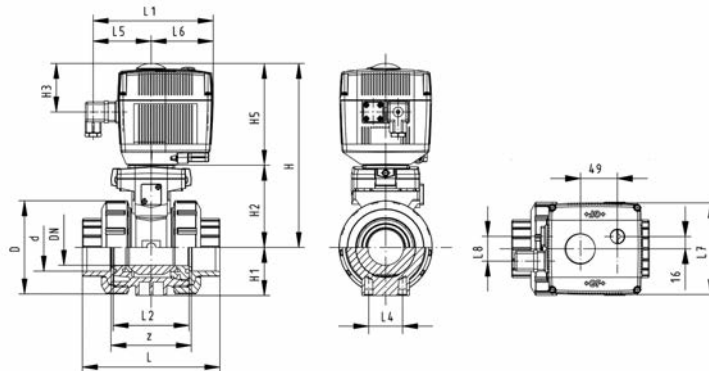
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 107 622	199 107 632	2.100
1/2	15	10	185	199 107 623	199 107 633	2.100
3/4	20	10	350	199 107 624	199 107 634	2.200
1	25	10	700	199 107 625	199 107 635	2.300
1 1/4	32	10	1000	199 107 626	199 107 636	2.600
1 1/2	40	10	1600	199 107 627	199 107 637	3.000
2	50	10	3100	199 107 628	199 107 638	3.800

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





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

### Model:

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

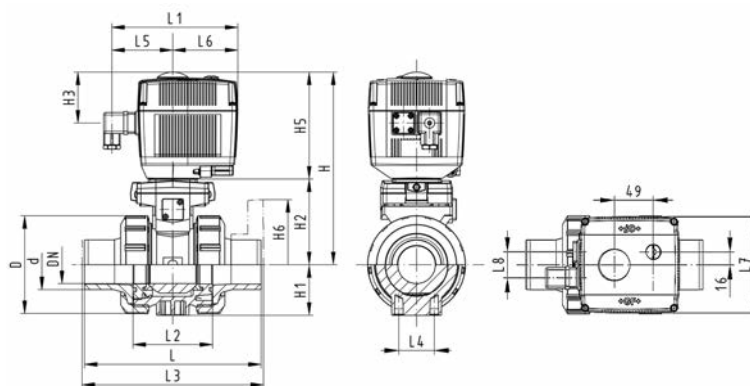
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	<b>199 107 603</b>	<b>199 107 613</b>	2.300
25	20	¾	10	350	<b>199 107 604</b>	<b>199 107 614</b>	2.500
32	25	1	10	700	<b>199 107 605</b>	<b>199 107 615</b>	2.700
40	32	1 ¼	10	1000	<b>199 107 606</b>	<b>199 107 616</b>	3.200
50	40	1 ½	10	1600	<b>199 107 607</b>	<b>199 107 617</b>	3.700
63	50	2	10	3100	<b>199 107 608</b>	<b>199 107 618</b>	4.776

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

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





DN10/15 - 50

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

### Model:

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

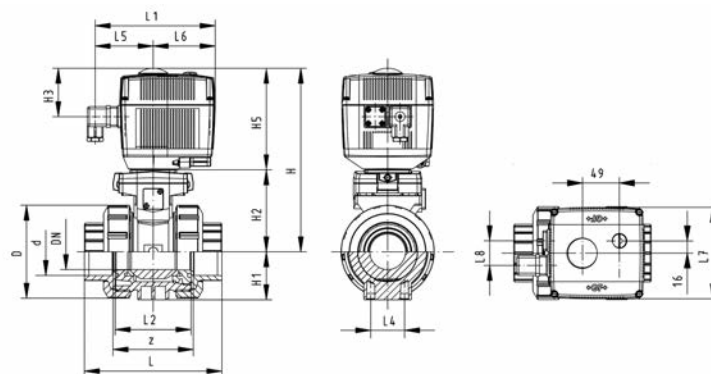
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 042	199 107 052	2.072
20	15	10	185	199 107 043	199 107 053	2.125
25	20	10	350	199 107 044	199 107 054	2.860
32	25	10	700	199 107 045	199 107 055	2.189
40	32	10	1000	199 107 046	199 107 056	2.592
50	40	10	1600	199 107 047	199 107 057	3.437
63	50	10	3100	199 107 048	199 107 058	3.772

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





DN10/15 - 50

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

### Model:

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

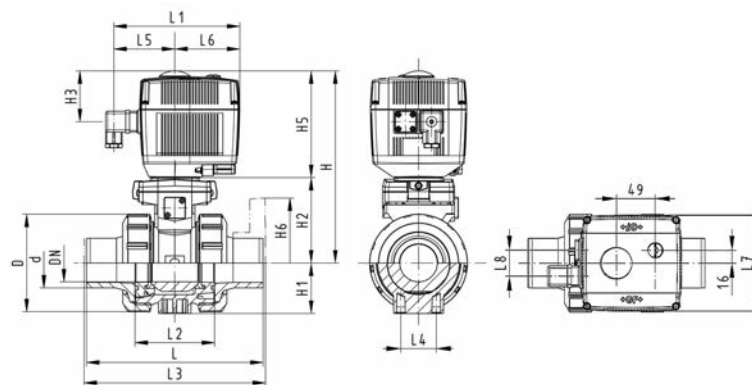
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 062	199 107 072	2.072
20	15	10	185	199 107 063	199 107 073	1.830
25	20	10	350	199 107 064	199 107 074	2.189
32	25	10	700	199 107 065	199 107 075	2.189
40	32	10	1000	199 107 066	199 107 076	2.592
50	40	10	1600	199 107 067	199 107 077	2.914
63	50	10	3100	199 107 068	199 107 078	3.772

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

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





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

### Model:

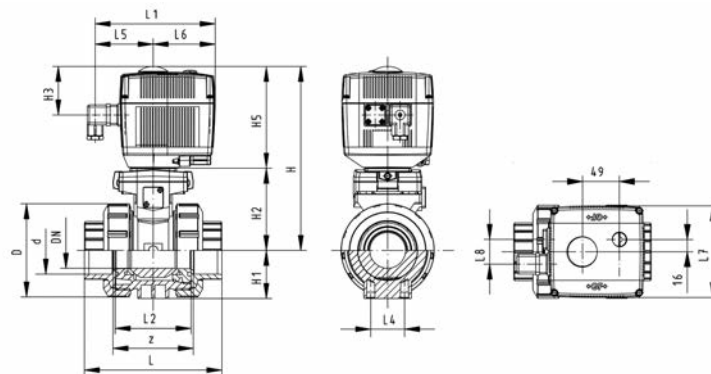
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 107 662	199 107 672	2.100
1/2	15	10	185	199 107 663	199 107 673	2.100
3/4	20	10	350	199 107 664	199 107 674	2.200
1	25	10	700	199 107 665	199 107 675	2.300
1 1/4	32	10	1000	199 107 666	199 107 676	2.600
1 1/2	40	10	1600	199 107 667	199 107 677	3.000
2	50	10	3100	199 107 668	199 107 678	3.800

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





DN10/15 - 50

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

### Model:

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

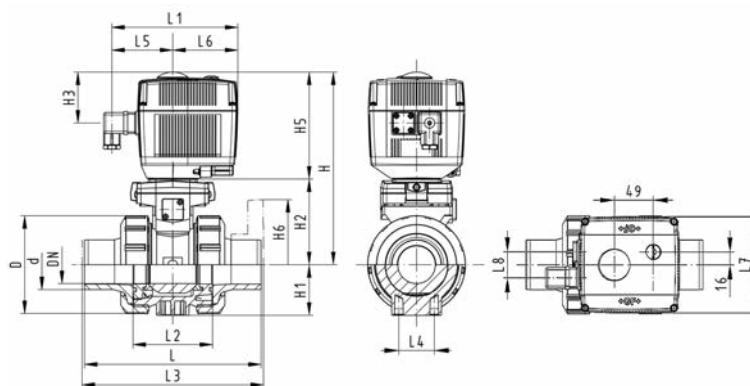
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 107 643</b>	<b>199 107 653</b>	2.300
25	20	3/4	10	350	<b>199 107 644</b>	<b>199 107 654</b>	2.500
32	25	1	10	700	<b>199 107 645</b>	<b>199 107 655</b>	2.700
40	32	1 1/4	10	1000	<b>199 107 646</b>	<b>199 107 656</b>	3.200
50	40	1 1/2	10	1600	<b>199 107 647</b>	<b>199 107 657</b>	3.700
63	50	2	10	3100	<b>199 107 648</b>	<b>199 107 658</b>	4.800

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

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







DN10/15 - 50



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

### Model:

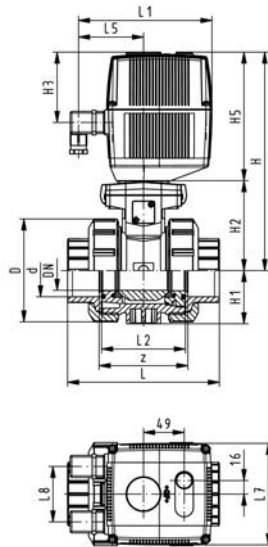
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

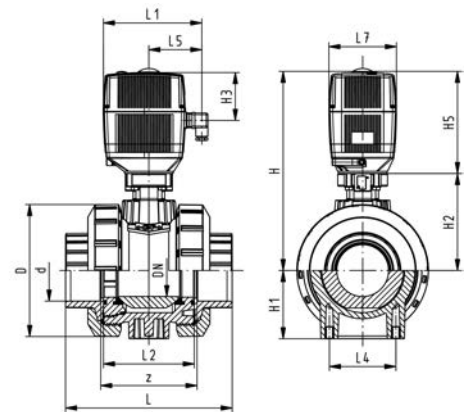
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 130 002	199 130 012	2.100
20	15	10	185	199 130 003	199 130 013	2.100
25	20	10	350	199 130 004	199 130 014	2.200
32	25	10	700	199 130 005	199 130 015	2.300
40	32	10	1000	199 130 006	199 130 016	2.600
50	40	10	1600	199 130 007	199 130 017	3.168
63	50	10	3100	199 130 008	199 130 018	3.800
75	65	10	5000	199 130 009	199 130 019	7.400
90	80	10	7000	199 130 010	199 130 020	9.800
110	100	10	11000	199 130 011	199 130 021	14.100

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]	closest inch
16	50	231	27	64	94	167	92	180	56	25	97	122	64	3/8
20	50	231	27	64	94	167	95	180	56	25	97	122	64	1/2
25	58	240	30	73	94	167	110	180	65	25	97	122	72	3/4
32	68	240	36	73	94	167	123	180	71	25	97	122	79	1
40	84	251	44	84	94	167	146	180	85	45	97	122	94	1 1/4
50	97	251	51	84	94	167	157	180	89	45	97	122	95	1 1/2
63	124	273	64	106	94	167	183	180	101	45	97	122	107	2
75	166	346	85	156	94	190	233	180	136	70	98	122	144	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	151	3
110	238	365	123	175	94	190	301	180	164	120	98	122	174	4



DN10/15-50



DN65-100



DN10/15 - 50



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

### Model:

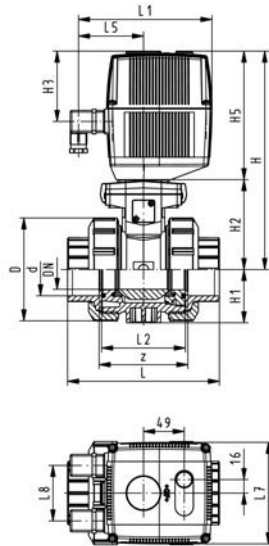
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

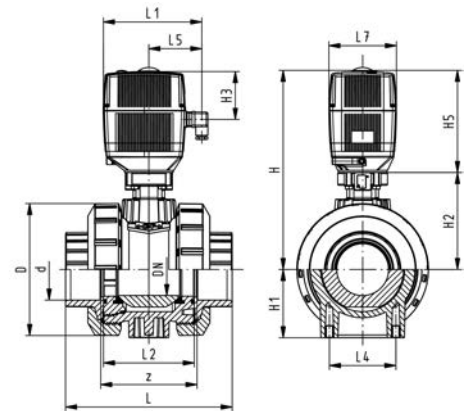
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
3/8	10	10	70	<b>199 130 122</b>	<b>199 130 132</b>	2.100	
1/2	15	10	185	<b>199 130 123</b>	<b>199 130 133</b>	2.100	
3/4	20	10	350	<b>199 130 124</b>	<b>199 130 134</b>	2.200	
1	25	10	700	<b>199 130 125</b>	<b>199 130 135</b>	2.300	
1 1/4	32	10	1000	<b>199 130 126</b>	<b>199 130 136</b>	2.600	
1 1/2	40	10	1600	<b>199 130 127</b>	<b>199 130 137</b>	3.000	
2	50	10	3100	<b>199 130 128</b>	<b>199 130 138</b>	3.800	
2 1/2	65	10	5000	<b>199 130 129</b>	<b>199 130 139</b>	7.400	
3	80	10	7000	<b>199 130 130</b>	<b>199 130 140</b>	9.900	
4	100	10	11000	<b>199 130 131</b>	<b>199 130 141</b>	14.100	

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



DN10/15-50



DN65-100



DN10/15 - 50



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

### Model:

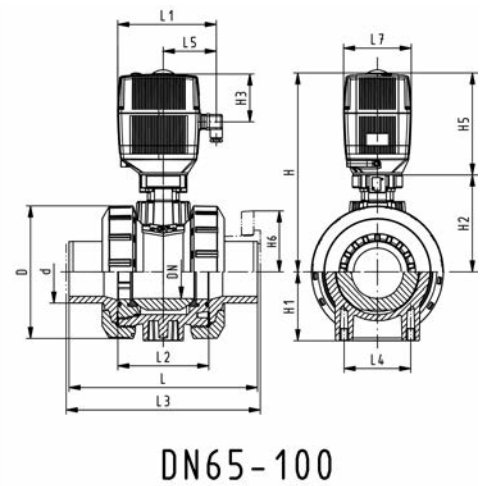
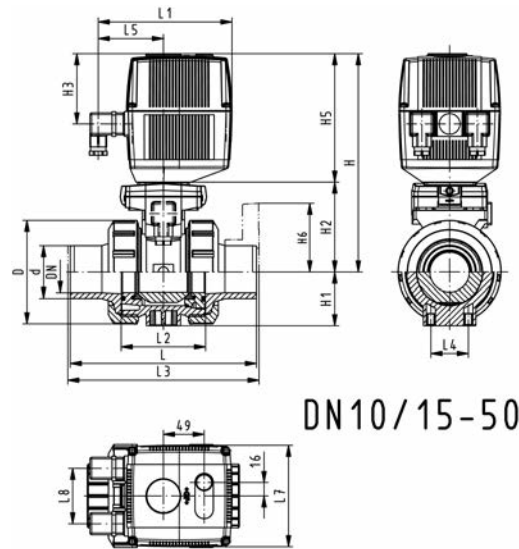
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 130 022	199 130 032	2.100
20	15	10	185	199 130 023	199 130 033	2.100
25	20	10	350	199 130 024	199 130 034	2.200
32	25	10	700	199 130 025	199 130 035	2.300
40	32	10	1000	199 130 026	199 130 036	2.600
50	40	10	1600	199 130 027	199 130 037	3.000
63	50	10	3100	199 130 028	199 130 038	3.800
75	65	10	5000	199 130 029	199 130 039	7.500
90	80	10	7000	199 130 030	199 130 040	10.000
110	100	10	11000	199 130 031	199 130 041	14.300

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





DN10/15 - 50

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

### Model:

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

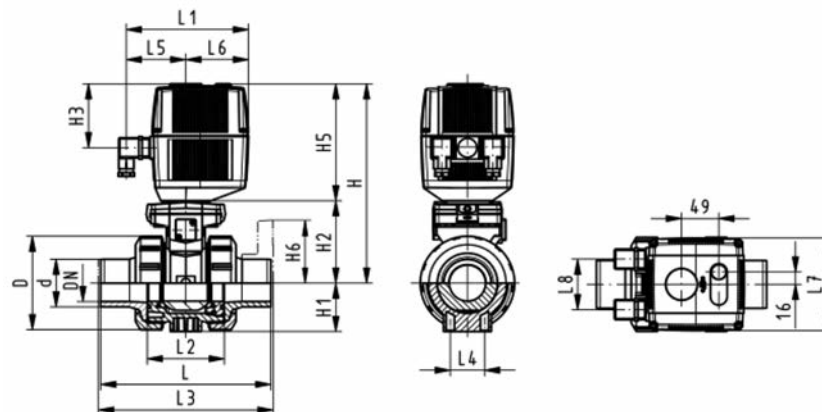
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 130 103	199 130 113	2.300
25	20	¾	10	350	199 130 104	199 130 114	2.500
32	25	1	10	700	199 130 105	199 130 115	2.700
40	32	1 ¼	10	1000	199 130 106	199 130 116	3.200
50	40	1 ½	10	1600	199 130 107	199 130 117	3.948
63	50	2	10	3100	199 130 108	199 130 118	5.020

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

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





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

### Model:

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

### Option:

- Individual configuration of the valve (see diagram)

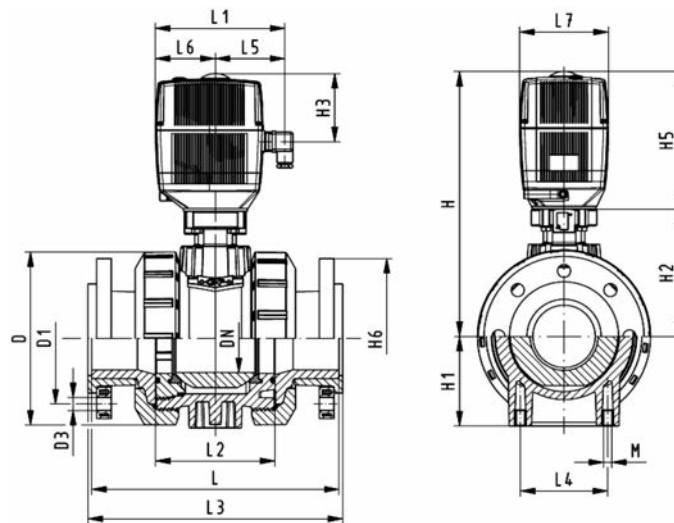
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg										
75	65	10	5000	199 134 349	199 134 359	11.500										
90	80	10	7000	199 134 350	199 134 360	14.900										
110	100	10	11000	199 134 351	199 134 361	20.900										

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

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





DN10/15 - 50



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

### Model:

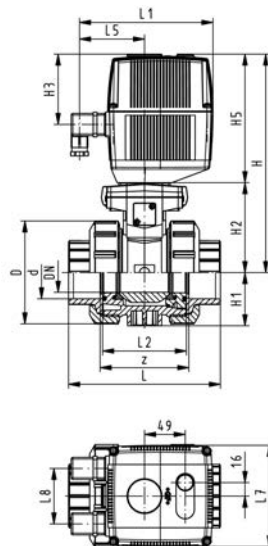
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

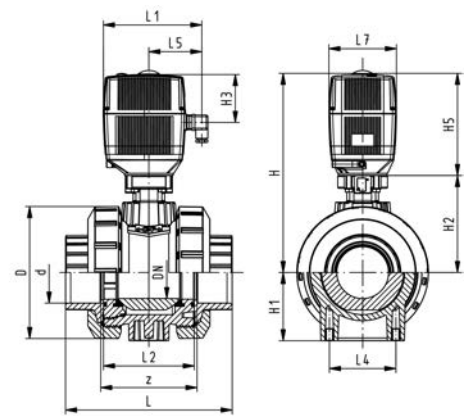
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 130 042</b>	<b>199 130 052</b>	2.100
20	15	10	185	<b>199 130 043</b>	<b>199 130 053</b>	2.100
25	20	10	350	<b>199 130 044</b>	<b>199 130 054</b>	2.543
32	25	10	700	<b>199 130 045</b>	<b>199 130 055</b>	2.647
40	32	10	1000	<b>199 130 046</b>	<b>199 130 056</b>	2.600
50	40	10	1600	<b>199 130 047</b>	<b>199 130 057</b>	3.144
63	50	10	3100	<b>199 130 048</b>	<b>199 130 058</b>	3.886
75	65	10	5000	<b>199 130 049</b>	<b>199 130 059</b>	7.400
90	80	10	7000	<b>199 130 050</b>	<b>199 130 060</b>	9.800
110	100	10	11000	<b>199 130 051</b>	<b>199 130 061</b>	14.100

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]	closest inch
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	347	85	156	94	190	233	180	136	70	98	122	144	2 1/2
90	200	358	105	168	94	190	254	180	141	70	98	122	151	3
110	238	365	123	175	94	190	301	180	164	120	98	122	174	4



DN10/15-50



DN65-100





DN10/15 - 50



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

### Model:

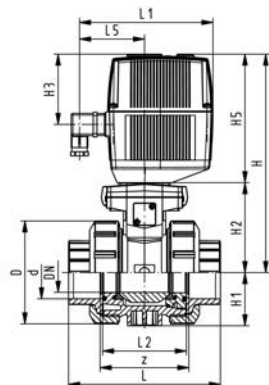
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

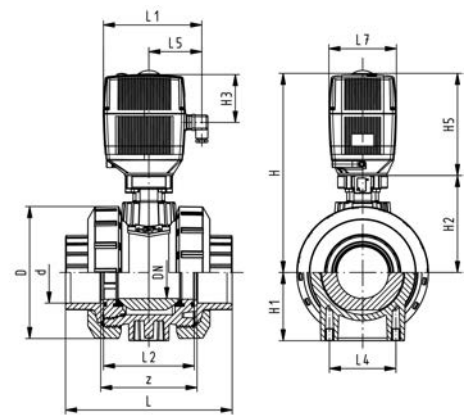
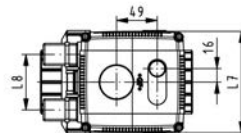
- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 130 162	199 130 172	2.100
1/2	15	10	185	199 130 163	199 130 173	2.100
3/4	20	10	350	199 130 164	199 130 174	2.200
1	25	10	700	199 130 165	199 130 175	2.300
1 1/4	32	10	1000	199 130 166	199 130 176	2.600
1 1/2	40	10	1600	199 130 167	199 130 177	3.000
2	50	10	3100	199 130 168	199 130 178	3.800
2 1/2	65	10	5000	199 130 169	199 130 179	7.400
3	80	10	7000	199 130 170	199 130 180	9.900
4	100	10	11000	199 130 171	199 130 181	14.100

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



DN10/15-50



DN65-100





DN10/15 - 50



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

### Model:

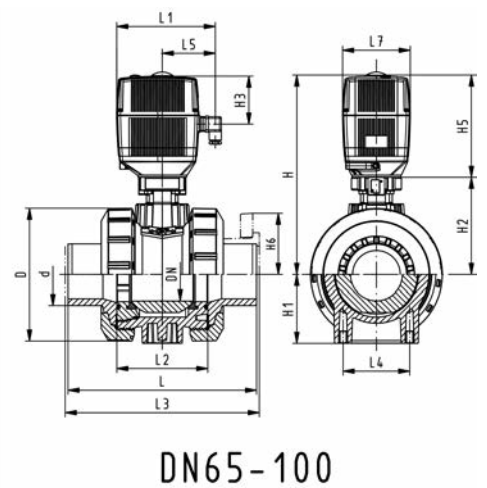
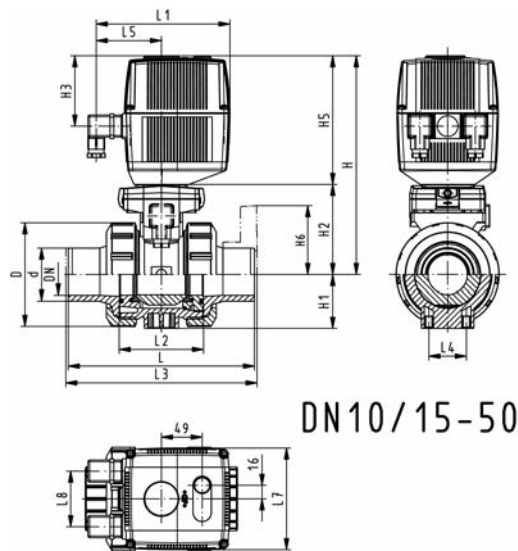
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 130 062	199 130 072	2.100
20	15	10	185	199 130 063	199 130 073	2.100
25	20	10	350	199 130 064	199 130 074	2.200
32	25	10	700	199 130 065	199 130 075	2.300
40	32	10	1000	199 130 066	199 130 076	2.600
50	40	10	1600	199 130 067	199 130 077	3.000
63	50	10	3100	199 130 068	199 130 078	3.800
75	65	10	5000	199 130 069	199 130 079	7.500
90	80	10	7000	199 130 070	199 130 080	10.000
110	100	10	11000	199 130 071	199 130 081	14.300

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





DN10/15 - 50

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

### Model:

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

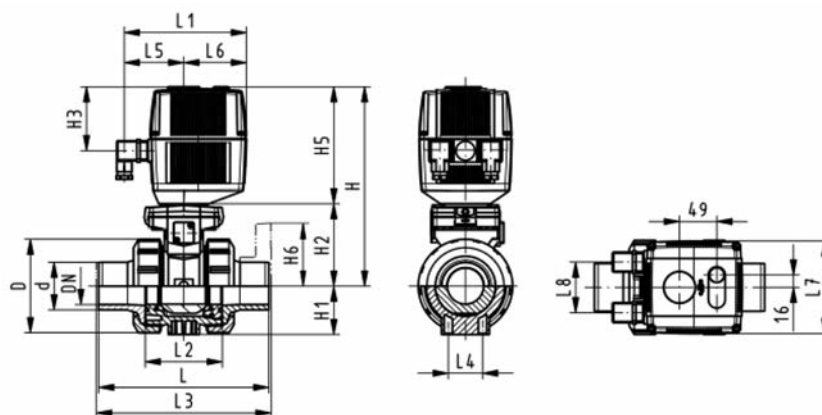
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	<b>199 130 143</b>	<b>199 130 153</b>	2.300
25	20	¾	10	350	<b>199 130 144</b>	<b>199 130 154</b>	2.500
32	25	1	10	700	<b>199 130 145</b>	<b>199 130 155</b>	3.032
40	32	1 ¼	10	1000	<b>199 130 146</b>	<b>199 130 156</b>	3.200
50	40	1 ½	10	1600	<b>199 130 147</b>	<b>199 130 157</b>	3.700
63	50	2	10	3100	<b>199 130 148</b>	<b>199 130 158</b>	4.800

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

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





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

### Model:

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

### Option:

- Individual configuration of the valve (see diagram)

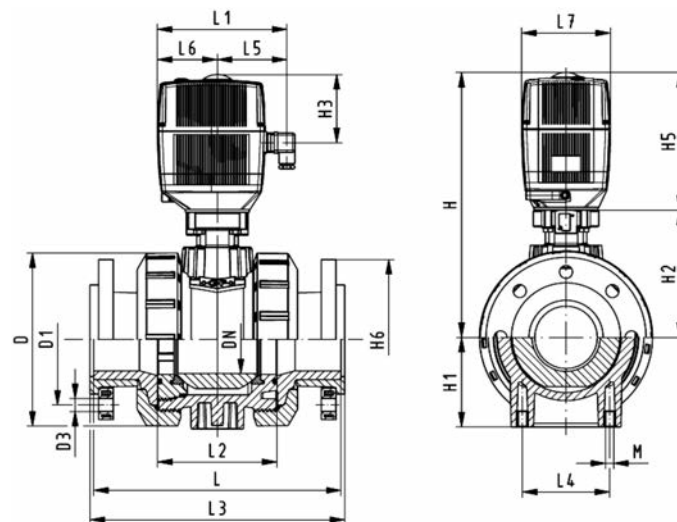
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg										
75	65	10	5000	<b>199 134 369</b>	<b>199 134 379</b>	11.500										
90	80	10	7000	<b>199 134 370</b>	<b>199 134 380</b>	14.900										
110	100	10	11000	<b>199 134 371</b>	<b>199 134 381</b>	20.900										

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

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

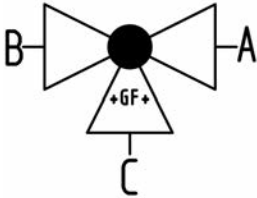




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets metric

### Model:

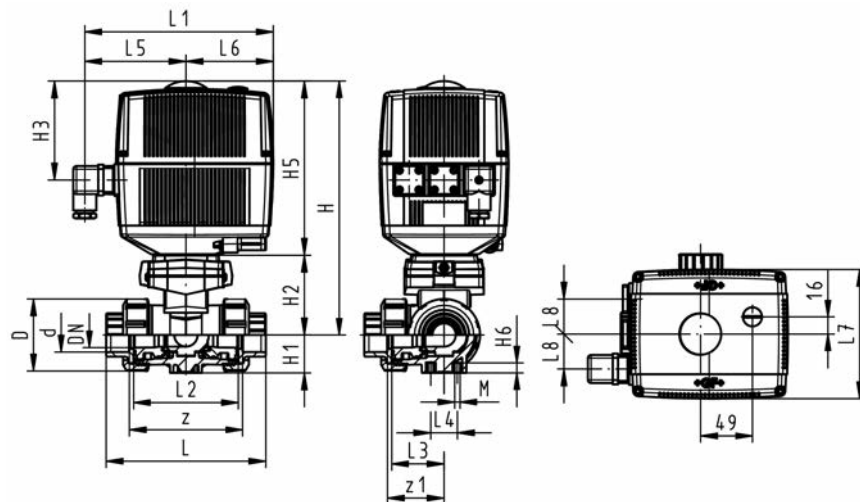
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 185 022	199 185 032	2.122
20	15	10	75	199 185 023	199 185 033	2.128
25	20	10	150	199 185 024	199 185 034	2.256
32	25	10	280	199 185 025	199 185 035	2.446
40	32	10	480	199 185 026	199 185 036	2.870
50	40	10	620	199 185 027	199 185 037	3.322
63	50	10	1230	199 185 028	199 185 038	4.683

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
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

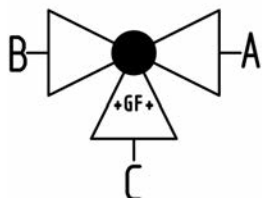




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement spigots metric

### Model:

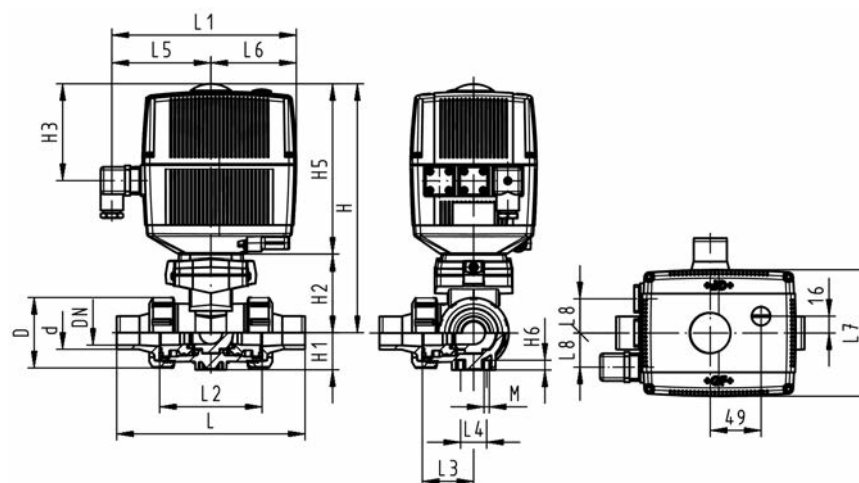
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 185 002	199 185 012	2.128
20	15	10	75	199 185 003	199 185 013	2.137
25	20	10	150	199 185 004	199 185 014	2.271
32	25	10	280	199 185 005	199 185 015	2.470
40	32	10	480	199 185 006	199 185 016	2.891
50	40	10	620	199 185 007	199 185 017	3.385
63	50	10	1230	199 185 008	199 185 018	4.809

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

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

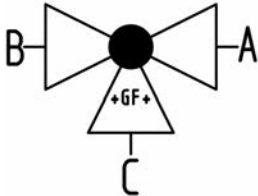




### 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement sockets metric

**Model:**

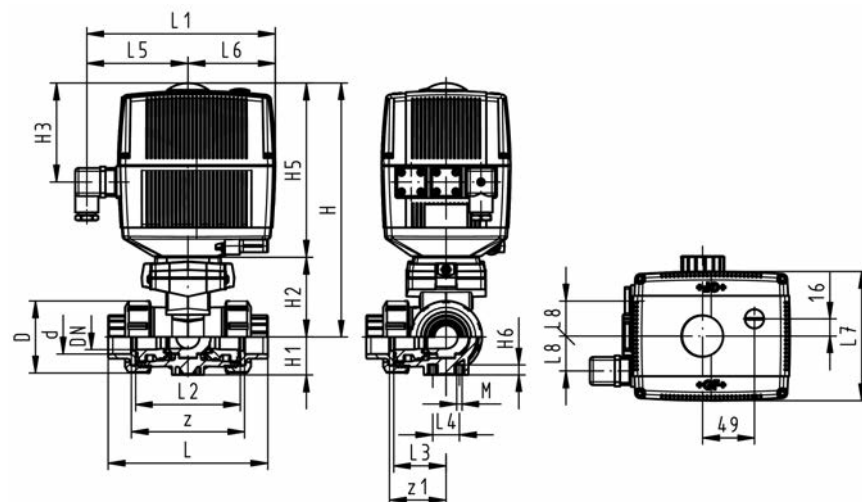
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 185 202	199 185 212	2.122
20	15	10	75	199 185 203	199 185 213	2.128
25	20	10	150	199 185 204	199 185 214	2.256
32	25	10	280	199 185 205	199 185 215	2.446
40	32	10	480	199 185 206	199 185 216	2.870
50	40	10	620	199 185 207	199 185 217	3.322
63	50	10	1230	199 185 208	199 185 218	4.683

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
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



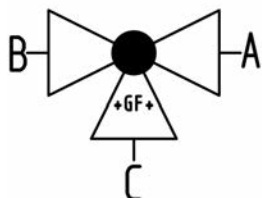




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement spigots metric

### Model:

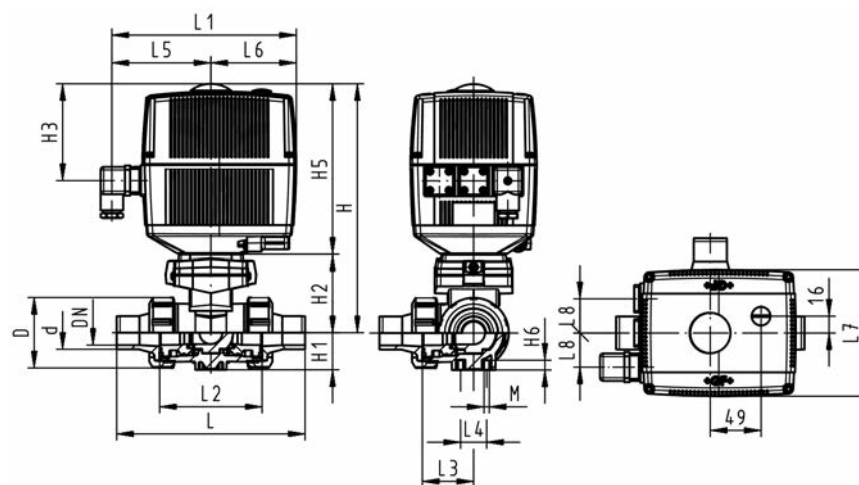
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 185 182</b>	<b>199 185 192</b>	2.128
20	15	10	75	<b>199 185 183</b>	<b>199 185 193</b>	2.137
25	20	10	150	<b>199 185 184</b>	<b>199 185 194</b>	2.271
32	25	10	280	<b>199 185 185</b>	<b>199 185 195</b>	2.470
40	32	10	480	<b>199 185 186</b>	<b>199 185 196</b>	2.891
50	40	10	620	<b>199 185 187</b>	<b>199 185 197</b>	3.385
63	50	10	1230	<b>199 185 188</b>	<b>199 185 198</b>	4.809

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

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



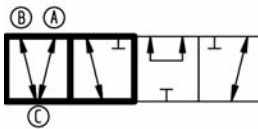
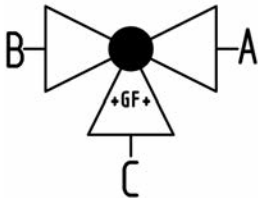




### 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets metric

#### Model:

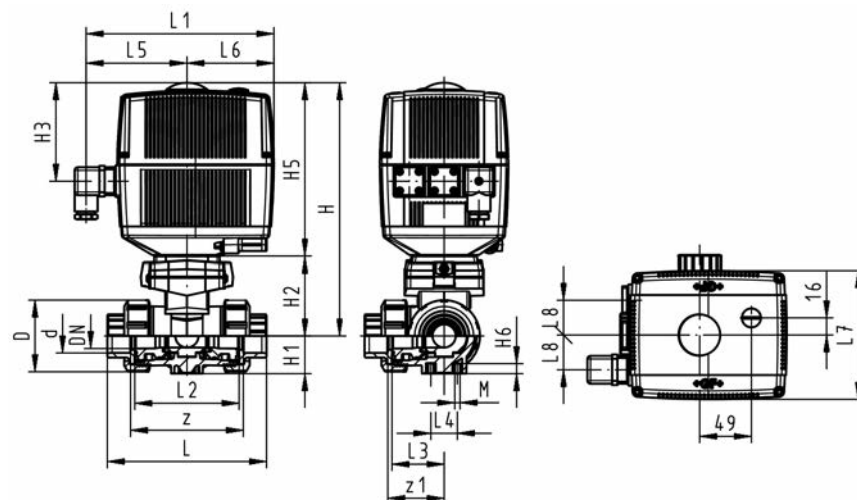
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 185 062	199 185 072	2.121
20	15	10	200	199 185 063	199 185 073	2.127
25	20	10	470	199 185 064	199 185 074	2.254
32	25	10	793	199 185 065	199 185 075	2.846
40	32	10	1290	199 185 066	199 185 076	2.859
50	40	10	1910	199 185 067	199 185 077	3.301
63	50	10	3100	199 185 068	199 185 078	4.638

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
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

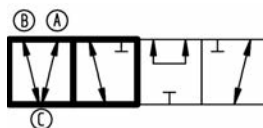
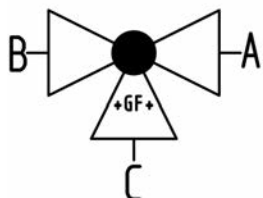




## 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement spigots metric

### Model:

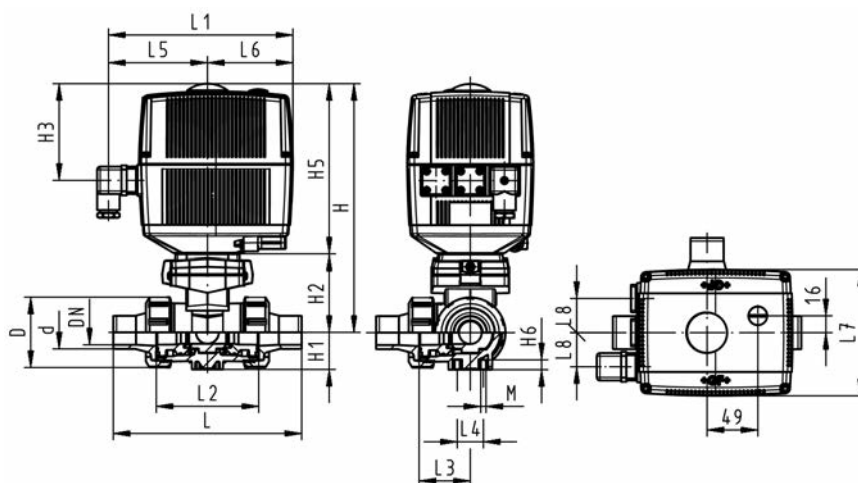
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 185 042	199 185 052	2.127
20	15	10	200	199 185 043	199 185 053	2.136
25	20	10	470	199 185 044	199 185 054	2.269
32	25	10	793	199 185 045	199 185 055	2.463
40	32	10	1290	199 185 046	199 185 056	2.880
50	40	10	1910	199 185 047	199 185 057	3.364
63	50	10	3100	199 185 048	199 185 058	4.764

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

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

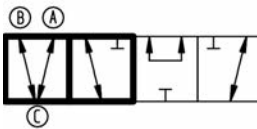
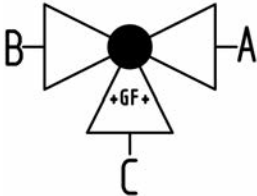




### 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement sockets metric

**Model:**

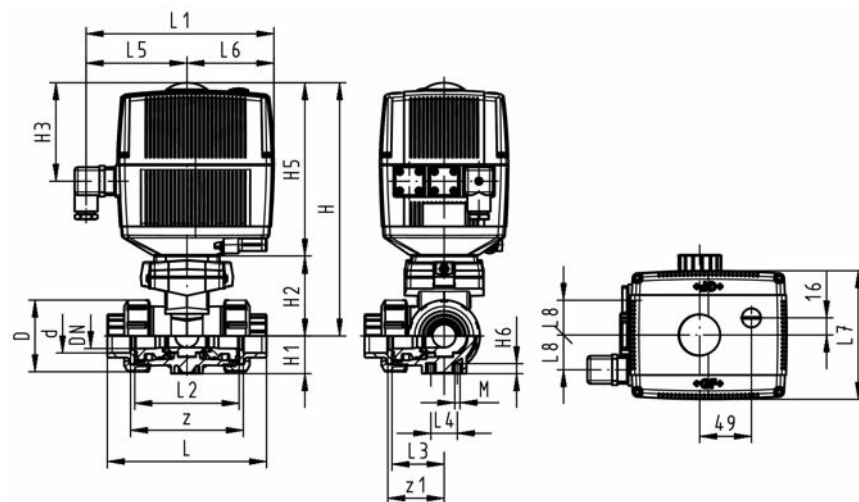
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 185 242	199 185 252	2.121
20	15	10	200	199 185 243	199 185 253	2.127
25	20	10	470	199 185 244	199 185 254	2.254
32	25	10	793	199 185 245	199 185 255	2.439
40	32	10	1290	199 185 246	199 185 256	2.859
50	40	10	1910	199 185 247	199 185 257	3.301
63	50	10	3100	199 185 248	199 185 258	4.638

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
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

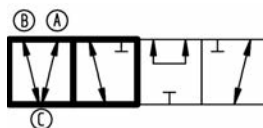
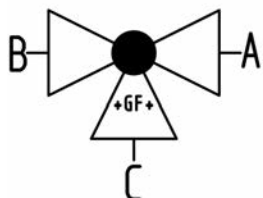




## 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement spigots metric

### Model:

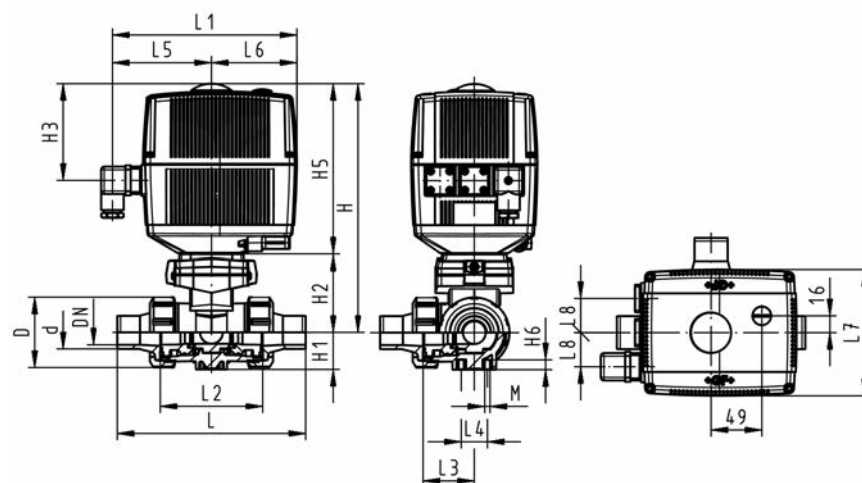
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 185 222	199 185 232	2.127
20	15	10	200	199 185 223	199 185 233	2.136
25	20	10	470	199 185 224	199 185 234	2.269
32	25	10	793	199 185 225	199 185 235	2.463
40	32	10	1290	199 185 226	199 185 236	2.880
50	40	10	1910	199 185 227	199 185 237	3.364
63	50	10	3100	199 185 228	199 185 238	4.764

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

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

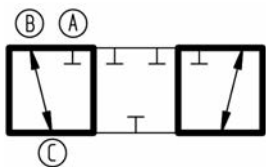
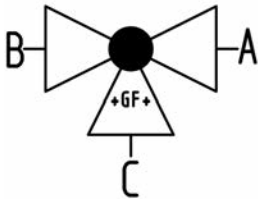




### 3-Way ball valve type 188 PVC-U Vertical/L-port 100-230V With manual emergency override With solvent cement sockets metric

#### Model:

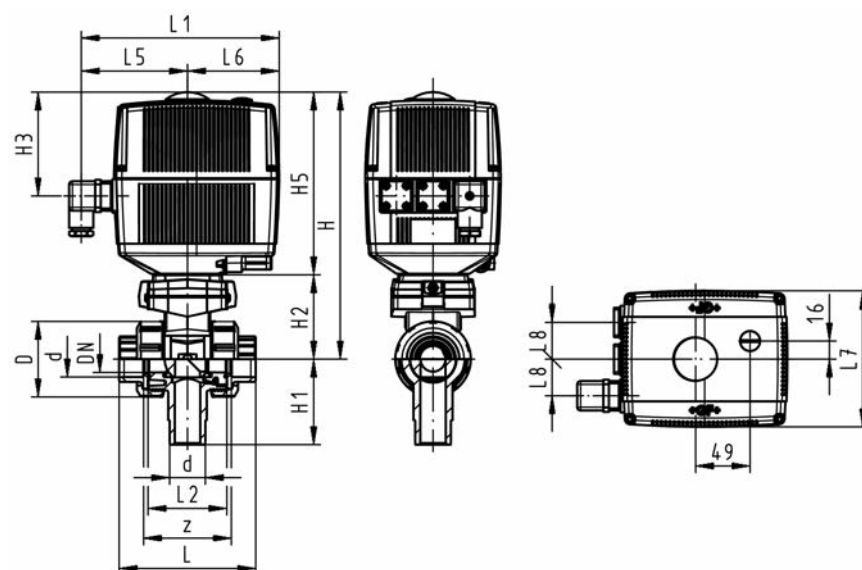
- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	199 188 242	199 188 252	2.039
20	15	10	77	199 188 243	199 188 253	2.043
25	20	10	146	199 188 244	199 188 254	2.150
32	25	10	260	199 188 245	199 188 255	2.267
40	32	10	437	199 188 246	199 188 256	2.554
50	40	10	667	199 188 247	199 188 257	2.818
63	50	10	1293	199 188 248	199 188 258	3.595

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

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

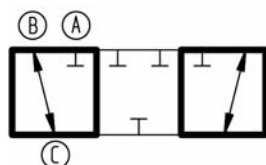
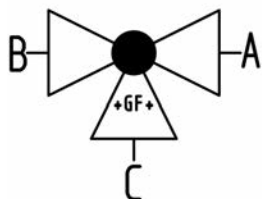




## 3-Way ball valve type 188 PVC-U Vertical/L-port 100-230V With manual emergency override With solvent cement spigots metric

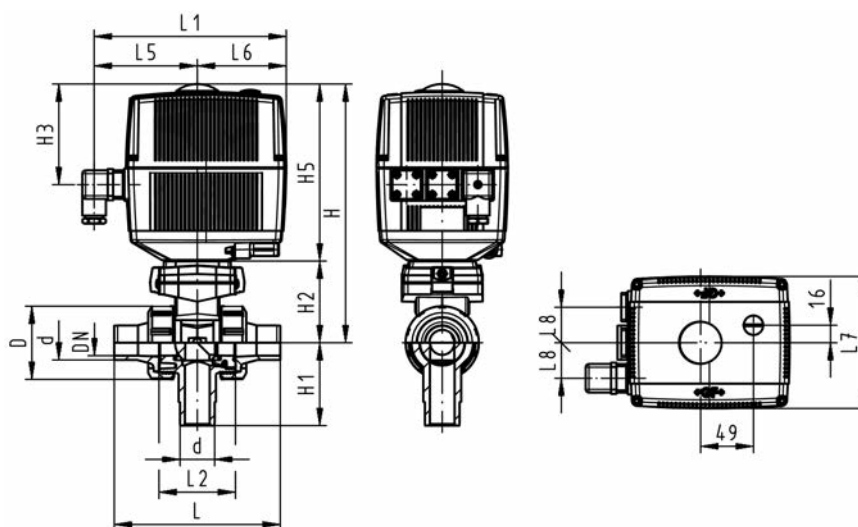
### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	199 188 062	199 188 072	2.043
20	15	10	77	199 188 063	199 188 073	2.472
25	20	10	146	199 188 064	199 188 074	2.160
32	25	10	260	199 188 065	199 188 075	2.283
40	32	10	437	199 188 066	199 188 076	2.568
50	40	10	667	199 188 067	199 188 077	2.860
63	50	10	1293	199 188 068	199 188 078	3.679

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]	closest inch
16	50	231	62	64	94	167	114	180	56	97	83	122	33	3/8
20	50	231	62	64	94	167	124	180	56	97	83	122	33	1/2
25	58	240	72	73	94	167	144	180	66	97	83	122	33	3/4
32	68	240	77	73	94	167	154	180	71	97	83	122	33	1
40	84	251	87	84	94	167	174	180	85	97	83	122	33	1 1/4
50	97	251	97	84	94	167	194	180	89	97	83	122	33	1 1/2
63	124	273	112	106	94	167	224	180	101	97	83	122	33	2



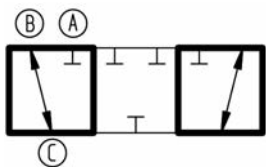
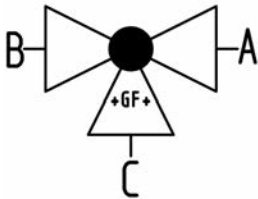




### 3-Way ball valve type 188 PVC-U Vertical/L-port 24V With manual emergency override With solvent cement sockets metric

#### Model:

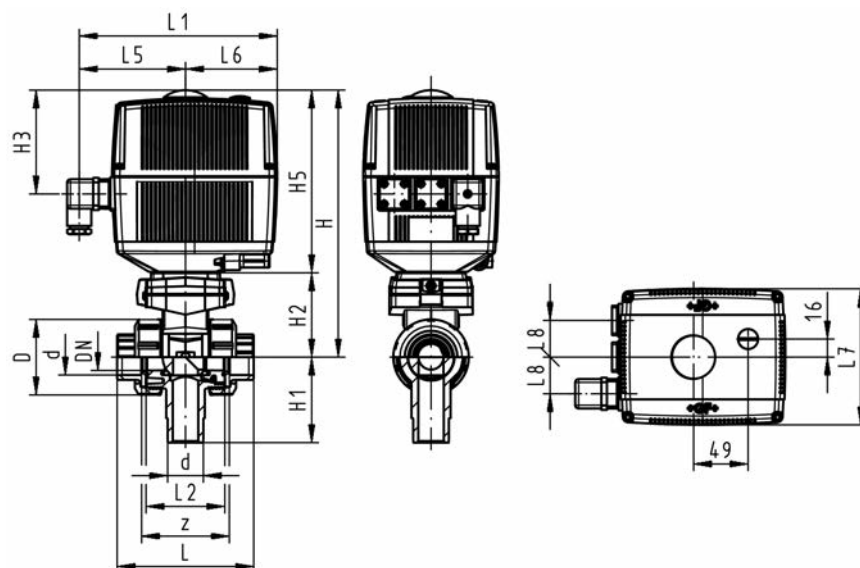
- Vertical inlet solvent cement spigot metric
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 180°<
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 10 s/180°<
- Easy installation and removal using union on third outlet



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	199 188 262	199 188 272	2.039
20	15	10	77	199 188 263	199 188 273	2.043
25	20	10	146	199 188 264	199 188 274	2.150
32	25	10	260	199 188 265	199 188 275	2.267
40	32	10	437	199 188 266	199 188 276	2.554
50	40	10	667	199 188 267	199 188 277	2.818
63	50	10	1293	199 188 268	199 188 278	3.595

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

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



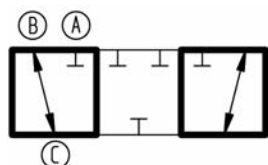
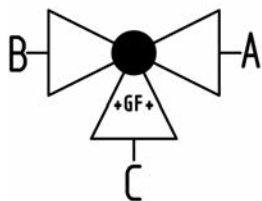




## 3-Way ball valve type 188 PVC-U Vertical/L-port 24V With manual emergency override With solvent cement spigots metric

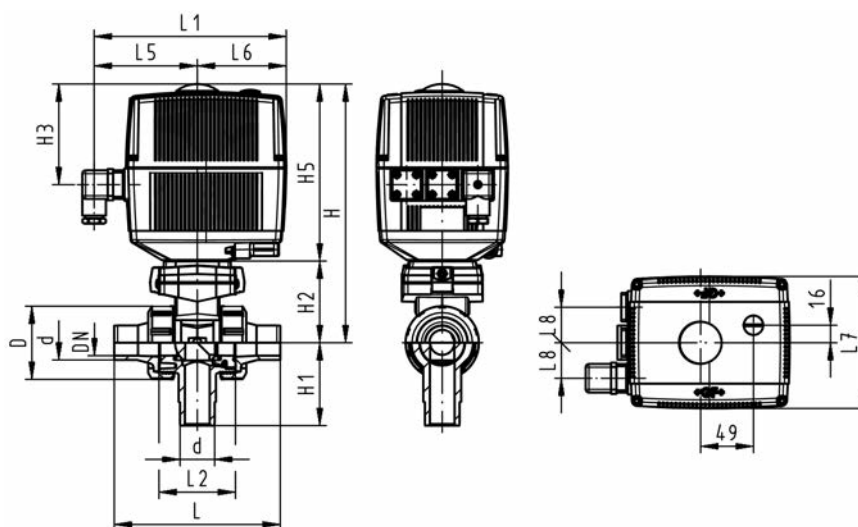
### Model:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	<b>199 188 102</b>	<b>199 188 112</b>	2.043
20	15	10	77	<b>199 188 103</b>	<b>199 188 113</b>	2.049
25	20	10	146	<b>199 188 104</b>	<b>199 188 114</b>	2.160
32	25	10	260	<b>199 188 105</b>	<b>199 188 115</b>	2.283
40	32	10	437	<b>199 188 106</b>	<b>199 188 116</b>	2.568
50	40	10	667	<b>199 188 107</b>	<b>199 188 117</b>	2.860
63	50	10	1293	<b>199 188 108</b>	<b>199 188 118</b>	3.679

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]	closest inch
16	50	231	62	64	94	167	114	180	56	97	83	122	33	3/8
20	50	231	62	64	94	167	124	180	56	97	83	122	33	1/2
25	58	240	72	73	94	167	144	180	66	97	83	122	33	3/4
32	68	240	77	73	94	167	154	180	71	97	83	122	33	1
40	84	251	87	84	94	167	174	180	85	97	83	122	33	1 1/4
50	97	251	97	84	94	167	194	180	89	97	83	122	33	1 1/2
63	124	273	112	106	94	167	224	180	101	97	83	122	33	2



# Ball valves electric Inch BS

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



DN10/15 - 50

### Model:

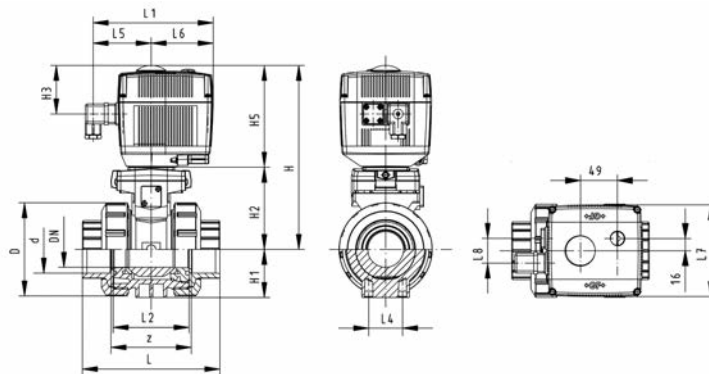
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 107 402</b>	<b>199 107 412</b>	2.100
1/2	15	10	185	<b>199 107 403</b>	<b>199 107 413</b>	2.100
3/4	20	10	350	<b>199 107 404</b>	<b>199 107 414</b>	2.200
1	25	10	700	<b>199 107 405</b>	<b>199 107 415</b>	2.334
1 1/4	32	10	1000	<b>199 107 406</b>	<b>199 107 416</b>	2.600
1 1/2	40	10	1600	<b>199 107 407</b>	<b>199 107 417</b>	3.000
2	50	10	3100	<b>199 107 408</b>	<b>199 107 418</b>	3.800

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	79	1	122	67	60
1/2	50	200	27	64	64	137	95	161	56	25	79	83	122	67	60
3/4	58	209	30	73	64	137	110	161	65	25	79	83	122	67	69
1	68	209	36	73	64	137	123	161	71	25	79	83	122	67	75
1 1/4	84	220	44	84	64	137	146	161	85	45	79	83	122	67	89
1 1/2	97	220	51	84	64	137	157	161	89	45	79	83	122	67	97
2	124	243	64	106	64	137	183	161	101	45	79	83	122	67	110





DN10/15 - 50

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

### Model:

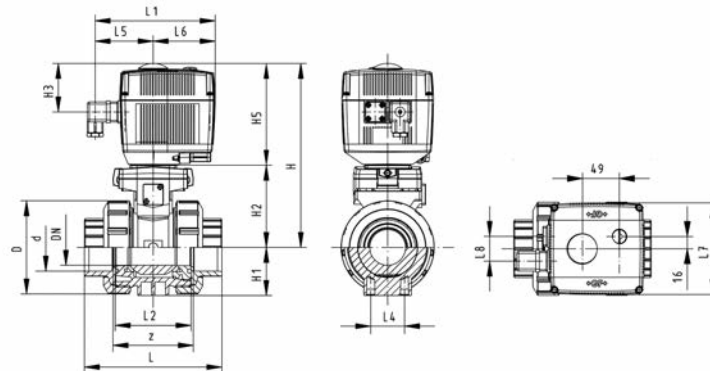
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 107 442	199 107 452	2.100
1/2	15	10	185	199 107 443	199 107 453	2.100
3/4	20	10	350	199 107 444	199 107 454	2.200
1	25	10	700	199 107 445	199 107 455	2.325
1 1/4	32	10	1000	199 107 446	199 107 456	2.600
1 1/2	40	10	1600	199 107 447	199 107 457	3.000
2	50	10	3100	199 107 448	199 107 458	3.800

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	92	161	56	25	79	83	122	67	60
1/2	50	200	27	64	64	137	95	161	56	25	79	83	122	67	60
3/4	58	209	30	73	64	137	110	161	65	25	79	83	122	67	69
1	68	209	36	73	64	137	123	161	71	25	79	83	122	67	75
1 1/4	84	220	44	84	64	137	146	161	85	45	79	83	122	67	89
1 1/2	97	220	51	84	64	137	157	161	89	45	79	83	122	67	97
2	124	243	64	106	64	137	183	161	101	45	79	83	122	67	110





DN10/15 - 50



## Ball valve type 134 PVC-U 100-230V With manual emergency override With solvent cement sockets Inch BS

### Model:

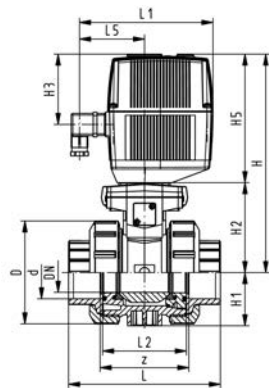
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

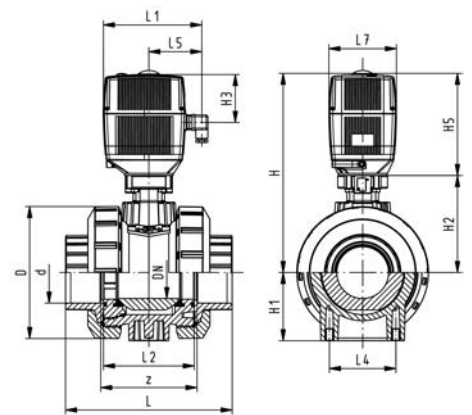
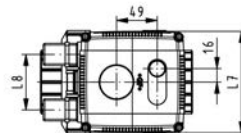
- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 134 002	199 134 012	2.100
1/2	15	10	185	199 134 003	199 134 013	2.100
3/4	20	10	350	199 134 004	199 134 014	2.200
1	25	10	700	199 134 005	199 134 015	2.300
1 1/4	32	10	1000	199 134 006	199 134 016	2.600
1 1/2	40	10	1600	199 134 007	199 134 017	3.000
2	50	10	3100	199 134 008	199 134 018	3.800
2 1/2	65	10	5000	199 134 009	199 134 019	7.400
3	80	10	7000	199 134 010	199 134 020	9.800
4	100	10	11000	199 134 011	199 134 021	13.900

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	122	60
1/2	50	231	27	64	94	167	95	180	56	25	97	122	60
3/4	58	240	30	73	94	167	110	180	65	25	97	122	69
1	68	240	36	73	94	167	123	180	71	25	97	122	75
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	89
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	97
2	124	273	64	106	94	167	183	180	101	45	97	122	110
2 1/2	166	347	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100



DN10/15 - 50



## Ball valve type 134 PVC-U 24V With manual emergency override With solvent cement sockets Inch BS

### Model:

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

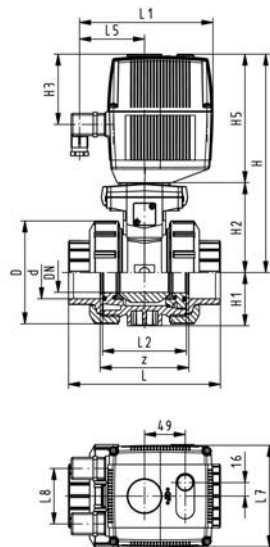
### Option:

- Individual configuration of the valve (see diagram)

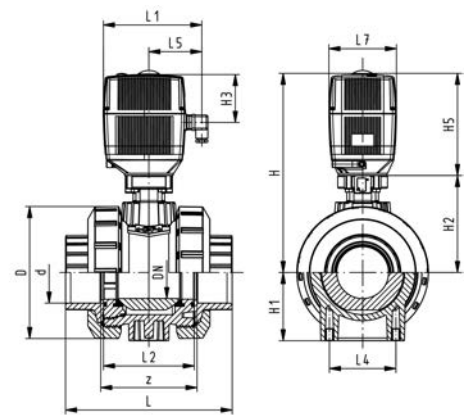
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg							
3/8	10	10	70	199 134 042	199 134 052	2.100							
1/2	15	10	185	199 134 043	199 134 053	2.100							
3/4	20	10	350	199 134 044	199 134 054	2.200							
1	25	10	700	199 134 045	199 134 055	2.300							
1 1/4	32	10	1000	199 134 046	199 134 056	2.899							
1 1/2	40	10	1600	199 134 047	199 134 057	3.000							
2	50	10	3100	199 134 048	199 134 058	3.800							
2 1/2	65	10	5000	199 134 049	199 134 059	7.400							
3	80	10	7000	199 134 050	199 134 060	9.800							
4	100	10	11000	199 134 051	199 134 061	13.900							

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]		
3/8	50	231	27	64	94	167	92	180	56	25	97	122	60		
1/2	50	231	27	64	94	167	95	180	56	25	97	122	60		
3/4	58	240	30	73	94	167	110	180	65	25	97	122	69		
1	68	240	36	73	94	167	123	180	71	25	97	122	75		
1 1/4	84	251	44	84	94	167	146	180	85	45	97	122	89		
1 1/2	97	251	51	84	94	167	157	180	89	45	97	122	97		
2	124	273	64	106	94	167	183	180	101	45	97	122	110		
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144		
3	200	358	105	168	94	190	254	180	141	70	98	122	151		
4	238	365	123	175	94	190	301	180	164	120	98	122	174		



DN10/15-50



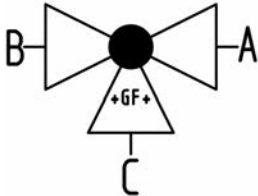
DN65-100



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

**Model:**

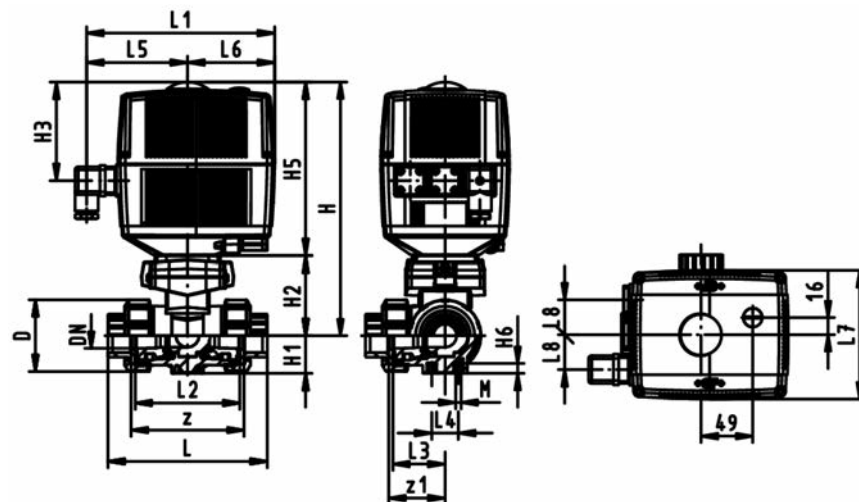
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 742	199 185 752	2.122
1/2	15	10	75	199 185 743	199 185 753	2.548
3/4	20	10	150	199 185 744	199 185 754	2.256
1	25	10	280	199 185 745	199 185 755	2.836
1 1/4	32	10	480	199 185 746	199 185 756	2.870
1 1/2	40	10	620	199 185 747	199 185 757	3.322
2	50	10	1230	199 185 748	199 185 758	4.683

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	77	38
1/2	33	6	77	38
3/4	33	6	90	45
1	33	6	103	52
1 1/4	33	8	124	62
1 1/2	33	8	145	73
2	33	8	189	94



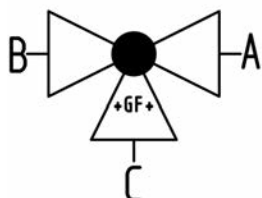




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement sockets BS

### Model:

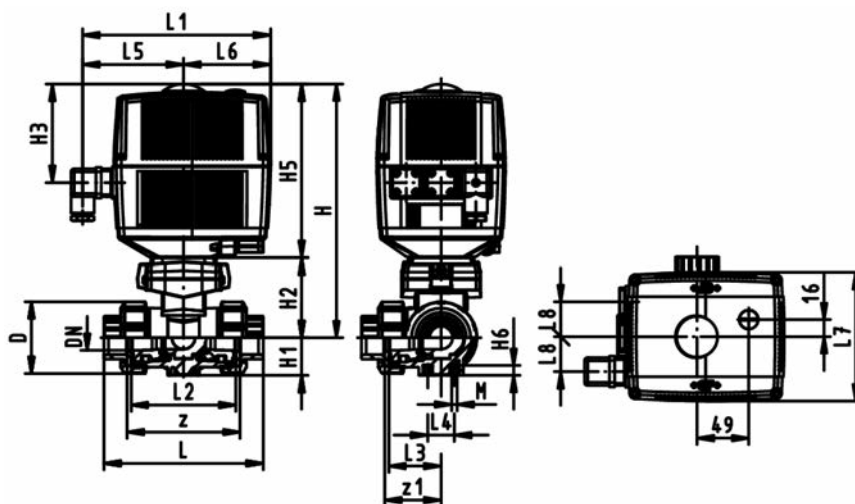
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 762	199 185 772	2.122
1/2	15	10	75	199 185 763	199 185 773	2.128
3/4	20	10	150	199 185 764	199 185 774	2.256
1	25	10	280	199 185 765	199 185 775	2.446
1 1/4	32	10	480	199 185 766	199 185 776	2.870
1 1/2	40	10	620	199 185 767	199 185 777	3.322
2	50	10	1230	199 185 768	199 185 778	4.683

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	77	38
1/2	33	6	77	38
3/4	33	6	90	45
1	33	6	103	52
1 1/4	33	8	124	62
1 1/2	33	8	145	73
2	33	8	189	94



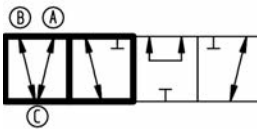
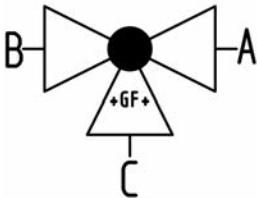




### 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets BS

**Model:**

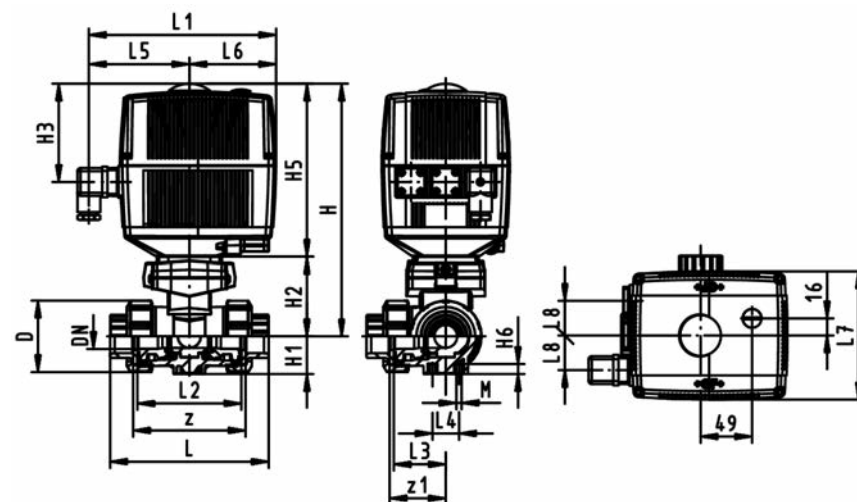
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 185 702	198 185 712	2.121
1/2	15	10	200	199 185 703	198 185 713	2.127
3/4	20	10	470	199 185 704	198 185 714	2.254
1	25	10	793	199 185 705	198 185 715	2.439
1 1/4	32	10	1290	199 185 706	198 185 716	2.859
1 1/2	40	10	1910	199 185 707	198 185 717	3.301
2	50	10	3100	199 185 708	198 185 718	4.638

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	77	38
1/2	33	6	77	38
3/4	33	6	90	45
1	33	6	103	52
1 1/4	33	8	124	62
1 1/2	33	8	145	73
2	33	8	189	94

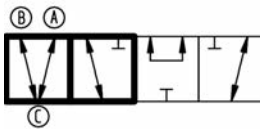
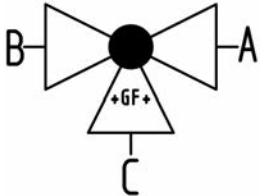




## 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement sockets BS

### Model:

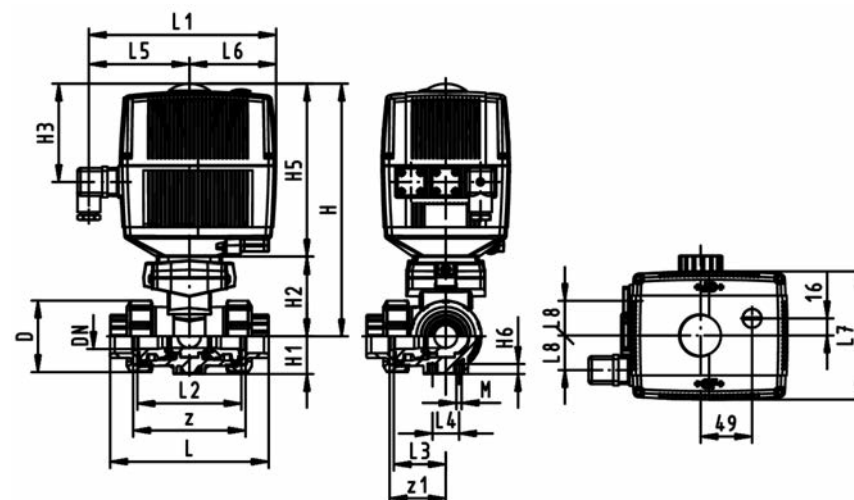
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 185 722	199 185 732	2.121
1/2	15	10	200	199 185 723	199 185 733	2.127
3/4	20	10	470	199 185 724	199 185 734	2.254
1	25	10	793	199 185 725	199 185 735	2.439
1 1/4	32	10	1290	199 185 726	199 185 736	2.859
1 1/2	40	10	1910	199 185 727	199 185 737	3.301
2	50	10	3100	199 185 728	199 185 738	4.638

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	109	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	112	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	151	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	77	38
1/2	33	6	77	38
3/4	33	6	90	45
1	33	6	103	52
1 1/4	33	8	124	62
1 1/2	33	8	145	73
2	33	8	189	94



# Ball valves electric ASTM/ANSI

**Ball valve type 107 PVC-U 100-230V**  
**With manual emergency override**  
**With solvent cement sockets Inch ASTM**  
**Inclusive 2 threaded valve ends NPT**



DN10/15 - 50

**Model:**

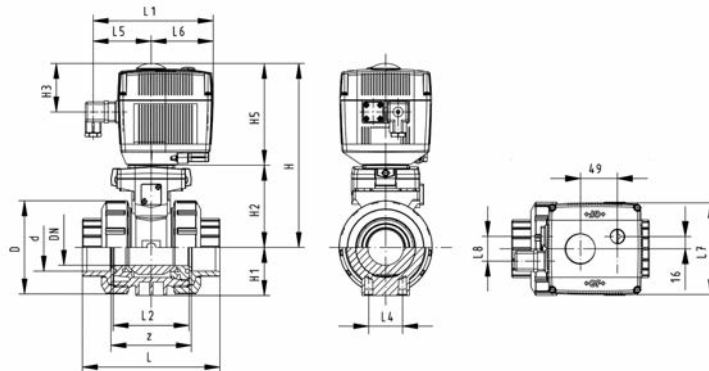
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

**Option:**

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 107 202</b>	<b>199 107 212</b>	2.100
1/2	15	10	185	<b>199 107 203</b>	<b>199 107 213</b>	2.100
3/4	20	10	350	<b>199 107 204</b>	<b>199 107 214</b>	2.200
1	25	10	700	<b>199 107 205</b>	<b>199 107 215</b>	2.300
1 1/4	32	10	1000	<b>199 107 206</b>	<b>199 107 216</b>	2.600
1 1/2	40	10	1600	<b>199 107 207</b>	<b>199 107 217</b>	3.000
2	50	10	3100	<b>199 107 208</b>	<b>199 107 218</b>	3.800

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
3/8	50	200	27	64	64	137	105	161	56	25	77	83	122	33	67
1/2	50	200	27	64	64	137	105	161	56	25	77	83	122	33	61
3/4	58	209	30	73	64	137	121	161	65	25	77	83	122	33	70
1	68	209	36	73	64	137	133	161	71	25	77	83	122	33	76
1 1/4	84	220	44	84	64	137	154	161	85	45	77	83	122	33	90
1 1/2	97	220	51	84	64	137	164	161	89	45	77	83	122	33	94
2	124	243	64	106	64	137	183	161	101	45	77	83	122	33	107





DN10/15 - 50

**Ball valve type 133 PVC-U 100-230V**  
**With manual emergency override**  
**With solvent cement sockets Inch ASTM**  
**Inclusive 2 threaded valve ends NPT**

**Model:**

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

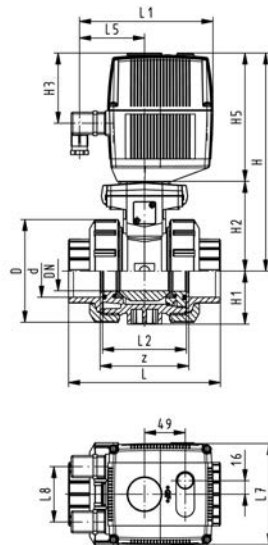
**Option:**

- Individual configuration of the valve (see diagram)

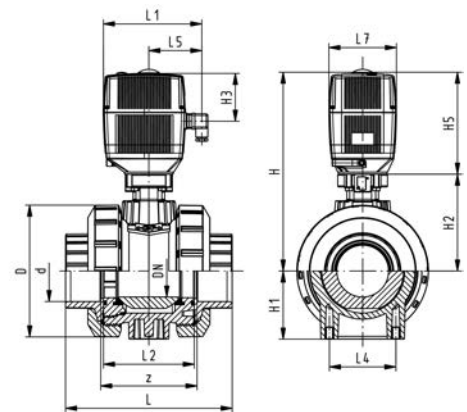


Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 133 002	199 133 012	2.100
1/2	15	10	185	199 133 003	199 133 013	2.100
3/4	20	10	350	199 133 004	199 133 014	2.200
1	25	10	700	199 133 005	199 133 015	2.300
1 1/4	32	10	1000	199 133 006	199 133 016	2.600
1 1/2	40	10	1600	199 133 007	199 133 017	3.000
2	50	10	3100	199 133 008	199 133 018	3.800
2 1/2	65	10	5000	199 133 009	199 133 019	7.400
3	80	10	7000	199 133 010	199 133 020	9.800
4	100	10	11000	199 133 011	199 133 021	13.900

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	105	180	56	25	97	122	67
1/2	50	231	27	64	94	167	105	180	56	25	97	122	61
3/4	58	240	30	73	94	167	121	180	65	25	97	122	70
1	68	240	36	73	94	167	133	180	71	25	97	122	76
1 1/4	84	251	44	84	94	167	154	180	85	45	97	122	90
1 1/2	97	251	51	84	94	167	164	180	89	45	97	122	94
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100



DN10/15 - 50



**Ball valve type 133 PVC-U 24V**  
**With manual emergency override**  
**With solvent cement sockets Inch ASTM**  
**Inclusive 2 threaded valve ends NPT**

**Model:**

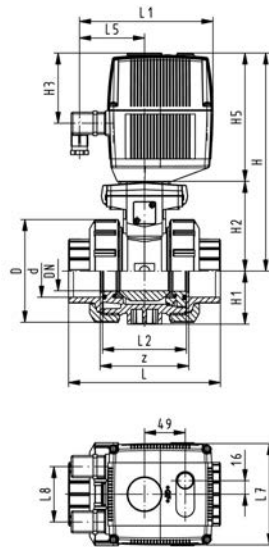
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Threaded valve ends are only enclosed for DN10/15-50
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

**Option:**

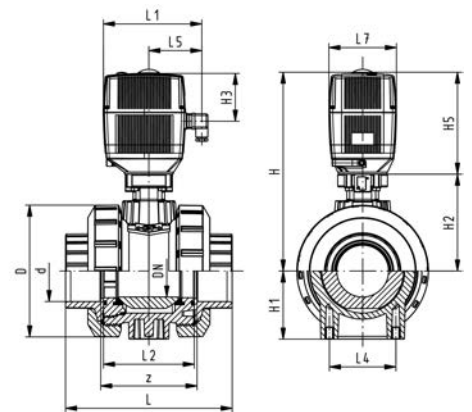
- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 133 022	199 133 032	2.100
1/2	15	10	185	199 133 023	199 133 033	2.100
3/4	20	10	350	199 133 024	199 133 034	2.200
1	25	10	700	199 133 025	199 133 035	2.300
1 1/4	32	10	1000	199 133 026	199 133 036	2.600
1 1/2	40	10	1600	199 133 027	199 133 037	3.000
2	50	10	3100	199 133 028	199 133 038	3.800
2 1/2	65	10	5000	199 133 029	199 133 039	7.400
3	80	10	7000	199 133 030	199 133 040	9.800
4	100	10	11000	199 133 031	199 133 041	13.900

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	105	180	56	25	97	122	67
1/2	50	231	27	64	94	167	105	180	56	25	97	122	61
3/4	58	240	30	73	94	167	121	180	65	25	97	122	70
1	68	240	36	73	94	167	133	180	71	25	97	122	76
1 1/4	84	251	44	84	94	167	154	180	85	45	97	122	90
1 1/2	97	251	51	84	94	167	164	180	89	45	97	122	94
2	124	273	64	106	94	167	183	180	101	45	97	122	107
2 1/2	166	347	85	156	94	190	233	180	136	70	98	122	144
3	200	358	105	168	94	190	254	180	141	70	98	122	151
4	238	365	123	175	94	190	301	180	164	120	98	122	174



DN10/15-50



DN65-100

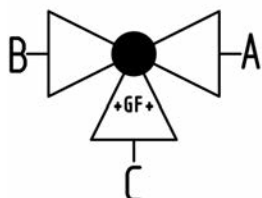


# 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets ASTM



### Model:

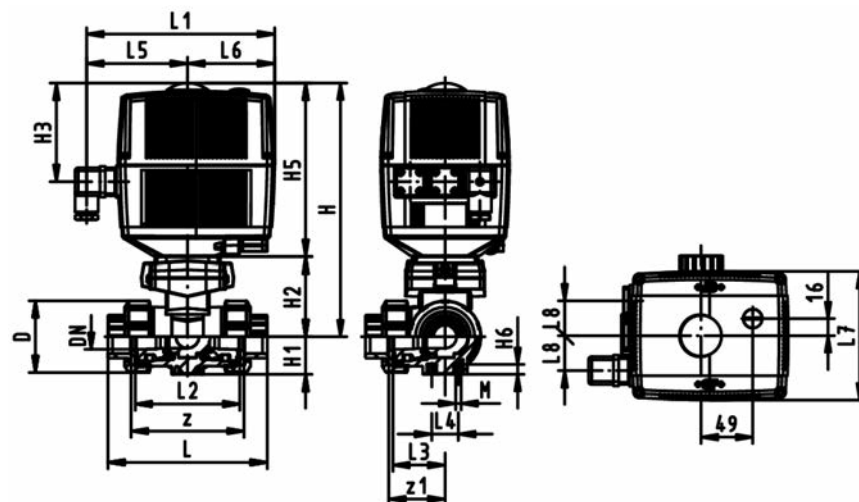
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 382	199 185 392	2.122
1/2	15	10	75	199 185 383	199 185 393	2.128
3/4	20	10	150	199 185 384	199 185 394	2.256
1	25	10	280	199 185 385	199 185 395	2.446
1 1/4	32	10	480	199 185 386	199 185 396	2.870
1 1/2	40	10	620	199 185 387	199 185 397	3.322
2	50	10	1230	199 185 388	199 185 398	4.683

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	123	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	122	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	141	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	161	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	187	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	213	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	85	42
1/2	33	6	77	38
3/4	33	6	92	46
1	33	6	105	53
1 1/4	33	8	126	63
1 1/2	33	8	143	72
2	33	8	185	92



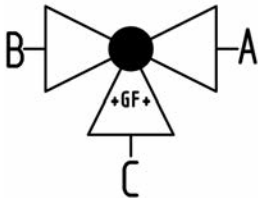




### 3-Way ball valve type 185 PVC-U Horizontal/L-port 100-230V With manual emergency override With threaded sockets NPT

**Model:**

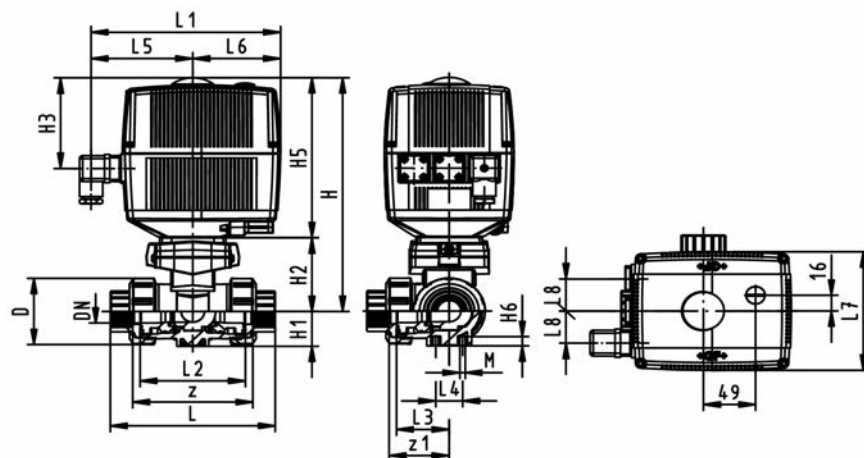
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



NPT [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 362	199 185 372	2.122
1/2	15	10	75	199 185 363	199 185 373	2.128
3/4	20	10	150	199 185 364	199 185 374	2.256
1	25	10	280	199 185 365	199 185 375	2.446
1 1/4	32	10	480	199 185 366	199 185 376	2.870
1 1/2	40	10	620	199 185 367	199 185 377	3.322
2	50	10	1230	199 185 368	199 185 378	4.683

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	115	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	155	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	87	43
1/2	33	6	81	40
3/4	33	6	96	48
1	33	6	111	56
1 1/4	33	8	134	67
1 1/2	33	8	159	80
2	33	8	213	106



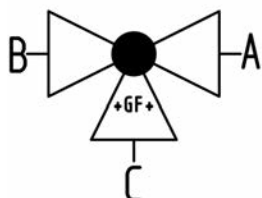




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement sockets ASTM

### Model:

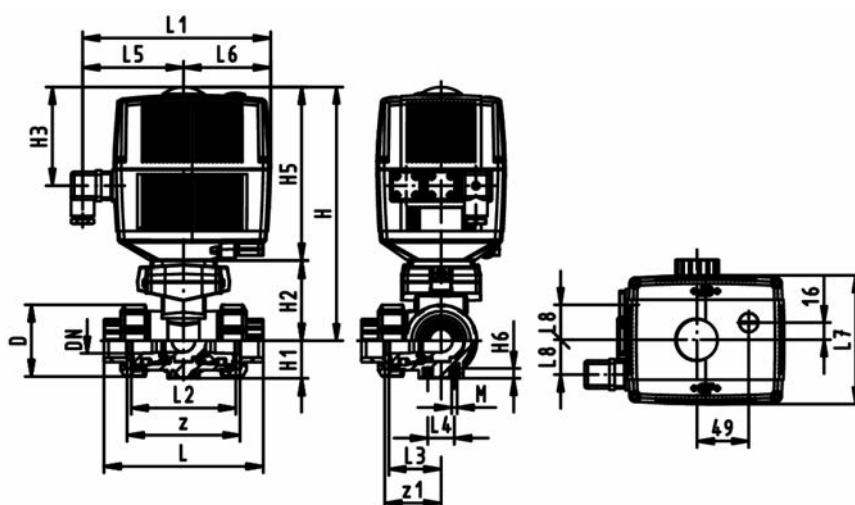
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 542	199 185 552	2.122
1/2	15	10	75	199 185 543	199 185 553	2.128
3/4	20	10	150	199 185 544	199 185 554	2.256
1	25	10	280	199 185 545	199 185 555	2.446
1 1/4	32	10	480	199 185 546	199 185 556	2.870
1 1/2	40	10	620	199 185 547	199 185 557	3.322
2	50	10	1230	199 185 548	199 185 558	4.683

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	123	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	122	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	141	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	161	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	187	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	213	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	85	42
1/2	33	6	77	38
3/4	33	6	92	46
1	33	6	105	53
1 1/4	33	8	126	63
1 1/2	33	8	143	72
2	33	8	185	92

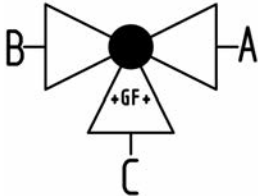




## 3-Way ball valve type 185 PVC-U Horizontal/L-port 24V With manual emergency override With threaded sockets NPT

### Model:

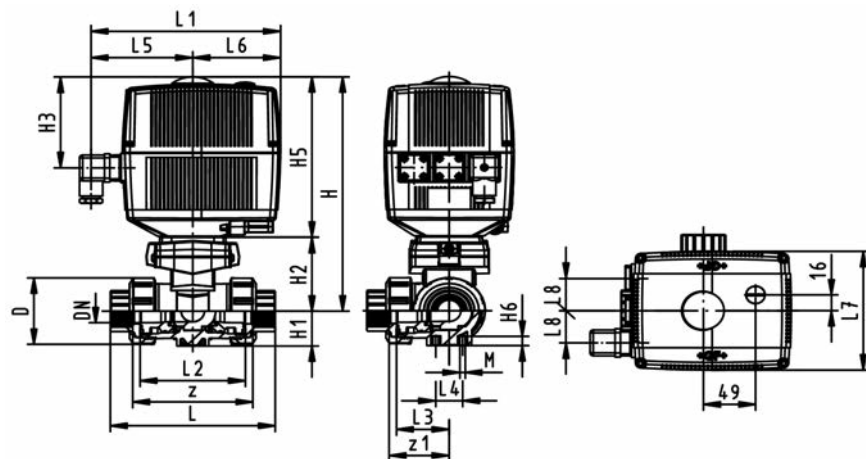
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel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



NPT [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 185 522	199 185 532	2.122
1/2	15	10	75	199 185 523	199 185 533	2.128
3/4	20	10	150	199 185 524	199 185 534	2.256
1	25	10	280	199 185 525	199 185 535	2.446
1 1/4	32	10	480	199 185 526	199 185 536	2.870
1 1/2	40	10	620	199 185 527	199 185 537	3.322
2	50	10	1230	199 185 528	199 185 538	4.683

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	115	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	155	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	87	43
1/2	33	6	81	40
3/4	33	6	96	48
1	33	6	111	56
1 1/4	33	8	134	67
1 1/2	33	8	159	80
2	33	8	213	106

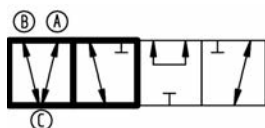
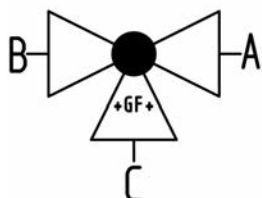




## 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets ASTM

### Model:

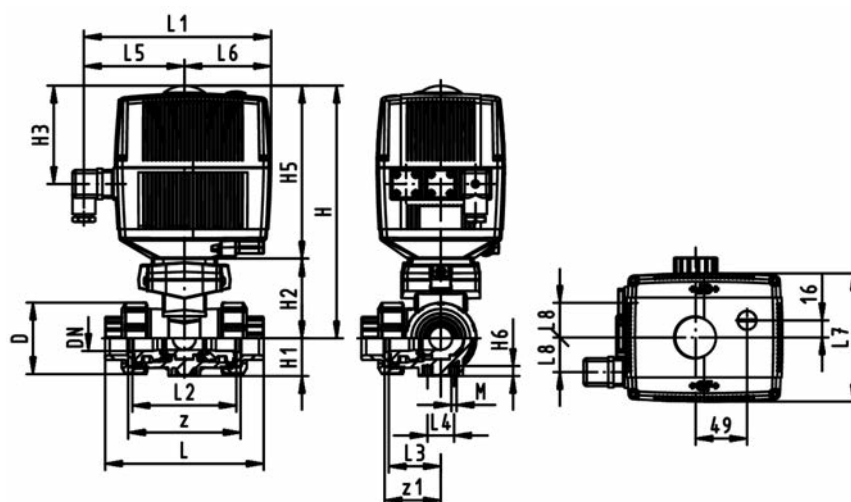
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 185 422	199 185 432	2.121
1/2	15	10	200	199 185 423	199 185 433	2.127
3/4	20	10	470	199 185 424	199 185 434	2.254
1	25	10	793	199 185 425	199 185 435	2.439
1 1/4	32	10	1290	199 185 426	199 185 436	2.859
1 1/2	40	10	1910	199 185 427	199 185 437	3.301
2	50	10	3100	199 185 428	199 185 438	4.638

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	123	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	122	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	141	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	161	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	187	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	213	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	85	42
1/2	33	6	77	38
3/4	33	6	92	46
1	33	6	105	53
1 1/4	33	8	126	63
1 1/2	33	8	143	72
2	33	8	185	92

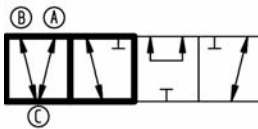
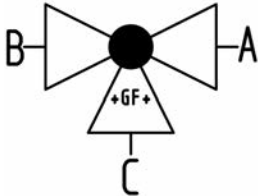




### 3-Way ball valve type 185 PVC-U Horizontal/T-port 100-230V With manual emergency override With threaded sockets NPT

**Model:**

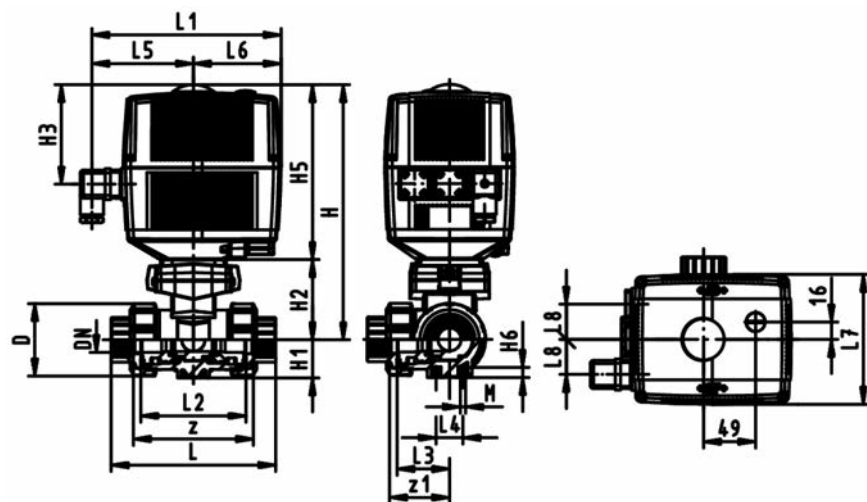
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



NPT [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>199 185 402</b>	<b>199 185 412</b>	2.121
1/2	15	10	200	<b>199 185 403</b>	<b>199 185 413</b>	2.127
3/4	20	10	470	<b>199 185 404</b>	<b>199 185 414</b>	2.254
1	25	10	793	<b>199 185 405</b>	<b>199 185 415</b>	2.439
1 1/4	32	10	1290	<b>199 185 406</b>	<b>199 185 416</b>	2.859
1 1/2	40	10	1910	<b>199 185 407</b>	<b>199 185 417</b>	3.301
2	50	10	3100	<b>199 185 408</b>	<b>199 185 418</b>	4.638

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	115	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	155	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	87	43
1/2	33	6	81	40
3/4	33	6	96	48
1	33	6	111	56
1 1/4	33	8	134	67
1 1/2	33	8	159	80
2	33	8	213	106

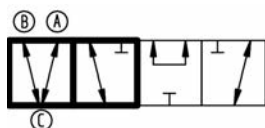
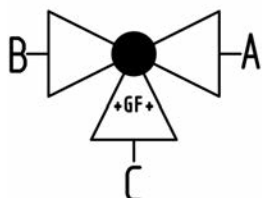




## 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement sockets ASTM

### Model:

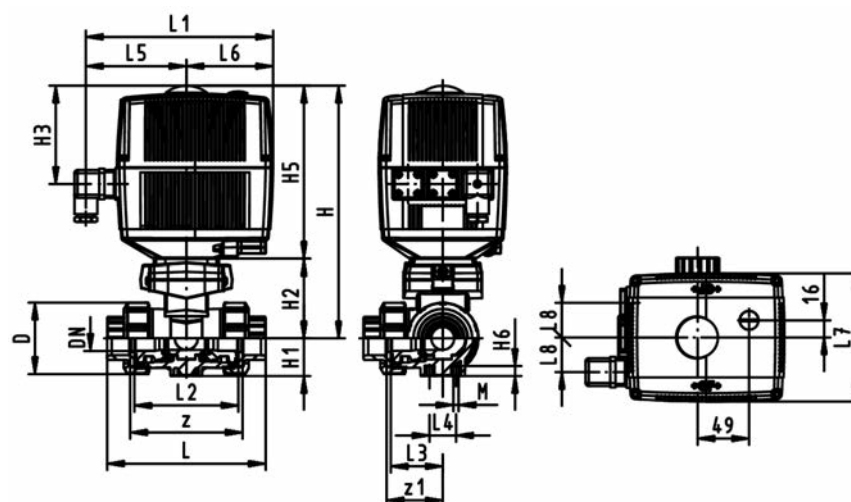
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 185 582	199 185 592	2.121
1/2	15	10	200	199 185 583	199 185 593	2.127
3/4	20	10	470	199 185 584	199 185 594	2.254
1	25	10	793	199 185 585	199 185 595	2.439
1 1/4	32	10	1290	199 185 586	199 185 596	2.859
1 1/2	40	10	1910	199 185 587	199 185 597	3.301
2	50	10	3100	199 185 588	199 185 598	4.638

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	123	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	122	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	141	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	161	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	187	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	213	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	85	42
1/2	33	6	77	38
3/4	33	6	92	46
1	33	6	105	53
1 1/4	33	8	126	63
1 1/2	33	8	143	72
2	33	8	185	92

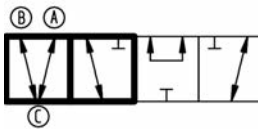
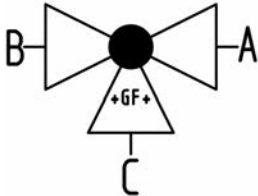




### 3-Way ball valve type 185 PVC-U Horizontal/T-port 24V With manual emergency override With threaded sockets NPT

**Model:**

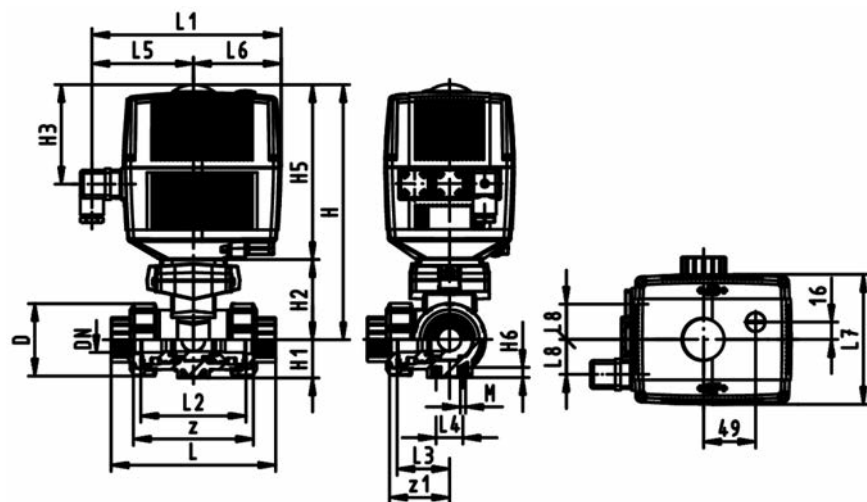
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless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



NPT [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>199 185 562</b>	<b>199 185 572</b>	2.121
1/2	15	10	200	<b>199 185 563</b>	<b>199 185 573</b>	2.127
3/4	20	10	470	<b>199 185 564</b>	<b>199 185 574</b>	2.254
1	25	10	793	<b>199 185 565</b>	<b>199 185 575</b>	2.439
1 1/4	32	10	1290	<b>199 185 566</b>	<b>199 185 576</b>	2.859
1 1/2	40	10	1910	<b>199 185 567</b>	<b>199 185 577</b>	3.301
2	50	10	3100	<b>199 185 568</b>	<b>199 185 578</b>	4.638

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	115	180	73	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	73	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	86	43	25	97	83	122
1	68	240	36	73	94	167	8	155	180	99	50	25	97	83	122
1 1/4	84	251	45	84	94	167	9	181	180	120	60	45	97	83	122
1 1/2	97	251	51	84	94	167	9	205	180	137	69	45	97	83	122
2	124	273	65	106	94	167	9	261	180	179	89	45	97	83	122

NPT [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	87	43
1/2	33	6	81	40
3/4	33	6	96	48
1	33	6	111	56
1 1/4	33	8	134	67
1 1/2	33	8	159	80
2	33	8	213	106





# Ball valves pneumatic metric

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



DN10/15 - 50

### Model:

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

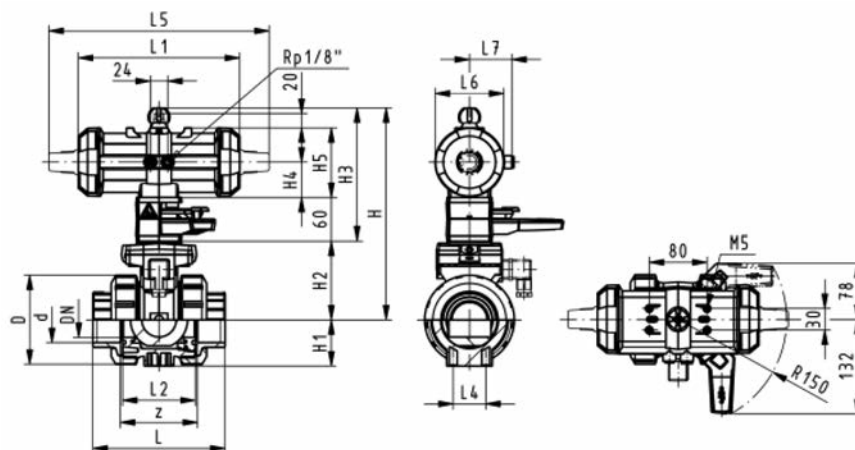
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 002	199 230 012	1.459
20	15	10	185	199 230 003	199 230 013	1.459
25	20	10	350	199 230 004	199 230 014	1.576
32	25	10	700	199 230 005	199 230 015	1.474
40	32	10	1000	199 230 006	199 230 016	2.443
50	40	10	1600	199 230 007	199 230 017	2.670
63	50	10	3100	199 230 008	199 230 018	3.419

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

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







DN10/15 - 50

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

### Model:

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

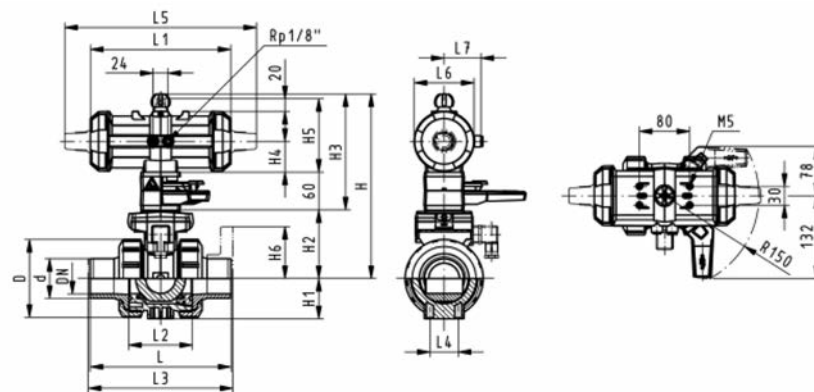
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 022	199 230 032	1.459
20	15	10	185	199 230 023	199 230 033	1.459
25	20	10	350	199 230 024	199 230 034	1.576
32	25	10	700	199 230 025	199 230 035	1.700
40	32	10	1000	199 230 026	199 230 036	2.751
50	40	10	1600	199 230 027	199 230 037	3.073
63	50	10	3100	199 230 028	199 230 038	3.931

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

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





DN10/15 - 50

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

### Model:

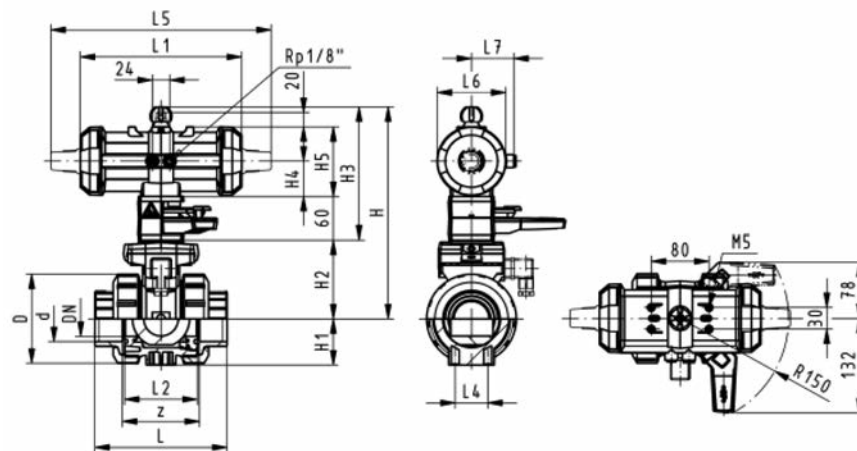
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 230 362</b>	<b>199 230 372</b>	1.500
1/2	15	10	185	<b>199 230 363</b>	<b>199 230 373</b>	1.500
3/4	20	10	350	<b>199 230 364</b>	<b>199 230 374</b>	1.600
1	25	10	700	<b>199 230 365</b>	<b>199 230 375</b>	1.700
1 1/4	32	10	1000	<b>199 230 366</b>	<b>199 230 376</b>	2.800
1 1/2	40	10	1600	<b>199 230 367</b>	<b>199 230 377</b>	3.100
2	50	10	3100	<b>199 230 368</b>	<b>199 230 378</b>	4.000

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





DN10/15 - 50

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With fixed flanges serrated 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  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

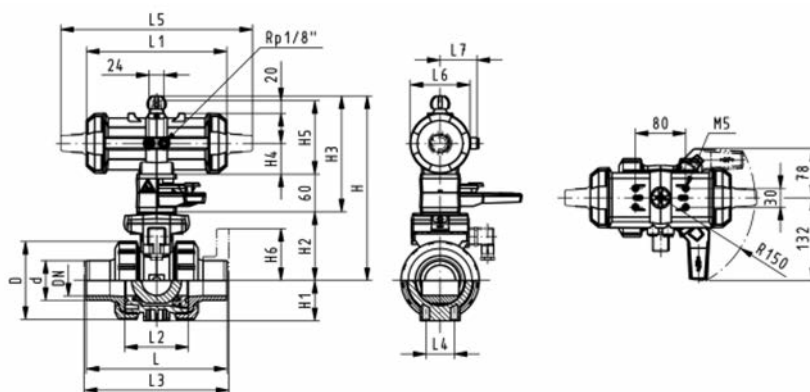
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	199 230 243	199 230 253	1.700
25	20	3/4	10	350	199 230 244	199 230 254	1.900
32	25	1	10	700	199 230 245	199 230 255	2.100
40	32	1 1/4	10	1000	199 230 246	199 230 256	3.400
50	40	1 1/2	10	1600	199 230 247	199 230 257	3.800
63	50	2	10	3100	199 230 248	199 230 258	4.900

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

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





DN10/15 - 50

## Ball valve type 230 PVC-U 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)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

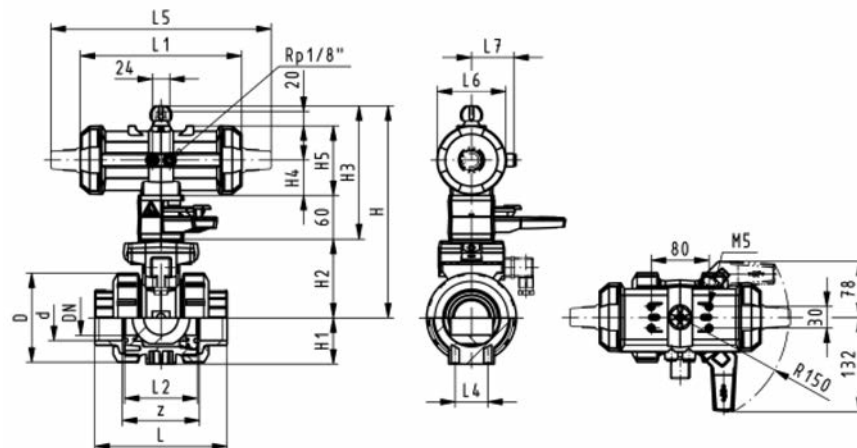
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 042	199 230 052	1.459
20	15	10	185	199 230 043	199 230 053	1.459
25	20	10	350	199 230 044	199 230 054	1.576
32	25	10	700	199 230 045	199 230 055	1.700
40	32	10	1000	199 230 046	199 230 056	2.751
50	40	10	1600	199 230 047	199 230 057	3.073
63	50	10	3100	199 230 048	199 230 058	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
16	$\frac{3}{8}$
20	$\frac{1}{2}$
25	$\frac{3}{4}$
32	1
40	1 $\frac{1}{4}$
50	1 $\frac{1}{2}$
63	2





DN10/15 - 50

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

### Model:

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

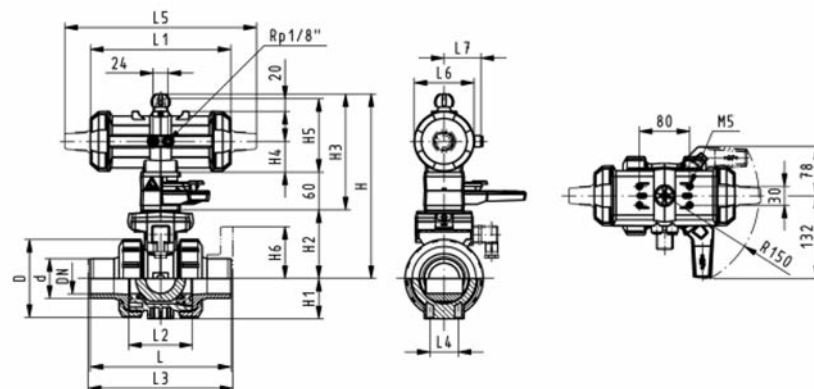
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 062	199 230 072	1.459
20	15	10	185	199 230 063	199 230 073	1.459
25	20	10	350	199 230 064	199 230 074	1.576
32	25	10	700	199 230 065	199 230 075	1.700
40	32	10	1000	199 230 066	199 230 076	2.751
50	40	10	1600	199 230 067	199 230 077	3.073
63	50	10	3100	199 230 068	199 230 078	3.931

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

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





DN10/15 - 50

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

### Model:

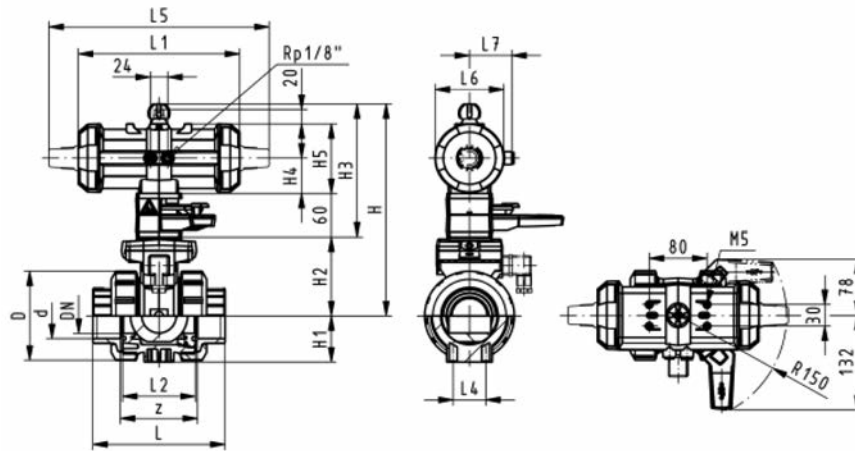
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
$\frac{3}{8}$	10	10	70	<b>199 230 382</b>	<b>199 230 392</b>	1.500
$\frac{1}{2}$	15	10	185	<b>199 230 383</b>	<b>199 230 393</b>	1.500
$\frac{3}{4}$	20	10	350	<b>199 230 384</b>	<b>199 230 394</b>	1.600
1	25	10	700	<b>199 230 385</b>	<b>199 230 395</b>	1.700
1 $\frac{1}{4}$	32	10	1000	<b>199 230 386</b>	<b>199 230 396</b>	2.800
1 $\frac{1}{2}$	40	10	1600	<b>199 230 387</b>	<b>199 230 397</b>	3.100
2	50	10	3100	<b>199 230 388</b>	<b>199 230 398</b>	4.000

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





DN10/15 - 50

## Ball valve type 230 PVC-U FO (Fail safe to open) With manual override With fixed flanges serrated 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  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

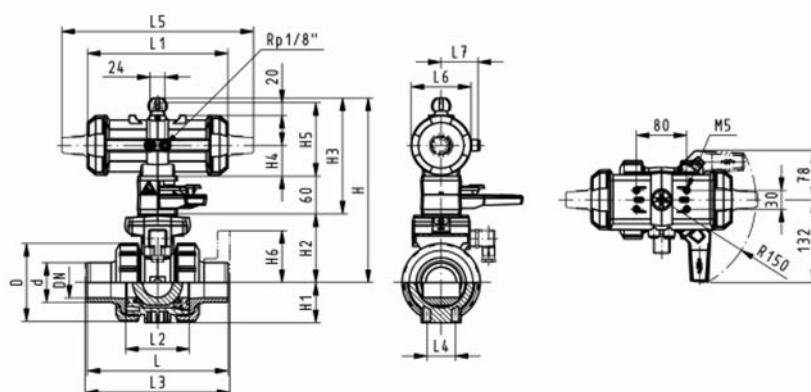
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	199 230 263	199 230 273	1.700
25	20	3/4	10	350	199 230 264	199 230 274	1.900
32	25	1	10	700	199 230 265	199 230 275	2.100
40	32	1 1/4	10	1000	199 230 266	199 230 276	3.400
50	40	1 1/2	10	1600	199 230 267	199 230 277	3.800
63	50	2	10	3100	199 230 268	199 230 278	4.900

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

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







DN10/15 - 50

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

### Model:

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

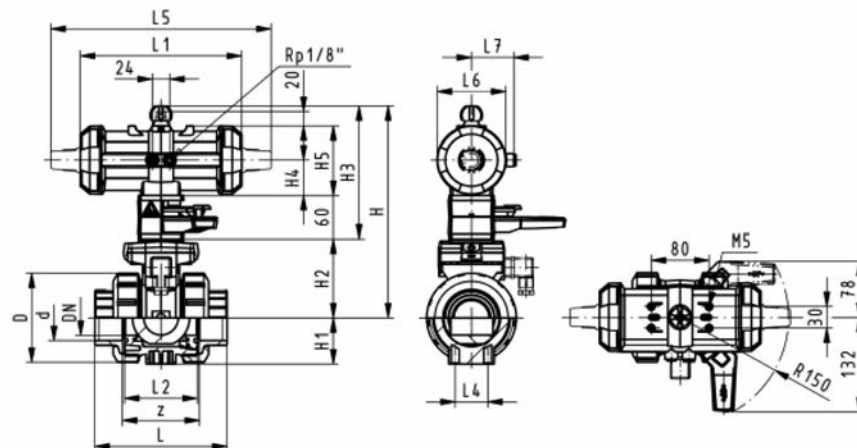
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 082	199 230 092	1.459
20	15	10	185	199 230 083	199 230 093	1.044
25	20	10	350	199 230 084	199 230 094	1.576
32	25	10	700	199 230 085	199 230 095	1.700
40	32	10	1000	199 230 086	199 230 096	2.751
50	40	10	1600	199 230 087	199 230 097	3.073
63	50	10	3100	199 230 088	199 230 098	2.923

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

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





DN10/15 - 50

## Ball valve type 230 PVC-U DA (Double acting) With manual override With solvent cement spigots 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  $90^\circ <$  1-2 s

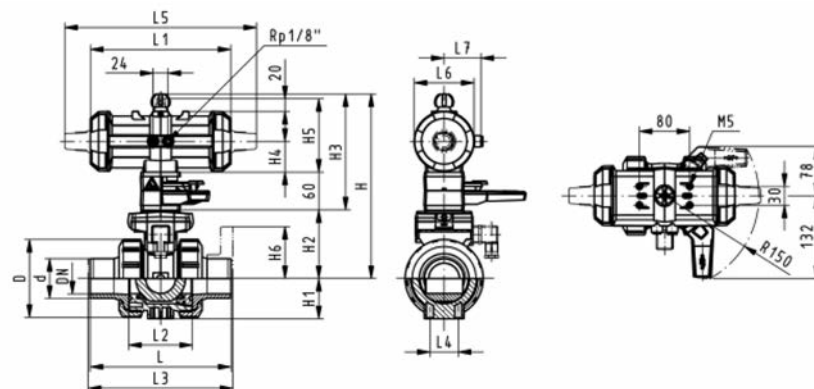
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 102	199 230 112	1.459
20	15	10	185	199 230 103	199 230 113	1.459
25	20	10	350	199 230 104	199 230 114	1.576
32	25	10	700	199 230 105	199 230 115	1.700
40	32	10	1000	199 230 106	199 230 116	2.751
50	40	10	1600	199 230 107	199 230 117	3.073
63	50	10	3100	199 230 108	199 230 118	3.931

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

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





DN10/15 - 50

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

### Model:

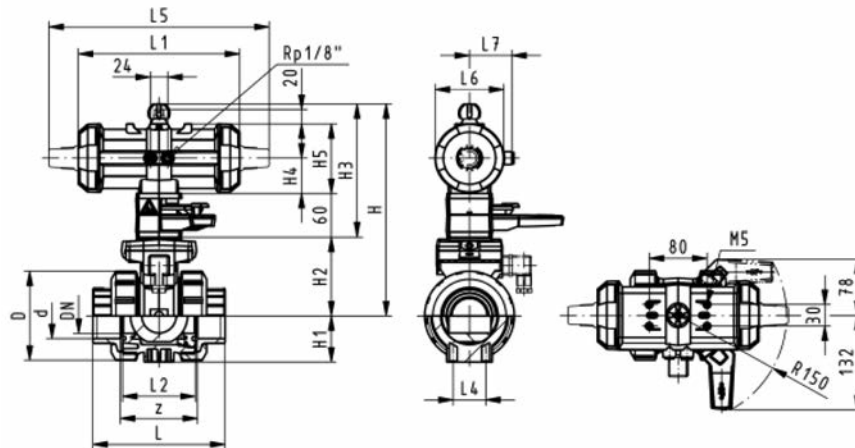
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
$\frac{3}{8}$	10	10	70	<b>199 230 642</b>	<b>199 230 652</b>	1.500
$\frac{1}{2}$	15	10	185	<b>199 230 643</b>	<b>199 230 653</b>	1.500
$\frac{3}{4}$	20	10	350	<b>199 230 644</b>	<b>199 230 654</b>	1.600
1	25	10	700	<b>199 230 645</b>	<b>199 230 655</b>	1.700
1 $\frac{1}{4}$	32	10	1000	<b>199 230 646</b>	<b>199 230 656</b>	2.800
1 $\frac{1}{2}$	40	10	1600	<b>199 230 647</b>	<b>199 230 657</b>	3.100
2	50	10	3100	<b>199 230 648</b>	<b>199 230 658</b>	4.000

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





DN10/15 - 50

## Ball valve type 230 PVC-U DA (Double acting) With manual override With fixed flanges serrated 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  $90^\circ <$  1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

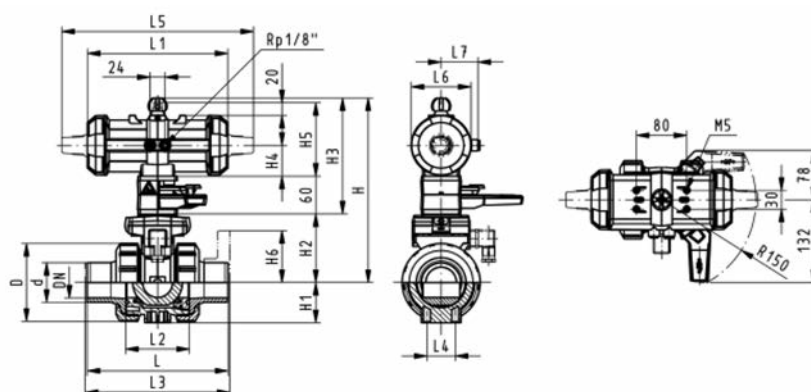
### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	199 230 283	199 230 293	1.700
25	20	3/4	10	350	199 230 284	199 230 294	1.900
32	25	1	10	700	199 230 285	199 230 295	2.100
40	32	1 1/4	10	1000	199 230 286	199 230 296	3.400
50	40	1 1/2	10	1600	199 230 287	199 230 297	3.800
63	50	2	10	3100	199 230 288	199 230 298	4.900

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

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





DN10/15 - 50

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

### Model:

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

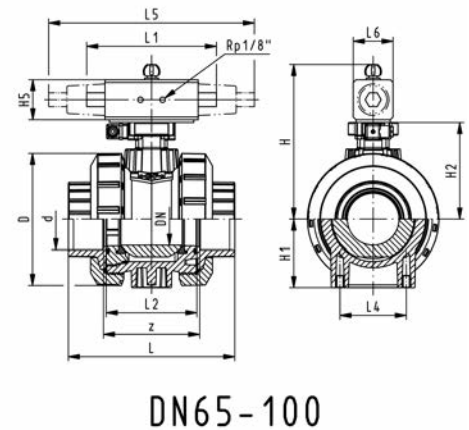
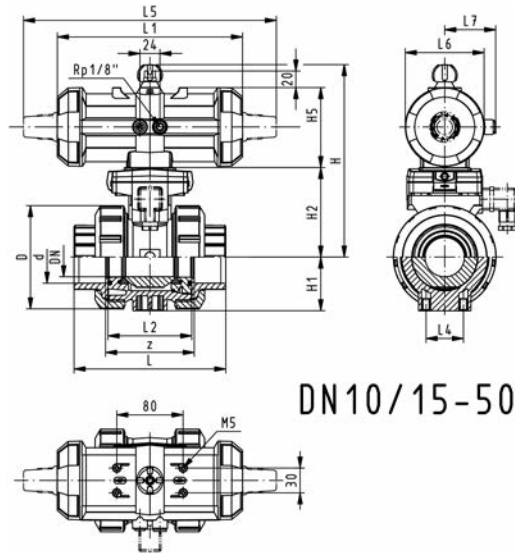
### Option:

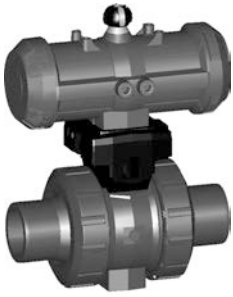
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 122	199 230 132	1.159
20	15	10	185	199 230 123	199 230 133	1.034
25	20	10	350	199 230 124	199 230 134	1.133
32	25	10	700	199 230 125	199 230 135	1.238
40	32	10	1000	199 230 126	199 230 136	2.188
50	40	10	1600	199 230 127	199 230 137	2.421
63	50	10	3100	199 230 128	199 230 138	3.163
75	65	10	5000	199 230 129	199 230 139	7.800
90	80	10	7000	199 230 130	199 230 140	10.200
110	100	10	11000	199 230 131	199 230 141	15.500

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]	closest inch
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



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

### Model:

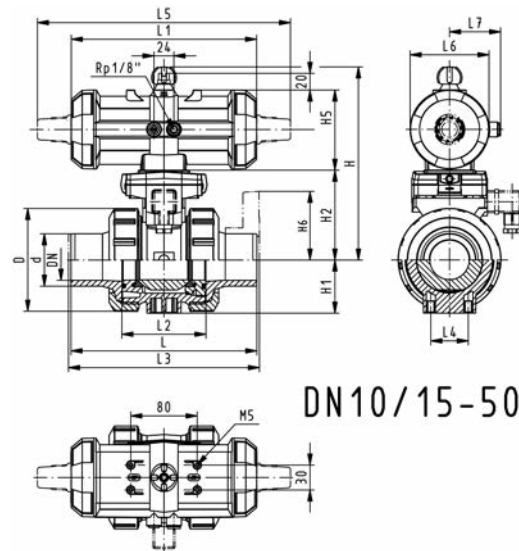
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

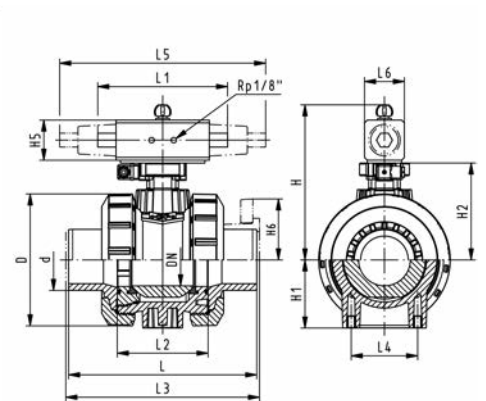
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 142	199 230 152	1.159
20	15	10	185	199 230 143	199 230 153	1.159
25	20	10	350	199 230 144	199 230 154	1.276
32	25	10	700	199 230 145	199 230 155	1.400
40	32	10	1000	199 230 146	199 230 156	2.451
50	40	10	1600	199 230 147	199 230 157	2.773
63	50	10	3100	199 230 148	199 230 158	3.631
75	65	10	5000	199 230 149	199 230 159	7.900
90	80	10	7000	199 230 150	199 230 160	10.400
110	100	10	11000	199 230 151	199 230 161	15.700

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



DN10/15-50



DN65-100





DN10/15 - 50

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

### Model:

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

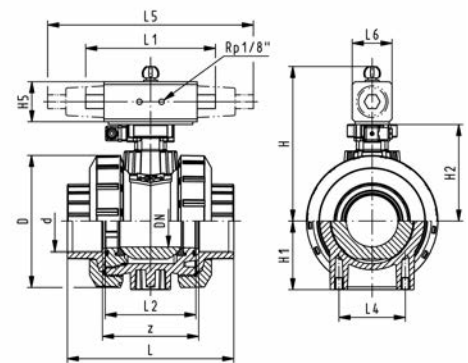
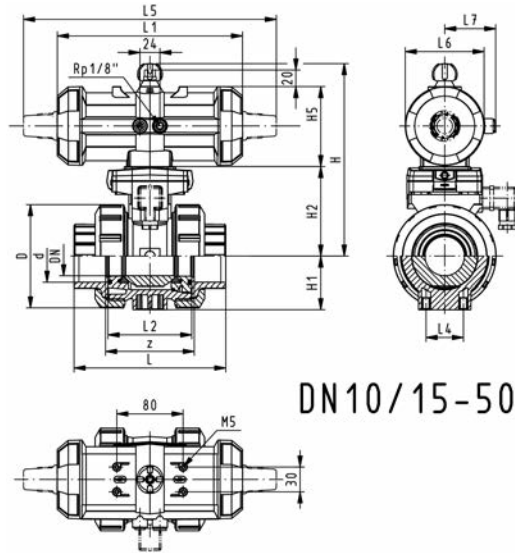
### Option:

- Individual configuration of the valve (see diagram)



Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 230 662	199 230 672	1.200
1/2	15	10	185	199 230 663	199 230 673	1.200
3/4	20	10	350	199 230 664	199 230 674	1.300
1	25	10	700	199 230 665	199 230 675	1.400
1 1/4	32	10	1000	199 230 666	199 230 676	2.500
1 1/2	40	10	1600	199 230 667	199 230 677	2.800
2	50	10	3100	199 230 668	199 230 678	3.700
2 1/2	65	10	5000	199 230 669	199 230 679	7.800
3	80	10	7000	199 230 670	199 230 680	10.300
4	100	10	11000	199 230 671	199 230 681	15.500

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







DN10/15 - 50

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

### Model:

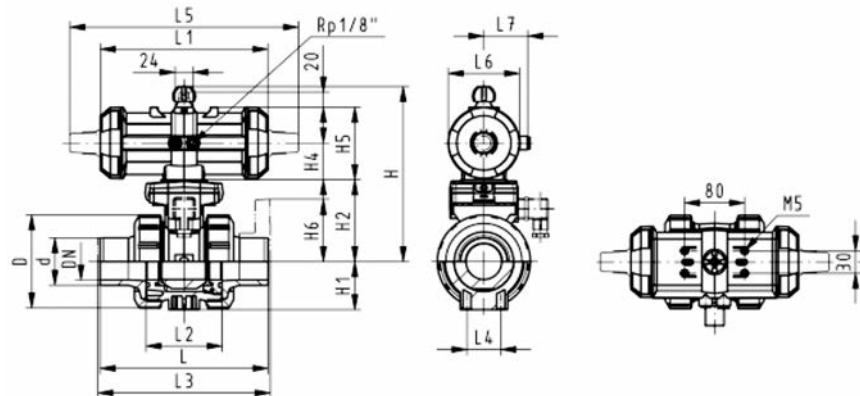
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	199 230 303	199 230 313	1.700
25	20	3/4	10	350	199 230 304	199 230 314	1.900
32	25	1	10	700	199 230 305	199 230 315	2.100
40	32	1 1/4	10	1000	199 230 306	199 230 316	3.400
50	40	1 1/2	10	1600	199 230 307	199 230 317	3.800
63	50	2	10	3100	199 230 308	199 230 318	4.900

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





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

### Model:

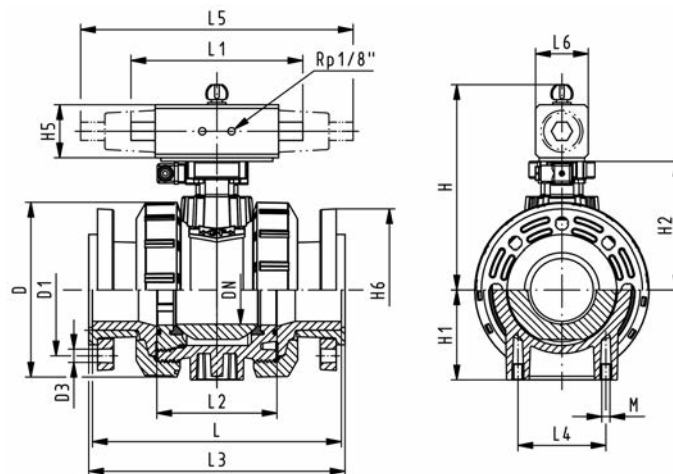
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN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

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 234 469</b>	<b>199 234 479</b>	11.900
90	80	10	7000	<b>199 234 470</b>	<b>199 234 480</b>	15.300
110	100	10	11000	<b>199 234 471</b>	<b>199 234 481</b>	22.300

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





DN10/15 - 50



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

### Model:

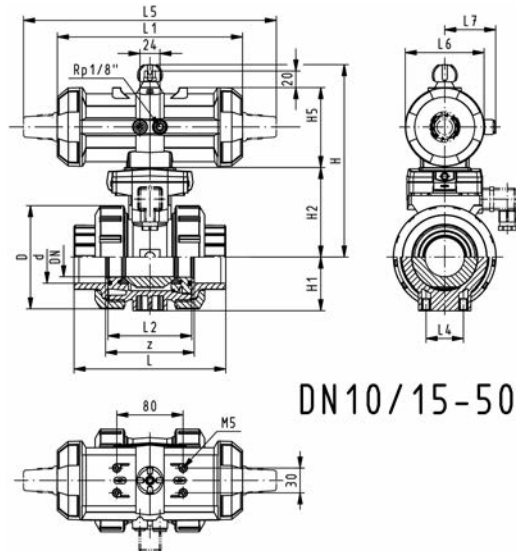
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

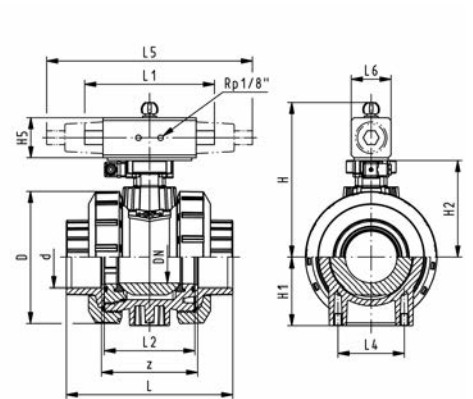
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 162	199 230 172	1.159
20	15	10	185	199 230 163	199 230 173	1.159
25	20	10	350	199 230 164	199 230 174	1.276
32	25	10	700	199 230 165	199 230 175	1.400
40	32	10	1000	199 230 166	199 230 176	2.451
50	40	10	1600	199 230 167	199 230 177	2.773
63	50	10	3100	199 230 168	199 230 178	3.631
75	65	10	5000	199 230 169	199 230 179	7.800
90	80	10	7000	199 230 170	199 230 180	10.200
110	100	10	11000	199 230 171	199 230 181	15.500

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]	closest inch
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



DN10/15 - 50

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

### Model:

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

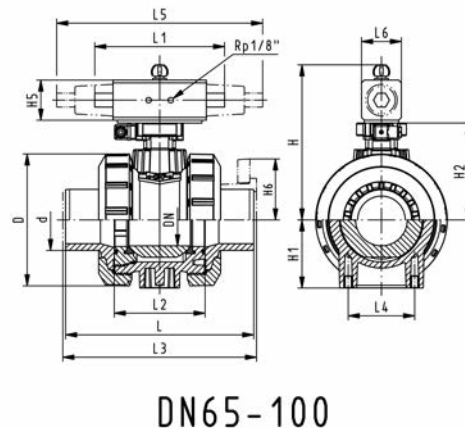
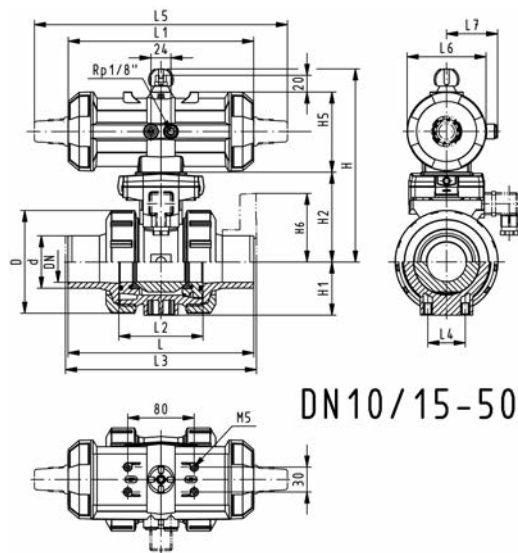
### Option:

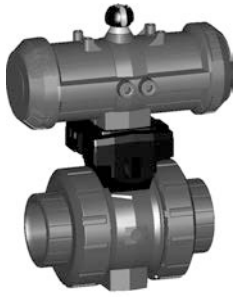
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 182	199 230 192	1.159
20	15	10	185	199 230 183	199 230 193	1.159
25	20	10	350	199 230 184	199 230 194	1.276
32	25	10	700	199 230 185	199 230 195	1.400
40	32	10	1000	199 230 186	199 230 196	2.451
50	40	10	1600	199 230 187	199 230 197	2.773
63	50	10	3100	199 230 188	199 230 198	3.631
75	65	10	5000	199 230 189	199 230 199	7.900
90	80	10	7000	199 230 190	199 230 200	10.400
110	100	10	11000	199 230 191	199 230 201	15.700

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





DN10/15 - 50



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

### Model:

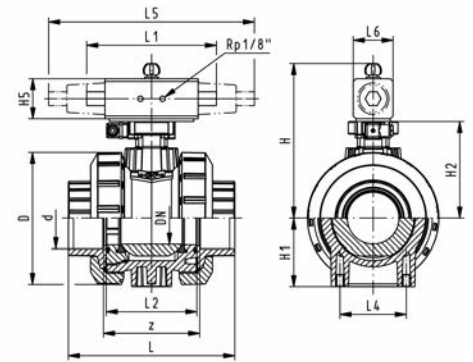
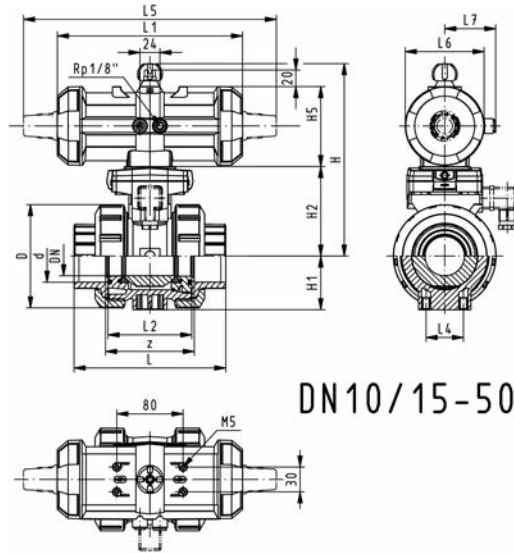
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 230 682	199 230 692	1.200
1/2	15	10	185	199 230 683	199 230 693	1.200
3/4	20	10	350	199 230 684	199 230 694	1.300
1	25	10	700	199 230 685	199 230 695	1.400
1 1/4	32	10	1000	199 230 686	199 230 696	2.500
1 1/2	40	10	1600	199 230 687	199 230 697	2.800
2	50	10	3100	199 230 688	199 230 698	3.700
2 1/2	65	10	5000	199 230 689	199 230 699	7.800
3	80	10	7000	199 230 690	199 230 700	10.300
4	100	10	11000	199 230 691	199 230 701	15.500

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





DN10/15 - 50

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

### Model:

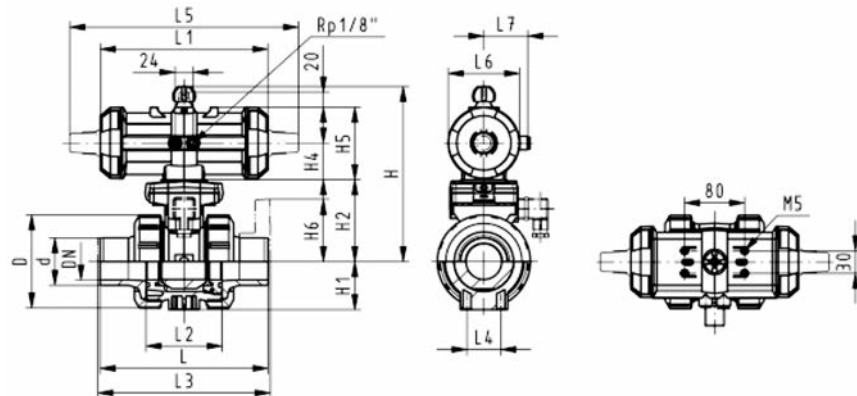
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	<b>199 230 323</b>	<b>199 230 333</b>	1.700
25	20	¾	10	350	<b>199 230 324</b>	<b>199 230 334</b>	1.900
32	25	1	10	700	<b>199 230 325</b>	<b>199 230 335</b>	2.100
40	32	1 ¼	10	1000	<b>199 230 326</b>	<b>199 230 336</b>	3.400
50	40	1 ½	10	1600	<b>199 230 327</b>	<b>199 230 337</b>	3.800
63	50	2	10	3100	<b>199 230 328</b>	<b>199 230 338</b>	4.900

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







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

### Model:

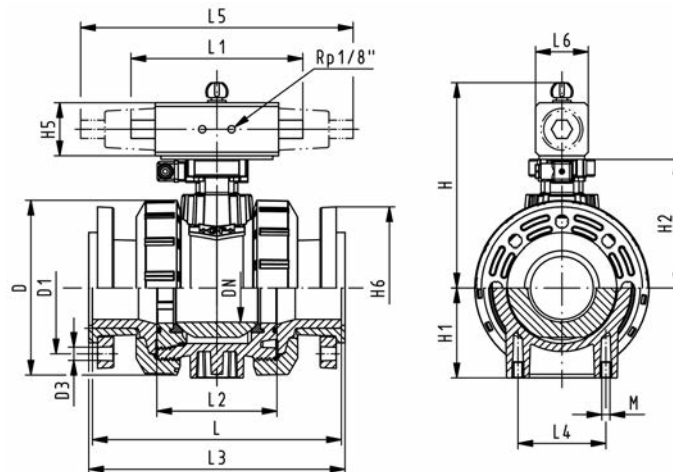
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN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

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg	
75	65	10	5000	199 234 489	199 234 499	11.900	
90	80	10	7000	199 234 490	199 234 500	15.300	
110	100	10	11000	199 234 491	199 234 501	22.300	

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







DN10/15 - 50

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

### Model:

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

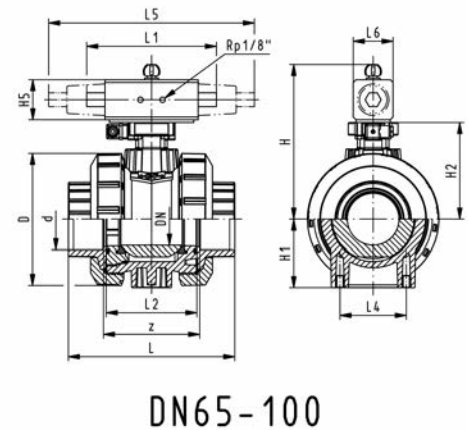
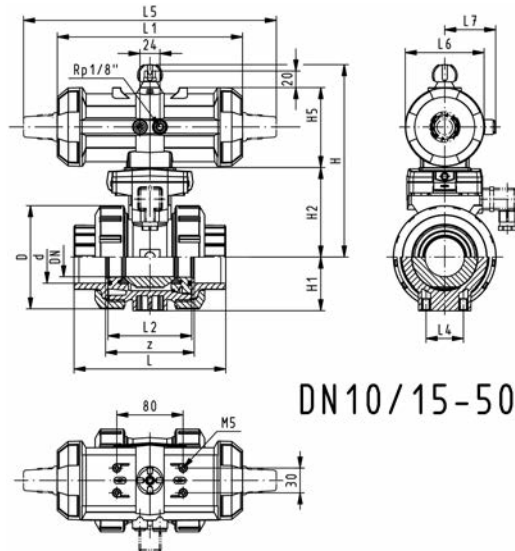
### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 202	199 230 212	1.159
20	15	10	185	199 230 203	199 230 213	1.159
25	20	10	350	199 230 204	199 230 214	1.276
32	25	10	700	199 230 205	199 230 215	1.400
40	32	10	1000	199 230 206	199 230 216	2.451
50	40	10	1600	199 230 207	199 230 217	2.773
63	50	10	3100	199 230 208	199 230 218	2.673
75	65	10	5000	199 230 209	199 230 219	6.600
90	80	10	7000	199 230 210	199 230 220	9.500
110	100	10	11000	199 230 211	199 230 221	13.700

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
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	257	85	156	66	233	144	136	70		60		144	2 1/2
90	200	274	105	168	70	254	152	141	70		65		151	3
110	238	273	123	175	78	301	169	164	120		72		174	4





DN10/15 - 50



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

### Model:

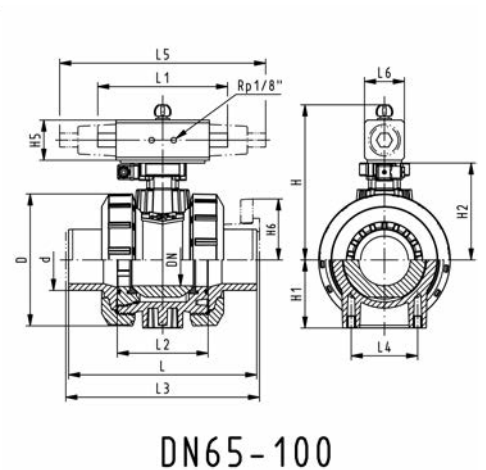
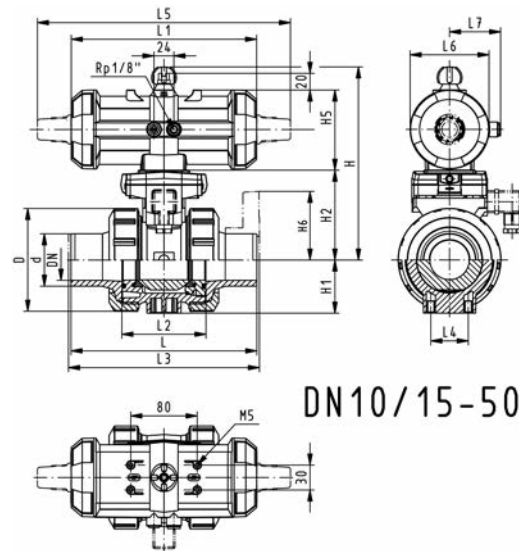
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 230 222	199 230 232	1.159
20	15	10	185	199 230 223	199 230 233	1.159
25	20	10	350	199 230 224	199 230 234	1.276
32	25	10	700	199 230 225	199 230 235	1.400
40	32	10	1000	199 230 226	199 230 236	2.451
50	40	10	1600	199 230 227	199 230 237	2.773
63	50	10	3100	199 230 228	199 230 238	3.631
75	65	10	5000	199 230 229	199 230 239	6.800
90	80	10	7000	199 230 230	199 230 240	9.700
110	100	10	11000	199 230 231	199 230 241	13.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	closest inch
16	50	159	27	62	77	114	194	56	0	25	261	76	48	3/8
20	50	159	27	62	77	124	194	56	130	25	261	76	48	1/2
25	58	168	30	71	77	144	194	65	150	25	261	76	48	3/4
32	68	168	36	71	77	154	194	71	160	25	261	76	48	1
40	84	202	44	84	99	174	224	85	180	45	305	95	59	1 1/4
50	97	202	51	84	99	194	224	89	200	45	305	95	59	1 1/2
63	124	225	64	106	99	224	224	101	230	45	305	95	59	2
75	166	257	85	156	66	284	144	136	290	70		60		2 1/2
90	200	274	105	168	70	300	152	141	310	70		65		3
110	238	273	123	175	78	340	169	164	350	120		72		4





DN10/15 - 50

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

### Model:

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

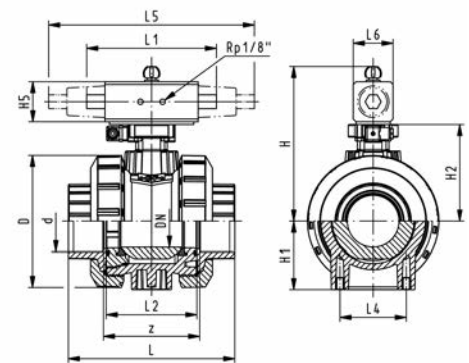
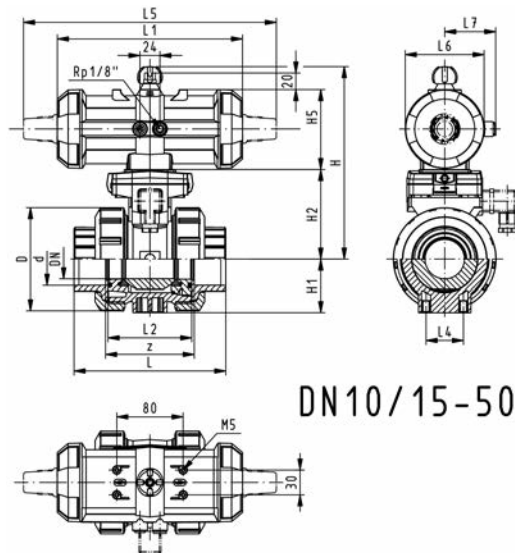
### Option:

- Individual configuration of the valve (see diagram)



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 230 712	199 230 732	1.200
1/2	15	10	185	199 230 713	199 230 733	1.200
3/4	20	10	350	199 230 714	199 230 734	1.300
1	25	10	700	199 230 715	199 230 735	1.400
1 1/4	32	10	1000	199 230 716	199 230 736	2.500
1 1/2	40	10	1600	199 230 717	199 230 737	2.800
2	50	10	3100	199 230 718	199 230 738	3.700
2 1/2	65	10	5000	199 230 719	199 230 739	6.700
3	80	10	7000	199 230 720	199 230 740	9.700
4	100	10	11000	199 230 721	199 230 741	13.700

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





DN10/15 - 50

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

### Model:

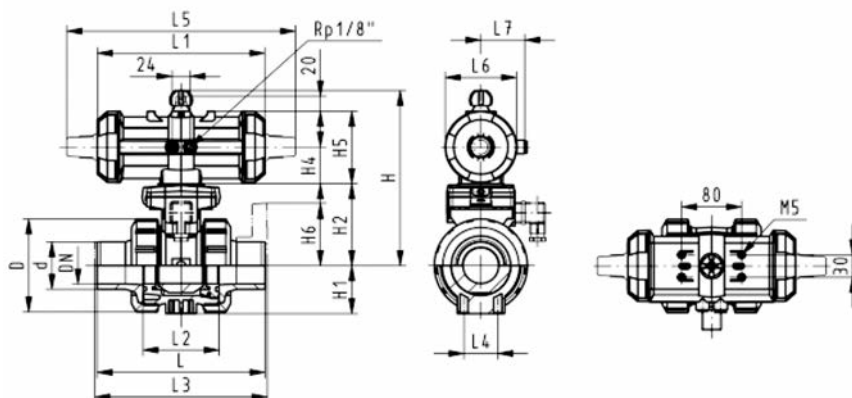
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 230 343	199 230 353	1.700
25	20	¾	10	350	199 230 344	199 230 354	1.900
32	25	1	10	700	199 230 345	199 230 355	2.100
40	32	1 ¼	10	1000	199 230 346	199 230 356	3.400
50	40	1 ½	10	1600	199 230 347	199 230 357	3.800
63	50	2	10	3100	199 230 348	199 230 358	4.900

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





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

### Model:

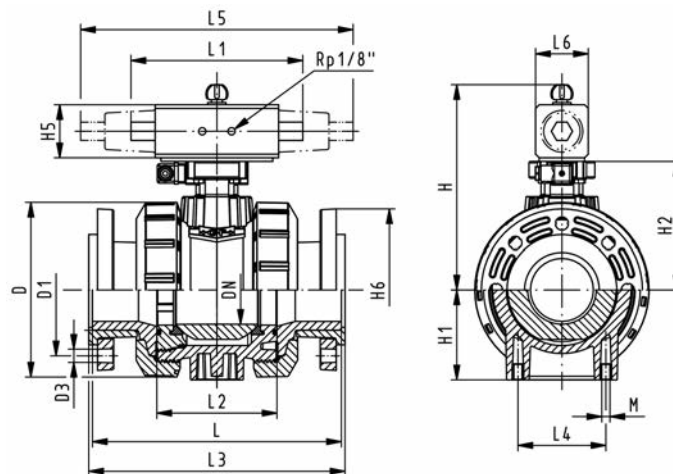
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN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

### Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 234 509</b>	<b>199 234 519</b>	10.800
90	80	10	7000	<b>199 234 510</b>	<b>199 234 520</b>	14.600
110	100	10	11000	<b>199 234 511</b>	<b>199 234 521</b>	20.600

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

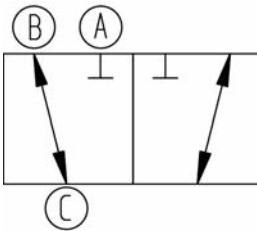
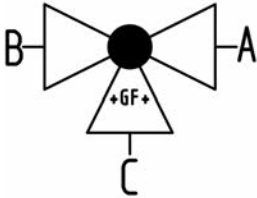




### 3-Way ball valve type 285 PVC-U Horizontal/L-port Without manual override With solvent cement sockets metric

#### Model:

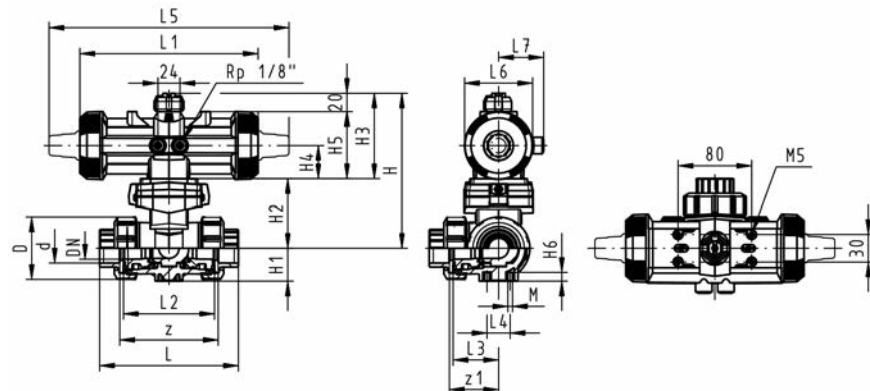
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 285 022	199 285 032	1.115
20	15	10	75	199 285 023	199 285 033	1.121
25	20	10	150	199 285 024	199 285 034	1.228
32	25	10	280	199 285 025	199 285 035	1.413
40	32	10	480	199 285 026	199 285 036	2.539
50	40	10	620	199 285 027	199 285 037	2.991
63	50	10	1230	199 285 028	199 285 038	4.352

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
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



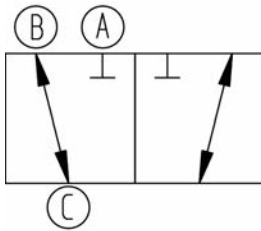
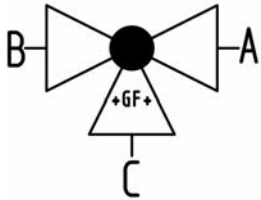




## 3-Way ball valve type 285 PVC-U Horizontal/L-port Without manual override With solvent cement spigots metric

### Model:

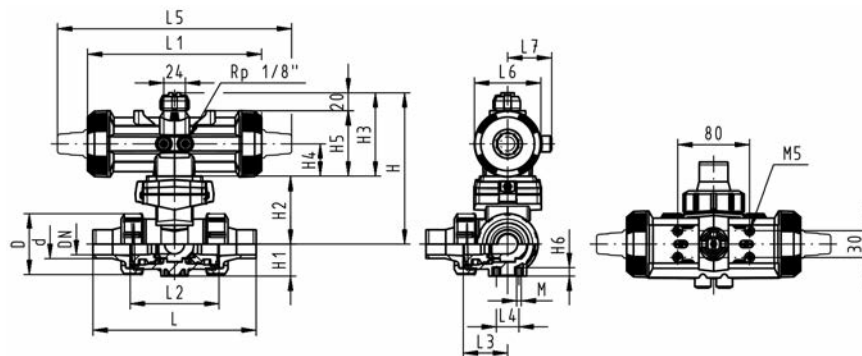
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 285 002	199 285 012	1.121
20	15	10	75	199 285 003	199 285 013	1.130
25	20	10	150	199 285 004	199 285 014	1.264
32	25	10	280	199 285 005	199 285 015	1.436
40	32	10	480	199 285 006	199 285 016	2.560
50	40	10	620	199 285 007	199 285 017	3.054
63	50	10	1230	199 285 008	199 285 018	4.451

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

d [mm]	L7 [mm]	M	closest inch
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	$1 \frac{1}{4}$
50	59	8	$1 \frac{1}{2}$
63	59	8	2



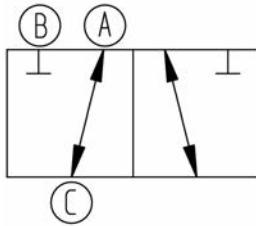
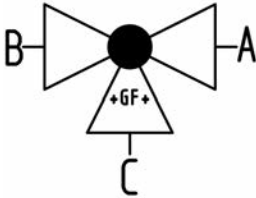




### 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets metric

#### Model:

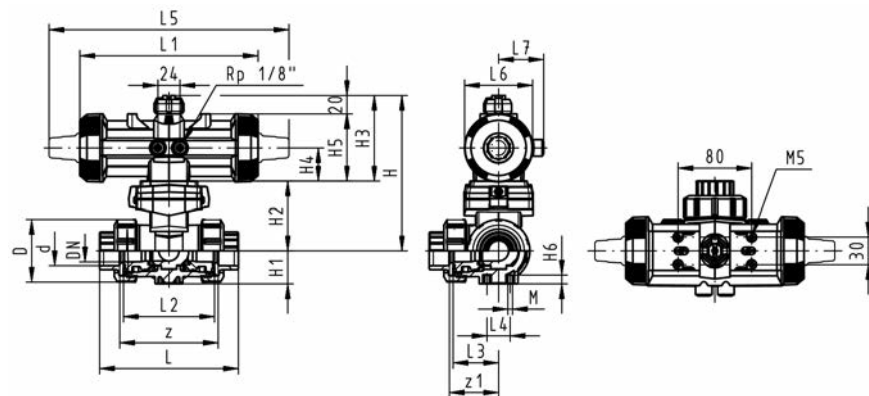
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 285 202	199 285 212	0.925
20	15	10	75	199 285 203	199 285 213	0.885
25	20	10	150	199 285 204	199 285 214	1.059
32	25	10	280	199 285 205	199 285 215	1.249
40	32	10	480	199 285 206	199 285 216	2.115
50	40	10	620	199 285 207	199 285 217	2.463
63	50	10	1230	199 285 208	199 285 218	3.828

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
16	48	6	81	40	$\frac{3}{8}$
20	48	6	81	40	$\frac{1}{2}$
25	48	6	94	47	$\frac{3}{4}$
32	48	6	107	54	1
40	59	8	130	65	$1 \frac{1}{4}$
50	59	8	143	72	$1 \frac{1}{2}$
63	59	8	185	92	2

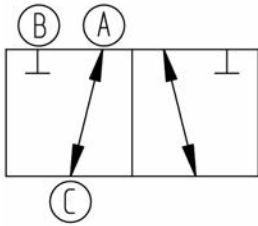
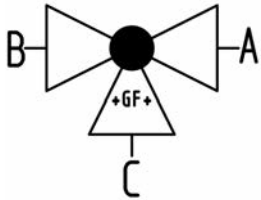




## 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement spigots metric

### Model:

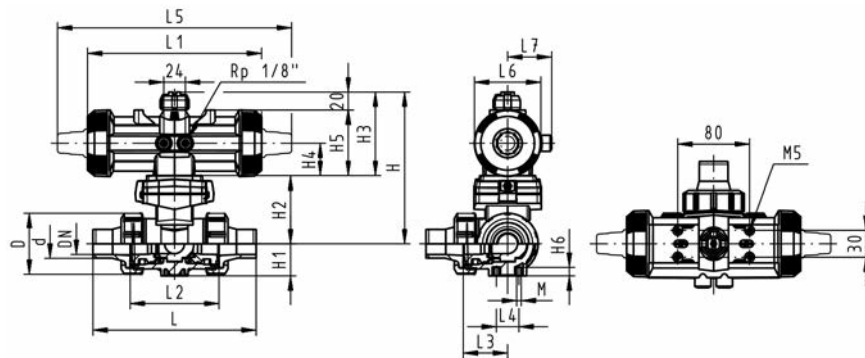
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 285 182	199 285 192	0.931
20	15	10	75	199 285 183	199 285 193	0.940
25	20	10	150	199 285 184	199 285 194	1.074
32	25	10	280	199 285 185	199 285 195	1.273
40	32	10	480	199 285 186	199 285 196	2.136
50	40	10	620	199 285 187	199 285 197	2.630
63	50	10	1230	199 285 188	199 285 198	4.054

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

d [mm]	L7 [mm]	M	closest inch
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2

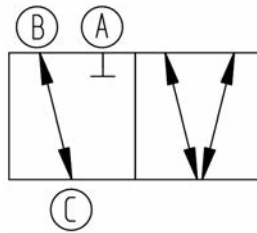
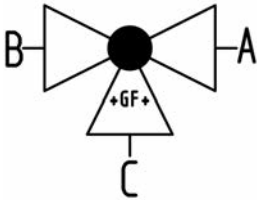




### 3-Way ball valve type 285 PVC-U Horizontal/T-port Without manual override With solvent cement sockets metric

#### Model:

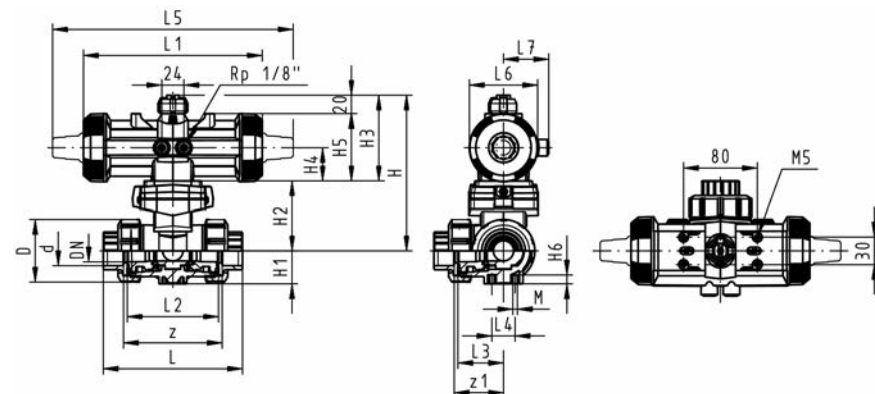
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 285 062	199 285 072	1.114
20	15	10	200	199 285 063	199 285 073	1.120
25	20	10	470	199 285 064	199 285 074	1.247
32	25	10	793	199 285 065	199 285 075	1.432
40	32	10	1290	199 285 066	199 285 076	2.528
50	40	10	1910	199 285 067	199 285 077	2.970
63	50	10	3100	199 285 068	199 285 078	4.314

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
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

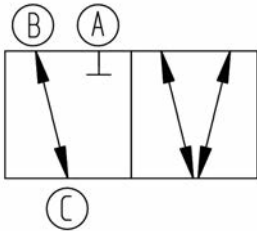
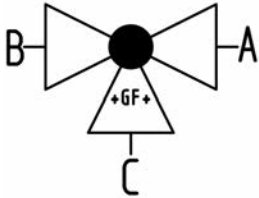




## 3-Way ball valve type 285 PVC-U Horizontal/T-port Without manual override With solvent cement spigots metric

### Model:

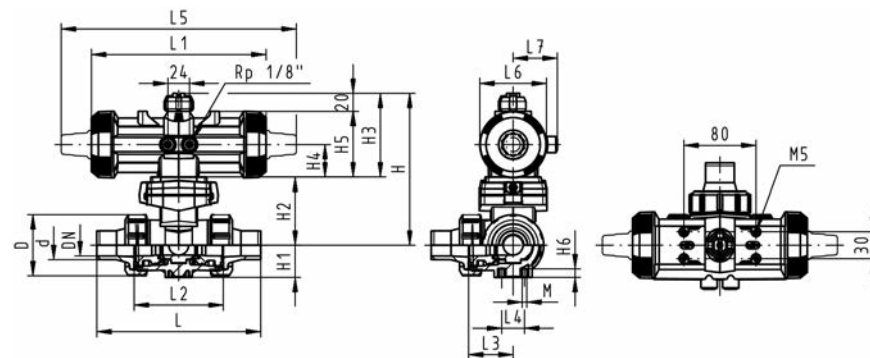
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 285 042	199 285 052	1.120
20	15	10	200	199 285 043	199 285 053	1.129
25	20	10	470	199 285 044	199 285 054	1.262
32	25	10	793	199 285 045	199 285 055	1.456
40	32	10	1290	199 285 046	199 285 056	2.549
50	40	10	1910	199 285 047	199 285 057	3.033
63	50	10	3100	199 285 048	199 285 058	4.433

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

d [mm]	L7 [mm]	M	closest inch
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	$1 \frac{1}{4}$
50	59	8	$1 \frac{1}{2}$
63	59	8	2

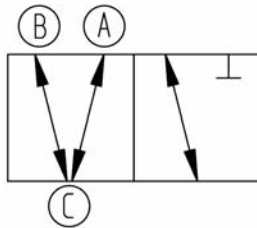
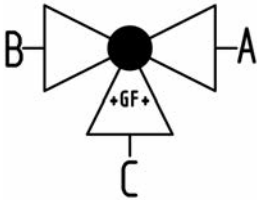




### 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets metric

#### Model:

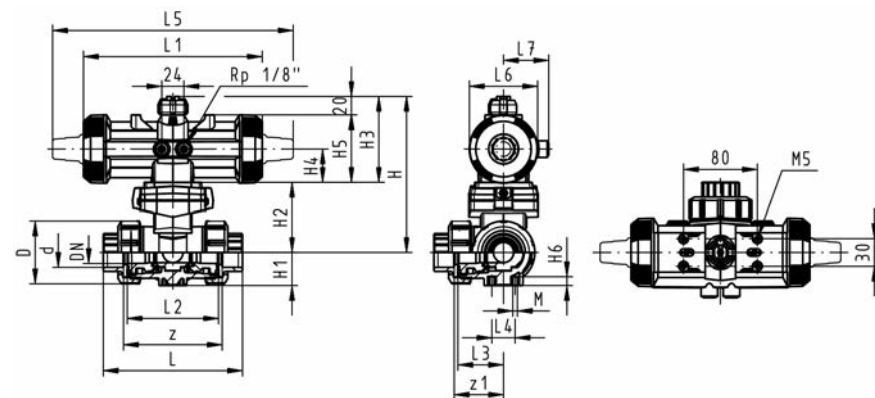
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 285 242	199 285 252	0.924
20	15	10	200	199 285 243	199 285 253	0.930
25	20	10	470	199 285 244	199 285 254	1.057
32	25	10	793	199 285 245	199 285 255	1.242
40	32	10	1290	199 285 246	199 285 256	2.104
50	40	10	1910	199 285 247	199 285 257	2.546
63	50	10	3100	199 285 248	199 285 258	3.883

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
16	48	6	81	40	$\frac{3}{8}$
20	48	6	81	40	$\frac{1}{2}$
25	48	6	94	47	$\frac{3}{4}$
32	48	6	107	54	1
40	59	8	130	65	$1 \frac{1}{4}$
50	59	8	143	72	$1 \frac{1}{2}$
63	59	8	185	92	2

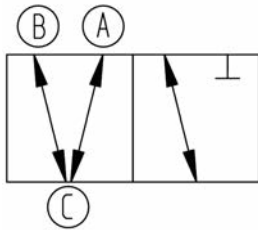
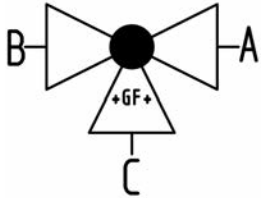




## 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement spigots metric

### Model:

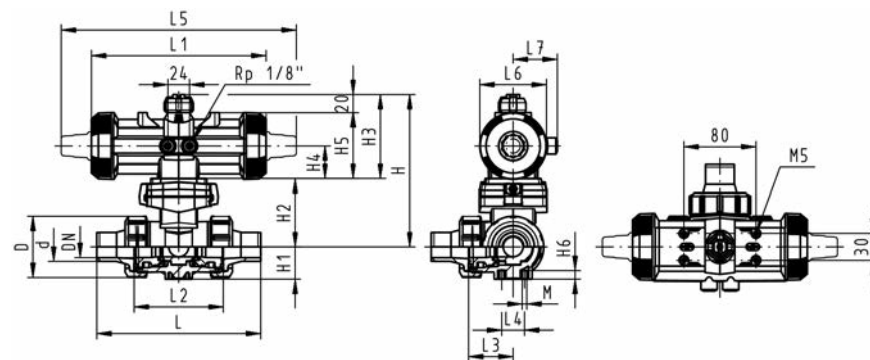
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 285 222	199 285 232	0.930
20	15	10	200	199 285 223	199 285 233	0.939
25	20	10	470	199 285 224	199 285 234	1.072
32	25	10	793	199 285 225	199 285 235	1.266
40	32	10	1290	199 285 226	199 285 236	2.125
50	40	10	1910	199 285 227	199 285 237	2.609
63	50	10	3100	199 285 228	199 285 238	4.009

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

d [mm]	L7 [mm]	M	closest inch
16	48	6	$\frac{3}{8}$
20	48	6	$\frac{1}{2}$
25	48	6	$\frac{3}{4}$
32	48	6	1
40	59	8	1 $\frac{1}{4}$
50	59	8	1 $\frac{1}{2}$
63	59	8	2





# Ball valves pneumatic Inch BS

## Ball valve type 234 PVC-U FC (Fail safe to close) With manual override With solvent cement sockets Inch BS



DN10/15 - 50

### Model:

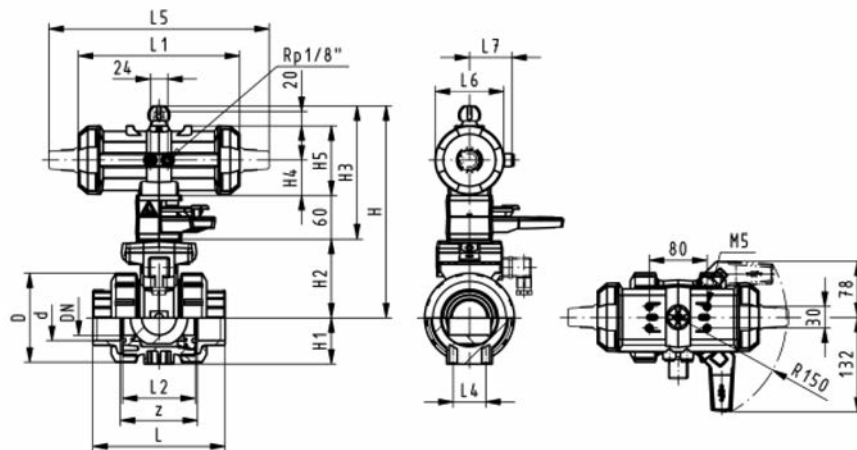
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 002	199 234 012	1.500
1/2	15	10	185	199 234 003	199 234 013	1.500
3/4	20	10	350	199 234 004	199 234 014	1.600
1	25	10	700	199 234 005	199 234 015	1.469
1 1/4	32	10	1000	199 234 006	199 234 016	2.800
1 1/2	40	10	1600	199 234 007	199 234 017	3.100
2	50	10	3100	199 234 008	199 234 018	3.452

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	69
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	97
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	110







DN10/15 - 50

## Ball valve type 234 PVC-U FO (Fail safe to open) With manual override With solvent cement sockets Inch BS

### Model:

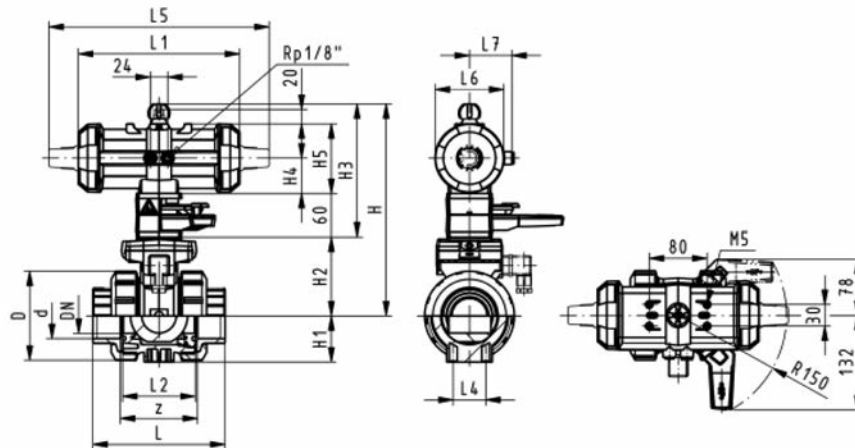
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 042	199 234 052	1.500
1/2	15	10	185	199 234 043	199 234 053	1.500
3/4	20	10	350	199 234 044	199 234 054	1.600
1	25	10	700	199 234 045	199 234 055	1.700
1 1/4	32	10	1000	199 234 046	199 234 056	2.800
1 1/2	40	10	1600	199 234 047	199 234 057	3.100
2	50	10	3100	199 234 048	199 234 058	4.000

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	69
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	97
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	110





DN10/15 - 50

## Ball valve type 234 PVC-U DA (Double acting) With manual override With solvent cement sockets Inch BS

### Model:

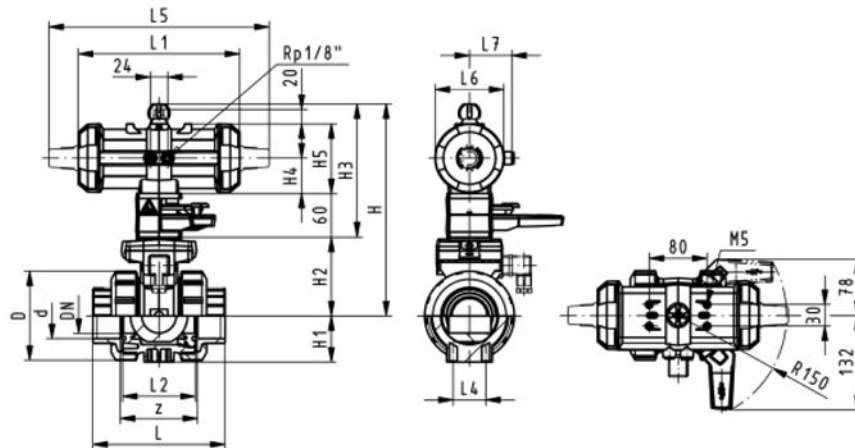
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 082	199 234 092	1.500
1/2	15	10	185	199 234 083	199 234 093	1.500
3/4	20	10	350	199 234 084	199 234 094	1.600
1	25	10	700	199 234 085	199 234 095	1.700
1 1/4	32	10	1000	199 234 086	199 234 096	2.800
1 1/2	40	10	1600	199 234 087	199 234 097	3.100
2	50	10	3100	199 234 088	199 234 098	4.000

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	168	40	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	168	40	77	110	194	65	25	261	76	48	69
1	68	168	36	71	168	40	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	187	51	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	187	51	99	157	224	89	45	305	95	59	97
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	110





DN10/15 - 50

## Ball valve type 234 PVC-U FC (Fail safe to close) Without manual override With solvent cement sockets Inch BS

### Model:

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

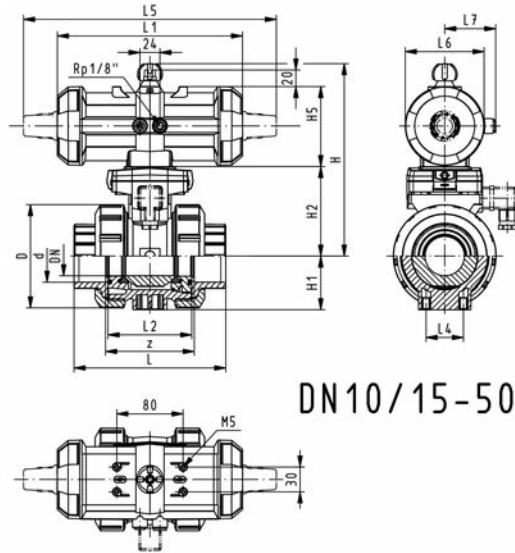
### Option:

- Individual configuration of the valve (see diagram)

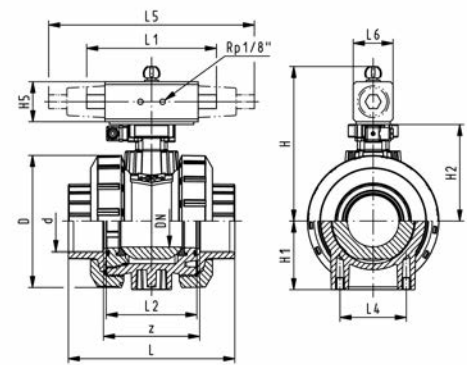


Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 122	199 234 132	1.200
1/2	15	10	185	199 234 123	199 234 133	1.200
3/4	20	10	350	199 234 124	199 234 134	1.300
1	25	10	700	199 234 125	199 234 135	1.400
1 1/4	32	10	1000	199 234 126	199 234 136	2.500
1 1/2	40	10	1600	199 234 127	199 234 137	2.800
2	50	10	3100	199 234 128	199 234 138	3.700
2 1/2	65	10	5000	199 234 129	199 234 139	7.800
3	80	10	7000	199 234 130	199 234 140	10.200
4	100	10	11000	199 234 131	199 234 141	15.300

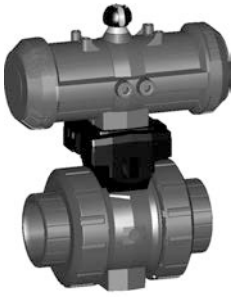
Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	77	110	194	65	25	261	76	48	69
1	68	168	36	71	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	97
2	124	225	64	106	99	183	224	101	45	305	95	59	110
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174



DN10/15-50



DN65-100



DN10/15 - 50



## Ball valve type 234 PVC-U FO (Fail safe to open) Without manual override With solvent cement sockets Inch BS

### Model:

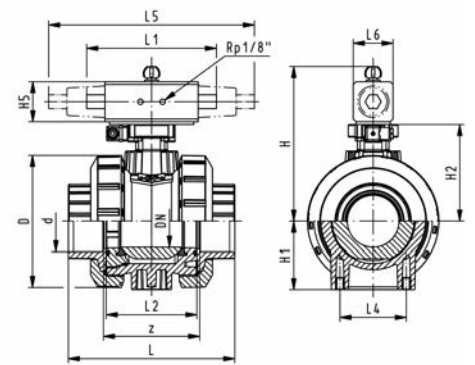
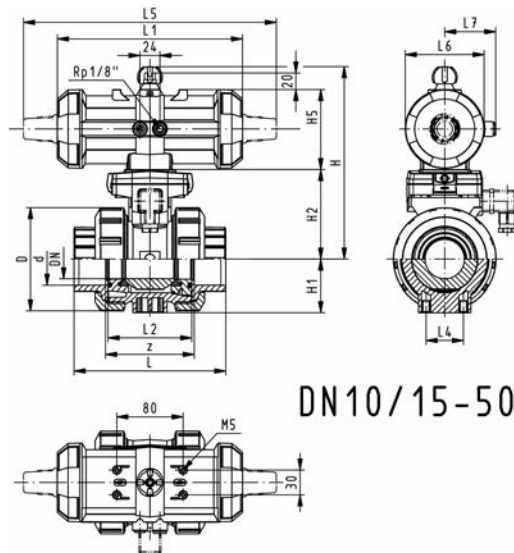
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 162	199 234 172	1.200
1/2	15	10	185	199 234 163	199 234 173	1.200
3/4	20	10	350	199 234 164	199 234 174	1.300
1	25	10	700	199 234 165	199 234 175	1.400
1 1/4	32	10	1000	199 234 166	199 234 176	2.500
1 1/2	40	10	1600	199 234 167	199 234 177	2.800
2	50	10	3100	199 234 168	199 234 178	3.700
2 1/2	65	10	5000	199 234 169	199 234 179	7.800
3	80	10	7000	199 234 170	199 234 180	10.200
4	100	10	11000	199 234 171	199 234 181	15.300

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	77	110	194	65	25	261	76	48	69
1	68	168	36	71	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	97
2	124	225	64	106	99	183	224	101	45	305	95	59	110
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174





DN10/15 - 50



## Ball valve type 234 PVC-U DA (Double acting) Without manual override With solvent cement sockets Inch BS

### Model:

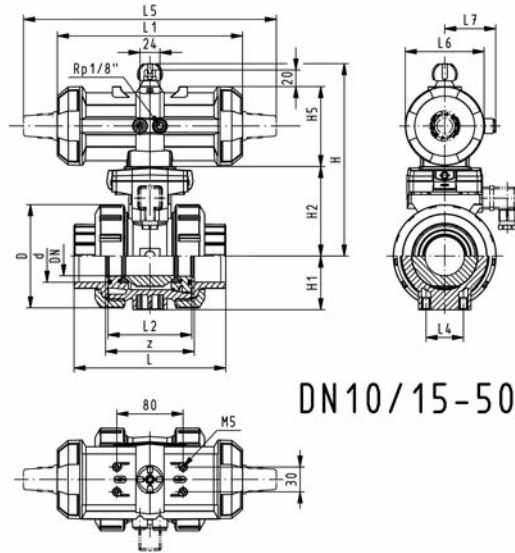
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

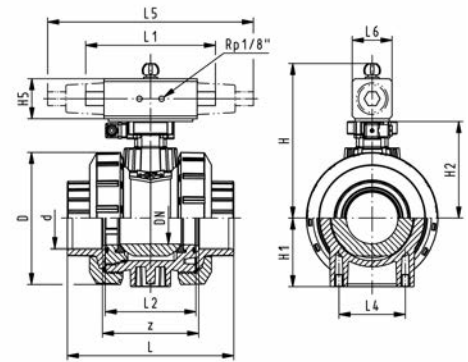
- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 234 202	199 234 212	1.200
1/2	15	10	185	199 234 203	199 234 213	1.200
3/4	20	10	350	199 234 204	199 234 214	1.300
1	25	10	700	199 234 205	199 234 215	1.400
1 1/4	32	10	1000	199 234 206	199 234 216	2.500
1 1/2	40	10	1600	199 234 207	199 234 217	2.800
2	50	10	3100	199 234 208	199 234 218	3.700
2 1/2	65	10	5000	199 234 209	199 234 219	6.600
3	80	10	7000	199 234 210	199 234 220	9.600
4	100	10	11000	199 234 211	199 234 221	13.600

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	92	194	56	25	261	76	48	60
1/2	50	159	27	62	77	95	194	56	25	261	76	48	60
3/4	58	168	30	71	77	110	194	65	25	261	76	48	69
1	68	168	36	71	77	123	194	71	25	261	76	48	75
1 1/4	84	202	44	84	99	146	224	85	45	305	95	59	89
1 1/2	97	202	51	84	99	157	224	89	45	305	95	59	97
2	124	225	64	106	99	183	224	101	45	305	95	59	110
2 1/2	166	257	85	156	66	233	144	136	70	60	60	59	144
3	200	274	105	168	70	254	152	141	70	65	65	59	151
4	238	273	123	175	78	301	169	164	120	72	72	59	174



DN10/15-50



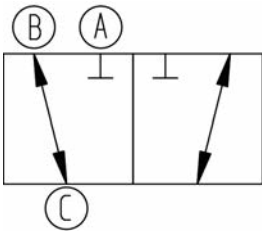
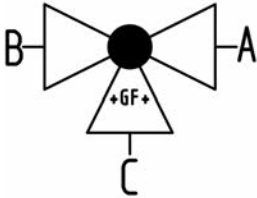
DN65-100



### 3-Way ball valve type 285 PVC-U Horizontal/L-port Without manual override With solvent cement sockets BS

#### Model:

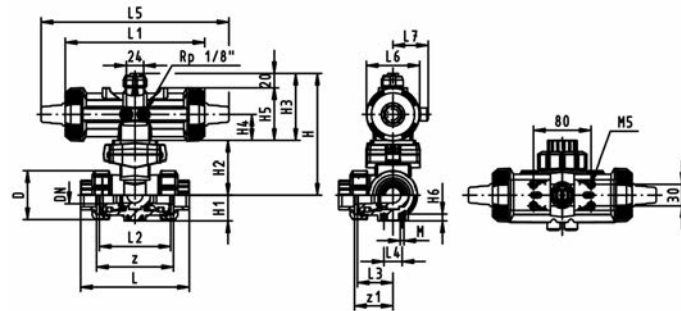
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 742	199 285 752	1.115
1/2	15	10	75	199 285 743	199 285 753	1.121
3/4	20	10	150	199 285 744	199 285 754	1.249
1	25	10	280	199 285 745	199 285 755	1.439
1 1/4	32	10	480	199 285 746	199 285 756	2.539
1 1/2	40	10	620	199 285 747	199 285 757	2.991
2	50	10	1230	199 285 748	199 285 758	4.352

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	77	38
1/2	48	6	77	38
3/4	48	6	90	45
1	48	6	103	52
1 1/4	59	8	124	62
1 1/2	59	8	145	73
2	59	8	189	94



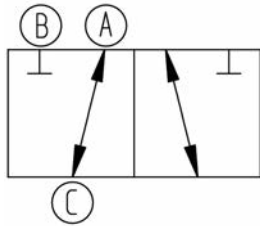
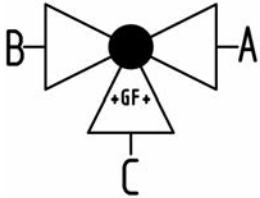




### 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets BS

#### Model:

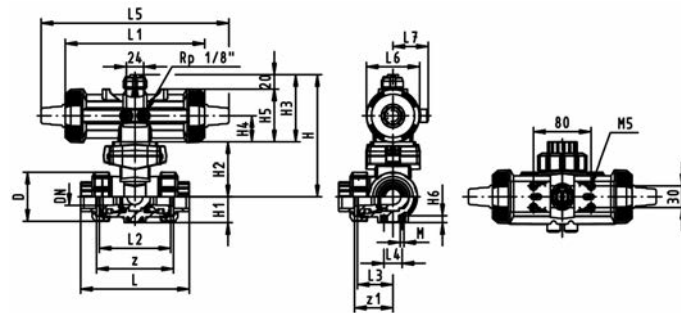
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 762	199 285 772	0.925
1/2	15	10	75	199 285 763	199 285 773	0.931
3/4	20	10	150	199 285 764	199 285 774	1.059
1	25	10	280	199 285 765	199 285 775	1.249
1 1/4	32	10	480	199 285 766	199 285 776	2.115
1 1/2	40	10	620	199 285 767	199 285 777	2.567
2	50	10	1230	199 285 768	199 285 778	3.928

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	77	38
1/2	48	6	77	38
3/4	48	6	90	45
1	48	6	103	52
1 1/4	59	8	124	62
1 1/2	59	8	145	73
2	59	8	189	94



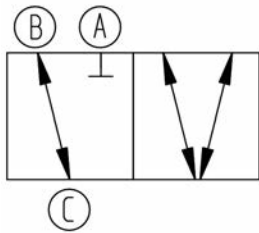
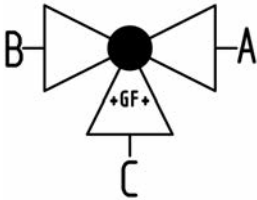




### 3-Way ball valve type 285 PVC-U Horizontal/T-port Without manual override With solvent cement sockets BS

#### Model:

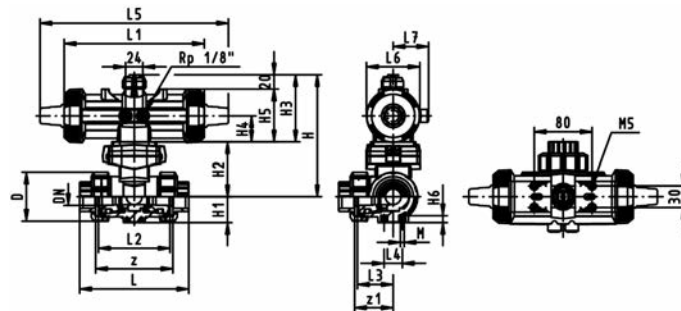
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 285 702	199 285 712	1.114
1/2	15	10	200	199 285 703	199 285 713	1.120
3/4	20	10	470	199 285 704	199 285 714	1.247
1	25	10	793	199 285 705	199 285 715	1.432
1 1/4	32	10	1290	199 285 706	199 285 716	2.528
1 1/2	40	10	1910	199 285 707	199 285 717	2.970
2	50	10	3100	199 285 708	199 285 718	4.307

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	77	38
1/2	48	6	77	38
3/4	48	6	90	45
1	48	6	103	52
1 1/4	59	8	124	62
1 1/2	59	8	145	73
2	59	8	189	94

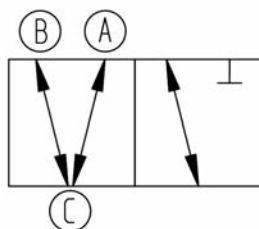
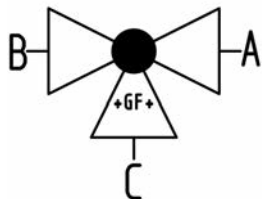




## 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets BS

### Model:

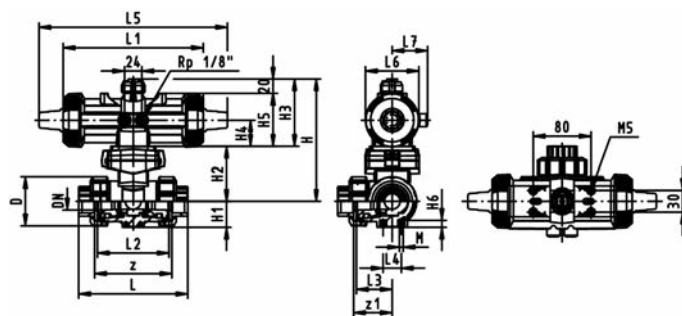
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 285 722	199 285 732	0.924
1/2	15	10	200	199 285 723	199 285 733	0.930
3/4	20	10	470	199 285 724	199 285 734	1.057
1	25	10	793	199 285 725	199 285 735	1.242
1 1/4	32	10	1290	199 285 726	199 285 736	2.104
1 1/2	40	10	1910	199 285 727	199 285 737	2.546
2	50	10	3100	199 285 728	199 285 738	3.883

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	109	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	112	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	151	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	77	38
1/2	48	6	77	38
3/4	48	6	90	45
1	48	6	103	52
1 1/4	59	8	124	62
1 1/2	59	8	145	73
2	59	8	189	94



# Ball valves pneumatic ASTM/ANSI

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT



DN10/15 - 50

### Model:

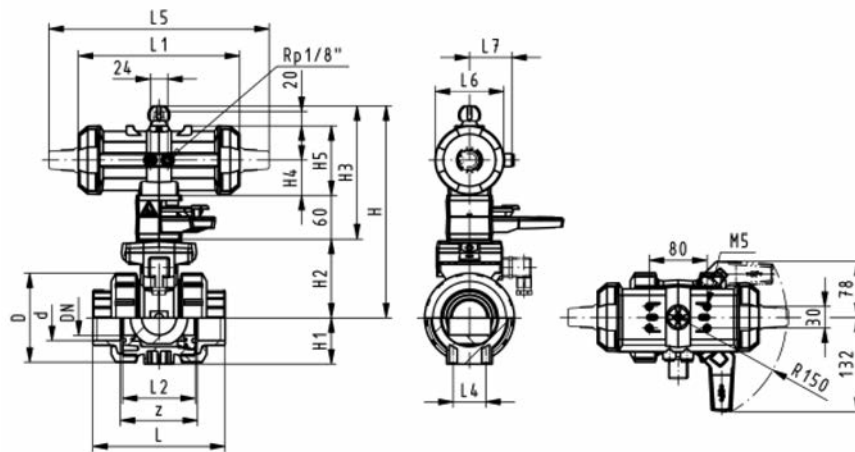
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 233 002	199 233 012	1.500
1/2	15	10	185	199 233 003	199 233 013	1.285
3/4	20	10	350	199 233 004	199 233 014	1.600
1	25	10	700	199 233 005	199 233 015	1.700
1 1/4	32	10	1000	199 233 006	199 233 016	2.800
1 1/2	40	10	1600	199 233 007	199 233 017	3.100
2	50	10	3100	199 233 008	199 233 018	4.000

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	168	40	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	168	40	77	121	194	65	25	261	76	48	70
1	68	168	36	71	168	40	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	187	51	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	187	51	99	164	224	89	45	305	95	59	94
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107





DN10/15 - 50

**Ball valve type 230 PVC-U FO (Fail safe to open)  
With manual override  
With solvent cement sockets Inch ASTM  
Inclusive 2 threaded valve ends NPT**

**Model:**

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

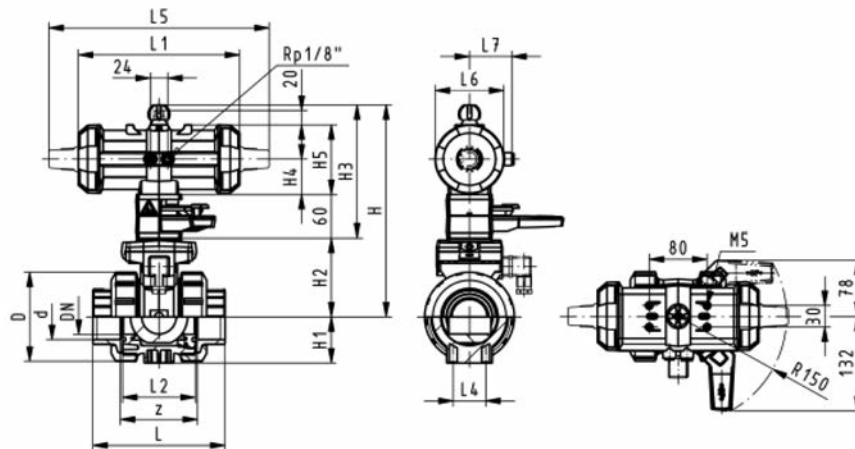
**Option:**

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg										
3/8	10	10	70	199 233 022	199 233 032	1.500										
1/2	15	10	185	199 233 023	199 233 033	1.500										
3/4	20	10	350	199 233 024	199 233 034	1.600										
1	25	10	700	199 233 025	199 233 035	1.700										
1 1/4	32	10	1000	199 233 026	199 233 036	2.800										
1 1/2	40	10	1600	199 233 027	199 233 037	3.100										
2	50	10	3100	199 233 028	199 233 038	4.000										

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	168	40	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	168	40	77	121	194	65	25	261	76	48	70
1	68	168	36	71	168	40	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	187	51	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	187	51	99	164	224	89	45	305	95	59	94
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107





DN10/15 - 50

**Ball valve type 230 PVC-U DA (Double acting)  
With manual override  
With solvent cement sockets Inch ASTM  
Inclusive 2 threaded valve ends NPT**

**Model:**

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

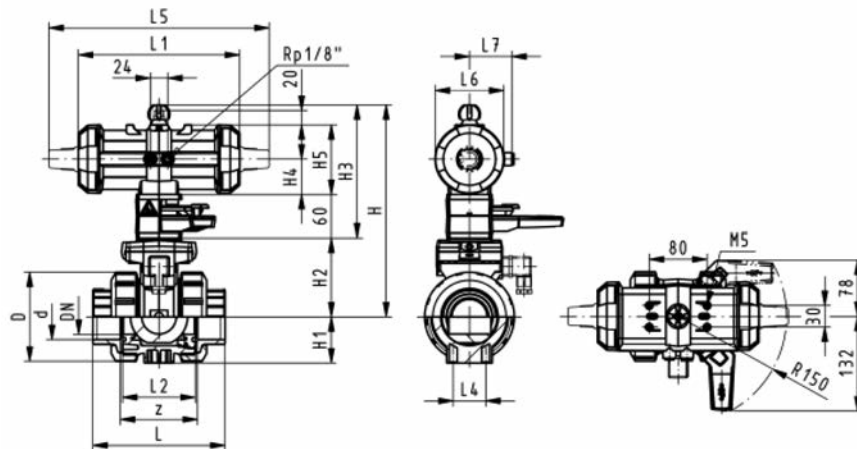
**Option:**

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg										
3/8	10	10	70	199 233 042	199 233 052	1.500										
1/2	15	10	185	199 233 043	199 233 053	1.500										
3/4	20	10	350	199 233 044	199 233 054	1.600										
1	25	10	700	199 233 045	199 233 055	1.700										
1 1/4	32	10	1000	199 233 046	199 233 056	2.800										
1 1/2	40	10	1600	199 233 047	199 233 057	3.100										
2	50	10	3100	199 233 048	199 233 058	4.000										

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	168	40	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	168	40	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	168	40	77	121	194	65	25	261	76	48	70
1	68	168	36	71	168	40	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	187	51	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	187	51	99	164	224	89	45	305	95	59	94
2	124	225	64	106	187	51	99	183	224	101	45	305	95	59	107





DN10/15 - 50



**Ball valve type 230 PVC-U FC (Fail safe to close)**  
**Without manual override**  
**With solvent cement sockets Inch ASTM**  
**Inclusive 2 threaded valve ends NPT**

**Model:**

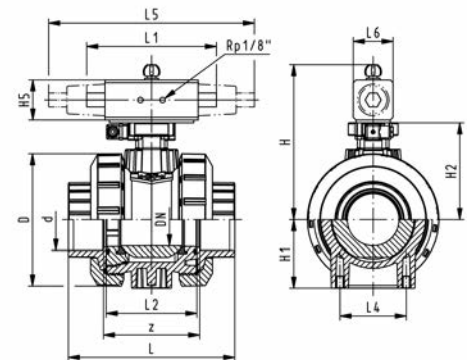
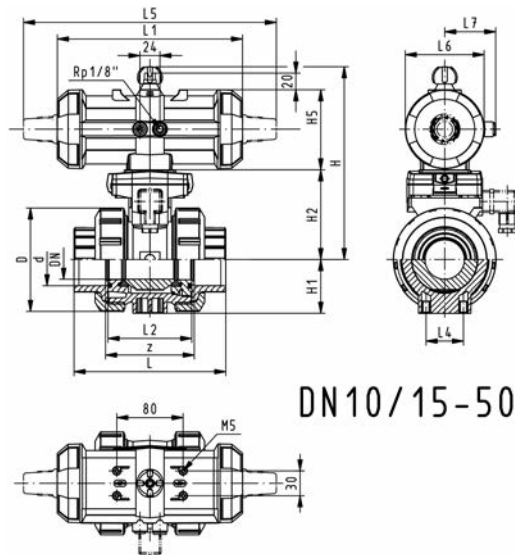
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Threaded valve ends are only enclosed for DN10/15-50

**Option:**

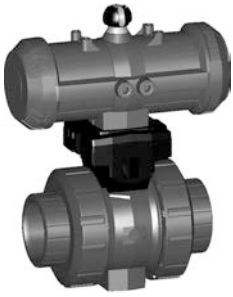
- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 233 062	199 233 072	1.200
1/2	15	10	185	199 233 063	199 233 073	1.200
3/4	20	10	350	199 233 064	199 233 074	1.300
1	25	10	700	199 233 065	199 233 075	1.400
1 1/4	32	10	1000	199 233 066	199 233 076	2.500
1 1/2	40	10	1600	199 233 067	199 233 077	2.800
2	50	10	3100	199 233 068	199 233 078	3.700
2 1/2	65	10	5000	199 233 069	199 233 079	7.800
3	80	10	7000	199 233 070	199 233 080	10.200
4	100	10	11000	199 233 071	199 233 081	15.300

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	77	121	194	65	25	261	76	48	70
1	68	168	36	71	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	99	164	224	89	45	305	95	59	94
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174







DN10/15 - 50



**Ball valve type 230 PVC-U FO (Fail safe to open)  
Without manual override  
With solvent cement sockets Inch ASTM  
Inclusive 2 threaded valve ends NPT**

**Model:**

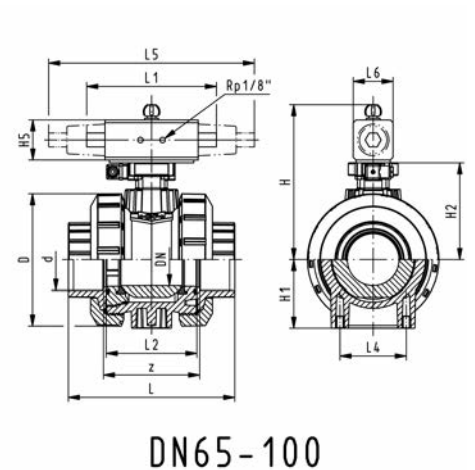
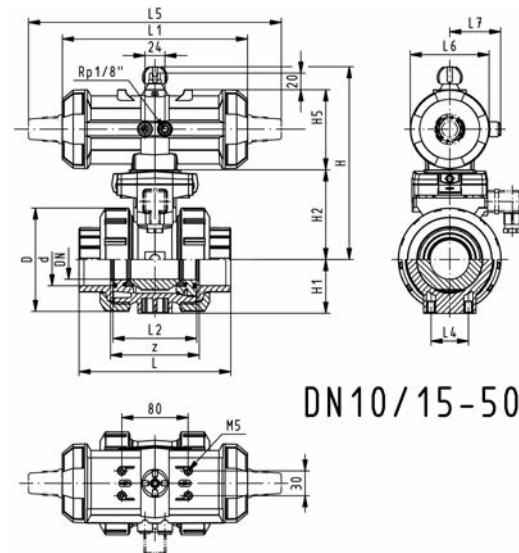
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Threaded valve ends are only enclosed for DN10/15-50

**Option:**

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 233 082</b>	<b>199 233 092</b>	1.200
1/2	15	10	185	<b>199 233 083</b>	<b>199 233 093</b>	1.200
3/4	20	10	350	<b>199 233 084</b>	<b>199 233 094</b>	1.300
1	25	10	700	<b>199 233 085</b>	<b>199 233 095</b>	1.400
1 1/4	32	10	1000	<b>199 233 086</b>	<b>199 233 096</b>	2.500
1 1/2	40	10	1600	<b>199 233 087</b>	<b>199 233 097</b>	2.800
2	50	10	3100	<b>199 233 088</b>	<b>199 233 098</b>	3.700
2 1/2	65	10	5000	<b>199 233 089</b>	<b>199 233 099</b>	7.800
3	80	10	7000	<b>199 233 090</b>	<b>199 233 100</b>	10.200
4	100	10	11000	<b>199 233 091</b>	<b>199 233 101</b>	15.300

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	77	121	194	65	25	261	76	48	70
1	68	168	36	71	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	99	164	224	89	45	305	95	59	94
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156	70	233		136	70	276	65		144
3	200	281	105	168	78	254		141	70	341	72		151
4	238	292	123	175	86	301		164	120	369	80		174







DN10/15 - 50



## Ball valve type 230 PVC-U DA (Double acting) Without manual override With solvent cement sockets Inch ASTM Inclusive 2 threaded valve ends NPT

### Model:

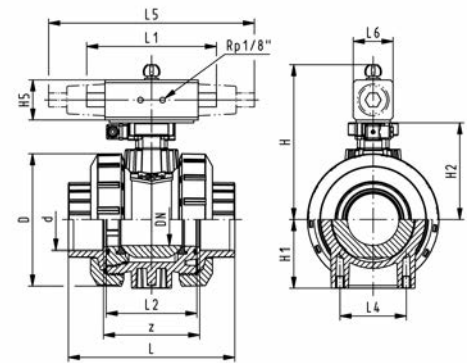
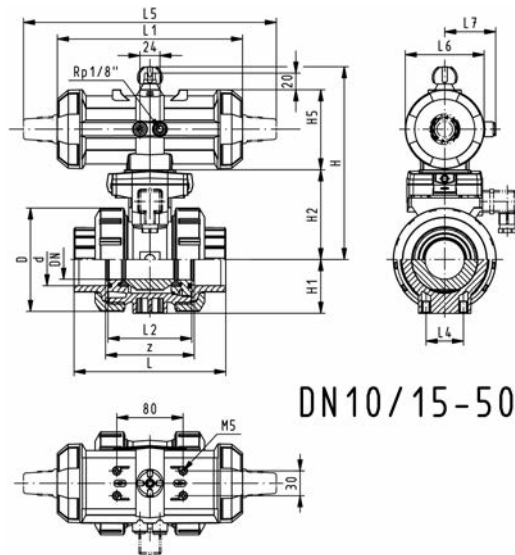
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Threaded valve ends are only enclosed for DN10/15-50

### Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 233 102	199 233 112	1.200
1/2	15	10	185	199 233 103	199 233 113	1.200
3/4	20	10	350	199 233 104	199 233 114	1.300
1	25	10	700	199 233 105	199 233 115	1.017
1 1/4	32	10	1000	199 233 106	199 233 116	2.500
1 1/2	40	10	1600	199 233 107	199 233 117	2.800
2	50	10	3100	199 233 108	199 233 118	3.700
2 1/2	65	10	5000	199 233 109	199 233 119	6.600
3	80	10	7000	199 233 110	199 233 120	9.600
4	100	10	11000	199 233 111	199 233 121	13.600

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	159	27	62	77	105	194	56	25	261	76	48	67
1/2	50	159	27	62	77	105	194	56	25	261	76	48	61
3/4	58	168	30	71	77	121	194	65	25	261	76	48	70
1	68	168	36	71	77	133	194	71	25	261	76	48	76
1 1/4	84	202	44	84	99	154	224	85	45	305	95	59	90
1 1/2	97	202	51	84	99	164	224	89	45	305	95	59	94
2	124	225	64	106	99	183	224	101	45	305	95	59	107
2 1/2	166	257	85	156	66	233	144	136	70		60		144
3	200	274	105	168	70	254	152	141	70		65		151
4	238	273	123	175	78	301	169	164	120		72		174

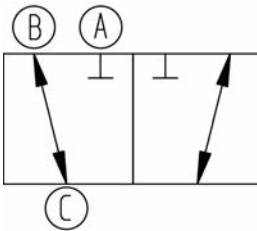
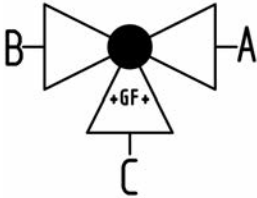




### 3-Way ball valve type 285 PVC-U Horizontal/L-port Without manual override With solvent cement sockets ASTM

#### Model:

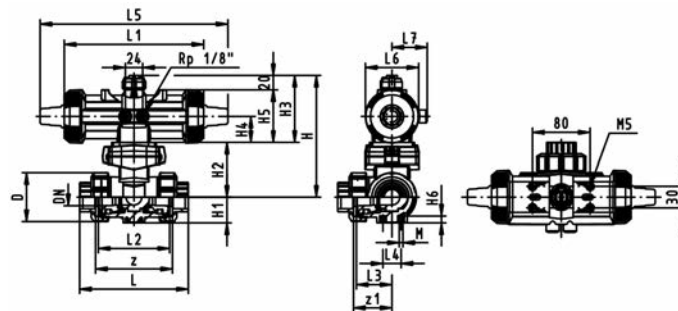
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 382	199 285 392	1.115
1/2	15	10	75	199 285 383	199 285 393	1.121
3/4	20	10	150	199 285 384	199 285 394	1.249
1	25	10	280	199 285 385	199 285 395	1.439
1 1/4	32	10	480	199 285 386	199 285 396	2.539
1 1/2	40	10	620	199 285 387	199 285 397	2.991
2	50	10	1230	199 285 388	199 285 398	4.352

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	123	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	122	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	141	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	161	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	187	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	213	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	85	42
1/2	48	6	77	38
3/4	48	6	92	46
1	48	6	105	53
1 1/4	59	8	126	63
1 1/2	59	8	143	72
2	59	8	185	92

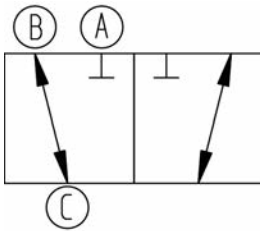
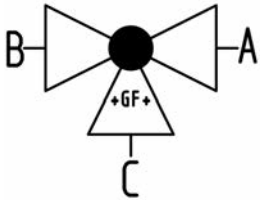




## 3-Way ball valve type 285 PVC-U Horizontal/L-port Without manual override With threaded sockets NPT

### Model:

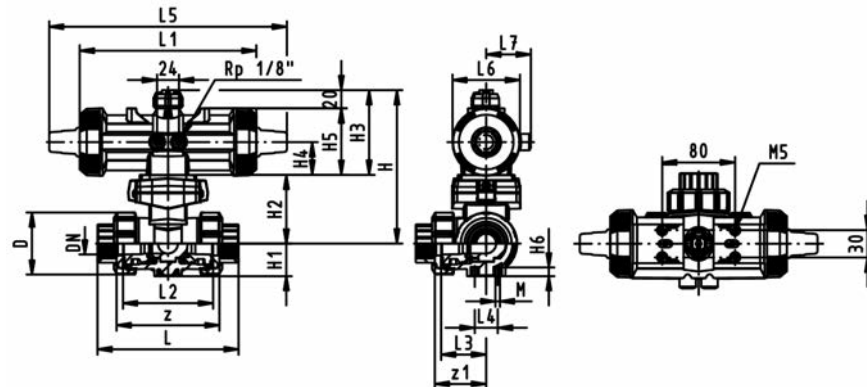
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 362	199 285 372	1.115
1/2	15	10	75	199 285 363	199 285 373	1.121
3/4	20	10	150	199 285 364	199 285 374	1.249
1	25	10	280	199 285 365	199 285 375	1.439
1 1/4	32	10	480	199 285 366	199 285 376	2.539
1 1/2	40	10	620	199 285 367	199 285 377	2.991
2	50	10	1230	199 285 368	199 285 378	4.352

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	115	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	155	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	87	43
1/2	48	6	81	40
3/4	48	6	96	48
1	48	6	111	56
1 1/4	59	8	134	67
1 1/2	59	8	159	80
2	59	8	213	106

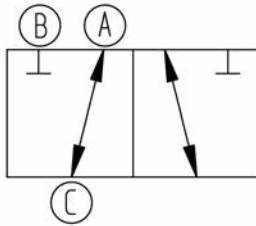
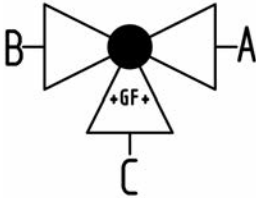




### 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets ASTM

#### Model:

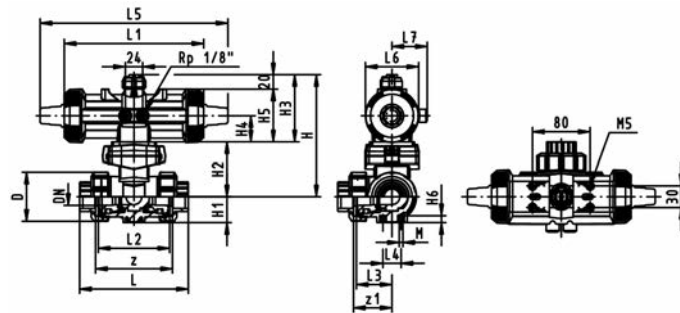
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 542	199 285 552	0.925
1/2	15	10	75	199 285 543	199 285 553	0.931
3/4	20	10	150	199 285 544	199 285 554	1.059
1	25	10	280	199 285 545	199 285 555	1.249
1 1/4	32	10	480	199 285 546	199 285 556	2.115
1 1/2	40	10	620	199 285 547	199 285 557	2.567
2	50	10	1230	199 285 548	199 285 558	3.928

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	123	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	122	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	141	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	161	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	187	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	213	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	85	42
1/2	48	6	77	38
3/4	48	6	92	46
1	48	6	105	53
1 1/4	59	8	126	63
1 1/2	59	8	143	72
2	59	8	185	92

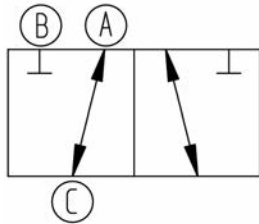
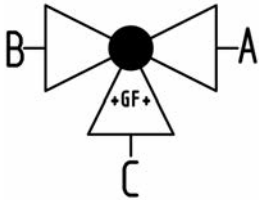




### 3-Way ball valve type 285 PVC-U Horizontal/L-port DA (Double acting) Without manual override With threaded sockets NPT

**Model:**

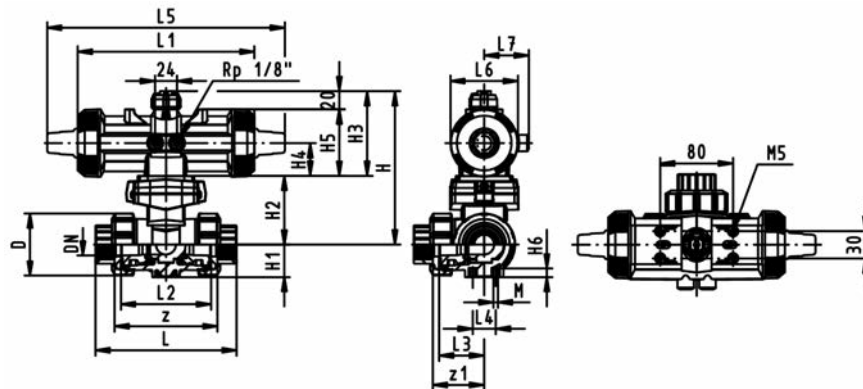
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 285 522	199 285 532	0.925
1/2	15	10	75	199 285 523	199 285 533	0.931
3/4	20	10	150	199 285 524	199 285 534	1.059
1	25	10	280	199 285 525	199 285 535	1.249
1 1/4	32	10	480	199 285 526	199 285 536	2.115
1 1/2	40	10	620	199 285 527	199 285 537	2.567
2	50	10	1230	199 285 528	199 285 538	3.928

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	115	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	155	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	87	43
1/2	48	6	81	40
3/4	48	6	96	48
1	48	6	111	56
1 1/4	59	8	134	67
1 1/2	59	8	159	80
2	59	8	213	106

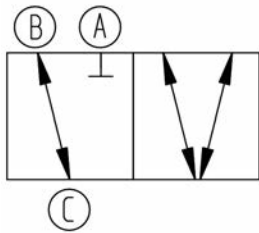
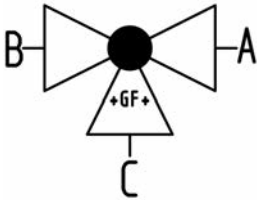




### 3-Way ball valve type 285 PVC-U Horizontal/T-port Without manual override With solvent cement sockets ASTM

#### Model:

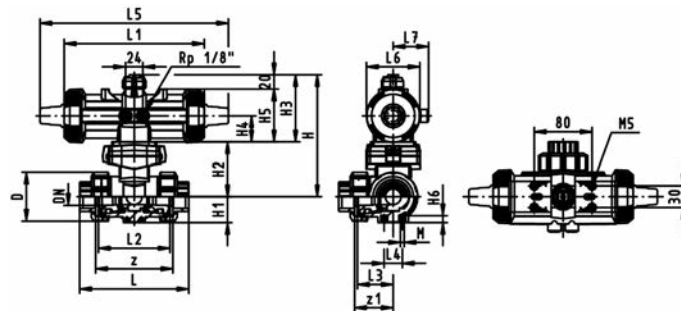
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 285 422	199 285 432	1.114
1/2	15	10	200	199 285 423	199 285 433	1.120
3/4	20	10	470	199 285 424	199 285 434	1.247
1	25	10	793	199 285 425	199 285 435	1.432
1 1/4	32	10	1290	199 285 426	199 285 436	2.528
1 1/2	40	10	1910	199 285 427	199 285 437	2.970
2	50	10	3100	199 285 428	199 285 438	4.307

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	123	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	122	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	141	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	161	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	187	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	213	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	85	42
1/2	48	6	77	38
3/4	48	6	92	46
1	48	6	105	53
1 1/4	59	8	126	63
1 1/2	59	8	143	72
2	59	8	185	92







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

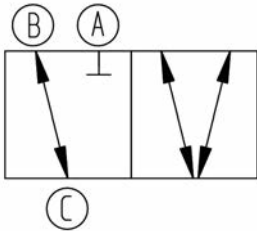
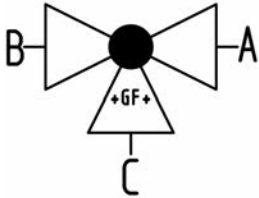
### Horizontal/T-port

### Without manual override

### With threaded sockets NPT

#### Model:

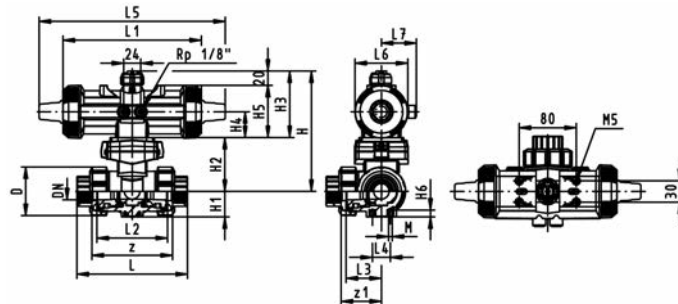
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the basic position
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting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



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>199 285 402</b>	<b>199 285 412</b>	1.114
1/2	15	10	200	<b>199 285 403</b>	<b>199 285 413</b>	1.120
3/4	20	10	470	<b>199 285 404</b>	<b>199 285 414</b>	1.247
1	25	10	793	<b>199 285 405</b>	<b>199 285 415</b>	1.432
1 1/4	32	10	1290	<b>199 285 406</b>	<b>199 285 416</b>	2.528
1 1/2	40	10	1910	<b>199 285 407</b>	<b>199 285 417</b>	2.970
2	50	10	3100	<b>199 285 408</b>	<b>199 285 418</b>	4.307

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	115	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	155	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	87	43
1/2	48	6	81	40
3/4	48	6	96	48
1	48	6	111	56
1 1/4	59	8	134	67
1 1/2	59	8	159	80
2	59	8	213	106



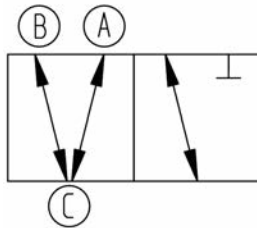
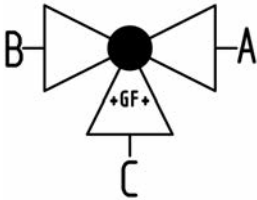




### 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets ASTM

#### Model:

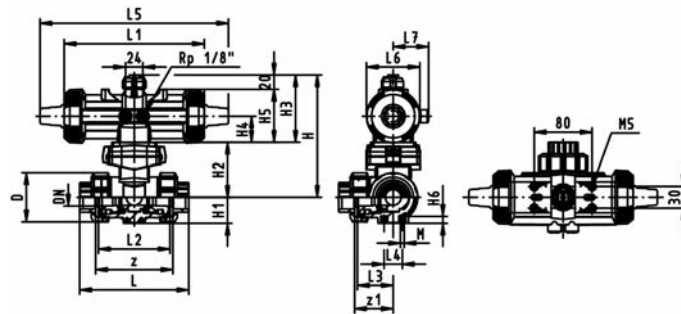
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$ ) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 285 582	199 285 592	0.924
1/2	15	10	200	199 285 583	199 285 593	0.930
3/4	20	10	470	199 285 584	199 285 594	1.057
1	25	10	793	199 285 585	199 285 595	1.242
1 1/4	32	10	1290	199 285 586	199 285 596	2.104
1 1/2	40	10	1910	199 285 587	199 285 597	2.546
2	50	10	3100	199 285 588	199 285 598	3.883

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	123	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	122	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	141	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	161	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	187	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	213	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	85	42
1/2	48	6	77	38
3/4	48	6	92	46
1	48	6	105	53
1 1/4	59	8	126	63
1 1/2	59	8	143	72
2	59	8	185	92

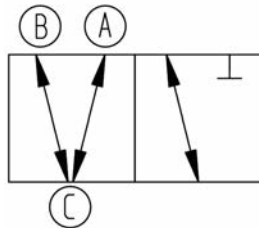
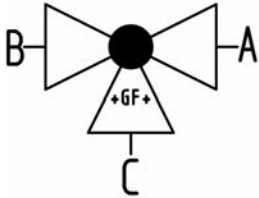




### 3-Way ball valve type 285 PVC-U Horizontal/T-port DA (Double acting) Without manual override With threaded sockets NPT

**Model:**

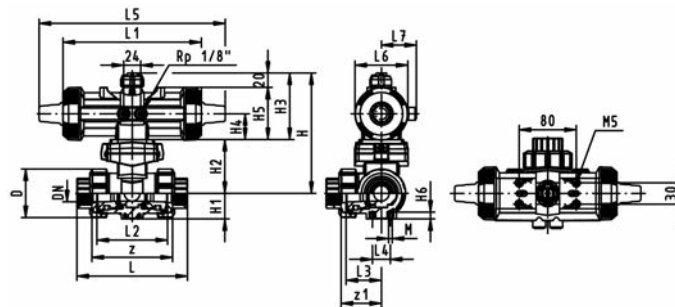
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time  $90^\circ <$  1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts



NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 285 562	199 285 572	0.924
1/2	15	10	200	199 285 563	199 285 573	0.930
3/4	20	10	470	199 285 564	199 285 574	1.057
1	25	10	793	199 285 565	199 285 575	1.242
1 1/4	32	10	1290	199 285 566	199 285 576	2.104
1 1/2	40	10	1910	199 285 567	199 285 577	2.546
2	50	10	3100	199 285 568	199 285 578	3.883

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	115	194	73	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	73	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	86	43	25	261	76
1	68	168	36	71	97	40	77	8	155	194	99	50	25	261	76
1 1/4	84	203	45	84	119	51	99	9	181	224	120	60	45	305	95
1 1/2	97	203	51	84	119	51	99	9	205	224	137	69	45	305	95
2	124	225	65	106	119	51	99	9	261	224	179	89	45	305	95

NPT [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	87	43
1/2	48	6	81	40
3/4	48	6	96	48
1	48	6	111	56
1 1/4	59	8	134	67
1 1/2	59	8	159	80
2	59	8	213	106



# Copiable Configurator GF Piping Systems Diaphragm Valve

## Valve body type

- A20 Type 514 - True Union Design
- A21 Type 515 - Spigots
- A22 Type 517 - Flanges
- A23 Type 519 - Branched type

## Material

- B05 PP-H
- B06 PP-n
- B15 PVDF
- B16 PVDF HP

## Dimension - 2/2 valve (type 514...517)

- C06 DN 15 1/2"
- C07 DN 20 3/4"
- C08 DN 25 1"
- C09 DN 32 1 1/4"
- C10 DN 40 1 1/2"
- C11 DN 50 2"

## Dimension - branched type (type 519)

- C50 DN15-15
- C51 DN20-15
- C52 DN20-20
- C53 DN25-15
- C54 DN25-20
- C55 DN25-25
- C56 DN32-15
- C57 DN32-20
- C58 DN32-25
- C59 DN32-32
- C60 DN40-15
- C61 DN40-20
- C62 DN40-25
- C63 DN40-32
- C64 DN40-40
- C65 DN50-15
- C66 DN50-20
- C67 DN50-25
- C68 DN50-32
- C69 DN50-40
- C70 DN50-50
- C71 DN65-32
- C72 DN65-40
- C73 DN65-50
- C74 DN80-15
- C75 DN80-20
- C76 DN80-25
- C77 DN80-40
- C78 DN80-50
- C79 DN100-15
- C80 DN100-20
- C81 DN100-25
- C82 DN100-40
- C83 DN100-50

## Version

- D11 standard
- D05 silicone free / oil free

## Diaphragm

- E01 EPDM
- E02 FPM
- E11 NBR
- E12 PTFE/EPDM
- E04 PTFE/FPM



## Example:

Diastar Sixteen FC with PP-H valve body type 514 and PE butt fusion spigots, FPM diaphragm, DN25

## Connecting parts

- H30 PP-H Fusion socket metric
- H32 PP-H Socket fusion spigot metric
- H35 PP-H Butt fusion spigot SDR11 metric IR-PLUS
- H40 PE-80 Fusion socket metric
- H41 PE-100 Butt fusion spigot SDR11 metric
- H43 PE-100 Butt fusion spigot long SDR11 metric
- H46 PP-n Butt fusion spigot SDR11 metric
- H50 PVDF Fusion socket metric
- H51 PVDF Socket fusion spigot metric
- H52 PVDF Butt fusion spigot SDR11 metric IR-PLUS
- H64 Fixed flange PVDF metric
- H65 Fixed flange PP-H JIS
- H66 Fixed flange PVDF JIS
- H72 PPH Backing flange PP-steel metric with PP-H endings
- H72 PVDF Backing flange PP-steel metric with PVDF endings
- H73 PPH Backing flange PP-steel Zoll ANSI with PP-H endings
- H73 PVDF Backing flange PP-steel Zoll ANSI with PVDF endings
- H74 PPH Backing flange PP-V metric with PP-H endings
- H74 PVDF Backing flange PP-V metric with PVDF endings
- H75 PPH Backing flange PP-V ANSI with PP-H endings
- H75 PVDF Backing flange PP-V ANSI with PVDF endings
- H76 Backing flange PP-GF JIS with PVDF endings
- H77 Backing flange PP-GF JIS with PP-H endings
- H85 PVDF valve end blank
- H86 PVDF-HP sterilisation port

## Electrical feedback

- I33 Electrical feedback with Ag, Ni limit switches
- I34 Electrical feedback with Au limit switches

## Manual actuated: pressure tight housing

- K30 Bonnet pressure tight
- K31 Bonnet not pressure tight

## Pressure range

- M01 PN10
- M02 PN16

## Pneumatic actuator DIASTAR

- P40 DIASTAR Six FC fail safe to close
- P43 DIASTAR Ten FC fail safe to close
- P44 DIASTAR Sixteen FC fail safe to close
- P45 DIASTAR Sixteen FO fail safe to open
- P46 DIASTAR Sixteen DA double acting
- P47 DIASTAR Ten FO fail safe to open
- P48 DIASTAR Ten DA double acting

A20 B05 C08 D11 E02

H43 I K M P44 =



# Diaphragm valves pneumatic New generation metric

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

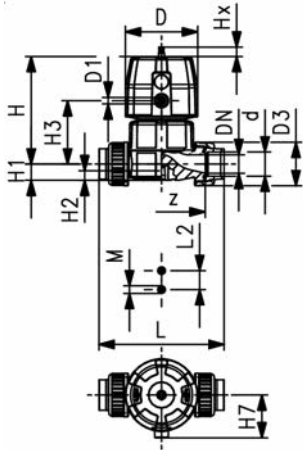


### Model:

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

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	kg
16	10	6	125	<b>161 614 011</b>	0.532
20	15	6	125	<b>161 614 012</b>	0.566
25	20	6	271	<b>161 614 013</b>	1.009
32	25	6	481	<b>161 614 014</b>	1.246
40	32	6	759	<b>161 614 015</b>	2.112
50	40	6	960	<b>161 614 016</b>	2.618
63	50	6	1181	<b>161 614 017</b>	3.553

d [mm]	D [mm]	D1 [inch]	G	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch
16	68	5/8		170	25	101	14	12	60	43	M6	142	7	3/8
20	68	5/8		128	25	101	14	12	60	43	M6	96	7	1/2
25	96	5/8		152	25	132	18	12	73	57	M6	114	10	3/4
32	96	5/8		166	25	143	22	12	84	57	M6	122	13	1
40	120	5/8		192	45	173	26	15	99	69	M8	140	14	1 1/4
50	120	5/8		222	45	193	32	15	119	69	M8	160	16	1 1/2
63	120	5/8		266	45	205	39	15	132	69	M8	190	16	2

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

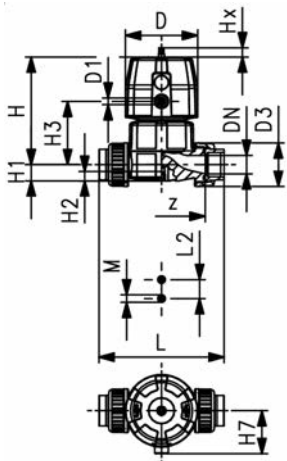


### Model:

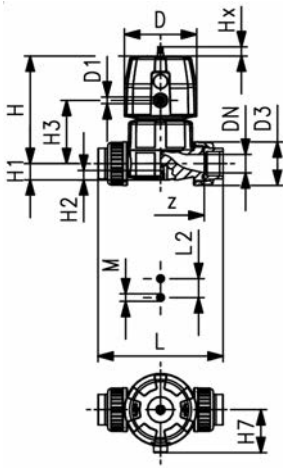
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

- Individual configuration of the valve (see diagram)



Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	kg
1/2	15	6	125	<b>161 614 412</b>	0.568
3/4	20	6	271	<b>161 614 413</b>	1.008
1	25	6	481	<b>161 614 414</b>	1.277
1 1/4	32	6	759	<b>161 614 415</b>	2.068
1 1/2	40	6	960	<b>161 614 416</b>	2.678
2	50	6	1181	<b>161 614 417</b>	3.826



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



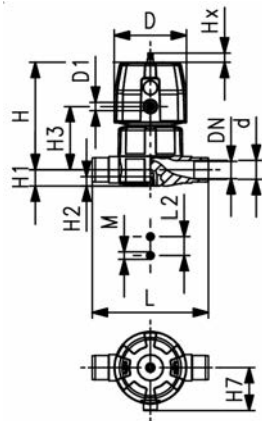
## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) With solvent cement spigots metric

### Model:

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

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	161 615 012	0.503
25	20	6	271	161 615 013	0.963
32	25	6	481	161 615 014	1.137
40	32	6	759	161 615 015	2.414
50	40	6	960	161 615 016	2.482
63	50	6	1181	161 615 017	3.340

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



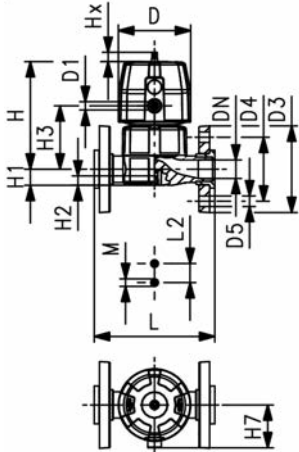
## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) With backing flanges PVC-U metric/BS

### Model:

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

### Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	kg
20	15	6	125	<b>161 617 012</b>	0.661
25	20	6	271	<b>161 617 013</b>	1.180
32	25	6	481	<b>161 617 014</b>	1.456
40	32	6	759	<b>161 617 015</b>	1.991
50	40	6	960	<b>161 617 016</b>	3.018
63	50	6	1181	<b>161 617 017</b>	4.159

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

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



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

### Model:

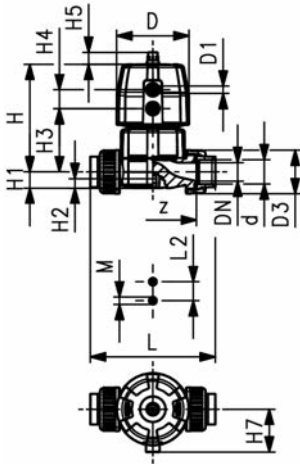
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
16	10	10/10*	150	125	<b>161 624 011</b>	<b>161 624 031</b>	0.573
20	15	10/10*	150	125	<b>161 624 012</b>	<b>161 624 032</b>	0.602
25	20	10/10*	150	271	<b>161 624 013</b>	<b>161 624 033</b>	1.111
32	25	10/10*	150	481	<b>161 624 014</b>	<b>161 624 034</b>	1.352
40	32	10/10*	150	759	<b>161 624 015</b>	<b>161 624 035</b>	2.236
50	40	10/10*	150	1263	<b>161 624 016</b>	<b>161 624 036</b>	3.958
63	50	10/6*	150/90*	1728	<b>161 624 017</b>	<b>161 624 037</b>	4.643

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	3/8	170	25	101	14	12	60	24	16	43	M6	142	7
20	68	3/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	3/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	3/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	3/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

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





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

### Model:

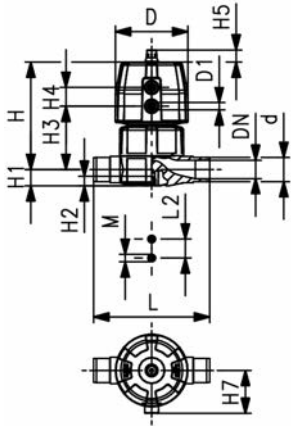
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	150	125	<b>161 625 012</b>	<b>161 625 032</b>	0.539
25	20	10/10*	150	271	<b>161 625 013</b>	<b>161 625 033</b>	1.050
32	25	10/10*	150	481	<b>161 625 014</b>	<b>161 625 034</b>	1.238
40	32	10/10*	150	759	<b>161 625 015</b>	<b>161 625 035</b>	2.114
50	40	10/10*	150	1263	<b>161 625 016</b>	<b>161 625 036</b>	3.580
63	50	10/6*	150/90*	1728	<b>161 625 017</b>	<b>161 625 037</b>	4.412

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



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

### Model:

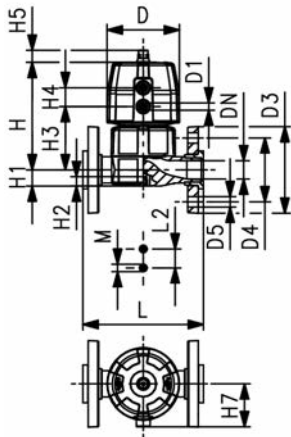
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	150	125	<b>161 627 012</b>	<b>161 627 032</b>	0.654
25	20	10/10*	150	271	<b>161 627 013</b>	<b>161 627 033</b>	1.246
32	25	10/10*	150	481	<b>161 627 014</b>	<b>161 627 034</b>	1.562
40	32	10/10*	150	759	<b>161 627 015</b>	<b>161 627 035</b>	2.161
50	40	10/10*	150	1263	<b>161 627 016</b>	<b>161 627 036</b>	4.302
63	50	10/6*	150/90*	1728	<b>161 627 017</b>	<b>161 627 037</b>	5.115

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

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



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

### Model:

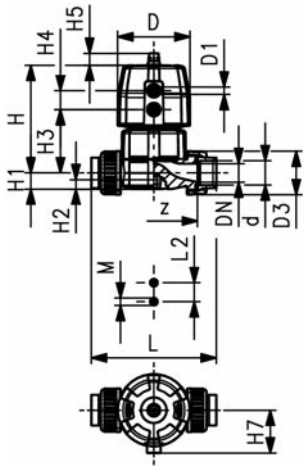
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
16	10	10/10*	125	161 644 011	161 644 031	0.552
20	15	10/10*	125	161 644 012	161 644 032	0.506
25	20	10/10*	271	161 644 013	161 644 033	0.958
32	25	10/10*	481	161 644 014	161 644 034	1.154
40	32	10/10*	759	161 644 015	161 644 035	1.876
50	40	10/10*	1263	161 644 016	161 644 036	3.316
63	50	10/10*	1728	161 644 017	161 644 037	3.979

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
16	68	1/8	170	25	101	14	12	60	24	16	43	M6	142	7
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

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



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

### Model:

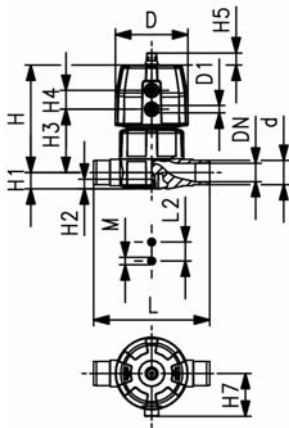
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	161 645 012	161 645 032	0.489
25	20	10/10*	271	161 645 013	161 645 033	0.876
32	25	10/10*	481	161 645 014	161 645 034	1.058
40	32	10/10*	759	161 645 015	161 645 035	1.686
50	40	10/10*	1263	161 645 016	161 645 036	3.490
63	50	10/10*	1728	161 645 017	161 645 037	4.199

d [mm]	D [mm]	D1 G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	closest inch
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1/2
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	3/4
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	1
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	1 1/4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	1 1/2
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	2



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

### Model:

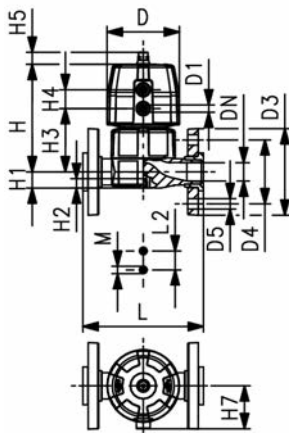
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	PN [psi]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	150/150*	125	161 647 012	161 647 032	0.647
25	20	10/10*	150/150*	271	161 647 013	161 647 033	1.092
32	25	10/10*	150/150*	481	161 647 014	161 647 034	1.370
40	32	10/10*	150/150*	759	161 647 015	161 647 035	1.801
50	40	10/10*	150/150*	1263	161 647 016	161 647 036	4.096
63	50	10/10*	150/150*	1728	161 647 017	161 647 037	5.025





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

### Model:

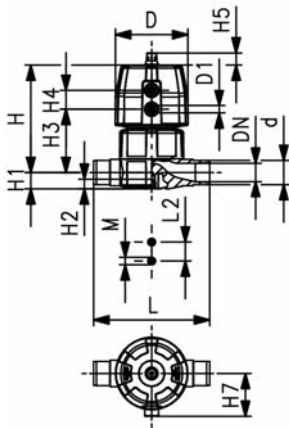
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	161 655 012	161 655 032	0.473
25	20	10/10*	271	161 655 013	161 655 033	0.840
32	25	10/10*	481	161 655 014	161 655 034	1.028
40	32	10/10*	759	161 655 015	161 655 035	1.626
50	40	10/10*	1263	161 655 016	161 655 036	2.740
63	50	10/10*	1728	161 655 017	161 655 037	3.731

d [mm]	D [mm]	D1 G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	closest inch
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1/2
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	3/4
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	1
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	1 1/4
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	1 1/2
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	2



## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) With backing flanges PVC-U metric/BS

### Model:

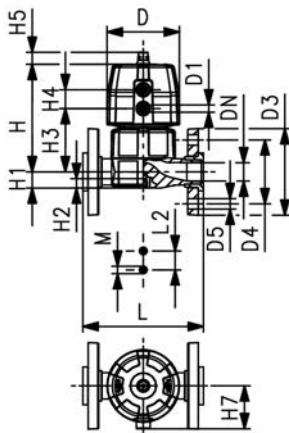
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

### Option:

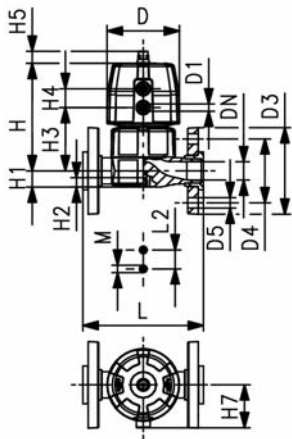
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

\* PN: PTFE

Working Pressure: **one side**



d [mm]	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	161 657 012	161 657 032	0.631
25	20	10/10*	271	161 657 013	161 657 033	1.056
32	25	10/10*	481	161 657 014	161 657 034	1.340
40	32	10/10*	759	161 657 015	161 657 035	1.741
50	40	10/10*	1263	161 657 016	161 657 036	3.346
63	50	10/10*	1728	161 657 017	161 657 037	4.275



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

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





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

### Model:

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

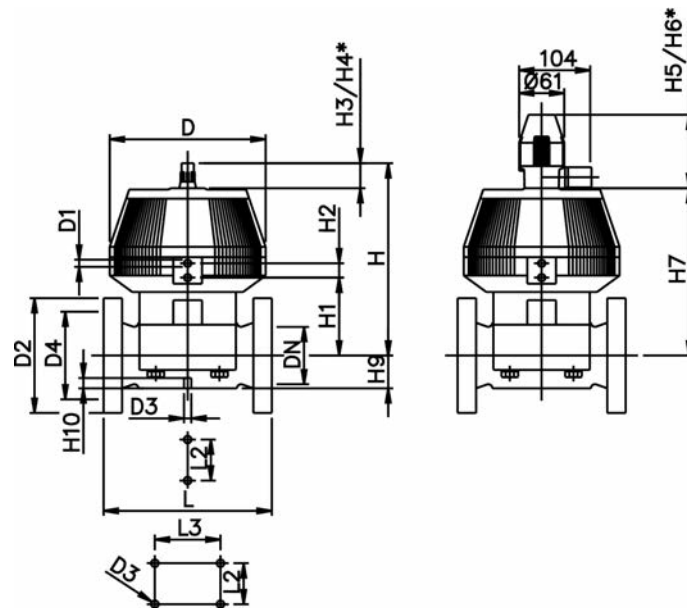
\* with backing flanges PVC-U metric

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

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 ½	10	992	<b>199 025 127</b>	<b>199 025 157</b>	15.115
** 90	80	3	10	1700	<b>199 025 128</b>	<b>199 025 158</b>	17.604
110	100	4	6	2700	<b>199 025 129</b>	<b>199 025 159</b>	27.748
** 160	150	6	6	6033	<b>199 025 130</b>	-	35.000

d [mm]	D [mm]	D1 G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

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





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

### Model:

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

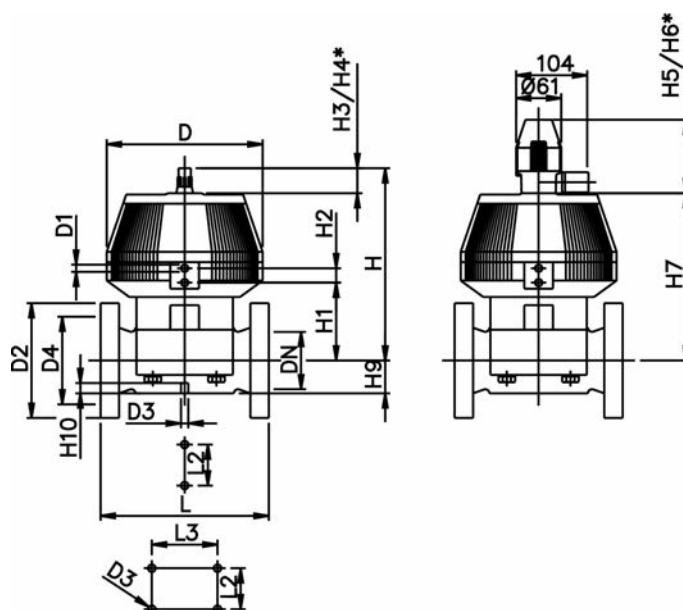
\* with backing flanges PVC-U metric

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

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 1/2	10	992	<b>199 025 137</b>	<b>199 025 167</b>	13.600
** 90	80	3	10	1700	<b>199 025 138</b>	<b>199 025 168</b>	14.137
110	100	4	6	2700	<b>199 025 139</b>	<b>199 025 169</b>	24.700
** 160	150	6	6	6033	<b>199 025 140</b>	<b>199 025 170</b>	35.000

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 90	280	1/4	200	12	160	310	120		348	150	24	46	100	129
110	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 160	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

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





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

### Model:

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

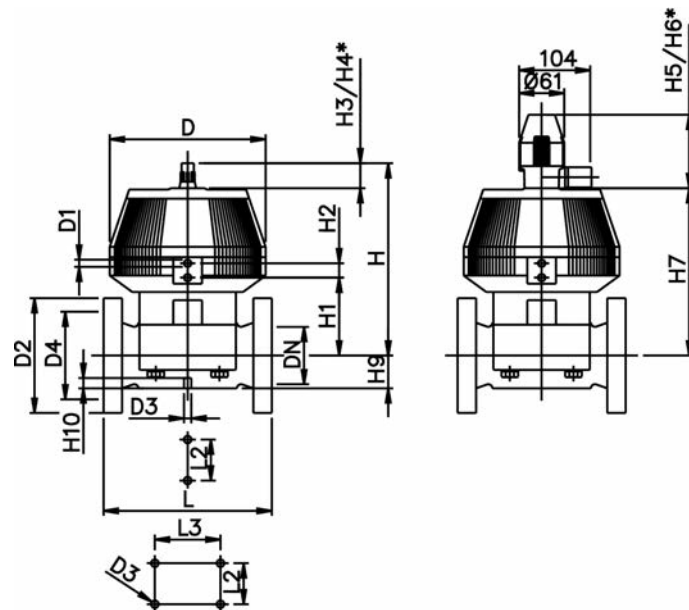
\* with backing flanges PVC-U metric

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

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 1/2	10	992	<b>199 025 147</b>	<b>199 025 177</b>	12.000
** 90	80	3	10	1700	<b>199 025 148</b>	<b>199 025 178</b>	17.400
110	100	4	6	2700	<b>199 025 149</b>	<b>199 025 179</b>	24.700
** 160	150	6	6	6033	<b>199 025 150</b>	<b>199 025 180</b>	35.000

d [mm]	D [mm]	D1 G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 90	280	1/4	200	12	160	310	120		348	150	24	46	100	129
110	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 160	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

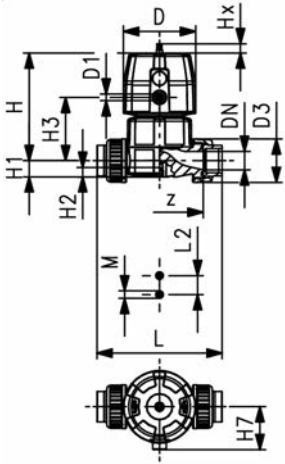
d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



# Diaphragm valves pneumatic New generation Inch BS

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

### Unions with solvent cement sockets BS



#### Model:

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

#### Option:

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	<b>161 614 512</b>	0.564
3/4	20	6	271	<b>161 614 513</b>	1.044
1	25	6	481	<b>161 614 514</b>	1.273
1 1/4	32	6	759	<b>161 614 515</b>	2.058
1 1/2	40	6	960	<b>161 614 516</b>	2.678
2	50	6	1181	<b>161 614 517</b>	3.786

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



## Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close) Unions with solvent cement sockets BS

### Model:

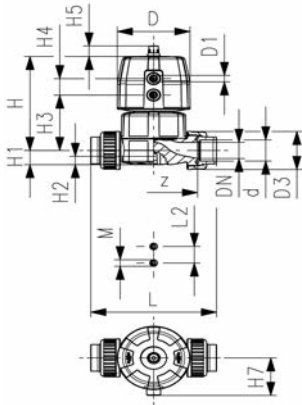
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	150/150*	125	161 624 512	161 624 532	0.600	
3/4	20	10/10*	150/150*	271	161 624 513	161 624 533	1.130	
1	25	10/10*	150/150*	481	161 624 514	161 624 534	1.365	
1 1/4	32	10/10*	150/150*	759	161 624 515	161 624 535	2.228	
1 1/2	40	10/10*	150/150*	1263	161 624 516	161 624 536	3.987	
2	50	10/6*	150/90*	1728	161 624 517	161 624 537	4.735	

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) Unions with solvent cement sockets BS

### Model:

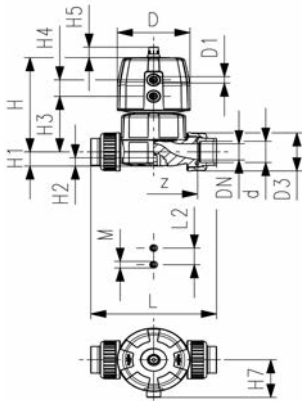
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

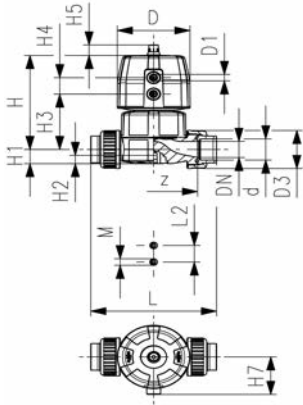
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	125	161 644 512	161 644 532	0.550	
3/4	20	10/10*	271	161 644 513	161 644 533	0.956	
1	25	10/10*	481	161 644 514	161 644 534	1.152	
1 1/4	32	10/10*	759	161 644 515	161 644 535	1.868	
1 1/2	40	10/10*	1263	161 644 516	161 644 536	3.756	
2	50	10/10*	1728	161 644 517	161 644 537	4.645	



Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) Unions with solvent cement sockets BS

### Model:

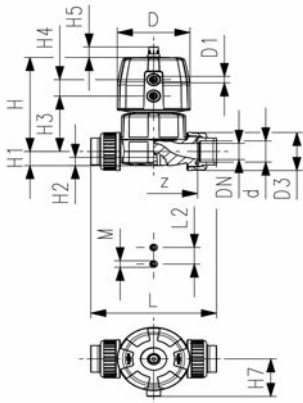
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**

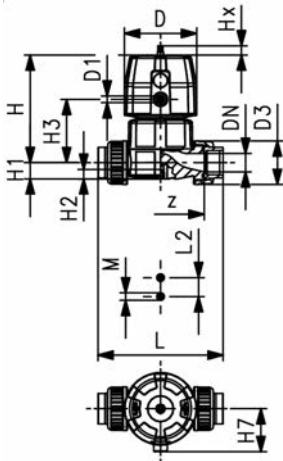


Inch	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	125	<b>161 654 512</b>	<b>161 654 532</b>	0.534
3/4	20	10/10*	271	<b>161 654 513</b>	<b>161 654 533</b>	0.920
1	25	10/10*	481	<b>161 654 514</b>	<b>161 654 534</b>	1.155
1 1/4	32	10/10*	759	<b>161 654 515</b>	<b>161 654 535</b>	1.808
1 1/2	40	10/10*	1263	<b>161 654 516</b>	<b>161 654 536</b>	3.006
2	50	10/10*	1728	<b>161 654 517</b>	<b>161 654 537</b>	3.895

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	266	45	226	39	15	132	36	26	88	M8	190	23

# Diaphragm valves pneumatic New generation ASTM/ANSI

## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) Unions with solvent cement sockets ASTM



### Model:

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

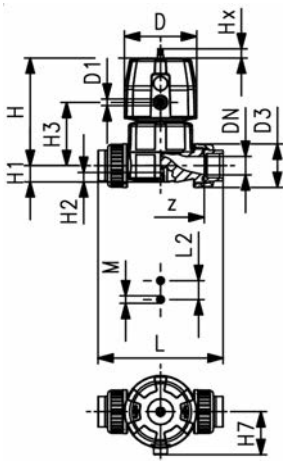
### Option:

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	<b>161 614 612</b>	0.566
3/4	20	6	271	<b>161 614 613</b>	1.048
1	25	6	481	<b>161 614 614</b>	1.252
1 1/4	32	6	759	<b>161 614 615</b>	2.111
1 1/2	40	6	960	<b>161 614 616</b>	2.759
2	50	6	1181	<b>161 614 617</b>	3.556

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	141	25	101	14	12	60	43	M6	96	7
3/4	96	1/8	165	25	132	18	12	73	57	M6	114	10
1	96	1/8	179	25	143	22	12	84	57	M6	122	13
1 1/4	120	1/8	204	45	173	26	15	99	69	M8	140	14
1 1/2	120	1/8	230	45	193	32	15	119	69	M8	160	16
2	120	1/8	268	45	205	39	15	132	69	M8	190	16

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



### Model:

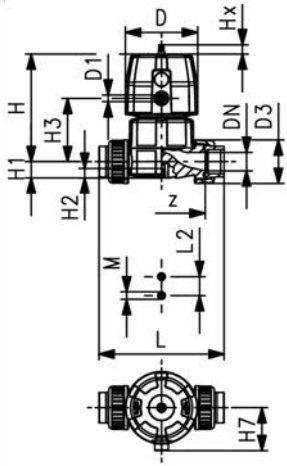
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

NPT [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	<b>161 614 712</b>	0.564
3/4	20	6	271	<b>161 614 713</b>	1.048
1	25	6	481	<b>161 614 714</b>	1.279
1 1/4	32	6	759	<b>161 614 715</b>	2.072
1 1/2	40	6	960	<b>161 614 716</b>	2.704
2	50	6	1181	<b>161 614 717</b>	3.874





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



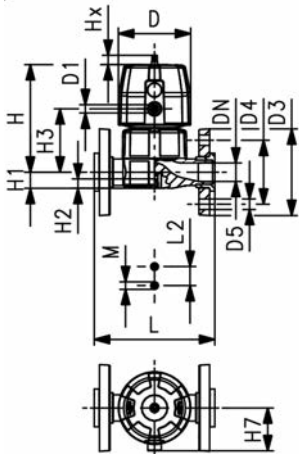
## Diaphragm valve DIASTAR Six PVC-U FC (Fail safe to close) With backing flanges PVC-U Inch ANSI

### Model:

- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

- Individual configuration of the valve (see diagram)



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	<b>161 617 612</b>	0.657
3/4	20	6	271	<b>161 617 613</b>	1.172
1	25	6	481	<b>161 617 614</b>	1.444
1 1/4	32	6	759	<b>161 617 615</b>	2.360
1 1/2	40	6	960	<b>161 617 616</b>	3.012
2	50	6	1181	<b>161 617 617</b>	4.154

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
1/2	68	1/8	95	60	16	130	25	101	14	12	60	43	M6	7
3/4	96	1/8	105	70	16	150	25	132	18	12	73	57	M6	10
1	96	1/8	115	79	16	160	25	143	22	12	84	57	M6	13
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	69	M8	14
1 1/2	120	1/8	150	98	16	200	45	193	32	15	119	69	M8	16
2	120	1/8	165	121	19	230	45	205	39	15	132	69	M8	16



## Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close) Unions with solvent cement sockets ASTM

### Model:

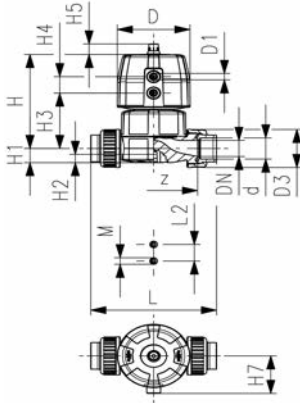
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	150/150*	125	161 624 612	161 624 632	0.602	
3/4	20	10/10*	150/150*	271	161 624 613	161 624 633	1.113	
1	25	10/10*	150/150*	481	161 624 614	161 624 634	1.361	
1 1/4	32	10/10*	150/150*	759	161 624 615	161 624 635	2.308	
1 1/2	40	10/10*	150/150*	1263	161 624 616	161 624 636	3.975	
2	50	10/6*	150/90*	1728	161 624 617	161 624 637	4.643	

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	141	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	165	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	179	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	204	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	230	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	268	45	226	39	15	132	36	26	88	M8	190	23



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

### Model:

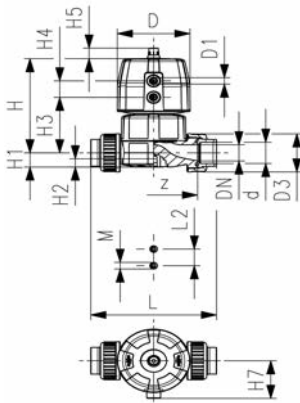
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

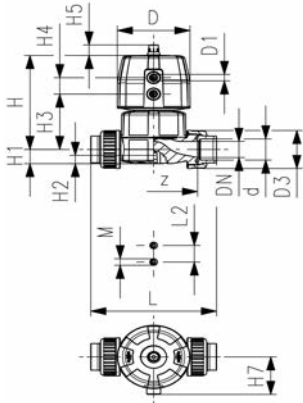
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration

\* PN: PTFE

Working Pressure: **one side**



NPT [inch]	DN [mm]	PN* [bar]	PN [psi]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	150/150*	125	161 624 712	161 624 732	0.600	
3/4	20	10/10*	150/150*	271	161 624 713	161 624 733	1.134	
1	25	10/10*	150/150*	481	161 624 714	161 624 734	1.371	
1 1/4	32	10/10*	150/150*	759	161 624 715	161 624 735	2.242	
1 1/2	40	10/10*	150/150*	1263	161 624 716	161 624 736	3.872	
2	50	10/6*	150/90*	1728	161 624 717	161 624 737	4.823	



NPT [inch]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	120	1/4	222	45	214	32	15	119	36	26	88	M8	160	19
2	120	1/4	266	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U FC (Fail safe to close) With backing flanges PVC-U Inch ANSI

### Model:

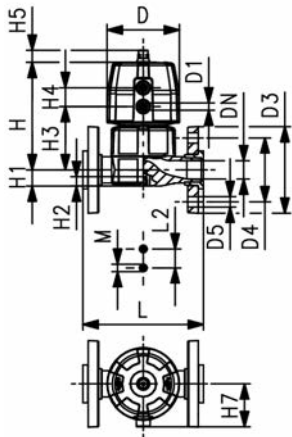
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	PN [psi]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	150/150*	125	161 627 612	161 627 632	0.693
3/4	20	10/10*	150/150*	271	161 627 613	161 627 633	1.258
1	25	10/10*	150/150*	481	161 627 614	161 627 634	1.542
1 1/4	32	10/10*	150/150*	759	161 627 615	161 627 635	2.530
1 1/2	40	10/10*	150/150*	1263	161 627 616	161 627 636	4.180
2	50	10/6*	150/90*	1728	161 627 617	161 627 637	5.103

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

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) Unions with solvent cement sockets ASTM

### Model:

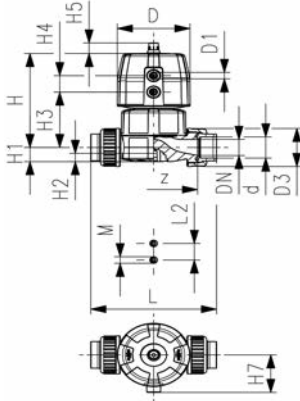
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	125	<b>161 644 612</b>	<b>161 644 632</b>	0.552	
3/4	20	10/10*	271	<b>161 644 613</b>	<b>161 644 633</b>	0.960	
1	25	10/10*	481	<b>161 644 614</b>	<b>161 644 634</b>	1.160	
1 1/4	32	10/10*	759	<b>161 644 615</b>	<b>161 644 635</b>	1.876	
1 1/2	40	10/10*	1263	<b>161 644 616</b>	<b>161 644 636</b>	3.770	
2	50	10/10*	1728	<b>161 644 617</b>	<b>161 644 637</b>	4.653	

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	141	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	165	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	179	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	204	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	230	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	268	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) Unions with threaded sockets NPT

### Model:

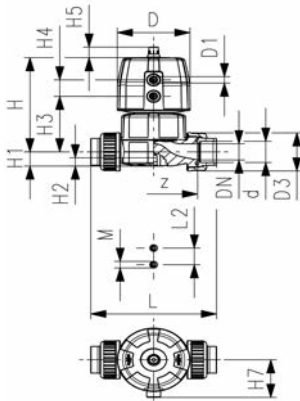
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

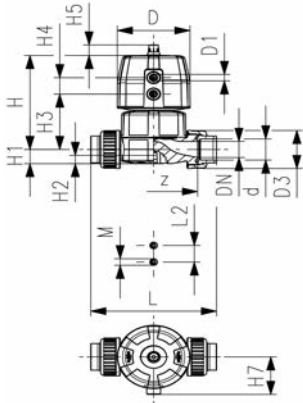
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available
- PN16 available as a configuration

\* PN: PTFE

Working Pressure: **one side**



NPT [inch]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	125	<b>161 644 712</b>	<b>161 644 732</b>	0.550	
3/4	20	10/10*	271	<b>161 644 713</b>	<b>161 644 733</b>	0.960	
1	25	10/10*	481	<b>161 644 714</b>	<b>161 644 734</b>	1.191	
1 1/4	32	10/10*	759	<b>161 644 715</b>	<b>161 644 735</b>	1.882	
1 1/2	40	10/10*	1263	<b>161 644 716</b>	<b>161 644 736</b>	3.782	
2	50	10/10*	1728	<b>161 644 717</b>	<b>161 644 737</b>	4.733	



NPT [inch]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	222	45	214	32	15	119	36	26	69	M8	160	19
2	150	1/4	266	45	226	39	15	132	36	26	69	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U FO (Fail safe to open) With backing flanges PVC-U Inch ANSI

### Model:

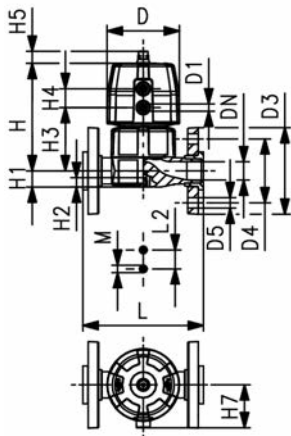
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	125	<b>161 647 612</b>	<b>161 647 632</b>	0.643
3/4	20	10/10*	271	<b>161 647 613</b>	<b>161 647 633</b>	1.084
1	25	10/10*	481	<b>161 647 614</b>	<b>161 647 634</b>	1.362
1 1/4	32	10/10*	759	<b>161 647 615</b>	<b>161 647 635</b>	2.170
1 1/2	40	10/10*	1263	<b>161 647 616</b>	<b>161 647 636</b>	4.090
2	50	10/10*	1728	<b>161 647 617</b>	<b>161 647 637</b>	5.013

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	43	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	57	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	69	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	88	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	88	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) Unions with solvent cement sockets ASTM

### Model:

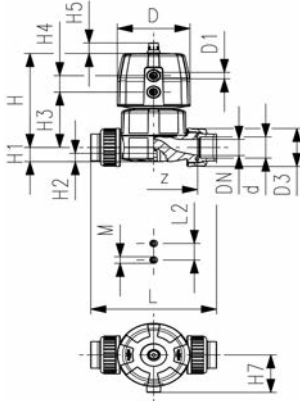
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	125	<b>161 654 612</b>	<b>161 654 632</b>	0.536	
3/4	20	10/10*	271	<b>161 654 613</b>	<b>161 654 633</b>	0.924	
1	25	10/10*	481	<b>161 654 614</b>	<b>161 654 634</b>	1.161	
1 1/4	32	10/10*	759	<b>161 654 615</b>	<b>161 654 635</b>	1.816	
1 1/2	40	10/10*	1263	<b>161 654 616</b>	<b>161 654 636</b>	3.020	
2	50	10/10*	1728	<b>161 654 617</b>	<b>161 654 637</b>	3.903	

Inch	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	141	25	101	14	12	60	24	16	43	M6	96	7
3/4	96	1/8	165	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	179	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	204	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	230	45	214	32	15	119	36	26	88	M8	160	19
2	150	1/4	268	45	226	39	15	132	36	26	88	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) Unions with threaded sockets NPT

### Model:

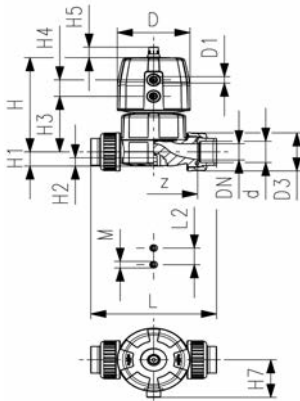
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

### Option:

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

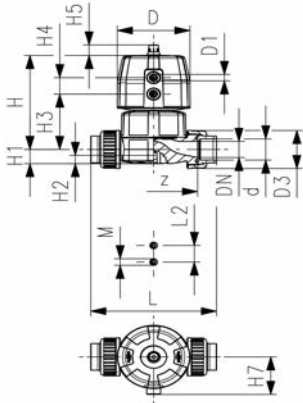
\* PN: PTFE

Working Pressure: **one side**



NPT [inch]	DN [mm]	PN* [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10/10*	125	<b>161 654 712</b>	<b>161 654 732</b>	0.534	
3/4	20	10/10*	271	<b>161 654 713</b>	<b>161 654 733</b>	0.924	
1	25	10/10*	481	<b>161 654 714</b>	<b>161 654 734</b>	1.161	
1 1/4	32	10/10*	759	<b>161 654 715</b>	<b>161 654 735</b>	1.822	
1 1/2	40	10/10*	1263	<b>161 654 716</b>	<b>161 654 736</b>	3.032	
2	50	10/10*	1728	<b>161 654 717</b>	<b>161 654 737</b>	3.983	





NPT [inch]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
1/2	68	1/8	128	25	101	14	12	60	45	16	43	M6	96	7
3/4	96	1/8	152	25	132	18	12	73	25	16	57	M6	114	10
1	96	1/8	166	25	143	22	12	84	25	16	57	M6	122	13
1 1/4	120	1/8	192	45	173	26	15	99	26	26	69	M8	140	15
1 1/2	150	1/4	222	45	214	32	15	119	36	26	69	M8	160	19
2	150	1/4	266	45	226	39	15	132	36	26	69	M8	190	23



## Diaphragm valve DIASTAR Ten PVC-U DA (Double acting) With backing flanges PVC-U Inch ANSI

### Model:

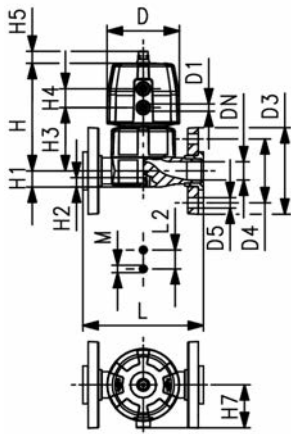
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

### Option:

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

\* PN: PTFE

Working Pressure: **one side**



Inch	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	125	<b>161 657 612</b>	<b>161 657 632</b>	0.627
3/4	20	10/10*	271	<b>161 657 613</b>	<b>161 657 633</b>	1.048
1	25	10/10*	481	<b>161 657 614</b>	<b>161 657 634</b>	1.332
1 1/4	32	10/10*	759	<b>161 657 615</b>	<b>161 657 635</b>	2.110
1 1/2	40	10/10*	1263	<b>161 657 616</b>	<b>161 657 636</b>	3.340
2	50	10/10*	1728	<b>161 657 617</b>	<b>161 657 637</b>	4.263

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	43	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	57	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	69	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	88	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	88	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23





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

### Model:

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

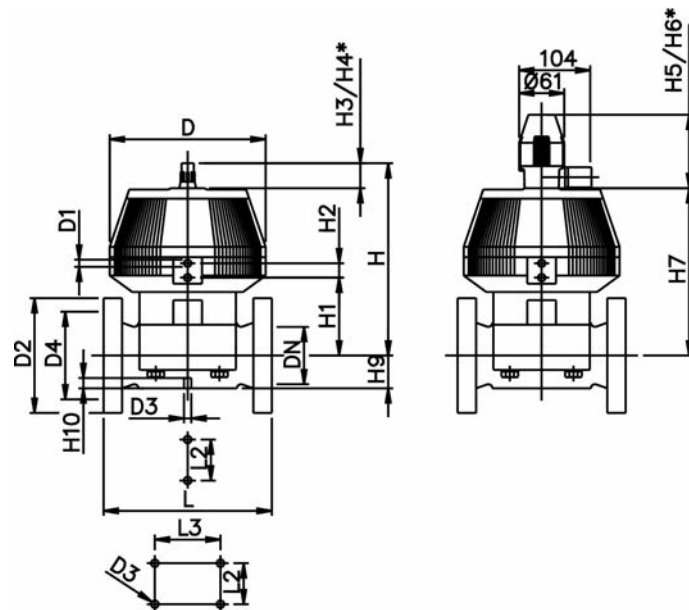
\* with backing flanges PVC-U metric

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 2 1/2	65	10	992	<b>199 025 007</b>	<b>199 025 037</b>	13.600
** 3	80	10	1700	<b>199 025 128</b>	<b>199 025 158</b>	17.604
4	100	6	2700	<b>199 025 009</b>	<b>199 025 039</b>	24.700
** 6	150	6	6033	<b>199 025 130</b>		35.000

Inch	D [mm]	D1 G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20





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

### Model:

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

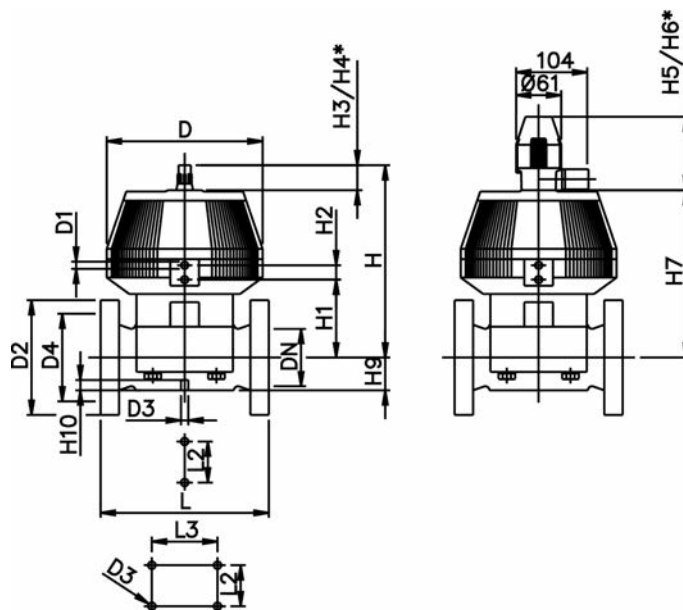
\* with backing flanges PVC-U metric

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 2 1/2	65	10	992	<b>199 025 017</b>	<b>199 025 047</b>	11.200
** 3	80	10	1700	<b>199 025 138</b>	<b>199 025 168</b>	14.137
4	100	6	2700	<b>199 025 019</b>	<b>199 025 049</b>	22.096
** 6	150	6	6033	<b>199 025 140</b>	<b>199 025 170</b>	35.000

Inch	D [mm]	D1 G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20





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

### Model:

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

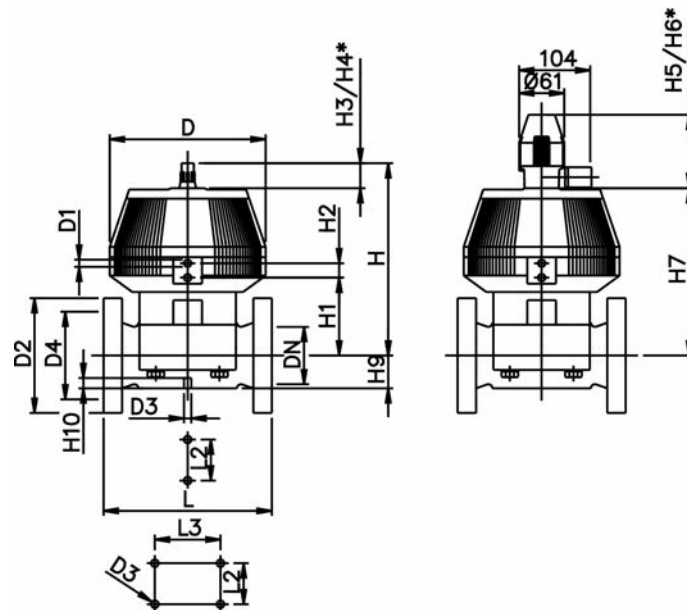
\* with backing flanges PVC-U metric

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

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 2 1/2	65	10	992	<b>199 025 027</b>	<b>199 025 057</b>	12.000
** 3	80	10	1700	<b>199 025 148</b>	<b>199 025 178</b>	17.400
4	100	6	2700	<b>199 025 029</b>	<b>199 025 059</b>	22.400
** 6	150	6	6033	<b>199 025 150</b>	<b>199 025 180</b>	35.000

Inch	D [mm]	D1 G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 2 1/2	280	1/4	185	8	145	290	70		344	148	24	46	100	129
** 3	280	1/4	200	12	160	310	120		348	150	24	46	100	129
4	335	1/4	225	12	180	350	120		395	176	24	46	100	129
** 6	335	1/4	285	12	240	480	100	200	455	237	24	46	100	129

Inch	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 2 1/2	195	298	46	15
** 3	195	302	57	15
4	195	349	69	20
** 6	195	409	108	20



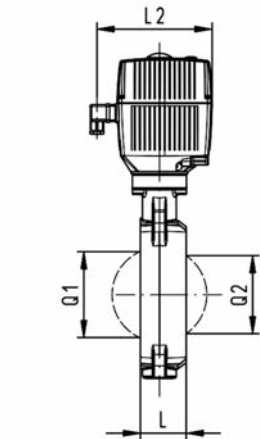
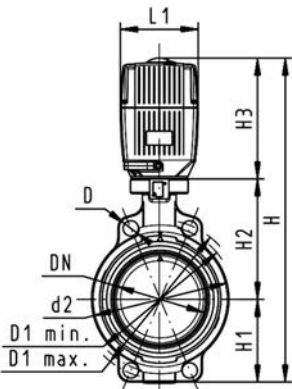
# Butterfly valves electric metric

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



### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 042	199 140 062	4.182
75	65	2 ½	10	2200	199 140 043	199 140 063	4.286
90	80	3	10	3000	199 140 044	199 140 064	4.453
110	100	4	10	6500	199 140 045	199 140 065	5.073
140	125	5	10	11500	199 140 046	199 140 066	5.644
160	150	6	10	16600	199 140 047	199 140 067	6.654
225	200	8	10	39600	199 140 048	199 140 068	12.634
280	250	10	6	55200	199 140 049	199 140 069	14.481
315	300	12	4	80000	199 140 050	199 140 070	19.546
355	350	14	6	90000	199 140 051	199 140 071	46.180
400	400	16	6	115000	199 140 052	199 140 072	63.800

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

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

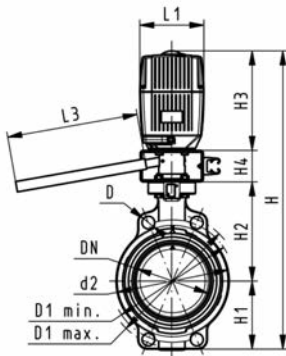


## Butterfly valve type 140 PVC-U 100-230V With manual override

### Model:

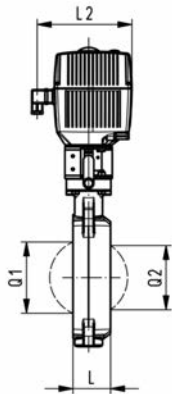
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard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

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 002	199 140 022	5.682
75	65	2 ½	10	2200	199 140 003	199 140 023	5.786
90	80	3	10	3000	199 140 004	199 140 024	5.953
110	100	4	10	6500	199 140 005	199 140 025	6.573
140	125	5	10	11500	199 140 006	199 140 026	7.144
160	150	6	10	16600	199 140 007	199 140 027	8.154
225	200	8	10	39600	199 140 008	199 140 028	14.134



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

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



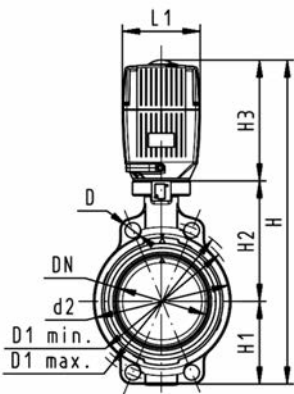


## Butterfly valve type 140 PVC-U 24V Without manual override

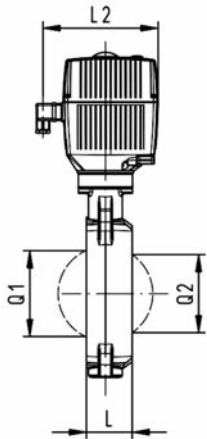
### Model:

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

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 140 122</b>	<b>199 140 142</b>	4.182
75	65	2 ½	10	2200	<b>199 140 123</b>	<b>199 140 143</b>	4.286
90	80	3	10	3000	<b>199 140 124</b>	<b>199 140 144</b>	4.453
110	100	4	10	6500	<b>199 140 125</b>	<b>199 140 145</b>	5.073
140	125	5	10	11500	<b>199 140 126</b>	<b>199 140 146</b>	5.644
160	150	6	10	16600	<b>199 140 127</b>	<b>199 140 147</b>	6.654
225	200	8	10	39600	<b>199 140 128</b>	<b>199 140 148</b>	12.634
280	250	10	6	55200	<b>199 140 129</b>	<b>199 140 149</b>	14.334
315	300	12	4	80000	<b>199 140 130</b>	<b>199 140 150</b>	19.546



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



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

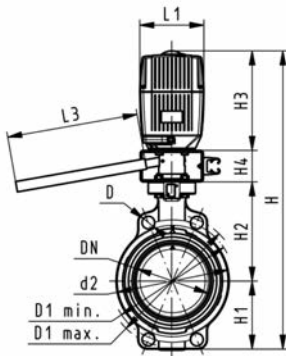


## Butterfly valve type 140 PVC-U 24V With manual override

### Model:

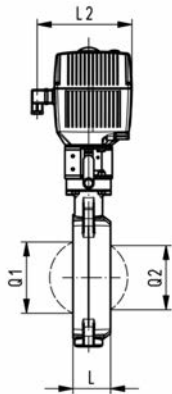
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with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

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 140 082</b>	<b>199 140 102</b>	5.682
75	65	2 ½	10	2200	<b>199 140 083</b>	<b>199 140 103</b>	7.819
90	80	3	10	3000	<b>199 140 084</b>	<b>199 140 104</b>	5.953
110	100	4	10	6500	<b>199 140 085</b>	<b>199 140 105</b>	6.573
140	125	5	10	11500	<b>199 140 086</b>	<b>199 140 106</b>	7.144
160	150	6	10	16600	<b>199 140 087</b>	<b>199 140 107</b>	8.154
225	200	8	10	39600	<b>199 140 088</b>	<b>199 140 108</b>	14.134



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

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



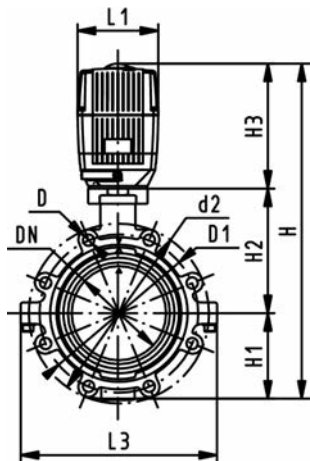




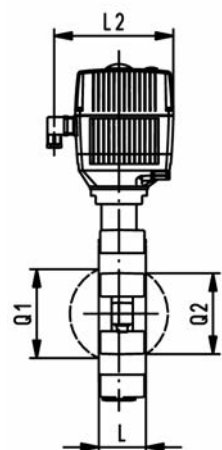
## Lugstyle butterfly valve type 141 PVC-U 100-230V Without manual override

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 141 042</b>	<b>199 141 062</b>	6.268
75	65	2 ½	10	2200	<b>199 141 043</b>	<b>199 141 063</b>	6.622
90	80	3	10	3000	<b>199 141 044</b>	<b>199 141 064</b>	7.664
110	100	4	10	6500	<b>199 141 045</b>	<b>199 141 065</b>	9.157
140	125	5	10	11500	<b>199 141 046</b>	<b>199 141 066</b>	11.110
160	150	6	10	16600	<b>199 141 047</b>	<b>199 141 067</b>	13.114
225	200	8	10	39600	<b>199 141 048</b>	<b>199 141 068</b>	22.582



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

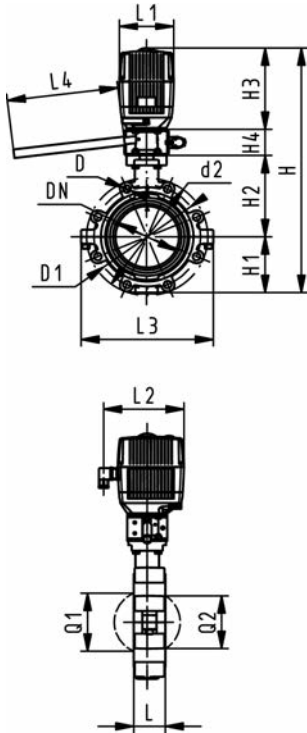
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

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



### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 002	199 141 022	7.768
75	65	2 ½	10	2200	199 141 003	199 141 023	8.122
90	80	3	10	3000	199 141 004	199 141 024	9.164
110	100	4	10	6500	199 141 005	199 141 025	10.657
140	125	5	10	11500	199 141 006	199 141 026	12.610
160	150	6	10	16600	199 141 007	199 141 027	14.614
225	200	8	10	39600	199 141 008	199 141 028	24.082

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

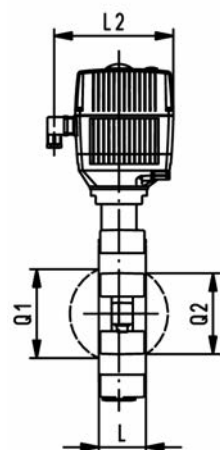
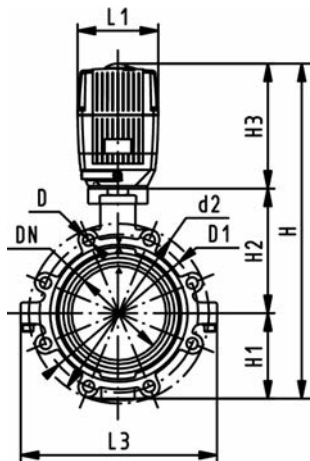
d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



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

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 141 122</b>	<b>199 141 142</b>	6.268
75	65	2 ½	10	2200	<b>199 141 123</b>	<b>199 141 143</b>	6.622
90	80	3	10	3000	<b>199 141 124</b>	<b>199 141 144</b>	7.664
110	100	4	10	6500	<b>199 141 125</b>	<b>199 141 145</b>	9.157
140	125	5	10	11500	<b>199 141 126</b>	<b>199 141 146</b>	11.110
160	150	6	10	16600	<b>199 141 127</b>	<b>199 141 147</b>	13.114
225	200	8	10	39600	<b>199 141 128</b>	<b>199 141 148</b>	22.582

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

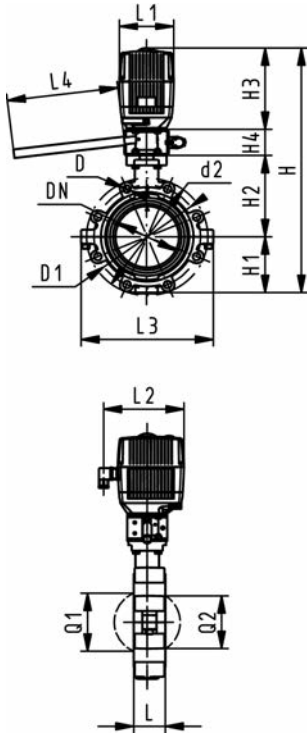
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169

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



### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 082	199 141 102	7.768
75	65	2 ½	10	2200	199 141 083	199 141 103	8.122
90	80	3	10	3000	199 141 084	199 141 104	9.164
110	100	4	10	6500	199 141 085	199 141 105	10.657
140	125	5	10	11500	199 141 086	199 141 106	12.610
160	150	6	10	16600	199 141 087	199 141 107	14.614
225	200	8	10	39600	199 141 088	199 141 108	24.082

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

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

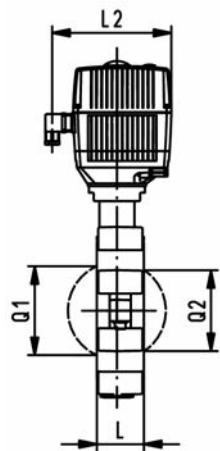
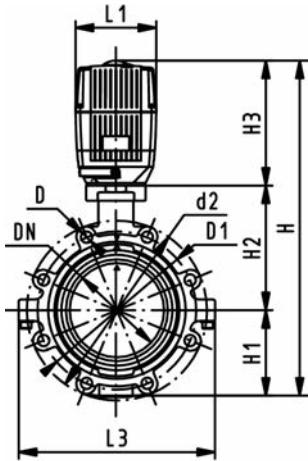
# Butterfly valves electric ASTM/ANSI

## Lugstyle butterfly valve type 142 PVC-U 100-230V Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 142 042</b>	<b>199 142 062</b>	6.268
2 ½	65	10	2200	<b>199 142 043</b>	<b>199 142 063</b>	6.622
3	80	10	3000	<b>199 142 044</b>	<b>199 142 064</b>	7.035
4	100	10	6500	<b>199 142 045</b>	<b>199 142 065</b>	9.157
5	125	10	11500	<b>199 142 046</b>	<b>199 142 066</b>	11.110
6	150	10	16600	<b>199 142 047</b>	<b>199 142 067</b>	13.114
8	200	10	39600	<b>199 142 048</b>	<b>199 142 068</b>	22.582

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

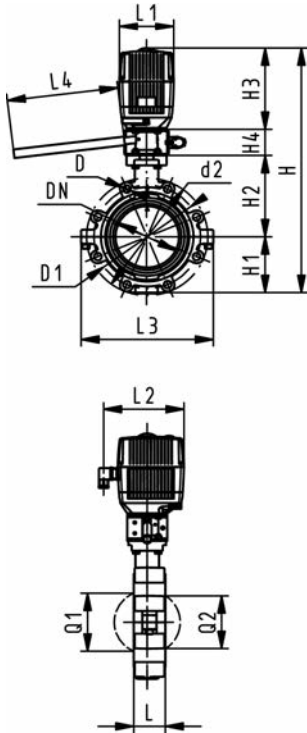
Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169



## Lugstyle butterfly valve type 142 PVC-U 100-230V With manual override

### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 142 002</b>	<b>199 142 022</b>	7.768
2 ½	65	10	2200	<b>199 142 003</b>	<b>199 142 023</b>	8.122
3	80	10	3000	<b>199 142 004</b>	<b>199 142 024</b>	8.535
4	100	10	6500	<b>199 142 005</b>	<b>199 142 025</b>	10.657
5	125	10	11500	<b>199 142 006</b>	<b>199 142 026</b>	12.610
6	150	10	16600	<b>199 142 007</b>	<b>199 142 027</b>	14.614
8	200	10	39600	<b>199 142 008</b>	<b>199 142 028</b>	24.082

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

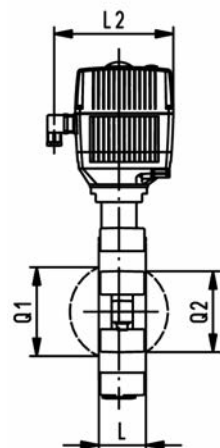
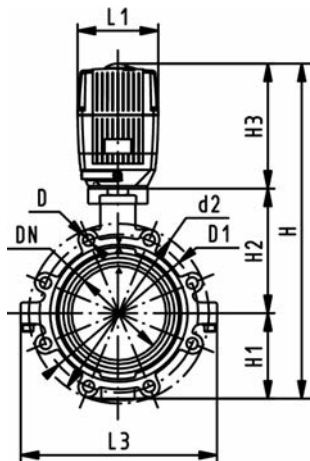
Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169



## Lugstyle butterfly valve type 142 PVC-U 24V Without manual override

### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 142 122</b>	<b>199 142 142</b>	6.268
2 ½	65	10	2200	<b>199 142 123</b>	<b>199 142 143</b>	6.622
3	80	10	3000	<b>199 142 124</b>	<b>199 142 144</b>	7.035
4	100	10	6500	<b>199 142 125</b>	<b>199 142 145</b>	9.157
5	125	10	11500	<b>199 142 126</b>	<b>199 142 146</b>	11.110
6	150	10	16600	<b>199 142 127</b>	<b>199 142 147</b>	13.114
8	200	10	39600	<b>199 142 128</b>	<b>199 142 148</b>	22.582

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169

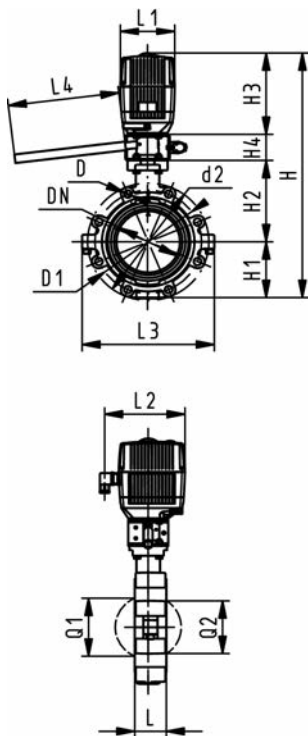


## Lugstyle butterfly valve type 142 PVC-U 24V With manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 142 082</b>	<b>199 142 102</b>	7.768
2 ½	65	10	2200	<b>199 142 083</b>	<b>199 142 103</b>	8.122
3	80	10	3000	<b>199 142 084</b>	<b>199 142 104</b>	8.535
4	100	10	6500	<b>199 142 085</b>	<b>199 142 105</b>	10.657
5	125	10	11500	<b>199 142 086</b>	<b>199 142 106</b>	12.610
6	150	10	16600	<b>199 142 087</b>	<b>199 142 107</b>	14.614
8	200	10	39600	<b>199 142 088</b>	<b>199 142 108</b>	24.082

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

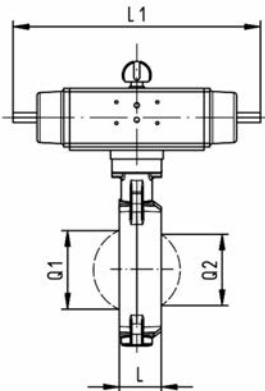
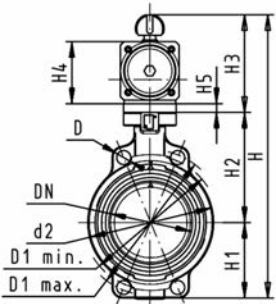
Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169

# Butterfly valves pneumatic metric

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

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 240 002</b>	<b>199 240 022</b>	3.222
75	65	2 ½	10	2200	<b>199 240 003</b>	<b>199 240 023</b>	3.075
90	80	3	10	3000	<b>199 240 004</b>	<b>199 240 024</b>	3.938
110	100	4	10	6500	<b>199 240 005</b>	<b>199 240 025</b>	5.263
140	125	5	10	11500	<b>199 240 006</b>	<b>199 240 026</b>	6.884
160	150	6	10	16600	<b>199 240 007</b>	<b>199 240 027</b>	10.095
225	200	8	10	39600	<b>199 240 008</b>	<b>199 240 028</b>	14.134
280	250	10	10	55200	<b>199 240 009</b>	<b>199 240 029</b>	28.000
315	300	12	10	80000	<b>199 240 010</b>	<b>199 240 030</b>	36.400

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

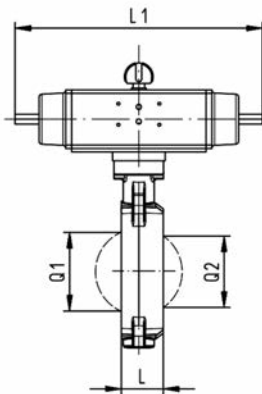
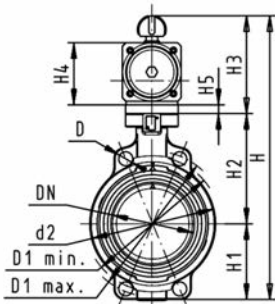
d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



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

## Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 240 042	199 240 062	3.222
75	65	2 ½	10	2200	199 240 043	199 240 063	3.326
90	80	3	10	3000	199 240 044	199 240 064	3.493
110	100	4	10	6500	199 240 045	199 240 065	5.266
140	125	5	10	11500	199 240 046	199 240 066	6.884
160	150	6	10	16600	199 240 047	199 240 067	10.215
225	200	8	10	39600	199 240 048	199 240 068	16.496
280	250	10	10	55200	199 240 049	199 240 069	31.600
315	300	12	10	80000	199 240 050	199 240 070	25.000

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

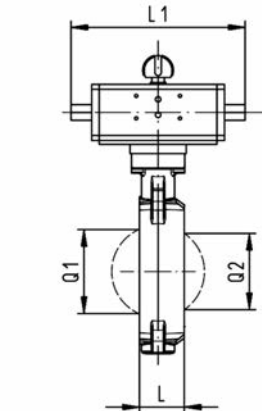
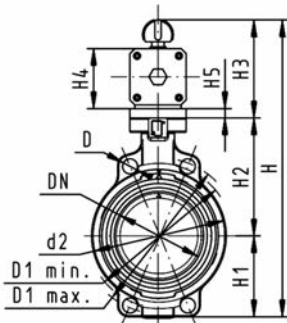
d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



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

## Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 240 082</b>	<b>199 240 102</b>	2.072
75	65	2 ½	10	2200	<b>199 240 083</b>	<b>199 240 103</b>	2.176
90	80	3	10	3000	<b>199 240 084</b>	<b>199 240 104</b>	2.824
110	100	4	10	6500	<b>199 240 085</b>	<b>199 240 105</b>	3.563
140	125	5	10	11500	<b>199 240 086</b>	<b>199 240 106</b>	4.384
160	150	6	10	16600	<b>199 240 087</b>	<b>199 240 107</b>	6.694
225	200	8	10	39600	<b>199 240 088</b>	<b>199 240 108</b>	8.134
280	250	10	10	55200	<b>199 240 089</b>	<b>199 240 109</b>	19.100
315	300	12	10	80000	<b>199 240 090</b>	<b>199 240 110</b>	27.000
355	350	14	6	90000	<b>199 240 091</b>	<b>199 240 111</b>	70.000
400	400	16	6	115000	<b>199 240 092</b>	<b>199 240 112</b>	62.100

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

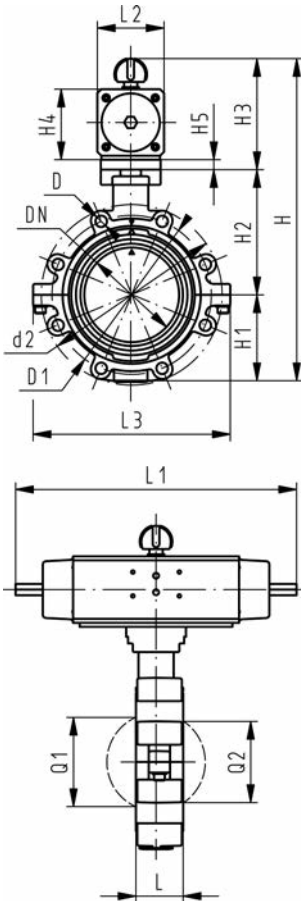
d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253
355	325	305
400	353	350



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

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 241 002	199 241 022	5.308
75	65	2 ½	10	2200	199 241 003	199 241 023	5.662
90	80	3	10	3000	199 241 004	199 241 024	6.704
110	100	4	10	6500	199 241 005	199 241 025	9.395
140	125	5	10	11500	199 241 006	199 241 026	12.350
160	150	6	10	16600	199 241 007	199 241 027	16.675
225	200	8	10	39600	199 241 008	199 241 028	24.082

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

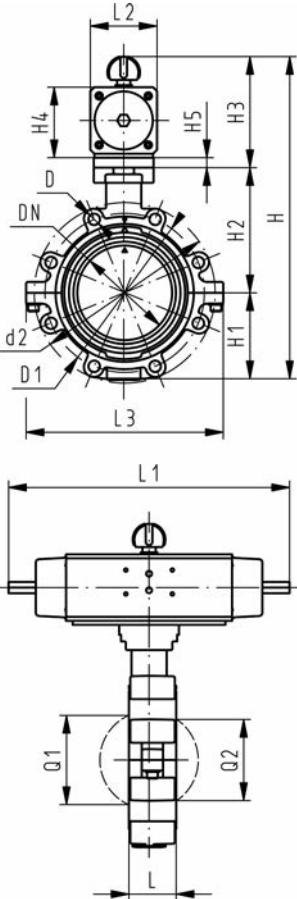
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



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

## Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 241 042</b>	<b>199 241 062</b>	5.308
75	65	2 ½	10	2200	<b>199 241 043</b>	<b>199 241 063</b>	5.662
90	80	3	10	3000	<b>199 241 044</b>	<b>199 241 064</b>	6.704
110	100	4	10	6500	<b>199 241 045</b>	<b>199 241 065</b>	9.395
140	125	5	10	11500	<b>199 241 046</b>	<b>199 241 066</b>	12.350
160	150	6	10	16600	<b>199 241 047</b>	<b>199 241 067</b>	16.675
225	200	8	10	39600	<b>199 241 048</b>	<b>199 241 068</b>	24.082

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

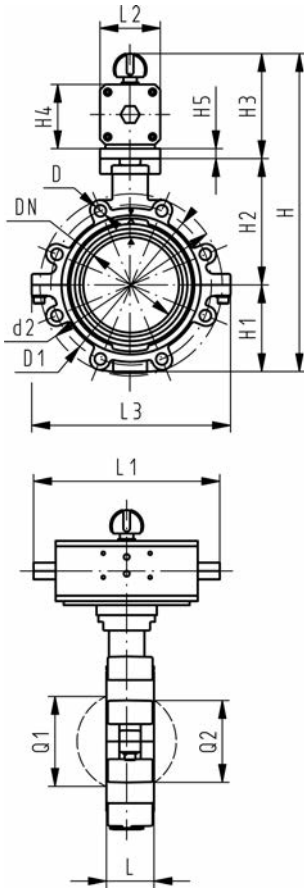
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



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

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 241 082	199 241 102	4.158
75	65	2 ½	10	2200	199 241 083	199 241 103	4.512
90	80	3	10	3000	199 241 084	199 241 104	6.035
110	100	4	10	6500	199 241 085	199 241 105	7.647
140	125	5	10	11500	199 241 086	199 241 106	9.600
160	150	6	10	16600	199 241 087	199 241 107	13.154
225	200	8	10	39600	199 241 088	199 241 108	18.082

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

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

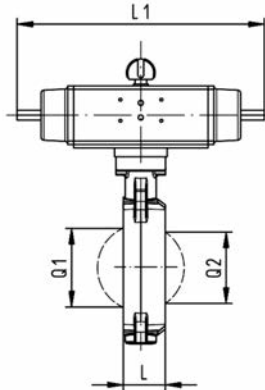
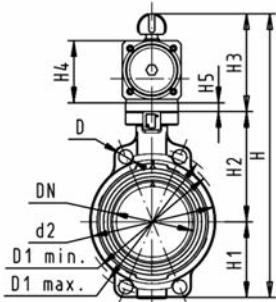




## Butterfly valve type 563 PVC-U FC (Fail safe to close) Without manual override

### Model:

- Only useable for system pressure of max. 4 bar
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	4	1470	<b>161 563 142</b>	<b>161 563 162</b>	3.222
75	65	2 ½	4	2200	<b>161 563 143</b>	<b>161 563 163</b>	2.618
90	80	3	4	3000	<b>161 563 144</b>	<b>161 563 164</b>	3.493
110	100	4	4	6500	<b>161 563 145</b>	<b>161 563 165</b>	5.311
140	125	5	4	11500	<b>161 563 146</b>	<b>161 563 166</b>	6.884
160	150	6	4	16600	<b>161 563 147</b>	<b>161 563 167</b>	10.215
225	200	8	4	39600	<b>161 563 148</b>	<b>161 563 168</b>	14.134
280	250	10	4	55200	<b>161 563 149</b>	<b>161 563 169</b>	28.000
315	300	12	4	80000	<b>161 563 150</b>	<b>161 563 170</b>	36.400

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-21 FC	19	120.0	125.0	104	345	77	134	119	99	15	45	224
75	PA-21 FC	19	139.7	145.0	115	363	83	140	119	99	15	46	224
90	PA-21 FC	19	150.0	160.0	131	369	89	146	119	99	15	49	224
110	PA-35 FC	19	175.0	190.5	161	382	104	167	111	78		56	342
140	PA-40 FC	23	210.0	215.9	187	427	117	181	129	87		64	370
160	PA-45 FC	24	241.3	241.3	215	458	130	189	139	96		72	409
225	PA-50 FC	23	290.0	295.0	267	517	158	210	149	107		73	424
280	PA-65 FC	25	353.0	362.0	329	660	205	264	191	148		113	621
315	PA-65 FC	25	400.0	432.0	379	704	228	285	191	148		113	621

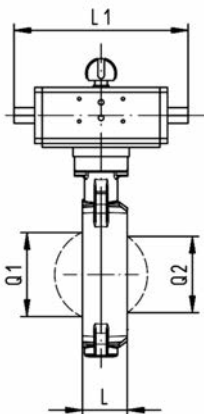
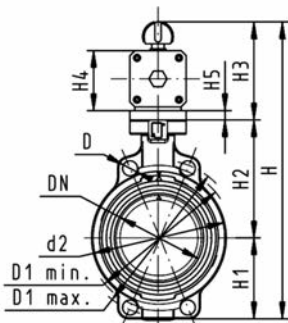
d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



## Butterfly valve type 563 PVC-U DA (Double acting) Without manual override

### Model:

- Only useable for system pressure of max. 4 bar
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	4	1470	<b>161 563 102</b>	<b>161 563 122</b>	2.072
75	65	2 ½	4	2200	<b>161 563 103</b>	<b>161 563 123</b>	2.176
90	80	3	4	3000	<b>161 563 104</b>	<b>161 563 124</b>	2.824
110	100	4	4	6500	<b>161 563 105</b>	<b>161 563 125</b>	3.840
140	125	5	4	11500	<b>161 563 106</b>	<b>161 563 126</b>	5.310
160	150	6	4	16600	<b>161 563 107</b>	<b>161 563 127</b>	7.103
225	200	8	4	39600	<b>161 563 108</b>	<b>161 563 128</b>	9.007
280	250	10	4	55200	<b>161 563 109</b>	<b>161 563 129</b>	19.100
315	300	12	4	80000	<b>161 563 110</b>	<b>161 563 130</b>	27.000

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-21 DA	19	120.0	125.0	104	345	77	134	134	99	15	45	224
75	PA-21 DA	19	139.7	145.0	115	357	83	140	134	99	15	46	224
90	PA-21 DA	19	150.0	160.0	131	369	89	146	134	99	15	49	224
110	PA-45 DA	19	175.0	190.5	161	382	104	167	111	78		56	235
140	PA-45 DA	23	210.0	215.9	187	409	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	458	130	189	139	96		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	630	205	264	161	118		113	350
315	PA-65 DA	25	400.0	432.0	379	674	228	285	161	118		113	350

d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253

# Butterfly valves pneumatic ASTM/ANSI

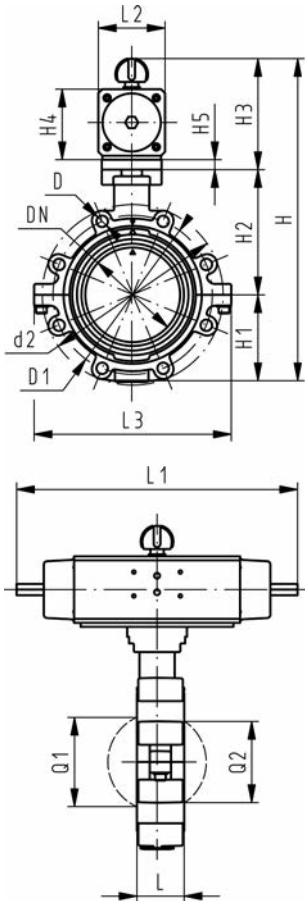
## Lugstyle butterfly valve type 242 PVC-U FC (Fail safe to close) Without manual override



### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<

Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 242 002</b>	<b>199 242 022</b>	5.308
2 ½	65	10	2200	<b>199 242 003</b>	<b>199 242 023</b>	5.662
3	80	10	3000	<b>199 242 004</b>	<b>199 242 024</b>	6.075
4	100	10	6500	<b>199 242 005</b>	<b>199 242 025</b>	9.395
5	125	10	11500	<b>199 242 006</b>	<b>199 242 026</b>	12.350
6	150	10	16600	<b>199 242 007</b>	<b>199 242 027</b>	16.675
8	200	10	39600	<b>199 242 008</b>	<b>199 242 028</b>	24.082



Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FC	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FC	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FC	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FC	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FC	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FC	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FC	UNC 3/4	299	334	529	158	210	161	118		73	452	112

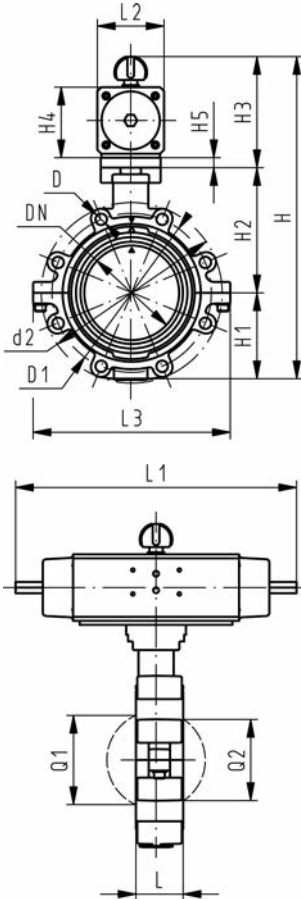
Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169



## Lugstyle butterfly valve type 242 PVC-U FO (Fail safe to open) Without manual override

### Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	199 242 042	199 242 062	5.308
2 1/2	65	10	2200	199 242 043	199 242 063	5.662
3	80	10	3000	199 242 044	199 242 064	6.075
4	100	10	6500	199 242 045	199 242 065	9.395
5	125	10	11500	199 242 046	199 242 066	12.350
6	150	10	16600	199 242 047	199 242 067	16.675
8	200	10	39600	199 242 048	199 242 068	24.082

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FO	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 1/2	PA-30 FO	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FO	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FO	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FO	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FO	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FO	UNC 3/4	299	334	529	158	210	161	118		73	452	112

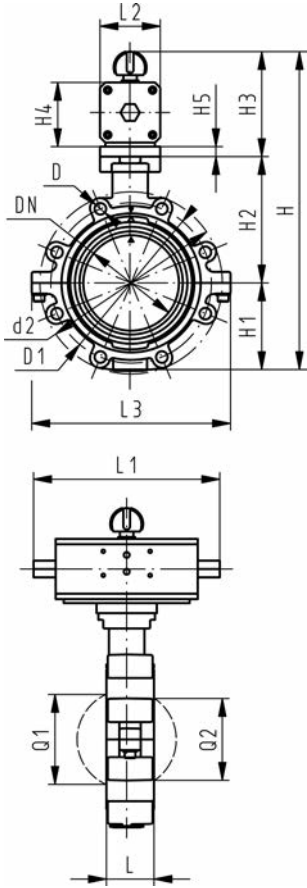
Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 1/2	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169



# Lugstyle butterfly valve type 242 PVC-U DA (Double acting) Without manual override

## Model:

- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>199 242 082</b>	<b>199 242 102</b>	4.158
2 ½	65	10	2200	<b>199 242 083</b>	<b>199 242 103</b>	4.512
3	80	10	3000	<b>199 242 084</b>	<b>199 242 104</b>	5.406
4	100	10	6500	<b>199 242 085</b>	<b>199 242 105</b>	7.647
5	125	10	11500	<b>199 242 086</b>	<b>199 242 106</b>	9.600
6	150	10	16600	<b>199 242 087</b>	<b>199 242 107</b>	13.154
8	200	10	39600	<b>199 242 088</b>	<b>199 242 108</b>	18.082

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-35 DA	UNC 5/8	121	150	318	77	134	107	60	15	45	177	55
2 ½	PA-35 DA	UNC 5/8	140	170	330	83	140	107	60	15	46	177	55
3	PA-40 DA	UNC 5/8	153	177	348	89	146	113	66	15	49	190	60
4	PA-45 DA	UNC 5/8	191	216	373	104	167	102	71		56	235	65
5	PA-45 DA	UNC 3/4	216	246	409	117	181	111	78		64	235	72
6	PA-55 DA	UNC 3/4	242	273	448	130	189	129	86		72	279	80
8	PA-55 DA	UNC 3/4	299	334	507	158	210	139	96		73	279	90

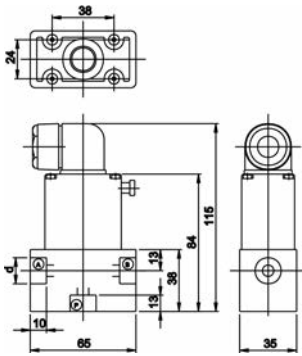
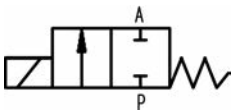
Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

# Solenoid valves



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

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

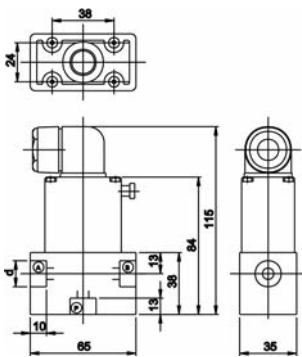
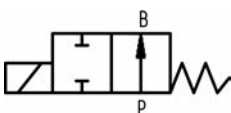


DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	kg
4	G3/8	0.0 - 4.0	<b>199 157 007</b>	<b>199 157 002</b>	0.320
6	G3/8	0.0 - 2.0	<b>199 157 008</b>	<b>199 157 003</b>	0.320
8	G3/8	0.0 - 1.0	<b>199 157 009</b>	<b>199 157 004</b>	0.320



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

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

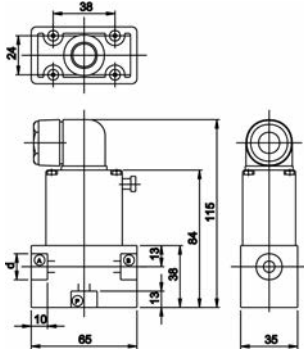
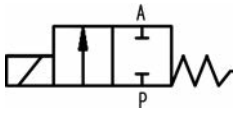


DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	kg
4	G3/8	0.0 - 4.0	<b>199 157 027</b>	<b>199 157 022</b>	0.320
6	G3/8	0.0 - 2.0	<b>199 157 028</b>	<b>199 157 023</b>	0.320
8	G3/8	0.0 - 1.0	<b>199 157 029</b>	<b>199 157 024</b>	0.320



**Solenoid valve type 157 PVC-U**  
**Nominal voltage 24V DC \*24V AC/DC**  
**Function A straight-through valve 2/2 ways**  
**With threaded sockets parallel female thread Rp**

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

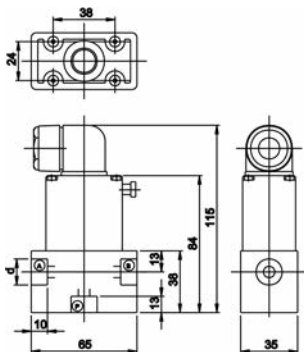
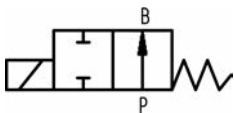


DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	kg
4	G3/8	0.0 - 4.0	<b>199 157 627</b>	<b>199 157 622</b>	0.320
6	G3/8	0.0 - 1.0	<b>199 157 628</b>	<b>199 157 623</b>	0.808
* 8	G3/8	0.0 - 1.0	<b>199 157 629</b>	<b>199 157 624</b>	0.320



**Solenoid valve type 157 PVC-U**  
**Nominal voltage 24V DC \*24V AC/DC**  
**Function B straight-through valve 2/2 ways**  
**With threaded sockets parallel female thread Rp**

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



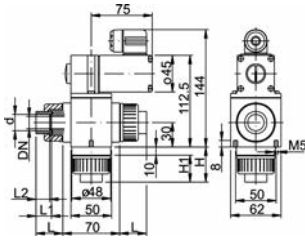
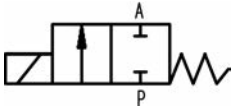
DN [mm]	Inch	PN [bar]	EPDM Code	FPM Code	kg
4	G3/8	0.0 - 4.0	<b>199 157 647</b>	<b>199 157 642</b>	0.320
6	G3/8	0.0 - 2.0	<b>199 157 648</b>	<b>199 157 643</b>	0.838
* 8	G3/8	0.0 - 1.0	<b>199 157 649</b>	<b>199 157 644</b>	0.250





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

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

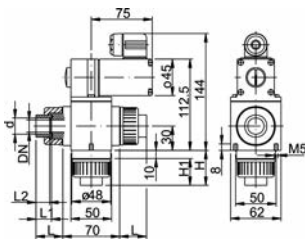
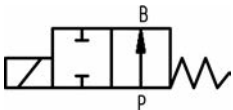


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 3.0	33	199 160 010	199 160 005	0.966	30	17	14
10	20	0.0 - 3.0	33	199 160 011	199 160 006	0.999	30	17	14
15	20	0.0 - 1.0	75	199 160 012	199 160 007	1.050	33	19	16
15	25	0.0 - 1.0	75	199 160 013	199 160 008	1.050	33	19	16
20	25	0.0 - 0.5	100	199 160 014	199 160 009	0.030	37	22	19



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

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

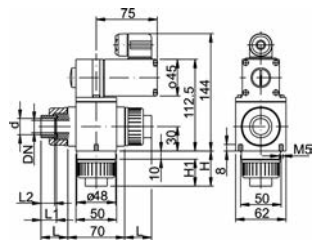
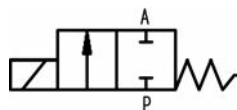


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 2.0	33	199 160 025	199 160 020	1.200	30	17	14
10	20	0.0 - 2.0	33	199 160 026	199 160 021	1.200	30	17	14
15	20	0.0 - 1.0	75	199 160 027	199 160 022	1.200	33	19	16
15	25	0.0 - 1.0	75	199 160 028	199 160 023	1.050	33	19	16
20	25	0.0 - 0.5	100	199 160 029	199 160 024	1.200	37	22	19



**Solenoid valve type 160 PVC-U**  
**Nominal voltage 24V AC/DC**  
**Function A straight through valve 2/2 ways**  
**With solvent cement sockets metric**

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

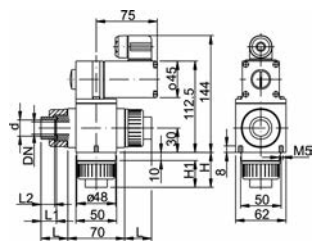
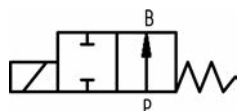


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 3.0	33	<b>199 160 370</b>	<b>199 160 365</b>	1.017	30	17	14
10	20	0.0 - 3.0	33	<b>199 160 371</b>	<b>199 160 366</b>	1.050	30	17	14
15	20	0.0 - 1.0	75	<b>199 160 372</b>	<b>199 160 367</b>	1.050	33	19	16
15	25	0.0 - 1.0	75	<b>199 160 373</b>	<b>199 160 368</b>	1.200	33	19	16
20	25	0.0 - 0.5	100	<b>199 160 374</b>	<b>199 160 369</b>	1.050	37	22	19



**Solenoid valve type 160 PVC-U**  
**Nominal voltage 24V AC/DC**  
**Function B straight-through valve 2/2 ways**  
**With solvent cement sockets metric**

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

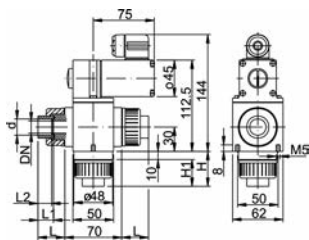


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	L [mm]	L1 [mm]	L2 [mm]
10	16	0.0 - 2.0	33	<b>199 160 385</b>	<b>199 160 380</b>	0.975	30	17	14
10	20	0.0 - 2.0	33	<b>199 160 386</b>	<b>199 160 381</b>	1.200	30	17	14
15	20	0.0 - 1.0	75	<b>199 160 387</b>	<b>199 160 382</b>	1.200	33	19	16
15	25	0.0 - 1.0	75	<b>199 160 388</b>	<b>199 160 383</b>	1.200	33	19	16
20	25	0.0 - 0.5	100	<b>199 160 389</b>	<b>199 160 384</b>	1.050	37	22	19



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

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



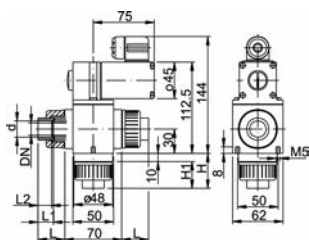
DN [mm]	d [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
10	16	0.0 - 0.6	33	199 161 040	199 161 035	1.200
10	20	0.0 - 0.6	33	199 161 041	199 161 036	1.200
15	20	0.0 - 0.3	67	199 161 042	199 161 037	1.200
15	25	0.0 - 0.3	67	199 161 043	199 161 038	1.200
20	25	0.0 - 0.2	83	199 161 044	199 161 039	1.200

DN [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	30	17	14	40	30
10	30	17	14	40	30
15	33	19	16	43	33
15	33	19	16	43	33
20	37	22	19	47	37



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

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



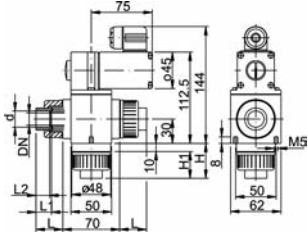
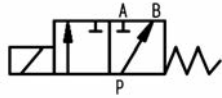
DN [mm]	d [mm]	PN [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
10	16	0.0 - 0.6	33	199 161 430	199 161 425	0.000
10	20	0.0 - 0.6	33	199 161 431	199 161 426	0.000
15	20	0.0 - 0.3	67	199 161 432	199 161 427	0.000
15	25	0.0 - 0.3	67	199 161 433	199 161 428	0.000
20	25	0.0 - 0.2	83	199 161 434	199 161 429	0.000

DN [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	30	17	14	40	30
10	30	17	14	40	30
15	33	19	16	43	33
15	33	19	16	43	33
20	37	22	19	47	37



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

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



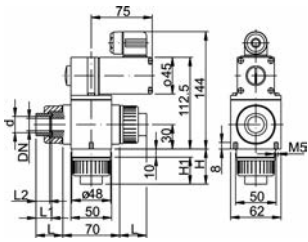
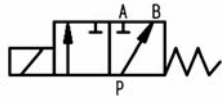
DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
10	16	0 - 1.00	33	199 161 055	199 161 050	1.200
10	20	0 - 1.00	33	199 161 056	199 161 051	1.200
15	20	0 - 0.50	67	199 161 057	199 161 052	1.200
15	25	0 - 0.50	67	199 161 058	199 161 053	1.200
20	25	0 - 0.25	83	199 161 059	199 161 054	1.200

DN [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	30	17	14	40	30
10	30	17	14	40	30
15	33	19	16	43	33
15	33	19	16	43	33
20	37	22	19	47	37



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

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



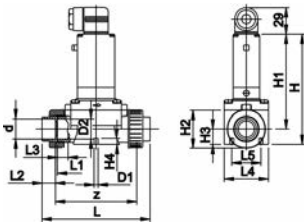
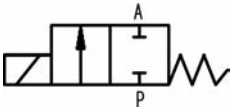
DN [mm]	d [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	PN [bar]	EPDM Code	FPM Code	kg	
10	16		33	0 - 1.00	199 161 445	199 161 440	1.139
10	20		33	0 - 1.00	199 161 446	199 161 441	0.000
15	20		67	0 - 0.50	199 161 447	199 161 442	1.168
15	25		67	0 - 0.50	199 161 448	199 161 443	0.000
20	25		83	0 - 0.25	199 161 449	199 161 444	1.600

DN [mm]	d [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
10	16	30	17	14	40	30
10	20	30	17	14	40	30
15	20	33	19	16	43	33
15	25	33	19	16	43	33
20	25	37	22	19	47	37



**Solenoid valve type 165 PVC-U**  
**Standard voltage 230V 50Hz**  
**Function A straight-through valve 2/2 ways**  
**With solvent cement sockets metric**

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



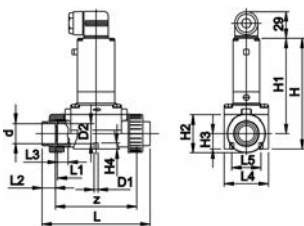
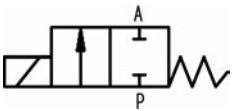
DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
15	20	0.5 - 6.0	83	<b>199 165 012</b>	<b>199 165 002</b>	0.650
20	25	0.5 - 6.0	100	<b>199 165 013</b>	<b>199 165 003</b>	0.641
25	32	0.5 - 6.0	233	<b>199 165 014</b>	<b>199 165 004</b>	1.200
32	40	0.5 - 6.0	267	<b>199 165 015</b>	<b>199 165 005</b>	1.200
40	50	0.5 - 6.0	500	<b>199 165 016</b>	<b>199 165 006</b>	2.200
50	63	0.5 - 6.0	600	<b>199 165 017</b>	<b>199 165 007</b>	2.200

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



**Solenoid valve type 165 PVC-U**  
**Standard voltage 115V 50Hz**  
**Function A straight-through valve 2/2 ways**  
**With solvent cement sockets metric**

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



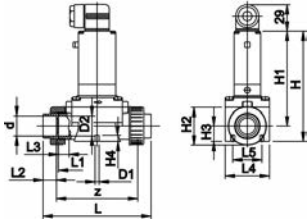
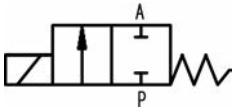
DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
15	20	0.5 - 6.0	83	<b>199 165 042</b>	<b>199 165 032</b>	0.649
20	25	0.5 - 6.0	100	<b>199 165 043</b>	<b>199 165 033</b>	0.700
25	32	0.5 - 6.0	233	<b>199 165 044</b>	<b>199 165 034</b>	1.200
32	40	0.5 - 6.0	267	<b>199 165 045</b>	<b>199 165 035</b>	1.200
40	50	0.5 - 6.0	500	<b>199 165 046</b>	<b>199 165 036</b>	2.200
50	63	0.5 - 6.0	600	<b>199 165 047</b>	<b>199 165 037</b>	2.200

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



**Solenoid valve type 165 PVC-U**  
**Standard voltage 24V DC**  
**Function A straight-through valve 2/2 ways**  
**With solvent cement sockets metric**

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

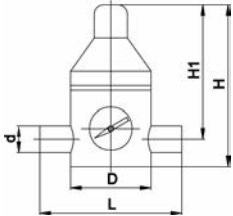


DN [mm]	d [mm]	PN [bar]	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
15	20	0.5 - 6.0	83	<b>199 165 022</b>	<b>199 165 072</b>	0.650
20	25	0.5 - 6.0	100	<b>199 165 023</b>	<b>199 165 073</b>	0.647
25	32	0.5 - 6.0	233	<b>199 165 024</b>	<b>199 165 074</b>	1.200
32	40	0.5 - 6.0	267	<b>199 165 025</b>	<b>199 165 075</b>	1.200
40	50	0.5 - 6.0	500	<b>199 165 026</b>	<b>199 165 076</b>	2.200
50	63	0.5 - 6.0	600	<b>199 165 027</b>	<b>199 165 077</b>	2.200

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

# Process control valves

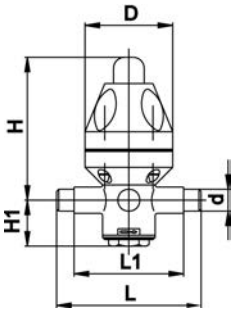
## Pressure reducing valve type V182/82 PVC-U With solvent cement spigots metric



Type	d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	PTFE Code	kg
V182	16	10	0.5 - 10	199 041 600	199 041 611		0.680
V182	20	15	0.5 - 10	199 041 601	199 041 612		0.649
V182	25	20	0.5 - 10	199 041 602	199 041 613		1.350
V182	32	25	0.5 - 10	199 041 603	199 041 614		1.350
V182	40	32	0.5 - 10	199 041 604	199 041 615		2.950
V182	50	40	0.5 - 10	199 041 605	199 041 616		2.950
V182	63	50	0.5 - 10	199 041 620	199 041 630		5.180
V82	75	65	0.5 - 6	199 041 019		199 041 029	10.430
V82	90	80	0.5 - 6	199 041 020		199 041 030	19.630
V82	110	100	0.5 - 4	199 041 021		199 041 031	31.640

Type	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch
V182	70	134	130	100	3/8
V182	70	134	130	100	1/2
V182	100	174	180	134	3/4
V182	100	174	180	134	1
V182	130	224	230	175	1 1/4
V182	130	224	230	175	1 1/2
V182	150	244	285	210	2
V82	200	300	350	250	2 1/2
V82	250	360	425	305	3
V82	300	420	495	345	4

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

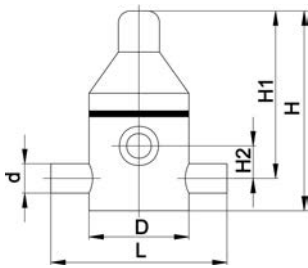
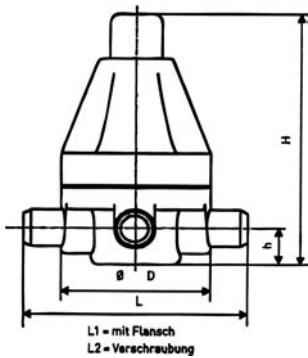


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg
16	10	0.5 - 10	199 041 060	199 041 066	0.620
20	15	0.5 - 10	199 041 061	199 041 067	0.620
25	20	0.5 - 10	199 041 062	199 041 068	1.636
32	25	0.5 - 10	199 041 063	199 041 069	1.700
40	32	0.5 - 10	199 041 064	199 041 070	6.018
50	40	0.5 - 10	199 041 065	199 041 071	4.840

d [mm]	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch
16	83	134	102	138	48	3/8
20	83	134	102	138	48	1/2
25	113	154	110	205	65	3/4
32	113	154	110	205	65	1
40	165	224	162	248	95	1 1/4
50	165	224	162	248	95	1 1/2



## Pressure relief valve type V185/85 PVC-U With solvent cement spigots metric



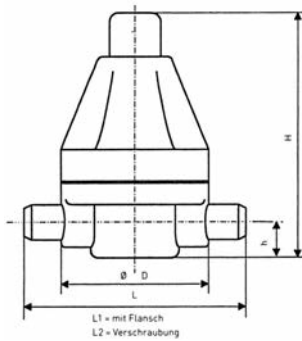
Type	d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg
V185	16	10	0.5 - 10	199 041 360	199 041 330	0.400
V185	20	15	0.5 - 10	199 041 361	199 041 331	0.400
V185	25	20	0.5 - 10	199 041 362	199 041 332	0.494
V185	32	25	0.5 - 10	199 041 363	199 041 333	1.310
V185	40	32	0.5 - 10	199 041 364	199 041 334	1.200
V185	50	40	0.5 - 10	199 041 365	199 041 335	6.400
V185	63	50	0.5 - 10	199 041 366	199 041 336	6.500
V85	75	65	1.0 - 6	199 041 919	199 041 984	8.200
V85	90	80	1.0 - 6	199 041 940	199 041 985	12.887
V85	110	100	1.0 - 4	199 041 914	199 041 986	22.700

Type	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	closest inch
V185	83	134	137	20		3/8
V185	83	134	137	20		1/2
V185	83	134	137	20		3/4
V185	112	174	199	27		1
V185	112	174	199	43		1 1/4
V185	165	224	290	43		1 1/2
V185	165	244	290	43		2
V85	180	284	295	250	70	2 1/2
V85	200	300	400	340	95	3
V85	250	380	475	405	110	4

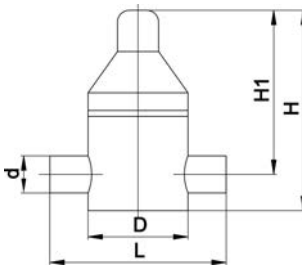
## Pressure retaining valve type V186/86 PVC-U With solvent cement spigots metric



Type	d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg
V186	16	10	0.5 - 10	199 041 379	199 041 309	0.400
V186	20	15	0.5 - 10	199 041 380	199 041 310	0.476
V186	25	20	0.5 - 10	199 041 381	199 041 311	0.475
V186	32	25	0.5 - 10	199 041 382	199 041 312	1.200
V186	40	32	0.5 - 10	199 041 383	199 041 313	1.263
V186	50	40	0.5 - 10	199 041 384	199 041 314	6.400
V186	63	50	0.5 - 10	199 041 385	199 041 315	6.500
V86	75	65	0.2 - 4	199 041 922	199 041 989	7.700
V86	75	65	1.0 - 6	199 041 950	199 041 990	7.700
V86	90	80	0.2 - 4	199 041 987	199 041 944	17.700
V86	90	80	1.0 - 6	199 041 988	199 041 991	17.700
V86	110	100	1.0 - 4	199 041 953	199 041 945	19.600



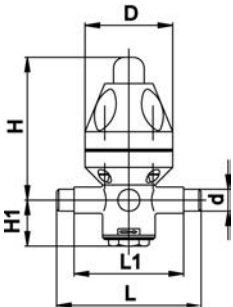
Type	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch
V186	83	134	137	20	3/8
V186	83	134	137	20	1/2
V186	83	134	137	20	3/4
V186	112	174	199	27	1
V186	112	174	199	43	1 1/4
V186	165	224	290	43	1 1/2
V186	165	244	290	43	2
V86	180	284	275	230	2 1/2
V86	180	284	275	230	2 1/2
V86	250	360	410	320	3
V86	250	360	410	320	3
V86	250	380	485	415	4



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



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg
16	10	0.5 - 10	199 041 090	199 041 096	0.794
20	15	0.5 - 10	199 041 091	199 041 097	0.620
25	20	0.5 - 10	199 041 092	199 041 098	1.700
32	25	0.5 - 10	199 041 093	199 041 099	1.700
40	32	0.5 - 4	199 041 094	199 041 100	5.344
50	40	0.5 - 4	199 041 095	199 041 101	4.840

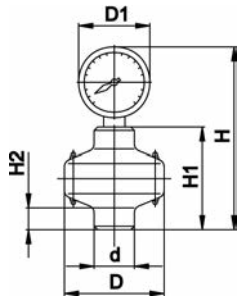


d [mm]	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	closest inch
16	83	134	102	138	38	3/8
20	83	134	102	138	38	1/2
25	112	154	110	205	55	3/4
32	112	154	110	205	55	1
40	165	224	162	248	85	1 1/4
50	165	224	162	248	85	1 1/2



## Gauge guard type Z700 PVC-U With manometer

d [mm]	Pressure range [bar]	Pressure range [psi]	PTFE Code	kg
25	0.0 - 10	0.0 - 145.03	<b>199 041 000</b>	0.271
25	0.0 - 6	0.0 - 87.02	<b>199 041 292</b>	0.267
32	0.0 - 10	0.0 - 145.03	<b>199 041 001</b>	0.633
32	0.0 - 6	0.0 - 87.02	<b>199 041 293</b>	0.657

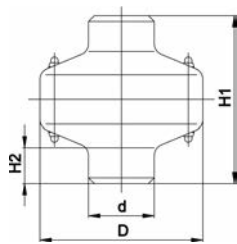


d [mm]	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	closest inch
25	¼	72	63	129	71	15	¾
25	¼	72	63	129	71	15	¾
32	½	100	100	210	90	22	1
32	½	100	100	210	90	22	1



## Gauge guard type Z701 PVC-U Without manometer

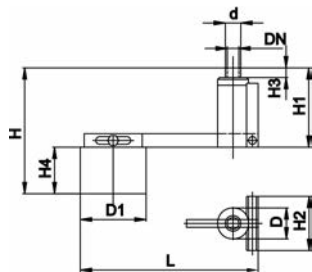
d [mm]	PTFE Code	kg	G_R	D [mm]	H1 [mm]	H2 [mm]	closest inch
25	<b>199 041 006</b>	0.144	¼	72	71	15	¾
32	<b>199 041 007</b>	0.269	½	100	90	22	1



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

- Lever 1:10

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	6	<b>199 041 147</b>	<b>199 041 156</b>	0.300
20	15	6	<b>199 041 148</b>	<b>199 041 157</b>	0.300
25	20	6	<b>199 041 149</b>	<b>199 041 158</b>	0.300
32	25	6	<b>199 041 150</b>	<b>199 041 159</b>	0.400
40	32	6	<b>199 041 151</b>	<b>199 041 160</b>	4.000
50	40	6	<b>199 041 152</b>	<b>199 041 161</b>	6.200
63	50	6	<b>199 041 153</b>	<b>199 041 162</b>	8.100
75	65	6	<b>199 041 154</b>	<b>199 041 163</b>	10.400
90	80	6	<b>199 041 155</b>	<b>199 041 164</b>	11.400



d [mm]	D [mm]	D1 [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	closest inch
16	45	125	380	270	120	80	14	130	⅜
20	45	125	380	270	120	80	16	130	½
25	65	200	530	340	160	110	19	170	¾
32	65	200	530	345	165	110	22	170	1
40	90	225	720	440	210	130	26	210	1 ¼
50	90	225	720	445	215	130	31	210	1 ½
63	130	315	975	595	255	160	38	290	2
75	130	315	975	600	260	160	44	290	2 ½
90	150	355	1140	640	290	180	51	340	3

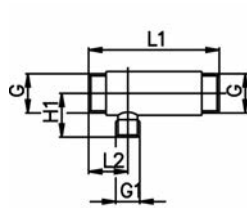


## Water jet suction pump type P20 PVC-U

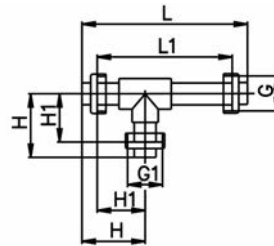
- DN 10-20: BSP parallel female thread
- DN 25-50: Solvent cement socket metric
- DN 65-80: Solvent cement spigot metric

d [mm]	DN [mm]	PN	EPDM Code	kg
16	10	10	<b>199 041 120</b>	0.140
20	15	10	<b>199 041 121</b>	0.228
25	20	10	<b>199 041 122</b>	0.363
32	25	10	<b>199 041 123</b>	0.468
40	32	10	<b>199 041 124</b>	0.841
50	40	10	<b>199 041 125</b>	1.360
63	50	10	<b>199 041 126</b>	2.440
75	65	10	<b>199 041 127</b>	2.313
90	80	10	<b>199 041 128</b>	4.090

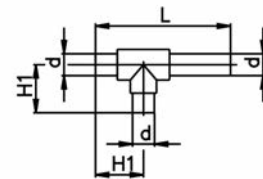
d [mm]	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	closest inch
16	R 3/4	R 3/4		110	40		35	3/8
20	R 1	R 3/4		125	40		35	1/2
25	R 1 1/4	R 3/4		145	45		45	3/4
32	R 1 1/2	R 1 1/2	245	195		96	71	1
40	R 2	R 2	297	239		116	87	1 1/4
50	R 2 1/4	R 2 1/4	369	301		139	105	1 1/2
63	R 2 3/4	R 2 3/4	433	351		169	128	2
75			388				115	2 1/2
90			465				149	3



DN 10 - 20

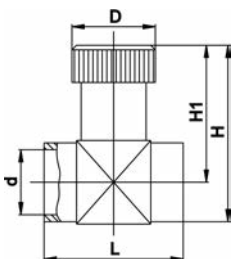


DN 25 - 50



DN 65 - 80

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



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	closest inch
16	10	10	<b>199 041 203</b>	<b>199 041 210</b>	0.048	29	47	57	45	3/8
20	15	10	<b>199 041 204</b>	<b>199 041 211</b>	0.081	35	55	66	51	1/2
25	20	10	<b>199 041 205</b>	<b>199 041 212</b>	0.123	40	66	80	63	3/4
32	25	10	<b>199 041 206</b>	<b>199 041 213</b>	0.219	47	80	96	75	1
40	32	10	<b>199 041 207</b>	<b>199 041 214</b>	0.329	56	100	111	86	1 1/4
50	40	10	<b>199 041 208</b>	<b>199 041 215</b>	0.662	70	120	133	101	1 1/2
63	50	10	<b>199 041 209</b>	<b>199 041 216</b>	1.213	88	146	158	118	2

# Variable area flow meters

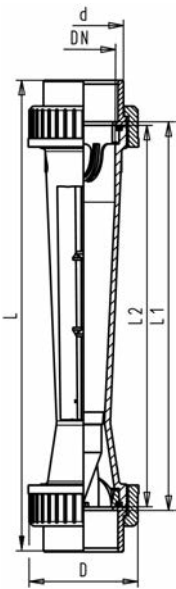
## Variable area flow meter type 335

Float in PVDF without magnet

With solvent cement sockets PVC-U metric

### Model:

- Standard guiding rod PVDF with stainless steel core (V2A) for DN 50 (1500 – 15000 l/h) and DN 65 (all measurement ranges) see accessories variable Flow meters



Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O-rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	kg
50 - 500	32	25	198 335 000	198 335 020	198 335 040	0.464
100 - 1000	32	25	198 335 001	198 335 021	198 335 041	0.528
150 - 1500	40	32	198 335 002	198 335 022	198 335 042	0.698
250 - 2500	40	32	198 335 003	198 335 023	198 335 043	0.561
200 - 2000	50	40	198 335 004	198 335 024	198 335 044	1.057
300 - 3000	50	40	198 335 005	198 335 025	198 335 045	1.038
600 - 6000	50	40	198 335 006	198 335 026	198 335 046	0.991
600 - 6000	63	50	198 335 007	198 335 027	198 335 047	1.455
1000 - 10000	63	50	198 335 008	198 335 028	198 335 048	1.252
1500 - 15000	63	50	198 335 009	198 335 029	198 335 049	1.429
2000 - 20000	75	65	198 335 010	198 335 030	198 335 050	2.639
3000 - 30000	75	65	198 335 011	198 335 031	198 335 051	2.572
8000 - 60000	75	65	198 335 012	198 335 032	198 335 052	2.432

Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	385	341	335	1 ½
100 - 1000	58	385	341	335	1 ½
150 - 1500	72	393	341	335	2
250 - 2500	72	393	341	335	2
200 - 2000	83	403	341	335	2 ¼
300 - 3000	83	403	341	335	2 ¼
600 - 6000	83	403	341	335	2 ¼
600 - 6000	101	417	341	335	2 ¾
1000 - 10000	101	417	341	335	2 ¾
1500 - 15000	101	417	341	335	2 ¾
2000 - 20000	135	429	341	335	3 ½
3000 - 30000	135	429	341	335	3 ½
8000 - 60000	135	429	341	335	3 ½



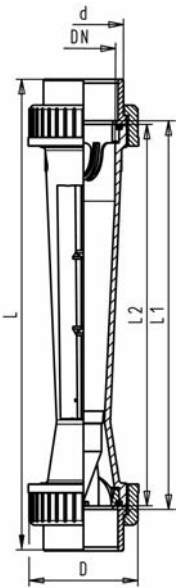
## Variable area flow meter type 335 Float in PVDF with magnet With solvent cement sockets PVC-U metric

### Model:

- Standard guiding rod PVDF with stainless steel core (V2A) for DN 50 (1500 – 15000 l/h) and DN 65 (all measurement ranges) see accessories variable Flow meters
- Suitable limit switches see accessories for variable area flow meters

Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O-Rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	kg
50 - 500	32	25	<b>198 335 100</b>	<b>198 335 120</b>	<b>198 335 140</b>	0.440
100 - 1000	32	25	<b>198 335 101</b>	<b>198 335 121</b>	<b>198 335 141</b>	0.452
150 - 1500	40	32	<b>198 335 102</b>	<b>198 335 122</b>	<b>198 335 142</b>	0.604
250 - 2500	40	32	<b>198 335 103</b>	<b>198 335 123</b>	<b>198 335 143</b>	0.585
200 - 2000	50	40	<b>198 335 104</b>	<b>198 335 124</b>	<b>198 335 144</b>	0.900
300 - 3000	50	40	<b>198 335 105</b>	<b>198 335 125</b>	<b>198 335 145</b>	1.035
600 - 6000	50	40	<b>198 335 106</b>	<b>198 335 126</b>	<b>198 335 146</b>	0.881
600 - 6000	63	50	<b>198 335 107</b>	<b>198 335 127</b>	<b>198 335 147</b>	1.225
1000 - 10000	63	50	<b>198 335 108</b>	<b>198 335 128</b>	<b>198 335 148</b>	1.248
1500 - 15000	63	50	<b>198 335 109</b>	<b>198 335 129</b>	<b>198 335 149</b>	1.409
2000 - 20000	75	65	<b>198 335 110</b>	<b>198 335 130</b>	<b>198 335 150</b>	2.441
3000 - 30000	75	65	<b>198 335 111</b>	<b>198 335 131</b>	<b>198 335 151</b>	2.377
8000 - 60000	75	65	<b>198 335 112</b>	<b>198 335 132</b>	<b>198 335 152</b>	2.150

Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	385	341	335	1 ½
100 - 1000	58	385	341	335	1 ½
150 - 1500	72	393	341	335	2
250 - 2500	72	393	341	335	2
200 - 2000	83	403	341	335	2 ¼
300 - 3000	83	403	341	335	2 ¼
600 - 6000	83	403	341	335	2 ¼
600 - 6000	101	417	341	335	2 ¾
1000 - 10000	101	417	341	335	2 ¾
1500 - 15000	101	417	341	335	2 ¾
2000 - 20000	135	429	341	335	3 ½
3000 - 30000	135	429	341	335	3 ½
8000 - 60000	135	429	341	335	3 ½



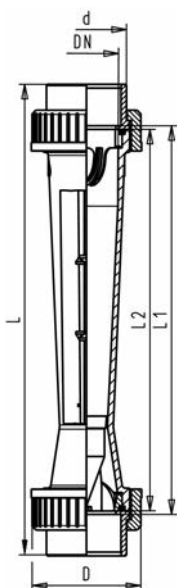


## Variable area flow meter type 350 Float in PVDF without magnet With solvent cement sockets PVC-U metric

### Model:

- Standard guiding rod PVDF with stainless steel core (V2A) for DN 50 (1500 – 15000 l/h) and DN 65 (all measurement ranges) see accessories variable Flow meters

Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O-rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	kg
50 - 500	32	25	<b>198 350 000</b>	<b>198 350 020</b>	<b>198 350 040</b>	0.487
100 - 1000	32	25	<b>198 350 001</b>	<b>198 350 021</b>	<b>198 350 041</b>	0.474
150 - 1500	40	32	<b>198 350 002</b>	<b>198 350 022</b>	<b>198 350 042</b>	0.614
250 - 2500	40	32	<b>198 350 003</b>	<b>198 350 023</b>	<b>198 350 043</b>	0.688
200 - 2000	50	40	<b>198 350 004</b>	<b>198 350 024</b>	<b>198 350 044</b>	0.962
300 - 3000	50	40	<b>198 350 005</b>	<b>198 350 025</b>	<b>198 350 045</b>	0.989
600 - 6000	50	40	<b>198 350 006</b>	<b>198 350 026</b>	<b>198 350 046</b>	0.953
600 - 6000	63	50	<b>198 350 007</b>	<b>198 350 027</b>	<b>198 350 047</b>	1.335
1000 - 10000	63	50	<b>198 350 008</b>	<b>198 350 028</b>	<b>198 350 048</b>	1.343
1500 - 15000	63	50	<b>198 350 009</b>	<b>198 350 029</b>	<b>198 350 049</b>	1.315
2000 - 20000	75	65	<b>198 350 010</b>	<b>198 350 030</b>	<b>198 350 050</b>	2.486
3000 - 30000	75	65	<b>198 350 011</b>	<b>198 350 031</b>	<b>198 350 051</b>	2.770
8000 - 60000	75	65	<b>198 350 012</b>	<b>198 350 032</b>	<b>198 350 052</b>	2.244



Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	400	356	350	1 ½
100 - 1000	58	400	356	350	1 ½
150 - 1500	72	408	356	350	2
250 - 2500	72	408	356	350	2
200 - 2000	83	418	356	350	2 ¼
300 - 3000	83	418	356	350	2 ¼
600 - 6000	83	418	356	350	2 ¼
600 - 6000	101	432	356	350	2 ¾
1000 - 10000	101	432	356	350	2 ¾
1500 - 15000	101	432	356	350	2 ¾
2000 - 20000	135	444	356	350	3 ½
3000 - 30000	135	444	356	350	3 ½
8000 - 60000	135	444	356	350	3 ½



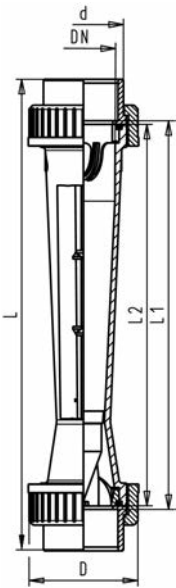


## Variable area flow meter type 350 Float in PVDF with magnet With solvent cement sockets PVC-U metric

### Model:

- Standard guiding rod PVDF with stainless steel core (V2A) for DN 50 (1500 – 15000 l/h) and DN 65 (all measurement ranges) see accessories variable Flow meters
- Suitable limit switches see accessories for variable area flow meters

Scale range [l/h]	d [mm]	DN [mm]	Taper tube in PVC-U transp. O-Rings in EPDM Code	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	kg
50 - 500	32	25	<b>198 350 100</b>	<b>198 350 120</b>	<b>198 350 140</b>	0.440
100 - 1000	32	25	<b>198 350 101</b>	<b>198 350 121</b>	<b>198 350 141</b>	0.440
150 - 1500	40	32	<b>198 350 102</b>	<b>198 350 122</b>	<b>198 350 142</b>	0.615
250 - 2500	40	32	<b>198 350 103</b>	<b>198 350 123</b>	<b>198 350 143</b>	0.620
200 - 2000	50	40	<b>198 350 104</b>	<b>198 350 124</b>	<b>198 350 144</b>	0.900
300 - 3000	50	40	<b>198 350 105</b>	<b>198 350 125</b>	<b>198 350 145</b>	0.900
600 - 6000	50	40	<b>198 350 106</b>	<b>198 350 126</b>	<b>198 350 146</b>	0.900
600 - 6000	63	50	<b>198 350 107</b>	<b>198 350 127</b>	<b>198 350 147</b>	1.320
1000 - 10000	63	50	<b>198 350 108</b>	<b>198 350 128</b>	<b>198 350 148</b>	1.320
1500 - 15000	63	50	<b>198 350 109</b>	<b>198 350 129</b>	<b>198 350 149</b>	1.320
2000 - 20000	75	65	<b>198 350 110</b>	<b>198 350 130</b>	<b>198 350 150</b>	2.150
3000 - 30000	75	65	<b>198 350 111</b>	<b>198 350 131</b>	<b>198 350 151</b>	2.150
8000 - 60000	75	65	<b>198 350 112</b>	<b>198 350 132</b>	<b>198 350 152</b>	2.150



Scale range [l/h]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]
50 - 500	58	400	356	350	1 ½
100 - 1000	58	400	356	350	1 ½
150 - 1500	72	408	356	350	2
250 - 2500	72	408	356	350	2
200 - 2000	83	418	356	350	2 ¼
300 - 3000	83	418	356	350	2 ¼
600 - 6000	83	418	356	350	2 ¼
600 - 6000	101	432	356	350	2 ¾
1000 - 10000	101	432	356	350	2 ¾
1500 - 15000	101	432	356	350	2 ¾
2000 - 20000	135	444	356	350	3 ½
3000 - 30000	135	444	356	350	3 ½
8000 - 60000	135	444	356	350	3 ½

## Special scale for type 335/350 % for H2O

d [mm]	DN [mm]	Scale range	Corresponds to water scale [l/h]	Code	kg
32	25	10-100 %	50-500	<b>198 335 084</b>	0.050
32	25	10-100 %	100-1000	<b>198 335 083</b>	0.003
40	32	10-100 %	150-1500	<b>198 335 069</b>	0.050
40	32	10-100 %	250-2500	<b>198 335 068</b>	0.050
50	40	10-100 %	200-2000	<b>198 335 054</b>	0.050
50	40	10-100 %	300-3000	<b>198 335 053</b>	0.001
50	40	10-100 %	600-6000	<b>198 335 039</b>	0.050
63	50	10-100 %	600-6000	<b>198 335 038</b>	0.002
63	50	10-100 %	1000-10000	<b>198 335 037</b>	0.001
63	50	10-100 %	1500-15000	<b>198 335 036</b>	0.050
75	65	10-100 %	2000-20000	<b>198 335 035</b>	0.050
75	65	10-100 %	3000-30000	<b>198 335 034</b>	0.050
75	65	13.3-100 %	8000-60000	<b>198 335 033</b>	0.050

## Special scale for type 335/350 m<sup>3</sup>/h

d [mm]	DN [mm]	Scale range [m <sup>3</sup> /h]	Corresponds to water scale [l/h]	Code	kg
32	25	0.05 - 0.5	50 - 500	<b>198 335 655</b>	0.050
32	25	0.1 - 1	100 - 1000	<b>198 335 656</b>	0.050
40	32	0.15 - 1.5	150 - 1500	<b>198 335 657</b>	0.050
40	32	0.25 - 2.5	250 - 2500	<b>198 335 658</b>	0.050
50	40	0.2 - 2.0	200 - 2000	<b>198 335 659</b>	0.050
50	40	0.3 - 3	300 - 3000	<b>198 335 660</b>	0.050
50	40	0.6 - 6	600 - 6000	<b>198 335 661</b>	0.050
63	50	0.6 - 6	600 - 6000	<b>198 335 662</b>	0.050
63	50	1 - 10	1000 - 10000	<b>198 335 663</b>	0.050
63	50	1.5 - 15	1500 - 15000	<b>198 335 664</b>	0.050
75	65	2 - 20	2000 - 20000	<b>198 335 665</b>	0.050
75	65	3 - 30	3000 - 30000	<b>198 335 666</b>	0.008
75	65	8 - 60	8000 - 60000	<b>198 335 667</b>	0.050

## Special scale for type 335/350 Imp. GPM

d [mm]	DN [mm]	Scale range [gal/min]	Corresponds to water scale [l/h]	Code	kg
32	25	0,183 - 1,83	50-500	<b>198 335 670</b>	0.050
32	25	0,366 - 3,66	100-1000	<b>198 335 671</b>	0.050
40	32	0,55 - 5,5	150-1500	<b>198 335 672</b>	0.050
40	32	0,916 - 9,16	250-2500	<b>198 335 673</b>	0.050
50	40	0,733 - 7,33	200-2000	<b>198 335 674</b>	0.050
50	40	1,09 - 10,9	300-3000	<b>198 335 675</b>	0.050
50	40	2,19 - 21,9	600-6000	<b>198 335 676</b>	0.050
63	50	2,2 - 22	600-6000	<b>198 335 677</b>	0.050
63	50	3,66 - 36,6	1000-10000	<b>198 335 678</b>	0.050
63	50	5,49 - 54,9	1500-15000	<b>198 335 679</b>	0.050
75	65	7,32 - 73,2	2000-20000	<b>198 335 680</b>	0.050
75	65	10,98 - 109,8	3000-30000	<b>198 335 681</b>	0.050
75	65	29,28 - 219,6	8000-60000	<b>198 335 682</b>	0.050

## Special scale for type 335/350 US GPM

d [mm]	DN [mm]	Scale range [gal/min]	Corresponds to water scale [l/h]	Code	kg
32	25	0.22 - 2.2	50 - 500	<b>198 335 685</b>	0.050
32	25	0.44 - 4.4	100 - 1000	<b>198 335 686</b>	0.050
40	32	0.66 - 6.6	150 - 1500	<b>198 335 687</b>	0.001
40	32	1.1 - 11	250 - 2500	<b>198 335 688</b>	0.050
50	40	0.88 - 8.8	200 - 2000	<b>198 335 689</b>	0.001
50	40	1.32 - 13.2	300 - 3000	<b>198 335 690</b>	0.050
50	40	2.64 - 26.4	600 - 6000	<b>198 335 691</b>	0.002

table continued next page

d [mm]	DN [mm]	Scale range [gal/min]	Corresponds to water scale [l/h]	Code	kg
63	50	2.64 - 26.4	600 - 6000	<b>198 335 692</b>	0.050
63	50	4.40 - 44.02	1000 - 10000	<b>198 335 693</b>	0.002
63	50	6.60 - 66.04	1500 - 15000	<b>198 335 694</b>	0.050
75	65	8.80 - 88	2000 - 20000	<b>198 335 695</b>	0.001
75	65	13.20 - 132	3000 - 30000	<b>198 335 696</b>	0.001
75	65	35.2 - 264	8000 - 60000	<b>198 335 697</b>	0.050

### Special scale for type 335/350 Air/0bar/Nm<sup>3</sup>/h

d [mm]	DN [mm]	Scale range [m <sup>3</sup> /h]	Corresponds to water scale [l/h]	Code	kg
32	25	1.5 - 14	50 - 500	<b>198 350 655</b>	0.001
32	25	2.5 - 29	100 - 1000	<b>198 350 656</b>	0.050
40	32	4 - 45	150 - 1500	<b>198 350 657</b>	0.050
40	32	7 - 79	250 - 2500	<b>198 350 658</b>	0.050
50	40	6 - 58	200 - 2000	<b>198 350 659</b>	0.050
50	40	9 - 108	300 - 3000	<b>198 350 660</b>	0.001
50	40	17 - 174	600 - 6000	<b>198 350 661</b>	0.050
63	50	17 - 175	600 - 6000	<b>198 350 662</b>	0.050
63	50	29 - 301	1000 - 10000	<b>198 350 663</b>	0.050
63	50	53 - 405	1500 - 15000	<b>198 350 664</b>	0.050
75	65	55 - 545	2000 - 20000	<b>198 350 665</b>	0.050
75	65	80 - 758	3000 - 30000	<b>198 350 666</b>	0.050
75	65	-	8000 - 60000	<b>198 350 667</b>	0.050

### Special scale for type 335/350 HCl 30-33% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code	kg
32	25	20 - 405	50-500	<b>198 350 670</b>	0.050
32	25	55 - 866	100-1000	<b>198 350 671</b>	0.001
40	32	90 - 1340	150-1500	<b>198 350 672</b>	0.050
40	32	165 - 2310	250-2500	<b>198 350 673</b>	0.050
50	40	115 - 1660	200-2000	<b>198 350 674</b>	0.050
50	40	190 - 3050	300-3000	<b>198 350 675</b>	0.050
50	40	420 - 4900	600-6000	<b>198 350 676</b>	0.001
63	50	430 - 5090	600-6000	<b>198 350 677</b>	0.050
63	50	750 - 9460	1000-10000	<b>198 350 678</b>	0.050
63	50	1415 - 11570	1500-15000	<b>198 350 679</b>	0.050
75	65	1500 - 17300	2000-20000	<b>198 350 680</b>	0.050
75	65	2175 - 24120	3000-30000	<b>198 350 681</b>	0.050
75	65	-	8000-60000	<b>198 350 682</b>	0.050

### Special scale for type 335/350 NaOH 30% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code	kg
32	25	4 - 226	50-500	<b>198 350 685</b>	0.050
32	25	15 - 600	100-1000	<b>198 350 686</b>	0.050
40	32	30 - 970	150-1500	<b>198 350 687</b>	0.050
40	32	70 - 1800	250-2500	<b>198 350 688</b>	0.050
50	40	35 - 1240	200-2000	<b>198 350 689</b>	0.002
50	40	75 - 2370	300-3000	<b>198 350 690</b>	0.050
50	40	230 - 4000	600-6000	<b>198 350 691</b>	0.050
63	50	240 - 4700	600-6000	<b>198 350 692</b>	0.050
63	50	475 - 7340	1000-10000	<b>198 350 693</b>	0.050
63	50	1030 - 10330	1500-15000	<b>198 350 694</b>	0.050
75	65	915 - 11720	2000-20000	<b>198 350 695</b>	0.050
75	65	1195 - 16040	3000-30000	<b>198 350 696</b>	0.050
75	65	-	8000-60000	<b>198 350 697</b>	0.050

## Special scale for type 335/350 NaOH 50% l/h

d [mm]	DN [mm]	Scale range [l/h]	Corresponds to water scale [l/h]	Code	kg
32	25	1 - 55	50-500	<b>198 350 755</b>	0.050
32	25	3 - 192	100-1000	<b>198 350 756</b>	0.050
40	32	6 - 365	150-1500	<b>198 350 757</b>	0.050
40	32	15 - 770	250-2500	<b>198 350 758</b>	0.050
50	40	8 - 520	200-2000	<b>198 350 759</b>	0.050
50	40	15 - 1170	300-3000	<b>198 350 760</b>	0.050
50	40	50 - 2270	600-6000	<b>198 350 761</b>	0.002
63	50	55 - 2300	600-6000	<b>198 350 762</b>	0.050
63	50	140 - 4340	1000-10000	<b>198 350 763</b>	0.050
63	50	420 - 5820	1500-15000	<b>198 350 764</b>	0.050
75	65	245 - 7590	2000-20000	<b>198 350 765</b>	0.050
75	65	400 - 11120	3000-30000	<b>198 350 766</b>	0.050
75	65	-	8000-60000	<b>198 350 767</b>	0.050

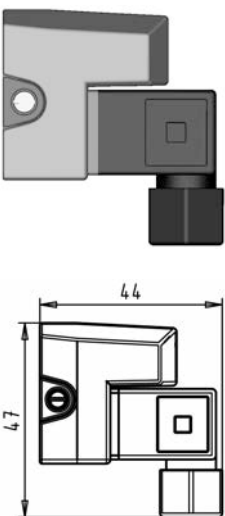
## Accessories 4-20 mA sensor For type 335 and type 350

Type	d [mm]	DN [mm]	Corresponds to water scale [l/h]	Code	kg
GK 15	32	25	50-500	<b>198 335 962</b>	0.150
GK 15	32	25	100-1000	<b>198 335 963</b>	0.150
GK 15	40	32	150-1500	<b>198 335 964</b>	0.150
GK 15	40	32	250-2500	<b>198 335 965</b>	0.150
GK 15	50	40	200-2000	<b>198 335 966</b>	0.150
GK 15	50	40	300-3000	<b>198 335 967</b>	0.150
GK 15	50	40	600-6000	<b>198 335 968</b>	0.150
GK 15	63	50	600-6000	<b>198 335 969</b>	0.150
GK 15	63	50	1000-10000	<b>198 335 991</b>	0.150
GK 15	63	50	1500-15000	<b>198 335 992</b>	0.150
GK 15	75	65	2000-20000	<b>198 335 993</b>	0.150
GK 15	75	65	3000-30000	<b>198 335 994</b>	0.150
GK 15	75	65	8000-60000	<b>198 335 995</b>	0.150



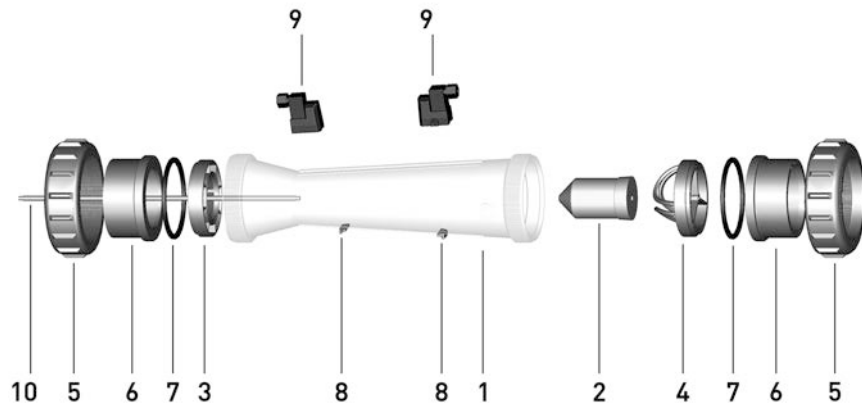
## Accessories Limit contacts GK10/GK11 For type 335/350 and short version

Type	Code	kg
GK10 (min.)	<b>198 335 960</b>	0.035
GK11 (max.)	<b>198 335 961</b>	0.034



# Spare parts variable area flow meters

## Variable area flow meter type 335



### Taper tube with water scale (1)

- PVC-U transparent

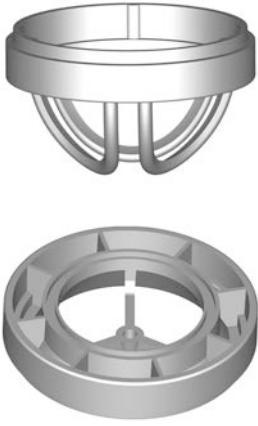


Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code	kg
50 - 500	32	1	25	198 335 055	198 335 070	198 335 085	0.214
100 - 1000	32	1	25	198 335 056	198 335 071	198 335 086	0.214
150 - 1500	40	1 ¼	32	198 335 057	198 335 072	198 335 087	0.290
250 - 2500	40	1 ¼	32	198 335 058	198 335 073	198 335 088	0.290
200 - 2000	50	1 ½	40	198 335 059	198 335 074	198 335 089	0.350
300 - 3000	50	1 ½	40	198 335 060	198 335 075	198 335 090	0.350
600 - 6000	50	1 ½	40	198 335 061	198 335 076	198 335 091	0.288
600 - 6000	63	2	50	198 335 062	198 335 077	198 335 092	0.453
1000 - 10000	63	2	50	198 335 063	198 335 078	198 335 093	0.453
1500 - 15000	63	2	50	198 335 064	198 335 079	198 335 094	0.453
2000 - 20000	75	2 ½	65	198 335 065	198 335 080	198 335 095	0.622
3000 - 30000	75	2 ½	65	198 335 066	198 335 081	198 335 096	0.622
8000 - 60000	75	2 ½	65	198 335 067	198 335 082	198 335 097	0.622

### Taper tube without scale (1)



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code	kg
50 - 500	32	1	25	198 335 255	198 335 270	198 335 285	0.214
100 - 1000	32	1	25	198 335 256	198 335 271	198 335 286	0.214
150 - 1500	40	1 ¼	32	198 335 257	198 335 272	198 335 287	0.290
250 - 2500	40	1 ¼	32	198 335 258	198 335 273	198 335 288	0.290
200 - 2000	50	1 ½	40	198 335 259	198 335 274	198 335 289	0.350
300 - 3000	50	1 ½	40	198 335 260	198 335 275	198 335 290	0.350
600 - 6000	50	1 ½	40	198 335 261	198 335 276	198 335 291	0.350
600 - 6000	63	2	50	198 335 262	198 335 277	198 335 292	0.453
1000 - 10000	63	2	50	198 335 263	198 335 278	198 335 293	0.468
1500 - 15000	63	2	50	198 335 264	198 335 279	198 335 294	0.453
2000 - 20000	75	2 ½	65	198 335 265	198 335 280	198 335 295	0.622
3000 - 30000	75	2 ½	65	198 335 266	198 335 281	198 335 296	0.622
8000 - 60000	75	2 ½	65	198 335 267	198 335 282	198 335 297	0.622



## Insert PVDF (3,4)

Scale range [l/h]	d [mm]	Inch	DN [mm]	top (4) Code	bottom (3) Code	kg
50 - 500	32	1	25	<b>198 335 970</b>	<b>198 335 977</b>	0.012
100 - 1000	32	1	25	<b>198 335 970</b>	<b>198 335 977</b>	0.012
150 - 1500	40	1 ¼	32	<b>198 335 971</b>	<b>198 335 978</b>	0.019
250 - 2500	40	1 ¼	32	<b>198 335 971</b>	<b>198 335 978</b>	0.019
200 - 2000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
300 - 3000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
600 - 6000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
600 - 6000	63	2	50	<b>198 335 973</b>	<b>198 335 980</b>	0.042
1000 - 10000	63	2	50	<b>198 335 973</b>	<b>198 335 980</b>	0.042
1500 - 15000	63	2	50	<b>198 335 974</b>		0.059
2000 - 20000	75	2 ½	65	<b>198 335 975</b>		0.059
3000 - 30000	75	2 ½	65	<b>198 335 975</b>		0.059
8000 - 60000	75	2 ½	65	<b>198 335 975</b>		0.059



## Float PVDF (2)

Scale range [l/h]	d [mm]	Inch	DN [mm]	Without magnet Code	With magnet (bistabil) Code	kg
50 - 500	32	1	25	<b>198 335 455</b>	<b>198 335 470</b>	0.132
100 - 1000	32	1	25	<b>198 335 455</b>	<b>198 335 470</b>	0.132
150 - 1500	40	1 ¼	32	<b>198 335 455</b>	<b>198 335 470</b>	0.132
250 - 2500	40	1 ¼	32	<b>198 335 455</b>	<b>198 335 470</b>	0.132
200 - 2000	50	1 ½	40	<b>198 335 456</b>	<b>198 335 471</b>	0.281
300 - 3000	50	1 ½	40	<b>198 335 457</b>	<b>198 335 471</b>	0.281
600 - 6000	50	1 ½	40	<b>198 335 457</b>	<b>198 335 471</b>	0.281
600 - 6000	63	2	50	<b>198 335 457</b>	<b>198 335 471</b>	0.281
1000 - 10000	63	2	50	<b>198 335 457</b>	<b>198 335 471</b>	0.281
1500 - 15000	63	2	50	<b>198 335 458</b>	<b>198 335 472</b>	0.328
2000 - 20000	75	2 ½	65	<b>198 335 459</b>	<b>198 335 473</b>	0.918
3000 - 30000	75	2 ½	65	<b>198 335 459</b>	<b>198 335 473</b>	0.918
8000 - 60000	75	2 ½	65	<b>198 335 460</b>	<b>198 335 474</b>	0.746



## Guiding rod (10)

### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

Scale range [l/h]	d [mm]	Inch	DN [mm]	Peek Code	kg
1500 - 15000	63	2	50	<b>198 335 985</b>	0.013
2000 - 20000	75	2 ½	65	<b>198 335 985</b>	0.013
3000 - 30000	75	2 ½	65	<b>198 335 985</b>	0.013
8000 - 80000	75	2 ½	65	<b>198 335 985</b>	0.013

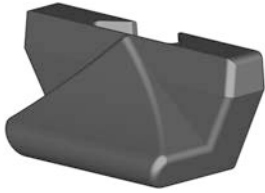


## Insert guiding rod PVDF (for 10)

### Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

Scale range [l/h]	d [mm]	Inch	DN [mm]	for PEEK Code	kg
1500 - 15000	63	2	50	<b>198 335 986</b>	0.020
2000 - 20000	75	2 ½	65	<b>198 335 987</b>	0.020
3000 - 30000	75	2 ½	65	<b>198 335 987</b>	0.020
8000 - 60000	75	2 ½	65	<b>198 335 987</b>	0.020

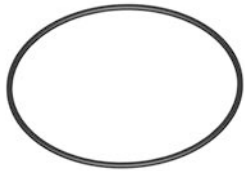


## Flow value indicator PS (8)

### Model:

- For all dimensions type 335/350

d [mm]	Inch	DN [mm]	Flow value indicator Code	kg
32	1	25	<b>198 335 990</b>	0.001
40	1 ¼	32	<b>198 335 990</b>	0.001
50	1 ½	40	<b>198 335 990</b>	0.001
63	2	50	<b>198 335 990</b>	0.001
75	2 ½	65	<b>198 335 990</b>	0.001



## O-rings (7)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
32	1	25	<b>748 410 008</b>	<b>749 410 008</b>	0.002
40	1 ¼	32	<b>748 410 009</b>	<b>749 410 009</b>	0.007
50	1 ½	40	<b>748 410 010</b>	<b>749 410 010</b>	0.060
63	2	50	<b>748 410 011</b>	<b>749 410 011</b>	0.003
75	2 ½	65	<b>748 410 014</b>	<b>749 410 014</b>	0.012



## Union nut (5)

Union nut not useable for the special version with taper tube in PVDF

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
32	1	25	<b>721 890 008</b>	<b>723 690 008</b>	<b>729 890 408</b>	<b>727 890 408</b>
40	1 ¼	32	<b>721 890 009</b>	<b>723 690 009</b>	<b>729 890 409</b>	<b>727 890 409</b>
50	1 ½	40	<b>721 890 010</b>	<b>723 690 010</b>	<b>729 890 410</b>	<b>727 890 410</b>
63	2	50	<b>721 890 011</b>	<b>723 690 011</b>	<b>729 890 411</b>	<b>727 890 411</b>
75	2 ½	65	<b>198 806 429</b>	-	-	<b>198 806 421</b>

d [mm]	Inch	DN [mm]	PVDF Code	kg
32	1	25	<b>735 690 408</b>	0.035
40	1 ¼	32	<b>735 690 409</b>	0.065
50	1 ½	40	<b>735 690 410</b>	0.093
63	2	50	<b>735 690 411</b>	0.144
75	2 ½	65	<b>198 806 422</b>	0.337



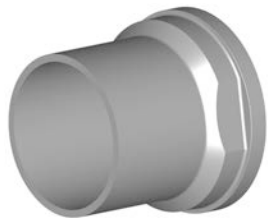
## Union end / Socket (6)

For DN65 PVDF only spigot

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
32	1	25	<b>721 500 108</b>	<b>723 800 108</b>	<b>729 800 108</b>	<b>727 500 108</b>
40	1 ¼	32	<b>721 500 109</b>	<b>723 800 109</b>	<b>729 800 109</b>	<b>727 500 109</b>
50	1 ½	40	<b>721 500 110</b>	<b>723 800 110</b>	<b>729 800 110</b>	<b>727 500 110</b>
63	2	50	<b>721 500 111</b>	<b>723 800 111</b>	<b>729 800 111</b>	<b>727 500 111</b>
75	2 ½	65	<b>721 600 112</b>	<b>700 253 867</b>	<b>700 246 112</b>	<b>700 253 866</b>

d [mm]	Inch	DN [mm]	PVDF Code	kg
32	1	25	<b>735 600 108</b>	0.022
40	1 ¼	32	<b>735 600 109</b>	0.055
50	1 ½	40	<b>735 600 110</b>	0.054
63	2	50	<b>735 600 111</b>	0.079
75	2 ½	65	-	0.155

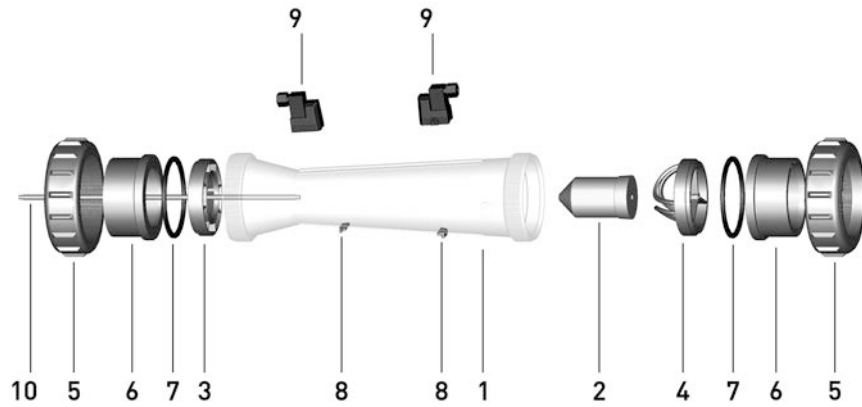




## Union end / Spigot (6)

d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code	kg
32	1	25	<b>727 508 508</b>	<b>735 608 608</b>	0.044
40	1 ¼	32	<b>727 508 509</b>	<b>735 608 609</b>	0.069
50	1 ½	40	<b>727 508 510</b>	<b>735 608 610</b>	0.082
63	2	50	<b>727 508 511</b>	<b>735 608 611</b>	0.127
75	2 ½	65	<b>700 256 401</b>	<b>175 483 013</b>	0.225

## Variable area flow meter type 350



### Taper tube with water scale (1)

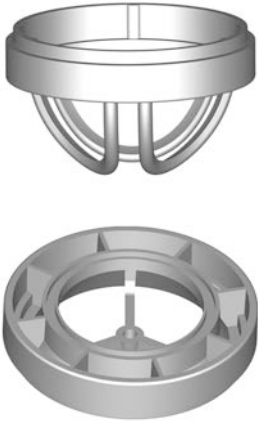


Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code	kg
50 - 500	32	1	25	<b>198 350 055</b>	<b>198 350 070</b>	<b>198 350 085</b>	0.214
100 - 1000	32	1	25	<b>198 350 056</b>	<b>198 350 071</b>	<b>198 350 086</b>	0.214
150 - 1500	40	1 ¼	32	<b>198 350 057</b>	<b>198 350 072</b>	<b>198 350 087</b>	0.290
250 - 2500	40	1 ¼	32	<b>198 350 058</b>	<b>198 350 073</b>	<b>198 350 088</b>	0.290
200 - 2000	50	1 ½	40	<b>198 350 059</b>	<b>198 350 074</b>	<b>198 350 089</b>	0.350
300 - 3000	50	1 ½	40	<b>198 350 060</b>	<b>198 350 075</b>	<b>198 350 090</b>	0.350
600 - 6000	50	1 ½	40	<b>198 350 061</b>	<b>198 350 076</b>	<b>198 350 091</b>	0.350
600 - 6000	63	2	50	<b>198 350 062</b>	<b>198 350 077</b>	<b>198 350 092</b>	0.453
1000 - 10000	63	2	50	<b>198 350 063</b>	<b>198 350 078</b>	<b>198 350 093</b>	0.453
1500 - 15000	63	2	50	<b>198 350 064</b>	<b>198 350 079</b>	<b>198 350 094</b>	0.453
2000 - 20000	75	2 ½	65	<b>198 350 065</b>	<b>198 350 080</b>	<b>198 350 095</b>	0.622
3000 - 30000	75	2 ½	65	<b>198 350 066</b>	<b>198 350 081</b>	<b>198 350 096</b>	0.622
8000 - 60000	75	2 ½	65	<b>198 350 067</b>	<b>198 350 082</b>	<b>198 350 097</b>	0.622

### Taper tube without scale (1)



Scale range [l/h]	d [mm]	Inch	DN [mm]	PVC-U transparent Code	Polyamid Code	Polysulfon Code	kg
50 - 500	32	1	25	<b>198 350 255</b>	<b>198 350 270</b>	<b>198 350 285</b>	0.214
100 - 1000	32	1	25	<b>198 350 256</b>	<b>198 350 271</b>	<b>198 350 286</b>	0.214
150 - 1500	40	1 ¼	32	<b>198 350 257</b>	<b>198 350 272</b>	<b>198 350 287</b>	0.290
250 - 2500	40	1 ¼	32	<b>198 350 258</b>	<b>198 350 273</b>	<b>198 350 288</b>	0.290
200 - 2000	50	1 ½	40	<b>198 350 259</b>	<b>198 350 274</b>	<b>198 350 289</b>	0.350
300 - 3000	50	1 ½	40	<b>198 350 260</b>	<b>198 350 275</b>	<b>198 350 290</b>	0.350
600 - 6000	50	1 ½	40	<b>198 350 261</b>	<b>198 350 276</b>	<b>198 350 291</b>	0.350
600 - 6000	63	2	50	<b>198 350 262</b>	<b>198 350 277</b>	<b>198 350 292</b>	0.453
1000 - 10000	63	2	50	<b>198 350 263</b>	<b>198 350 278</b>	<b>198 350 293</b>	0.453
1500 - 15000	63	2	50	<b>198 350 264</b>	<b>198 350 279</b>	<b>198 350 294</b>	0.453
2000 - 20000	75	2 ½	65	<b>198 350 265</b>	<b>198 350 280</b>	<b>198 350 295</b>	0.622
3000 - 30000	75	2 ½	65	<b>198 350 266</b>	<b>198 350 281</b>	<b>198 350 296</b>	0.622
8000 - 60000	75	2 ½	65	<b>198 350 267</b>	<b>198 350 282</b>	<b>198 350 297</b>	0.622



## Insert PVDF (3,4)

Scale range [l/h]	d [mm]	Inch	DN [mm]	top (4) Code	bottom (3) Code	kg
50 - 500	32	1	25	<b>198 335 970</b>	<b>198 335 977</b>	0.012
100 - 1000	32	1	25	<b>198 335 970</b>	<b>198 335 977</b>	0.012
150 - 1500	40	1 ¼	32	<b>198 335 971</b>	<b>198 335 978</b>	0.019
250 - 2500	40	1 ¼	32	<b>198 335 971</b>	<b>198 335 978</b>	0.019
200 - 2000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
300 - 3000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
600 - 6000	50	1 ½	40	<b>198 335 972</b>	<b>198 335 979</b>	0.024
600 - 6000	63	2	50	<b>198 335 973</b>	<b>198 335 980</b>	0.042
1000 - 10000	63	2	50	<b>198 335 973</b>	<b>198 335 980</b>	0.042
1500 - 15000	63	2	50	<b>198 335 974</b>		0.059
2000 - 20000	75	2 ½	65	<b>198 335 975</b>		0.059
3000 - 30000	75	2 ½	65	<b>198 335 975</b>		0.059
8000 - 60000	75	2 ½	65	<b>198 335 975</b>		0.059



## Float PVDF (2)

Scale range [l/h]	d [mm]	Inch	DN [mm]	Without magnet Code	With magnet Code	kg
50 - 500	32	1	25	<b>198 335 455</b>	<b>198 335 470</b>	0.132
100 - 1000	32	1	25	<b>198 335 455</b>	<b>198 335 470</b>	0.132
150 - 1500	40	1 ¼	32	<b>198 335 455</b>	<b>198 335 470</b>	0.132
250 - 2500	40	1 ¼	32	<b>198 335 455</b>	<b>198 335 470</b>	0.132
200 - 2000	50	1 ½	40	<b>198 335 456</b>	<b>198 335 471</b>	0.281
300 - 3000	50	1 ½	40	<b>198 335 457</b>	<b>198 335 471</b>	0.281
600 - 6000	50	1 ½	40	<b>198 335 457</b>	<b>198 335 471</b>	0.281
600 - 6000	63	2	50	<b>198 335 457</b>	<b>198 335 471</b>	0.281
1000 - 10000	63	2	50	<b>198 335 457</b>	<b>198 335 471</b>	0.281
1500 - 15000	63	2	50	<b>198 335 458</b>	<b>198 335 472</b>	0.328
2000 - 20000	75	2 ½	65	<b>198 335 459</b>	<b>198 335 473</b>	0.918
3000 - 30000	75	2 ½	65	<b>198 335 459</b>	<b>198 335 473</b>	0.918
8000 - 60000	75	2 ½	65	<b>198 335 460</b>	<b>198 335 474</b>	0.746



## Guiding rod (10)

Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

Scale range [l/h]	d [mm]	Inch	DN [mm]	Peek Code	kg
1500 - 15000	63	2	50	<b>198 350 980</b>	0.015
2000 - 20000	75	2 ½	65	<b>198 350 980</b>	0.015
3000 - 30000	75	2 ½	65	<b>198 350 980</b>	0.015
8000 - 60000	75	2 ½	65	<b>198 350 980</b>	0.015

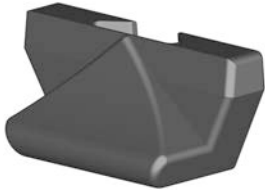


## Insert guiding rod PVDF (for 10)

Model:

- Only for DN50 (1'500 - 15'000 l/h) and DN65 (all metering ranges)

Scale range [l/h]	d [mm]	Inch	DN [mm]	for PEEK & stainless steel Code	kg
1500 - 15000	63	2	50	<b>198 335 986</b>	0.020
2000 - 20000	75	2 ½	65	<b>198 335 987</b>	0.020
3000 - 30000	75	2 ½	65	<b>198 335 987</b>	0.020
8000 - 60000	75	2 ½	65	<b>198 335 987</b>	0.020



## Flow value indicator PS (8)

### Model:

- For all dimensions type 335/350

d [mm]	Inch	DN [mm]	Flow value indicator Code	kg
32	1	25	<b>198 335 990</b>	0.001
40	1 ¼	32	<b>198 335 990</b>	0.001
50	1 ½	40	<b>198 335 990</b>	0.001
63	2	50	<b>198 335 990</b>	0.001
75	2 ½	65	<b>198 335 990</b>	0.001



## O-rings (7)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
32	1	25	<b>748 410 008</b>	<b>749 410 008</b>	0.002
40	1 ¼	32	<b>748 410 009</b>	<b>749 410 009</b>	0.007
50	1 ½	40	<b>748 410 010</b>	<b>749 410 010</b>	0.060
63	2	50	<b>748 410 011</b>	<b>749 410 011</b>	0.003
75	2 ½	65	<b>748 410 014</b>	<b>749 410 014</b>	0.012



## Union nut (5)

Union nut not useable for the special version with taper tube in PVDF

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
32	1	25	<b>721 890 008</b>	<b>723 690 008</b>	<b>729 890 408</b>	<b>727 890 408</b>
40	1 ¼	32	<b>721 890 009</b>	<b>723 690 009</b>	<b>729 890 409</b>	<b>727 890 409</b>
50	1 ½	40	<b>721 890 010</b>	<b>723 690 010</b>	<b>729 890 410</b>	<b>727 890 410</b>
63	2	50	<b>721 890 011</b>	<b>723 690 011</b>	<b>729 890 411</b>	<b>727 890 411</b>
75	2 ½	65	<b>198 806 429</b>	-	-	<b>198 806 421</b>

d [mm]	Inch	DN [mm]	PVDF Code	kg
32	1	25	<b>735 690 408</b>	0.035
40	1 ¼	32	<b>735 690 409</b>	0.065
50	1 ½	40	<b>735 690 410</b>	0.093
63	2	50	<b>735 690 411</b>	0.144
75	2 ½	65	<b>198 806 422</b>	0.337

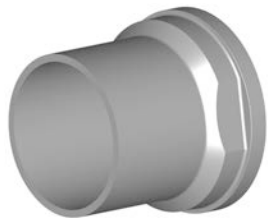


## Union end / Socket (6)

For DN65 PVDF only spigot

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
32	1	25	<b>721 500 108</b>	<b>723 800 108</b>	<b>729 800 108</b>	<b>727 500 108</b>
40	1 ¼	32	<b>721 500 109</b>	<b>723 800 109</b>	<b>729 800 109</b>	<b>727 500 109</b>
50	1 ½	40	<b>721 500 110</b>	<b>723 800 110</b>	<b>729 800 110</b>	<b>727 500 110</b>
63	2	50	<b>721 500 111</b>	<b>723 800 111</b>	<b>729 800 111</b>	<b>727 500 111</b>
75	2 ½	65	<b>721 600 112</b>	<b>700 253 867</b>	<b>700 246 112</b>	<b>700 253 866</b>

d [mm]	Inch	DN [mm]	PVDF Code	kg
32	1	25	<b>735 600 108</b>	0.022
40	1 ¼	32	<b>735 600 109</b>	0.055
50	1 ½	40	<b>735 600 110</b>	0.054
63	2	50	<b>735 600 111</b>	0.079
75	2 ½	65	-	0.155



## Union end / Spigot (6)

d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code	kg
32	1	25	<b>727 508 508</b>	<b>735 608 608</b>	0.044
40	1 ¼	32	<b>727 508 509</b>	<b>735 608 609</b>	0.069
50	1 ½	40	<b>727 508 510</b>	<b>735 608 610</b>	0.082
63	2	50	<b>727 508 511</b>	<b>735 608 611</b>	0.127
75	2 ½	65	<b>700 256 401</b>	<b>175 483 013</b>	0.225

# General information

## PVC-U Piping systems for surface finish and varnishing technology

### Silicon free / paint compatible

Growing environmental awareness, continually increasing requirements and regulations covering the emission of toxic substances have led to the development of water soluble varnishes and paints.

The use of new varnishing techniques can reduce emissions by up to 90%.

**For the production, transport and processing of water soluble paints and varnishes only pipe components can be used which are free from substances causing varnish wetting faults, such as silicones, certain greases, oils and waxes.**

### GF Piping Systems – an experienced partner

GF Piping Systems has collaborated closely from the very beginning with manufacturers, plant constructors and operators in this special field of surface finish and varnishing technology. We have successfully supplied plant constructors and users of varnishing processes, e. g. the automobile industry, for many years.

Maximum demands are made of our production:

- Silicon free separating agents in the moulding shop
- Absolute care during cleaning, installation and packing
- Uncompromising quality control
- Quality assurance system certified to ISO 9001



### Fittings

The composition of the raw material (granulate) is silicon free. All standard fittings are produced with silicon free separating agents. The fittings are packed in a cardboard box after injection moulding in standard quantities (SP) protected by a plastic bag.

GF Piping Systems recommends the selection of standard packs when ordering fittings, in order to prevent contamination on the way to the final consumer.

### Hand operated valves and unions

The individual parts of the valves and unions are cleaned with distilled water (14 megaohms) in a special cleaning process. They are assembled in a special working area wearing silicon free protective gloves. Sliding parts are smeared lightly in accordance with requirements with special lubricants suitable for varnishing, e. g. Synthese PRO AA4. Every valve and union is designated with the following sticker:

SILICON FREE

Valves and unions are packed individually in a sealed bag.

### Seals

Seals are subjected to the same production, cleaning and packing process as hand operated valves and unions.

### Maintenance

For safety reasons we recommend changing the entire valve body when dismantling the valves.

# PVC-U Silicon Free

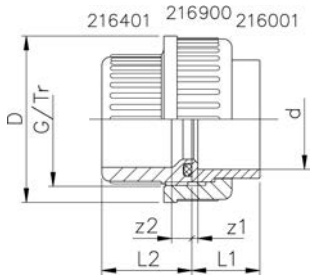
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## Union for solvent cement jointing PVC-U Silicone free metric

### Model:

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



d [mm]	PN	EPDM Code	FPM Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
10	16	721 510 178	721 510 153	0.020	3	10	31	15	22	5/8
12	16	721 510 179	721 510 154	0.019	3	10	31	15	22	5/8
16	16	721 510 180	721 510 155	0.031	3	10	35	17	24	3/4
20	16	721 510 181	721 510 156	0.040	3	10	43	19	26	1
25	16	721 510 182	721 510 157	0.066	3	10	51	22	29	1 1/4
32	16	721 510 183	721 510 158	0.090	3	10	58	25	33	1 1/2
40	16	721 510 184	721 510 159	0.175	3	12	72	29	39	2
50	16	721 510 185	721 510 160	0.215	3	14	83	34	46	2 1/4
63	16	721 510 186	721 510 161	0.380	3	18	100	41	58	2 3/4
75	10	721 510 187	721 510 162	0.615	3	18	135	47	62	Tr 108x5
90	10	721 510 188	721 510 163	0.925	5	18	158	56	69	Tr 128x5
110	10	721 510 189	721 510 164	1.425	5	11	188	66	72	Tr 154x6





DN10/15 - 50



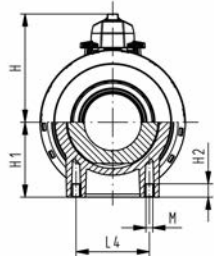
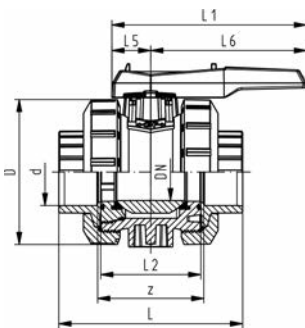
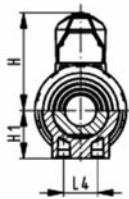
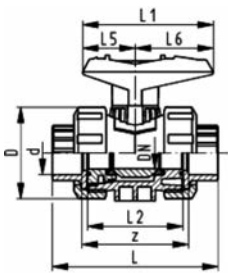
## Ball valve type 546 PVC-U SF With solvent cement sockets metric

### Model:

- Silicone free / paint-compatible
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- With PVDF ball seal
- Without mounting inserts

### Option:

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



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	161 546 601	161 546 611	0.150
20	15	16	185	161 546 602	161 546 612	0.150
25	20	16	350	161 546 603	161 546 613	0.230
32	25	16	700	161 546 604	161 546 614	0.330
40	32	16	1000	161 546 605	161 546 615	0.603
50	40	16	1600	161 546 606	161 546 616	0.800
63	50	16	3100	161 546 607	161 546 617	1.460
75	65	16	5000	161 546 608	161 546 618	4.900
90	80	16	7000	161 546 609	161 546 619	7.400
110	100	16	11000	161 546 610	161 546 620	11.600

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



DN10/15 - 50



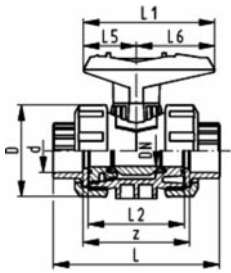
## Ball valve type 546 PVC-U SF With mounting inserts With solvent cement sockets metric

### Model:

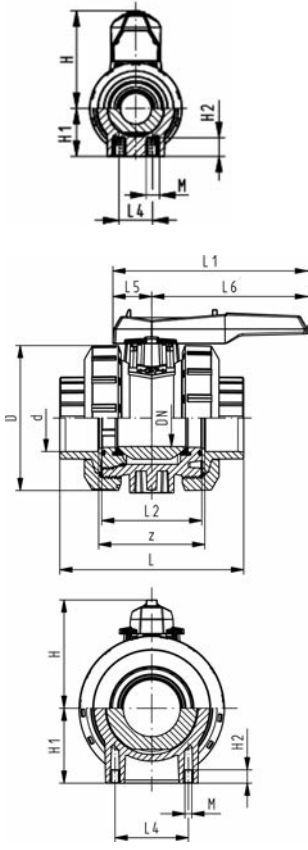
- Silicone free / paint-compatible
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- With PVDF ball seal
- Integrated stainless steel mounting inserts

### Option:

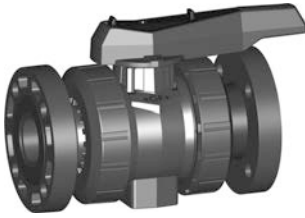
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	16	71	800 000 601	800 000 611	0.150
20	15	16	185	800 000 602	800 000 612	0.150
25	20	16	350	800 000 603	800 000 613	0.230
32	25	16	700	800 000 604	800 000 614	0.330
40	32	16	1000	800 000 605	800 000 615	0.600
50	40	16	1600	800 000 606	800 000 616	0.800
63	50	16	3100	800 000 607	800 000 617	1.460
75	65	16	5000	800 000 608	800 000 618	3.567
90	80	16	7000	800 000 609	800 000 619	5.401
110	100	16	11000	800 000 610	800 000 620	11.600



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



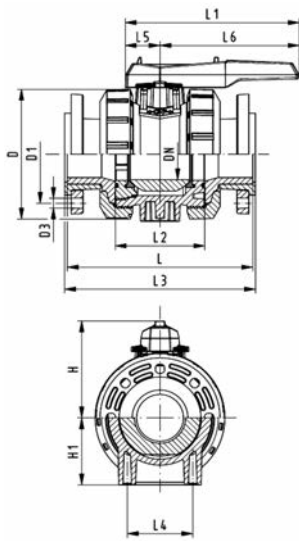
## Ball valve type 546 PVC-U SF With mounting inserts With backing flanges PVC-U metric

### Model:

- Silicone free / paint-compatible
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- With PVDF ball seal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg								
75	65	10	5000	<b>161 546 128</b>	<b>161 546 138</b>	7.200								
90	80	10	7000	<b>161 546 129</b>	<b>161 546 139</b>	10.600								
110	100	10	11000	<b>161 546 130</b>	<b>161 546 140</b>	16.500								

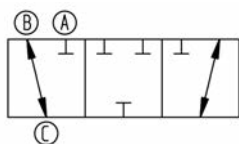
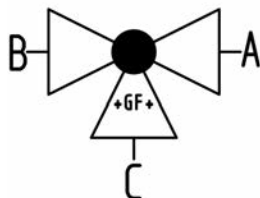
d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M	closest inch
75	166	145	18	284	270	136	290	70	64	206	149	85	8	2 ½
90	200	160	18	300	270	141	310	70	64	206	161	105	8	3
110	238	180	18	340	320	164	350	120	64	256	178	123	12	4



## 3-Way ball valve type 543 PVC-U SF Vertical/L-port With solvent cement sockets metric

### Model:

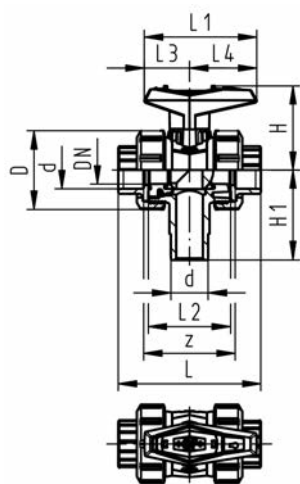
- Vertical inlet solvent cement spigot metric
- Easy installation and removal using union on third outlet
- Ball seals PVDF
- Electric actuator available separately
- Angle of operation 360° without turn limiter
- Silicone free / paint-compatible
- Delivery status B-C opened, see flow scheme



### Mode of action:

- For interconnection of two inputs

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	49	<b>161 543 781</b>	<b>161 543 791</b>	0.162
20	15	10	77	<b>161 543 782</b>	<b>161 543 792</b>	0.166
25	20	10	146	<b>161 543 783</b>	<b>161 543 793</b>	0.255
32	25	10	260	<b>161 543 784</b>	<b>161 543 794</b>	0.372
40	32	10	437	<b>161 543 785</b>	<b>161 543 795</b>	0.622
50	40	10	667	<b>161 543 786</b>	<b>161 543 796</b>	0.886
63	50	10	1293	<b>161 543 787</b>	<b>161 543 797</b>	1.617



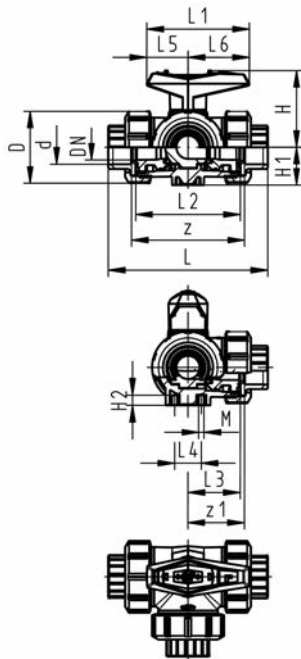
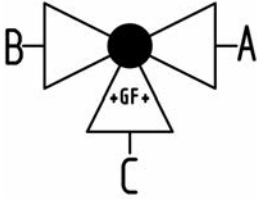
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H [mm]	H1 [mm]	z [mm]	closest inch
16	50	92	77	56	32	45	57	62	64	$\frac{3}{8}$
20	50	95	77	56	32	45	57	62	64	$\frac{1}{2}$
25	58	111	97	66	39	58	67	72	74	$\frac{3}{4}$
32	68	123	97	71	39	58	73	77	79	1
40	84	146	128	85	54	74	90	87	95	$1 \frac{1}{4}$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



### 3-Way ball valve type 543 PVC-U SF 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 PVDF
- 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
- Silicone free / paint-compatible
- Delivery status A-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	161 543 141	161 543 151	0.245
20	15	10	75	161 543 142	161 543 152	0.251
25	20	10	150	161 543 143	161 543 153	0.361
32	25	10	280	161 543 144	161 543 154	0.551
40	32	10	480	161 543 145	161 543 155	0.938
50	40	10	620	161 543 146	161 543 156	1.390
63	50	10	1230	161 543 147	161 543 157	2.705

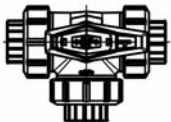
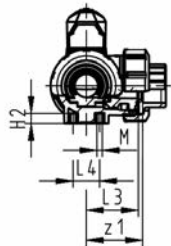
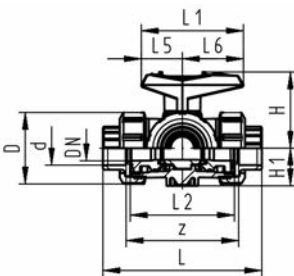
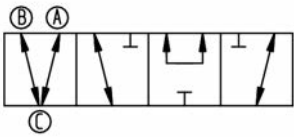
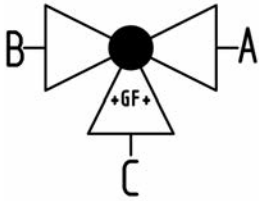
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	77	73	36	25	32	45	57	28	8	6	81	40	3/8
20	50	112	77	73	36	25	32	45	57	28	8	6	81	40	1/2
25	58	131	97	86	43	25	39	58	67	32	8	6	94	47	3/4
32	68	151	97	99	50	25	39	58	73	36	8	6	107	54	1
40	84	181	128	120	60	45	54	74	90	45	9	8	130	65	1 1/4
50	97	205	128	137	69	45	54	74	97	51	9	8	143	72	1 1/2
63	124	261	152	179	89	45	66	87	116	65	9	8	185	92	2



## 3-Way ball valve type 543 PVC-U SF 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 PVDF
- 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
- Silicone free / paint-compatible
- Delivery status A-B-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	<b>161 543 341</b>	<b>161 543 351</b>	0.244
20	15	10	200	<b>161 543 342</b>	<b>161 543 352</b>	0.250
25	20	10	470	<b>161 543 343</b>	<b>161 543 353</b>	0.359
32	25	10	793	<b>161 543 344</b>	<b>161 543 354</b>	0.544
40	32	10	1290	<b>161 543 345</b>	<b>161 543 355</b>	0.927
50	40	10	1910	<b>161 543 346</b>	<b>161 543 356</b>	1.369
63	50	10	3100	<b>161 543 347</b>	<b>161 543 357</b>	2.660

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]	closest inch
16	50	109	77	73	36	25	32	45	57	28	8	6	81	40	3/8
20	50	112	77	73	36	25	32	45	57	28	8	6	81	40	1/2
25	58	131	97	86	43	25	39	58	67	32	8	6	94	47	3/4
32	68	151	97	99	50	25	39	58	73	36	8	6	107	54	1
40	84	181	128	120	60	45	54	74	90	45	9	8	130	65	1 1/4
50	97	205	128	137	69	45	54	74	97	51	9	8	143	72	1 1/2
63	124	261	152	179	89	45	66	87	116	65	9	8	185	92	2



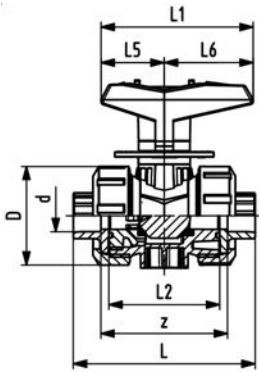
## Metering ball valve type 523 PVC-U SF With mounting inserts With solvent cement sockets metric

### Model:

- Silicone free / paint-compatible
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

### Option:

- Other materials on demand



d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	11	161 523 001	161 523 011	0.170
20	15	10	20	161 523 002	161 523 012	0.170

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]	closest inch
16	50	68	27	92	77	56	25	32	45	64	3/8
20	50	68	27	95	77	56	25	32	45	64	1/2



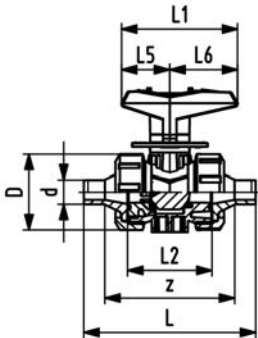
## Metering ball valve type 523 PVC-U SF With mounting inserts With solvent cement spigots metric

### Model:

- Silicone free / paint-compatible
- Micro-doser
- Excellent control characteristics
- Designed for easy installation and removal
- Angle of operation 180° with scale
- Integrated stainless steel mounting inserts
- Ball seals PTFE
- Z-length, end connectors and union nuts **not compatible** to Type 323

### Option:

- Other materials on demand



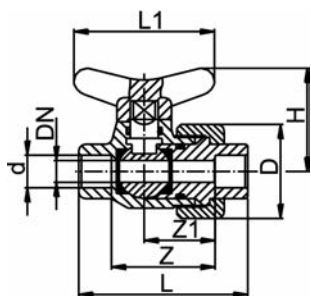
d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	11	161 523 041	161 523 051	0.170
20	15	10	20	161 523 042	161 523 052	0.170

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	closest inch
16	50	68	27	114	77	56		25	32	45	3/8
20	50	68	27	124	77	56	130	25	32	45	1/2





## Laboratory ball valve type 322 PVC-U SF With solvent cement sockets metric



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
10	6	10	11	161 322 251	161 322 256	0.042
12	8	10	20	161 322 252	161 322 257	0.045

d [mm]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	H [mm]
10	26	15	34	52	45	38
12	36	25	34	60	45	38



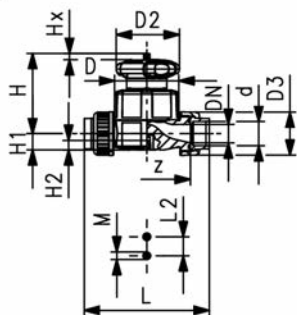
## Diaphragm valve type 514 PVC-U SF With solvent cement sockets metric

### Model:

- Silicone free / paint-compatible
- 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
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
16	10	10	125	161 514 021	161 514 071	0.408
20	15	10	125	161 514 022	161 514 072	0.408
25	20	10	271	161 514 023	161 514 073	0.538
32	25	10	481	161 514 024	161 514 074	1.181
40	32	10	759	161 514 025	161 514 075	1.447
50	40	10	1263	161 514 026	161 514 076	2.546
63	50	10	1728	161 514 027	161 514 077	3.413

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]	closest inch
16	65	65	43	124	25	73	14	12	M6	96	7	3/8
20	65	65	43	128	25	73	14	12	M6	96	7	1/2
25	80	65	51	152	25	81	18	12	M6	114	10	3/4
32	88	87	58	166	25	107	22	12	M6	122	13	1
40	101	87	72	192	45	115	26	15	M8	140	15	1 1/4
50	117	135	83	222	45	148	32	15	M8	160	19	1 1/2
63	144	135	100	266	45	166	39	15	M8	190	25	2



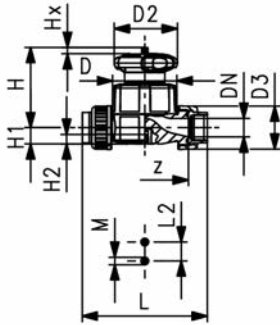
## Diaphragm valve type 514 PVC-U SF With threaded sockets Rp

### Model:

- Silicone free / paint-compatible
- 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
- PN16 available as a configuration



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10	125	161 514 422	161 514 472	0.410
3/4	20	10	271	161 514 423	161 514 473	0.534
1	25	10	481	161 514 424	161 514 474	1.183
1 1/4	32	10	759	161 514 425	161 514 475	1.449
1 1/2	40	10	1263	161 514 426	161 514 476	2.558
2	50	10	1728	161 514 427	161 514 477	3.477

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



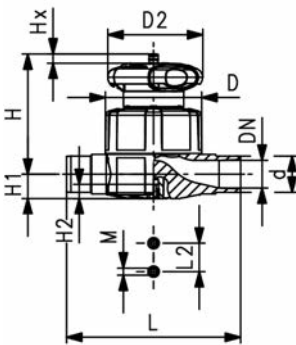
## Diaphragm valve type 515 PVC-U SF With solvent cement spigots metric

### Model:

- Silicone free / paint-compatible
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

### Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches
- PN16 available as a configuration



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	161 515 022	161 515 072	0.345
25	20	10	271	161 515 023	161 515 073	0.456
32	25	10	481	161 515 024	161 515 074	1.052
40	32	10	759	161 515 025	161 515 075	1.257
50	40	10	1263	161 515 026	161 515 076	2.292
63	50	10	1728	161 515 027	161 515 077	2.991

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



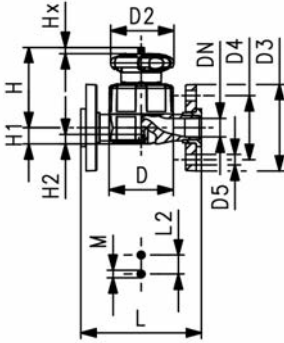
## Diaphragm valve type 517 PVC-U SF With backing flanges PVC-U metric

### Model:

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

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	<b>161 517 022</b>	<b>161 517 072</b>	0.503
25	20	10	271	<b>161 517 023</b>	<b>161 517 073</b>	0.672
32	25	10	481	<b>161 517 024</b>	<b>161 517 074</b>	1.364
40	32	10	759	<b>161 517 025</b>	<b>161 517 075</b>	1.372
50	40	10	1263	<b>161 517 026</b>	<b>161 517 076</b>	2.898
63	50	10	1728	<b>161 517 027</b>	<b>161 517 077</b>	3.817

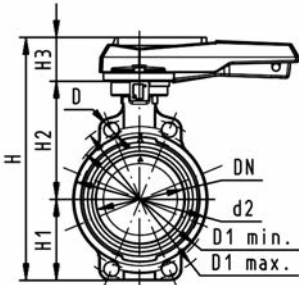
d [mm]	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	closest inch
20	65	65	95	65	14	130	25	73	14	12	M6	7	1/2
25	80	65	105	75	14	150	25	81	18	12	M6	10	3/4
32	88	87	115	85	14	160	25	107	22	12	M6	13	1
40	101	87	140	100	18	180	45	115	26	15	M8	15	1 1/4
50	117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



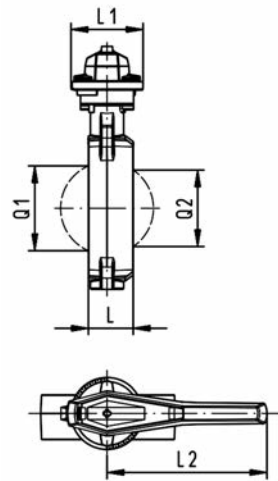
## Butterfly valve type 567 PVC-U SF Hand lever with ratchet settings

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 567 402</b>	<b>161 567 422</b>	1.044
75	65	2 ½	10	2200	<b>161 567 403</b>	<b>161 567 423</b>	1.148
90	80	3	10	3000	<b>161 567 404</b>	<b>161 567 424</b>	1.315
110	100	4	10	6500	<b>161 567 405</b>	<b>161 567 425</b>	1.983
140	125	5	10	11500	<b>161 567 406</b>	<b>161 567 426</b>	3.339
160	150	6	10	16600	<b>161 567 407</b>	<b>161 567 427</b>	3.564
225	200	8	10	39600	<b>161 567 408</b>	<b>161 567 428</b>	5.541



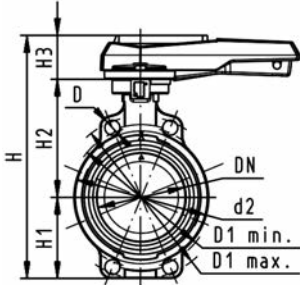
d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325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



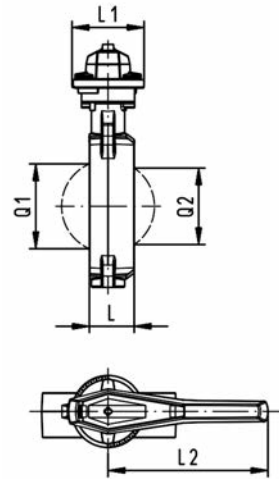
## Butterfly valve type 567 PVC-U OF Hand lever with ratchet settings

### Model:

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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
63	50	2	10	1470	<b>161 567 502</b>	1.040
75	65	2 ½	10	2200	<b>161 567 503</b>	1.344
90	80	3	10	3000	<b>161 567 504</b>	1.308
110	100	4	10	6500	<b>161 567 505</b>	1.969
140	125	5	10	11500	<b>161 567 506</b>	2.536
160	150	6	10	16600	<b>161 567 507</b>	3.731
225	200	8	10	39600	<b>161 567 508</b>	5.513



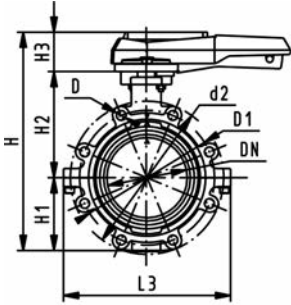
d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325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



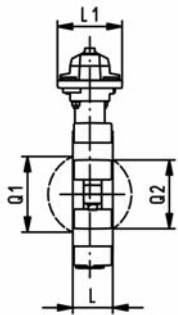
## Lugstyle butterfly valve type 568 PVC-U SF Hand lever with ratchet settings

### Model:

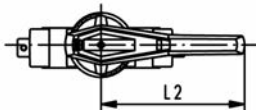
- Silicone free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>161 568 402</b>	<b>161 568 422</b>	3.130
75	65	2 1/2	10	2200	<b>161 568 403</b>	<b>161 568 423</b>	3.484
90	80	3	10	3000	<b>161 568 404</b>	<b>161 568 424</b>	4.526
110	100	4	10	6500	<b>161 568 405</b>	<b>161 568 425</b>	6.067
140	125	5	10	11500	<b>161 568 406</b>	<b>161 568 426</b>	8.020
160	150	6	10	16600	<b>161 568 407</b>	<b>161 568 427</b>	10.024
225	200	8	10	39600	<b>161 568 408</b>	<b>161 568 428</b>	15.489



d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74
140	246	M16	210	353	117	181	55	64	106	255	272	113	97
160	273	M20	240	374	130	189	55	72	106	255	297	139	123
225	334	M20	295	435	158	210	57	73	140	408	360	178	169

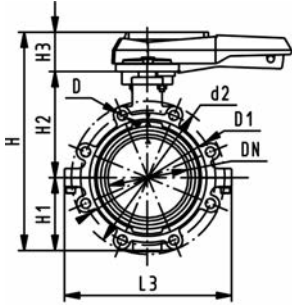




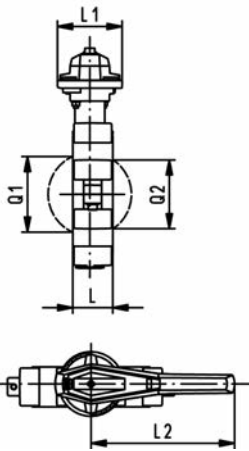
## Lugstyle butterfly valve type 568 PVC-U SF Hand lever with ratchet settings

### Model:

- Silicone free / paint-compatible
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150
- Overall length according to EN 558, ISO 5752



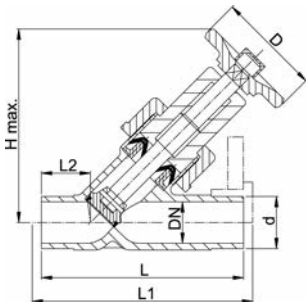
Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	<b>161 568 502</b>	<b>161 568 522</b>	3.130
2 1/2	65	10	2200	<b>161 568 503</b>	<b>161 568 523</b>	3.484
3	80	10	3000	<b>161 568 504</b>	<b>161 568 524</b>	3.897
4	100	10	6500	<b>161 568 505</b>	<b>161 568 525</b>	6.067
5	125	10	11500	<b>161 568 506</b>	<b>161 568 526</b>	8.020
6	150	10	16600	<b>161 568 507</b>	<b>161 568 527</b>	10.024
8	200	10	39600	<b>161 568 508</b>	<b>161 568 528</b>	15.489



Inch	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40	
2 1/2	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35
3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50
4	216	UNC 5/8	191	326	104	167	55	56	106	255	244	88	74
5	246	UNC 3/4	216	353	117	181	55	64	106	255	272	113	97
6	273	UNC 3/4	241	374	130	189	55	72	106	255	297	139	123
8	334	UNC 3/4	298	435	158	210	67	73	140	408	360	178	169



## Angle seat valve type 300 PVC-U SF With solvent cement spigots metric

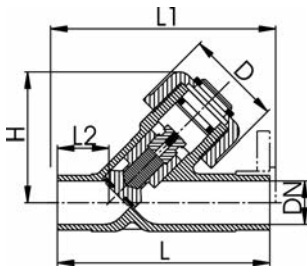


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PE Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H max. [mm]	closest inch
16	10	10	41	<b>161 300 800</b>	0.125	50	114	120	24	105	3/8
20	15	10	95	<b>161 300 801</b>	0.180	63	124	130	28	126	1/2
25	20	10	180	<b>161 300 802</b>	0.250	63	144	150	37	140	3/4
32	25	10	327	<b>161 300 803</b>	2.600	80	154	160	37	166	1
40	32	10	484	<b>161 300 804</b>	0.580	80	174	180	44	191	1 1/4
50	40	10	725	<b>161 300 805</b>	1.005	100	194	200	48	233	1 1/2
63	50	10	1130	<b>161 300 806</b>	0.944	100	224	230	60	264	2
75	65	10	1700	<b>161 300 807</b>	2.610	160	284	290	74	335	2 1/2
90	80	10	2500	<b>161 300 808</b>	3.945	200	300	310	85	390	3





## Angle seat check valve type 303 PVC-U SF With solvent cement spigots metric



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	41	161 303 015	161 303 040	0.094
20	15	10	95	161 303 016	161 303 041	0.132
25	20	10	180	161 303 017	161 303 042	0.200
32	25	10	327	161 303 018	161 303 043	0.323
40	32	10	484	161 303 019	161 303 044	0.498
50	40	10	725	161 303 020	161 303 045	0.860
63	50	10	1130	161 303 021	161 303 046	1.455
75	65	10	1700	161 303 022	161 303 047	2.450
90	80	10	2500	161 303 023	161 303 048	3.511

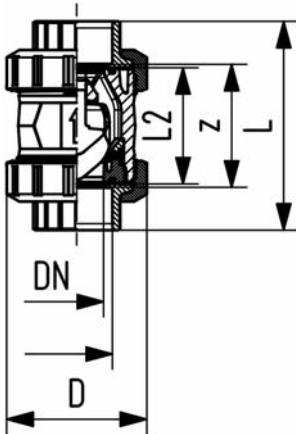
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	closest inch
16	39	114	120	24	58	3/8
20	43	124	130	28	65	1/2
25	47	144	150	37	75	3/4
32	56	154	160	37	90	1
40	64	174	180	44	102	1 1/4
50	82	194	200	48	123	1 1/2
63	95	224	230	60	144	2
75	92	284	290	74	186	2 1/2
90	104	300	310	85	204	3



## Check valve type 561 PVC-U SF With solvent cement sockets Inch ASTM

### Model:

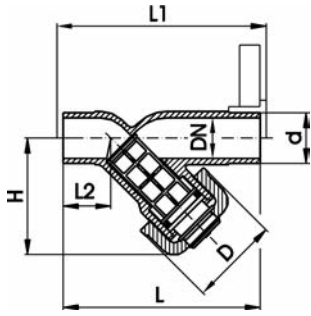
- Silicone free / paint-compatible
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- For vertical installation
- Compact installation length, same as ball valve type 546
- Z-length, end connectors and union nuts **not** compatible with type 360



Inch	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
3/8	10	16	190	161 561 241	161 561 251	0.130	50	105	56	67
1/2	15	16	180	161 561 242	161 561 252	0.130	50	105	56	61
3/4	20	16	380	161 561 243	161 561 253	0.280	58	121	65	70
1	25	16	460	161 561 244	161 561 254	0.300	68	133	71	76
1 1/4	32	16	850	161 561 245	161 561 255	0.510	84	154	85	90
1 1/2	40	16	1080	161 561 246	161 561 256	0.760	97	164	89	94
2	50	16	1670	161 561 247	161 561 257	1.330	124	183	101	107
2 1/2	65	16	2950	161 561 248	161 561 258	3.250	166	233	136	144
3	80	16	3600	161 561 249	161 561 259	5.100	200	254	141	151
4	100	16	4150	161 561 250	161 561 260	8.190	238	301	164	174



## Line strainer type 305 PVC-U SF Transparent body with solvent cement spigots metric



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	35	<b>192 305 821</b>	<b>192 305 831</b>	0.114
25	20	10	63	<b>192 305 822</b>	<b>192 305 832</b>	0.170
32	25	10	85	<b>192 305 823</b>	<b>192 305 833</b>	0.229
40	32	10	150	<b>192 305 824</b>	<b>192 305 834</b>	0.386
50	40	10	225	<b>192 305 825</b>	<b>192 305 835</b>	0.643
63	50	10	346	<b>192 305 826</b>	<b>192 305 836</b>	1.033
75	65	10	535	<b>192 305 827</b>	<b>192 305 837</b>	1.835
90	80	10	750	<b>192 305 828</b>	<b>192 305 838</b>	2.565

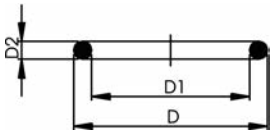
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	closest inch
20	43	124	130	28	65	1/2
25	47	144	150	37	76	3/4
32	56	154	160	37	90	1
40	64	174	180	44	104	1 1/4
50	82	194	200	48	124	1 1/2
63	95	224	230	60	148	2
75	106	284	290	74	188	2 1/2
90	120	300	310	85	205	3

EPDM 48 41 30  
FPM 49 41 30

## O-Ring gasket silicone free

Model:

- Silicone free / paint-compatible
- Fulfill chloroform contact test
- Hardness approx. 65° Shore
- For flange adaptors, jointing face with O-ring groove
- **Only standard packagings SP are delivered**



d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
20	15	<b>748 413 001</b>	<b>749 413 001</b>	0.002	30	23	3.53
25	20	<b>748 413 007</b>	<b>749 413 007</b>	0.002	35	28	3.53
32	25	<b>748 413 002</b>	<b>749 413 002</b>	0.003	43	36	3.53
40	32	<b>748 413 003</b>	<b>749 413 003</b>	0.007	55	44	5.34
50	40	<b>748 413 012</b>	<b>749 413 012</b>	0.008	64	53	5.34
63	50	<b>748 413 013</b>	<b>749 413 013</b>	0.011	80	69	5.34
75	65	<b>748 413 014</b>	<b>749 413 014</b>	0.012	93	82	5.34
90	80	<b>748 413 015</b>	<b>749 413 015</b>	0.015	112	101	5.34
110	100	<b>748 413 016</b>	<b>749 413 016</b>	0.031	134	120	6.99
125	100	<b>748 413 017</b>	<b>749 413 017</b>	0.036	149	136	6.99
140	125	<b>748 413 018</b>	<b>749 413 018</b>	0.039	166	152	6.99
160	150	<b>748 413 019</b>	<b>749 413 019</b>	0.047	191	177	6.99
200	200	<b>748 413 163</b>	<b>749 413 163</b>	0.056	136	222	6.99
225	200	<b>748 413 022</b>	<b>749 413 022</b>	0.060	255	241	6.99
250	250	<b>748 413 182</b>	<b>749 413 182</b>	0.100	280	266	6.99
280	250	<b>748 413 173</b>	<b>749 413 173</b>	0.144	305	292	6.99

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# General Condition of Supply of Georg Fischer Piping Systems Limited, Schaffhausen

## 1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer Piping Systems Limited («Georg Fischer») to the Purchaser. They shall also apply to all future business even when no express reference is made to them. Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

## 5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

## 6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

## 7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or fees.
- 8.2 The Purchaser may only withhold or offset payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
  - a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
  - b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six (6) months, either party may cancel the contract forthwith. Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting from the reform, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
  - c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one (1) month which equally is not met. The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Partial shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price. Georg Fischer's right to prove and claim higher damages remaining reserved.

Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

## 11 Packing

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works [EX WORKS, Incoterms 2010 ICC, or latest version], even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible. In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six (6) days after receipt of the Products.

## 14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within seven (7) working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice. In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com). Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if
  - the repair or replacement of the defective Product is impossible
  - the defective Product is not repaired or replaced within a reasonable period
  - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstraining or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
  - Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
  - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

## 16 Limitation of Liability

The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages. This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

## 17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

## 18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland. Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.

# GF Piping Systems – worldwide at home

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

[www.gfps.com](http://www.gfps.com)



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

## Adding Quality to People's Lives

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