



Product Range  
Export  
01.02.2008

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



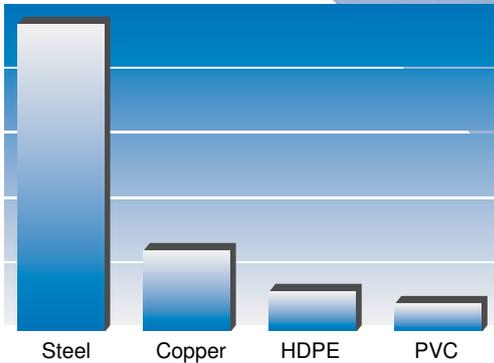
Quality management system certified according to ISO 9001/EN 29001 and ISO



## 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.

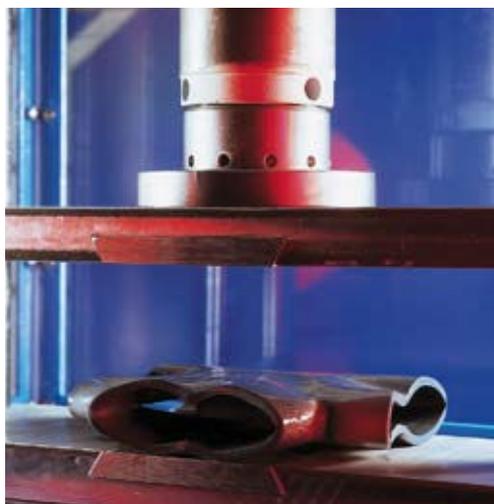
**Production Know-How**  
Due to know-how gathered over 40 years we are able to produce our products to exceptionally high tolerances.



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

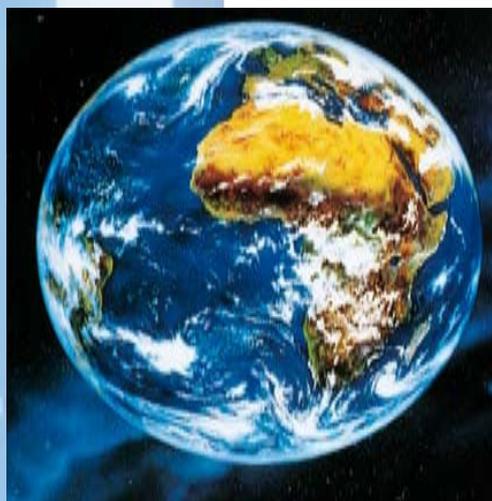
Cement jointing is simple, fast, economical and very reliable.  
Over 100 million homogenous joints have been made over the total life time of piping systems, achieving the highest quality requirements.



## 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 40 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"

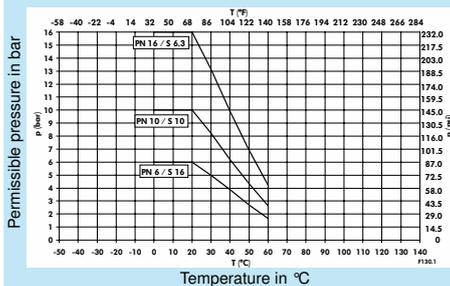
Resistant to:  
Alkalis, weak acids, and salts

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

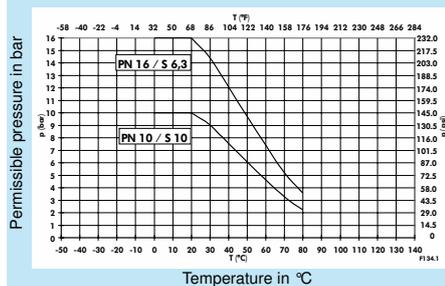
### Application Limits for Pipes and Fittings in PVC-U

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



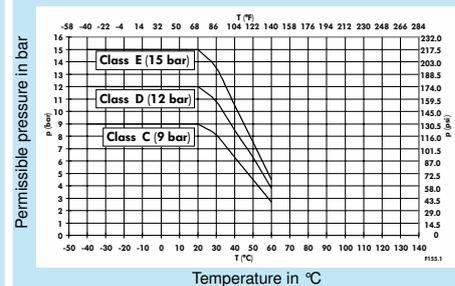
### Application Limits for Pipes and Fittings in PVC-C

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

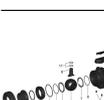


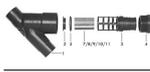
### Application Limits for Pipes and Fittings in ABS

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



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Ball valves electric

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279



Variable area flow meters

285



PVC-U Silicon Free

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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):

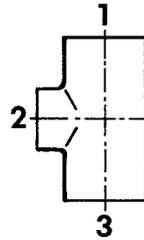


Fig. 1

### Angle Marking

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

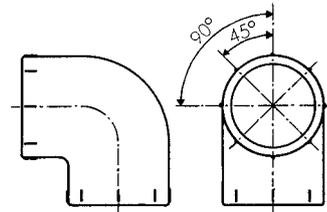


Fig. 2

### 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.

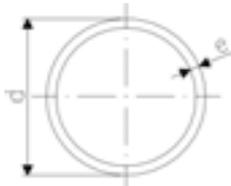
### Ordering example

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

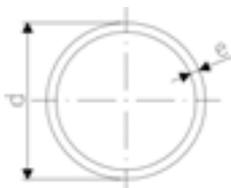


## Pipes PVC-U, grey Series S 6.3, SDR 13.6, nominal pressure PN 16

### Model:

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

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
12	16	<b>161 017 104</b>	0.055	1.0	10.0
16	16	<b>161 017 105</b>	0.090	1.2	13.6
20	16	<b>161 017 106</b>	0.137	1.5	17.0
25	16	<b>161 017 107</b>	0.212	1.9	21.2
32	16	<b>161 017 108</b>	0.342	2.4	27.2
40	16	<b>161 017 109</b>	0.525	3.0	34.0
50	16	<b>161 017 110</b>	0.809	3.7	42.6
63	16	<b>161 017 111</b>	1.290	4.7	53.6
75	16	<b>161 017 112</b>	1.820	5.6	63.8
90	16	<b>161 017 113</b>	2.610	6.7	76.6
110	16	<b>161 017 114</b>	3.900	8.1	93.8
125	16	<b>161 017 115</b>	5.010	9.2	106.6
140	16	<b>161 017 116</b>	6.270	10.3	119.4
160	16	<b>161 017 117</b>	8.170	11.8	136.4

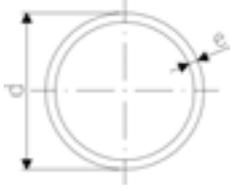


## Pipes PVC-U, grey Series S 4, SDR 9, nominal pressure PN 16

### Model:

- Material: PVC-U, Polyvinylchloride unplasticized 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**

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

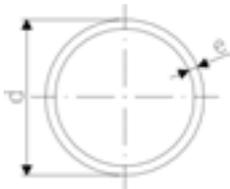


## Pipes PVC-U, grey Series S 10, SDR 21, nominal pressure PN 10

### Model:

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

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
25	10	<b>161 017 082</b>	0.174	1.5	22.0
32	10	<b>161 017 083</b>	0.264	1.8	28.4
40	10	<b>161 017 084</b>	0.350	1.9	36.2
50	10	<b>161 017 085</b>	0.552	2.4	45.2
63	10	<b>161 017 086</b>	0.854	3.0	57.0
75	10	<b>161 017 087</b>	1.220	3.6	37.8
90	10	<b>161 017 088</b>	1.750	4.3	91.4
110	10	<b>161 017 089</b>	2.610	5.3	99.4
125	10	<b>161 017 090</b>	3.340	6.0	113.0
140	10	<b>161 017 091</b>	4.180	6.7	126.6
160	10	<b>161 017 092</b>	5.470	7.7	144.6
180	10	<b>161 017 093</b>	6.880	8.6	162.8
200	10	<b>161 017 094</b>	8.510	9.6	180.8
225	10	<b>161 017 095</b>	10.800	10.8	203.4
250	10	<b>161 017 096</b>	13.200	11.9	226.2
280	10	<b>161 017 097</b>	16.000	13.4	253.2
315	10	<b>161 017 098</b>	20.900	15.0	285.0

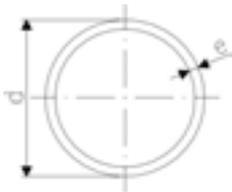


## Pipes PVC-U, grey SDR 34.3, nominal pressure PN 6

### Model:

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

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
50	6	<b>161 017 060</b>	-	1.8	46.4
63	6	<b>161 017 061</b>	-	1.9	59.2
75	6	<b>161 017 062</b>	-	2.2	70.6
90	6	<b>161 017 063</b>	-	2.7	84.6
110	6	<b>161 017 064</b>	-	3.2	103.6
140	6	<b>161 017 066</b>	-	4.1	131.8
160	6	<b>161 017 067</b>	-	4.7	150.6
180	6	<b>161 017 068</b>	-	5.3	169.4
200	6	<b>161 017 069</b>	-	5.9	188.2
225	6	<b>161 017 070</b>	-	6.6	211.6
250	6	<b>161 017 071</b>	-	7.3	235.4
315	6	<b>161 017 072</b>	-	9.2	296.6
355	6	<b>161 017 073</b>	-	10.4	334.2
400	6	<b>161 017 074</b>	-	11.7	376.6



## Pipes PVC-U, grey SDR 51, nominal pressure PN 4

### Model:

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

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

## Pipes PVC-U, red SDR 13,5, nominal pressure PN 16

### Model:

- Material: PVC-U, Polyvinylchlorid
- Dimension: DIN 8062
- Colour: red troisdorf
- Pipe length: 5000 mm, plain ends

d [mm]	PN	Code	kg/m	e [mm]
12	16	<b>300 000 053</b>	-	1.0
16	16	<b>300 000 054</b>	0.090	1.2
20	16	<b>300 000 055</b>	-	1.5
25	16	<b>300 000 056</b>	-	1.9
32	16	<b>300 000 057</b>	-	2.4
40	16	<b>300 000 058</b>	-	3.0
50	16	<b>300 000 059</b>	-	3.7
63	16	<b>300 000 060</b>	-	4.7
75	16	<b>300 000 061</b>	-	5.6
90	16	<b>300 000 062</b>	-	6.7
110	16	<b>300 000 063</b>	-	8.2

## Pipes PVC-U, red SDR 21, nominal pressure PN 10

### Model:

- Material: PVC-U, Polyvinylchlorid
- Dimension: DIN 8062
- Colour: red troisdorf
- Pipe length: 5000 mm, plain ends

d [mm]	PN	Code	kg/m	e [mm]
32	10	<b>300 000 043</b>	-	1.8
40	10	<b>300 000 044</b>	-	1.9
50	10	<b>300 000 045</b>	-	2.4
63	10	<b>300 000 046</b>	-	3.0
75	10	<b>300 000 047</b>	-	3.6
90	10	<b>300 000 048</b>	-	4.3
110	10	<b>300 000 049</b>	-	5.3
140	10	<b>300 000 050</b>	-	6.7
160	10	<b>300 000 051</b>	-	7.7
225	10	<b>300 000 052</b>	-	10.8

## Pipes PVC-U, red SDR 9, nominal pressure PN 16

### Model:

- Material: PVC-U, Polyvinylchlorid
- Dimension: DIN 8062
- Colour: red troisdorf
- Pipe length: 5000 mm, plain ends
- **Increase wall thickness for industrial use**

d [mm]	PN	Code	kg/m	e [mm]
10	16	<b>300 000 064</b>	-	1.2
16	16	<b>300 000 065</b>	-	1.8
20	16	<b>300 000 066</b>	-	2.3
25	16	<b>300 000 067</b>	-	2.8
32	16	<b>300 000 068</b>	-	3.6
40	16	<b>300 000 069</b>	-	4.5
50	16	<b>300 000 070</b>	-	5.6
63	16	<b>300 000 071</b>	-	7.0

## Pipes PVC-U, red L-HP

### Model:

- Material: PVC-U, Polyvinylchlorid
- Dimension: DIN 8061/62
- food grade\*
- colour: red (similar RAL 2002)
- Pipe length: 5000 mm, plain ends

### Remark:

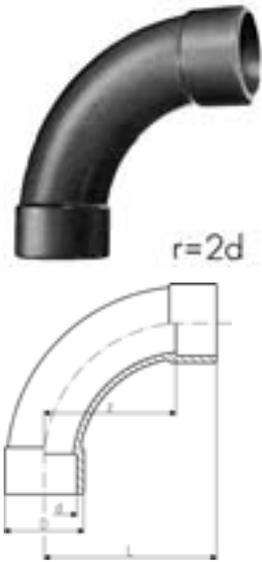
\* approved for food contact by BAM.Berlin  
Certificate on request

d [mm]	Code	kg/m	e [mm]
16	<b>300 000 101</b>	-	1.8
20	<b>300 000 102</b>	-	2.3
25	<b>300 000 103</b>	-	2.8
32	<b>300 000 104</b>	-	2.4
40	<b>300 000 105</b>	-	3.0
50	<b>300 000 106</b>	-	3.7
63	<b>300 000 107</b>	-	4.7
75	<b>300 000 108</b>	-	5.6
90	<b>300 000 109</b>	-	6.7
110	<b>300 000 110</b>	-	8.2

# Fittings

21 00 01

## Bends 90°, PVC-U metric



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
20	16	721 000 106	10	100	0.028	40	27	56
25	16	721 000 107	10	100	0.049	50	33	69
32	16	721 000 108	10	50	0.067	64	38	86
40	16	721 000 109	30	-	0.154	80	47	106
50	16	721 000 110	5	-	0.277	100	61	131
63	16	721 000 111	5	-	0.515	126	76	164
75	16	721 000 112	5	-	0.786	150	90	194
90	16	721 000 113	5	-	1.334	180	108	231
110	16	721 000 114	5	-	2.960	220	137	281
140	16	721 000 116	2	-	5.100	280	168	356
160	16	721 000 117	1	-	7.300	320	192	406

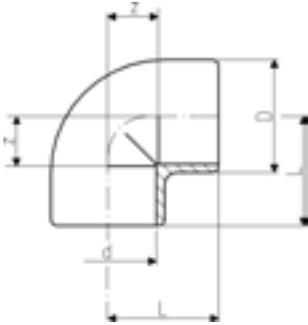
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## Bends 90° short pattern, PVC-U metric



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
225	10	721 010 120	1	-	7.400	168	256	287
280	10	721 010 122	1	-	16.100	210	318	357
315	10	721 010 123	1	-	21.200	237	356	402
400	6	721 010 125	-	-	30.000	300	442	521

## Elbows 90°, PVC-U metric

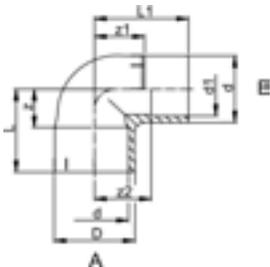


d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
6	16	721 100 101	10	700	0.004	4	11	16
8	16	721 100 102	10	550	0.004	5	13	17
10	16	721 100 103	10	500	0.004	6	14	18
12	16	721 100 104	10	150	0.006	7	17	19
16	16	721 100 105	10	100	0.009	9	21	23
20	16	721 100 106	10	100	0.013	11	25	27
25	16	721 100 107	10	100	0.025	14	32	33
32	16	721 100 108	10	100	0.041	17	40	39
40	16	721 100 109	10	50	0.064	23	47	49
50	16	721 100 110	10	100	0.109	26	59	57
63	16	721 100 111	10	-	0.204	33	73	71
75	16	721 100 112	5	-	0.329	40	87	83
90	16	721 100 113	5	-	0.573	46	105	97
110	16	721 100 114	4	-	1.026	55	128	116
125	16	721 100 115	1	-	1.460	63	146	131
140	16	721 100 116	4	-	2.340	70	162	146
160	16	721 100 117	2	-	3.475	80	185	166
200	10	721 100 119	1	-	4.700	101	225	207
225	10	721 100 120	1	-	6.950	114	252	233
250	10	721 100 121	1	-	9.500	131	282	263

## PRO-FIT Elbows 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	GP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	721 100 306	10	100	0.013	11	16	18	25	27	32
25	20	16	721 100 307	10	100	0.022	14	18	21	31	33	37
32	25	16	721 100 308	10	100	0.040	17	22	25	38	39	44
40	32	16	721 100 309	10	50	0.070	23	30	34	47	49	56
50	40	16	721 100 310	10	50	0.122	26	36	41	58	57	67
63	50	16	721 100 311	10	-	0.237	33	45	52	73	71	83

## PRO-FIT Elbows 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	GP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	721 150 306	10	100	0.010	5	9	11	25	21	25
25	20	16	721 150 307	10	100	0.016	6	11	14	31	25	30
32	25	16	721 150 308	10	100	0.030	8	13	16	38	30	35
40	32	16	721 150 309	5	50	0.052	10	17	21	47	36	43
50	40	16	721 150 310	5	50	0.090	12	18	23	58	43	49
63	50	16	721 150 311	5	50	0.176	14	23	30	73	52	61

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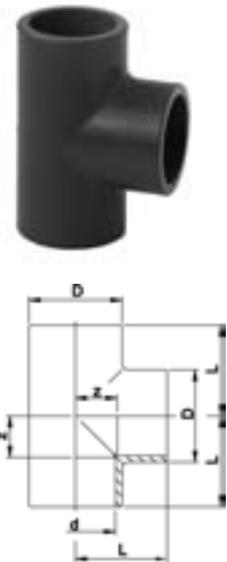
## Elbows 45°, PVC-U metric



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	
16	16	721 150 105	10	100	0.008	5	21	19	
20	16	721 150 106	10	100	0.011	5	25	21	
25	16	721 150 107	10	100	0.018	6	31	25	
32	16	721 150 108	10	100	0.029	8	38	30	
40	16	721 150 109	10	50	0.049	10	47	36	
50	16	721 150 110	5	50	0.089	12	59	43	
63	16	721 150 111	5	50	0.161	14	73	52	
75	16	721 150 112	5	-	0.250	17	87	61	
90	16	721 150 113	5	-	0.431	20	105	71	
110	16	721 150 114	5	-	0.733	25	127	86	
125	16	721 150 115	1	-	1.162	28	146	97	
140	16	721 150 116	1	-	1.639	32	162	108	
160	16	721 150 117	4	-	2.520	36	185	122	
200	10	721 150 119	2	-	3.300	43	225	149	
225	10	721 150 120	1	-	4.900	49	250	168	
250	10	721 150 121	1	-	7.150	60	282	192	
280	10	721 150 122	1	-	10.800	66	318	213	
315	10	721 150 123	1	-	14.900	74	356	239	
400	6	721 150 125	1	-	24.000	94	442	302	

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## Tees 90° equal, PVC-U metric



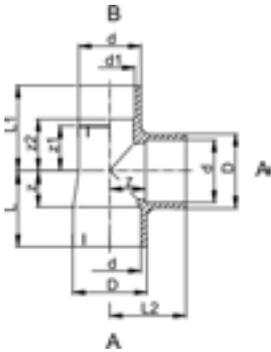
d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	
6	16	721 200 101	10	550	0.004	4	11	16	
8	16	721 200 102	10	500	0.008	5	13	17	
10	16	721 200 103	10	350	0.008	6	16	18	
12	16	721 200 104	10	280	0.016	7	19	19	
16	16	721 200 105	10	100	0.012	9	21	23	
20	16	721 200 106	10	100	0.017	11	25	27	
25	16	721 200 107	10	100	0.029	14	31	33	
32	16	721 200 108	10	100	0.055	17	38	39	
40	16	721 200 109	10	50	0.100	23	48	49	
50	16	721 200 110	10	-	0.153	26	58	57	
63	16	721 200 111	10	-	0.334	33	73	71	
75	16	721 200 112	5	-	0.473	39	87	83	
90	16	721 200 113	5	-	0.822	46	105	97	
110	16	721 200 114	6	-	1.392	55	127	116	
125	16	721 200 115	2	-	2.400	66	151	135	
140	16	721 200 116	1	1	3.546	71	169	147	
160	16	721 200 117	1	-	4.963	81	193	167	
200	10	721 200 119	1	-	5.763	101	225	207	
225	10	721 200 120	1	-	9.067	114	256	233	
250	10	721 200 121	-	-	12.500	132	282	263	
280	10	721 200 122	1	-	17.480	152	318	298	
315	10	721 200 123	1	-	24.350	168	356	332	
400	6	721 200 125	-	-	39.500	214	442	420	

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## PRO-FIT Tees 90° equal, PVC-U metric

### Model:

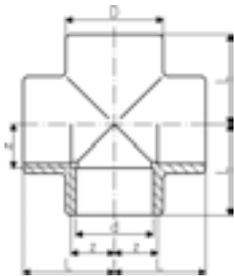
- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length



d [mm]	d1 [mm]	PN	Code	SP	GP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	16	<b>721 200 306</b>	10	100	0.017	11	17	19	25	27	33	27
25	20	16	<b>721 200 307</b>	10	100	0.028	14	19	22	31	33	38	33
32	25	16	<b>721 200 308</b>	10	100	0.052	17	24	27	38	39	46	39
40	32	16	<b>721 200 309</b>	10	50	0.098	23	30	34	47	47	56	49
50	40	16	<b>721 200 310</b>	10	-	0.173	26	36	41	58	57	67	57
63	50	16	<b>721 200 311</b>	10	-	0.329	33	45	52	73	71	83	71

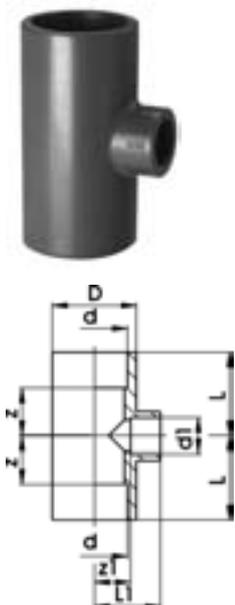
21 30 01

## Crosses, PVC-U metric



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
10	16	<b>721 300 103</b>	100	-	0.009	7	16	19
12	16	<b>721 300 104</b>	100	-	0.011	8	18	20
16	16	<b>721 300 105</b>	100	-	0.020	10	23	24
20	16	<b>721 300 106</b>	10	100	0.037	11	29	27
25	16	<b>721 300 107</b>	10	100	0.058	14	35	33
32	16	<b>721 300 108</b>	10	50	0.092	17	43	39
40	16	<b>721 300 109</b>	5	50	0.155	23	52	49
50	16	<b>721 300 110</b>	5	30	0.265	28	63	59
63	16	<b>721 300 111</b>	5	-	0.480	34	79	72
75	10	<b>721 300 112</b>	3	-	0.660	40	92	83
90	10	<b>721 300 113</b>	4	-	0.960	48	106	97
110	10	<b>721 300 114</b>	4	-	1.600	58	128	117

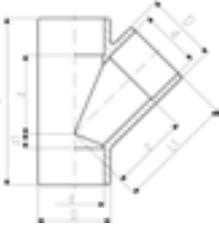
### Tees 90° reducing, PVC-U metric



d [mm]	d1 [mm]	PN	Code	SP	GP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
25	20	16	721 200 134	10	100	0.055	14	14	33	33	30
32	20	16	721 200 141	10	100	0.089	17	17	41	39	33
32	25	16	721 200 138	10	100	0.092	17	17	41	39	36
40	20	16	721 200 155	10	20	0.105	23	23	50	49	39
40	25	16	721 200 151	10	50	0.107	23	23	50	49	42
40	32	16	721 200 147	10	20	0.161	23	23	50	49	45
50	20	16	721 200 009	5	50	0.180	28	28	62	59	44
50	25	16	721 200 010	5	50	0.184	28	28	62	59	47
50	32	16	721 200 164	5	20	0.189	28	28	62	59	50
50	40	16	721 200 161	5	20	0.198	28	28	62	59	54
63	25	16	721 200 011	10	-	0.330	35	34	77	73	53
63	32	16	721 200 178	5	-	0.335	35	34	77	73	56
63	40	16	721 200 174	5	-	0.340	35	34	77	73	60
63	50	16	721 200 170	5	-	0.360	35	34	77	73	65
75	32	16	721 200 181	9	-	0.520	40	41	92	84	63
75	40	16	721 200 182	9	-	0.515	40	41	92	84	67
75	50	16	721 200 183	8	-	0.510	40	41	92	84	72
75	63	16	721 200 184	8	-	0.560	40	41	92	84	79
90	32	16	721 200 142	6	-	0.830	46	55	110	97	77
90	50	16	721 200 144	6	-	0.860	46	55	110	97	86
90	63	16	721 200 145	5	-	0.890	46	55	110	97	93
90	75	16	721 200 146	5	-	0.950	46	55	110	97	99
110	32	16	721 200 135	3	-	1.400	56	67	133	117	89
110	50	16	721 200 136	3	-	1.425	56	67	133	117	98
110	63	16	721 200 132	-	-	1.490	56	65	133	117	103
110	75	16	721 200 133	-	-	1.520	56	65	133	117	109
110	90	16	721 200 137	3	-	1.500	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	-	3.000	72	82	172	148	113
140	75	16	721 200 149	1	-	3.000	72	78	172	148	122
140	110	16	721 200 150	1	-	3.200	72	74	172	148	135
160	110	16	721 200 152	1	-	4.100	81	81	192	167	142
200	110	10	721 200 153	-	-	7.450	107	131	232	213	192
200	160	10	721 200 154	-	-	8.230	107	106	232	213	192
225	110	10	721 200 156	-	-	9.200	120	143	257	239	204
225	160	10	721 200 157	-	-	10.000	120	119	257	239	205
250	160	10	721 200 159	-	-	11.500	132	151	282	263	237
250	200	10	721 200 162	-	-	12.300	132	131	282	263	237
280	160	10	721 200 165	-	-	18.200	120	180	318	266	266
280	225	10	721 200 167	-	-	16.200	120	148	318	266	268
315	160	10	721 200 169	-	-	22.300	120	197	356	284	283
315	225	10	721 200 172	-	-	20.300	120	165	356	284	284
400	225	6	721 200 176	-	-	36.500	163	258	442	369	377
400	315	6	721 200 180	-	-	32.000	163	213	442	369	377

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## Tees 45°, PVC-U metric



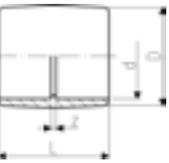
d [mm]	PN	Code	SP	GP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
10	10	721 250 103	100	-	0.013	18	4	16	46	30
12	10	721 250 104	100	-	0.014	21	4	18	49	33
16	10	721 250 105	100	-	0.023	25	5	23	58	39
20	10	721 250 106	10	50	0.037	30	6	28	68	46
25	10	721 250 107	10	50	0.057	36	9	33	83	55
32	10	721 250 108	10	50	0.096	45	10	41	99	67
40	10	721 250 109	10	-	0.157	56	10	50	118	82
50	10	721 250 110	10	-	0.266	66	12	60	140	97
63	10	721 250 111	5	-	0.435	85	14	74	175	123
75	6	721 250 112	5	-	0.810	101	18	91	207	145
90	6	721 250 113	1	-	1.290	122	20	107	245	173
110	6	721 250 114	3	-	2.540	149	27	134	298	210
125	6	721 250 115	2	-	3.605	167	30	147	335	236
140	6	721 250 116	1	-	3.800	190	34	168	376	266
160	6	721 250 117	1	-	6.600	213	41	190	428	300
200	6	721 250 119	-	-	11.650	265	48	232	527	372
225	6	721 250 120	-	-	15.800	296	54	260	590	416
250	6	721 250 121	-	-	20.350	330	60	286	654	462

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## Sockets equal, PVC-U metric

### Note:

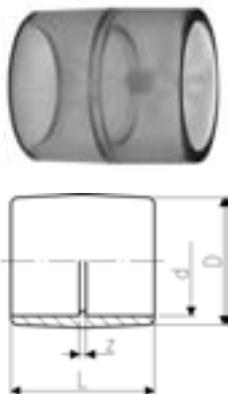
- \* Socket d355 and d400 fabricated from pipe



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
6	16	721 910 101	10	1000	0.004	3	12	27
8	16	721 910 102	10	600	0.005	3	14	27
10	16	721 910 103	10	500	0.005	3	16	27
12	16	721 910 104	400	-	0.006	3	19	27
16	16	721 910 105	10	100	0.007	3	22	31
20	16	721 910 106	10	100	0.011	3	26	35
25	16	721 910 107	10	100	0.015	3	32	41
32	16	721 910 108	10	100	0.026	3	39	47
40	16	721 910 109	10	100	0.046	3	48	55
50	16	721 910 110	10	50	0.065	3	58	65
63	16	721 910 111	10	50	0.119	3	73	79
75	16	721 910 112	10	-	0.191	4	87	92
90	16	721 910 113	10	-	0.328	5	105	107
110	16	721 910 114	5	-	0.560	6	128	128
125	16	721 910 115	4	-	0.740	7	142	145
140	16	721 910 116	2	-	1.200	7	162	159
160	16	721 910 117	1	-	1.542	8	183	180
200	10	721 910 119	4	-	2.031	9	221	221
225	10	721 910 120	2	-	3.790	10	253	248
250	10	721 910 121	1	-	5.600	16	284	284
280	10	721 910 122	1	-	6.680	16	321	314
315	10	721 910 123	1	-	8.300	16	356	348
*355	6	721 910 124	-	-	8.000	68	377	454
*400	6	721 910 125	-	-	8.300	73	425	505

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## Sockets equal, PVC-U transparent metric



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	
16	16	<b>752 910 105</b>	10	350	0.009	3	23	31	
20	16	<b>752 910 106</b>	10	240	0.012	3	27	35	
25	16	<b>752 910 107</b>	10	150	0.021	3	32	41	
32	16	<b>752 910 108</b>	10	80	0.028	3	40	47	
40	16	<b>752 910 109</b>	10	100	0.057	3	52	55	
50	16	<b>752 910 110</b>	10	60	0.069	3	60	65	
63	16	<b>752 910 111</b>	5	10	0.138	3	75	79	

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## Adaptor Socket, PVC-U metric - (inch BS)

Model:

- With solvent cement socket metric and inch (BS)



d [mm]	Inch	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	
16	3/8	16	<b>721 913 105</b>	10	800	0.010	5	23	35	
20	1/2	16	<b>721 913 106</b>	10	500	0.013	5	27	38	
25	3/4	16	<b>721 913 107</b>	10	200	0.020	5	33	45	
32	1	16	<b>721 913 108</b>	10	100	0.031	5	41	51	
40	1 1/4	16	<b>721 913 109</b>	10	50	0.054	5	51	60	
50	1 1/2	16	<b>721 913 110</b>	10	60	0.076	4	59	65	
63	2	16	<b>721 913 111</b>	5	10	0.154	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	-	0.485	4	128	128	

21 90 09

## Barrel Nipples, PVC-U metric

Model:

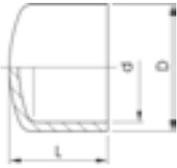
- With solvent cement spigots on both sides
- For the shortest possible distance between fittings
- Overall length L = 2 x socket length



d [mm]	PN	Code	SP	GP	kg	L [mm]	
16	16	<b>721 900 905</b>	-	-	0.002	28	
20	16	<b>721 900 906</b>	-	-	0.004	32	
25	16	<b>721 900 907</b>	-	-	0.008	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>	-	-	0.098	76	
75	16	<b>721 900 912</b>	-	-	0.160	88	
90	16	<b>721 900 913</b>	-	-	0.266	102	
110	16	<b>721 900 914</b>	-	-	0.476	122	
125	16	<b>721 900 915</b>	-	-	0.691	138	
140	16	<b>721 900 916</b>	-	-	0.953	152	
160	16	<b>721 900 917</b>	-	-	1.569	192	
200	10	<b>721 900 919</b>	-	-	1.804	212	
225	10	<b>721 900 920</b>	-	-	2.570	238	

21 96 01

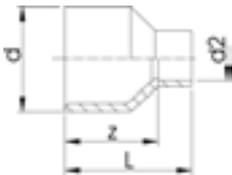
## Caps, PVC-U metric



d [mm]	PN	Code	SP	GP	kg	D [mm]	L [mm]	
12	16	<b>721 960 104</b>	10	500	0.004	19	15	
16	16	<b>721 960 105</b>	10	100	0.006	23	21	
20	16	<b>721 960 106</b>	10	100	0.009	27	24	
25	16	<b>721 960 107</b>	10	100	0.014	33	28	
32	16	<b>721 960 108</b>	10	100	0.021	40	32	
40	16	<b>721 960 109</b>	10	100	0.031	47	38	
50	16	<b>721 960 110</b>	10	100	0.052	59	45	
63	16	<b>721 960 111</b>	5	50	0.092	74	56	
75	16	<b>721 960 112</b>	5	50	0.152	87	65	
90	16	<b>721 960 113</b>	5	-	0.270	105	77	
110	16	<b>721 960 114</b>	5	-	0.460	128	94	
140	10	<b>721 960 116</b>	10	-	0.880	164	92	
160	10	<b>721 960 117</b>	2	-	1.490	188	130	

21 91 03

## Reducing Bushes, PVC-U metric



**Model:**

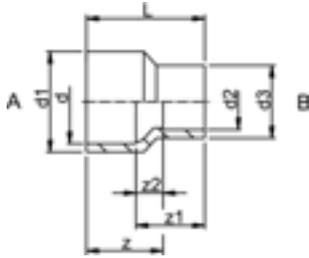
- With spigot and solvent cement socket

d [mm]	d2 [mm]	PN	Code	SP	GP	kg	z [mm]	L [mm]	
8	6	16	<b>721 910 323</b>	10	800	0.003	15	27	
10	6	16	<b>721 910 326</b>	10	700	0.003	15	27	
10	8	16	<b>721 910 325</b>	10	700	0.003	15	27	
20	16	16	<b>721 910 334</b>	10	320	0.010	21	35	
25	20	16	<b>721 910 337</b>	10	220	0.015	25	41	
32	25	16	<b>721 910 341</b>	10	120	0.025	30	49	
40	32	16	<b>721 910 346</b>	10	100	0.044	36	58	
50	40	16	<b>721 910 352</b>	10	50	0.075	44	70	
63	50	16	<b>721 910 358</b>	5	50	0.146	54	85	
75	63	16	<b>721 910 364</b>	5	50	0.220	62	100	
90	75	16	<b>721 910 370</b>	5	-	0.335	74	118	
140	110	16	<b>721 910 385</b>	2	-	0.814	111	172	

## PRO-FIT Reducing Bushes, PVC-U metric

### Model:

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



d	d1	d2	d3	PN	Code	SP	GP	kg	z	z1	z2	L
[mm]	[mm]	[mm]	[mm]						[mm]	[mm]	[mm]	[mm]
8	12	10		16	<b>721 910 903</b>	10	700	0.003	15	15	3	27
12	16	8	12	16	<b>721 910 905</b>	10	100	0.003	18	18	6	30
12	16	10	16	16	<b>721 910 906</b>	10	600	0.006	18	18	6	30
16	20	10	16	16	<b>721 910 908</b>	10	500	0.005	21	19	7	33
16	20	12	16	16	<b>721 910 909</b>	10	400	0.005	21	19	7	33
20	25	12	16	16	<b>721 910 910</b>	10	300	0.008	25	21	9	37
20	25	16	20	16	<b>721 910 911</b>	10	100	0.008	25	23	9	39
25	32	12	16	16	<b>721 910 912</b>	10	100	0.014	30	23	11	42
25	32	16	20	16	<b>721 910 913</b>	10	100	0.015	30	26	12	44
25	32	20	25	16	<b>721 910 914</b>	10	100	0.017	30	27	11	46
32	40	16	20	16	<b>721 910 915</b>	100	-	0.025	36	28	14	50
32	40	20	25	16	<b>721 910 916</b>	10	100	0.027	36	30	14	52
32	40	25	32	16	<b>721 910 917</b>	10	100	0.032	36	33	14	55
40	50	20	25	16	<b>721 910 918</b>	10	100	0.046	44	34	18	60
40	50	25	32	16	<b>721 910 919</b>	10	100	0.052	44	37	18	63
40	50	32	40	16	<b>721 910 920</b>	10	100	0.059	44	40	18	66
50	63	25	32	16	<b>721 910 921</b>	5	50	0.092	54	42	23	73
50	63	32	40	16	<b>721 910 922</b>	5	50	0.099	54	45	23	76
50	63	40	50	16	<b>721 910 923</b>	5	50	0.112	54	49	23	80
63	75	32	40	16	<b>721 910 924</b>	5	50	0.128	62	46	24	84
63	75	40	50	16	<b>721 910 925</b>	5	50	0.139	62	50	24	88
63	75	50	63	16	<b>721 910 926</b>	5	50	0.169	62	55	24	93
75	90	40	50	16	<b>721 910 927</b>	10	-	0.232	74	56	30	100
75	90	50	63	16	<b>721 910 928</b>	10	-	0.260	74	61	30	105
75	90	63	75	16	<b>721 910 929</b>	10	-	0.275	74	68	30	112

## Reducing Bushes short, PVC-U metric

### Model:

- With spigot and solvent cement socket

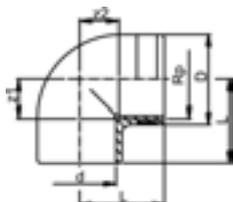


d [mm]	d1 [mm]	PN	Code	SP	GP	kg	z [mm]	L [mm]
*12	8	16	<b>721 900 329</b>	10	1200	0.002	2	14
*16	12	16	<b>721 900 331</b>	10	1000	0.002	2	14
*20	16	16	<b>721 900 334</b>	10	500	0.003	2	16
*25	20	16	<b>721 900 337</b>	10	450	0.005	3	19
*32	20	16	<b>721 900 342</b>	10	100	0.014	6	22
*32	25	16	<b>721 900 341</b>	10	100	0.009	3	22
40	20	16	<b>721 900 348</b>	10	100	0.021	10	26
40	25	16	<b>721 900 347</b>	10	100	0.021	7	26
*40	32	16	<b>721 900 346</b>	10	100	0.016	4	26
50	20	16	<b>721 900 355</b>	10	100	0.033	15	31
50	25	16	<b>721 900 354</b>	10	100	0.034	12	31
50	32	16	<b>721 900 353</b>	10	100	0.037	9	31
*50	40	16	<b>721 900 352</b>	100	-	0.030	5	31
63	32	16	<b>721 900 360</b>	10	100	0.061	16	38
63	40	16	<b>721 900 359</b>	10	100	0.068	12	38
*63	50	16	<b>721 900 358</b>	10	100	0.058	7	38
75	50	16	<b>721 900 365</b>	10	50	0.106	13	44
*75	63	16	<b>721 900 364</b>	10	50	0.077	6	44
90	50	16	<b>721 900 372</b>	10	-	0.179	20	51
90	63	16	<b>721 900 371</b>	10	-	0.183	13	51
*90	75	16	<b>721 900 370</b>	10	-	0.136	7	51
110	50	16	<b>721 900 379</b>	5	-	0.309	30	61
110	63	16	<b>721 900 378</b>	5	-	0.313	23	61
110	75	16	<b>721 900 377</b>	-	-	0.255	17	61
*110	90	16	<b>721 900 376</b>	5	-	0.259	10	61
125	90	16	<b>721 900 381</b>	5	-	0.484	18	69
*125	110	16	<b>721 900 380</b>	5	-	0.266	8	69
140	90	16	<b>721 900 386</b>	5	-	0.560	25	76
*140	110	16	<b>721 900 385</b>	5	-	0.599	15	76
*140	125	16	<b>721 900 384</b>	5	-	0.420	7	76
160	90	16	<b>721 900 391</b>	5	-	0.750	35	86
160	110	16	<b>721 900 390</b>	5	-	0.868	25	86
*160	140	16	<b>721 900 388</b>	5	-	0.547	10	86
200	110	10	<b>721 900 393</b>	-	-	1.900	45	106
200	125	10	<b>721 900 325</b>	-	-	1.940	37	106
200	140	10	<b>721 900 394</b>	-	-	1.850	30	106
200	160	10	<b>721 900 392</b>	2	-	1.070	20	106
225	110	10	<b>721 900 397</b>	4	-	2.450	58	119
225	125	10	<b>721 900 399</b>	-	-	2.500	50	119
225	140	10	<b>721 900 398</b>	4	-	2.500	43	119
225	160	10	<b>721 900 396</b>	2	-	2.200	33	119
*225	200	10	<b>721 900 181</b>	4	-	1.400	13	119
250	125	10	<b>721 900 326</b>	-	-	3.150	62	131
250	140	10	<b>721 900 300</b>	4	-	3.200	55	131
250	160	10	<b>721 900 301</b>	4	-	3.080	45	131
*250	200	10	<b>721 900 302</b>	4	-	3.150	25	131
*250	225	10	<b>721 900 303</b>	4	-	1.700	12	131
280	140	10	<b>721 900 307</b>	-	-	4.000	69	148
280	160	10	<b>721 900 308</b>	1	-	4.100	59	148
280	200	10	<b>721 900 304</b>	-	-	4.250	40	146
*280	225	10	<b>721 900 305</b>	1	-	4.300	27	146
*280	250	10	<b>721 900 306</b>	1	-	2.500	15	146
315	160	10	<b>721 900 313</b>	1	-	2.050	77	166
315	200	10	<b>721 900 309</b>	1	-	5.300	57	166
315	225	10	<b>721 900 310</b>	-	-	5.500	45	164
*315	250	10	<b>721 900 311</b>	1	-	6.300	33	164
*315	280	10	<b>721 900 312</b>	1	-	3.550	17	164
355	315	6	<b>721 900 315</b>	-	-	5.300	20	184
400	250	6	<b>721 900 319</b>	-	-	9.000	75	206
400	280	6	<b>721 900 320</b>	-	-	9.200	60	206
400	315	6	<b>721 900 321</b>	-	-	13.100	42	206
*400	355	6	<b>721 900 322</b>	-	-	7.600	22	206

# Adaptor Fittings

21 10 02

## Elbows 90°, PVC-U metric - Rp



### Model:

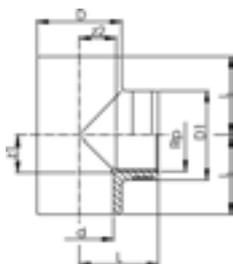
- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

\* without reinforcement, connection only for plastic threads

d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
12	¼	16	721 100 204	10	100	0.011	7	7	20	19
16	⅜	16	721 100 205	10	100	0.015	9	9	25	23
20	½	16	721 100 206	10	100	0.025	13	11	30	27
25	¾	16	721 100 207	10	80	0.034	16	15	35	33
32	1	16	721 100 208	10	40	0.060	19	19	45	39
40	1 ¼	16	721 100 209	10	100	0.123	23	27	55	50
50	1 ½	16	721 100 210	5	30	0.185	27	36	62	58
63	2	16	721 100 211	10	-	0.326	33	46	75	73
*75	2 ½	10	721 100 212	5	-	0.438	40	56	90	84
*90	3	10	721 100 213	5	-	0.800	48	68	108	99
*110	4	10	721 100 214	1	-	1.245	58	82	132	119

21 20 02

## Tees 90°, PVC-U metric - Rp



### Model:

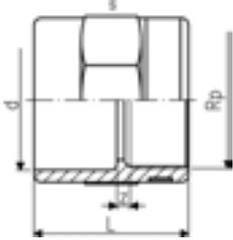
- With solvent cement socket metric, branch with parallel female thread Rp
- Leaving with cylindrical pipe internal thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid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

\* without reinforcement, connection only for plastic threads

d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	D1 [mm]	L [mm]
12	¼	16	721 200 204	10	280	0.015	7	7	17	20	19
16	⅜	16	721 200 205	10	100	0.027	9	9	21	25	23
20	½	16	721 200 206	10	100	0.025	11	13	26	30	29
25	¾	16	721 200 207	10	100	0.039	14	15	32	35	33
32	1	16	721 200 208	10	30	0.071	17	19	40	45	39
40	1 ¼	16	721 200 209	10	50	0.188	23	26	47	55	49
50	1 ½	16	721 200 210	5	10	0.190	27	36	59	59	59
63	2	16	721 200 211	5	-	0.360	33	46	74	75	71
*75	2 ½	10	721 200 212	5	-	0.609	40	56	92	92	84
*90	3	10	721 200 213	5	-	1.076	48	68	110	110	99
*110	4	10	721 200 214	1	1	1.686	58	82	133	132	119

21 91 02

## Adaptor Sockets, PVC-U metric - Rp



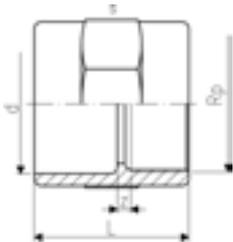
### Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- 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	GP	kg	z [mm]	L [mm]	s [mm]
12	¼	16	<b>721 910 204</b>	10	100	0.010	4	27	22
16	⅜	16	<b>721 910 205</b>	10	100	0.017	5	31	27
20	½	16	<b>721 910 206</b>	10	100	0.025	5	36	32
25	¾	16	<b>721 910 207</b>	10	100	0.032	5	40	36
32	1	16	<b>721 910 208</b>	10	100	0.070	5	45	46
40	1 ¼	16	<b>721 910 209</b>	10	50	0.085	5	51	55
50	1 ½	16	<b>721 910 210</b>	10	50	0.125	7	59	65
63	2	16	<b>721 910 211</b>	5	50	0.170	7	69	80

21 91 60

## Adaptor Sockets, PVC-U metric - Rp



### Model:

- With solvent cement socket metric and parallel female thread Rp
- Connection to plastic thread 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	GP	kg	z [mm]	L [mm]	s [mm]
75	2 ½	10	<b>721 916 012</b>	10	-	0.223	7	82	90
90	3	10	<b>721 916 013</b>	5	-	0.374	9	94	110
110	4	10	<b>721 916 014</b>	5	-	0.542	9	110	130

21 91 42

## Adaptor Sockets, PVC-U metric - NPT



### Model:

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

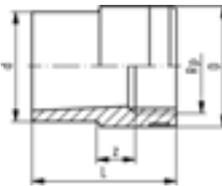
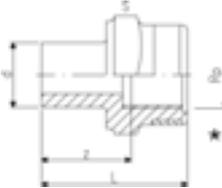
d [mm]	NPT [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
20	½	10	<b>721 914 206</b>	10	100	0.022	5	35	32
25	¾	10	<b>721 914 207</b>	10	100	0.027	6	40	36
32	1	10	<b>721 914 208</b>	10	100	0.050	6	45	46
40	1 ¼	10	<b>721 914 209</b>	10	100	0.075	6	51	55
50	1 ½	10	<b>721 914 210</b>	10	50	0.109	10	59	65
63	2	10	<b>721 914 211</b>	5	50	0.176	10	69	80
75	2 ½	10	<b>721 914 212</b>	10	-	0.247	11	82	90
90	3	10	<b>721 914 213</b>	5	-	0.381	14	94	110
110	4	10	<b>721 914 214</b>	5	-	0.557	18	110	130

21 91 04

## Reducing Bushes, PVC-U metric - Rp

### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- 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	GP	kg	z [mm]	D [mm]	L [mm]	s [mm]
*12	1/4	16	<b>721 910 404</b>	10	100	0.007	17	20	27	22
20	3/8	16	<b>721 910 434</b>	10	100	0.014	24	25	35	15
25	1/2	16	<b>721 910 437</b>	10	100	0.021	27	30	41	21
32	3/4	16	<b>721 910 441</b>	10	100	0.032	32	35	48	33
40	1	16	<b>721 910 446</b>	10	100	0.060	38	45	56	60
50	1 1/4	16	<b>721 910 452</b>	10	60	0.097	46	55	66	99
63	1 1/2	16	<b>721 910 458</b>	5	45	0.148	57	62	77	150

21 90 04

## Adaptor Bushes equal, PVC-U metric - Rp

### Model:

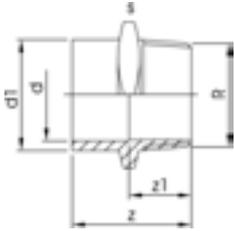
- With solvent cement spigot metric and parallel female thread Rp
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes



d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
20	1/2	10	<b>721 900 406</b>	10	100	0.019	22	28	37
25	3/4	10	<b>721 900 407</b>	10	100	0.028	25	34	41
32	1	10	<b>721 900 408</b>	10	100	0.041	29	42	48
40	1 1/4	10	<b>721 900 409</b>	10	-	0.065	34	52	56
50	1 1/2	10	<b>721 900 410</b>	-	-	0.103	40	62	61
63	2	10	<b>721 900 411</b>	5	50	0.170	49	77	74

21 91 05

## Adaptor Socket-Nipple, PVC-U metric - R



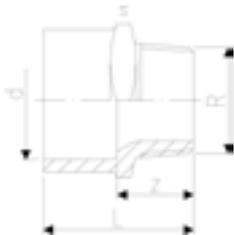
### Model:

- With solvent cement spigot/socket reducing metric and taper male thread R
- Connection to plastic thread 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]	R [inch]	d1 [mm]	PN	Code	SP	GP	kg	z [mm]	z1 [mm]	s [mm]
12	3/8	16	16	<b>721 910 555</b>	10	100	0.011	35	23	27
16	1/2	20	16	<b>721 910 556</b>	10	100	0.019	42	28	32
20	3/4	25	16	<b>721 910 557</b>	10	100	0.025	47	31	36
25	1	32	16	<b>721 910 558</b>	10	100	0.040	54	35	46
32	1 1/4	40	16	<b>721 910 559</b>	10	100	0.062	60	38	55
40	1 1/2	50	16	<b>721 910 560</b>	10	50	0.093	66	40	65
50	2	63	16	<b>721 910 561</b>	5	60	0.165	78	47	80

21 91 07

## Adaptor Bushes equal, PVC-U metric - R



### Model:

- With solvent cement socket metric and taper male thread R
- Connection to plastic thread 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]	R [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
16	3/8	16	<b>721 910 705</b>	10	100	0.012	20	34	27
20	1/2	16	<b>721 910 706</b>	10	100	0.018	24	40	32
25	3/4	16	<b>721 910 707</b>	10	100	0.024	25	44	36
32	1	16	<b>721 910 708</b>	10	100	0.039	28	50	46
40	1 1/4	16	<b>721 910 709</b>	10	100	0.063	31	57	55
50	1 1/2	16	<b>721 910 710</b>	10	100	0.088	32	63	65
63	2	16	<b>721 910 711</b>	5	50	0.158	38	76	80
75	2 1/2	10	<b>721 910 712</b>	5	-	0.223	42	86	90
90	3	10	<b>721 910 713</b>	5	-	0.355	46	97	110
110	4	10	<b>721 910 714</b>	5	-	0.572	53	114	130

21 91 35

## Adaptor Nipples, PVC-U metric - R



### Model:

- With solvent cement spigot metric and taper male thread R
- Connection to plastic thread 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]	R [inch]	PN	Code	SP	GP	kg	z [mm]
16	3/8	10	<b>721 913 505</b>	10	100	0.006	31
20	1/2	10	<b>721 913 506</b>	10	100	0.010	35
25	3/4	10	<b>721 913 507</b>	10	100	0.015	40
32	1	10	<b>721 913 508</b>	10	100	0.029	46

20 91 07

## Adaptor Sockets, 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

\* Article to be discontinued



d [mm]	R [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
*16	3/8	16	<b>720 910 705</b>	-	-	0.128	24	40	32
20	1/2	16	<b>720 910 706</b>	-	-	0.159	27	45	36
25	3/4	16	<b>720 910 707</b>	-	-	0.193	28	49	40
32	1	16	<b>720 910 708</b>	-	-	0.305	33	57	48
40	1 1/4	16	<b>720 910 709</b>	-	-	0.306	36	64	58
50	1 1/2	16	<b>720 910 710</b>	-	-	0.680	38	72	70
63	2	16	<b>720 910 711</b>	-	-	0.960	43	84	85

20 91 02

## Adaptor Sockets, 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

\* Article to be discontinued



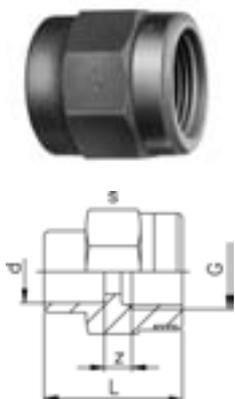
d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
*16	3/8	16	<b>720 910 205</b>	-	-	0.132	14	40	32
20	1/2	16	<b>720 910 206</b>	-	-	0.162	14	46	36
25	3/4	16	<b>720 910 207</b>	-	-	0.204	14	50	40
32	1	16	<b>720 910 208</b>	-	-	0.323	16	58	48
40	1 1/4	16	<b>720 910 209</b>	-	-	0.489	17	66	58
50	1 1/2	16	<b>720 910 210</b>	-	-	0.767	19	74	70
63	2	16	<b>720 910 211</b>	-	-	1.102	19	86	83

21 91 62

## Manometer Adaptor Sockets, PVC-U metric - G

**Model:**

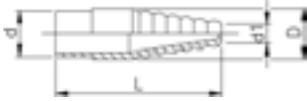
- With solvent cement socket metric and female thread G
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes



d [mm]	G [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
12	1/4	16	<b>721 916 204</b>	10	100	0.010	4	27	22
16	1/2	16	<b>721 916 206</b>	10	100	0.028	7	36	32

21 96 03

## Hose Connectors, PVC-U metric



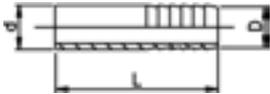
### Model:

- With solvent cement spigot metric and tapered hose connection

d [mm]	PN	Code	SP	GP	kg	d1 [mm]	D [mm]	L [mm]	
10	16	<b>721 960 303</b>	10	650	0.004	6	12	51	
12	16	<b>721 960 304</b>	10	650	0.004	6	12	51	
16	16	<b>721 960 305</b>	10	400	0.007	8	16	57	
20	16	<b>721 960 306</b>	10	230	0.016	11	22	73	

21 96 04

## Hose Connectors, PVC-U metric



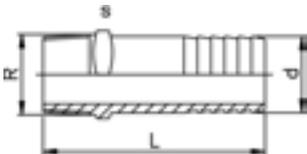
### Model:

- With solvent cement spigot metric and parallel hose connection

d [mm]	PN	Code	SP	GP	kg	D [mm]	L [mm]	
10	16	<b>721 960 403</b>	10	750	0.002	8	47	
12	16	<b>721 960 404</b>	10	600	0.004	12	51	
16	16	<b>721 960 405</b>	10	350	0.009	16	57	
20	16	<b>721 960 406</b>	10	100	0.015	20	73	
25	16	<b>721 960 407</b>	10	100	0.021	25	79	
32	16	<b>721 960 408</b>	10	100	0.036	30	89	
40	16	<b>721 960 409</b>	5	50	0.061	40	100	
50	16	<b>721 960 410</b>	5	50	0.111	50	105	
63	16	<b>721 960 411</b>	5	50	0.178	60	120	

21 96 07

## Hose Connectors, PVC-U R



### Model:

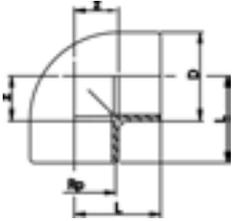
- With taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

R [inch]	PN	Code	SP	GP	kg	d [mm]	L [mm]	s [mm]	
¼	10	<b>721 960 704</b>	10	500	0.005	12	59	14	
⅜	10	<b>721 960 705</b>	10	280	0.011	16	67	19	
½	10	<b>721 960 706</b>	10	100	0.020	20	86	22	
¾	10	<b>721 960 707</b>	10	100	0.028	25	92	27	
1	10	<b>721 960 708</b>	5	50	0.048	30	103	36	
1 ¼	10	<b>721 960 709</b>	5	50	0.078	40	115	46	

# Threaded Fittings

21 10 16

## Elbows 90°, PVC-U Rp



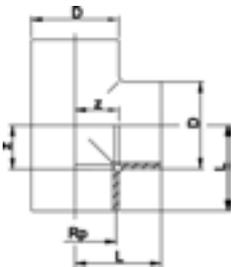
### Model:

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

Rp [inch]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
3/8	10	<b>721 101 605</b>	10	100	0.013	9	23	23
1/2	10	<b>721 101 606</b>	10	100	0.018	12	27	27
3/4	10	<b>721 101 607</b>	10	100	0.028	15	33	33
1	10	<b>721 101 608</b>	10	100	0.042	19	39	39
1 1/4	10	<b>721 101 609</b>	10	50	0.069	27	48	49
1 1/2	10	<b>721 101 610</b>	5	50	0.176	35	61	59
2	10	<b>721 101 611</b>	5	-	0.319	44	75	72
*2 1/2	10	<b>721 101 612</b>	24	-	0.450	56	90	84
*3	10	<b>721 101 613</b>	5	-	0.858	68	108	99
*4	10	<b>721 101 614</b>	1	-	1.233	82	132	119

21 20 16

## Tees 90° equal, PVC-U Rp

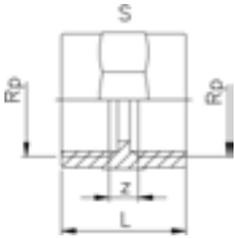


### Model:

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

Rp [inch]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]
3/8	10	<b>721 201 605</b>	10	100	0.017	9	23	23
1/2	10	<b>721 201 606</b>	10	100	0.027	12	28	27
3/4	10	<b>721 201 607</b>	10	50	0.041	15	33	33
1	10	<b>721 201 608</b>	10	50	0.070	19	41	39
1 1/4	10	<b>721 201 609</b>	10	10	0.117	27	50	49
1 1/2	10	<b>721 201 610</b>	10	-	0.290	36	62	60
2	10	<b>721 201 611</b>	10	-	0.497	44	77	72
*2 1/2	10	<b>721 201 612</b>	8	-	0.642	56	92	84
*3	10	<b>721 201 613</b>	-	-	1.149	68	110	99
*4	10	<b>721 201 614</b>	-	1	1.662	82	133	119

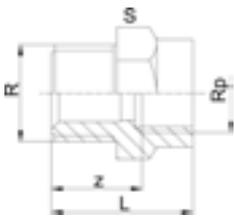
21 91 06

**Sockets, PVC-U****Rp****Model:**

- With parallel female thread Rp
- Connection to plastic thread 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	GP	kg	z [mm]	L [mm]	s [mm]
¼	10	<b>721 910 604</b>	10	300	0.010	7	27	22
⅜	10	<b>721 910 605</b>	10	280	0.015	7	29	27
½	10	<b>721 910 606</b>	10	150	0.025	9	35	32
¾	10	<b>721 910 607</b>	10	100	0.030	9	39	36
1	10	<b>721 910 608</b>	10	80	0.055	11	45	46
1 ¼	10	<b>721 910 609</b>	10	100	0.076	11	49	55
1 ½	10	<b>721 910 610</b>	10	60	0.106	11	49	65
2	10	<b>721 910 611</b>	5	75	0.181	11	57	80

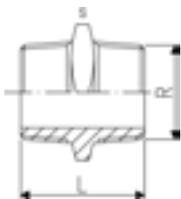
21 91 08

**Reducing Bushes, PVC-U****R - Rp****Model:**

- With taper male thread R and parallel female thread Rp
- Connection to plastic thread only
- 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]	Rp [inch]	PN	Code	SP	GP	kg	z [mm]	L [mm]	s [mm]
½	⅜	10	<b>721 910 834</b>	10	100	0.015	25	36	27
¾	½	10	<b>721 910 837</b>	10	100	0.021	25	39	32
1	½	10	<b>721 910 842</b>	10	100	0.028	31	45	32
1	¾	10	<b>721 910 841</b>	10	100	0.030	29	45	36
1 ¼	1	10	<b>721 910 846</b>	10	100	0.051	32	50	46
1 ½	1 ¼	10	<b>721 910 852</b>	10	50	0.071	35	55	55
2	1 ½	10	<b>721 910 858</b>	5	50	0.126	45	65	65

21 91 19

**Hexagon Nipples, PVC-U****R****Model:**

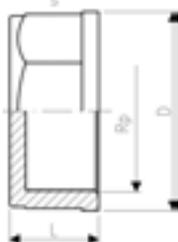
- With taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

R [inch]	PN	Code	SP	GP	kg	L [mm]	s [mm]
⅜	10	<b>721 911 905</b>	10	100	0.007	37	19
½	10	<b>721 911 906</b>	10	100	0.012	45	22
¾	10	<b>721 911 907</b>	10	100	0.019	49	27
1	10	<b>721 911 908</b>	10	50	0.035	57	36
1 ¼	10	<b>721 911 909</b>	10	50	0.053	62	46
1 ½	10	<b>721 911 910</b>	10	50	0.071	67	50
2	10	<b>721 911 911</b>	5	50	0.124	76	65

21 96 06

**Caps, PVC-U****Rp****Model:**

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

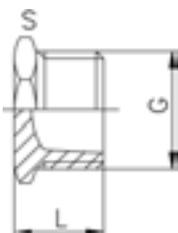


Rp [inch]	PN	Code	SP	GP	kg	D [mm]	L [mm]	s [mm]
1/8	10	<b>721 960 603</b>	10	-	0.013	20	14	17
1/4	10	<b>721 960 604</b>	10	-	0.024	25	16	22
3/8	10	<b>721 960 605</b>	10	100	0.012	31	19	27
1/2	10	<b>721 960 606</b>	10	100	0.018	37	21	32
3/4	10	<b>721 960 607</b>	10	100	0.024	42	24	36
1	10	<b>721 960 608</b>	10	100	0.040	50	26	46
1 1/4	10	<b>721 960 609</b>	10	100	0.060	60	29	55
1 1/2	10	<b>721 960 610</b>	10	100	0.073	65	31	60
2	10	<b>721 960 611</b>	5	50	0.128	81	36	75

21 96 09

**Plugs, PVC-U****G****Model:**

- With parallel male thread G
- Connection to plastic thread 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

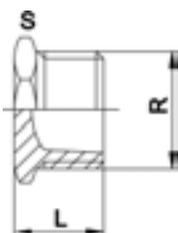


G [inch]	PN	Code	SP	GP	kg	L [mm]	s [mm]
3/8	10	<b>721 960 905</b>	10	450	0.006	21	22
1/2	10	<b>721 960 906</b>	10	320	0.010	25	27
3/4	10	<b>721 960 907</b>	10	100	0.019	29	36
1	10	<b>721 960 908</b>	10	100	0.030	32	41
1 1/4	10	<b>721 960 909</b>	10	100	0.048	36	50
1 1/2	10	<b>721 960 910</b>	10	100	0.069	37	60
2	10	<b>721 960 911</b>	5	50	0.120	42	75

21 96 19

**Plugs, PVC-U****R****Model:**

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

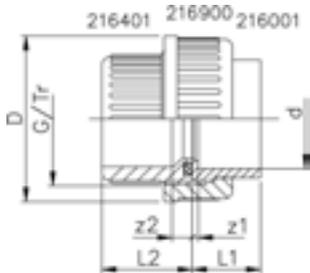


R [inch]	PN	Code	SP	GP	kg	L [mm]	s [mm]
3/8	10	<b>721 961 905</b>	10	450	0.006	21	22
1/2	10	<b>721 961 906</b>	10	320	0.010	25	27
3/4	10	<b>721 961 907</b>	10	100	0.019	29	36
1	10	<b>721 961 908</b>	10	100	0.030	32	41
1 1/4	10	<b>721 961 909</b>	10	100	0.048	36	50
1 1/2	10	<b>721 961 910</b>	10	100	0.070	37	60
2	10	<b>721 961 911</b>	5	50	0.117	42	75

# Unions

21 51 01

## Unions 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, FPM No. 49 41 00

d [mm]	PN	EPDM Code	FPM Code	SP	GP	kg	
10	16	721 510 103	721 510 128	10	100	0.020	
12	16	721 510 104	721 510 129	10	100	0.019	
16	16	721 510 105	721 510 130	10	100	0.025	
20	16	721 510 106	721 510 131	10	80	0.040	
25	16	721 510 107	721 510 132	10	100	0.066	
32	16	721 510 108	721 510 133	10	60	0.090	
40	16	721 510 109	721 510 134	10	30	0.153	
50	16	721 510 110	721 510 135	2	60	0.204	
63	16	721 510 111	721 510 136	10	-	0.367	
75	10	721 510 112	721 510 137	2	-	0.615	
90	10	721 510 113	721 510 138	2	-	0.925	
110	10	721 510 114	721 510 139	1	-	1.425	

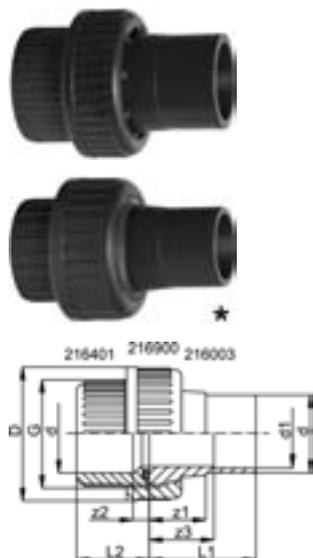
d [mm]	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr	
10	3	10	31	15	22	5/8	
12	3	10	31	15	22	5/8	
16	3	10	35	17	24	3/4	
20	3	10	43	19	26	1	
25	3	10	51	22	29	1 1/4	
32	3	10	58	25	32	1 1/2	
40	3	12	72	29	38	2	
50	3	14	83	34	45	2 1/4	
63	3	18	100	41	56	2 3/4	
75	3	18	135	47	62	Tr108x5	
90	5	18	158	56	69	Tr128x5	
110	5	11	188	66	72	Tr154x6	

21 51 03

## PRO-FIT Unions for solvent cement jointing, 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, FPM No. 49 41 00



d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	GP	kg
*16	12	16	<b>721 510 305</b>	<b>721 510 330</b>	10	-	0.029
*20	16	16	<b>721 510 306</b>	<b>721 510 331</b>	10	-	0.044
*25	20	16	<b>721 510 307</b>	<b>721 510 332</b>	10	-	0.073
*32	25	16	<b>721 510 308</b>	<b>721 510 333</b>	10	-	0.105
40	32	16	<b>721 510 309</b>	<b>721 510 334</b>	10	-	0.171
50	40	16	<b>721 510 310</b>	<b>721 510 335</b>	10	-	0.250
63	50	16	<b>721 510 311</b>	<b>721 510 336</b>	10	-	0.449

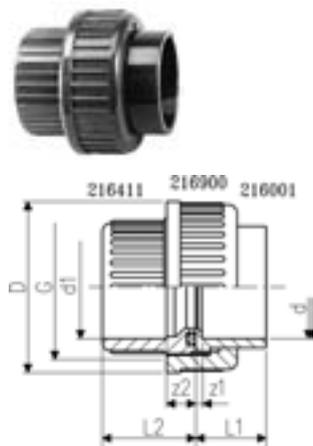
d [mm]	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
*16	22	10	24	35	36	24	¾
*20	24	10	26	43	40	26	1
*25	25	10	28	51	44	29	1 ¼
*32	27	10	30	58	49	32	1 ½
40	31	12	35	74	57	38	2
50	35	14	40	83	66	45	2 ¼
63	39	18	46	100	77	56	2 ¾

21 51 31

## Unions for solvent cement jointing, PVC-U metric - BS

**Model:**

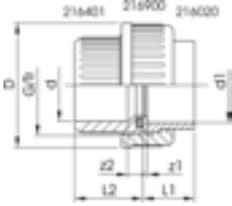
- Union End: Solvent cement socket metric
- Union Bush: Solvent cement socket BS
- Gasket: O-ring EPDM No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00



d [mm]	d1 [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	¾	16	<b>721 513 105</b>	100	-	0.025	3	8	35	17	24	¾
20	½	16	<b>721 513 106</b>	10	100	0.040	3	9	43	19	26	1
25	¾	16	<b>721 513 107</b>	50	-	0.065	3	9	51	22	29	1 ¼
32	1	16	<b>721 513 108</b>	35	-	0.090	3	9	58	25	32	1 ½
40	1 ¼	16	<b>721 513 109</b>	20	-	0.155	3	10	72	29	38	2
50	1 ½	16	<b>721 513 110</b>	15	-	0.200	3	10	83	34	40	2 ¼
63	2	16	<b>721 513 111</b>	10	-	0.355	3	10	100	41	46	2 ¾

21 51 41

## Unions for solvent cement jointing, PVC-U metric - ASTM



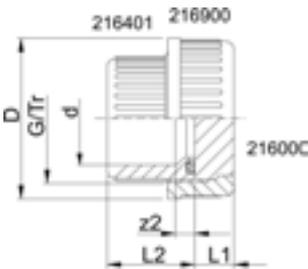
**Model:**

- Union End: Solvent cement socket ASTM
- Union Bush: Solvent socket metric
- Gasket: O-ring EPDM No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00

d [mm]	d1 [inch]	PN	Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	16	<b>721 514 105</b>	0.022	3	10	35	22	24	3/4
20	1/2	16	<b>721 514 106</b>	0.047	3	10	43	25	26	1
25	3/4	16	<b>721 514 107</b>	0.065	3	10	51	28	29	1 1/4
32	1	16	<b>721 514 108</b>	0.103	3	10	58	32	32	1 1/2
40	1 1/4	16	<b>721 514 109</b>	0.174	3	12	72	35	38	2
50	1 1/2	16	<b>721 514 110</b>	0.239	3	14	83	38	45	2 1/4
63	2	16	<b>721 514 111</b>	0.435	3	18	100	41	56	2 3/4

21 51 00

## Unions with Union Ends Blank, PVC-U metric



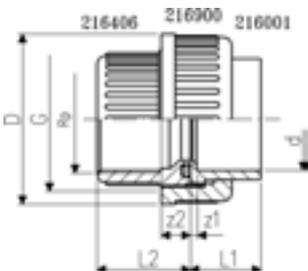
**Model:**

- Union Bush: Solvent socket metric
- Jointing face: with O-ring groove

d [mm]	PN	EPDM Code	FPM Code	SP	GP	kg	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
10	16	<b>721 510 003</b>	<b>721 510 028</b>	10	100	0.020	9	31	10	22	5/8
12	16	<b>721 510 004</b>	<b>721 510 029</b>	10	100	0.020	9	31	15	22	5/8
16	16	<b>721 510 005</b>	<b>721 510 030</b>	10	100	0.026	10	35	10	24	3/4
20	16	<b>721 510 006</b>	<b>721 510 031</b>	10	80	0.041	10	43	11	26	1
25	16	<b>721 510 007</b>	<b>721 510 032</b>	10	100	0.068	10	51	11	29	1 1/4
32	16	<b>721 510 008</b>	<b>721 510 033</b>	10	60	0.095	10	58	12	32	1 1/2
40	16	<b>721 510 009</b>	<b>721 510 034</b>	10	30	0.159	12	72	13	38	2
50	16	<b>721 510 010</b>	<b>721 510 035</b>	5	50	0.227	14	83	16	45	2 1/4
63	16	<b>721 510 011</b>	<b>721 510 036</b>	10	-	0.405	18	100	18	56	2 3/4
75	10	<b>721 510 012</b>	<b>721 510 037</b>	2	-	0.693	18	135	22	62	Tr108x5
90	10	<b>721 510 013</b>	<b>721 510 038</b>	2	-	1.022	18	158	24	69	Tr128x5
110	10	<b>721 510 014</b>	<b>721 510 039</b>	1	-	1.573	11	188	26	72	Tr154x6

21 51 02

## Adaptor Unions, PVC-U metric - Rp



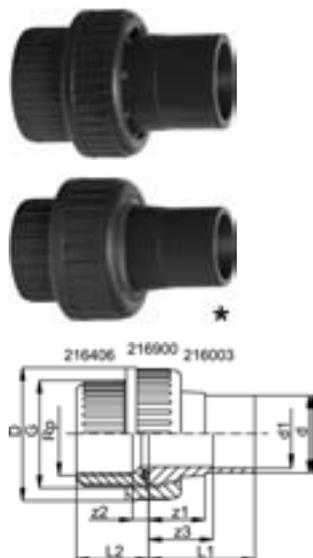
**Model:**

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

d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
12	1/4	10	<b>721 510 204</b>	10	220	0.021	3	12	31	15	22	5/8
16	3/8	10	<b>721 510 205</b>	10	140	0.028	3	13	35	17	24	3/4
20	1/2	10	<b>721 510 206</b>	10	80	0.042	3	13	43	19	26	1
25	3/4	10	<b>721 510 207</b>	10	100	0.072	3	14	51	22	29	1 1/4
32	1	10	<b>721 510 208</b>	10	60	0.101	3	15	58	25	32	1 1/2
40	1 1/4	10	<b>721 510 209</b>	10	30	0.174	3	19	72	29	38	2
50	1 1/2	10	<b>721 510 210</b>	2	60	0.255	3	26	83	34	45	2 1/4
63	2	10	<b>721 510 211</b>	2	32	0.414	3	33	100	41	56	2 3/4

21 51 04

## PRO-FIT Adaptor Unions, 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, FPM No. 49 41 00
- Can be supplied with FPM O-Ring No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	d1 [mm]	Rp [inch]	PN	EPDM Code	SP	GP	kg
*16	12	3/8	10	<b>721 510 405</b>	10	-	0.032
*20	16	1/2	10	<b>721 510 406</b>	10	-	0.046
*25	20	3/4	10	<b>721 510 407</b>	10	-	0.079
*32	25	1	10	<b>721 510 408</b>	10	-	0.116
40	32	1 1/4	10	<b>721 510 409</b>	10	-	0.192
50	40	1 1/2	10	<b>721 510 410</b>	10	-	0.301
63	50	2	10	<b>721 510 411</b>	2	32	0.496

d [mm]	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
*16	22	13	24	35	36	24	3/4
*20	24	13	26	43	40	26	1
*25	25	14	28	51	44	29	1 1/4
*32	27	15	30	58	49	32	1 1/2
40	31	19	35	74	57	38	2
50	35	26	40	83	66	45	2 1/4
63	39	33	46	100	77	56	2 3/4

21 51 42

## Adaptor Unions, PVC-U metric - NPT



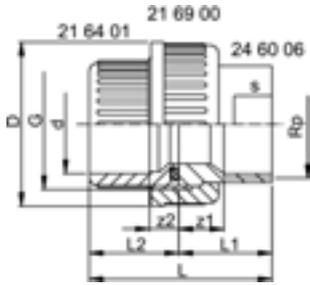
### Model:

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

d [mm]	NPT [inch]	PN	Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	10	<b>721 514 205</b>	0.026	4	10	35	17	24	3/4
20	1/2	10	<b>721 514 206</b>	0.042	2	10	43	19	26	1
25	3/4	10	<b>721 514 207</b>	0.068	4	10	51	22	29	1 1/4
32	1	10	<b>721 514 208</b>	0.093	4	10	58	25	32	1 1/2
40	1 1/4	10	<b>721 514 209</b>	0.163	6	12	72	29	38	2
50	1 1/2	10	<b>721 514 210</b>	0.221	11	14	83	34	40	2 1/4
63	2	10	<b>721 514 211</b>	0.395	17	18	100	41	46	2 3/4

21 54 02

## Adaptor Unions, PVC-U / Stainless Steel metric - Rp



### Model:

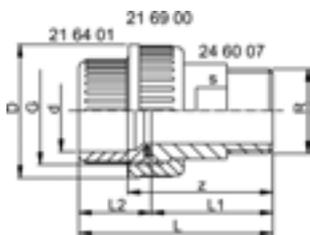
- Union End: Stainless steel 1.4404 (316L), parallel female thread Rp
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

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	-	0.154
32	1	16	721 540 208	721 540 233	-	0.212
40	1 1/4	16	721 540 209	721 540 234	-	0.356
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	32	1 1/2	36
40	14	12	72	71	33	38	2	45
50	15	14	83	79	34	45	2 1/4	54
63	15	18	100	95	39	56	2 3/4	63

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## Adaptor Unions, PVC-U / Stainless Steel metric - R



### Model:

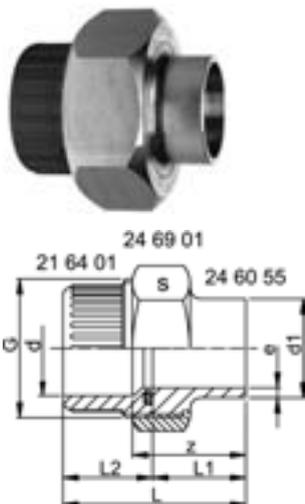
- Union End: Stainless steel 1.4404 (316L), taper male thread R
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

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	-	0.174
32	1	16	721 540 708	721 540 733	-	0.262
40	1 1/4	16	721 540 709	721 540 734	-	0.476
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	32	1 1/2	37
40	58	72	84	46	38	2	48
50	62	83	93	48	45	2 1/4	54
63	73	100	111	55	56	2 3/4	69

21 54 55

## Adaptor Unions, PVC-U / Stainless Steel metric - Welding End



### Model:

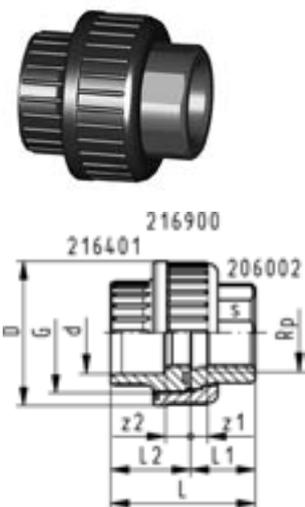
- Union End: Stainless steel 1.4404 (316L) with welding end
- Union Bush: Solvent cement socket PVC-U metric
- Union Nut: stainless steel WN 1.4404 (316L)
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	GP	kg
16	17	16	721 545 505	721 545 530	-	-	0.101
20	21	16	721 545 506	721 545 531	-	-	0.176
25	27	16	721 545 507	721 545 532	-	-	0.204
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	-	-	0.566
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	32	2.0	1 1/2	55
40	38	64	26	38	2.0	2	68
50	42	73	28	45	2.0	2 1/4	74
63	50	88	32	56	2.6	2 3/4	88

21 55 04

## Adaptor Unions PVC-U / Brass, metric - Rp



### Model:

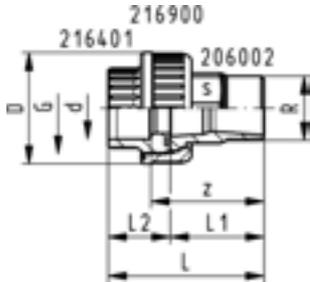
- Union nut: PVC-U
- Union Bush: Solvent cement socket PVC-U metric
- Union End: brass with parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00

d [mm]	Rp [inch]	PN	Code	SP	GP	kg
20	1/2	16	721 550 406	10	100	0.086
25	3/4	16	721 550 407	5	60	0.123
32	1	16	721 550 408	-	-	0.184
40	1 1/4	16	721 550 409	2	22	0.336
50	1 1/2	16	721 550 410	2	18	0.414
63	2	16	721 550 411	2	12	0.702
75	2 1/2	16	721 550 412	-	-	1.147
90	3	16	721 550 413	2	-	1.703

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
20	43	48	22	26	10	10	1	25
25	51	51	22	29	6	10	1 1/4	31
32	58	59	27	32	8	10	1 1/2	38
40	72	69	31	38	10	12	2	48
50	83	75	30	45	9	14	2 1/4	54
63	100	90	34	56	8	18	2 3/4	67
75	127	100	38	62	8	18	Tr 108x5	83
90	150	109	40	69	7	19	Tr 128x5	96

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## Adaptor Unions, PVC-U / Brass metric - R



**Model:**

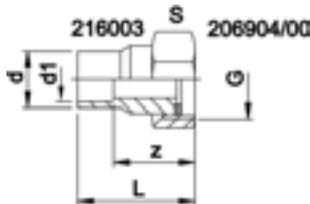
- Union nut: PVC-U
- Union Bush: Solvent cement socket PVC-U metric
- Union End: brass with taper male thread R
- Gasket: O-Ring EPDM No. 48 41 00

d	R	PN	Code	SP	GP	kg
[mm]	[inch]					
20	1/2	16	<b>721 550 806</b>	10	60	0.125
25	3/4	16	<b>721 550 807</b>	5	40	0.178
32	1	16	<b>721 550 808</b>	-	-	0.270
40	1 1/4	16	<b>721 550 809</b>	2	20	0.468
50	1 1/2	16	<b>721 550 810</b>	2	14	0.597
63	2	16	<b>721 550 811</b>	5	-	0.972
75	2 1/2	16	<b>721 550 812</b>	-	-	1.359
90	3	16	<b>721 550 813</b>	2	-	2.266

d	D	L	L1	L2	z	G	s
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[inch]	[mm]
20	43	63	37	26	47	1	25
25	51	69	40	29	50	1 1/4	31
32	58	75	43	32	53	1 1/2	38
40	72	86	48	38	60	2	48
50	83	95	50	45	64	2 1/4	54
63	100	113	57	56	75	2 3/4	67
75	127	132	70	62	88	Tr 108x5	83
90	150	141	72	69	91	Tr 128x5	96

21 55 03

## Tap Connectors, PVC-U / Brass metric - G

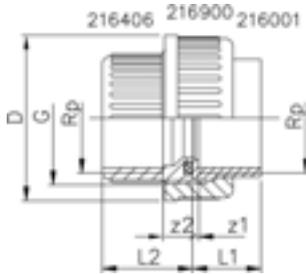


**Model:**

- 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	d1	G	PN	Code	SP	GP	kg	z	L	s
[mm]	[mm]	[inch]						[mm]	[mm]	[mm]
16	12	1/2	16	<b>721 550 305</b>	10	280	0.031	22	34	24
20	16	3/4	16	<b>721 550 306</b>	10	160	0.049	24	38	30
25	20	1	16	<b>721 550 307</b>	10	80	0.079	27	43	38

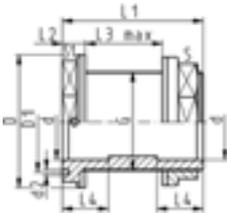
## Thread Unions, PVC-U Rp-Rp



### 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
- Can be supplied with FPM O-Ring No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

Rp [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
¼	10	<b>721 510 604</b>	10	220	0.019	3	12	31	22	15	¼
⅜	10	<b>721 510 605</b>	10	140	0.027	3	13	35	24	17	⅜
½	10	<b>721 510 606</b>	10	80	0.042	3	13	43	26	19	1
¾	10	<b>721 510 607</b>	10	110	0.065	3	14	51	29	22	1 ¼
1	10	<b>721 510 608</b>	10	60	0.093	3	15	58	32	25	1 ½
1 ¼	10	<b>721 510 609</b>	10	30	0.160	3	19	72	38	29	2
1 ½	10	<b>721 510 610</b>	2	60	0.243	3	26	83	45	34	2 ¼
2	10	<b>721 510 611</b>	2	32	0.446	3	33	100	56	41	2 ¾



## Tank Adaptors Type 050 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

d [mm]	PN	EPDM Code	SP	GP	kg
16	16	<b>161 050 445</b>	-	-	0.041
20	16	<b>161 050 446</b>	-	-	0.066
25	16	<b>161 050 447</b>	-	-	0.109
32	16	<b>161 050 448</b>	-	-	0.153
40	16	<b>161 050 449</b>	-	-	0.225
50	16	<b>161 050 450</b>	-	-	0.260
63	16	<b>161 050 451</b>	-	-	0.390

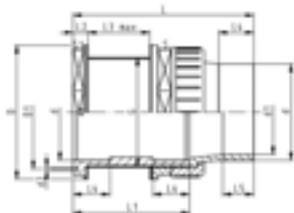
d [mm]	d2 [mm]	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	58	11	28	14	¾	32	40	28
20	5	54	35	61	12	28	16	1	40	50	35
25	5	60	42	65	13	28	19	1 ¼	50	55	43
32	5	69	49	67	13	28	22	1 ½	56	65	49
40	5	84	59	72	13	29	26	2	69	80	61
50	5	92	70	76	15	30	31	2 ¼	76	85	67
63	5	108	82	84	15	35	38	2 ¾	95	100	83



## Tank Adaptors Type 050, PVC-U Union End with Spigot reducing socket, metric

### Model:

- End connection: union with union end spigot/reducing socket, metric
- Gasket: flat gasket EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head



d [mm]	d1 [mm]	PN	EPDM Code	SP	GP	kg
16	12	16	161 050 345	-	-	0.064
20	16	16	161 050 346	-	-	0.102
25	20	16	161 050 347	-	-	0.157
32	25	16	161 050 348	-	-	0.220
40	32	16	161 050 349	-	-	0.333
50	40	16	161 050 350	-	-	0.438
63	50	16	161 050 351	-	-	0.680

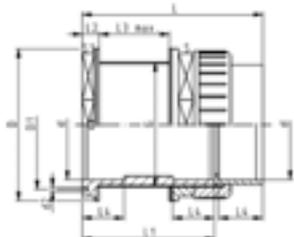
d [mm]	d2 [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	L5 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	96	58	11	19	14	12	¾	32	40	28
20	5	54	35	104	61	12	17	16	14	1	40	50	35
25	5	60	42	112	65	13	18	19	16	1 ¼	50	55	43
32	5	69	49	119	67	13	19	22	19	1 ½	56	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 ¼	76	85	67
63	5	108	82	163	84	15	19	38	31	2 ¾	95	100	83



## Tank Adaptor Type 050, PVC-U Union End with socket, metric

### Model:

- End connection: union with solvent cement socket, metric
- Gasket: flat gasket EPDM
- Washer: PP
- Run-out holes: Two holes in octagonal head



d [mm]	PN	Code	SP	GP	kg
16	16	161 050 245	-	-	0.040
20	16	161 050 246	-	-	0.070
25	16	161 050 247	-	-	0.100
32	16	161 050 248	-	-	0.196
40	16	161 050 249	-	-	0.240
50	16	161 050 250	-	-	0.350
63	16	161 050 251	-	-	0.530

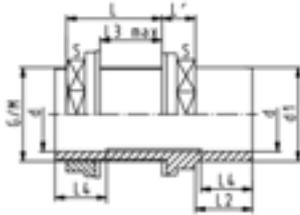
d [mm]	d2 [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	S [mm]	S1 [mm]	Diameter of bore in tank side [mm]
16	5	44	29	77	58	11	19	14	¾	32	40	28
20	5	54	35	83	61	12	17	16	1	40	50	35
25	5	60	42	90	65	13	18	19	1 ¼	50	55	43
32	5	69	49	95	67	13	19	22	1 ½	56	65	49
40	5	84	59	104	72	13	16	26	2	69	80	61
50	5	92	70	113	76	15	16	31	2 ¼	76	85	67
63	5	108	82	128	84	15	19	38	2 ¾	95	100	83



## Tank Adaptor Type 050, PVC-U metric

### Model:

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



d [mm]	d1 [mm]	Code	SP	GP	kg
20	25	<b>161 050 206</b>	-	-	0.040
25	32	<b>161 050 207</b>	-	-	0.070
32	40	<b>161 050 208</b>	-	-	0.100
40	50	<b>161 050 209</b>	-	-	0.190
50	63	<b>161 050 210</b>	-	-	0.240
63	75	<b>161 050 211</b>	-	-	0.350
75	90	<b>161 050 212</b>	-	-	0.530
90	110	<b>161 050 213</b>	-	-	1.050
110	125	<b>161 050 214</b>	-	-	1.350

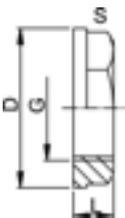
d [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 max [mm]	L4 [mm]	G [inch]	M	s [mm]	Diameter of bore in tank side [mm]
20	42	13	19	23	16	¾		32	28
25	45	15	22	23	19	1		40	35
32	27	17	26	24	22	1 ¼		50	43
40	48	19	31	21	26	1 ¾		60	55
50	52	21	38	21	31	2		69	61
63	53	23	44	23	38	2 ½		85	77
75	56	26	51	20	44	3		100	89
90	62	32	61	20	51		M113	125	115
110	66	36	69	22	61		M133	147	135

61 49 06

## Backing Nut, PVC-U

### Model:

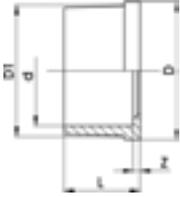
- With G thread ISO 228/1
- For Tank Adaptor Type 050



G [inch]	Code	SP	GP	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	-	0.020	58	17	50
1 ½	<b>161 490 635</b>	100	-	0.025	65	18	56
1 ¾	<b>161 490 636</b>	75	-	0.036	72	19	64
2	<b>161 490 637</b>	50	-	0.044	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>	-	-	0.080	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 Ends, PVC-U metric



### Model:

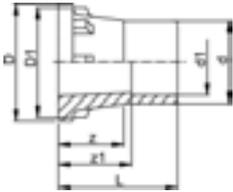
- Solvent cement socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 314

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

d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
10	16	721 600 103	-	-	0.004	3	20	18	15
12	16	721 600 104	-	-	0.004	3	20	18	15
16	16	721 600 105	-	-	0.006	3	24	22	17
20	16	721 600 106	-	-	0.009	3	30	28	19
25	16	721 600 107	-	-	0.015	3	39	36	22
32	16	721 600 108	-	-	0.020	3	45	42	25
40	16	721 600 109	-	-	0.038	3	57	53	29
50	16	721 600 110	-	-	0.039	3	63	59	34
63	16	721 600 111	-	-	0.072	3	78	74	41
75	10	721 600 162	-	-	0.140	3	101	90	47
90	10	721 600 163	-	-	0.242	5	121	108	56
110	10	721 600 164	-	-	0.390	5	146	131	66
*75	10	721 600 112	110	-	0.155	3	97	90	47
*90	10	721 600 113	-	-	0.184	5	110	105	56

21 60 04

## Union Ends with Spigot, PVC-U metric



### Model:

- Cemented spigot in combination with reducing socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 314

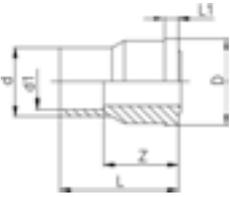
d [mm]	d1 [mm]	PN	Code	SP	GP	kg	z [mm]	z1 [mm]	D [mm]	D1 [mm]	L [mm]
*16	12	16	721 600 405	1800	-	0.010	22	24	24	22	36
*20	16	16	721 600 406	2100	-	0.013	24	26	30	28	40
*25	20	16	721 600 407	1200	-	0.022	25	28	39	36	44
*32	25	16	721 600 408	740	-	0.035	27	30	45	42	49
40	32	16	721 600 409	260	-	0.057	31	35	57	53	57
50	40	16	721 600 410	190	-	0.086	35	40	63	59	66
63	50	16	721 600 411	110	-	0.153	39	46	79	74	77

21 60 03

## Union Ends, PVC-U metric

**Model:**

- For tap connector No. 21 55 03



d [mm]	d1 [mm]	PN	Code	SP	GP	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 Ends, PVC-U ASTM

**Model:**

- Solvent cement socket ASTM



PN	Code	SP	GP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
16	<b>721 602 005</b>	-	-	0.006	3	24	22	22
16	<b>721 602 006</b>	-	-	0.009	3	30	28	25
16	<b>721 602 007</b>	-	-	0.016	3	39	36	28
16	<b>721 602 008</b>	-	-	0.022	3	45	42	32
16	<b>721 602 009</b>	-	-	0.037	3	57	53	35
16	<b>721 602 010</b>	-	-	0.052	3	63	59	38
16	<b>721 602 011</b>	-	-	0.088	3	78	74	41
10	<b>721 602 012</b>	-	-	0.140	3	101	90	47
10	<b>721 602 013</b>	-	-	0.255	5	121	108	56
10	<b>721 602 014</b>	-	-	0.390	5	146	131	66

21 60 26

## Union Ends, PVC-U NPT (ASTM)

**Model:**

- Taper female thread NPT (ASTM)



NPT [inch]	PN	Code	SP	GP	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>	-	-	0.008	2	30	28	19
3/4	10	<b>721 602 657</b>	-	-	0.016	4	39	36	22
1	10	<b>721 602 658</b>	-	-	0.022	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>	-	-	0.058	11	63	59	34
2	10	<b>721 602 661</b>	-	-	0.128	17	78	74	41

21 60 11

## Union Ends, PVC-U BS Inch

Model:

- Solvent cement socket BS



PN	Code	SP	GP	kg	z	D	D1	L	
					[mm]	[mm]	[mm]	[mm]	
15	<b>721 601 105</b>	-	-	0.005	3	24	22	19	
15	<b>721 601 106</b>	-	-	0.008	3	30	27	21	
15	<b>721 601 107</b>	-	-	0.014	3	38	36	24	
15	<b>721 601 108</b>	-	-	0.019	3	44	41	27	
15	<b>721 601 109</b>	1	-	0.033	3	56	53	32	
15	<b>721 601 110</b>	-	-	0.043	3	62	59	33	
15	<b>721 601 111</b>	-	-	0.082	3	78	74	40	

21 60 06

## Union Ends, PVC-U Rp

Model:

- Parallel female thread Rp



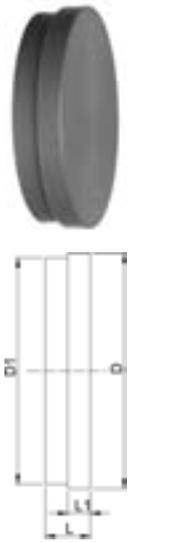
Rp	PN	Code	SP	GP	kg	z	D	D1	L	
[inch]						[mm]	[mm]	[mm]	[mm]	
¼	10	<b>721 600 654</b>	-	-	0.004	5	20	18	15	
⅜	10	<b>721 600 655</b>	-	-	0.005	6	24	22	17	
½	10	<b>721 600 656</b>	1430	-	0.010	6	30	28	19	
¾	10	<b>721 600 657</b>	-	-	0.013	7	39	36	22	
1	10	<b>721 600 658</b>	-	-	0.021	8	45	42	25	
1 ¼	10	<b>721 600 659</b>	-	-	0.038	10	57	53	29	
1 ½	10	<b>721 600 660</b>	-	-	0.045	11	63	59	34	
2	10	<b>721 600 661</b>	-	-	0.110	18	78	74	41	

21 60 00

## Union Ends Blank, PVC-U

Model:

- For Unions, Tank Adaptor, Ball Valve Type 370 and Diaphragm Valve Type 314
- Jointing face flat

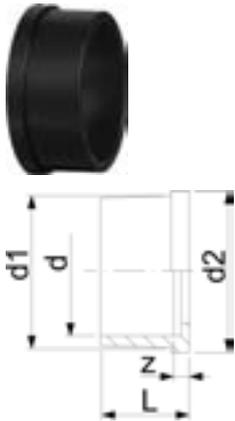


d	DN	Inch	PN	Code	SP	GP	kg	D	D1	L	L1	
[mm]	[mm]							[mm]	[mm]	[mm]	[mm]	
10	6	1/8	16	<b>721 600 004</b>	-	-	0.004	20	18	9	4	
16	10	3/8	16	<b>721 600 005</b>	-	-	0.006	24	22	10	5	
20	15	1/2	16	<b>721 600 006</b>	-	-	0.010	30	28	11	5	
25	20	3/4	16	<b>721 600 007</b>	-	-	0.017	39	36	11	6	
32	25	1	16	<b>721 600 008</b>	-	-	0.025	45	42	12	6	
40	32	1 1/4	16	<b>721 600 009</b>	-	-	0.043	57	53	13	7	
50	40	1 1/2	16	<b>721 600 010</b>	-	-	0.062	63	59	16	7	
63	50	2	16	<b>721 600 011</b>	-	-	0.110	78	74	18	8	
75	65	2 1/2	10	<b>721 600 012</b>	-	-	0.218	101	90	22	10	
90	80	3	10	<b>721 600 013</b>	-	-	0.339	121	108	24	11	
110	100	4	10	<b>721 600 014</b>	-	-	0.538	146	131	26	12	

34 60 01

**Union Ends, PE80****Model:**

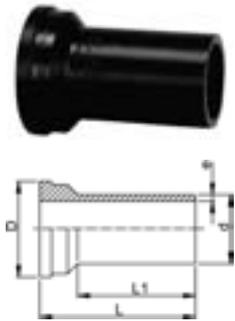
- With fusion socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 314



d [mm]	PN	Code	SP	GP	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>	-	-	0.012	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>	-	-	0.027	59	63	28	7	5
63	10	<b>734 600 111</b>	-	-	0.045	74	79	32	8	5

**Union Ends long, PE100****Model:**

- For butt-, IR Plus® and electro fusion
- Suitable for unions, tank connectors and diaphragm valves Type 314

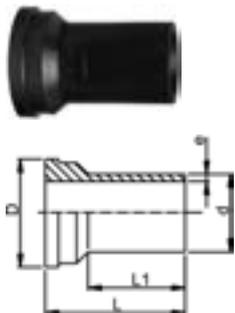


d [mm]	PN	FM	Code	SP	GP	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	<b>753 608 616</b>	-	-	0.011	30	67	52	1,9
25	16	IR	<b>753 608 617</b>	-	-	0.018	39	71	53	2,3
32	16	IR	<b>753 608 618</b>	-	-	0.027	45	73	55	2,9
40	16	IR	<b>753 608 619</b>	-	-	0.045	57	81	60	3,7
50	16	IR	<b>753 608 620</b>	-	-	0.062	63	87	66	4,6
63	16	IR	<b>753 608 621</b>	-	-	0.100	78	93	70	5,8

53 60 86

**Union Ends, PE100 SDR11****Model:**

- Suitable for unions, tank connectors and diaphragm valves Type 314
- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- **For the dimensions d75-110 please see instructions for the installation**

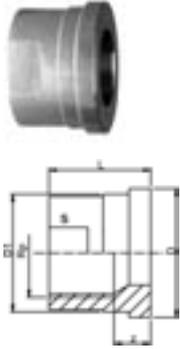


d [mm]	PN	FM	Code	SP	GP	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	<b>753 608 606</b>	-	-	0.011	30	54	38	1,9
25	16	IR	<b>753 608 607</b>	-	-	0.018	39	57	42	2,3
32	16	IR	<b>753 608 608</b>	-	-	0.027	45	60	41	2,9
40	16	IR	<b>753 608 609</b>	-	-	0.045	57	63	42	3,7
50	16	IR	<b>753 608 610</b>	-	-	0.062	63	66	44	4,6
63	16	IR	<b>753 608 611</b>	-	-	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 Ends, Stainless Steel 1.4404 (316L)****Rp****Model:**

- Parallel female thread Rp



Rp [inch]	PN	Code	SP	GP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	s [mm]
3/8	16	<b>724 600 655</b>	-	-	0.030	9	24	22	19	19
1/2	16	<b>724 600 656</b>	-	-	0.060	11	30	28	24	24
3/4	16	<b>724 600 657</b>	-	-	0.100	11	39	36	26	29
1	16	<b>724 600 658</b>	-	-	0.140	12	45	42	29	36
1 1/4	16	<b>724 600 659</b>	-	-	0.230	14	57	53	33	45
1 1/2	16	<b>724 600 660</b>	-	-	0.320	15	63	59	34	54
2	16	<b>724 600 661</b>	-	-	0.450	15	78	74	39	63

24 60 07

**Union Ends, Stainless Steel 1.4404 (316L)****R****Model:**

- Taper male thread R



R [inch]	PN	Code	SP	GP	kg	D [mm]	D1 [mm]	L [mm]	s [mm]
3/8	16	<b>724 600 705</b>	-	-	0.050	24	22	30	19
1/2	16	<b>724 600 706</b>	-	-	0.090	30	28	34	24
3/4	16	<b>724 600 707</b>	-	-	0.120	39	36	36	32
1	16	<b>724 600 708</b>	-	-	0.190	45	42	40	37
1 1/4	16	<b>724 600 709</b>	-	-	0.350	57	53	46	48
1 1/2	16	<b>724 600 710</b>	-	-	0.400	63	59	48	54
2	16	<b>724 600 711</b>	-	-	0.660	78	74	55	69

24 60 55

**Union Ends, Stainless Steel 1.4404 (316L)****Welding End**

d [mm]	d1 [mm]	PN	Code	SP	GP	kg	D [mm]	D1 [mm]	L [mm]	e [mm]
16	17	16	<b>724 605 505</b>	-	-	0.030	24	22	18	1.6
20	21	16	<b>724 605 506</b>	-	-	0.050	30	28	22	2.0
25	26	16	<b>724 605 507</b>	-	-	0.080	39	36	23	2.0
32	33	16	<b>724 605 508</b>	-	-	0.110	45	42	26	2.0
40	42	16	<b>724 605 509</b>	-	-	0.190	57	53	26	2.0
50	48	16	<b>724 605 510</b>	-	-	0.220	63	59	28	2.0
63	60	16	<b>724 605 511</b>	-	-	0.370	78	74	32	2.6

21 64 01

## Union Bushes, PVC-U metric

### Model:

- Solvent cement socket metric
- Jointing face: with O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



d [mm]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	G/Tr
10	16	721 640 103	-	-	0.007	10	20	22	5/8
12	16	721 640 104	-	-	0.007	10	20	22	5/8
16	16	721 640 105	-	-	0.009	10	24	24	3/4
20	16	721 640 106	-	-	0.014	10	29	26	1
25	16	721 640 107	-	-	0.023	10	34	29	1 1/4
32	16	721 640 108	-	-	0.032	10	42	32	1 1/2
40	16	721 640 109	-	-	0.058	12	52	38	2
50	16	721 640 110	-	-	0.039	14	62	45	2 1/4
63	16	721 640 111	-	-	0.132	18	78	56	2 3/4
75	10	721 640 112	-	-	0.210	18	93	62	Tr108x5
90	10	721 640 113	-	-	0.315	18	110	69	Tr128x5
110	10	721 640 114	-	-	0.445	11	133	72	Tr154x6

21 64 06

## Union Bushes, PVC-U Rp

### Model:

- With parallel female thread Rp
- Jointing Face: with O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U



Rp [inch]	PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	G [inch]
¼	10	721 640 604	-	-	0.006	12	20	22	¾
⅜	10	721 640 605	-	-	0.008	13	24	24	¾
½	10	721 640 606	-	-	0.013	13	29	26	1
¾	10	721 640 607	-	-	0.021	14	34	29	1 ¼
1	10	721 640 608	-	-	0.032	15	42	32	1 ½
1 ¼	10	721 640 609	-	-	0.057	19	53	38	2
1 ½	10	721 640 610	-	-	0.086	26	63	45	2 ¼
2	10	721 640 611	-	-	0.160	33	78	56	2 ¾

21 64 11

## Union Bushes, PVC-U BS Inch

### Model:

- Solvent cement socket BS
- Jointing face: with O-Ring groove
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



PN	Code	SP	GP	kg	z [mm]	D [mm]	L [mm]	G [inch]
16	721 641 105	-	-	0.008	8	24	24	3/4"
16	721 641 106	-	-	0.012	9	29	26	1"
16	721 641 107	-	-	0.021	9	34	29	1 1/4"
16	721 641 108	-	-	0.029	9	42	32	1 1/2"
16	721 641 109	-	-	0.052	10	52	38	2"
16	721 641 110	-	-	0.068	10	62	40	2 1/4"
16	721 641 111	-	-	0.137	10	78	46	2 3/4"

24 63 06

## Union Bushes, Malleable Iron Galvanized Rp

**Model:**

- Parallel female thread Rp



d [mm]	Rp [inch]	PN	Code	kg	z [mm]	L [mm]	G [inch]	s [mm]
20	½	16	<b>724 630 606</b>	0.058	12	25	1	25
25	¾	16	<b>724 630 607</b>	0.096	13	28	1 ¼	31
32	1	16	<b>724 630 608</b>	0.127	14	31	1 ½	28
40	1 ¼	16	<b>724 630 609</b>	0.204	14	33	2	47
50	1 ½	16	<b>724 630 610</b>	0.268	17	36	2 ¼	53
63	2	16	<b>724 630 611</b>	0.550	18	42	2 ¾	66
75	2 ½	16	<b>724 630 612</b>	0.737	19	46	3 ½	82
90	3	16	<b>724 630 613</b>	0.913	22	52	4	96

24 63 09

## Union Bushes, Malleable Iron Galvanized R

**Model:**

- Taper male thread R



d [mm]	R [inch]	PN	Code	kg	L [mm]	G [inch]	s [mm]
20	½	16	<b>724 630 906</b>	0.085	43	1	25
25	¾	16	<b>724 630 907</b>	0.147	49	1 ¼	31
32	1	16	<b>724 630 908</b>	0.210	53	1 ½	38
40	1 ¼	16	<b>724 630 909</b>	0.315	58	2	47
50	1 ½	16	<b>724 630 910</b>	0.411	62	2 ¼	53
63	2	16	<b>724 630 911</b>	0.665	71	2 ¾	66
75	2 ½	16	<b>724 630 912</b>	0.897	78	3 ¼	82
90	3	16	<b>724 630 913</b>	1.300	87	4	96

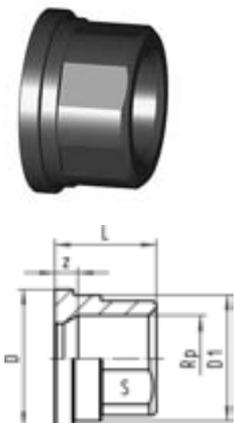
20 60 02

## Union Ends, Brass Rp



**Model:**

- Union End: brass with parallel female thread Rp



d [mm]	Rp [inch]	Code	SP	GP	kg	D [mm]	D1 [mm]	z [mm]	L [mm]
20	½	<b>720 600 206</b>	-	-	0.058	30	28	7	22
25	¾	<b>720 600 207</b>	-	-	0.088	39	36	6	22
32	1	<b>720 600 208</b>	-	-	0.136	45	42	8	27
40	1 ¼	<b>720 600 209</b>	-	-	0.245	56	53	10	31
50	1 ½	<b>720 600 210</b>	-	-	0.276	62	59	10	30
63	2	<b>720 600 211</b>	-	-	0.459	78	74	8	34
75	2 ½	<b>720 600 212</b>	-	-	0.726	100	91	8	38
90	3	<b>720 600 213</b>	-	-	1.064	121	110	7	40

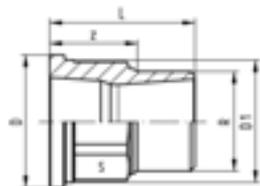
20 60 02

## Union Ends, Brass R



### Model:

- Union End: brass with taper male thread R



d [mm]	R [inch]	Code	SP	GP	kg	D [mm]	D1 [mm]	L [mm]	z [mm]	s [mm]
20	1/2	<b>720 600 226</b>	-	-	0.096	30	27	37	24	25
25	3/4	<b>720 600 227</b>	-	-	0.142	39	36	40	26	31
32	1	<b>720 600 228</b>	-	-	0.221	45	42	43	26	38
32	1 1/4	<b>720 600 229</b>	-	-	0.380	56	53	48	29	48
50	1 1/2	<b>720 600 230</b>	-	-	0.460	62	59	50	31	54
63	2	<b>720 600 231</b>	-	-	0.726	78	74	57	34	67
75	2 1/2	<b>720 600 232</b>	-	-	1.215	100	92	70	43	83
90	3	<b>720 600 233</b>	-	-	1.635	121	110	72	42	96

21 69 00

## Union Nuts, PVC-U



d [mm]	PN	Code	SP	GP	kg	D [mm]	L [mm]	G [inch]	Tr
10 - 12	16	<b>721 690 004</b>	-	-	0.009	31	19	5/8	
16	16	<b>721 690 005</b>	-	-	0.013	35	21	3/4	
20	16	<b>721 690 006</b>	-	-	0.020	43	23	1	
25	16	<b>721 690 007</b>	-	-	0.022	51	24	1 1/4	
32	16	<b>721 690 008</b>	-	-	0.031	58	26	1 1/2	
40	16	<b>721 690 009</b>	-	-	0.050	72	29	2	
50	16	<b>721 690 010</b>	-	-	0.087	83	34	2 1/4	
63	16	<b>721 690 011</b>	-	-	0.130	100	38	2 3/4	
75	10	<b>721 690 012</b>	-	-	0.130	135	40		Tr 108x5
90	10	<b>721 690 013</b>	-	-	0.355	158	43		Tr 128x5
110	10	<b>721 690 014</b>	-	-	0.575	188	48		Tr 154x6

61 49 06

## Backing Nut, PVC-U

### Model:

- With G thread ISO 228/1
- For Tank Adaptor Type 050



G [inch]	Code	SP	GP	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	-	0.020	58	17	50
1 1/2	<b>161 490 635</b>	100	-	0.025	65	18	56
1 3/4	<b>161 490 636</b>	75	-	0.036	72	19	64
2	<b>161 490 637</b>	50	-	0.044	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>	-	-	0.080	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

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

\* Octagon union nut



<b>d</b> [mm]	<b>PN</b>	<b>Code</b>	<b>SP</b>	<b>GP</b>	<b>kg</b>	<b>L</b> [mm]	<b>G</b> [inch]	<b>s</b> [mm]	
16	16	<b>724 690 105</b>	-	-	0.060	19	¾	32	
20	16	<b>724 690 106</b>	-	-	0.110	21	1	41	
25	16	<b>724 690 107</b>	-	-	0.100	23	1 ¼	46	
32	16	<b>724 690 108</b>	-	-	0.170	24	1 ½	55	
*40	16	<b>724 690 109</b>	-	-	0.240	27	2	68	
*50	16	<b>724 690 110</b>	-	-	0.300	31	2 ¼	74	
*63	16	<b>724 690 111</b>	-	-	0.390	35	2 ¾	88	

20 69 00  
20 69 04

## Union nut brass

- For tap connector No. 21 55 03 and for adaptor unions brass/PVC



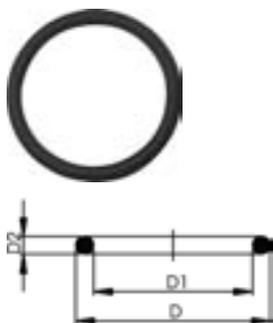
d [mm]	G [inch]	PN	Code	SP	GP	kg	L [mm]	s [mm]
12	1/2	16	720 690 405	-	-	0.026	16	24
16	3/4	16	720 690 005	-	-	0.042	17	30
20	1	16	720 690 006	-	-	0.060	19	38
25	1 1/4	16	720 690 007	-	-	0.108	20	47
32	1 1/2	16	720 690 008	-	-	0.105	22	52
40	2	16	720 690 009	-	-	0.199	25	66
50	2 1/4	16	720 690 010	-	-	0.268	25	72
63	2 3/4	16	720 690 011	-	-	0.280	27	87
75	3 1/2	16	720 690 012	-	-	0.675	34	110
90	4	16	720 690 013	-	-	0.582	36	120

EPDM 48 41 00  
FPM 49 41 00

## O-Ring Gaskets

### Model:

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



d [mm]	DN [mm]	EPDM Code	FPM Code	SP	GP	kg	D [mm]	D1 [mm]	D2 [mm]
10 - 12	8	748 410 004	749 410 004	-	-	0.002	18	12	3
16	10	748 410 005	749 410 005	-	-	0.002	21	16	3
20	15	748 410 006	749 410 006	-	-	0.002	27	20	4
25	20	748 410 007	749 410 007	100	1400	0.002	35	28	4
32	25	748 410 008	749 410 008	100	-	0.002	40	33	4
40	32	748 410 009	749 410 009	-	-	0.006	51	41	5
50	40	748 410 010	749 410 010	-	-	0.007	58	47	5
63	50	748 410 011	749 410 011	100	3500	0.010	70	60	5
75	65	748 410 014	749 410 014	100	600	0.012	93	82	5
90	80	748 410 015	749 410 015	100	600	0.015	112	101	5
110	100	748 410 016	749 410 016	50	200	0.031	134	120	7

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

### Model:

- Hardness approx. 65° Shore
- For adaptor unions



d [mm]	Inch	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]
12	1/4	748 400 004	-	0.002	20	13	2
16	3/8	748 400 005	749 400 005	0.002	24	17	2
20	1/2	748 400 006	749 400 006	0.003	30	21	3
25	3/4	748 400 007	749 400 007	0.004	38	27	3
32	1	748 400 008	749 400 008	0.002	44	32	3
40	1 1/4	748 400 009	749 400 009	0.003	55	42	3
50	1 1/2	748 400 010	749 400 010	0.004	62	46	3
63	2	748 400 011	749 400 011	0.006	78	60	3
75	2 1/2	748 400 012	749 400 012	0.009	97	75	3
90	3	748 400 013	749 400 013	0.011	109	88	3

EPDM 48 40 02

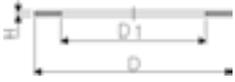
## Flat Gaskets

**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

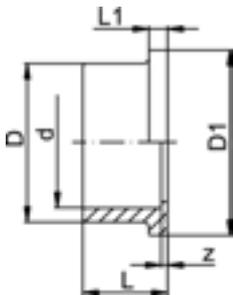


EPDM Code	SP	GP	kg	D [mm]	D1 [mm]	H [mm]	
748 400 030	-	-	0.003	18	14	2	
748 400 005	-	-	0.001	24	17	2	
748 400 006	-	-	0.003	30	21	3	

# Flange Adaptors and Flanges

21 79 01

## Flange Adaptors, PVC-U Jointing face serrated, metric



### Model:

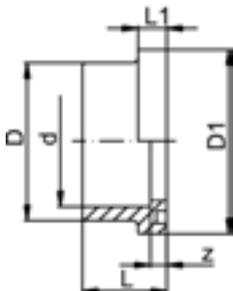
- Solvent cement socket metric
- d16 - d50: Jointing face flat
- d63 - d400: Combined Jointing face serrated and flat
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07  
or  
Flat gasket EPDM No. 48 40 03, FPM No. 49 40 03  
Only use O-ring EPDM No. 48 41 01, FPM No. 49 41 01 in combination 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

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

d	DN	PN	Code	SP	GP	kg	z	D	D1	L	L1	
[mm]	[mm]						[mm]	[mm]	[mm]	[mm]	[mm]	
63	50	16	721 790 111	10	50	0.103	3	77	90	41	9	
75	65	16	721 790 112	10	-	0.155	3	91	106	47	10	
90	80	16	721 790 113	10	-	0.254	5	108	125	56	11	
110	100	16	721 790 114	10	-	0.418	5	131	150	66	12	
125	100	16	721 790 115	5	-	0.548	5	148	170	74	13	
140	125	16	721 790 116	6	-	0.740	5	165	188	81	14	
160	150	16	721 790 117	2	-	1.077	5	188	213	91	16	
200	200	10	721 790 119	2	-	1.476	6	224	250	112	24	
225	200	10	721 790 120	2	-	1.758	6	248	274	125	25	
250	250	10	721 790 121	-	-	2.150	9	274	303	140	23	
280	250	10	721 790 122	1	-	2.895	5	308	329	151	23	
315	300	6	721 790 123	1	-	4.450	8	346	379	172	27	
355	350	6	721 790 124	-	-	5.800	10	384	430	194	32	
400	400	6	721 790 125	-	-	8.900	10	438	482	216	34	

21 81 01

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

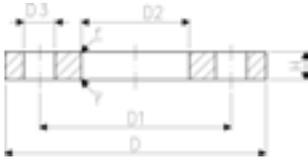


### Model:

- 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	DN	PN	Code	SP	GP	kg	z	D	D1	L	L1	
[mm]	[mm]						[mm]	[mm]	[mm]	[mm]	[mm]	
16	10	16	721 810 105	10	100	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	100	0.018	6	33	41	25	10	
32	25	16	721 810 108	10	100	0.027	6	41	50	28	10	
40	32	16	721 810 109	10	100	0.045	8	50	61	34	13	
50	40	16	721 810 110	10	50	0.068	8	61	73	39	13	
63	50	16	721 810 111	10	50	0.120	8	77	90	46	14	
75	65	16	721 810 112	10	-	0.182	8	91	106	52	15	
90	80	16	721 810 113	10	-	0.291	10	108	125	61	16	
110	100	16	721 810 114	10	-	0.468	11	131	150	72	18	
125	100	16	721 810 115	5	-	0.753	11	148	170	80	19	
140	125	16	721 810 116	6	-	0.830	11	165	188	87	20	
160	150	16	721 810 117	2	-	1.180	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	-	1.895	12	248	274	131	31	
250	250	10	721 810 121	-	-	2.150	9	274	303	140	23	
280	250	10	721 810 122	1	-	3.100	13	308	329	158	30	
315	300	6	721 810 123	1	-	4.830	17	346	379	180	35	

## Backing Flanges, PVC-U metric



### Model:

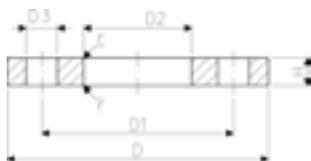
- For socket systems
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10
- Maximum medium- or ambient temperature 45 °C

\* Connecting dimension: ISO 2536

d [mm]	DN [mm]	Inch	PN	Code	GP	kg
16	10	3/8	10	<b>721 700 005</b>	-	0.055
20	15	1/2	10	<b>721 700 006</b>	-	0.069
25	20	3/4	10	<b>721 700 007</b>	-	0.092
32	25	1	10	<b>721 700 008</b>	-	0.132
40	32	1 1/4	10	<b>721 700 009</b>	-	0.194
50	40	1 1/2	10	<b>721 700 010</b>	-	0.245
63	50	2	10	<b>721 700 011</b>	-	0.311
75	65	2 1/2	10	<b>721 700 012</b>	-	0.375
90	80	3	10	<b>721 700 013</b>	-	0.471
110	100	4	10	<b>721 700 014</b>	-	0.554
125	125	4 1/2	10	<b>721 700 015</b>	-	0.995
140	125	5	10	<b>721 700 016</b>	-	0.746
160	150	6	10	<b>721 700 017</b>	-	1.016
200	200	7	10	<b>721 700 019</b>	-	1.658
225	200	8	10	<b>721 700 020</b>	-	1.380
250	250	9	6	<b>721 700 021</b>	-	1.700
*250	225	9	6	<b>721 700 136</b>	-	1.700
280	250	10	6	<b>721 700 137</b>	-	1.730
315	300	12	6	<b>721 700 138</b>	-	2.350
355	350	14	6	<b>721 700 139</b>	-	3.400
400	400	16	6	<b>721 700 140</b>	-	4.500

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL	SC
16	90	60	23	14	10	1	4	M12
20	95	65	28	14	11	1	4	M12
25	105	75	34	14	12	2	4	M12
32	115	85	42	14	14	2	4	M12
40	140	100	51	18	15	2	4	M16
50	150	110	62	18	16	2	4	M16
63	165	125	78	18	18	3	4	M16
75	185	145	92	18	19	3	4	M16
90	200	160	110	18	20	3	8	M16
110	220	180	133	18	22	3	8	M16
125	250	210	150	18	26	5	8	M16
140	250	210	167	18	26	4	8	M16
160	285	240	190	22	28	4	8	M20
200	340	295	226	22	32	4	8	M20
225	340	295	250	22	32	4	8	M20
250	395	350	277	22	36	4	12	M20
*250	370	325	277	22	36	4	8	M20
280	395	350	310	22	36	4	12	M20
315	445	400	348	22	36	4	12	M20
355	505	460	388	22	38	5	16	M20
400	565	515	442	26	42	5	16	M24

## Backing Flanges, PVC-U Inch ASTM / 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

\* Only for use with metric flange adaptors

Inch	DN [mm]	d [mm]	PN	Code	SP	GP	kg
½	15		10	<b>721 702 206</b>	90	-	0.067
¾	20		10	<b>721 702 207</b>	50	-	0.088
1	25		10	<b>721 702 208</b>	40	-	0.128
1 ¼	32		10	<b>721 702 209</b>	25	-	0.204
1 ½	40		10	<b>721 702 210</b>	20	-	0.253
2	50		10	<b>721 702 211</b>	30	-	0.305
2 ½	65		10	<b>721 702 212</b>	27	-	0.382
3	80		10	<b>721 702 213</b>	20	-	0.498
4	100		10	<b>721 702 214</b>	-	-	0.515
*4	100	110	10	<b>161 483 180</b>	30	-	0.563
5	125		10	<b>721 702 216</b>	12	-	0.727
6	150		10	<b>721 702 217</b>	9	-	1.910
6	150	160	10	<b>721 700 017</b>	9	-	1.016
8	200		10	<b>721 702 220</b>	8	-	1.349

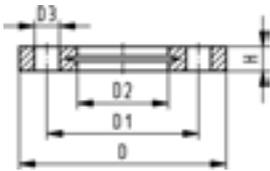
Inch	DN [mm]	d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL
½	15		95	60	28	16	11	1	4
¾	20		105	70	34	16	12	2	4
1	25		115	79	42	16	14	2	4
1 ¼	32		140	89	51	16	15	2	4
1 ½	40		150	98	62	16	16	2	4
2	50		165	121	78	19	18	3	4
2 ½	65		185	140	92	19	19	3	4
3	80		200	152	110	19	20	3	4
4	100		220	190	138	19	22	3	8
*4	100	110	220	190	133	19	22	3	8
5	125		250	216	167	22	26	4	8
6	150		285	241	200	22	28	4	8
6	150	160	285	240	190	22	28	4	8
8	200		340	298	250	22	32	4	8

27 70 04  
27 70 05

## Backing Flanges, PP-V for Socket Systems metric

### Model:

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



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

d [mm]	Inch	DN [mm]	PN	Code	SP	GP	kg
20		15	16	<b>727 700 406</b>	56	-	0.080
25		20	16	<b>727 700 407</b>	38	-	0.100
32		25	16	<b>727 700 408</b>	80	-	0.140
40		32	16	<b>727 700 409</b>	40	-	0.220
50		40	16	<b>727 700 410</b>	30	-	0.210
63		50	16	<b>727 700 411</b>	25	-	0.380
75		65	16	<b>727 700 412</b>	19	-	0.480
90		80	16	<b>727 700 413</b>	15	-	0.520
110		100	16	<b>727 700 414</b>	13	-	0.680
140		125	16	<b>727 700 416</b>	10	-	0.800
160	6	150	16	<b>727 700 417</b>	-	-	1.200
200		200	16	<b>727 700 419</b>	-	-	1.500
225	8	200	16	<b>727 700 420</b>	-	-	1.400
250		250	16	<b>727 700 421</b>	-	-	1.700
280		250	16	<b>727 700 422</b>	-	-	1.700
315		300	16	<b>727 700 423</b>	-	-	2.400
 355		350	10	<b>727 700 424</b>	-	-	3.000
 400		400	10	<b>727 700 425</b>	-	-	3.500

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	95	65	28	14	16	4	M12
25	105	75	34	14	17	4	M12
32	115	85	42	14	18	4	M12
40	140	100	51	18	20	4	M16
50	150	110	62	18	22	4	M16
63	165	125	78	18	24	4	M16
75	185	145	92	18	26	4	M16
90	200	160	110	18	27	8	M16
110	220	180	133	18	28	8	M16
140	250	210	167	18	30	8	M16
160	285	241	190	22	32	8	M20
200	340	296	226	22	34	8	M20
225	340	295	250	22	34	8	M20
250	395	350	277	22	38	12	M20
280	395	350	310	22	38	12	M20
315	445	400	348	22	42	12	M20
 355	515	460	388	23	46	16	M20
 400	574	515	442	26	50	16	M24

27 70 02

## Backing Flanges, PP/Steel for Socket Systems metric

**Model:**

- PP-GF (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

<sup>1</sup> Connecting dimension: ISO 2536 DN125

\* Connecting dimension: ISO 2536



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	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	18	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	18	4	M16
75	65	16	727 700 212	1.300	185	145	92	18	18	4	M16
90	80	16	727 700 213	1.400	200	160	110	18	20	8	M16
110	100	16	727 700 214	1.560	220	180	133	18	20	8	M16
<sup>1</sup> 125	100	16	727 700 215	2.590	250	210	150	18	24	8	M16
140	125	16	727 700 216	2.120	250	210	167	18	24	8	M16
160	150	16	727 700 217	3.390	285	240	190	22	24	8	M20
200	200	16	727 700 219	5.850	340	295	226	22	27	8	M20
225	200	16	727 700 220	4.410	340	295	250	22	27	8	M20
250	250	16	727 700 021	8.340	395	350	277	22	30	12	M20
*250	250	16	727 700 221	8.340	395	325	277	22	30	8	M20
280	250	16	727 700 222	5.520	395	350	310	22	30	12	M20
315	300	16	727 700 223	7.600	445	400	348	22	34	12	M20
355	350	16	727 700 224	13.960	515	460	388	23	40	16	M20
400	400	16	727 700 225	17.380	574	515	442	26	40	16	M24

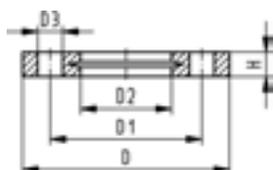
27 70 14  
27 70 15

## Backing Flanges, PP-V for Socket Systems Inch/ANSI

**Model:**

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

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



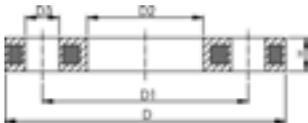
Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
<sup>1</sup> / <sub>2</sub>	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
<sup>3</sup> / <sub>4</sub>	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
<sup>1</sup>	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
<sup>1</sup> / <sub>4</sub>	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
<sup>1</sup> / <sub>2</sub>	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
<sup>1</sup> / <sub>2</sub>	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
<sup>2</sup> / <sub>2</sub>	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
<sup>3</sup> / <sub>2</sub>	80	16	727 701 413	0.520	200	152	110	19	27	4	M16
<sup>4</sup> / <sub>2</sub>	100	16	727 701 414	0.680	229	190	133	19	28	8	M16
<sup>6</sup> / <sub>2</sub>	150	16	727 700 417	1.200	285	241	190	22	32	8	M20
<sup>10</sup> / <sub>2</sub>	250	16	727 701 422	1.700	406	362	310	26	38	12	M20
<sup>12</sup> / <sub>2</sub>	300	16	727 701 423	2.400	483	432	348	26	42	12	M20

27 70 12

## Backing Flanges, PP/Steel for Socket Systems Inch/ANSI

### Model:

- For socket systems
- For Flange Adaptors BS/ANSI
- Material: PP (30 % glass-fibre reinforced) with steel ring
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- DN100 and DN150: only for use with original metric flange adaptors



DN [mm]	d [mm]	PN	Code	GP	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	-	0.210	60	28	16	95	12	4
20	25	16	727 701 207	-	0.250	70	34	16	105	12	4
25	32	16	727 701 208	-	0.420	79	42	16	115	16	4
32	40	16	727 701 209	-	0.670	89	51	16	140	16	4
40	50	16	727 701 210	-	0.860	98	62	16	150	18	4
50	63	16	727 701 211	-	0.930	121	78	19	165	18	4
65	75	16	727 701 212	-	1.340	140	92	19	185	18	4
80	90	16	727 701 213	-	1.550	152	110	19	200	20	4
100	110	16	727 701 214	-	1.810	190	133	19	229	20	8
200	200	16	727 701 220	-	4.410	298	250	22	340	27	8

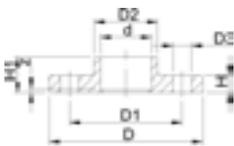
21 73 02

## Fixed Flanges, PVC-U Jointing face flat, metric

### Model:

- Solvent cement socket metric
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

\* Combined Flange, connecting dimensions DIN 2501 PN 10 and ANSI B 16.5



d [mm]	DN [mm]	Inch	PN	Code	GP	kg
20	15	½	16	721 730 206	-	0.105
25	20	¾	16	721 730 207	-	0.130
32	25	1	16	721 730 208	-	0.183
40	32	1 ¼	16	721 730 209	-	0.305
50	40	1 ½	16	721 730 210	-	0.365
63	50	2	16	721 730 211	-	0.510
*75	65	2 ½	10	721 730 212	-	0.520
*90	80	3	10	721 730 213	-	0.720
*110	100	4	10	721 730 214	-	0.920
*140	125	5	10	721 730 216	-	1.380
*160	150	6	10	721 730 217	-	2.020

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	M20
*90	200	156	108	22	5	22	56	8	M20
*110	220	186	131	24	5	24	66	8	M20
*140	250	215	165	23	5	28	91	8	M20
*160	285	240	188	23	5	30	91	8	M20

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

### Model:

- Solvent cement socket metric
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10

\* Combined Flange, connecting dimensions DIN 2501 PN 10 and ANSI B 16.5



d [mm]	DN [mm]	Inch	PN	Code	GP	kg
20	15	1/2	16	<b>721 740 106</b>	-	0.100
25	20	3/4	16	<b>721 740 107</b>	-	0.130
32	25	1	16	<b>721 740 108</b>	-	0.185
40	32	1 1/4	16	<b>721 740 109</b>	-	0.305
50	40	1 1/2	16	<b>721 740 110</b>	-	0.368
63	50	2	16	<b>721 740 111</b>	-	0.510
*75	65	2 1/2	10	<b>721 740 112</b>	-	0.520
*90	80	3	10	<b>721 740 113</b>	-	0.720
*110	100	4	10	<b>721 740 114</b>	-	0.920
*140	125	5	10	<b>721 740 116</b>	-	1.380
*160	150	6	10	<b>721 740 117</b>	-	2.020

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

## 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)**

\* Combined Flange, connecting dimensions DIN 2501 PN 10 and ANSI B 16.5



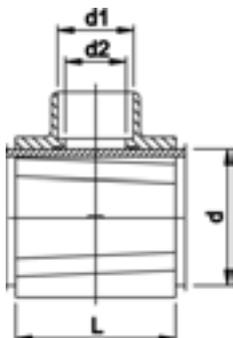
d [mm]	DN [mm]	Inch	PN	Code	GP	kg
*20	15	1/2	10	<b>721 700 506</b>	-	0.075
*25	20	3/4	10	<b>721 700 507</b>	-	0.097
*32	25	1	10	<b>721 700 508</b>	-	0.145
*40	32	1 1/4	10	<b>721 700 509</b>	-	0.222
*50	40	1 1/2	10	<b>721 700 510</b>	-	0.278
*63	50	2	10	<b>721 700 511</b>	-	0.380
*75	65	2 1/2	10	<b>721 700 512</b>	-	0.534
*90	80	3	10	<b>721 700 513</b>	-	0.667
*110	100	4	10	<b>721 700 514</b>	-	0.872
*140	125	5	10	<b>721 700 516</b>	-	1.312
*160	150	6	10	<b>721 700 517</b>	-	1.730
225	200	8	10	<b>721 700 520</b>	-	2.600
250	250	10	10	<b>721 700 521</b>	-	3.300
280	250	10	10	<b>721 700 522</b>	-	4.650
315	300	12	6	<b>721 700 523</b>	-	5.750
355	350	14	6	<b>721 700 524</b>	-	6.800
400	400	16	6	<b>721 700 525</b>	-	9.000

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

# Branch and Tapping Saddles

21 111

## Branch Saddle

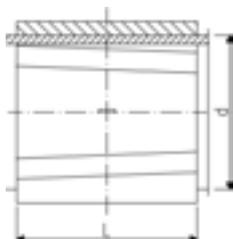


- Outlet with solvent cement socket metric
- For operating pressure up to 10 bar water
- Top saddle with rubber seal
- Seal: NBR (Nitrile-Rubber) shore hardness: 60 ±5 Shore A

d [mm]	Code	SP	GP	kg	d1 [mm]	d2 [mm]	L [mm]
63	<b>161 111 035</b>	1	4	0.699	40	22	105
63	<b>161 111 036</b>	1	4	0.730	50	22	105
75	<b>161 111 046</b>	1	4	0.797	50	31	105
90	<b>161 111 055</b>	1	12	0.826	40	31	105
90	<b>161 111 056</b>	1	12	0.856	50	31	105
110	<b>161 111 065</b>	1	12	0.935	40	31	105
110	<b>161 111 066</b>	1	12	0.949	50	40	105
110	<b>161 111 067</b>	1	12	0.995	63	40	105
160	<b>161 111 095</b>	1	8	1.430	40	31	120
160	<b>161 111 096</b>	1	8	1.260	50	40	120
160	<b>161 111 097</b>	1	8	1.300	63	40	120
225	<b>161 111 116</b>	1	-	1.587	50	40	120
225	<b>161 111 117</b>	1	-	1.624	63	40	120

21 110 200

## Repair Saddle



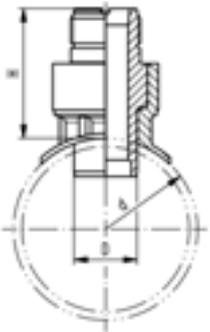
- For operating pressure up to 10 bar water
- For repair of damaged pipes
- Saddle valves can be solvent cemented
- Cementing only possible on dry mains without pressure

d [mm]	Code	SP	GP	kg	Max. pipe aperture [mm]	L [mm]
63	<b>161 110 230</b>	1	4	0.584	39	105
90	<b>161 110 250</b>	1	4	0.678	48	105
110	<b>161 110 260</b>	1	12	0.795	48	105
160	<b>161 110 290</b>	1	8	1.213	60	120
225	<b>161 110 310</b>	1	-	1.340	60	120

# Sensor-Installation Fittings

21 31 20

## Installation Fittings Type 312 PVC-U metric



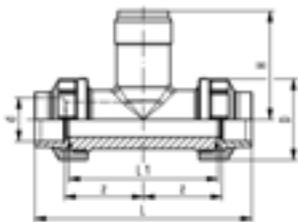
**Model:**

- For Signet paddlewheel sensors Type -X1 (137 mm) and Type -X2 (213 mm)
- Saddle with threaded outlet 5/4" NPSM

d [mm]	DN [mm]	PN	Code	SP	GP	kg	D [mm]	H [mm]	Sensor Type
75	65	10	721 312 012	-	-	0.220	38	89	X1
90	80	10	721 312 013	-	-	0.225	38	89	X1
110	100	10	721 312 014	-	-	0.226	38	89	X1
125	100	10	721 312 015	-	-	0.224	38	81	X1
140	125	10	721 312 016	-	-	0.211	38	79	X1
160	150	10	721 312 017	-	-	0.217	38	76	X1
200	200	10	721 312 019	-	-	0.199	38	69	X1
225	200	10	721 312 020	-	-	0.301	38	141	X2
250	250	10	721 312 021	-	-	0.298	38	137	X2
315	300	10	721 312 023	-	-	0.294	38	127	X2

21 31 00

## Installation Fitting Type 310, PVC-U for Socket Systems metric



**Model:**

- For Signet Paddlewheel Sensors Type -X0 (104 mm)
- Union end with solvent cement socket PVC-U

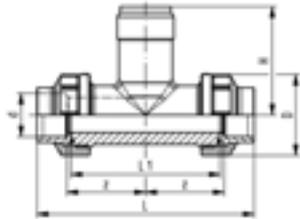
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg				
20	15	16	721 310 006	721 310 036	0.181				
25	20	16	721 310 007	721 310 037	0.244				
32	25	16	721 310 008	721 310 038	0.333				
40	32	16	721 310 009	721 310 039	0.440				
50	40	16	721 310 010	721 310 040	0.700				
63	50	16	721 310 011	721 310 041	1.011				

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

21 31 03

## Installation Fitting Type 310, PVC-U for Socket Systems BS inch



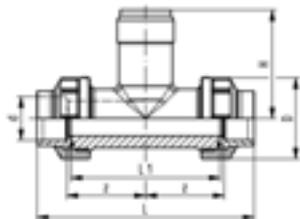
**Model:**

- For Signet Paddlewheel Sensors Type -X0 (104 mm)
- Union end with solvent cement socket PVC-U

DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
15	15	721 310 306	721 310 336	0.181	43	48	131	90	76	X0
20	15	721 310 307	721 310 337	0.244	51	53	147	100	78	X0
25	15	721 310 308	721 310 338	0.333	58	58	164	110	81	X0
32	15	721 310 309	721 310 339	0.440	72	58	171	110	85	X0
40	15	721 310 310	721 310 340	0.700	83	63	188	120	89	X0
50	15	721 310 311	721 310 341	1.011	100	68	211	130	95	X0

21 31 04

## Installation Fitting Type 310, PVC-U for Socket Systems ASTM inch

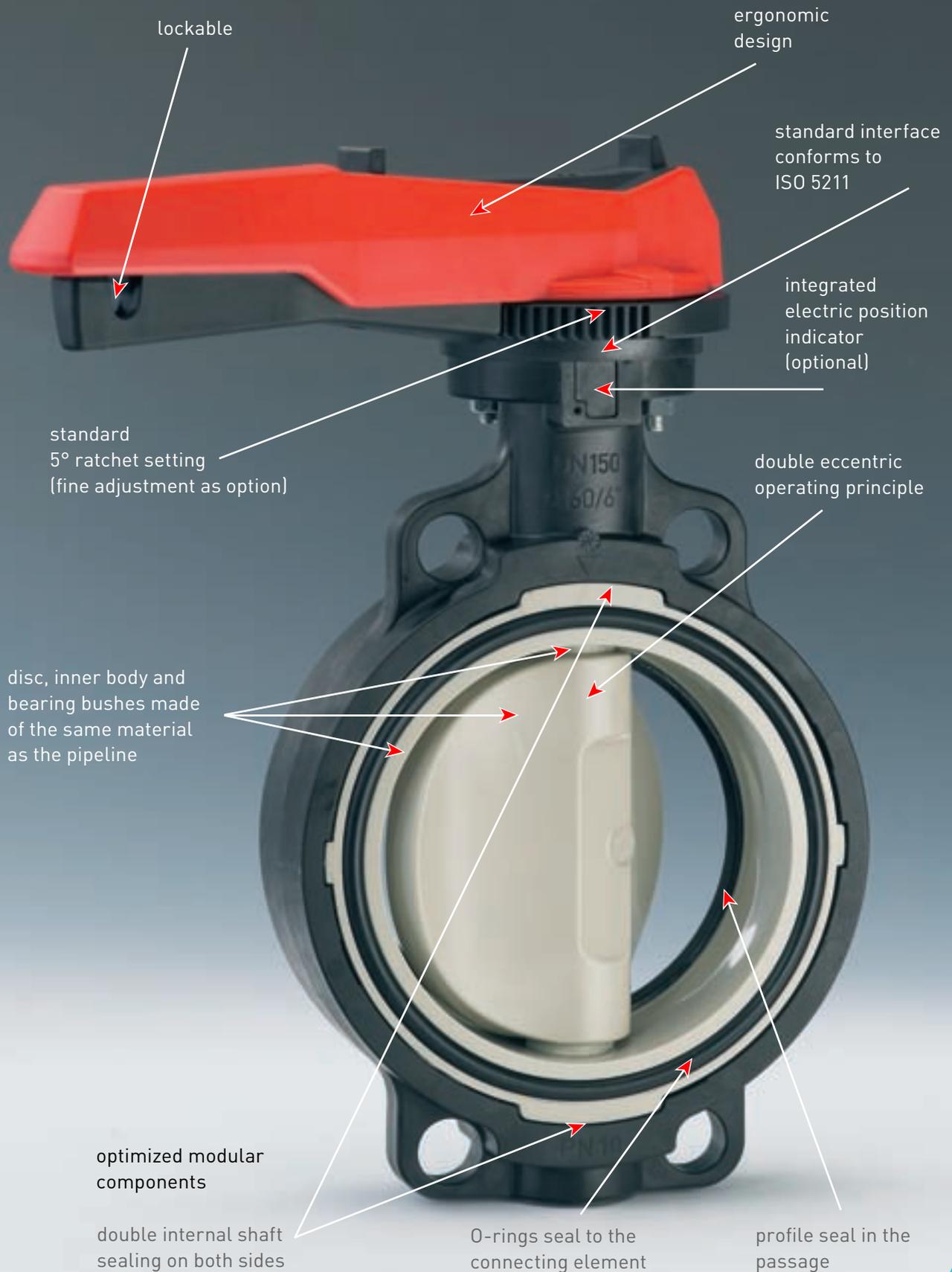


**Model:**

- For Signet Paddlewheel Sensors Type -X0 (104 mm)
- Union end with solvent cement socket PVC-U

DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
15	16	721 310 406	721 310 436	0.181	43	48	140	90	76	X0
20	16	721 310 407	721 310 437	0.244	51	53	156	100	78	X0
25	16	721 310 408	721 310 438	0.333	58	58	174	110	81	X0
32	16	721 310 409	721 310 439	0.440	72	58	180	110	85	X0
40	16	721 310 410	721 310 440	0.700	83	63	196	120	89	X0
50	16	721 310 411	721 310 441	1.011	100	68	212	130	95	X0

# ➤ A winner in every detail



# Hand-Operated Valves

## General Information

### Material

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

### Standards

All the main dimensions, 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	
ISO 727 DIN 3441 PrEN ISO 16135...16199 NF T54-028 PrEN ISO 21787	on request ANSI JIS BSI

Thread joint	Flange joint	
ISO 7-1 DIN 2999-9	DIN 2501/8063	on request ANSI JIS BSI

For PVC-U Valves 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 Valves.

#### Threaded joint:

BSP parallel female threads are in accordance with ISO 7/1 or DIN 2999. Threaded plastic Valves should be jointed to plastics pipe or to other plastics parts. Jointing to metal pipe 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

see column PN

### Marking

GF Piping Systems valves are marked as follows:

- +GF+
- pipe o.d.
- pipe nominal bore
- material
- pressure rating: PN ...

### Overall length

When used with flange adaptors or union ends from GF Piping Systems, the lengths of valves correspond to EN 558-1. ISO 5752

### Dimensions

All dimensions are given in mm.

### Information Service

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

### Quality control conforming to DIN 3441, Part 1

The function and tightness of every valve are factory-tested. Testing is carried out with air under water.

### Orders

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

### Ordering example

8 ball valves      161 546 005

# Ball valves 2-way

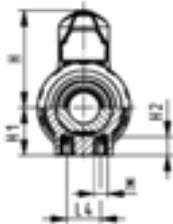
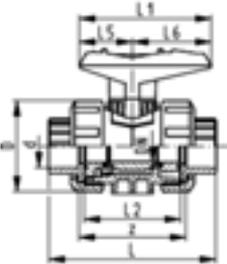
## Ball valve type 546 PVC-U

### With mounting inserts

### With solvent cement sockets metric



DN10-50



#### Model:

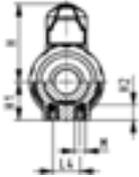
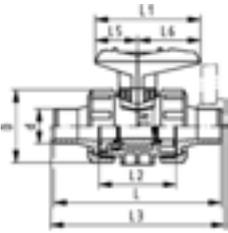
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

#### Option:

- Individual configuration of the valve (see form)
- 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	GP	kg
16	10	16	71	<b>161 546 061</b>	<b>161 546 071</b>	10	0.150
20	15	16	185	<b>161 546 062</b>	<b>161 546 072</b>	10	0.150
25	20	16	350	<b>161 546 063</b>	<b>161 546 073</b>	10	0.230
32	25	16	700	<b>161 546 064</b>	<b>161 546 074</b>	10	0.330
40	32	16	1000	<b>161 546 065</b>	<b>161 546 075</b>	6	0.600
50	40	16	1600	<b>161 546 066</b>	<b>161 546 076</b>	6	0.800
63	50	16	3100	<b>161 546 067</b>	<b>161 546 077</b>	4	1.460
75	65	16	5000	<b>161 546 068</b>	<b>161 546 078</b>	-	4.900
90	80	16	7000	<b>161 546 069</b>	<b>161 546 079</b>	-	7.400
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]
16	50	57	27	12	92	77	56	25	32	45	6	64
20	50	57	27	12	95	77	56	25	32	45	6	64
25	58	67	30	12	110	97	65	25	39	58	6	72
32	68	73	36	12	123	97	71	25	39	58	6	79
40	84	90	44	15	146	128	85	45	54	74	8	94
50	97	97	51	15	157	128	89	45	54	74	8	95
63	124	116	64	15	183	152	101	45	66	87	8	107
75	166	149	85	15	233	270	136	70	64	206	8	144
90	200	161	105	15	254	270	141	70	64	206	8	151
110	238	178	123	22	301	320	164	120	64	256	12	174



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

### Model:

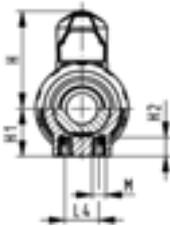
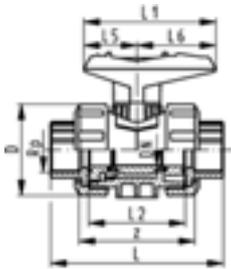
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

- Individual configuration of the valve (see form)
- 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	GP	kg
16	10	16	71	<b>161 546 721</b>	<b>161 546 731</b>	10	0.157
20	15	16	185	<b>161 546 722</b>	<b>161 546 732</b>	10	0.157
25	20	16	350	<b>161 546 723</b>	<b>161 546 733</b>	10	0.242
32	25	16	700	<b>161 546 724</b>	<b>161 546 734</b>	10	0.347
40	32	16	1000	<b>161 546 725</b>	<b>161 546 735</b>	6	0.620
50	40	16	1600	<b>161 546 726</b>	<b>161 546 736</b>	6	0.845
63	50	16	3100	<b>161 546 727</b>	<b>161 546 737</b>	4	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
16	50	57	27	12	114	77	56	130	25	32	45	M6
20	50	57	27	12	124	77	56	130	25	32	45	M6
25	58	67	30	12	144	97	65	150	25	39	58	M6
32	68	73	36	12	154	97	71	160	25	39	58	M6
40	84	90	44	15	174	128	85	180	45	54	74	M8
50	97	97	51	15	194	128	89	200	45	54	74	M8
63	124	116	64	15	224	152	101	230	45	66	87	M8
75	166	149	85	15	284	270	136	290	70	64	206	M8
90	200	161	105	15	300	270	141	310	70	64	206	M8
110	238	178	123	22	340	320	164	350	120	64	256	M12



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

### Model:

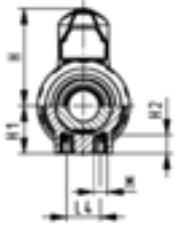
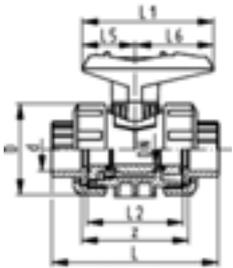
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

- Individual configuration of the valve (see form)
- 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	GP	kg
3/8	10	10	71	<b>161 546 741</b>	<b>161 546 751</b>	10	0.152
1/2	15	10	185	<b>161 546 742</b>	<b>161 546 752</b>	10	0.152
3/4	20	10	350	<b>161 546 743</b>	<b>161 546 753</b>	10	0.232
1	25	10	700	<b>161 546 744</b>	<b>161 546 754</b>	10	0.332
1 1/4	32	10	1000	<b>161 546 745</b>	<b>161 546 755</b>	6	0.605
1 1/2	40	10	1600	<b>161 546 746</b>	<b>161 546 756</b>	6	0.805
2	50	10	3100	<b>161 546 747</b>	<b>161 546 757</b>	4	1.465
2 1/2	65	10	5000	<b>161 546 748</b>	<b>161 546 758</b>	-	5.000
3	80	10	7000	<b>161 546 749</b>	<b>161 546 759</b>	-	7.500
4	100	10	11000	<b>161 546 750</b>	<b>161 546 760</b>	-	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



## 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 valve nut are not compatible with type 346

### Option:

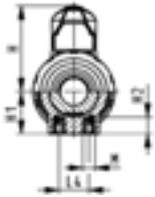
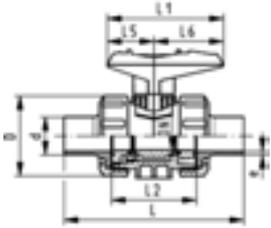
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
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>	0.150	
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>	0.310	
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]	
16	50	57	27	12	93	77	56	25	32	45	M6	67	
20	50	57	27	12	95	77	56	25	32	45	M6	66	
25	58	67	30	12	108	97	65	25	39	58	M6	77	
32	68	73	36	12	119	97	71	25	39	58	M6	83	
40	84	90	44	15	137	128	85	45	54	74	M8	99	
50	97	97	51	15	147	128	89	45	54	74	M8	105	
63	124	116	64	15	168	152	101	45	66	87	M8	113	



DN10/15 - 50



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

### Model:

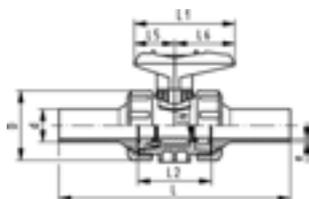
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and valve nut are not compatible with type 346

### Option:

- Individual configuration of the valve (see form)
- 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	<b>161 546 782</b>	<b>161 546 792</b>	0.150
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>	0.310
40	32	16	1000	<b>161 546 785</b>	<b>161 546 795</b>	0.550
50	40	16	1600	<b>161 546 786</b>	<b>161 546 796</b>	0.750
63	50	16	3100	<b>161 546 787</b>	<b>161 546 797</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	e [mm]
20	50	57	27	12	130	77	56	25	32	45	M6	1,9
25	58	67	30	12	134	97	65	25	39	58	M6	2,3
32	68	73	36	12	150	97	71	25	39	58	M6	3
40	84	90	44	15	171	128	85	45	54	74	M8	3,7
50	97	97	51	15	191	128	89	45	54	74	M8	4,6
63	124	116	64	15	220	152	101	45	66	87	M8	5,8



## 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
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

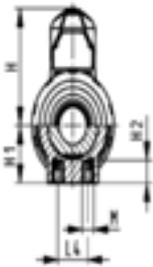
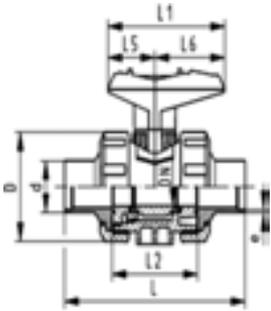
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	<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]
20	50	57	27	12	193	77	56	25	32	45	M6	2,3
25	58	67	30	12	216	97	65	25	39	58	M6	2,3
32	68	73	36	12	223	97	71	25	39	58	M6	3
40	84	90	44	15	249	128	85	45	54	74	M8	3,7
50	97	97	51	15	271	128	89	45	54	74	M8	4,6
63	124	116	64	15	321	152	101	45	66	87	M8	5,8
75	166	149	85	15	386	270	136	70	64	206	M8	6,8
90	200	161	105	15	421	270	141	70	64	206	M8	8,2
110	238	178	123	22	484	320	164	120	64	256	M12	10



DN10/15 - 50



## 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 valve nut are not compatible with type 346

### Option:

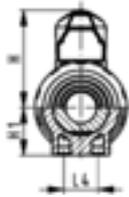
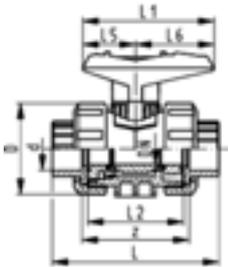
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

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>	1.360

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]
40	84	90	44	15	171	128	85	45	54	74	M8	2,3
50	97	97	51	15	191	128	89	45	54	74	M8	2,9
63	124	116	64	15	220	152	101	45	66	87	M8	3,6



DN10-50



## 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
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

- Individual configuration of the valve (see form)
- 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	GP	kg
16	10	16	71	<b>161 546 001</b>	<b>161 546 011</b>	10	0.150
20	15	16	185	<b>161 546 002</b>	<b>161 546 012</b>	10	0.150
25	20	16	350	<b>161 546 003</b>	<b>161 546 013</b>	10	0.230
32	25	16	700	<b>161 546 004</b>	<b>161 546 014</b>	10	0.330
40	32	16	1000	<b>161 546 005</b>	<b>161 546 015</b>	6	0.600
50	40	16	1600	<b>161 546 006</b>	<b>161 546 016</b>	6	0.800
63	50	16	3100	<b>161 546 007</b>	<b>161 546 017</b>	4	1.460
75	65	16	5000	<b>161 546 008</b>	<b>161 546 018</b>	-	4.900
90	80	16	7000	<b>161 546 009</b>	<b>161 546 019</b>	-	7.400
110	100	16	11000	<b>161 546 010</b>	<b>161 546 020</b>	-	11.600

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



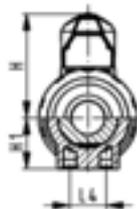
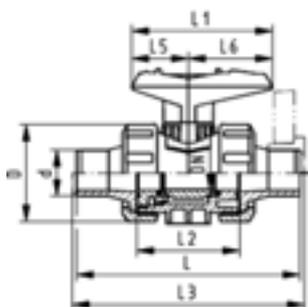
## Ball valve type 546 PVC-U without mounting inserts With solvent cement spigots metric

### Model:

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

### Option:

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

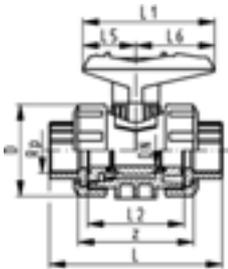


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
16	10	16	71	<b>161 546 041</b>	<b>161 546 051</b>	10	0.155
20	15	16	185	<b>161 546 042</b>	<b>161 546 052</b>	10	0.155
25	20	16	350	<b>161 546 043</b>	<b>161 546 053</b>	10	0.240
32	25	16	700	<b>161 546 044</b>	<b>161 546 054</b>	10	0.345
40	32	16	1000	<b>161 546 045</b>	<b>161 546 055</b>	6	0.615
50	40	16	1600	<b>161 546 046</b>	<b>161 546 056</b>	6	0.840
63	50	16	3100	<b>161 546 047</b>	<b>161 546 057</b>	4	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]
16	50	57	27	114	77	56		25	32	45
20	50	57	27	124	77	56	130	25	32	45
25	58	67	30	144	97	65	150	25	39	58
32	68	73	36	154	97	71	160	25	39	58
40	84	90	44	174	128	85	180	45	54	74
50	97	97	51	194	128	89	200	45	54	74
63	124	116	64	224	152	101	230	45	66	87
 75	166	149	85	284	270	136	290	70	64	206
 90	200	161	105	300	270	141	310	70	64	206
 110	238	178	123	340	320	164	350	120	64	256



DN10-50



## 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
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

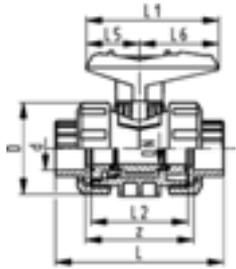
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
3/8	10	10	71	<b>161 546 021</b>	<b>161 546 031</b>	10	0.150
1/2	15	10	185	<b>161 546 022</b>	<b>161 546 032</b>	10	0.150
3/4	20	10	350	<b>161 546 023</b>	<b>161 546 033</b>	10	0.230
1	25	10	700	<b>161 546 024</b>	<b>161 546 034</b>	10	0.330
1 1/4	32	10	1000	<b>161 546 025</b>	<b>161 546 035</b>	6	0.600
1 1/2	40	10	1600	<b>161 546 026</b>	<b>161 546 036</b>	6	0.800
2	50	10	3100	<b>161 546 027</b>	<b>161 546 037</b>	4	1.460
2 1/2	65	10	5000	<b>161 546 028</b>	<b>161 546 038</b>	-	5.000
3	80	10	7000	<b>161 546 029</b>	<b>161 546 039</b>	-	7.500
4	100	10	11000	<b>161 546 030</b>	<b>161 546 040</b>	-	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 valve nut are not compatible with type 346

### Option:

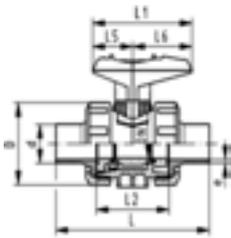
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	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]
16	50	57	27	93	77	56	25	32	45	67
20	50	57	27	95	77	56	25	32	45	66
25	58	67	30	108	97	65	25	39	58	77
32	68	73	36	119	97	71	25	39	58	83
40	84	90	44	137	128	85	45	54	74	99
50	97	97	51	147	128	89	45	54	74	105
63	124	116	64	168	152	101	45	66	87	113



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 valve nut are not compatible with type 346

### Option:

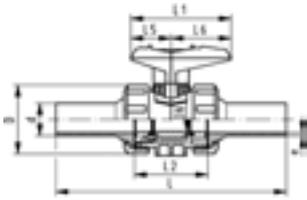
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

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

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



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
- Image and drawing DN65-100 please see "New product ball valve DN65-100"
- z-dimension, valve end and valve nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

### Option:

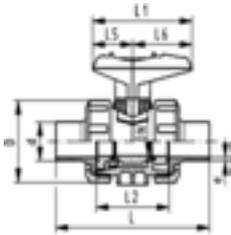
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	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	-	1.680
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]
20	50	57	27	193	77	56	25	32	45	2,25
25	58	67	30	216	97	65	25	39	58	2,3
32	68	73	36	223	97	71	25	39	58	3
40	84	90	44	249	128	85	45	54	74	3,7
50	97	97	51	271	128	89	45	54	74	4,6
63	124	116	64	321	152	101	45	66	87	5,8
75	166	149	85	386	270	136	70	64	206	6.8
90	200	161	105	421	270	141	70	64	206	8.2
110	238	178	123	484	320	164	120	64	256	10



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 valve nut are not compatible with type 346

### Option:

- Individual configuration of the valve (see form)
- 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	GP	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]
40	84	90	44	171	128	85	45	54	74	2,3
50	97	97	51	191	128	89	45	54	74	2,9
63	124	116	64	220	152	101	45	66	87	3,6



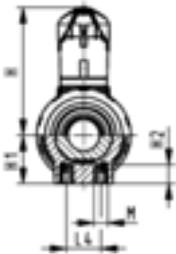
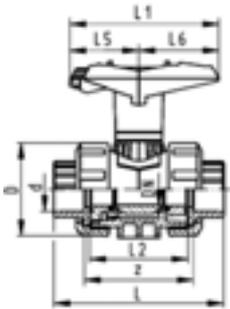
## Ball valve type 546 PVC-U With lockable handle With solvent cement sockets metric

### Model:

- Image and drawing DN65-100 please see "New product ball valve DN65-100"
- For easy installation and removal
- z-dimension, valve end and valve 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 form)
- 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	GP	kg
16	10	16	71	<b>161 546 081</b>	<b>161 546 091</b>	10	0.165
20	15	16	185	<b>161 546 082</b>	<b>161 546 092</b>	10	0.165
25	20	16	350	<b>161 546 083</b>	<b>161 546 093</b>	10	0.255
32	25	16	700	<b>161 546 084</b>	<b>161 546 094</b>	6	0.355
40	32	16	1000	<b>161 546 085</b>	<b>161 546 095</b>	6	0.640
50	40	16	1600	<b>161 546 086</b>	<b>161 546 096</b>	4	0.840
63	50	16	3100	<b>161 546 087</b>	<b>161 546 097</b>	4	1.500
75	65	16	5000	<b>161 546 088</b>	<b>161 546 098</b>	-	5.200
90	80	16	7000	<b>161 546 089</b>	<b>161 546 099</b>	-	7.700
110	100	16	11000	<b>161 546 090</b>	<b>161 546 100</b>	-	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]
16	50	79	27	12	92	87	56	25	42	45	M6	64
20	50	79	27	12	95	87	56	25	42	45	M6	64
25	58	88	30	12	110	108	65	25	50	58	M6	72
32	68	94	36	12	123	108	71	25	50	58	M6	79
40	84	113	44	15	146	140	85	45	66	75	M8	94
50	97	119	51	15	157	140	89	45	66	75	M8	95
63	124	141	64	15	183	165	101	45	78	87	M8	107
75	166	224	85	15	233	270	136	70	64	206	M8	144
90	200	235	105	15	254	270	141	70	64	206	M8	151
110	238	245	123	22	301	320	164	120	64	256	M12	174



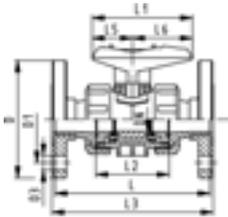
## Ball valve type 546 PVC-U without mounting inserts With fixed flanges PVC-U serrated metric

### Model:

- For easy installation and removal
- Ball seals PTFE
- Without mounting inserts
- z-dimension, valve end and valve 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 form)
- 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	GP	kg
20	15	16	185	<b>800 000 182</b>	<b>800 000 192</b>	-	0.370
25	20	16	350	<b>800 000 183</b>	<b>800 000 193</b>	-	0.510
32	25	16	700	<b>800 000 184</b>	<b>800 000 194</b>	-	0.740
40	32	16	1000	<b>800 000 185</b>	<b>800 000 195</b>	-	1.230
50	40	16	1600	<b>800 000 186</b>	<b>800 000 196</b>	-	1.610
63	50	16	3100	<b>800 000 187</b>	<b>800 000 197</b>	-	2.710

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]
20	95	65	14	57	27	124	77	56	130	25	32	45
25	105	75	14	67	30	144	97	65	150	25	39	58
32	115	85	14	73	36	154	97	71	160	25	39	58
40	140	100	18	90	44	174	128	85	180	45	54	74
50	150	110	18	97	51	194	128	89	200	45	54	74
63	165	125	18	116	64	224	152	101	230	45	66	87

# Component for Parts for Flange Assembly of Ball Vaves Type 546

21 79 01

## Flange Adaptors, PVC-U Combined Jointing face flat and serrated, metric

d [mm]	DN [mm]	PN	Code	GP	kg
20	15	16	<b>721 800 106</b>	100	0.011
25	20	16	<b>721 800 107</b>	100	0.015
32	25	16	<b>721 800 108</b>	100	0.024
40	32	16	<b>721 800 109</b>	100	0.038
50	40	16	<b>721 800 110</b>	50	0.058
63	50	16	<b>721 790 111</b>	50	0.103
75	65	16	<b>721 790 112</b>	-	0.155
90	80	16	<b>721 790 113</b>	-	0.254
110	100	16	<b>721 790 114</b>	-	0.418

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	GP	kg
20	15	½	10	<b>748 400 015</b>	<b>749 400 015</b>	-	0.003
25	20	¾	10	<b>748 400 016</b>	<b>749 400 016</b>	-	0.003
32	25	1	10	<b>748 400 017</b>	<b>749 400 017</b>	-	0.004
40	32	1 ¼	10	<b>748 400 018</b>	<b>749 400 018</b>	-	0.008
50	40	1 ½	10	<b>748 400 019</b>	<b>749 400 019</b>	-	0.012
63	50	2	10	<b>748 400 020</b>	<b>749 400 020</b>	-	0.017
75	65	2 ½	10	<b>748 400 021</b>	<b>749 400 021</b>	-	0.024
90	80	3	10	<b>748 400 022</b>	<b>749 400 022</b>	-	0.032
110	100	4	10	<b>748 400 023</b>	<b>749 400 023</b>	-	0.062

## Profile Flange Gaskets, metric

d [mm]	EPDM Code	FPM Code	kg
20	<b>748 440 101</b>	<b>749 440 101</b>	0.008
25	<b>748 440 102</b>	<b>749 440 102</b>	0.011
32	<b>748 440 103</b>	<b>749 440 103</b>	0.014
40	<b>748 440 104</b>	<b>749 440 104</b>	0.020
50	<b>748 440 105</b>	<b>749 440 105</b>	0.021
63	<b>748 440 106</b>	<b>749 440 106</b>	0.040
75	<b>748 440 107</b>	<b>749 440 107</b>	0.054
90	<b>748 440 108</b>	<b>749 440 108</b>	0.060
110	<b>748 440 109</b>	<b>749 440 109</b>	0.083

21 70 00

## Backing Flanges, PVC-U metric

d [mm]	DN [mm]	Inch	PN	Code	GP	kg
20	15	½	10	<b>721 700 006</b>	-	0.069
25	20	¾	10	<b>721 700 007</b>	-	0.092
32	25	1	10	<b>721 700 008</b>	-	0.132
40	32	1 ¼	10	<b>721 700 009</b>	-	0.194
50	40	1 ½	10	<b>721 700 010</b>	-	0.245
63	50	2	10	<b>721 700 011</b>	-	0.311
75	65	2 ½	10	<b>721 700 012</b>	-	0.375
90	80	3	10	<b>721 700 013</b>	-	0.471
110	100	4	10	<b>721 700 014</b>	-	0.554

27 70 04  
27 70 05

### Backing Flanges, PP-V for Socket Systems metric

d [mm]	Inch	DN [mm]	PN	Code	GP	kg
20		15	16	<b>727 700 406</b>	-	0.080
25		20	16	<b>727 700 407</b>	-	0.100
32		25	16	<b>727 700 408</b>	-	0.140
40		32	16	<b>727 700 409</b>	-	0.220
50		40	16	<b>727 700 410</b>	-	0.210
63		50	16	<b>727 700 411</b>	-	0.380
75		65	16	<b>727 700 412</b>	-	0.480
90		80	16	<b>727 700 413</b>	-	0.520
110		100	16	<b>727 700 414</b>	-	0.680

27 70 02

### Backing Flanges, PP/Steel for Socket Systems metric

d [mm]	DN [mm]	PN	Code	kg
20	15	16	<b>727 700 206</b>	0.220
25	20	16	<b>727 700 207</b>	0.260
32	25	16	<b>727 700 208</b>	0.430
40	32	16	<b>727 700 209</b>	0.650
50	40	16	<b>727 700 210</b>	0.820
63	50	16	<b>727 700 211</b>	0.940
75	65	16	<b>727 700 212</b>	1.300
90	80	16	<b>727 700 213</b>	1.400
110	100	16	<b>727 700 214</b>	1.560

21 74 01

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

d [mm]	DN [mm]	Inch	PN	Code	GP	kg
20	15	1/2	16	<b>721 740 106</b>	-	0.100
25	20	3/4	16	<b>721 740 107</b>	-	0.130
32	25	1	16	<b>721 740 108</b>	-	0.185
40	32	1 1/4	16	<b>721 740 109</b>	-	0.305
50	40	1 1/2	16	<b>721 740 110</b>	-	0.368
63	50	2	16	<b>721 740 111</b>	-	0.510
75	65	2 1/2	10	<b>721 740 112</b>	-	0.520
90	80	3	10	<b>721 740 113</b>	-	0.720
110	100	4	10	<b>721 740 114</b>	-	0.920

# 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.**



### 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

**A01 B01 C09 D01 E01 F02 G01 G41 I05 K L01**

**P02 Q01 R01 =**

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## Configurator +GF+ Ball Valve Type 546 PVC-U

<b>Ball valve</b>										
A01 Ball valve 546										
A02 Linear Ball Valve 110										
<b>Material</b>										
B01 PVC-U										
<b>Dimension</b>										
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"										
<b>Version</b>										
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										
<b>Seals</b>										
E01 EPDM seals										
E02 FPM seals										
E03 FFPM (Kalrez) seals										
<b>Threaded inserts</b>										
F01 without threaded inserts										
F02 with threaded inserts										
<b>Connection parts</b>										
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										
<b>Multi-funktional module</b>										
I01 No multi-funktional module										
I02 Empty multi-funktional 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										
<b>Handle</b>										
K01 Standard handle red										
K02 Standard handle black										
K11 Multi-funktional handle red										
<b>Mounting plate</b>										
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>
						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.**

## Spare parts for ball valve type 546 PVC-U (DN10/15-50)



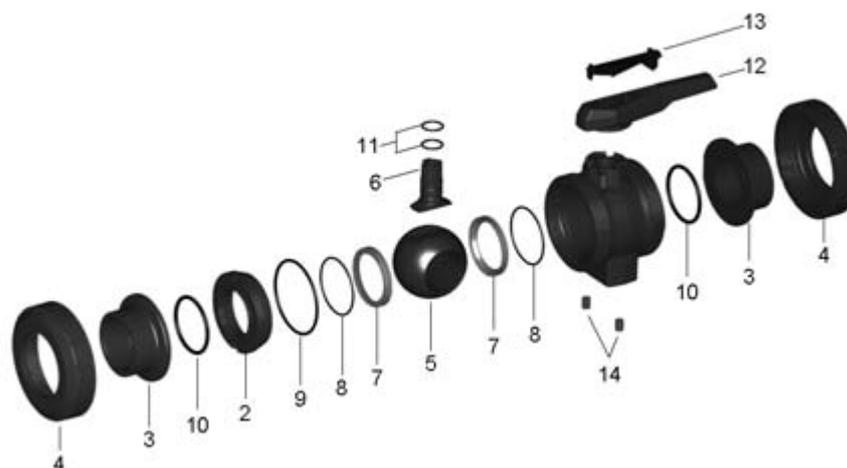
No.	Article / Material	Pieces	d16 DN10	d20 DN15	d25 DN20	d32 DN25	d40 DN32	d50 DN40	d63 DN50
	Central part		161 486 151	161 486 151	161 486 152	161 486 153	161 486 154	161 486 155	161 486 156
1	Body PVC-U	1							
2	PVC-U	1							
5	Ball PVC-U	1							
6	Stem PVC-U	1							
7	Ball seal PTFE	2							
8	Backing seal EPDM	2							
9	Body seal EPDM	1							
10	Face seal EPDM	2							
11	Stem seal EPDM	2							
12	Lever PP red	1							
14	Threaded bush Stainless steel	2							
	Central part		161 486 163	161 486 163	161 486 164	161 486 165	161 486 166	161 486 167	161 486 168
1	Body PVC-U	1							
2	PVC-U	1							
5	Ball PVC-U	1							
6	Stem PVC-U	1							
7	Ball seal PTFE	2							
8	Backing seal FPM	2							
9	Body seal FPM	1							
10	Face seal FPM	2							
11	Stem seal FPM	2							
12	Lever PP red	1							
14	Threaded bush Stainless steel	2							
	Ball set		161 486 375	161 486 375	161 486 376	161 486 377	161 486 378	161 486 379	161 486 380
5	Ball PVC-U	1							
6	Stem EPDM	1							
7	Ball seal PTFE	2							
8	Backing seal EPDM	2							
9	Body seal EPDM	1							
11	Stem seal EPDM	2							

No.	Article / Material	Pieces	d16 DN10	d20 DN15	d25 DN20	d32 DN25	d40 DN32	d50 DN40	d63 DN50
5	Ball set		161 486 385	161 486 385	161 486 386	161 486 387	161 486 388	161 486 389	161 486 390
6	Ball PVC-U	1							
7	Stem FPM	1							
8	Ball seal PTFE	2							
8	Backing seal FPM	2							
9	Body seal FPM	1							
11	Stem seal FPM	2							
8	Seal set		161 486 400	161 486 400	161 486 401	161 486 402	161 486 403	161 486 404	161 486 405
9	Backing seal EPDM	2							
10	Body seal EPDM	1							
11	Face seal EPDM	2							
11	Stem seal EPDM	2							
8	Seal set		161 486 410	161 486 410	161 486 411	161 486 412	161 486 413	161 486 414	161 486 415
9	Backing seal FPM	2							
10	Body seal FPM	1							
11	Face seal FPM	2							
11	Stem seal FPM	2							
3	Connecting piece 546 PVC-U (G01) with solvent cement socket metric	1	161 490 666	161 490 667	161 490 668	161 490 669	161 490 670	161 490 671	161 490 672
3	Connecting piece 546 PVC-U (G03) with solvent cement socket Inch ASTM	1	161 490 712	161 490 713	161 490 714	161 490 715	161 490 716	161 490 717	161 490 718
3	Connecting piece 546 PVC-U (G04) with solvent cement socket Inch BS	1	161 490 734	161 490 735	161 490 736	161 490 737	161 490 738	161 490 739	161 490 740
3	Connecting piece 546 PVC-U (G05) with solvent cement spigot metric	1	161 490 701	161 490 702	161 490 703	161 490 704	161 490 705	161 490 706	161 490 707
3	Connecting piece 546 PVC-U (G06) with threaded socket Rp	1	161 490 690	161 490 691	161 490 692	161 490 693	161 490 694	161 490 695	161 490 696
3	Connecting piece 546 PVC-U (G07) with threaded socket Rp fortified	1	161 490 825	161 490 826	161 490 827	161 490 828	161 490 829	161 490 830	161 490 831
3	Connecting piece 546 PVC-U (G08) with threaded socket NPT	1	161 490 723	161 490 724	161 490 725	161 490 726	161 490 727	161 490 728	161 490 729
3	Connecting piece 546 PP-H (G30) with fusion socket metric	1	167 482 900	167 482 901	167 482 902	167 482 903	167 482 904	167 482 905	167 482 906

No.	Article / Material	Pieces	d16 DN10	d20 DN15	d25 DN20	d32 DN25	d40 DN32	d50 DN40	d63 DN50
3	Connecting piece 546 PP-H (G32) with socket fusion spigot metric	1	167 482 922	167 482 923	167 482 924	167 482 925	167 482 926	167 482 927	167 482 928
3	Connecting piece 546 PP-H (G33) with threaded socket Rp fortified	1	167 482 911	167 482 912	167 482 913	167 482 914	167 482 915	167 482 916	167 482 917
3	Connecting piece 546 PP-H (G34) with threaded socket NPT fortified	1	167 480 966	167 482 967	167 482 968	167 482 969	167 482 970	167 482 971	167 482 972
3	Connecting piece 546 PP-H (G35) with butt fusion spigot IR Plus® SDR11 metric	1	-	167 482 945	167 482 946	167 482 947	167 482 948	167 482 749	167 482 950
3	Connecting piece 546 PP-H (G36) with butt fusion spigot SDR17,6 metric	1	-	-	-	-	167 482 937	167 482 938	167 482 939
3	Connecting piece 546 PP-H (G37) with butt fusion spigot long SDR11 metric	1	-	167 482 956	167 482 957	167 482 958	167 482 959	167 482 960	167 482 961
3	Connecting piece 546 PE 100 (G40) with fusion socket metric	1	193 480 175	193 480 176	193 480 177	193 480 178	193 480 179	193 480 180	193 480 181
3	Connecting piece 546 PE 100 (G41) with butt fusion spigot SDR11 metric	1	-	193 480 102	193 480 103	193 480 104	193 480 105	193 480 106	193 480 107
3	Connecting piece 546 PE 100 (G42) with butt fusion spigot SDR17,6 metric	1	-	-	-	-	193 480 086	193 480 087	193 480 088
3	Connecting piece 546 PE 100 (G43) with butt fusion spigot long SDR11 metric	1	-	193 480 152	193 480 153	193 480 154	193 480 155	193 480 156	193 480 157
3	Connecting piece 546 PVC-U (G60) subassembly with fixed flange serrated PVC-U metric	1	-	161 486 360	161 486 361	161 483 362	161 486 363	161 486 364	161 486 365
3	Connecting piece 546 PVC-U (G61) subassembly with fixed flange flat PVC-U metric	1	-	161 486 295	161 486 296	161 486 297	161 486 298	161 486 299	161 486 300

No.	Article / Material	Pieces	d16 DN10	d20 DN15	d25 DN20	d32 DN25	d40 DN32	d50 DN40	d63 DN50
3	Connecting piece 546 PVC-U (G70) subassembly with backing flange PVC-U Inch ANSI	1	-	161 486 265	161 486 266	161 486 267	161 486 268	161 486 269	161 486 270
3	Connecting piece 546 PVC-U (G71) subassembly with backing flange PVC-U Inch ANSI	1	-	161 486 275	161 486 276	161 486 277	161 486 278	161 486 279	161 486 280
3	Connecting piece 546 PVC-U (G72) subassembly with backing flange PP-ST metric	1	-	161 486 285	161 486 286	161 486 287	161 486 288	161 486 289	161 486 290
3	Connecting piece 546 PVC-U (G73) subassembly with backing flange PP-ST ANSI	1	-	161 486 425	161 486 426	161 486 427	161 486 428	161 486 429	161 486 430
3	Connecting piece blank 546 PVC-U (G80)	1	161 490 837	161 490 837	161 490 838	161 490 839	161 490 840	161 490 841	161 490 842
4	Union nut PVC-U	1	161 490 538	161 490 538	161 490 539	161 490 540	161 490 541	161 490 542	161 490 543
12	Standard handle 546 red (K01)	1	167 484 088	167 484 088	167 484 089	167 484 090	167 484 091	167 484 092	167 484 093
12	Standard handle 546 black (K02)	1	167 484 076	167 484 076	167 484 077	167 484 078	167 484 079	161 484 080	167 484 081
22	Multifunction handle 546 red (K11) with ratchet settings lockable	1	167 484 100	167 484 100	167 484 101	167 484 102	167 484 103	167 484 104	167 484 105
10	Face seal EPDM	1	748 410 059	748 410 059	748 410 106	748 410 151	748 410 062	748 410 003	748 410 231
10	Face seal FPM	1	749 410 059	749 410 059	749 410 106	749 410 151	749 410 062	749 410 003	749 410 231

## Spare parts for ball valve type 546 PVC-U (DN65-100)



No.	Article / Material	Pieces	d75 DN65	d90 DN80	d110 DN100
	Central part		161 486 157	161 486 158	161 486 159
1	Body PVC-U	1			
2	PVC-U	1			
5	Ball PVC-U	1			
6	Stem PVC-U	1			
7	Ball seal PTFE	2			
8	Backing seal EPDM	2			
9	Body seal EPDM	1			
10	Face seal EPDM	2			
11	Stem seal EPDM	2			
12	Lever PP red	1			
13	handle clip	1			
14	Threaded bush Stainless steel	2			
	Central part		161 486 169	161 486 170	161 486 171
1	Body PVC-U	1			
2	PVC-U	1			
5	Ball PVC-U	1			
6	Stem PVC-U	1			
7	Ball seal PTFE	2			
8	Backing seal FPM	2			
9	Body seal FPM	1			
10	Face seal FPM	2			
11	Stem seal FPM	2			
12	Lever PP red	1			
13	handle clip	1			
14	Threaded bush Stainless steel	2			

No.	Article / Material	Pieces	d75 DN65	d90 DN80	d110 DN100
	Ball set		161 486 381	161 486 382	161 486 383
5	Ball PVC-U	1			
6	Stem EPDM	1			
7	Ball seal PTFE	2			
8	Backing seal EPDM	2			
9	Body seal EPDM	1			
11	Stem seal EPDM	2			
	Ball set		161 486 391	161 486 392	161 486 393
5	Ball PVC-U	1			
6	Stem FPM	1			
7	Ball seal PTFE	2			
8	Backing seal FPM	2			
9	Body seal FPM	1			
11	Stem seal FPM	2			
	Seal set		161 486 406	161 486 407	161 486 408
8	Backing seal EPDM	2			
9	Body seal EPDM	1			
10	Face seal EPDM	2			
11	Stem seal EPDM	2			
	Seal set		161 486 416	161 486 417	161 486 418
8	Backing seal FPM	2			
9	Body seal FPM	1			
10	Face seal FPM	2			
11	Stem seal FPM	2			
3	Connecting piece 546 PVC-U (G01) with solvent cement socket metric	1	161 490 673	161 490 674	161 490 675
3	Connecting piece 546 PVC-U (G02) with solvent cement socket JIS	1	161 490 751	161 490 752	161 490 753
3	Connecting piece 546 PVC-U (G03) with solvent cement socket Inch ASTM	1	161 490 719	161 490 720	161 490 721
3	Connecting piece 546 PVC-U (G04) with solvent cement socket Inch BS	1	161 490 673	161 490 742	161 490 743
3	Connecting piece 546 PVC-U (G05) with solvent cement spigot metric	1	161 490 708	161 490 709	161 490 710
3	Connecting piece 546 PVC-U (G06) with threaded socket Rp	1	161 490 697	161 490 698	161 490 699

No.	Article / Material	Pieces	d75 DN65	d90 DN80	d110 DN100
3	Connecting piece 546 PVC-U (G08) with threaded socket NPT	1	161 490 761	161 490 762	161 490 763
3	Connecting piece 546 PVC-U (G09) with threaded socket NPT	1	161 490 730	161 490 731	161 490 732
3	Connecting piece 546 PE 100 (G43) with butt fusion spigot long SDR11 metric	1	193 480 158	193 480 159	193 480 160
3	Connecting piece 546 PE 100 (G44) with butt fusion spigot long SDR17,6 metric	1	193 480 168	193 480 169	193 480 170
3	Connecting piece 546 PVC-U (G70) subassembly with backing flange PVC-U ISO BS	1	161 486 271	161 486 272	161 486 273
3	Connecting piece 546 PVC-U (G71) subassembly with backing flange PVC-U Inch ANSI	1	161 486 281	161 486 282	161 486 283
3	Connecting piece 546 PP (G72) subassembly with backing flange PP-ST ISO BS	1	161 486 291	161 486 292	161 486 293
3	Connecting piece 546 PP (G73) subassembly with backing flange PP-ST ANSI	1	161 486 431	161 486 432	161 486 433
3	Connecting piece 546 PVC-U (G78) subassembly with backing flange JIS	1	161 486 201	161 486 202	161 486 203
4	Union nut PVC-U	1	161 490 544	161 490 545	161 490 546
10	Face seal EPDM	1	748 410 119	748 410 023	748 410 254
10	Face seal FPM	1	749 410 119	749 410 023	749 410 254
12	Standard handle 546 red (K01)	1	167 484 094	167 484 095	167 484 096
12	Standard handle 546 black (K02)	1	167 484 082	167 484 083	167 484 084

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## Configurator GF 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

**A01 B01 C D E F G G I K L**

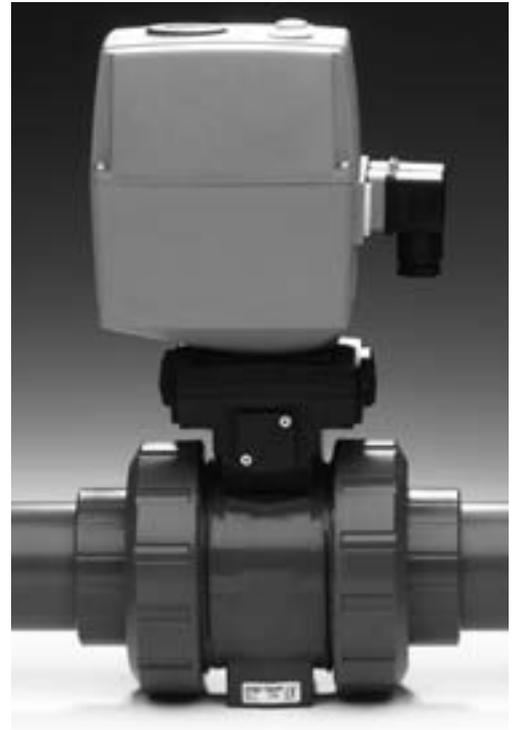
left right

# Copiable GF ball valve type 546 with electric Actuator

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

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

**We supply what you put together.**



### Electric Actuator EA11

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

#### Accessories EA11

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

### Electric Actuator EA21/31

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

#### Accessories EA21

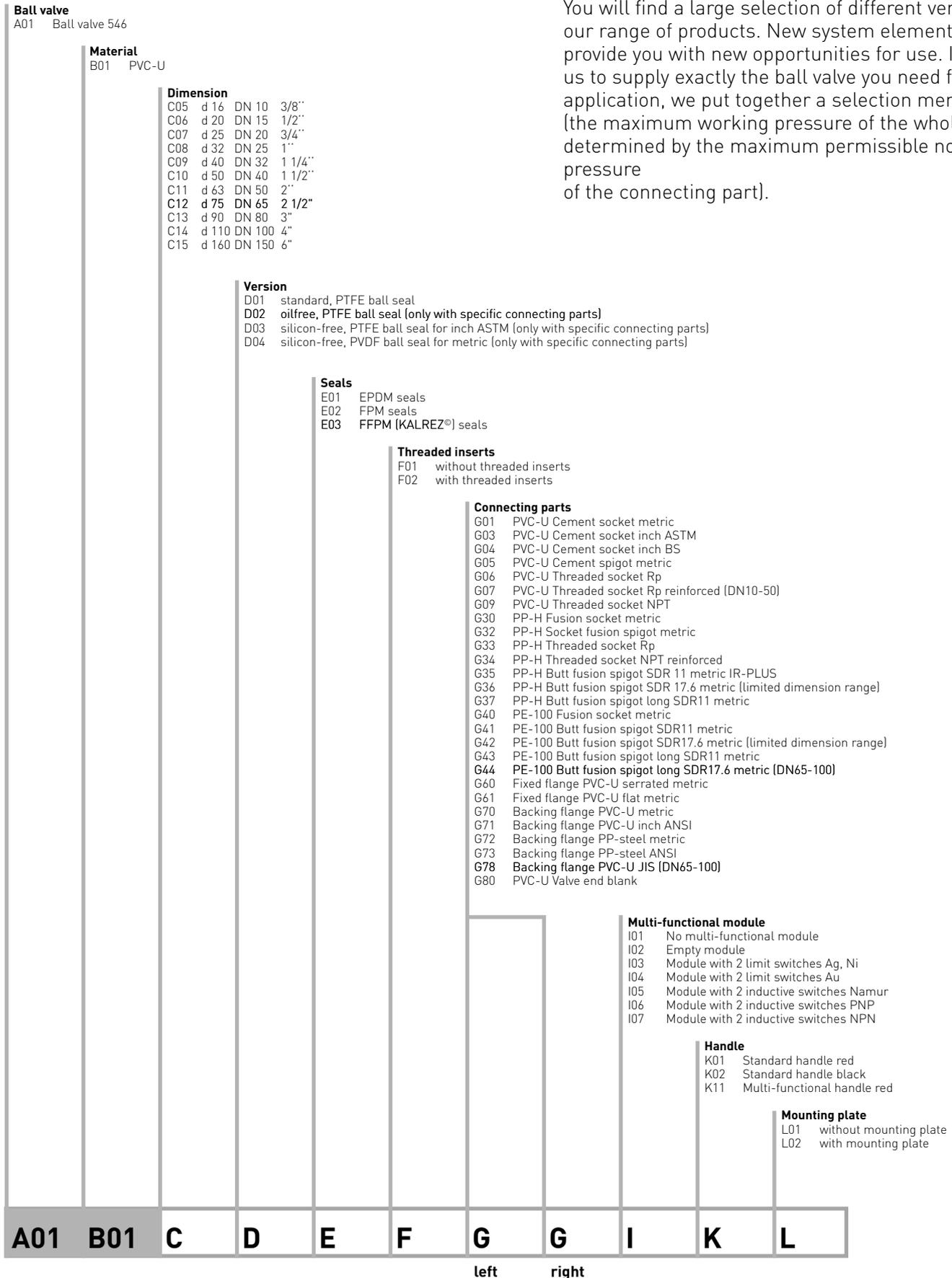
- W01 No accessories
- W02 Heating element
- W03 Cycle time module
- W04 Cycle time monitoring
- W05 Cycles monitoring
- W06 Motor current monitoring
- W07 2 limit switches Ag, Ni
- W08 2 limit switches Gold
- W09 2 limit switches NPN
- W10 2 limit switches PNP
- W11 Positioner
- W12 Electric position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

<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>

# Copiable

## Configurator GF 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).



# Copiable GF ball valve type 546 with pneumatic actuator

## It's so easy to configurate 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

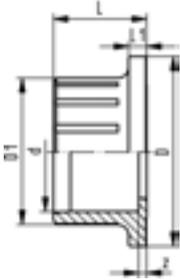
- R01 without stroke limiter
- R02 with stroke limiter

<b>P</b>	<b>Q</b>	<b>R</b>	
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# Spare parts for ball valve type 546 PVC-U

## Valve end 546 PVC-U (G01)

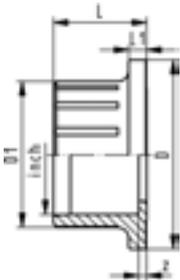
With solvent cement socket metric



d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	161 490 666	-	0.009	38	23	18	4	4
20	16	161 490 667	-	0.011	38	27	20	4	4
25	16	161 490 668	-	0.016	44	33	23	5	4
32	16	161 490 669	-	0.025	53	41	26	5	4
40	16	161 490 670	-	0.043	65	51	31	5	5
50	16	161 490 671	-	0.064	77	62	34	6	3
63	16	161 490 672	-	0.119	99	77	41	7	3
75	16	161 490 673	-	0.227	125	92	49	9	4
90	16	161 490 674	-	0.376	150	110	57	10	5
110	16	161 490 675	-	0.639	180	134	69	11	5

## Valve end 546 PVC-U (G03)

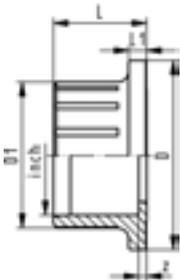
With solvent cement socket Inch ASTM



Inch	d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	16	161 490 712	-	0.012	38	24	25	4	6
1/2	20	16	161 490 713	-	0.014	38	30	25	4	2
3/4	25	16	161 490 714	-	0.020	44	35	28	5	3
1	32	16	161 490 715	-	0.031	53	43	31	5	3
1 1/4	40	16	161 490 716	-	0.046	65	53	34	5	3
1 1/2	50	16	161 490 717	-	0.067	77	60	38	6	3
2	63	16	161 490 718	-	0.118	99	73	41	7	3
2 1/2	75	16	161 490 719	-	0.241	125	92	49	9	4
3	90	16	161 490 720	-	0.394	150	110	57	10	9
4	110	16	161 490 721	-	0.582	180	134	69	11	11

## Valve end 546 PVC-U (G04)

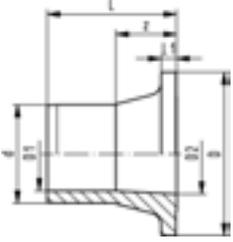
With solvent cement socket Inch BS



Inch	d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	16	161 490 734	-	0.009	38	23	18	4	2
1/2	20	16	161 490 735	-	0.009	38	27	20	4	2
3/4	25	16	161 490 736	-	0.013	44	33	23	5	2
1	32	16	161 490 737	-	0.022	53	41	26	5	2
1 1/4	40	16	161 490 738	-	0.036	65	51	31	5	2
1 1/2	50	16	161 490 739	-	0.071	77	62	34	6	4
2	63	16	161 490 740	-	0.135	99	77	41	7	5
	75	16	161 490 673	-	0.227	125	92	49	9	4
3	90	16	161 490 742	-	0.390	150	110	57	10	6
4	110	16	161 490 743	-	0.577	180	134	69	11	5



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



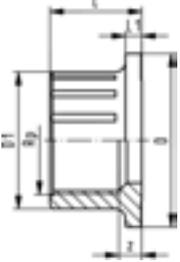
d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	161 490 701	-	0.011	38	10	16	29	4	15
20	16	161 490 702	-	0.014	38	14	16	34	4	18
25	16	161 490 703	-	0.021	44	19	20	39	5	20
32	16	161 490 704	-	0.033	53	24	26	42	5	20
40	16	161 490 705	-	0.050	65	31	33	45	5	19
50	16	161 490 706	-	0.085	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 thread only
- Do not use thread sealing pastes that are harmful to PVC-U



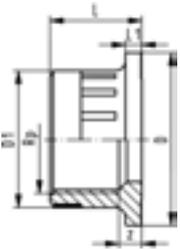
Rp [inch]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	10	161 490 690	-	0.011	38	24	20	4	7
1/2	10	161 490 691	-	0.013	38	28	22	4	6
3/4	10	161 490 692	-	0.019	44	34	25	5	7
1	10	161 490 693	-	0.031	53	42	28	5	7
1 1/4	10	161 490 694	-	0.047	65	52	30	5	7
1 1/2	10	161 490 695	-	0.081	77	63	32	6	9
2	10	161 490 696	-	0.150	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



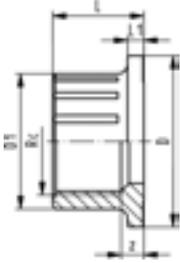
## Valve end 546 PVC-U (G07) With threaded socket Rp reinforced

### Model:

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



Rp [inch]	PN	Code	GP	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	-	0.040	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	-	0.097	77	63	32	6	9
2	16	161 490 831	-	0.166	99	78	38	7	10

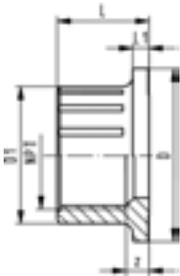


## Valve end 546 PVC-U (G08) With threaded socket Rc

### Model:

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

Rc [inch]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
½	10	<b>161 490 755</b>	-	0.013	38	28	22	4	5
¾	10	<b>161 490 756</b>	-	0.019	44	34	25	5	7
1	10	<b>161 490 757</b>	-	0.033	53	42	28	5	7
1 ¼	10	<b>161 490 758</b>	-	0.047	65	52	30	5	6
1 ½	10	<b>161 490 759</b>	-	0.081	77	63	32	6	8
2	10	<b>161 490 760</b>	-	0.150	99	78	38	7	9
2 ½	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

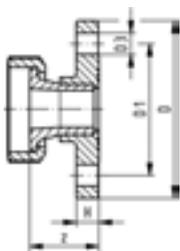


## Valve end 546 PVC-U (G09) With threaded socket NPT

### Model:

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

NPT [inch]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
⅜	10	<b>161 490 723</b>	-	0.014	38	26	21	4	7
½	10	<b>161 490 724</b>	-	0.019	38	33	21	4	4
¾	10	<b>161 490 725</b>	-	0.026	44	39	23	5	5
1	10	<b>161 490 726</b>	-	0.043	53	47	28	5	6
1 ¼	10	<b>161 490 727</b>	-	0.064	65	57	31	5	7
1 ½	10	<b>161 490 728</b>	-	0.093	77	65	34	6	11
2	10	<b>161 490 729</b>	-	0.157	99	77	41	7	17
2 ½	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 serrated PVC-U metric

### Model:

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

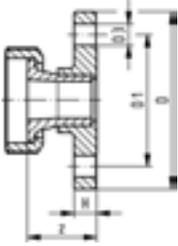
d [mm]	DN [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	<b>161 486 360</b>	-	0.131	95	65	14	12	37
25	20	16	<b>161 486 361</b>	-	0.175	105	75	14	13	42
32	25	16	<b>161 486 362</b>	-	0.256	115	85	14	15	45
40	32	16	<b>161 486 363</b>	-	0.417	140	100	18	17	48
50	40	16	<b>161 486 364</b>	-	0.544	150	110	18	18	56
63	50	16	<b>161 486 365</b>	-	0.861	165	125	18	20	65



## Valve end 546 PVC-U (G61) Assembly with fixed flange flat PVC-U metric

### Model:

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



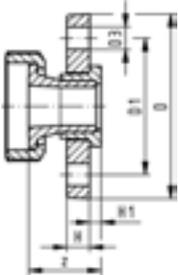
d [mm]	DN [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	z [mm]
20	15	16	<b>161 486 295</b>	-	0.136	95	65	14	12	37
25	20	16	<b>161 486 296</b>	-	0.175	105	75	14	13	42
32	25	16	<b>161 486 297</b>	-	0.254	115	85	14	15	45
40	32	16	<b>161 486 298</b>	-	0.417	140	100	18	17	48
50	40	16	<b>161 486 299</b>	-	0.541	150	110	18	18	56
63	50	16	<b>161 486 300</b>	-	0.861	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



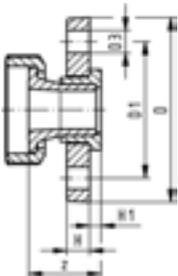
d [mm]	DN [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	<b>161 486 265</b>	-	0.110	95	65	14	11	6	37
25	20	16	<b>161 486 266</b>	-	0.155	105	75	14	12	7	42
32	25	16	<b>161 486 267</b>	-	0.230	115	85	14	14	7	45
40	32	16	<b>161 486 268</b>	-	0.360	140	100	18	15	8	48
50	40	16	<b>161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



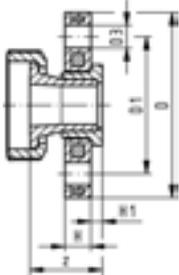
Inch	d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
½	20	16	<b>161 486 275</b>	-	0.110	95	60	14	11	6	37
¾	25	16	<b>161 486 276</b>	-	0.150	105	70	14	12	7	42
1	32	16	<b>161 486 277</b>	-	0.225	115	79	14	14	7	45
1 ¼	40	16	<b>161 486 278</b>	-	0.375	140	89	18	15	8	48
1 ½	50	16	<b>161 486 279</b>	-	0.495	150	98	18	16	8	56
2	63	16	<b>161 486 280</b>	-	0.760	165	121	18	18	9	65
2 ½	75	10	<b>161 486 281</b>	-	1.429	185	140	19	19	10	77
3	90	10	<b>161 486 282</b>	-	2.109	200	152	19	20	11	85
4	110	10	<b>161 486 283</b>	-	3.067	220	190	19	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



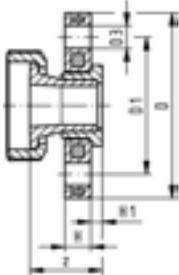
d [mm]	DN [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
20	15	16	<b>161 486 285</b>	-	0.265	95	65	14	12	6	37
25	20	16	<b>161 486 286</b>	-	0.325	105	75	14	12	7	42
32	25	16	<b>161 486 287</b>	-	0.530	115	85	14	16	7	45
40	32	16	<b>161 486 288</b>	-	0.815	140	100	18	16	8	48
50	40	16	<b>161 486 289</b>	-	1.070	150	110	18	18	8	56
63	50	16	<b>161 486 290</b>	-	1.395	165	125	18	18	9	65
75	65	16	<b>161 486 291</b>	-	2.319	185	145	18	18	10	77
90	80	16	<b>161 486 292</b>	-	2.905	200	160	18	20	11	85
110	100	16	<b>161 486 293</b>	-	4.079	220	180	18	20	12	93



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

### Model:

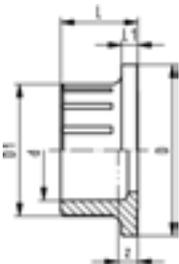
- Joint made with special adhesive Tangit for PVC-U
- Connecting dimensions: ANSI/ASME B 16.5, ASTM D 4024, BS 1560 (bolt circle 150 lbs)



Inch	DN [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	z [mm]
1/2	15	16	<b>161 486 425</b>	-	0.250	95	60	16	12	6	37
3/4	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 1/4	32	16	<b>161 486 428</b>	-	0.835	140	89	16	16	8	48
1 1/2	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 1/2	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



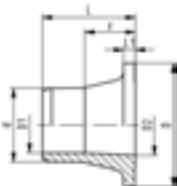
## Valve end 546 PP-H (G30) With fusion socket metric



d [mm]	PN	Code	GP	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>	-	0.017	53	41	24	5	6
40	10	<b>167 482 904</b>	-	0.027	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



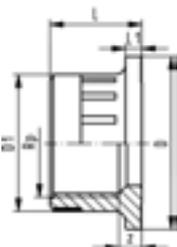
d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	10	<b>167 482 922</b>	-	0.007	38	10	16	27	4	13	14
20	10	<b>167 482 923</b>	-	0.009	38	14	16	32	4	14	18
25	10	<b>167 482 924</b>	-	0.013	44	19	20	37	5	16	21
32	10	<b>167 482 925</b>	-	0.021	53	24	26	40	5	18	22
40	10	<b>167 482 926</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:

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



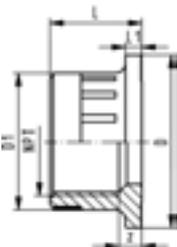
Rp [inch]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
3/8	16	<b>167 482 911</b>	-	0.008	38	24	20	4	7
1/2	16	<b>167 482 912</b>	-	0.009	38	28	21	4	6
3/4	16	<b>167 482 913</b>	-	0.012	44	34	23	5	7
1	16	<b>167 482 914</b>	-	0.024	53	42	28	5	7
1 1/4	16	<b>167 482 915</b>	-	0.037	65	52	31	5	7
1 1/2	16	<b>167 482 916</b>	-	0.052	77	63	34	6	9
2	16	<b>167 482 917</b>	-	0.091	99	78	41	7	10



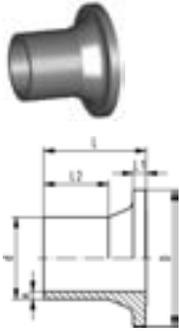
## Valve end 546 PP-H (G34) With threaded socket NPT reinforced

### Model:

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



NPT [inch]	PN	Code	GP	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>	-	0.009	38	33	21	4	4
3/4	16	<b>167 482 968</b>	-	0.012	44	39	23	5	5
1	16	<b>167 482 969</b>	-	0.024	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



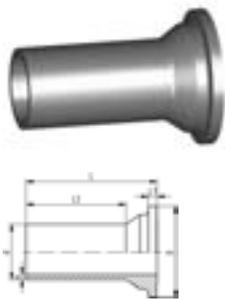
### Valve end 546 PP-H (G35) With butt fusion spigot IR-Plus® SDR11 metric

d [mm]	FM	PN	Code	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	10	167 482 945	-	0.007	38	1,9	37	4	25
25	IR	10	167 482 946	-	0.011	44	2,3	39	5	25
32	IR	10	167 482 947	-	0.017	53	3	40	5	25
40	IR	10	167 482 948	-	0.028	65	3,7	43	5	25
50	IR	10	167 482 949	-	0.045	77	4,6	51	6	25
63	IR	10	167 482 950	-	0.096	99	5,8	60	7	28
75	IR	10	167 482 951	-	0.193	125	8.2	65	9	41
90	IR	10	167 482 952	-	0.270	150	9.9	62	10	33
110	IR	10	167 482 953	-	0.421	180	12	69	11	37



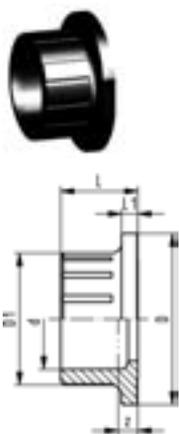
### Valve end 546 PP-H (G36) With butt fusion spigot SDR17,6 metric

d [mm]	PN	Code	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	6	167 482 937	-	0.032	65	2,3	43	5	25
50	6	167 482 938	-	0.053	77	2,9	51	6	25
63	6	167 482 939	-	0.099	99	3,6	60	7	28
75	6	167 482 940	-	0.189	125	4.65	65	9	41
90	6	167 482 941	-	0.265	150	5.5	62	10	33
110	6	167 482 942	-	0.414	180	6.75	69	11	37



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

d [mm]	PN	Code	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	10	167 482 956	-	0.012	38	2,3	69	4	53
25	10	167 482 957	-	0.019	44	2,3	76	5	58
32	10	167 482 958	-	0.029	53	3	76	5	58
40	10	167 482 959	-	0.048	65	3,7	82	5	61
50	10	167 482 960	-	0.082	77	4,6	91	6	63
63	10	167 482 961	-	0.157	99	5,8	110	7	77

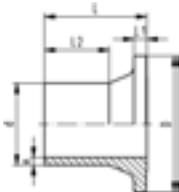


### Valve end 546 PE 100 (G40) With fusion socket metric

d [mm]	PN	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
16	16	193 480 175	-	0.007	38	23	19	4	5
20	16	193 480 176	-	0.008	38	27	20	4	5
25	16	193 480 177	-	0.012	44	33	22	5	6
32	16	193 480 178	-	0.019	53	41	24	5	6
40	16	193 480 179	-	0.033	65	51	26	5	7
50	16	193 480 180	-	0.050	77	62	29	6	8
63	16	193 480 181	-	0.095	99	77	34	7	8



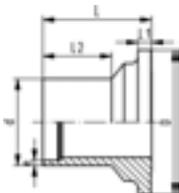
### Valve end 546 PE 100 (G41) With butt fusion spigot SDR11 metric



d [mm]	FM	PN	Code	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	IR	16	<b>193 480 102</b>	-	0.007	38	1,9	37	4	25
25	IR	16	<b>193 480 103</b>	-	0.011	44	2,3	39	5	25
32	IR	16	<b>193 480 104</b>	-	0.017	53	3	40	5	25
40	IR	16	<b>193 480 105</b>	-	0.028	65	3,7	43	5	25
50	IR	16	<b>193 480 106</b>	-	0.045	77	4,6	51	6	25
63	IR	16	<b>193 480 107</b>	-	0.096	99	5,8	60	7	28



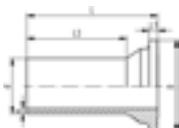
### Valve end 546 PE 100 (G42) With butt fusion spigot SDR17,6 metric



d [mm]	FM	PN	Code	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
40	IR	10	<b>193 480 086</b>	-	0.028	65	2,3	43	5	25
50	IR	10	<b>193 480 087</b>	-	0.045	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	GP	kg	D [mm]	e [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	<b>193 480 152</b>	-	0.012	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>	-	0.029	53	3	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>	-	0.082	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>	-	0.277	125	6,8	125	9	89
90	16	<b>193 480 159</b>	-	0.439	150	8,2	140	10	103
110	16	<b>193 480 160</b>	-	0.731	180	10	160	11	117



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

Model:

- Jointing face flat



d [mm]	DN [mm]	Inch	PN	Code	GP	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>	-	0.013	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



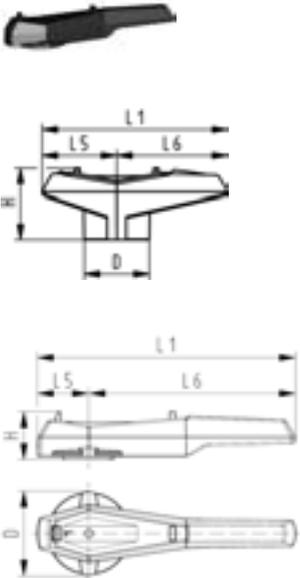
## Union nut 546 PVC-U

d [mm]	DN [mm]	Code	GP	kg	D [mm]	D1 [mm]	L [mm]	S [mm]
16 - 20	10 - 15	<b>161 490 538</b>	-	0.019	50	34	19	42
25	20	<b>161 490 539</b>	-	0.026	58	39	20	48
32	25	<b>161 490 540</b>	-	0.041	68	47	24	58
40	32	<b>161 490 541</b>	-	0.077	84	57	27	71
50	40	<b>161 490 542</b>	-	0.111	97	65	30	84
63	50	<b>161 490 543</b>	-	0.191	124	79	36	106
75	65	<b>161 490 544</b>	-	0.562	166	94	48	135
90	80	<b>161 490 545</b>	-	0.882	200	113	54	135
110	100	<b>161 490 546</b>	-	1.355	238	137	60	198



## Standard handle 546 red (K01)

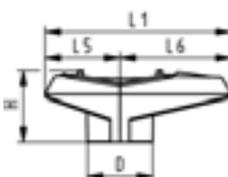
d [mm]	DN [mm]	Code	kg	L1 [mm]	L5 [mm]	L6 [mm]	H [mm]	D [mm]
16 - 20	10 - 15	<b>167 484 088</b>	0.012	77	32	45	31	26
25	20	<b>167 484 089</b>	0.022	97	39	58	37	34
32	25	<b>167 484 090</b>	0.022	97	39	58	37	34
40	32	<b>167 484 091</b>	0.042	128	54	74	46	40
50	40	<b>167 484 092</b>	0.042	128	54	74	46	40
63	50	<b>167 484 093</b>	0.059	152	66	87	54	44
75	65	<b>167 484 094</b>	0.250	270	64	206	58	106
90	80	<b>167 484 095</b>	0.250	270	64	206	58	106
110	100	<b>167 484 096</b>	0.298	320	64	256	60	106





## Standard handle 546 black (K02)

d [mm]	DN [mm]	Code	GP	kg	L1 [mm]	L5 [mm]	L6 [mm]	H [mm]	D [mm]
16 - 20	10 - 15	<b>167 484 076</b>	-	0.012	77	32	45	31	26
25	20	<b>167 484 077</b>	-	0.022	97	39	58	37	34
32	25	<b>167 484 078</b>	-	0.022	97	39	58	37	34
40	32	<b>167 484 079</b>	-	0.042	128	54	74	46	40
50	40	<b>167 484 080</b>	-	0.042	128	54	74	46	40
63	50	<b>167 484 081</b>	-	0.059	152	66	87	54	44
75	65	<b>167 484 082</b>	-	0.250	270	64	206	58	106
90	80	<b>167 484 083</b>	-	0.250	270	64	206	58	106
110	100	<b>167 484 084</b>	-	0.298	320	64	256	60	106

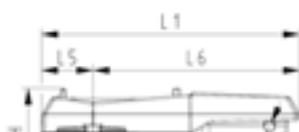
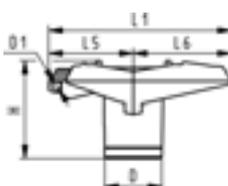


## Multifunctional handle 546 red (K11) With ratchet settings lockable

### Note:

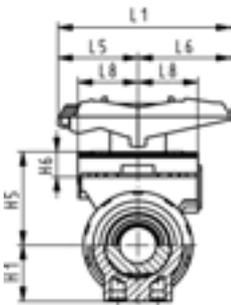
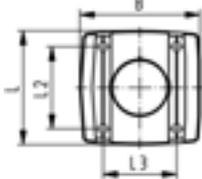
- To retrofit the ball valve 546 with the multifunctional handle a multifunction module is necessary in the dimensions DN65-100

d-d [mm]	DN-DN [mm]	Code	GP	kg	D [mm]	D1 [mm]	H [mm]	L1 [mm]	L5 [mm]	L6 [mm]
16 - 20	10 - 15	<b>167 484 100</b>	-	0.026	26	5	53	87	42	45
- 25	- 20	<b>167 484 101</b>	-	0.045	34	5	59	108	50	58
- 32	- 25	<b>167 484 102</b>	-	0.045	34	5	59	108	50	58
- 40	- 32	<b>167 484 103</b>	-	0.082	40	5	69	140	66	75
- 50	- 40	<b>167 484 104</b>	-	0.082	40	5	69	140	66	75
- 63	- 50	<b>167 484 105</b>	-	0.104	44	5	80	165	78	87
- 75	- 65	<b>161 486 689</b>	-	0.480	115	12	105	270	64	206
- 90	- 80	<b>161 486 690</b>	-	0.480	115	12	105	270	64	206
110 - 140	100 - 125	<b>161 486 691</b>	-	0.480	115	12	107	320	64	256





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

### Model:

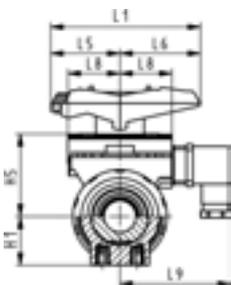
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module from d75 - d110 has a master gauge F07 according to EN ISO 5211.

d-d [mm]	DN-DN [mm]	Code	GP	kg
16 - 20	10 - 15	<b>167 482 680</b>	-	0.055
25 - 32	20 - 25	<b>167 482 681</b>	-	0.070
40 - 50	32 - 40	<b>167 482 682</b>	-	0.080
- 63	- 50	<b>167 482 683</b>	-	0.120
75 - 90	65 - 80	<b>167 482 684</b>	-	0.135
- 110	- 100	<b>167 482 685</b>	-	0.175

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

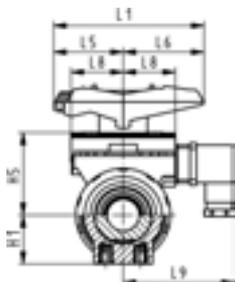
### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- 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]	DN-DN [mm]	Code	GP	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	10 - 15	<b>167 482 626</b>	-	0.110	27	50	87	42	45	34	73
25 - 32	20 - 25	<b>167 482 627</b>	-	0.120	30	53	108	50	58	38	77
40 - 50	32 - 40	<b>167 482 628</b>	-	0.135	44	72	140	66	75	41	80
- 63	- 50	<b>167 482 629</b>	-	0.175	64	94	165	78	87	46	85
75 - 90	65 - 80	<b>167 482 630</b>	-	0.460	85	157	270	64	206		
- 110	- 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

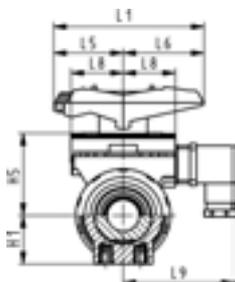
### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- 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]	DN-DN [mm]	Code	GP	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	10 - 15	<b>167 482 635</b>	-	0.110	27	50	87	42	45	34	73
25 - 32	20 - 25	<b>167 482 636</b>	-	0.120	30	53	108	50	58	38	77
40 - 50	32 - 40	<b>167 482 637</b>	-	0.135	44	72	140	66	75	41	80
- 63	- 50	<b>167 482 638</b>	-	0.175	64	94	165	78	87	46	85
75 - 90	65 - 80	<b>167 482 639</b>	-	0.460	85	157	270	64	206		
- 110	- 100	<b>167 482 640</b>	-	0.480	123	175	320	64	256		



DN10/15 - 50



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

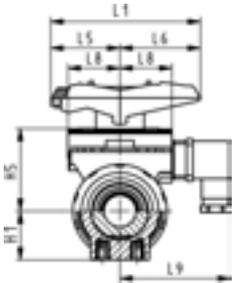
### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- 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]	DN-DN [mm]	Code	GP	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	10 - 15	<b>167 482 671</b>	-	0.110	27	50	87	42	45	34	73
25 - 32	20 - 25	<b>167 482 672</b>	-	0.120	30	53	108	50	58	38	77
40 - 50	32 - 40	<b>167 482 673</b>	-	0.135	44	72	140	66	75	41	80
- 63	- 50	<b>167 482 674</b>	-	0.175	64	94	165	78	87	46	85
75 - 90	65 - 80	<b>167 482 675</b>	-	0.460	85	157	270	64	206		
- 110	- 100	<b>167 482 676</b>	-	0.480	123	175	320	64	256		



DN10/15 - 50



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

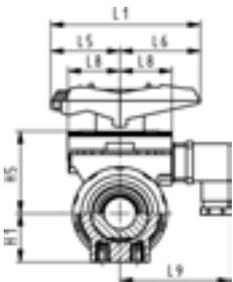
### Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- 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]	DN-DN [mm]	Code	GP	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	10 - 15	<b>167 482 662</b>	-	0.110	27	50	87	42	45	34	73
25 - 32	20 - 25	<b>167 482 663</b>	-	0.120	30	53	108	50	58	38	77
40 - 50	32 - 40	<b>167 482 664</b>	-	0.135	44	72	140	66	75	41	80
- 63	- 50	<b>167 482 665</b>	-	0.175	64	94	165	78	87	46	85
75 - 90	65 - 80	<b>167 482 666</b>	-	0.460	85	157	270	64	206		
- 110	- 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:

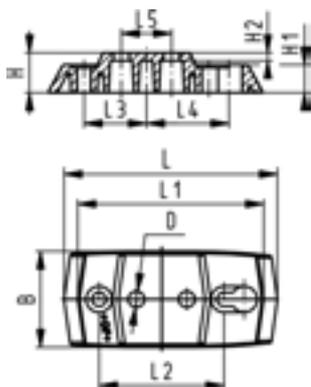
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

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



## Mounting plate 546 PP-GF (L02)

- 2 mounting screws inclusive



d-d [mm]	DN-DN [mm]	Code	GP	kg
16 - 32	10 - 25	<b>167 484 110</b>	-	0.055
40 - 63	32 - 50	<b>167 484 111</b>	-	0.086

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

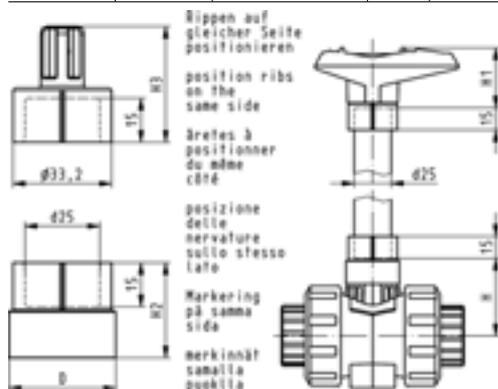


## Handle extension 546 PVC-U metric

### Model:

- For Ball Valve Type 546
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site

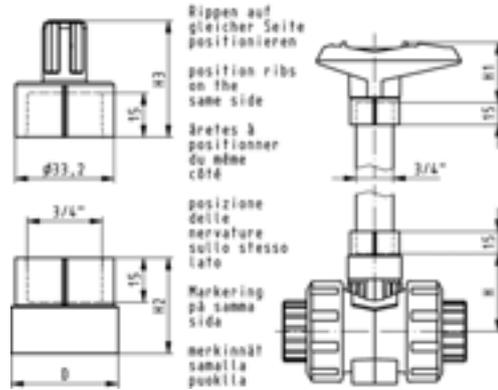
d-d [mm]	DN-DN [mm]	Code	GP	kg	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]
16 - 20	10 - 15	<b>161 486 435</b>	-	0.032	41	52	29	36	26
25 - 32	20 - 25	<b>161 486 436</b>	-	0.037	50	62	32	39	36
40 - 50	32 - 40	<b>161 486 437</b>	-	0.047	65	76	34	44	40
- 63	- 50	<b>161 486 438</b>	-	0.058	84	87	37	48	44



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

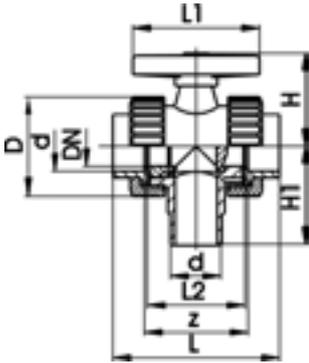
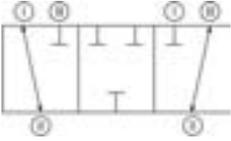
- For Ball Valve Type 546

DN-DN [mm]	Inch	Code	GP	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>	-	0.037	50	62	32	39	36
32 - 40	1 1/4-1 1/2	<b>161 486 445</b>	10	0.047	65	76	34	44	40
50 -	2	<b>161 486 446</b>	-	0.058	84	87	37	48	44



# Ball valves 3-way

## 3-Way ball valve type 343 PVC-U vertical With solvent cement sockets metric



### Model:

- Vertical inlet solvent cement spigot
- L-port ball
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 180°, without turn limiter

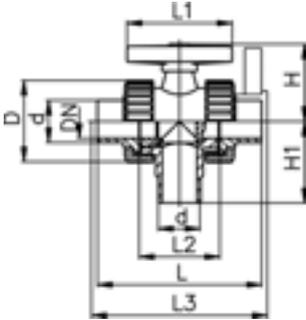
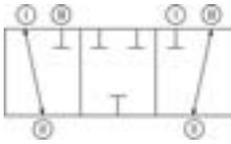
### Mode of action:

- For interconnection of two inputs

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
16	10	10	49	<b>161 343 401</b>	<b>161 343 411</b>	10	0.166
20	15	10	77	<b>161 343 402</b>	<b>161 343 412</b>	10	0.169
25	20	10	146	<b>161 343 403</b>	<b>161 343 413</b>	4	0.281
32	25	10	260	<b>161 343 404</b>	<b>161 343 414</b>	12	0.399
40	32	10	437	<b>161 343 405</b>	<b>161 343 415</b>	4	0.652
50	40	10	667	<b>161 343 406</b>	<b>161 343 416</b>	8	1.015
63	50	10	1293	<b>161 343 407</b>	<b>161 343 417</b>	-	1.804

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	71	45	99	78	63	50	57
20	71	45	102	78	63	50	62
25	82	53	120	92	75	60	72
32	87	64	131	100	79	70	77
40	98	78	150	110	89	80	87
50	101	92	163	120	95	92	97
63	121	116	197	146	115	110	112



### 3-Way ball valve type 343 PVC-U vertical With solvent cement spigots metric

**Model:**

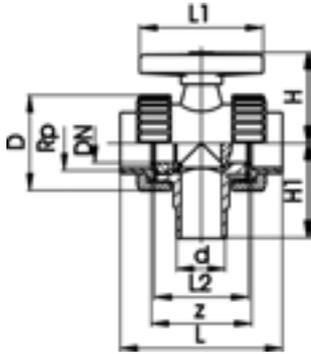
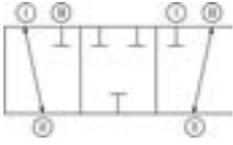
- Vertical inlet solvent cement spigot
- L-port ball
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 180°, without turn limiter

**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	GP	kg
16	10	10	49	<b>161 343 441</b>	<b>161 343 451</b>	10	0.165
20	15	10	77	<b>161 343 442</b>	<b>161 343 452</b>	10	0.172
25	20	10	146	<b>161 343 443</b>	<b>161 343 453</b>	4	0.286
32	25	10	260	<b>161 343 444</b>	<b>161 343 454</b>	12	0.411
40	32	10	437	<b>161 343 445</b>	<b>161 343 455</b>	-	0.670
50	40	10	667	<b>161 343 446</b>	<b>161 343 456</b>	-	1.060
63	50	10	1293	<b>161 343 447</b>	<b>161 343 457</b>	-	1.850

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]
16	43	114	78	63	120	50	57
20	43	124	78	63	130	50	62
25	53	144	92	75	150	60	72
32	64	154	100	79	160	70	77
40	78	174	110	89	180	80	87
50	92	194	120	95	200	92	97
63	116	224	146	115	230	110	112



## 3-Way ball valve type 343 PVC-U vertical With threaded sockets Rp

### Model:

- Vertical inlet solvent cement spigot
- L-port ball
- Easy installation and removal using union on third outlet
- Ball seals PTFE
- Electric actuator available separately
- Angle of operation 180°, without turn limiter

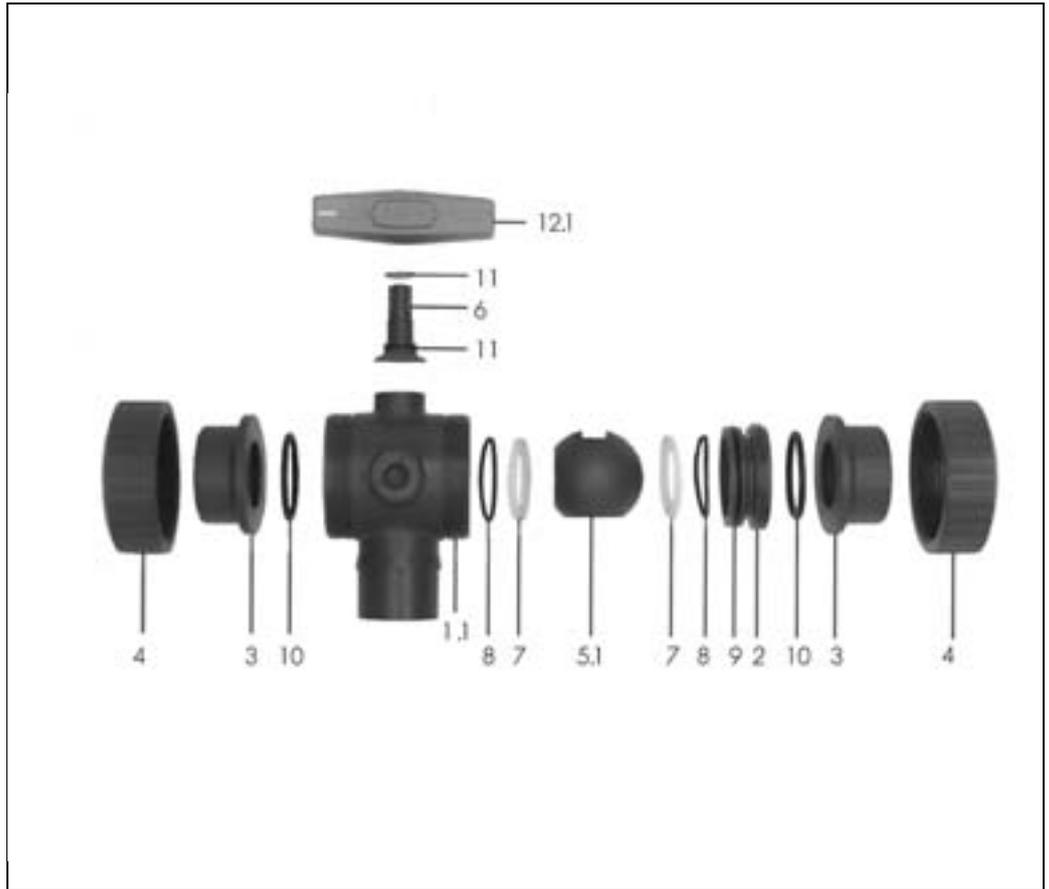
### Mode of action:

- For interconnection of two inputs

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
3/8	10	10	49	<b>161 343 421</b>	<b>161 343 431</b>	10	0.164
1/2	15	10	77	<b>161 343 422</b>	<b>161 343 432</b>	10	0.168
3/4	20	10	146	<b>161 343 423</b>	<b>161 343 433</b>	-	0.286
1	25	10	260	<b>161 343 424</b>	<b>161 343 434</b>	-	0.398
1 1/4	32	10	437	<b>161 343 425</b>	<b>161 343 435</b>	-	0.688
1 1/2	40	10	667	<b>161 343 426</b>	<b>161 343 436</b>	-	1.410
2	50	10	1293	<b>161 343 427</b>	<b>161 343 437</b>	-	2.000

Rp [inch]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
3/8	67	45	99	78	63	50	57
1/2	67	45	102	78	63	50	62
3/4	79	53	120	92	75	60	72
1	83	64	131	100	79	70	77
1 1/4	96	78	150	110	89	80	87
1 1/2	109	92	163	120	95	92	97
2	135	116	197	146	115	110	112

## Spare Parts Ball Valves Type 343, PVC-U



No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN 50
	Ball Sets vertical		161 483 343 No. 11, 1 piece	161 483 343 No. 11, 1 piece	161 483 344	161 483 345	161 483 346	161 483 347	161 483 348
5.1	L-port ball PVC-U	1							
7	Ball seals PTFE	2							
6	Stem PVC-U	1							
11	Stem seals EPDM	2							
12.1	Lever PVC-U	1							
	Ball Sets vertical		161 483 351 No. 11, 1 piece	161 483 351 No. 11, 1 piece	161 483 352	161 483 353	161 483 354	161 483 355	161 483 356
5.1	L-port ball PVC-U	1							
7	Ball seals PTFE	2							
6	Stem PVC-U	1							
11	Stem seals FPM	2							
12.1	Lever PVC-U	1							
	Seal Sets		161 482 883 No. 11, 1 piece	161 482 883 No. 11, 1 piece	161 482 884	161 482 885	161 482 886	161 482 887	161 482 888
8	Backing seals EPDM	2							
9	Body seal EPDM	1							
10	Face seal EPDM	2							
11	Stem seals EPDM	2							
	Seal Sets		161 482 892 No. 11, 1 piece	161 482 892 No. 11, 1 piece	161 482 893	161 482 894	161 482 895	161 482 896	161 482 897
8	Backing seals FPM	2							
9	Body seal FPM	1							
10	Face seal FPM	2							
11	Stem seals FPM	2							
2	Union Bushes, PVC-U	1	161 482 339	161 482 339	161 482 340	161 482 341	161 482 342	161 482 343	161 482 344
10	Union seals, EPDM	1	748 410 042	748 410 042	748 410 116	748 410 103	748 410 027	748 410 010	748 410 011

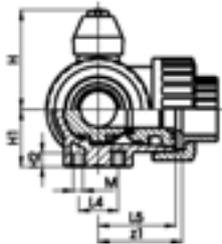
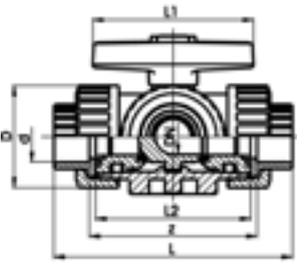
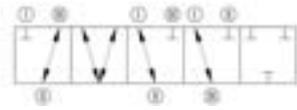
No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50
10	Union seals, FPM	1	749 410 042	749 410 042	749 410 116	749 410 103	749 410 027	749 410 010	749 410 011
3	Valve Ends with Socket, PVC-U metric	1	161 480 536	161 480 537	161 480 538	161 480 539	161 480 540	161 480 541	161 480 542
3	Valve Ends with Spigot, PVC-U metric	1	161 482 345	161 482 346	161 482 347	161 482 348	161 482 349	161 482 350	161 482 351
3	Valve Ends, PVC-U Rp	1	161 480 550	161 480 551	161 480 552	161 480 553	161 480 554	161 480 555	161 480 556
3	Valve Ends with Fusion Socket, PE 80	1	173 480 000	173 480 001	173 480 002	173 480 003	173 480 004	173 480 005	173 480 006
3	Butt- and Electro Fusion Spigots, PE100 SDR11	1	-	193 480 127	193 480 128	193 480 129	193 480 130	193 480 131	193 480 132
4	Union Nuts, PVC-U	1	161 340 617	161 340 617	161 340 618	161 340 619	161 340 620	161 482 119	161 482 613
12,1	Lever, PVC-U vertical	1	161 480 715	161 480 715	161 480 716	161 480 717	161 480 718	161 482 146	161 482 147



### 3-Way ball valve type 343 PVC-U Horizontal/ L-port With solvent cement sockets metric

**Model:**

- L-port ball
- For easy installation and removal
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM without turn limiter Code	FPM without turn limiter Code	EPDM with turn limiter 90° Code
16	10	10	50	<b>161 343 001</b>	<b>161 343 011</b>	<b>161 343 701</b>
20	15	10	75	<b>161 343 002</b>	<b>161 343 012</b>	<b>161 343 702</b>
25	20	10	150	<b>161 343 003</b>	<b>161 343 013</b>	<b>161 343 703</b>
32	25	10	280	<b>161 343 004</b>	<b>161 343 014</b>	<b>161 343 704</b>
40	32	10	480	<b>161 343 005</b>	<b>161 343 015</b>	<b>161 343 705</b>
50	40	10	620	<b>161 343 006</b>	<b>161 343 016</b>	<b>161 343 706</b>
63	50	10	1230	<b>161 343 007</b>	<b>161 343 017</b>	<b>161 343 707</b>

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM with turn limiter 90° Code	kg
16	10	10	50	<b>161 343 711</b>	0.202
20	15	10	75	<b>161 343 712</b>	0.202
25	20	10	150	<b>161 343 713</b>	0.375
32	25	10	280	<b>161 343 714</b>	0.512
40	32	10	480	<b>161 343 715</b>	0.848
50	40	10	620	<b>161 343 716</b>	1.371
63	50	10	1230	<b>161 343 717</b>	2.636

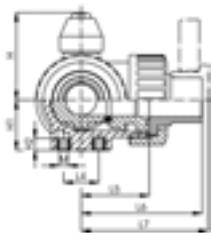
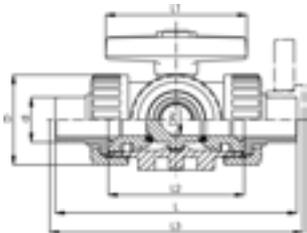
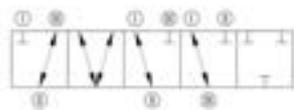
d [mm]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	80	40	45	108	78	72	25	36	50	27	8	6
20	80	40	45	111	78	72	25	36	50	27	8	6
25	94	47	53	131	92	86	25	43	60	33	8	6
32	104	52	65	148	100	96	25	48	68	36	8	6
40	126	63	78	176	110	116	45	58	79	44	9	8
50	144	72	92	206	120	137	45	69	90	49	9	8
63	186	93	116	262	146	179	45	90	109	61	9	8



## 3-Way ball valve type 343 PVC-U Horizontal/ L-port With solvent cement spigots metric

### Model:

- L-port ball
- For easy installation and removal
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM without turn limiter Code	FPM without turn limiter Code	EPDM with turn limiter 90° Code
16	10	10	50	<b>161 343 021</b>	<b>161 343 031</b>	<b>161 343 721</b>
20	15	10	75	<b>161 343 022</b>	<b>161 343 032</b>	<b>161 343 722</b>
25	20	10	150	<b>161 343 023</b>	<b>161 343 033</b>	<b>161 343 723</b>
32	25	10	280	<b>161 343 024</b>	<b>161 343 034</b>	<b>161 343 724</b>
40	32	10	480	<b>161 343 025</b>	<b>161 343 035</b>	<b>161 343 725</b>
50	40	10	620	<b>161 343 026</b>	<b>161 343 036</b>	<b>161 343 726</b>
63	50	10	1230	<b>161 343 027</b>	<b>161 343 037</b>	<b>161 343 727</b>

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM with turn limiter Code	kg
16	10	10	50	<b>161 343 731</b>	0.202
20	15	10	75	<b>161 343 732</b>	0.202
25	20	10	150	<b>161 343 733</b>	0.375
32	25	10	280	<b>161 343 734</b>	0.512
40	32	10	480	<b>161 343 735</b>	0.848
50	40	10	620	<b>161 343 736</b>	1.371
63	50	10	1230	<b>161 343 737</b>	2.636

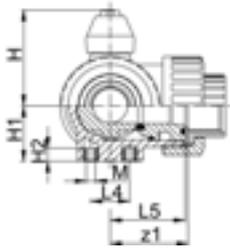
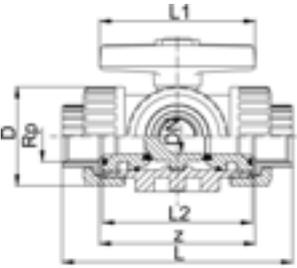
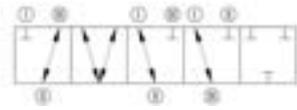
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	45	124	78	72	129	25	36	62	65	50	27	8	6
20	45	134	78	72	139	25	36	67	70	50	27	8	6
25	53	156	92	86	161	25	43	78	81	60	33	8	6
32	65	172	100	96	177	25	48	86	89	68	36	8	6
40	78	202	110	116	207	45	58	101	104	79	44	9	8
50	92	238	120	137	242	45	69	119	121	90	49	9	8
63	116	290	146	179	294	45	90	145	147	109	61	9	8



### 3-Way ball valve type 343 PVC-U Horizontal/ L-port With threaded sockets Rp

**Model:**

- L-port ball
- For easy installation and removal
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360°, without turn limiter



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	<b>161 343 041</b>	<b>161 343 051</b>	0.199
1/2	15	10	75	<b>161 343 042</b>	<b>161 343 052</b>	0.199
3/4	20	10	150	<b>161 343 043</b>	<b>161 343 053</b>	0.370
1	25	10	280	<b>161 343 044</b>	<b>161 343 054</b>	0.504
1 1/4	32	10	480	<b>161 343 045</b>	<b>161 343 055</b>	0.838
1 1/2	40	10	620	<b>161 343 046</b>	<b>161 343 056</b>	1.359
2	50	10	1230	<b>161 343 047</b>	<b>161 343 057</b>	2.622

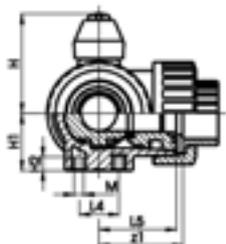
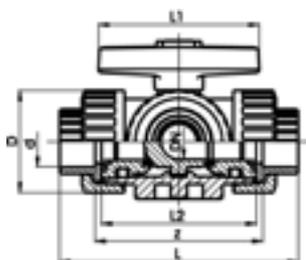
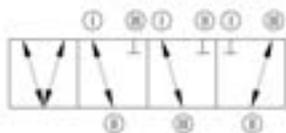
Rp [inch]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
3/8	76	38	45	108	78	72	25	36	50	27	8	6
1/2	76	38	45	111	78	72	25	36	50	27	8	6
3/4	90	45	53	131	92	86	25	43	60	33	8	6
1	100	50	65	148	100	96	25	48	68	36	8	6
1 1/4	122	61	78	176	110	116	45	58	79	44	9	8
1 1/2	152	76	92	206	120	137	45	69	90	49	9	8
2	200	100	116	262	146	179	45	90	109	61	9	8



## 3-Way ball valve type 343 PVC-U Horizontal/ T-port With solvent cement sockets metric

### Model:

- T-port ball
- Ball seal PTFE
- For easy installation and removal
- Pneumatic or electric actuator available separately
- Angle of operation 90°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	140	<b>161 343 201</b>	<b>161 343 211</b>	0.199	
20	15	10	200	<b>161 343 202</b>	<b>161 343 212</b>	0.199	
25	20	10	470	<b>161 343 203</b>	<b>161 343 213</b>	0.370	
32	25	10	793	<b>161 343 204</b>	<b>161 343 214</b>	0.504	
40	32	10	1290	<b>161 343 205</b>	<b>161 343 215</b>	0.838	
50	40	10	1910	<b>161 343 206</b>	<b>161 343 216</b>	1.359	
63	50	10	3100	<b>161 343 207</b>	<b>161 343 217</b>	2.622	

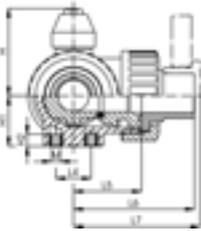
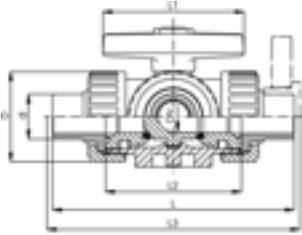
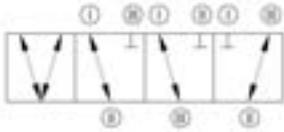
d [mm]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	
16	80	40	45	108	78	72	25	36	50	27	8	6	
20	80	40	45	111	78	72	25	36	50	27	8	6	
25	94	47	53	131	92	86	25	43	60	33	8	6	
32	104	52	65	148	100	96	25	48	68	36	8	6	
40	126	63	78	176	110	116	45	58	79	44	9	8	
50	144	72	92	206	120	137	45	69	90	49	9	8	
63	186	93	116	262	146	179	45	90	109	61	9	8	



### 3-Way ball valve type 343 PVC-U Horizontal/ T-port With solvent cement spigots metric

**Model:**

- T-port ball
- Ball seal PTFE
- For easy installation and removal
- Pneumatic or electric actuator available separately
- Angle of operation 90°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	140	<b>161 343 221</b>	<b>161 343 231</b>	0.199	
20	15	10	200	<b>161 343 222</b>	<b>161 343 232</b>	0.199	
25	20	10	470	<b>161 343 223</b>	<b>161 343 233</b>	0.370	
32	25	10	793	<b>161 343 224</b>	<b>161 343 234</b>	0.504	
40	32	10	1290	<b>161 343 225</b>	<b>161 343 235</b>	0.838	
50	40	10	1910	<b>161 343 226</b>	<b>161 343 236</b>	1.359	
63	50	10	3100	<b>161 343 227</b>	<b>161 343 237</b>	2.622	

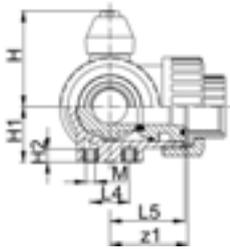
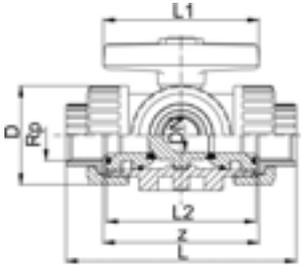
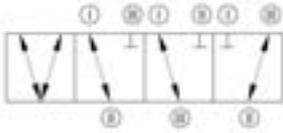
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	
16	45	124	78	72	129	25	36	62	65	50	27	8	6	
20	45	134	78	72	139	25	36	67	70	50	27	8	6	
25	53	156	92	86	161	25	43	78	81	60	33	8	6	
32	65	172	100	96	177	25	48	86	89	68	36	8	6	
40	78	202	110	116	207	45	58	101	104	79	44	9	8	
50	92	238	120	137	242	45	69	119	121	90	49	9	8	
63	116	290	146	179	294	45	90	145	147	109	61	9	8	



## 3-Way ball valve type 343 PVC-U Horizontal/ T-port With threaded sockets Rp

### Model:

- T-port ball
- Ball seal PTFE
- For easy installation and removal
- Pneumatic or electric actuator available separately
- Angle of operation 90°, without turn limiter



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	<b>161 343 241</b>	<b>161 343 251</b>	0.199
1/2	15	10	200	<b>161 343 242</b>	<b>161 343 252</b>	0.199
3/4	20	10	470	<b>161 343 243</b>	<b>161 343 253</b>	0.370
1	25	10	793	<b>161 343 244</b>	<b>161 343 254</b>	0.504
1 1/4	32	10	1290	<b>161 343 245</b>	<b>161 343 255</b>	0.838
1 1/2	40	10	1910	<b>161 343 246</b>	<b>161 343 256</b>	1.359
2	50	10	3100	<b>161 343 247</b>	<b>161 343 257</b>	2.622

Rp [inch]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
3/8	76	38	45	108	78	72	25	36	50	27	8	6
1/2	76	38	45	111	78	72	25	36	50	27	8	6
3/4	90	45	53	131	92	86	25	43	60	33	8	6
1	100	50	65	148	100	96	25	48	68	36	8	6
1 1/4	122	61	78	176	110	116	45	58	79	44	9	8
1 1/2	152	76	92	206	120	137	45	69	90	49	9	8
2	200	100	116	262	146	179	45	90	109	61	9	8



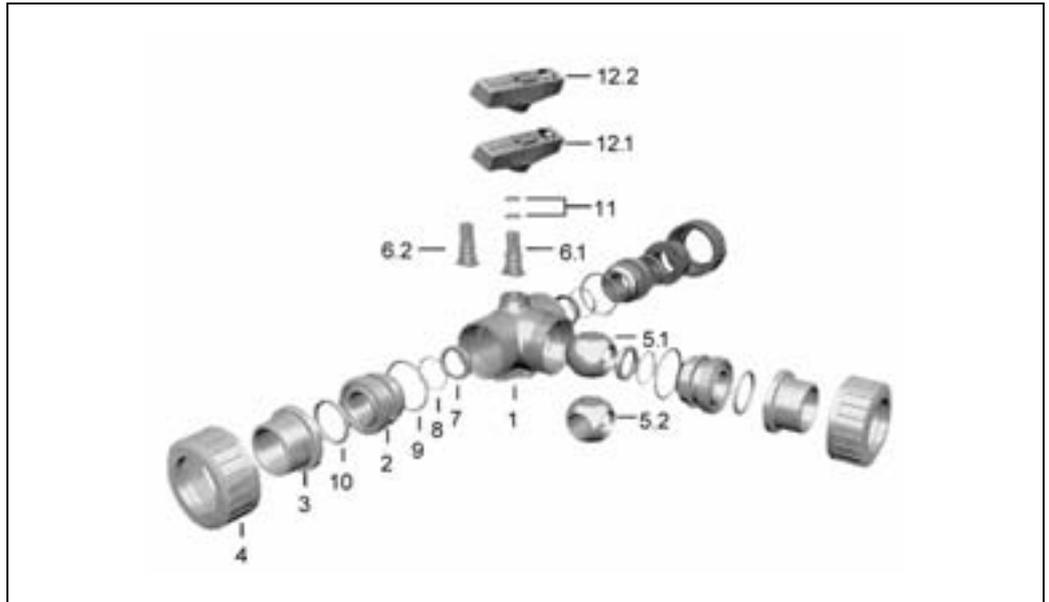
## Turn limiter PVC-U

- For Type 343 horizontal, L-port
- add-on kit is affixable

d [mm]	DN [mm]	Inch [inch]	Code	GP	kg
16 - 20	10 - 15	3/8 - 1/2	<b>161 490 775</b>	-	0.003
25	20	3/4	<b>161 490 776</b>	-	0.005
32	25	1	<b>161 490 777</b>	-	0.007
40	32	1 1/4	<b>161 490 778</b>	-	0.015
50	40	1 1/2	<b>161 490 779</b>	-	0.015
63	50	2	<b>161 490 780</b>	-	0.020

# Spare Parts Ball Valves Type 343

# PVC-U



No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN 50
8	Seal sets		161 484 941	161 484 941	161 484 942	161 484 943	161 484 944	161 484 945	161 484 946
	Backing seals EPDM	3							
9	Body seal EPDM	3							
10	Face seal EPDM	3							
11	Stem seals EPDM	2							
8	Seal sets		161 484 951	161 484 951	161 484 952	161 484 953	161 484 954	161 484 955	161 484 956
	Backing seals FPM	3							
9	Body seal FPM	3							
10	Face seal FPM	3							
11	Stem seals FPM	2							
5.1	Ball set, L-port		161 486 015	161 486 015	161 486 016	161 486 017	161 486 018	161 486 019	161 486 020
	L-port ball PVC-U	1							
7	Ball seals PTFE	3							
6.1	Stem PVC-U	1							
11	Stem seals EPDM	2							
12.1	Lever PVC-U	1							
5.1	Ball set, L-port		161 486 027	161 486 027	161 486 028	161 486 029	161 486 030	161 486 031	161 486 032
	L-port ball PVC-U	1							
7	Ball seals PTFE	3							
6.1	Stem PVC-U	1							
11	Stem seals FPM	2							
12.1	Lever PVC-U	1							
5.2	Ball set, T-port		161 486 039	161 486 039	161 486 040	161 486 041	161 486 042	161 486 043	161 486 044
	T-port ball PVC-U	1							
7	Ball seals PTFE	3							
6.2	Stem PVC-U	1							
11	Stem seals EPDM	2							
12.2	Lever PVC-U	1							
5.2	Ball set, T-port		161 486 051	161 486 051	161 486 052	161 486 053	161 486 054	161 486 055	161 486 056
	T-port ball PVC-U	1							
7	Ball seals PTFE	3							
6.2	Stem PVC-U	1							
11	Stem seals FPM	2							
12.2	Lever PVC-U	1							

No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50
1	Central parts, L-port Body PVC-U	1	161 490 439	161 490 439	161 490 440	161 490 441	161 490 442	161 490 443	161 490 444
5.1	L-port ball PVC-U	1							
7	Ball seals PTFE	3							
8	Backing seals EPDM	3							
9	Body seal EPDM	3							
2	Union bush PVC-U	3							
6.1	Stem PVC-U	1							
11	Stem seals EPDM	2							
12.1	Lever PVC-U	1							
1	Central parts, L-port Body PVC-U	1	161 490 450	161 490 450	161 490 451	161 490 452	161 490 453	161 490 454	161 490 455
5.1	L-port ball PVC-U	1							
7	Ball seals PTFE	3							
8	Backing seals FPM	3							
9	Body seal FPM	3							
2	Union bush PVC-U	3							
6.1	Stem PVC-U	1							
11	Stem seals FPM	2							
12.1	Lever PVC-U	1							
1	central part, T-port Body PVC-U	1	161 490 461	161 490 461	161 490 462	161 490 463	161 490 464	161 490 465	161 490 466
5.2	T-port ball PVC-U	1							
7	Ball seals PTFE	3							
8	Backing seals EPDM	3							
9	Body seal EPDM	3							
2	Union bush PVC-U	3							
6.2	Stem PVC-U	1							
11	Stem seals EPDM	2							
12.2	Lever PVC-U	1							
1	central part, T-port Body PVC-U	1	161 490 472	161 490 472	161 490 473	161 490 474	161 490 475	161 490 476	161 490 477
5.2	T-port ball PVC-U	1							
7	Ball seals PTFE	3							
8	Backing seals FPM	3							
9	Body seal FPM	3							
2	Union bush PVC-U	3							
6.2	Stem PVC-U	1							
11	Stem seals FPM	2							
12.2	Lever PVC-U	1							
3	Valve Ends with Socket, PVC-U metric	1	161 480 536	161 480 537	161 480 538	161 480 539	161 480 540	161 480 541	161 480 542
3	Valve Ends with Spigot, PVC-U metric	1	161 482 345	161 482 346	161 482 347	161 482 348	161 482 349	161 482 350	161 482 351
3	Valve Ends, PVC-U Rp	1	161 480 550	161 480 551	161 480 552	161 480 553	161 480 554	161 480 555	161 480 556
3	Valve Ends with Fusion Socket, PE80	1	173 480 000	173 480 001	173 480 002	173 480 003	173 480 004	173 480 005	173 480 006
3	Butt and Electro Fusion Spigots, PE100 SDR11	1	-	193 480 127	193 480 128	193 480 129	193 480 130	193 480 131	193 480 132
4	Union Nuts, PVC-U	1	161 340 617	161 340 617	161 340 618	161 340 619	161 340 620	161 340 621	161 480 522
12,1	Lever, PVC-U L-port	1	161 482 151	161 482 151	161 482 152	161 482 153	161 482 154	161 482 155	161 482 156
12,2	Lever, PVC-U T-port	1	161 486 175	161 486 175	161 486 176	161 486 177	161 486 178	161 486 179	161 486 180



## Key PBTP black

- For assembly and disassembly of the union bush of ball valves type 323, 343, 346 and ball check valves 360

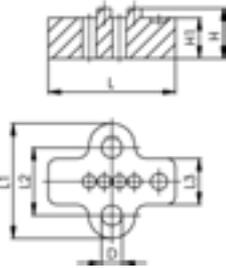
d-d [mm]	DN-DN [mm]	Inch	Code	GP	kg
16 - 63	10 - 50	3/8-2	<b>160 480 106</b>	-	0.038



## Mounting block PP

- For diaphragm valve to be compatible with pipe clips type 061 and one spacer type 061
- For 3-way ball valve type 343 to be compatible with pipe clips type 061 and one spacer type 061
- **For dimensions DN 10-15, the two mounting blocks (No 2+6) have to be ordered separately. They are to be assembled together.**

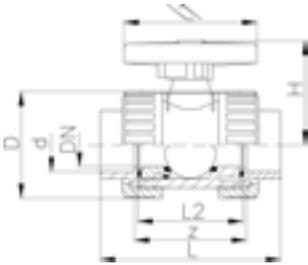
d-d [mm]	DN-DN [mm]	Inch	Block no.	Code	GP	kg
16 - 20	10 - 15	3/8-1/2	2	<b>167 480 423</b>	-	0.003
25 - 32	20 - 25	3/4-1	6	<b>167 482 238</b>	-	0.017
40 - 63	32 - 50	1 1/4-2	7	<b>167 482 239</b>	-	0.030



d-d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
16 - 20	8	7	4	47	42	25	17
25 - 32	8	15	15	47	42	25	17
40 - 63	10	11	11	80	67	45	22

# Metering ball valve

## Metering ball valve type 323 PVC-U With solvent cement sockets metric



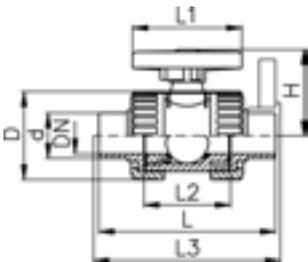
### Model:

- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
16	10	10	11	161 323 401	161 323 411	8	0.160
20	15	10	20	161 323 402	161 323 412	-	0.161

d [mm]	z	D	L	L1	L2	H
16	71	45	99	78	63	50
20	71	45	102	78	63	50

## Metering ball valve type 323 PVC-U With solvent cement spigots metric



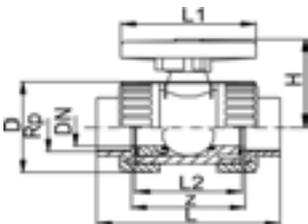
### Model:

- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale
- Overall length EN 558

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
16	10	10	11	161 323 441	161 323 451	8	0.162
20	15	10	20	161 323 442	161 323 452	8	0.160

d [mm]	D	L	L1	L2	L3	H
16	45	114	78	63	120	50
20	45	124	78	63	130	50

## Metering ball valve type 323 PVC-U With threaded sockets Rp



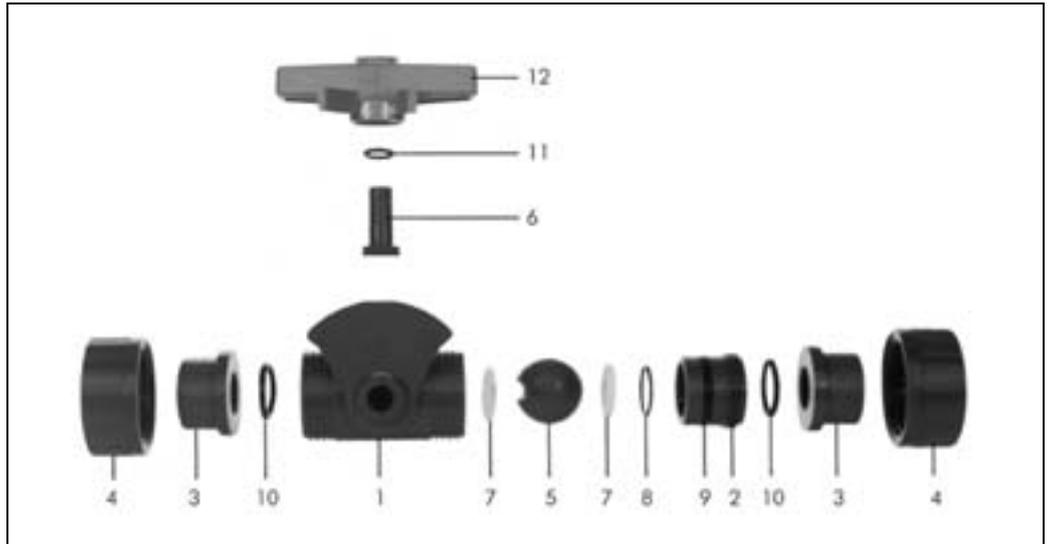
### Model:

- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
3/8	10	10	11	161 323 421	161 323 431	8	0.162
1/2	15	10	20	161 323 422	161 323 432	8	0.161

Rp [inch]	D	L	L1	L2	H	z
3/8	45	99	78	63	50	67
1/2	45	102	78	63	50	67

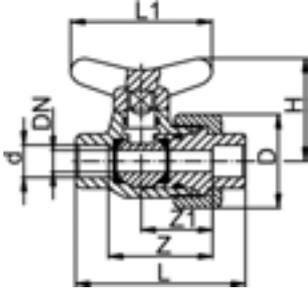
## Spare Parts Metering Ball Valves Type 323, PVC-U



No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15
	Ball Sets		161 482 986	161 482 987
5	Ball PVC-U	1		
7	Ball seals PTFE	2		
6	Stem PVC-U	1		
11	Stem seals EPDM	1		
12	Lever PVC-U	1		
	Ball Sets		161 482 989	161 482 990
5	Ball PVC-U	1		
7	Ball seals PTFE	2		
6	Stem PVC-U	1		
11	Stem seals FPM	1		
12	Lever PVC-U	1		
	Seal Sets		161 482 883 No. 11, 1 piece	161 482 883 No. 11, 1 piece
8	Backing seals EPDM	1		
9	Body seal EPDM	1		
10	Face seal EPDM	2		
11	Stem seals EPDM	1		
	Seal Sets		161 482 892 No. 11, 1 piece	161 482 892 No. 11, 1 piece
8	Backing seals FPM	1		
9	Body seal FPM	1		
10	Face seal FPM	2		
11	Stem seals FPM	1		
2	Union Bushes, PVC-U	1	161 482 339	161 482 339
10	Union seals, EPDM	1	748 410 042	748 410 042
10	Union seals, FPM	1	749 410 042	749 410 042
3	Valve Ends with Socket, PVC-U metric	1	161 480 536	161 480 537
3	Valve Ends with Spigot, PVC-U metric	1	161 482 345	161 482 346
3	Valve Ends, PVC-U Rp	1	161 480 550	161 480 551
3	Butt and Electro Fusion Spigots, PE100 SDR11	1	-	193 480 127
4	Union Nuts, PVC-U	1	161 340 617	161 340 617
12	Lever, PVC-U	1	161 480 724	161 480 724

# Laboratory ball cock

## Laboratory ball cock type 322 PVC-U With solvent cement sockets metric

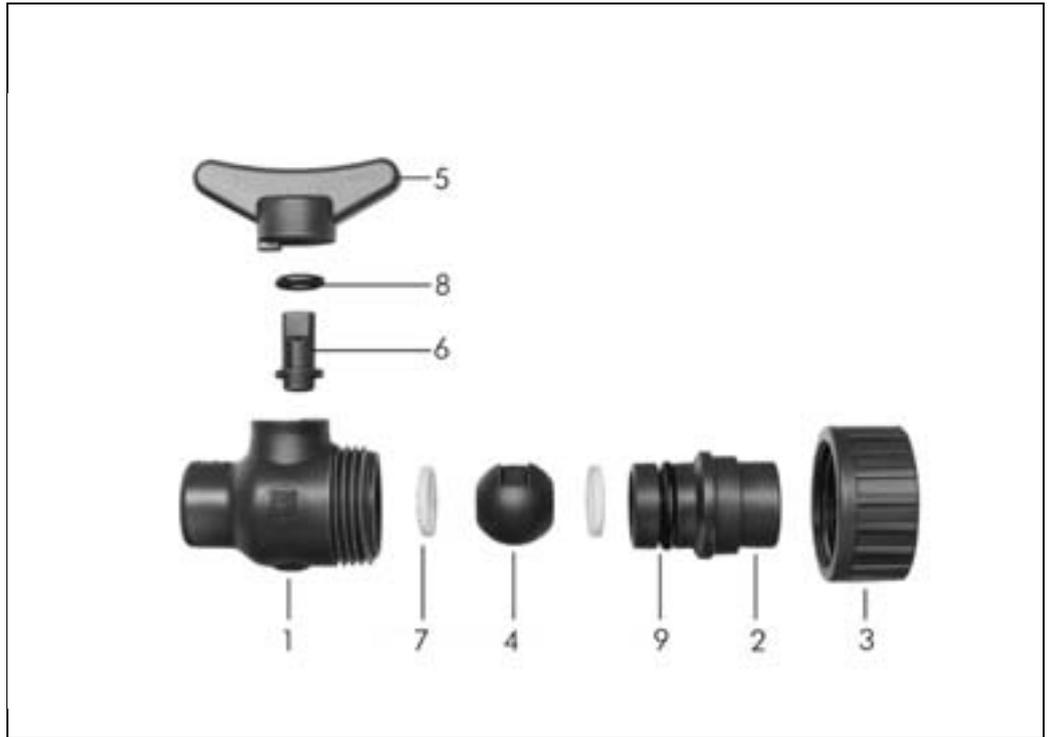


### Model:

- Disconnection one end only
- Ball seals PTFE

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	GP	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	z [mm]	z1 [mm]
10	6	10	161 322 150	161 322 199	40	0.043	34	52	45	38	26	15
12	8	10	161 322 200	161 322 249	40	0.050	34	60	45	38	36	25

## Spare Parts Laboratory Ball Cocks Type 322, PVC-U



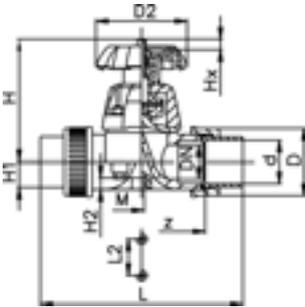
No.	Article/ Material	Pieces
	Ball Sets	
4	Ball PVC-U	1
7	Ball seals PTFE	2
6	Stem PVC-U	1
8	Stem seals EPDM	1
	Ball Sets	
4	Ball PVC-U	1
7	Ball seals PTFE	2
6	Stem PVC-U	1
8	Stem seals FPM	1
	Seal Sets	
8	Stem seals EPDM	1
9	Body seal EPDM	1
	Seal Sets	
8	Stem seals FPM	1
9	Body seal FPM	1
2	Valve Ends, PVC-U	1
3	Union Nuts, PVC-U	1
5	Levers, PVC-U	1

d10 DN 6	d12 DN 8
161 482 978	161 482 978
161 482 980	161 482 980
161 482 982	161 482 982
161 482 984	161 482 984
161 322 152	161 322 202
161 322 203	161 322 203
161 322 205	161 322 205



# Diaphragm valves

## Diaphragm valve type 314 PVC-U With solvent cement sockets metric



### Model:

- For easy installation and removal
- Short overall length

### Option:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	CSM Code	PTFE with EPDM supp. diaphragm Code
16	10	10	72	161 314 401	161 314 416	161 314 446	161 314 431
20	15	10	72	161 314 402	161 314 417	161 314 447	161 314 432
25	20	10	137	161 314 403	161 314 418	161 314 448	161 314 433
32	25	10	207	161 314 404	161 314 419	161 314 449	161 314 434
40	32	10	354	161 314 405	161 314 420	161 314 450	161 314 435
50	40	10	517	161 314 406	161 314 421	161 314 451	161 314 436
63	50	10	713	161 314 407	161 314 422	161 314 452	161 314 437

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	GP	kg
16	10	10	72	161 314 461	-	0.360
20	15	10	72	161 314 462	-	0.354
25	20	10	137	161 314 463	-	0.542
32	25	10	207	161 314 464	-	0.870
40	32	10	354	161 314 465	-	1.125
50	40	10	517	161 314 466	-	1.515
63	50	10	713	161 314 467	-	2.765

d [mm]	z [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
16	142	43	80	170	25	90	14	12	M6	8
20	96	43	80	128	25	90	14	12	M6	8
25	114	51	80	152	25	102	18	12	M6	11
32	122	58	94	166	25	119	21	12	M6	13
40	140	72	117	192	45	126	26	15	M8	16
50	160	83	117	222	45	139	33	15	M8	21
63	190	100	152	266	45	172	39	15	M8	28



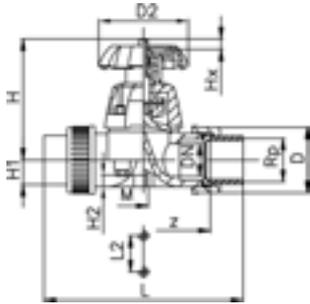
## Diaphragm valve type 314 PVC-U With threaded sockets Rp

### Model:

- For easy installation and removal
- Short overall length

### Option:

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



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	CSM Code	PTFE with EPDM supp. diaphragm Code
1/2	15	10	72	<b>161 314 502</b>	<b>161 314 517</b>	<b>161 314 547</b>	<b>161 314 532</b>
3/4	20	10	137	<b>161 314 503</b>	<b>161 314 518</b>	<b>161 314 548</b>	<b>161 314 533</b>
1	25	10	207	<b>161 314 504</b>	<b>161 314 519</b>	<b>161 314 549</b>	<b>161 314 534</b>
1 1/4	32	10	354	<b>161 314 505</b>	<b>161 314 520</b>	<b>161 314 550</b>	<b>161 314 535</b>
1 1/2	40	10	517	<b>161 314 506</b>	<b>161 314 521</b>	<b>161 314 551</b>	<b>161 314 536</b>
2	50	10	713	<b>161 314 507</b>	<b>161 314 522</b>	<b>161 314 552</b>	<b>161 314 537</b>

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	GP	kg
1/2	15	10	72	<b>161 314 562</b>	-	0.354
3/4	20	10	137	<b>161 314 563</b>	-	0.542
1	25	10	207	<b>161 314 564</b>	-	0.870
1 1/4	32	10	354	<b>161 314 565</b>	-	1.125
1 1/2	40	10	517	<b>161 314 566</b>	-	1.515
2	50	10	713	<b>161 314 567</b>	-	2.765

Rp [inch]	z [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
1/2	102	43	80	128	25	90	14	12	M6	8
3/4	122	51	80	152	25	102	18	12	M6	11
1	132	58	94	166	25	119	21	12	M6	13
1 1/4	154	72	117	192	45	126	26	15	M8	16
1 1/2	184	83	117	222	45	139	33	15	M8	21
2	220	100	152	266	45	172	39	15	M8	28



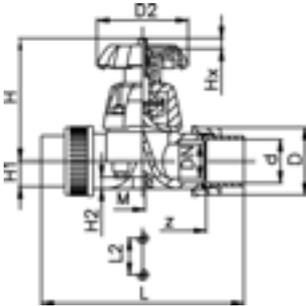
## Diaphragm valve type 314 PVC-U With fusion sockets PE80

### Model:

- For easy installation and removal
- Short overall length

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	GP	kg
20	15	10	72	<b>161 314 477</b>	-	0.355
25	20	10	137	<b>161 314 478</b>	-	0.540
32	25	10	207	<b>161 314 479</b>	-	0.870
40	32	10	354	<b>161 314 480</b>	-	1.115
50	40	10	517	<b>161 314 481</b>	-	1.510
63	50	10	713	<b>161 314 482</b>	-	2.740

d [mm]	z [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
20	100	43	80	128	25	90	14	12	M6	8
25	118	51	80	150	25	102	18	12	M6	11
32	126	58	94	162	25	119	21	12	M6	13
40	144	72	117	184	45	126	26	15	M8	16
50	164	83	117	210	45	139	33	15	M8	21
63	194	100	152	248	45	172	39	15	M8	28



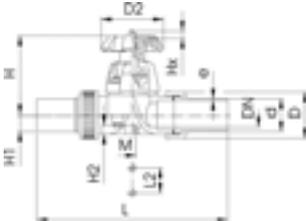
## Diaphragm valve type 314 PVC-U With butt and electro fusion ends PE100 SDR11 metric

### Model:

- For easy installation and removal
- Short overall length

### Option:

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



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	GP	kg
20	15	10	72	<b>161 314 577</b>	-	0.360
25	20	10	137	<b>161 314 578</b>	-	0.545
32	25	10	207	<b>161 314 579</b>	-	0.875
40	32	10	354	<b>161 314 580</b>	-	1.130
50	40	10	517	<b>161 314 581</b>	-	1.545
63	50	10	713	<b>161 314 582</b>	-	2.780

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	43	80	224	25	90	14	12	M6	8	1,9
25	51	80	250	25	102	18	12	M6	11	2,3
32	58	94	262	25	119	21	12	M6	13	3
40	72	117	296	45	126	26	15	M8	16	3,7
50	83	117	328	45	139	33	15	M8	21	4,6
63	100	152	370	45	172	39	15	M8	28	5,8

## Spare Parts Diaphragm Valves Type 314, PVC-U



No.	Article/ Material	Pieces	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50
1	Bonnets complete (without diaphragm), Elastomer diaphragms	1	161 484 625	161 484 626	161 484 627	161 484 628	161 484 629	161 484 630
1	Bonnets complete (without diaphragm), PTFE diaphragms	1	161 484 632	161 484 633	161 484 634	161 484 635	161 484 636	161 484 637
2	Diaphragms, NBR	1	161 311 710	161 311 711	161 311 712	161 311 713	161 311 714	161 311 715
2	Diaphragms, EPDM	1	161 481 022	161 481 023	161 481 024	161 481 025	161 481 026	161 481 027
2	Diaphragms, FPM	1	161 484 152	161 484 153	161 484 154	161 484 155	161 484 156	161 484 157
2	Diaphragms, PTFE/EPDM	1	161 311 698	161 311 699	161 311 700	161 311 701	161 311 702	161 311 703
2	Diaphragms, PTFE/FPM	1	161 481 926	161 481 927	161 481 928	161 481 929	161 481 930	161 481 931
2	Diaphragms, CSM	1	161 311 728	161 311 729	161 311 730	161 311 731	161 311 732	161 311 733
3	Pressure Spindles, Elastomer diaphragms	1	161 484 688	161 484 689	161 484 690	161 484 691	161 484 692	161 484 693
3	Pressure Spindles, PTFE diaphragms	1	161 484 696	161 484 697	161 484 698	161 484 699	161 484 700	161 484 701
4	Fastening Sets, Stainless steel	1	161 484 704	161 484 705	161 484 706	161 484 707	161 484 708	161 484 709
5	Valve Bodies, PVC-U	1	161 481 218	161 481 219	161 481 220	161 481 221	161 481 222	161 481 223
6	Union Nuts, PVC-U	1	721 690 006	721 690 007	721 690 008	721 690 009	721 690 010	721 690 011
7	Union Ends with Socket, PVC-U metric	1	721 600 106	721 600 107	721 600 108	721 600 109	721 600 110	721 600 111
7	Union Ends with Spigot, PVC-U metric	1	721 600 406	721 600 407	721 600 408	721 600 409	721 600 410	721 600 411
7	Union Ends, PVC-U Rp	1	721 600 656	721 600 657	721 600 658	721 600 659	721 600 660	721 600 661
7	Union Ends Blank, PVC-U	1	721 600 006	721 600 007	721 600 008	721 600 009	721 600 010	721 600 011
7	Union Ends, PE80	1	734 600 106	734 600 107	734 600 108	734 600 109	734 600 110	734 600 111
7	Union Ends Long, PE100 for butt- and electro fusion	1	753 608 616	753 608 617	753 608 618	753 608 619	753 608 620	753 608 621
8	O-Ring Gaskets, Union end seal for elastomer diaphragm, EPDM	1	748 410 038	748 410 044	748 410 195	748 410 052	748 410 134	748 410 135
8	O-Ring Gaskets, Union end seal for PTFE diaphragm, FPM	1	749 410 038	749 410 044	749 410 195	749 410 052	749 410 134	749 410 135



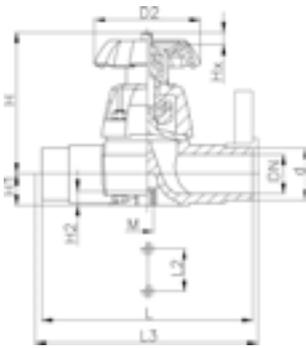
## Diaphragm valve type 315 PVC-U With solvent cement spigots metric

### Model:

- Overall length EN 558

### Option:

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

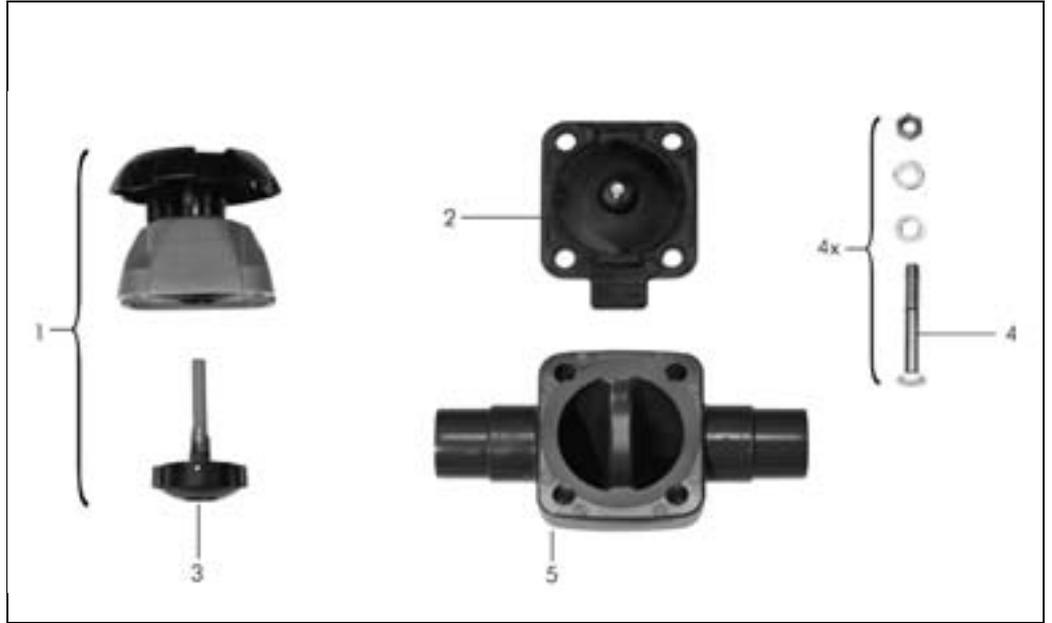


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	CSM Code	PTFE with EPDM supp. diaphragm Code
20	15	10	72	<b>161 315 402</b>	<b>161 315 417</b>	<b>161 315 447</b>	<b>161 315 432</b>
25	20	10	137	<b>161 315 403</b>	<b>161 315 418</b>	<b>161 315 448</b>	<b>161 315 433</b>
32	25	10	207	<b>161 315 404</b>	<b>161 315 419</b>	<b>161 315 449</b>	<b>161 315 434</b>
40	32	10	354	<b>161 315 405</b>	<b>161 315 420</b>	<b>161 315 450</b>	<b>161 315 435</b>
50	40	10	517	<b>161 315 406</b>	<b>161 315 421</b>	<b>161 315 451</b>	<b>161 315 436</b>
63	50	10	713	<b>161 315 407</b>	<b>161 315 422</b>	<b>161 315 452</b>	<b>161 315 437</b>

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	FPM Code	GP	kg
20	15	10	72	<b>161 315 462</b>	-	0.300
25	20	10	137	<b>161 315 463</b>	-	0.430
32	25	10	207	<b>161 315 464</b>	-	0.740
40	32	10	354	<b>161 315 465</b>	-	0.929
50	40	10	517	<b>161 315 466</b>	-	1.255
63	50	10	713	<b>161 315 467</b>	-	2.367

d [mm]	D2 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
20	80	124	25	130	90	14	12	M6	8
25	80	144	25	150	102	18	12	M6	11
32	94	154	25	160	119	21	12	M6	13
40	117	174	45	180	126	26	15	M8	16
50	117	194	45	200	139	33	15	M8	21
63	152	224	45	230	172	39	15	M8	28

## Spare Parts Diaphragm Valves Type 315, PVC-U



No.	Article/ Material	Pieces	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50
1	Bonnets complete (without diaphragm), Elastomer diaphragms	1	161 484 625	161 484 626	161 484 627	161 484 628	161 484 629	161 484 630
1	Bonnets complete (without diaphragm), PTFE diaphragms	1	161 484 632	161 484 633	161 484 634	161 484 635	161 484 636	161 484 637
2	Diaphragms, NBR	1	161 311 710	161 311 711	161 311 712	161 311 713	161 311 714	161 311 715
2	Diaphragms, EPDM	1	161 481 022	161 481 023	161 481 024	161 481 025	161 481 026	161 481 027
2	Diaphragms, FPM	1	161 484 152	161 484 153	161 484 154	161 484 155	161 484 156	161 484 157
2	Diaphragms, PTFE/EPDM	1	161 311 698	161 311 699	161 311 700	161 311 701	161 311 702	161 311 703
2	Diaphragms, PTFE/FPM	1	161 481 926	161 481 927	161 481 928	161 481 929	161 481 930	161 481 931
2	Diaphragms, CSM	1	161 311 728	161 311 729	161 311 730	161 311 731	161 311 732	161 311 733
3	Pressure Spindles, Elastomer diaphragms	1	161 484 688	161 484 689	161 484 690	161 484 691	161 484 692	161 484 693
3	Pressure Spindles, PTFE diaphragms	1	161 484 696	161 484 697	161 484 698	161 484 699	161 484 700	161 484 701
4	Fastening Sets, Stainless steel	1	161 484 704	161 484 705	161 484 706	161 484 707	161 484 708	161 484 709
5	Valve Bodies, PVC-U	1	161 481 274	161 481 275	161 481 276	161 481 277	161 481 278	161 481 279



## Diaphragm valve type 317 PVC-U With flanges PVC-U metric

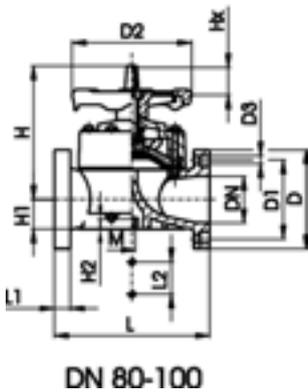
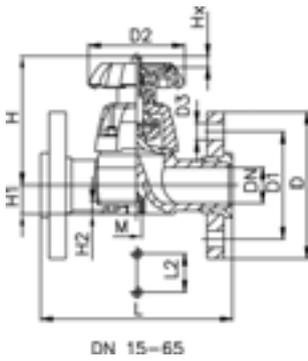
### Model:

- Jointing face flat
- 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



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	CSM Code	
20	15	½	10	72	161 317 502	161 317 517	161 317 547	
25	20	¾	10	137	161 317 503	161 317 518	161 317 548	
32	25	1	10	207	161 317 504	161 317 519	161 317 549	
40	32	1 ¼	10	354	161 317 505	161 317 520	161 317 550	
50	40	1 ½	10	517	161 317 506	161 317 521	161 317 551	
63	50	2	10	713	161 317 507	161 317 522	161 317 552	
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 ( $\Delta p=1$ bar) [l/min]	PTFE with EPDM supp. diaphragm Code	FPM Code	GP	kg	
20	15	½	10	72	161 317 532	161 317 562	-	0.448	
25	20	¾	10	137	161 317 533	161 317 563	-	0.650	
32	25	1	10	207	161 317 534	161 317 564	-	1.040	
40	32	1 ¼	10	354	161 317 535	161 317 565	-	1.350	
50	40	1 ½	10	517	161 317 536	161 317 566	-	1.835	
63	50	2	10	713	161 317 537	161 317 567	-	3.120	
75	65	2 ½	10	992	161 317 538	161 317 568	-	4.300	
*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]
20	95	65	80	14	130		25		90	14	12	M6	4	8
25	105	75	80	14	150		25		102	18	12	M6	4	11
32	115	85	94	14	160		25		119	21	12	M6	4	13
40	140	100	117	18	180		45		126	26	15	M8	4	16
50	150	110	117	18	200		45		139	33	15	M8	4	21
63	165	125	152	18	230		45		172	39	15	M8	4	28
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

# Component Parts for Flange Assembly of Diaphragm Valves Type 317

21 81 01

**Flange Adaptors, PVC-U**  
**Jointing face with O-ring groove, metric**



d	DN	PN	Code	kg	
20	15	16	<b>721 810 106</b>	0,011	
25	20	16	<b>721 810 107</b>	0,018	
32	25	16	<b>721 810 108</b>	0,027	
40	32	16	<b>721 810 109</b>	0,045	
50	40	16	<b>721 810 110</b>	0,067	
63	50	16	<b>721 810 111</b>	0,122	
75	65	16	<b>721 810 112</b>	0,182	
90	80	16	<b>721 810 113</b>	0,291	
110	100	16	<b>721 810 114</b>	0,468	
160	150	16	<b>721 810 117</b>	1,180	

21 80 01

**Flange Adaptors PVC-U**  
**Jointing face flat, metric**

d	DN	PN	Code	kg	
20	15	16	<b>721 800 106</b>	0,010	
25	20	16	<b>721 800 107</b>	0,015	
32	25	16	<b>721 800 108</b>	0,024	
40	32	16	<b>721 800 109</b>	0,038	
50	40	16	<b>721 800 110</b>	0,055	
63	50	16	<b>721 800 111</b>	0,104	
75	65	16	<b>721 800 112</b>	0,155	
90	80	16	<b>721 800 113</b>	0,156	
110	100	16	<b>721 800 114</b>	0,417	
160	150	16	<b>721 790 117</b>	1,077	

**EPDM 48 41 01**  
**FPM 49 41 01**

**O-Ring Gaskets**

d	DN	inch	EPDM Code	FPM Code	kg	
20	15	1/2	<b>748 410 001</b>	<b>749 410 001</b>	0,002	
25	20	3/4	<b>748 410 007</b>	<b>749 410 007</b>	0,002	
32	25	1	<b>748 410 002</b>	<b>749 410 002</b>	0,003	
40	32	1 1/4	<b>748 410 003</b>	<b>749 410 003</b>	0,007	
50	40	1 1/2	<b>748 410 012</b>	<b>749 410 012</b>	0,008	
63	50	2	<b>748 410 013</b>	<b>749 410 013</b>	0,011	
75	65	2 1/2	<b>748 410 014</b>	<b>749 410 014</b>	0,012	
90	80	3	<b>748 410 015</b>	<b>749 410 015</b>	0,015	
110	100	4	<b>748 410 016</b>	<b>749 410 016</b>	0,031	
160	150	6	<b>748 410 019</b>	<b>749 410 019</b>	0,044	

**EPDM 48 44 01**  
**FPM 49 44 01**

## Flange Gaskets

d	EPDM Code	FPM Code	kg
20	<b>748 440 101</b>	<b>749 440 101</b>	0,008
25	<b>748 440 102</b>	<b>749 440 102</b>	0,011
32	<b>748 440 103</b>	<b>749 440 103</b>	0,014
40	<b>748 440 104</b>	<b>749 440 104</b>	0,020
50	<b>748 440 105</b>	<b>749 440 105</b>	0,021
63	<b>748 440 106</b>	<b>749 440 106</b>	0,040
75	<b>748 440 107</b>	<b>749 440 107</b>	0,054
90	<b>748 440 108</b>	<b>749 440 108</b>	0,060
110	<b>748 440 109</b>	<b>749 440 109</b>	0,083
160	<b>748 440 112</b>	<b>749 440 112</b>	0,149

**21 70 00**

## Backing Flanges, PVC-U metric

d	DN	inch	PN	Code	kg
20	15	1/2	10	<b>721 700 006</b>	0,067
25	20	3/4	10	<b>721 700 007</b>	0,091
32	25	1	10	<b>721 700 008</b>	0,131
40	32	1 1/4	10	<b>721 700 009</b>	0,194
50	40	1 1/2	10	<b>721 700 010</b>	0,245
63	50	2	10	<b>721 700 011</b>	0,311
75	65	2 1/2	10	<b>721 700 012</b>	0,375
90	80	3	10	<b>721 700 013</b>	0,471
110	100	4	10	<b>721 700 014</b>	0,554
160	150	6	10	<b>721 700 017</b>	1,012

## Backing Flanges, PP-V for Socket Systems metric

d	DN	inch	PN	Code	SP	kg
20	15		16	<b>727 700 406</b>	-	0,080
25	20		16	<b>727 700 407</b>	-	0,100
32	25		16	<b>727 700 408</b>	-	0,140
40	32		16	<b>727 700 409</b>	-	0,220
50	40		16	<b>727 700 410</b>	-	0,210
63	50		16	<b>727 700 411</b>	-	0,380
75	65		16	<b>727 700 412</b>	-	0,480
90	80		16	<b>727 700 413</b>	-	0,520
110	100		16	<b>727 700 414</b>	-	0,680
140	125		16	<b>727 700 416</b>	-	0,800
160	150	6	16	<b>727 700 417</b>	-	1,200

27 70 02

**Backing Flanges, PP with steel ring  
metric  
for Socket Systems metric**

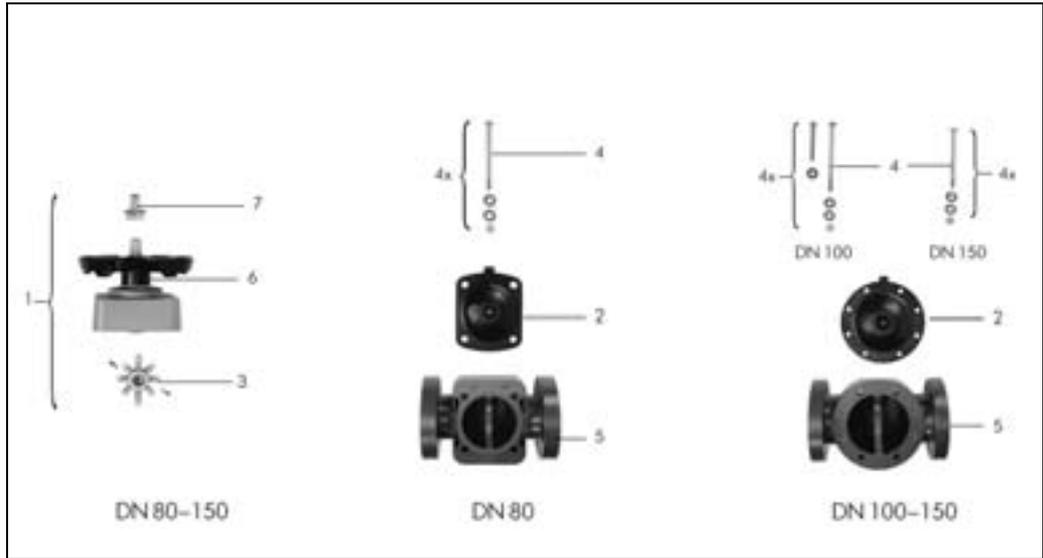
d	DN	PN	Code	kg	
20	15	16	<b>727 700 206</b>	0,220	
25	20	16	<b>727 700 207</b>	0,260	
32	25	16	<b>727 700 208</b>	0,430	
40	32	16	<b>727 700 209</b>	0,650	
50	40	16	<b>727 700 210</b>	0,820	
63	50	16	<b>727 700 211</b>	0,940	
75	65	16	<b>727 700 212</b>	1,300	
90	80	16	<b>727 700 213</b>	1,400	
110	100	16	<b>727 700 214</b>	1,560	
160	150	16	<b>727 700 217</b>	3,390	

## Spare Parts Diaphragm Valves Type 317 (DN15-65), PVC-U



No.	Article/ Material	Pieces	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50	d75 DN 65
1	Bonnets complete (without diaphragm), Elastomer diaphragms	1	161 484 625	161 484 626	161 484 627	161 484 628	161 484 629	161 484 630	161 484 631
1	Bonnets complete (without diaphragm), PTFE diaphragms	1	161 484 632	161 484 633	161 484 634	161 484 635	161 484 636	161 484 637	161 484 638
2	Diaphragms, NBR	1	161 311 710	161 311 711	161 311 712	161 311 713	161 311 714	161 311 715	161 480 231
2	Diaphragms, EPDM	1	161 481 022	161 481 023	161 481 024	161 481 025	161 481 026	161 481 027	161 481 028
2	Diaphragms, FPM	1	161 484 152	161 484 153	161 484 154	161 484 155	161 484 156	161 484 157	161 484 158
2	Diaphragms, PTFE/EPDM	1	161 311 698	161 311 699	161 311 700	161 311 701	161 311 702	161 311 703	161 480 240
2	Diaphragms, PTFE/FPM	1	161 481 926	161 481 927	161 481 928	161 481 929	161 481 930	161 481 931	161 481 932
2	Diaphragms, CSM	1	161 311 728	161 311 729	161 311 730	161 311 731	161 311 732	161 311 733	161 480 237
3	Pressure Spindles, Elastomer diaphragms	1	161 484 688	161 484 689	161 484 690	161 484 691	161 484 692	161 484 693	161 484 694
3	Pressure Spindles, PTFE diaphragms	1	161 484 696	161 484 697	161 484 698	161 484 699	161 484 700	161 484 701	161 484 702
4	Fastening Sets, Stainless steel	1	161 484 704	161 484 705	161 484 706	161 484 707	161 484 708	161 484 709	161 483 032
5	Valve Bodies with PVC-U Backing Flanges	1	161 483 110	161 483 111	161 483 112	161 483 113	161 483 114	161 483 115	161 483 116

## Spare Parts Diaphragm Valves Type 317 (DN80-150), PVC-U

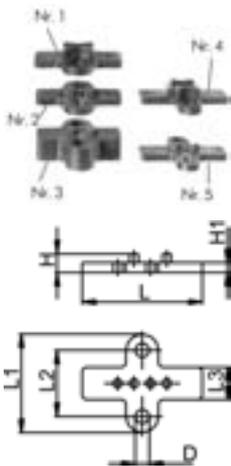


No.	Article/ Material	Pieces	d90 DN 80	d110 DN 100	d160 DN 150
1	Bonnets complete (without diaphragm), Elastomer diaphragms	1	161 482 514	161 482 515	161 482 901
1	Bonnets complete (without diaphragm), PTFE diaphragms	1	161 482 516	161 482 517	161 482 906
2	Diaphragms, NBR	1	161 480 232	161 480 233	161 482 751
2	Diaphragms, EPDM	1	161 481 029	161 481 030	161 482 754
2	Diaphragms, FPM	1	161 484 159	161 484 160	161 484 226
2	Diaphragms, PTFE/EPDM	1	161 480 241	161 480 242	161 482 760
2	Diaphragms, CSM	1	161 480 238	161 480 239	161 482 757
3	Pressure Spindles, Elastomer diaphragms	1	161 483 008	161 483 009	161 483 011
3	Pressure Spindles, PTFE diaphragms	1	161 483 020	161 483 021	161 483 023
4	Fastening Sets, Stainless steel	1	161 483 033	161 483 034	161 483 037
5	Valve Bodies with PVC-U Fixed Flanges	1	161 481 764	161 481 765	161 482 696
6	O-Ring Gaskets, NBR	1	745 410 107	745 410 107	-
6	O-Ring Gaskets, EPDM	1	-	-	748 410 212
7	Caps, PVC-U SAN	1	161 481 759	161 481 759	161 482 744



## Handwheel with built-in locking mechanism For diaphragm valve type 314 / 315 / 317 / 319

d-d [mm]	DN-DN [mm]	d-d [inch]	Code	GP	kg
20 - 25	15 - 20	½ - ¾	<b>167 481 943</b>	-	0.032
32 -	25 -	1 -	<b>167 481 944</b>	-	0.043
40 - 50	32 - 40	1 ¼ - 1 ½	<b>167 481 945</b>	-	0.071
63 - 75	50 - 65	2 - 2 ½	<b>167 481 946</b>	-	0.217



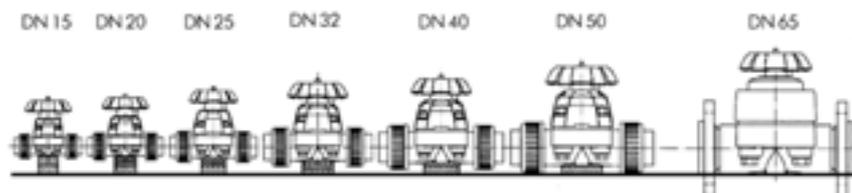
### Mounting block PP

- For Diaphragm Valves 314, 315 and 317 (DN 15-50)

d-d [mm]	DN-DN [mm]	Inch	Block no.	Code	GP	kg
20 - 32	15 - 20	1/2 - 1	1	<b>167 480 422</b>	-	0.005
16 - 20	10 - 15	3/8-1/2	2	<b>167 480 423</b>	-	0.003
-	-	-	3	<b>167 480 424</b>	-	0.012
40 - 63	32 - 50	1 1/4 - 2 1/2	4	<b>167 480 425</b>	-	0.017
-	-	-	5	<b>167 480 426</b>	-	0.015

d-d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
20 - 32	8	11	5	47	42	25	17
16 - 20	8	7	4	47	42	25	17
-	8	17	14	47	42	25	17
40 - 63	10	18	7	81	67	45	22
-	10	13	7	81	67	45	22

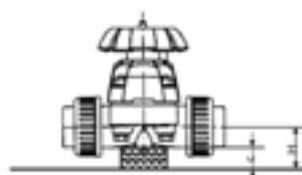
#### Equalizing the Assembly Height over all Sizes



#### Quantity required x block number

... to DN	d 20 DN 15	d 25 DN 20	d 32 DN 25	d 40 DN 32	d 50 DN 40	d 63 DN 50	d 75 DN 65
15		1x2	2x2	1x1+2x2	1x1+1x3	1x1+2x2+1x3	1x1+2x3
20			1x2	1x1+1x2	1x1+3x2	1x1+1x2+1x3	1x1+3x2+1x3
25				1x1	1x1+2x2	1x1+1x3	1x1+2x2+1x3
32					1x4	1x4+1x5	1x4+2x5
40						1x4	1x4+1x5
50							1x4

#### Equalizing the Union Height for Type 314



DN mm	Quantity required x block number	C mm	H mm
15			22.5
20	1x1+2x2	11.5	29
25			32.5
32			39
40	1x4+1x5	13.5	46
50			52.5

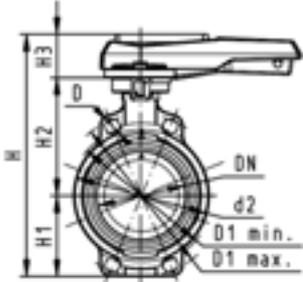
# Butterfly valves

## Butterfly valve type 567 PVC-U Hand lever with ratchet settings

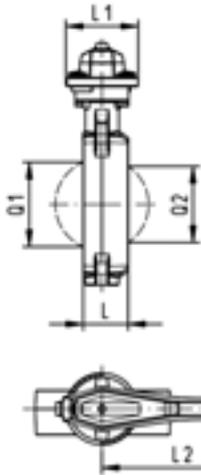


### Model:

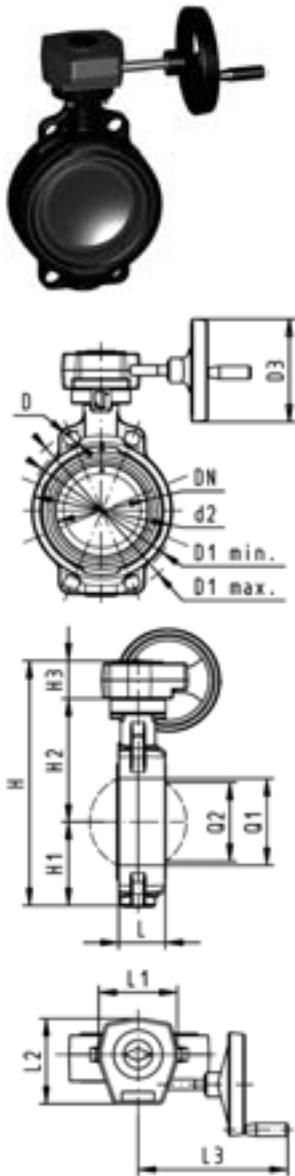
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
63	50	2	10	1470	<b>161 567 002</b>	<b>161 567 022</b>	-	1.044
75	65	2 ½	10	2200	<b>161 567 003</b>	<b>161 567 023</b>	-	1.148
90	80	3	10	3000	<b>161 567 004</b>	<b>161 567 024</b>	-	1.315
110	100	4	10	6500	<b>161 567 005</b>	<b>161 567 025</b>	-	1.983
140	125	5	10	11500	<b>161 567 006</b>	<b>161 567 026</b>	-	2.554
160	150	6	10	16600	<b>161 567 007</b>	<b>161 567 027</b>	-	3.564
225	200	8	10	39600	<b>161 567 008</b>	<b>161 567 028</b>	-	5.541
280	250	10	10	55200	<b>161 567 009</b>	<b>161 567 029</b>	1	12.998
315	300	12	10	80000	<b>161 567 010</b>	<b>161 567 030</b>	1	-



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
- 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	GP	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>	1	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>	-	5.554
225	200	8	10	39600	<b>161 567 048</b>	<b>161 567 068</b>	-	6.994
280	250	10	10	55200	<b>161 567 049</b>	<b>161 567 069</b>	1	-
315	300	12	10	80000	<b>161 567 050</b>	<b>161 567 070</b>	1	-

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	19	120.0	125.0	104	160	278	77	134	60	45	120	132	236	40
75	19	139.7	145.0	115	160	291	83	140	60	46	120	132	236	54
90	19	150.0	160.0	131	160	303	89	146	60	49	120	132	236	67
110	19	175.0	190.5	160	160	339	104	167	60	56	120	132	236	88
140	23	210.0	215.9	187	160	365	117	181	60	64	120	132	236	113
160	24	241.3	241.3	215	160	387	130	189	60	72	120	132	236	139
225	23	290.0	295.0	267	160	436	158	210	60	73	120	132	236	178
280	25	353.0	362.0	329	160	529	205	264	60	113	134	151	261	210
315	25	400.0	432.0	379	160	573	228	285	60	113	134	151	261	256

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

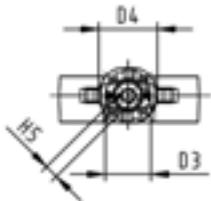
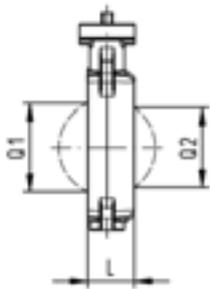
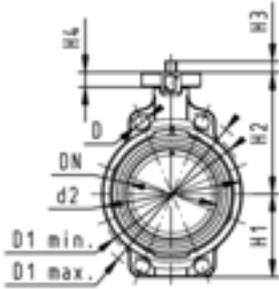


## Butterfly valve type 567 PVC-U Bare shaft



### 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
- Overall length according to EN 558, ISO 5752
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
63	50	2	10	1470	<b>161 567 802</b>	<b>161 567 822</b>	-	0.822
75	65	2 ½	10	2200	<b>161 567 803</b>	<b>161 567 823</b>	-	0.926
90	80	3	10	3000	<b>161 567 804</b>	<b>161 567 824</b>	-	1.093
110	100	4	10	6500	<b>161 567 805</b>	<b>161 567 825</b>	-	1.713
140	125	5	10	11500	<b>161 567 806</b>	<b>161 567 826</b>	-	2.284
160	150	6	10	16600	<b>161 567 807</b>	<b>161 567 827</b>	-	3.294
225	200	8	10	39600	<b>161 567 808</b>	<b>161 567 828</b>	-	4.734
280	250	10	10	55200	<b>161 567 809</b>	<b>161 567 829</b>	-	11.735
315	300	12	10	80000	<b>161 567 810</b>	<b>161 567 830</b>	-	16.217

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

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

# Component Parts for Flange Assembly of Butterfly Valves Type 367 and 567

21 81 01

**Flange Adaptors, PVC-U**  
Jointing face with O-ring groove, metric



d	DN	PN	Code	kg	
75	65	16	<b>721 810 112</b>	0,182	
90	80	16	<b>721 810 113</b>	0,291	
110	100	16	<b>721 810 114</b>	0,468	
140	125	16	<b>721 810 116</b>	0,824	
160	150	16	<b>721 810 117</b>	1,180	
225	200	10	<b>721 810 120</b>	1,895	
280	250	10	<b>721 810 122</b>	3,100	
315	300	6	<b>721 810 123</b>	4,830	

21 80 01

**Flange Adaptors PVC-U**  
Jointing face flat, metric

d	DN	PN	Code	kg	
75	65	16	<b>721 800 112</b>	0,155	
90	80	16	<b>721 800 113</b>	0,156	
110	100	16	<b>721 800 114</b>	0,417	
140	125	16	<b>721 800 116</b>	0,748	
160	150	16	<b>721 790 117</b>	1,077	
225	200	10	<b>721 790 120</b>	1,758	
280	250	10	<b>721 790 122</b>	2,895	
315	300	6	<b>721 790 123</b>	4,450	

EPDM 48 41 01  
FPM 49 41 01

**O-Ring Gaskets**

d	DN	inch	EPDM Code	FPM Code	kg	
75	65	2 1/2	<b>748 410 014</b>	<b>749 410 014</b>	0,012	
90	80	3	<b>748 410 015</b>	<b>749 410 015</b>	0,015	
110	100	4	<b>748 410 016</b>	<b>749 410 016</b>	0,031	
140	125	5	<b>748 410 018</b>	<b>749 410 018</b>	0,039	
160	150	6	<b>748 410 019</b>	<b>749 410 019</b>	0,044	
225	200	8	<b>748 410 022</b>	<b>749 410 022</b>	0,060	
280	250	10	<b>748 410 173</b>	<b>749 410 173</b>	0,044	
315	300	12	<b>748 410 174</b>	<b>749 410 174</b>	0,051	

EPDM 48 44 01  
FPM 49 44 01

**Flange Gaskets**

d	EPDM Code	FPM Code	kg	
75	<b>748 440 107</b>	<b>749 440 107</b>	0,054	
90	<b>748 440 108</b>	<b>749 440 108</b>	0,060	
110	<b>748 440 109</b>	<b>749 440 109</b>	0,083	
140	<b>748 440 111</b>	<b>749 440 111</b>	0,115	
160	<b>748 440 112</b>	<b>749 440 112</b>	0,149	
225	<b>748 440 115</b>	<b>749 440 115</b>	0,177	
280	<b>748 440 117</b>	<b>749 440 117</b>	0,220	
315	<b>748 440 118</b>	<b>749 440 118</b>	0,326	

**21 70 00****Backing Flanges, PVC-U  
metric**

d	DN	inch	PN	Code	kg
75	65	2 1/2	10	<b>721 700 012</b>	0,375
90	80	3	10	<b>721 700 013</b>	0,471
110	100	4	10	<b>721 700 014</b>	0,554
140	125	5	10	<b>721 700 016</b>	0,746
160	150	6	10	<b>721 700 017</b>	1,012
225	200	8	10	<b>721 700 020</b>	1,360
280	250	10	6	<b>721 700 137</b>	1,730
315	300	12	6	<b>721 700 138</b>	2,350

**Backing Flanges, PP-V  
for Socket Systems metric**

d	DN	inch	PN	Code	SP	kg
75	65		16	<b>727 700 412</b>	-	0,480
90	80		16	<b>727 700 413</b>	-	0,520
110	100		16	<b>727 700 414</b>	-	0,680
140	125		16	<b>727 700 416</b>	-	0,800
160	150	6	16	<b>727 700 417</b>	-	1,200
225	200	8	16	<b>727 700 420</b>	-	1,400
280	250		16	<b>727 700 422</b>	-	1,700
315	300		16	<b>727 700 423</b>	-	2,400

**27 70 02****Backing Flanges, PP with steel ring  
metric  
for Socket Systems metric**

d	DN	PN	Code	kg
75	65	16	<b>727 700 212</b>	1,300
90	80	16	<b>727 700 213</b>	1,400
110	100	16	<b>727 700 214</b>	1,560
140	125	16	<b>727 700 216</b>	2,120
160	150	16	<b>727 700 217</b>	3,390
225	200	16	<b>727 700 220</b>	4,410
280	250	16	<b>727 700 222</b>	5,520
315	300	16	<b>727 700 223</b>	7,600

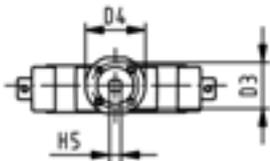
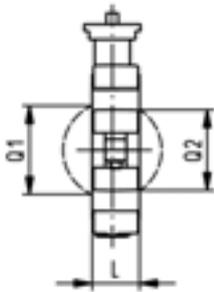
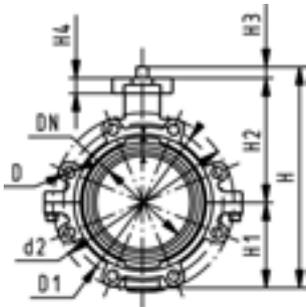


## Lugstyle butterfly valve type 568 PVC-U Bare shaft



### 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	GP	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

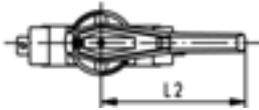
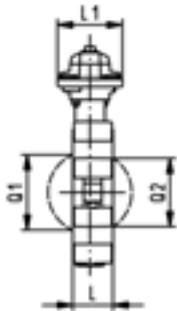
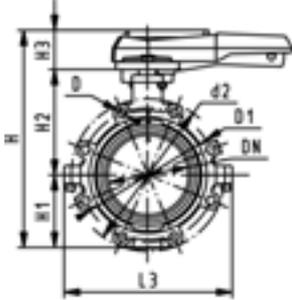


## Lugstyle butterfly valve type 568 PVC-U Hand lever with ratchet settings



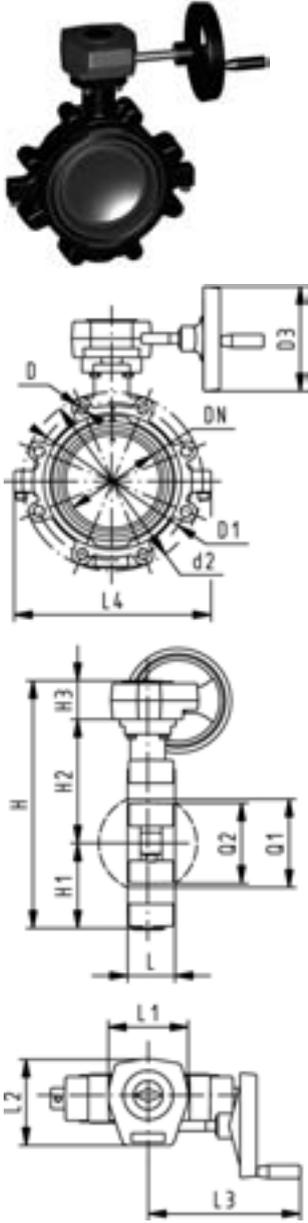
### Model:

- 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	GP	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	GP	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	160	279	77	134	60	45	120	132	236	150	40	
75	170	M16	145	160	291	83	140	60	46	120	132	236	160	54	35
90	184	M16	160	160	303	89	146	60	49	120	132	236	205	67	50
110	216	M16	180	160	339	104	167	60	56	120	132	236	244	88	74
140	246	M16	210	160	366	117	181	60	64	120	132	236	272	113	97
160	273	M20	240	160	387	130	189	60	72	120	132	236	297	139	123
225	334	M20	295	160	436	158	210	60	73	120	132	236	360	178	169

# Angle seat valves

## Angle seat valve type 300 PVC-U With solvent cement spigots metric

Model:

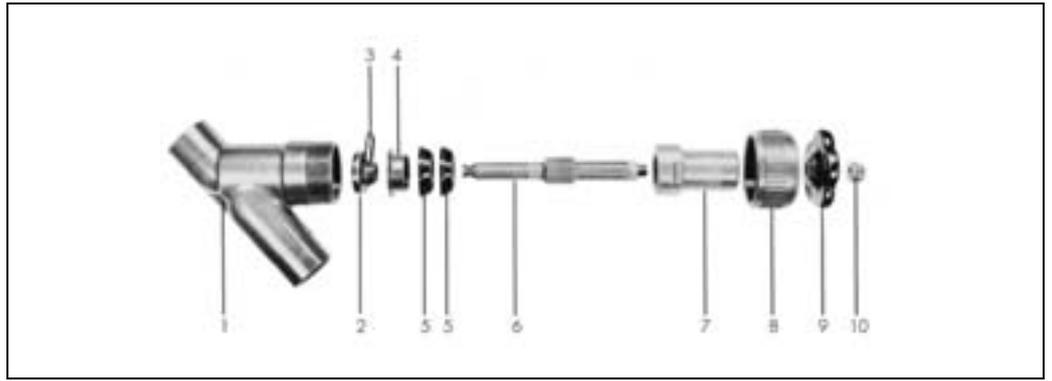
- Overall length EN 558



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PE Code	PTFE Code	GP	kg
16	10	10	41	<b>161 300 250</b>	<b>161 300 299</b>	10	0.128
20	15	10	95	<b>161 300 300</b>	<b>161 300 349</b>	4	0.183
25	20	10	180	<b>161 300 350</b>	<b>161 300 399</b>	12	0.255
32	25	10	327	<b>161 300 400</b>	<b>161 300 449</b>	6	0.389
40	32	10	484	<b>161 300 450</b>	<b>161 300 499</b>	6	0.590
50	40	10	725	<b>161 300 500</b>	<b>161 300 549</b>	4	1.000
63	50	10	1130	<b>161 300 550</b>	<b>161 300 599</b>	4	1.540
75	65	10	1700	<b>161 300 600</b>	<b>161 300 649</b>	4	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]
16	50	114	120	24	105
20	63	124	130	28	126
25	63	144	150	37	140
32	80	154	160	37	166
40	80	174	180	44	191
50	100	194	200	48	233
63	100	224	230	60	264
75	160	284	290	74	335
90	200	300	310	85	390

## Spare Parts Angle Seat Valves Type 300, PVC-U



No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN50	d75 DN 65	d90 DN 80
2	Disc / Retaining Sets		161 483 076	161 483 077	161 483 078	161 483 079	161 483 080	161 483 081	161 483 082	161 483 083	161 483 084
2	Disc and seating PE	1									
3	Retaining pin PVC-U	1									
4	Seal support ring PVC-U	1									
5	Cup seals PE	2									
2	Disc / Retaining Sets		161 483 089	161 483 090	161 483 091	161 483 092	161 483 093	161 483 094	161 483 095	161 483 096	161 483 097
2	Disc and seating PTFE	1									
3	Retaining pin PVC-U	1									
4	Seal support ring PVC-U	1									
5	Cup seals PTFE	2									
6	Stem Sets		161 483 062	161 483 063	161 483 064	161 483 065	161 483 066	161 483 067	161 483 068	161 483 069	161 483 070
6	Stem PVC-U	1									
7	Threaded bush PVC-U	1									
2	Top Parts complete		161 482 250	161 482 251	161 482 252	161 482 253	161 482 254	161 482 255	161 482 256	161 482 257	161 482 258
2	Disc and seating PVC-U	1									
3	Retaining pin PVC-U	1									
4	Seal support ring PVC-U	1									
5	Cup seals PE	2									
6	Stem PVC-U	1									
7	Threaded bush PVC-U	1									
8	Valve nut PVC-U	1									
9	Handwheel PE	1									
10	Handwheel Nut PVC-U	1									
1	Bodies, PVC-U	1	161 300 251	161 300 301	161 300 351	161 300 401	161 300 451	161 300 501	161 300 551	161 300 601	161 300 651
8	Valve Nuts, PVC-U	1	161 300 258	161 300 308	161 300 358	161 300 408	161 300 458	161 300 508	161 300 558	-	-
8	Plugs, PVC-U	1	-	-	-	-	-	-	-	161 300 608	161 300 658
9	Handwheels	1	161 300 259	161 300 309	161 300 309	161 300 409	161 300 459	161 300 509	161 300 559	161 300 609	161 300 659
10	Handwheel Nuts, PVC-U	1	161 300 260	721 960 603	721 960 603	721 960 603	721 960 604	721 960 604	721 960 605	721 960 606	721 960 607



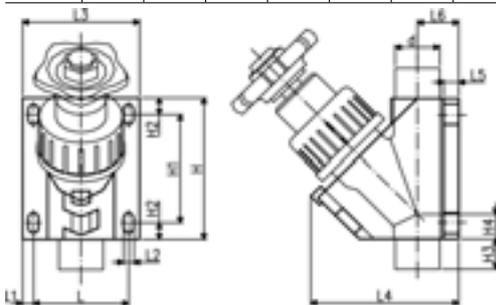
## Angle seat valve bracket type 123 PVC-U

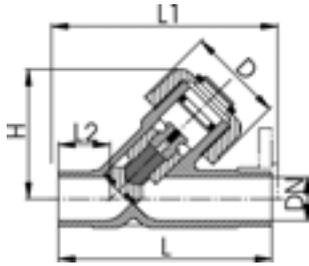
### Model:

- 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	GP	kg
16	10	<b>161 123 250</b>	40	0.114
20	15	<b>161 123 300</b>	10	0.146
25	20	<b>161 123 350</b>	10	0.230
32	25	<b>161 123 400</b>	-	0.289
40	32	<b>161 123 450</b>	5	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]
16	62	8	7	78	67	10	22	76	55	11	15	9
20	65	9	7	82	74	10	25	86	65	11	17	11
25	73	9	8	91	87	11	30	100	76	12	20	17
32	84	9	8	102	104	13	35	102	78	12	23	14
40	90	9	8	107	122	15	42	116	85	16	27	17





## 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	GP	kg
16	10	10	41	<b>161 303 005</b>	<b>161 303 030</b>	9	0.094
20	15	10	95	<b>161 303 006</b>	<b>161 303 031</b>	-	0.132
25	20	10	180	<b>161 303 007</b>	<b>161 303 032</b>	10	0.200
32	25	10	327	<b>161 303 008</b>	<b>161 303 033</b>	4	0.323
40	32	10	484	<b>161 303 009</b>	<b>161 303 034</b>	12	0.498
50	40	10	725	<b>161 303 010</b>	<b>161 303 035</b>	6	0.860
63	50	10	1130	<b>161 303 011</b>	<b>161 303 036</b>	8	1.455
75	65	10	1700	<b>161 303 012</b>	<b>161 303 037</b>	4	2.499
90	80	10	2500	<b>161 303 013</b>	<b>161 303 038</b>	4	3.511

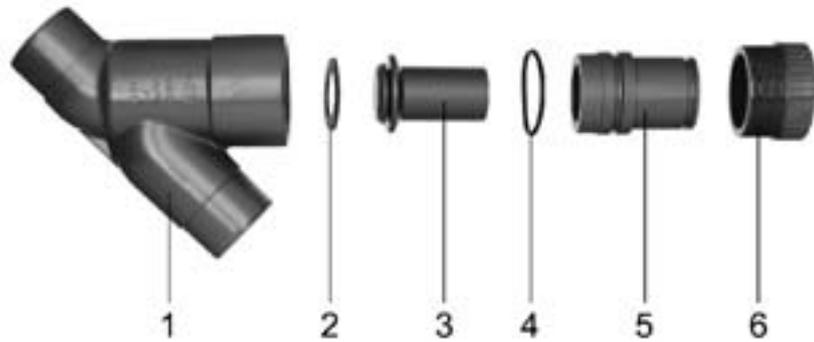
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
16	39	114	120	24	58
20	43	124	130	28	65
25	47	144	150	37	75
32	56	154	160	37	90
40	64	174	180	44	102
50	82	194	200	48	123
63	95	224	230	60	144
75	92	284	290	74	186
90	104	300	310	85	204

## Spare parts for angle seat check valve type 303 (DN10-50) PVC-U



No.	Article / Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN 50
1	Body PVC-U	1	161 480 699	161 480 700	161 480 701	161 300 401	161 300 451	161 300 501	161 300 551
2	Flat gasket EPDM	1	161 480 664	161 480 665	161 480 666	161 480 667	161 480 668	161 480 669	161 480 670
2	Flat gasket FPM	1	161 480 673	161 480 674	161 480 675	161 480 676	161 480 677	161 480 678	161 480 679
3	Piston PVC-U	1	161 480 682	161 480 683	161 480 684	161 480 685	161 480 686	161 480 687	161 480 688
4	O-ring seal EPDM	1	748 410 059	748 410 106	748 410 001	748 410 007	748 410 002	748 410 102	748 410 101
4	O-ring seal FPM	1	749 410 059	749 410 106	749 410 001	749 410 007	749 410 002	749 410 102	749 410 101
5	Valve end PVC	1	161 480 648	161 480 649	161 480 650	161 480 651	161 480 652	161 480 653	161 480 654
6	Valve nut PVC-U	1	161 300 258	161 300 308	161 300 358	161 300 408	161 300 458	161 300 508	161 300 558
7	Circlip PVC-U	1	161 482 076	161 482 017	161 482 018	161 482 019	161 482 020	161 482 021	161 482 022

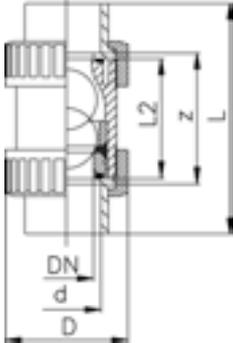
## Spare parts for angle seat check valve type 303 (DN65-80) PVC-U



No.	Article / Material	Pieces	d75 DN 65	d90 DN 80
			1	Body PVC-U
2	Flat gasket EPDM	1	161 480 671	161 480 672
2	Flat gasket FPM	1	161 480 680	161 480 681
3	Piston PVC-U	1	161 480 689	161 480 690
4	O-ring seal EPDM	1	748 410 119	748 410 014
4	O-ring seal FPM	1	749 410 119	749 410 014
5	Valve end PVC	1	161 490 412	161 490 413
6	Valve nut PVC-U	1	161 305 604	161 305 654

# Ball check valves

## Ball check valve type 360 PVC-U With solvent cement sockets metric

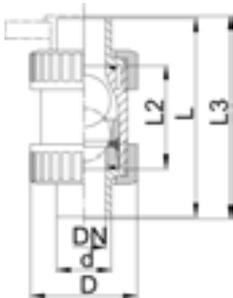


**Model:**

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg	z [mm]	D [mm]	L [mm]	L2 [mm]
16	10	16	170	<b>161 360 401</b>	<b>161 360 411</b>	10	0.123	71	45	99	63
20	15	16	150	<b>161 360 402</b>	<b>161 360 412</b>	10	0.123	71	45	102	63
25	20	16	330	<b>161 360 403</b>	<b>161 360 413</b>	8	0.205	82	53	120	75
32	25	16	390	<b>161 360 404</b>	<b>161 360 414</b>	-	0.318	87	64	131	79
40	32	16	710	<b>161 360 405</b>	<b>161 360 415</b>	6	0.524	98	78	150	89
50	40	16	900	<b>161 360 406</b>	<b>161 360 416</b>	6	0.841	101	92	163	95
63	50	16	1390	<b>161 360 407</b>	<b>161 360 417</b>	-	1.495	121	116	197	115

## Ball check valve type 360 PVC-U With solvent cement spigots metric



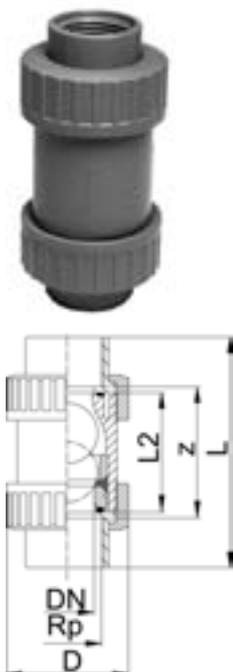
**Model:**

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical

\* without union ends for easy installation and removal

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
16	10	16	170	<b>161 360 441</b>	<b>161 360 451</b>	10	0.123
20	15	16	150	<b>161 360 442</b>	<b>161 360 452</b>	10	0.128
25	20	16	330	<b>161 360 443</b>	<b>161 360 453</b>	8	0.211
32	25	16	390	<b>161 360 444</b>	<b>161 360 454</b>	8	0.331
40	32	16	710	<b>161 360 445</b>	<b>161 360 455</b>	6	0.540
50	40	16	900	<b>161 360 446</b>	<b>161 360 456</b>	6	0.870
63	50	16	1390	<b>161 360 447</b>	<b>161 360 457</b>	4	1.554
*90	80	10	1200	<b>161 360 013</b>	<b>161 360 038</b>	-	4.330

d [mm]	D [mm]	L [mm]	L2 [mm]	L3 [mm]
16	45	114	63	120
20	45	124	63	130
25	53	144	75	150
32	64	154	79	160
40	78	174	89	180
50	92	194	95	200
63	116	224	115	230
*90		300		310



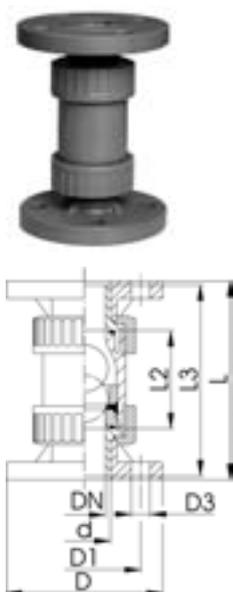
## Ball check valve type 360 PVC-U With threaded sockets Rp

### Model:

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	GP	kg
3/8	10	10	170	<b>161 360 421</b>	<b>161 360 431</b>	10	0.123
1/2	15	10	150	<b>161 360 422</b>	<b>161 360 432</b>	10	0.123
3/4	20	10	330	<b>161 360 423</b>	<b>161 360 433</b>	8	0.204
1	25	10	390	<b>161 360 424</b>	<b>161 360 434</b>	8	0.316
1 1/4	32	10	710	<b>161 360 425</b>	<b>161 360 435</b>	6	0.520
1 1/2	40	10	900	<b>161 360 426</b>	<b>161 360 436</b>	6	0.855
2	50	10	1390	<b>161 360 427</b>	<b>161 360 437</b>	4	1.547

Rp [inch]	z [mm]	D [mm]	L [mm]	L2 [mm]
3/8	67	45	99	63
1/2	67	45	102	63
3/4	79	53	120	75
1	83	64	131	79
1 1/4	96	78	150	89
1 1/2	109	92	163	95
2	135	116	197	115



## Ball check valve type 360 PVC-U With fixed flanges serrated metric

### Model:

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical
- Overall length EN 558
- Connecting Dimensions: metric 2501 PN 10

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	3/8	16	150	<b>161 360 502</b>	<b>161 360 512</b>	0.327
25	20	3/4	16	330	<b>161 360 503</b>	<b>161 360 513</b>	0.456
32	25	1	16	390	<b>161 360 504</b>	<b>161 360 514</b>	0.694
40	32	1 1/4	16	710	<b>161 360 505</b>	<b>161 360 515</b>	0.500
50	40	1 1/2	16	900	<b>161 360 506</b>	<b>161 360 516</b>	1.605
63	50	2	16	1390	<b>161 360 507</b>	<b>161 360 517</b>	2.571

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]
20	95	65	14	124	63	130
25	105	75	14	144	75	150
32	115	84	14	154	79	160
40	140	100	18	174	89	180
50	150	110	18	194	95	200
63	165	125	18	224	115	230

# Component Parts for Flange Assembly of Ball Check Valves Type 360

21 80 01



**Flange Adaptors PVC-U**  
Jointing face flat, metric

d	DN	PN	Code	kg
20	15	16	<b>721 800 106</b>	0,010
25	20	16	<b>721 800 107</b>	0,015
32	25	16	<b>721 800 108</b>	0,024
40	32	16	<b>721 800 109</b>	0,038
50	40	16	<b>721 800 110</b>	0,055
63	50	16	<b>721 800 111</b>	0,104

**EPDM 48 40 01**  
**FPM 49 40 01**

**Flat Gaskets**

d	DN	inch	EPDM Code	FPM Code	kg
20	15	1/2	<b>748 400 015</b>	<b>749 400 015</b>	0,003
25	20	3/4	<b>748 400 016</b>	<b>749 400 016</b>	0,003
32	25	1	<b>748 400 017</b>	<b>749 400 017</b>	0,004
40	32	1 1/4	<b>748 400 018</b>	<b>749 400 018</b>	0,008
50	40	1 1/2	<b>748 400 019</b>	<b>749 400 019</b>	0,012
63	50	2	<b>748 400 020</b>	<b>749 400 020</b>	0,017

**EPDM 48 44 01**  
**FPM 49 44 01**

**Flange Gaskets**

d	EPDM Code	FPM Code	kg
20	<b>748 440 101</b>	<b>749 440 101</b>	0,008
25	<b>748 440 102</b>	<b>749 440 102</b>	0,011
32	<b>748 440 103</b>	<b>749 440 103</b>	0,014
40	<b>748 440 104</b>	<b>749 440 104</b>	0,020
50	<b>748 440 105</b>	<b>749 440 105</b>	0,021
63	<b>748 440 106</b>	<b>749 440 106</b>	0,040

21 70 00

**Backing Flanges, PVC-U**  
metric

d	DN	inch	PN	Code	kg
20	15	1/2	10	<b>721 700 006</b>	0,067
25	20	3/4	10	<b>721 700 007</b>	0,091
32	25	1	10	<b>721 700 008</b>	0,131
40	32	1 1/4	10	<b>721 700 009</b>	0,194
50	40	1 1/2	10	<b>721 700 010</b>	0,245
63	50	2	10	<b>721 700 011</b>	0,311

## Backing Flanges, PP-V for Socket Systems metric

d	DN	inch	PN	Code	SP	kg
20	15		16	<b>727 700 406</b>	-	0,080
25	20		16	<b>727 700 407</b>	-	0,100
32	25		16	<b>727 700 408</b>	-	0,140
40	32		16	<b>727 700 409</b>	-	0,220
50	40		16	<b>727 700 410</b>	-	0,210
63	50		16	<b>727 700 411</b>	-	0,380

## 27 70 02

## Backing Flanges, PP with steel ring metric for Socket Systems metric

d	DN	PN	Code	kg
20	15	16	<b>727 700 206</b>	0,220
25	20	16	<b>727 700 207</b>	0,260
32	25	16	<b>727 700 208</b>	0,430
40	32	16	<b>727 700 209</b>	0,650
50	40	16	<b>727 700 210</b>	0,820
63	50	16	<b>727 700 211</b>	0,940

## 21 74 01

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

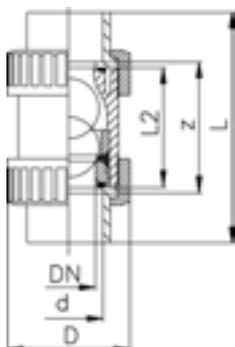
d	DN	inch	PN	Code	kg
20	15	1/2	16	<b>721 740 106</b>	0,100
25	20	3/4	16	<b>721 740 107</b>	0,130
32	25	1	16	<b>721 740 108</b>	0,185
40	32	1 1/4	16	<b>721 740 109</b>	0,305
50	40	1 1/2	16	<b>721 740 110</b>	0,368
63	50	2	16	<b>721 740 111</b>	0,510



## Ball check valve type 360 PVC-U With fusion sockets PE80 metric

### Model:

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical



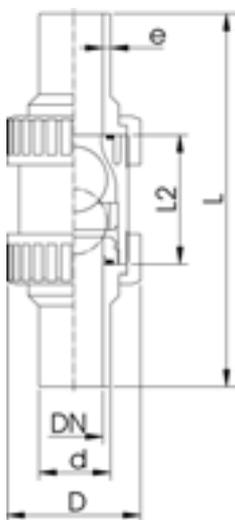
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg	z [mm]	D [mm]	L [mm]	L2 [mm]
16	10	10	170	<b>161 360 721</b>	0.120	72	45	98	63
20	15	10	150	<b>161 360 722</b>	0.115	73	45	101	63
25	20	10	330	<b>161 360 723</b>	0.195	82	53	119	75
32	25	10	390	<b>161 360 724</b>	0.300	94	64	130	79
40	32	10	710	<b>161 360 725</b>	0.495	109	78	149	89
50	40	10	900	<b>161 360 726</b>	0.800	118	92	162	95
63	50	10	1390	<b>161 360 727</b>	1.430	143	116	195	115



## Ball check valve type 360 PVC-U With butt and electro fusion ends PE100 SDR11 metric

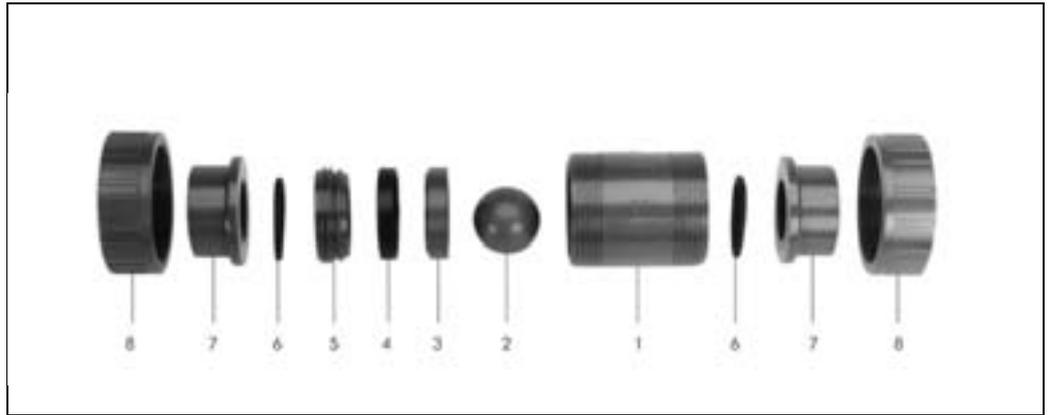
### Model:

- Union ends for easy installation and removal
- Ball is sealing at a minimum water column 2m
- Vibration free even at high flow velocity
- Installation position horizontal or vertical



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg	D [mm]	L [mm]	L2 [mm]	e [mm]
20	15	16	150	<b>161 360 742</b>	0.125	45	197	63	1,9
25	20	16	330	<b>161 360 743</b>	0.210	53	217	75	2,3
32	25	16	390	<b>161 360 744</b>	0.320	64	225	79	3
40	32	16	710	<b>161 360 745</b>	0.510	78	251	89	3,7
50	40	16	900	<b>161 360 746</b>	0.825	92	269	95	4,6
63	50	16	1390	<b>161 360 747</b>	1.460	116	301	115	5,8

## Spare Parts Ball Check Valves Type 360 (DN 10 - 50), PVC-U



No.	Article/ Material	Pieces	d16 DN 10	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN 50
1	Central Parts Body PVC-U	1	161 483 851	161 483 852	161 483 853	161 483 854	161 483 855	161 483 856	161 483 857
2	Ball PVC-U	1							
3	Support ring PVC-U	1							
4	Sealing ring EPDM	1							
5	Union bush PVC-U	1							
1	Central Parts Body PVC-U	1	161 483 861	161 483 862	161 483 863	161 483 864	161 483 865	161 483 866	161 483 867
2	Ball PVC-U	1							
3	Support ring PVC-U	1							
4	Sealing ring FPM	1							
5	Union bush PVC-U	1							
2	Balls, PVC-U	1	161 330 304	161 330 304	161 330 354	161 330 404	161 330 454	161 330 504	161 330 554
4	Sealing Rings, EPDM	1	161 483 259	161 483 259	161 483 260	161 483 261	161 483 262	161 483 263	161 483 264
4	Sealing Rings, FPM	1	161 483 265	161 483 265	161 483 266	161 483 267	161 483 268	161 483 269	161 483 270
6	Face seals, EPDM	1	748 410 042	748 410 042	748 410 116	748 410 103	748 410 027	748 410 010	748 410 011
6	Face seals, FPM	1	749 410 042	749 410 042	749 410 116	749 410 103	749 410 027	749 410 010	749 410 011
7	Valve Ends with Socket, PVC-U metric	1	161 480 536	161 480 537	161 480 538	161 480 539	161 480 540	161 480 541	161 480 542
7	Valve Ends with Spigot, PVC-U metric	1	161 482 345	161 482 346	161 482 347	161 482 348	161 482 349	161 482 350	161 482 351
7	Valve Ends, PVC-U Rp	1	161 480 550	161 480 551	161 480 552	161 480 553	161 480 554	161 480 555	161 480 556
7	Valve Ends with Fusion Socket, PE80	1	173 480 000	173 480 001	173 480 002	173 480 003	173 480 004	173 480 005	173 480 006
7	Butt and Electro Fusion Spigots, PE100 SDR11	1	-	193 480 127	193 480 128	193 480 129	193 480 130	193 480 131	193 480 132
8	Valve Nuts, PVC-U	1	161 340 617	161 340 617	161 340 618	161 340 619	161 340 620	161 340 621	161 480 522

## Spare Parts Ball Check Valves Type 360 (DN 80), PVC-U



No.	Article/ Material	Pieces
1	Body, PVC-U	1
2	Balls, PVC-U	1
3	Body seals, EPDM	1
3	Body seals, FPM	1
4	Sealing Rings, EPDM	1
4	Sealing Rings, FPM	1
6	Valve Ends Inlet Side, PVC-U metric	1
7	Valve Ends Outlet Side, PVC-U metric	1
8	Valve Nuts, PVC-U	1

### d90 DN 80

161 480 158

161 330 654

748 410 099

749 410 099

161 480 141

161 480 149

161 480 132

161 480 133

161 340 623



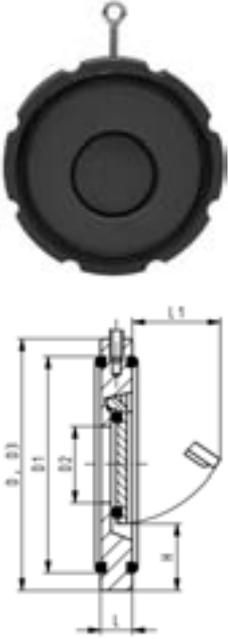
## Key PBTP black

- For assembly and disassembly of the union bush of ball valves type 323, 343, 346 and ball check valves 360

d-d [mm]	DN-DN [mm]	Inch	Code	GP	kg	
16 - 63	10 - 50	3/8-2	<b>160 480 106</b>	-	0.038	

# Wafer check valves

## Wafer check valve type 369 PVC-U Without spring



### Model:

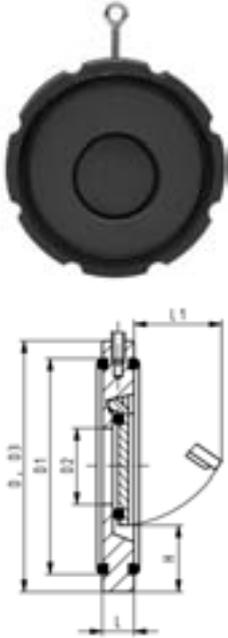
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### 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	GP	kg
40	32	1 ¼	6	<b>161 369 002</b>	<b>161 369 022</b>	-	0.130
50	40	1 ½	6	<b>161 369 003</b>	<b>161 369 023</b>	-	0.160
63	50	2	6	<b>161 369 004</b>	<b>161 369 024</b>	-	0.250
75	65	2 ½	6	<b>161 369 005</b>	<b>161 369 025</b>	-	0.320
90	80	3	6	<b>161 369 006</b>	<b>161 369 026</b>	-	0.390
110	100	4	6	<b>161 369 007</b>	<b>161 369 027</b>	-	0.550
140	125	4	6	<b>161 369 009</b>	<b>161 369 029</b>	-	0.750
160	150	5	6	<b>161 369 010</b>	<b>161 369 030</b>	-	1.100
225	200	6	6	<b>161 369 011</b>	<b>161 369 031</b>	-	2.100
280	250	8	6	<b>161 369 012</b>	<b>161 369 032</b>	-	3.500
315	300	10	6	<b>161 369 013</b>	<b>161 369 033</b>	-	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	10	1	2.0
50	105	74	22	95	16	27	27	10	10	1	2.0
63	124	90	32	109	18	40	29	10	10	1	2.0
75	137	110	40	129	20	55	31	10	10	1	2.0
90	175	125	54	144	20	67	32	10	10	1	2.0
110	175	150	70	164	23	67	31	10	10	1	2.0
140	195	178	92	195	23	94	35	10	10	1	2.0
160	222	192	105	220	26	100	41	10	10	1	2.0
225	279	256	154	275	35	152	38	18	18	1	2.0
280	340	306	192	330	40	180	41	18	18	1	2.0
315	410	342	227	380	45	215	41	18	18	1	2.0



## Wafer check valve type 369 PVC-U With V4A spring (stainless steel 316)

### Model:

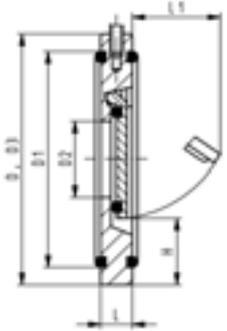
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

### 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	GP	kg
40	32	1 ¼	6	<b>161 369 042</b>	<b>161 369 062</b>	-	0.130
50	40	1 ½	6	<b>161 369 043</b>	<b>161 369 063</b>	-	0.160
63	50	2	6	<b>161 369 044</b>	<b>161 369 064</b>	-	0.250
75	65	2 ½	6	<b>161 369 045</b>	<b>161 369 065</b>	-	0.320
90	80	3	6	<b>161 369 046</b>	<b>161 369 066</b>	-	0.390
110	100	4	6	<b>161 369 047</b>	<b>161 369 067</b>	-	0.550
140	125	4	6	<b>161 369 049</b>	<b>161 369 069</b>	-	0.750
160	150	5	6	<b>161 369 050</b>	<b>161 369 070</b>	-	1.100
225	200	6	6	<b>161 369 051</b>	<b>161 369 071</b>	-	2.100
280	250	8	6	<b>161 369 052</b>	<b>161 369 072</b>	-	3.500
315	300	10	6	<b>161 369 053</b>	<b>161 369 073</b>	-	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	GP	kg
40	32	1 ¼	6	<b>161 369 082</b>	<b>161 369 102</b>	-	0.130
50	40	1 ½	6	<b>161 369 083</b>	<b>161 369 103</b>	-	0.160
63	50	2	6	<b>161 369 084</b>	<b>161 369 104</b>	-	0.250
75	65	2 ½	6	<b>161 369 085</b>	<b>161 369 105</b>	-	0.320
90	80	3	6	<b>161 369 086</b>	<b>161 369 106</b>	-	0.390
110	100	4	6	<b>161 369 087</b>	<b>161 369 107</b>	-	0.550
140	125	4	6	<b>161 369 089</b>	<b>161 369 109</b>	-	0.750
160	150	5	6	<b>161 369 090</b>	<b>161 369 110</b>	-	1.100
225	200	6	6	<b>161 369 091</b>	<b>161 369 111</b>	-	2.100
280	250	8	6	<b>161 369 092</b>	<b>161 369 112</b>	-	3.500
315	300	10	6	<b>161 369 093</b>	<b>161 369 113</b>	-	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

# Component Parts for Flange Assembly of Wafer Check Valves Type 369

21 80 01

## Flange Adaptors PVC-U Jointing face flat, metric



d	DN	PN	Code	kg	
40	32	16	<b>721 800 109</b>	0,038	
50	40	16	<b>721 800 110</b>	0,055	
63	50	16	<b>721 800 111</b>	0,104	
75	65	16	<b>721 800 112</b>	0,155	
90	80	16	<b>721 800 113</b>	0,156	
110	100	16	<b>721 800 114</b>	0,417	
140	125	16	<b>721 800 116</b>	0,748	
160	150	16	<b>721 790 117</b>	1,077	
225	200	10	<b>721 790 120</b>	1,758	
280	250	10	<b>721 790 122</b>	2,895	
315	300	6	<b>721 790 123</b>	4,450	

21 70 00

## Backing Flanges, PVC-U metric

d	DN	inch	PN	Code	kg	
40	32	1 1/4	10	<b>721 700 009</b>	0,194	
50	40	1 1/2	10	<b>721 700 010</b>	0,245	
63	50	2	10	<b>721 700 011</b>	0,311	
75	65	2 1/2	10	<b>721 700 012</b>	0,375	
90	80	3	10	<b>721 700 013</b>	0,471	
110	100	4	10	<b>721 700 014</b>	0,554	
140	125	5	10	<b>721 700 016</b>	0,746	
160	150	6	10	<b>721 700 017</b>	1,012	
225	200	8	10	<b>721 700 020</b>	1,360	
280	250	10	6	<b>721 700 137</b>	1,730	
315	300	12	6	<b>721 700 138</b>	2,350	

## Backing Flanges, PP-V for Socket Systems metric

d	DN	inch	PN	Code	SP	kg	
40	32		16	<b>727 700 409</b>	-	0,220	
50	40		16	<b>727 700 410</b>	-	0,210	
63	50		16	<b>727 700 411</b>	-	0,380	
75	65		16	<b>727 700 412</b>	-	0,480	
90	80		16	<b>727 700 413</b>	-	0,520	
110	100		16	<b>727 700 414</b>	-	0,680	
140	125		16	<b>727 700 416</b>	-	0,800	
160	150	6	16	<b>727 700 417</b>	-	1,200	
225	200	8	16	<b>727 700 420</b>	-	1,400	
280	250		16	<b>727 700 422</b>	-	1,700	
315	300		16	<b>727 700 423</b>	-	2,400	

**27 70 02**

**Backing Flanges, PP with steel ring  
metric  
for Socket Systems metric**

<b>d</b>	<b>DN</b>	<b>PN</b>	<b>Code</b>	<b>kg</b>	
40	32	16	<b>727 700 209</b>	0,650	
50	40	16	<b>727 700 210</b>	0,820	
63	50	16	<b>727 700 211</b>	0,940	
75	65	16	<b>727 700 212</b>	1,300	
90	80	16	<b>727 700 213</b>	1,400	
110	100	16	<b>727 700 214</b>	1,560	
140	125	16	<b>727 700 216</b>	2,120	
160	150	16	<b>727 700 217</b>	3,390	
225	200	16	<b>727 700 220</b>	4,410	
280	250	16	<b>727 700 222</b>	5,520	
315	300	16	<b>727 700 223</b>	7,600	

## Spare parts for wafer check valve type 369 PVC-U

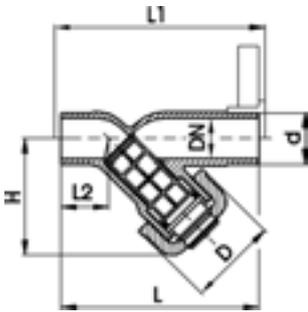


No.	Article / Material	Pieces	d40 DN 32	d50 DN 40	d63 DN 50	d75 DN 65	d90 DN 80	d110 DN 100	DN 125
1	Flange gasket EPDM	2	161 484 875	161 486 959	161 486 960	161 486 961	161 486 962	161 486 962	161 486 964
1	Flange gasket FPM	2	161 484 887	161 486 979	161 486 980	161 486 981	161 486 982	161 486 982	161 486 984
3	Spring V4A	1	161 484 900	161 484 901	161 484 902	161 484 903	161 484 904	161 484 905	161 484 905
3	Spring Hastelloy C	1	161 484 912	161 484 913	161 484 914	161 484 915	161 484 916	161 484 917	161 484 917

No.	Article / Material	Pieces	d160 DN 150	d225 DN 200	d280 DN 250	d315 DN 300
1	Flange gasket EPDM	2	161 486 964	161 486 974	161 486 966	161 486 967
1	Flange gasket FPM	2	161 486 984	161 486 993	161 486 986	161 486 987
3	Spring V4A	1	161 484 907	161 484 908	161 484 909	161 484 910
3	Spring Hastelloy C	1	161 484 919	161 484 920	161 484 921	161 484 922

# Strainers

## Line strainer type 305 PVC-U Transparent body with solvent cement spigots metric

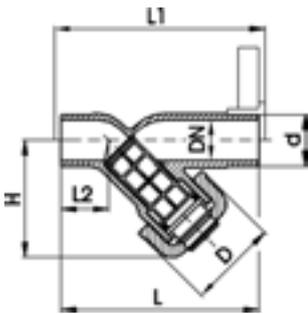


### Model:

- 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

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	GP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
20	15	10	192 305 300	192 305 349	9	0.122	43	124	130	28	65
25	20	10	192 305 350	192 305 399	8	0.170	47	144	150	37	76
32	25	10	192 305 400	192 305 449	4	0.255	56	154	160	37	90
40	32	10	192 305 450	192 305 499	12	0.384	64	174	180	44	104
50	40	10	192 305 500	192 305 549	6	0.635	82	194	200	48	124
63	50	10	192 305 550	192 305 599	8	1.059	95	224	230	60	148
75	65	10	192 305 600	192 305 649	4	1.838	106	284	290	74	188
90	80	10	192 305 650	192 305 699	4	2.565	120	300	310	85	205

## 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

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	GP	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
20	15	10	161 305 300	161 305 349	-	0.134	43	124	130	28	65
25	20	10	161 305 350	161 305 399	10	0.215	47	144	150	37	76
32	25	10	161 305 400	161 305 449	-	0.257	56	154	160	37	90
40	32	10	161 305 450	161 305 499	-	0.386	64	174	180	44	104
50	40	10	161 305 500	161 305 549	-	0.632	82	194	200	48	124
63	50	10	161 305 550	161 305 599	-	1.045	95	224	230	60	148
75	65	10	161 305 600	161 305 649	-	1.871	106	284	290	74	188
90	80	10	161 305 650	161 305 699	-	2.585	120	300	310	85	205



## Cylindrical screen type 305 PVC-U Screen perforations 0.5 mm

- For line strainers Type 305

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]
20	15	35	<b>161 305 339</b>	100	0.005	14	39
25	20	65	<b>161 305 389</b>	100	0.007	18	48
32	25	90	<b>161 305 439</b>	50	0.003	24	60
40	32	155	<b>161 305 489</b>	20	0.004	30	71
50	40	225	<b>161 305 539</b>	10	0.007	38	87
63	50	370	<b>161 305 589</b>	20	0.010	48	106
75	65	575	<b>161 305 639</b>	60	0.012	61	100
90	80	955	<b>161 305 689</b>	24	0.017	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	GP	kg	D [mm]	L [mm]
20	15	35	<b>161 305 338</b>	140	0.005	14	39
25	20	65	<b>161 305 388</b>	140	0.007	18	48
32	25	90	<b>161 305 438</b>	50	0.003	24	60
40	32	155	<b>161 305 488</b>	-	0.004	30	71
50	40	225	<b>161 305 538</b>	14	0.006	38	87
63	50	370	<b>161 305 588</b>	20	0.009	48	106
75	65	575	<b>161 305 638</b>	60	0.012	61	100
90	80	955	<b>161 305 688</b>	24	0.010	73	118



## Cylindrical screen type 305 PVC-U Screen perforations 1.4 mm

- For line strainers Type 305

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]
20	15	35	<b>161 305 337</b>	100	0.005	14	39
25	20	65	<b>161 305 387</b>	140	0.003	18	48
32	25	90	<b>161 305 437</b>	50	0.003	24	60
40	32	155	<b>161 305 487</b>	20	0.004	30	71
50	40	225	<b>161 305 537</b>	10	0.006	38	87
63	50	370	<b>161 305 587</b>	20	0.008	48	106
75	65	575	<b>161 305 637</b>	60	0.011	61	100
90	80	955	<b>161 305 687</b>	24	0.015	73	118



## Cylindrical screen type 305 PVC-U Screen perforations 2.2 mm

- For line strainers Type 305

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]
20	15	35	<b>161 305 336</b>	100	0.005	14	39
25	20	65	<b>161 305 386</b>	140	0.003	18	48
32	25	90	<b>161 305 436</b>	70	0.003	24	60
40	32	155	<b>161 305 486</b>	20	0.003	30	71
50	40	225	<b>161 305 536</b>	10	0.005	38	87
63	50	370	<b>161 305 586</b>	20	0.008	48	106
75	65	575	<b>161 305 636</b>	60	0.010	61	100
90	80	955	<b>161 305 686</b>	-	0.013	73	118

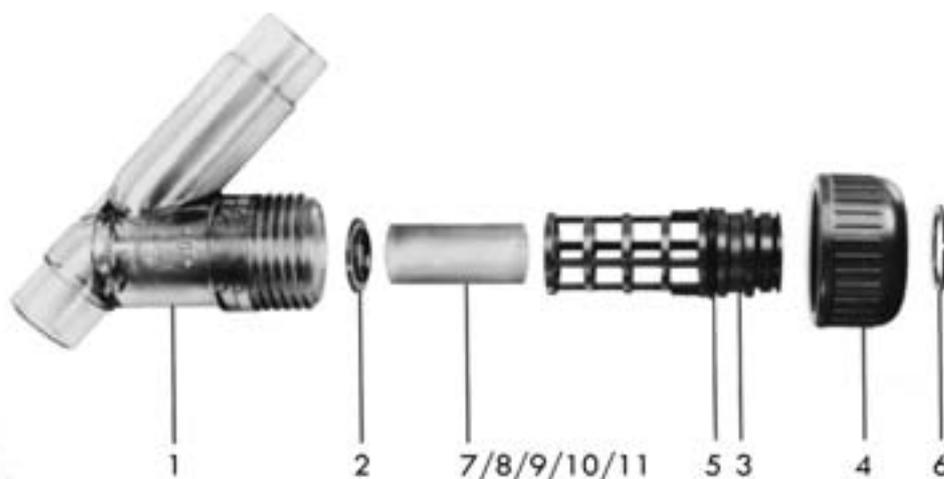


## Screen stainless steel Screen perforation 0.5 mm

- For line strainers Type 305

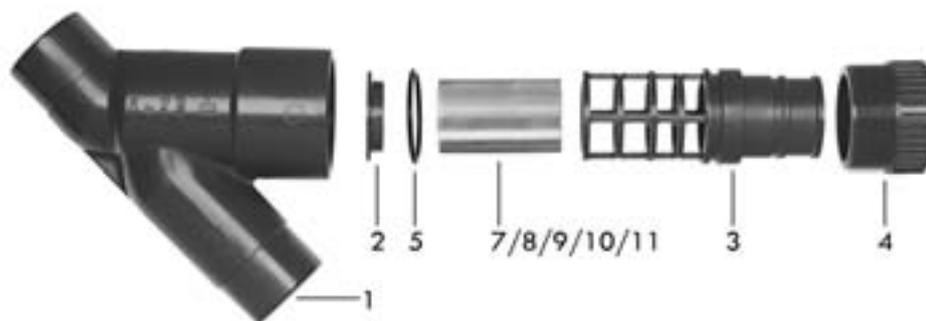
d [mm]	DN [mm]	Inch	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]
20	15	½	35	<b>161 486 100</b>	-	0.002	14	39
25	20	¾	60	<b>161 486 101</b>	-	0.004	18	48
32	40	1	85	<b>161 486 102</b>	-	0.006	24	60
40	32	1 ¼	130	<b>161 486 103</b>	-	0.009	30	71
50	40	1 ½	200	<b>161 486 104</b>	-	0.014	38	87
63	50	2	330	<b>161 486 105</b>	-	0.022	48	106
75	65	2 ½	460	<b>161 486 106</b>	-	0.026	61	100
90	80	3	665	<b>161 486 107</b>	-	0.036	73	118

## Spare parts for line strainer type 305 (DN15-50) PVC-U



No.	Article / Material	Pieces	d20 DN 15	d25 DN 20	d32 DN 25	d40 DN 32	d50 DN 40	d63 DN 50
3	Screen set		161 483 126	161 483 127	161 483 128	161 483 129	161 483 130	161 483 131
2	Cage PVC-U	1						
6	Screen support ring PVC-U	1						
	Circlip PVC-U	1						
1	Body PVC-U transparent	1	192 300 301	192 300 351	192 300 401	192 300 451	192 300 501	192 300 551
1	Body PVC-U	1	161 300 301	161 300 351	161 300 401	161 300 451	161 300 501	161 300 551
3	Cage PVC-U	1	161 305 303	161 305 353	161 305 403	161 305 453	161 305 503	161 305 553
4	Valve nut PVC-U	1	161 300 308	161 300 358	161 300 408	161 300 458	161 300 508	161 300 558
5	Body seal EPDM	1	748 410 006	748 410 001	748 410 007	748 410 002	748 410 003	748 410 012
5	Body seal FPM	1	749 410 006	749 410 001	749 410 007	749 410 002	749 410 003	749 410 012
7	Screen perforation PVC-U 0.5 mm	1	161 305 339	161 305 389	161 305 439	161 305 489	161 305 539	161 305 589
8	Screen perforation PVC-U 0.8 mm	1	161 305 338	161 305 388	161 305 438	161 305 488	161 305 538	161 305 588
9	Screen perforation PVC-U 1.4 mm	1	161 305 337	161 305 387	161 305 437	161 305 487	161 305 537	161 305 587
10	Screen perforation PVC-U 2.2 mm	1	161 305 336	161 305 386	161 305 436	161 305 486	161 305 536	161 305 586
11	Screen perforation Stainless steel 0.5 mm	1	161 486 100	161 486 101	161 486 102	161 486 103	161 486 104	161 486 105

## Spare parts for line strainer type 305 (DN65-80) PVC-U



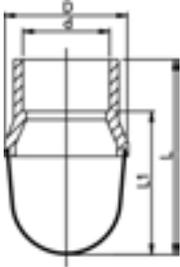
No.	Article / Material	Pieces	d75 DN 65	d90 DN 80
3	Screen set Cage PVC-U	1	161 483 132	161 483 133
2	Screen support ring PVC-U	1		
1	Body PVC-U transparent	1	192 300 601	192 300 651
1	Body PVC-U	1	161 300 601	161 300 651
3	Cage PVC-U	1	161 305 603	161 305 653
4	Plug PVC-U	1	161 305 604	161 305 654
5	Body seal EPDM	1	748 410 013	748 410 014
5	Body seal FPM	1	749 410 013	749 410 014
7	Screen perforation PVC-U 0.5 mm	1	161 305 639	161 305 689
8	Screen perforation PVC-U 0.8 mm	1	161 305 638	161 305 688
9	Screen perforation PVC-U 1.4 mm	1	161 305 637	161 305 687
10	Screen perforation PVC-U 2.2 mm	1	161 305 636	161 305 686
11	Screen perforation Stainless steel 0.5 mm	1	161 486 106	161 486 107

# Screen assemblies and Inspection glass

## Screen assembly type 050 PVC-U With solvent cement sockets metric



DN 15 - 50



DN 15-50

Inch	d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]	L1 [mm]	perforations $\emptyset$ [mm]
1/2	20	15	105	<b>161 050 026</b>	9	0.033	50	64	80	2
3/4	25	20	228	<b>161 050 027</b>	9	0.038	50	64	83	2
1	32	25	390	<b>161 050 028</b>	9	0.044	50	64	86	2
1 1/4	40	32	563	<b>161 050 029</b>	-	0.134	90	105	131	2
1 1/2	50	40	813	<b>161 050 030</b>	12	0.151	90	105	136	2
2	63	50	1590	<b>161 050 031</b>	12	0.190	90	105	143	2

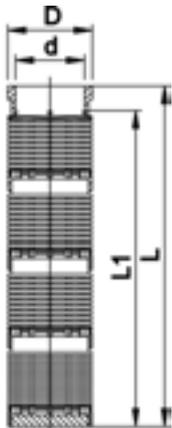
## Screen assembly type 050 PVC-U With solvent cement sockets metric

### 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

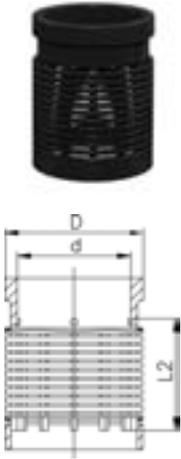


DN65-100



DN 65-100

d [mm]	DN [mm]	kv-value ( $\Delta p=1$ bar) [l/min]	Code	GP	kg	D [mm]	L [mm]	L1 [mm]	lamina width [mm]
<sup>1</sup> 75	65	9640	<b>161 050 032</b>	4	0.805	110	260	216	2.5
<sup>2</sup> 90	80	14790	<b>161 050 033</b>	3	0.895	110	345	312	2.5
<sup>3</sup> 110	100	15213	<b>161 050 034</b>	6	1.290	125	490	460	2.5



## Screen type 050 PVC-U With solvent cement sockets metric

- For Screen Assemblies Type 050, PVC-U, DN 65-100

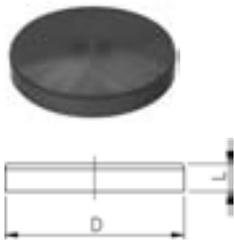
Inch	d [mm]	DN [mm]	Code	GP	kg	D [mm]	L2 [mm]	lamina width [mm]
2 1/2	75	65	<b>161 090 024</b>	-	0.440	110	90	
3	90	80	<b>161 090 002</b>	-	0.300	110	90	3
4	110	100	<b>161 090 003</b>	-	0.457	125	135	3



## Extention type 050 PVC-U

- For Screen Assemblies Type 050, PVC-U, DN 65-100

d-d [mm]	DN-DN [mm]	Inch	Code	GP	kg	L3 [mm]
75 - 110	65 - 100	2 1/2 - 4	<b>161 090 019</b>	-	0.215	103



## Plate type 050 PVC-U

- For Screen Assemblies Type 050, PVC-U, DN 65-100

d-d [mm]	DN-DN [mm]	Inch	Code	GP	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	GP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]
50	40	10	<b>199 001 240</b>	-	0.610	178	83	29	150

# Pipe Clips metric

## KLIP-IT Pipe Clips Type 061H, PP metric

### Model:

- For mm-pipes d16-d63
- Material: PP black, UV resistant
- **Minimum order quantity: standard packagings SP**

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



d [mm]	Code	SP	GP	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*16	<b>167 061 035</b>	10	-	0.006	6	11	14	17	27	10	6	16	M5
*20	<b>167 061 036</b>	10	-	0.008	6	11	17	19	27	10	6	16	M5
*25	<b>167 061 037</b>	10	200	0.009	6	11	19	22	30	10	6	16	M5
*32	<b>167 061 038</b>	10	150	0.012	6	11	24	27	36	10	6	16	M5
40	<b>167 061 039</b>	10	140	0.027	7	14	34	34	44	10	7	22	M6
50	<b>167 061 040</b>	10	100	0.031	7	14	37	37	51	10	7	22	M6
63	<b>167 061 041</b>	10	80	0.054	9	17	45	45	64	10	10	25	M8

## KLIP-IT Pipe Clips Type 061, PP metric

### Model:

- For mm pipes
- Material: Clip and safety clip PP black, UV resistant
- **Minimum order quantity: standard packagings SP**

- d16 - d63: height designed for Ball Valve Type 546



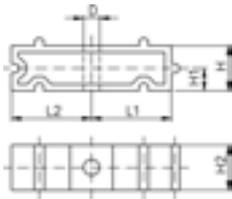
d [mm]	Code	SP	GP	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*10	<b>167 061 003</b>	10	500	5	8	11	14	20	10	6	12	M4
*12	<b>167 061 004</b>	10	500	5	8	11	14	21	10	6	12	M5
*16	<b>167 061 035</b>	10	-	6	11	14	17	27	10	6	16	M5
*20	<b>167 061 036</b>	10	-	6	11	17	19	27	10	6	16	M5
*25	<b>167 061 037</b>	10	200	6	11	19	22	30	10	6	16	M5
*32	<b>167 061 038</b>	10	150	6	11	24	27	36	10	6	16	M5
40	<b>167 061 039</b>	10	140	7	14	34	34	44	10	7	22	M6
50	<b>167 061 040</b>	10	100	7	14	37	37	51	10	7	22	M6
63	<b>167 061 041</b>	10	80	9	17	45	45	64	10	10	25	M8
75	<b>167 061 012</b>	10	60	9	17	52	52	58	10	10	25	M8
90	<b>167 061 013</b>	10	80	9	17	65	65	65	10	10	28	M8
110	<b>167 061 014</b>	10	40	9	17	79	79	75	10	10	28	M8
125	<b>167 061 015</b>	10	30	9	17	88	88	90	10	10	32	M8
140	<b>167 061 016</b>	10	20	9	17	98	98	110	10	10	32	M8
160	<b>167 061 017</b>	10	20	9	17	109	109	108	10	10	32	M8



## KLIP-IT Spacer Type 061, PP

### Model:

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

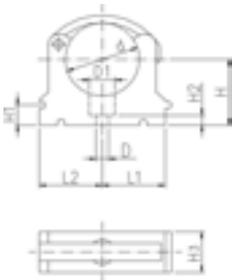


d [mm]	Inch [inch]	Code	SP	GP	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
10 - 12	1/8 - 1/4	<b>167 061 153</b>	10	500	0.003	5	11	14	20	10	12	M4
16	3/8	<b>167 061 155</b>	10	200	0.006	6	14	17	20	10	16	M5
20	1/2	<b>167 061 156</b>	10	200	0.006	6	17	19	20	10	16	M5
25	3/4	<b>167 061 157</b>	10	200	0.007	6	19	22	20	10	16	M5
32	1	<b>167 061 158</b>	10	200	0.008	6	24	27	20	10	16	M5
40	1 1/4	<b>167 061 159</b>	10	150	0.016	7	34	34	20	10	22	M6
50	1 1/2	<b>167 061 160</b>	10	140	0.017	7	37	37	20	10	22	M6
63	2	<b>167 061 161</b>	10	80	0.024	9	45	45	20	10	25	M8
75	2 1/2	<b>167 061 162</b>	10	60	0.027	9	52	52	20	10	25	M8
90	3	<b>167 061 163</b>	10	140	0.040	9	65	65	20	10	28	M8
110	4	<b>167 061 164</b>	10	100	0.048	9	79	79	20	10	28	M8
125	4 1/2	<b>167 061 165</b>	10	100	0.059	9	88	88	20	10	32	M8
140	5	<b>167 061 166</b>	10	80	0.065	9	98	98	20	10	32	M8
160	6	<b>167 061 167</b>	10	80	0.074	9	109	109	20	10	32	M8

## KLIP-IT Pipe Clips Type 061, PE metric

### Model:

- For mm pipes
- Material: Clip PE and safety clip PP black
- **Minimum order quantity: standard packaging SP**

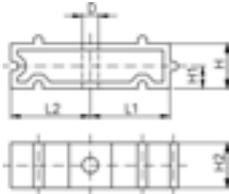


- Height not designed for ball valve 546. Please use spacer 73 06 11.

d [mm]	Code	SP	GP	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*10	<b>173 061 003</b>	10	500	0.003	5	8	11	14	20	10	6	12	M4
*12	<b>173 061 004</b>	10	500	0.006	5	8	11	14	21	10	6	12	M5
*16	<b>173 061 005</b>	10	200	0.007	6	11	14	17	23	10	6	16	M5
*20	<b>173 061 006</b>	10	200	0.008	6	11	17	19	25	10	6	16	M5
*25	<b>173 061 007</b>	10	200	0.009	6	11	19	22	28	10	6	16	M5
*32	<b>173 061 008</b>	10	200	0.012	6	11	24	27	31	10	6	16	M5
40	<b>173 061 009</b>	10	150	0.022	7	14	34	34	35	10	7	22	M6
50	<b>173 061 010</b>	10	140	0.030	7	14	37	37	40	10	7	22	M6
63	<b>173 061 011</b>	10	80	0.044	9	17	45	45	52	10	10	25	M8
75	<b>173 061 012</b>	10	60	0.062	9	17	52	52	58	10	10	25	M8
90	<b>173 061 013</b>	10	80	0.090	9	17	65	65	65	10	10	28	M8
110	<b>173 061 014</b>	10	40	0.114	9	17	79	79	75	10	10	28	M8
125	<b>173 061 015</b>	10	30	0.174	9	17	88	88	90	10	10	32	M8
140	<b>173 061 016</b>	10	20	0.217	9	17	98	98	110	10	10	32	M8
160	<b>173 061 017</b>	10	20	0.237	9	17	109	109	108	10	10	32	M8

**KLIP-IT Spacer Type 061, PE****Model:**

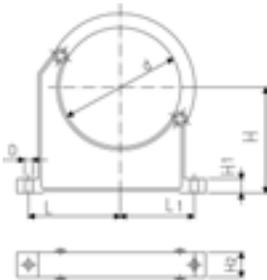
- For pipe clips Type 061, PE black, UV resistant
- **Minimum order quantity: standard packaging SP**



d	Inch	Code	SP	GP	kg	D	L1	L2	H	H1	H2	SC
[mm]						[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
16	1/8-1/4	<b>173 061 153</b>	10	500	0.003	5	11	14	20	10	12	M4
20	3/8	<b>173 061 155</b>	10	200	0.005	6	14	17	20	10	16	M5
25	1/2	<b>173 061 156</b>	10	200	0.006	6	17	19	20	10	16	M5
32	3/4	<b>173 061 157</b>	10	200	0.007	6	19	22	20	10	16	M5
40	1	<b>173 061 158</b>	10	200	0.008	6	24	27	20	10	16	M5
50	1 1/4	<b>173 061 159</b>	10	150	0.016	7	34	34	20	10	22	M6
63	1 1/2	<b>173 061 160</b>	10	140	0.017	7	37	37	20	10	22	M6
75	2	<b>173 061 161</b>	10	80	0.025	9	45	45	20	10	25	M8
90	2 1/2	<b>173 061 162</b>	10	60	0.027	9	52	52	20	10	25	M8
110	3	<b>173 061 163</b>	10	140	0.040	9	65	65	20	10	28	M8
125	4	<b>173 061 164</b>	10	100	0.048	9	79	79	20	10	28	M8
140	4 1/2	<b>173 061 165</b>	10	100	0.059	9	88	88	20	10	32	M8
160	5	<b>173 061 166</b>	10	80	0.065	9	98	98	20	10	32	M8
	6	<b>173 061 167</b>	10	80	0.074	9	109	109	20	10	32	M8

**Pipe Clips Type 060, PP metric****Model:**

- For mm pipes d90-400
- Material: Clip and safety clip PP black, UV resistant
- 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



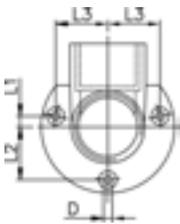
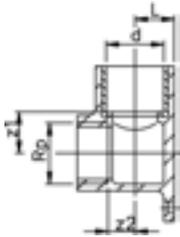
d	Code	SP	GP	kg	D	L	L1	H	H1	H2	SC
[mm]					[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
90	<b>167 060 038</b>	10	40	0.163	9	89	71	105	15	33	M 8
110	<b>167 060 039</b>	10	30	0.179	9	94	80	115	15	33	M 8
125	<b>167 060 040</b>	10	20	0.300	11	116	91	130	20	35	M10
140	<b>167 060 041</b>	10	20	0.309	11	121	98	130	20	35	M10
160	<b>167 060 042</b>	10	20	0.348	11	131	107	148	20	35	M10
180	<b>167 060 043</b>	10	-	0.378	11	143	115	163	20	35	M10
200	<b>167 060 019</b>	5	-	0.582	13	152	120	175	25	39	M12
225	<b>167 060 020</b>	5	-	0.612	13	165	132	175	25	39	M12
250	<b>167 060 021</b>	5	-	0.698	13	183	143	200	25	39	M12
280	<b>167 060 022</b>	5	-	0.722	13	198	156	200	25	39	M12
315	<b>167 060 023</b>	5	-	0.842	13	219	172	225	25	39	M12
355	<b>167 060 024</b>	5	-	1.250	17	275	209	258	30	50	M16
400	<b>167 060 025</b>	5	-	1.450	17	300	228	288	30	50	M16

20 100

## Wall Mounting Brackets, Brass/PVC-U

**Model:**

- Brass, with parallel female thread Rp and PVC-U solvent socket insert metric



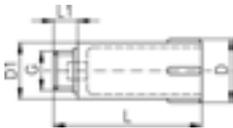
d [mm]	Rp [inch]	PN	Code	SP	GP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
16	3/8	16	<b>160 100 250</b>	10	90	0.252	21	9	5	14	6	19	18
20	1/2	16	<b>160 100 300</b>	5	50	0.278	22	9	5	16	6	19	18
25	3/4	16	<b>160 100 350</b>	5	50	0.258	25	11	5	17	5	24	23

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



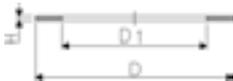
G [inch]	Code	SP	GP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]
1/2	<b>799 150 003</b>	10	100	0.042	39	32	87	11

48 40 00

## Flat Gaskets

**Model:**

- Hardness : EPDM ca. 70° Shore
- For Wall Inlet Plugs



G [inch]	EPDM Code	SP	GP	kg	D [mm]	D1 [mm]	H [mm]
1/2	<b>748 400 001</b>	100	2000	0.002	28	22	3

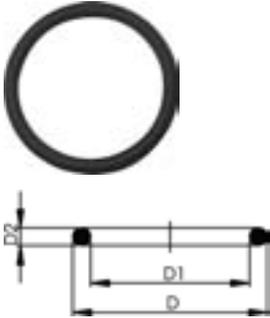
# Seals

EPDM 48 41 00  
FPM 49 41 00

## O-Ring Gaskets

### Model:

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



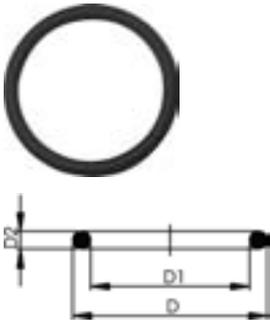
d [mm]	DN [mm]	EPDM Code	FPM Code	SP	GP	kg	D [mm]	D1 [mm]	D2 [mm]
10 - 12	8	748 410 004	749 410 004	-	-	0.002	18	12	3
16	10	748 410 005	749 410 005	-	-	0.002	21	16	3
20	15	748 410 006	749 410 006	-	-	0.002	27	20	4
25	20	748 410 007	749 410 007	100	1400	0.002	35	28	4
32	25	748 410 008	749 410 008	100	-	0.002	40	33	4
40	32	748 410 009	749 410 009	-	-	0.006	51	41	5
50	40	748 410 010	749 410 010	-	-	0.007	58	47	5
63	50	748 410 011	749 410 011	100	3500	0.010	70	60	5
75	65	748 410 014	749 410 014	100	600	0.012	93	82	5
90	80	748 410 015	749 410 015	100	600	0.015	112	101	5
110	100	748 410 016	749 410 016	50	200	0.031	134	120	7

EPDM 48 41 01  
FPM 49 41 01

## O-Ring Gaskets

### Model:

- For Flange Adaptors
- Hardness approx. 65° Shore



d [mm]	DN [mm]	EPDM Code	FPM Code	SP	GP	kg	D [mm]	D1 [mm]	D2 [mm]
16	10	748 410 000	749 410 000	-	-	0.002	26	19	4
20	15	748 410 001	749 410 001	100	-	0.002	31	23	4
25	20	748 410 007	749 410 007	100	1400	0.002	35	28	4
32	25	748 410 002	749 410 002	100	-	0.003	43	36	4
40	32	748 410 003	749 410 003	-	-	0.007	55	44	5
50	40	748 410 012	749 410 012	100	1000	0.008	64	53	5
63	50	748 410 013	749 410 013	100	600	0.011	80	69	5
75	65	748 410 014	749 410 014	100	600	0.012	93	82	5
90	80	748 410 015	749 410 015	100	600	0.015	112	101	5
110	100	748 410 016	749 410 016	50	200	0.031	134	120	7
125	100	748 410 017	749 410 017	200	-	0.036	150	136	7
140	125	748 410 018	749 410 018	200	-	0.039	166	152	7
160	150	748 410 019	749 410 019	200	-	0.047	191	177	7
200	200	748 410 163	749 410 163	-	-	0.056	236	222	7
225	200	748 410 022	749 410 022	150	-	0.060	255	241	7
250	250	748 410 182	749 410 182	-	-	0.003	280	266	7
280	250	748 410 173	749 410 173	-	-	0.044	306	292	7
315	300	748 410 174	749 410 174	-	-	0.051	356	342	7

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

### Model:

- For Flange Adaptors 21 79 01/21 80 01
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**



d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	SP	GP	kg	D [mm]	D1 [mm]	H [mm]
16	10	3/8	10	748 400 014	-	-	-	0.002	27	16	2
20	15	1/2	10	748 400 015	749 400 015	100	-	0.003	32	20	2
25	20	3/4	10	748 400 016	749 400 016	100	-	0.003	39	25	2
32	25	1	10	748 400 017	749 400 017	100	-	0.004	48	32	2
40	32	1 1/4	10	748 400 018	749 400 018	100	-	0.008	59	40	3
50	40	1 1/2	10	748 400 019	749 400 019	100	-	0.012	71	50	3
63	50	2	10	748 400 020	749 400 020	-	-	0.017	88	63	3
75	65	2 1/2	10	748 400 021	749 400 021	50	-	0.024	104	75	3
90	80	3	10	748 400 022	749 400 022	50	-	0.032	123	90	3
110	100	4	10	748 400 023	749 400 023	-	-	0.062	148	110	4
125	100	4	10	748 400 024	749 400 024	-	-	0.058	168	125	4
140	125	5	10	748 400 025	749 400 025	-	-	0.058	186	140	4
160	150	6	10	748 400 026	749 400 026	-	-	0.063	211	160	4
200	200	6	6	748 400 031	-	50	-	0.090	248	195	5
225	200	8	6	748 400 027	749 400 027	-	-	0.103	272	220	5
280	250	10	6	748 400 032	-	-	-	0.138	328	273	5
315	300	12	6	748 400 033	-	-	-	0.207	378	305	5

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

### Model:

- Hardness approx. 65° Shore
- For adaptor unions



d [mm]	Inch	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]
12	1/4	748 400 004	-	0.002	20	13	2
16	3/8	748 400 005	749 400 005	0.002	24	17	2
20	1/2	748 400 006	749 400 006	0.003	30	21	3
25	3/4	748 400 007	749 400 007	0.004	38	27	3
32	1	748 400 008	749 400 008	0.002	44	32	3
40	1 1/4	748 400 009	749 400 009	0.003	55	42	3
50	1 1/2	748 400 010	749 400 010	0.004	62	46	3
63	2	748 400 011	749 400 011	0.006	78	60	3
75	2 1/2	748 400 012	749 400 012	0.009	97	75	3
90	3	748 400 013	749 400 013	0.011	109	88	3

EPDM 48 40 02

## Flat Gaskets

### 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	GP	kg	D [mm]	D1 [mm]	H [mm]
748 400 030	-	-	0.003	18	14	2
748 400 005	-	-	0.001	24	17	2
748 400 006	-	-	0.003	30	21	3

EPDM 48 44 07  
FPM 49 44 07

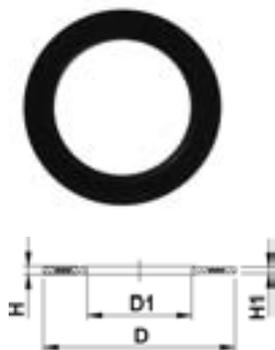
## Profile Flange Gaskets metric EPDM / FPM



### Model:

- For all Flange Adaptors
- G-ST-P/K Profile
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**

di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
16	10	16	<b>748 440 705</b>	<b>749 440 705</b>	0.007	46	16	4	3	6 - 16
20	15	16	<b>748 440 706</b>	<b>749 440 706</b>	0.008	51	20	4	3	10 - 20
25	20	16	<b>748 440 707</b>	<b>749 440 707</b>	0.011	61	22	4	3	12 - 22
32	25	16	<b>748 440 708</b>	<b>749 440 708</b>	0.014	71	28	4	3	18 - 28
40	32	16	<b>748 440 709</b>	<b>749 440 709</b>	0.021	82	40	4	3	30 - 40
50	40	16	<b>748 440 710</b>	<b>749 440 710</b>	0.022	92	46	4	3	36 - 46
63	50	16	<b>748 440 711</b>	<b>749 440 711</b>	0.041	107	58	5	4	48 - 58
75	65	16	<b>748 440 712</b>	<b>749 440 712</b>	0.055	127	69	5	4	59 - 69
90	80	16	<b>748 440 713</b>	<b>749 440 713</b>	0.062	142	84	5	4	73 - 84
110	100	16	<b>748 440 714</b>	<b>749 440 714</b>	0.085	162	104	6	5	94 - 104
125	100	16	<b>748 440 715</b>	<b>749 440 715</b>	0.158	162	123	6	5	113 - 123
140	125	16	<b>748 440 716</b>	<b>749 440 716</b>	0.118	192	137	6	5	127 - 137
160 / 180	150	16	<b>748 440 717</b>	<b>749 440 717</b>	0.153	218	160	8	6	150 - 160
200	200	16	<b>748 440 719</b>	<b>749 440 719</b>	0.263	273	203	8	6	192 - 203
225	200	16	<b>748 440 720</b>	<b>749 440 720</b>	0.181	273	220	8	6	207 - 220
250	250	16	<b>748 440 721</b>	<b>749 440 721</b>	0.410	328	252	8	6	238 - 252
280	250	16	<b>748 440 722</b>	<b>749 440 722</b>	0.226	328	274	8	6	264 - 274
315	300	16	<b>748 440 723</b>	<b>749 440 723</b>	0.334	378	306	8	6	296 - 306
355	350	16	<b>748 440 724</b>	<b>749 440 724</b>	0.410	438	355	10	7	340 - 355
400	400	16	<b>748 440 725</b>	<b>749 440 725</b>	0.513	489	400	10	7	385 - 400
450	500	16	<b>748 440 726</b>	<b>749 440 726</b>	0.718	594	403	10	7	393 - 403
500	500	16	<b>748 440 727</b>	<b>749 440 727</b>	0.718	594	447	10	7	437 - 447
560	600	16	<b>748 440 728</b>	<b>749 440 728</b>	0.923	695	494	10	7	484 - 494
630	600	16	<b>748 440 729</b>	<b>749 440 729</b>	0.923	695	555	10	7	545 - 555

# Solvent Cements and Tools

## Tangit Solvent Cement for PVC-U



- 0.125 kg tube
- Tin à 0.250, 0.500 und 1.000 kg (Net)

Code	SP	GP	kg
799 298 000	12	-	0.142
799 298 001	-	-	0.330
799 298 002	12	-	0.625
799 298 003	8	-	1.180

## Tangit Cleaner



### Model:

- For PVC-U, PVC-C, ABS
- 1 litre tin

Code	GP	kg
799 298 010	-	0.900

## Dytex Special Solvent Cement for PVC-U



### Model:

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

Code	SP	GP	kg
799 298 012	-	-	1.465

## Dytex Solvent/Cleaner for PVC-U



### Model:

- 1 litre tin

Code	SP	GP	kg
799 298 013	-	-	1.380

## Cap for cement



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

Code	kg
799 298 028	0.030



## Round Brushes

d-d [mm]		Code	kg	
6 - 10	4 mm (for Fittings 6-10mm)	<b>799 299 001</b>	0.005	
12 - 32	8 mm (for Fittings 12-32mm)	<b>799 299 002</b>	0.009	



## Flat Brushes

d-d [mm]		Code	kg	
40 - 63	25x3 mm (for Fittings 40-63mm)	<b>799 299 003</b>	0.015	
75 - 225	50x5 mm (for Fittings 75-225mm)	<b>799 299 004</b>	0.026	
250 - 400	75x6 mm (for Fittings 250-400mm)	<b>799 299 005</b>	0.045	



## Replacement cutting wheels

- for plastic pipe cutter

d-d [mm]	Article	Code	SP	GP	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>	-	-	0.017	
110 - 160	SR 160 max. s=19,0 mm	<b>790 109 013</b>	-	-	0.023	



## Chamfering Tool

Size	d-d [mm]	Code	kg	
1	16 - 75	<b>799 495 145</b>	0.720	
2	32 - 200	<b>799 495 146</b>	0.992	

## Cutter for Chamfering Tool

Size	d-d [mm]	Code	SP	GP	kg	
1+2	16 - 250	<b>708 402 217</b>	-	-	0.010	

# 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)

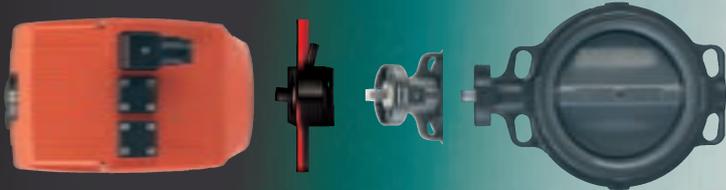
With this wide range of products to choose from you can always be sure of having the best possible solution for your application. The new butterfly valves type 567/568 from Georg Fischer Piping Systems conform to the following international standards:

**prEN ISO 16136**  
Industrial valves – butterfly valves in thermoplastic materials

**ISO 9393**  
Thermoplastic valves – pressure test methods and requirements

**EN 558**  
Face-to-face length of butterfly valves corresponds to EN 558

**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

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



### Model:

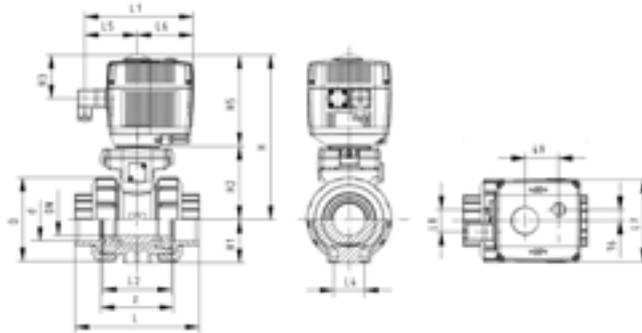
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 107 002</b>	<b>199 107 012</b>	2.072
20	15	10	185	<b>199 107 003</b>	<b>199 107 013</b>	2.072
25	20	10	350	<b>199 107 004</b>	<b>199 107 014</b>	2.189
32	25	10	700	<b>199 107 005</b>	<b>199 107 015</b>	2.189
40	32	10	1000	<b>199 107 006</b>	<b>199 107 016</b>	2.592
50	40	10	1600	<b>199 107 007</b>	<b>199 107 017</b>	2.914
63	50	10	3100	<b>199 107 008</b>	<b>199 107 018</b>	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





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

### Model:

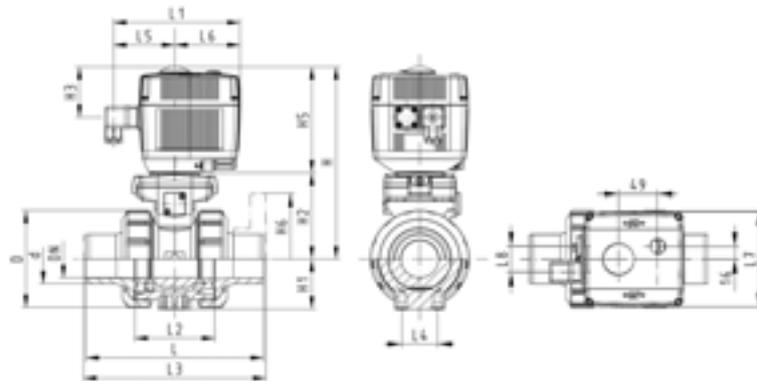
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 107 022</b>	<b>199 107 032</b>	2.072
20	15	10	185	<b>199 107 023</b>	<b>199 107 033</b>	2.072
25	20	10	350	<b>199 107 024</b>	<b>199 107 034</b>	2.189
32	25	10	700	<b>199 107 025</b>	<b>199 107 035</b>	2.189
40	32	10	1000	<b>199 107 026</b>	<b>199 107 036</b>	2.592
50	40	10	1600	<b>199 107 027</b>	<b>199 107 037</b>	2.914
63	50	10	3100	<b>199 107 028</b>	<b>199 107 038</b>	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





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

### Model:

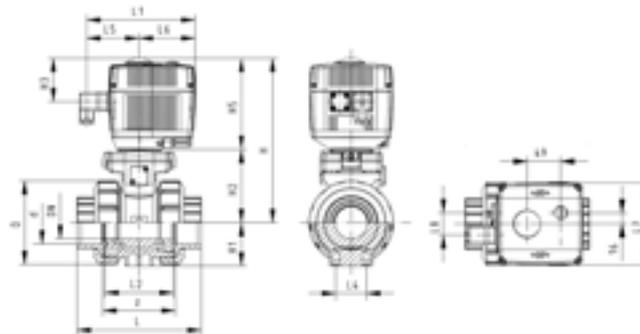
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
3/8	10	10	70	<b>199 107 622</b>	<b>199 107 632</b>	2.100	
1/2	15	10	185	<b>199 107 623</b>	<b>199 107 633</b>	2.100	
3/4	20	10	350	<b>199 107 624</b>	<b>199 107 634</b>	2.200	
1	25	10	700	<b>199 107 625</b>	<b>199 107 635</b>	2.300	
1 1/4	32	10	1000	<b>199 107 626</b>	<b>199 107 636</b>	2.600	
1 1/2	40	10	1600	<b>199 107 627</b>	<b>199 107 637</b>	3.000	
2	50	10	3100	<b>199 107 628</b>	<b>199 107 638</b>	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





## 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

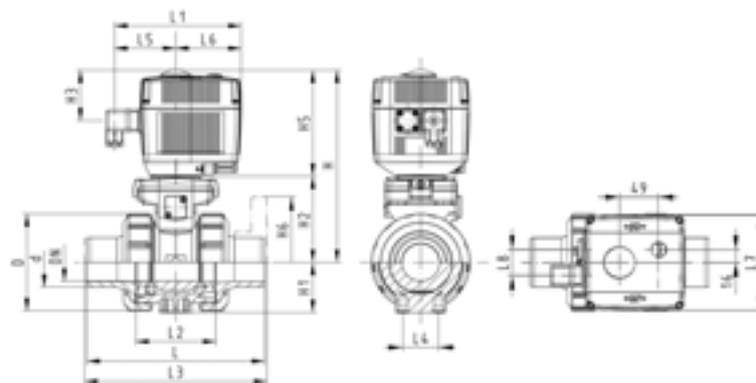
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ 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





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

### Model:

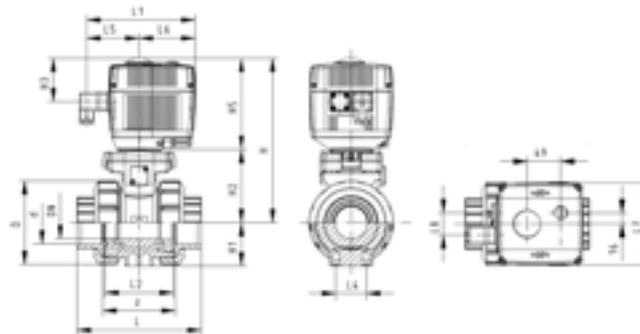
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 107 042</b>	<b>199 107 052</b>	2.072
20	15	10	185	<b>199 107 043</b>	<b>199 107 053</b>	2.072
25	20	10	350	<b>199 107 044</b>	<b>199 107 054</b>	2.189
32	25	10	700	<b>199 107 045</b>	<b>199 107 055</b>	2.189
40	32	10	1000	<b>199 107 046</b>	<b>199 107 056</b>	2.592
50	40	10	1600	<b>199 107 047</b>	<b>199 107 057</b>	2.914
63	50	10	3100	<b>199 107 048</b>	<b>199 107 058</b>	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





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

### Model:

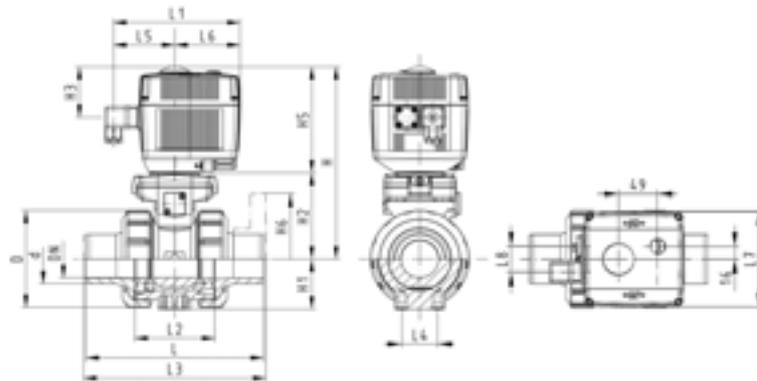
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 107 062</b>	<b>199 107 072</b>	2.072
20	15	10	185	<b>199 107 063</b>	<b>199 107 073</b>	1.830
25	20	10	350	<b>199 107 064</b>	<b>199 107 074</b>	2.189
32	25	10	700	<b>199 107 065</b>	<b>199 107 075</b>	2.189
40	32	10	1000	<b>199 107 066</b>	<b>199 107 076</b>	2.592
50	40	10	1600	<b>199 107 067</b>	<b>199 107 077</b>	2.914
63	50	10	3100	<b>199 107 068</b>	<b>199 107 078</b>	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





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

### Model:

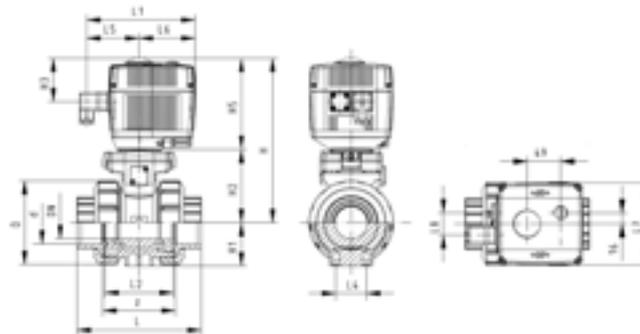
- Built on with electric actuator EA11
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
3/8	10	10	70	<b>199 107 662</b>	<b>199 107 672</b>	2.100	
1/2	15	10	185	<b>199 107 663</b>	<b>199 107 673</b>	2.100	
3/4	20	10	350	<b>199 107 664</b>	<b>199 107 674</b>	2.200	
1	25	10	700	<b>199 107 665</b>	<b>199 107 675</b>	2.300	
1 1/4	32	10	1000	<b>199 107 666</b>	<b>199 107 676</b>	2.600	
1 1/2	40	10	1600	<b>199 107 667</b>	<b>199 107 677</b>	3.000	
2	50	10	3100	<b>199 107 668</b>	<b>199 107 678</b>	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





## 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

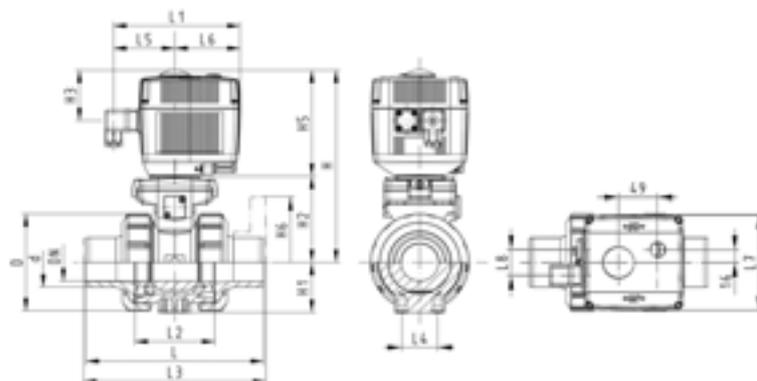
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	<b>199 107 643</b>	<b>199 107 653</b>	2.300
25	20	¾	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 ¼	10	1000	<b>199 107 646</b>	<b>199 107 656</b>	3.200
50	40	1 ½	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





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

### Model:

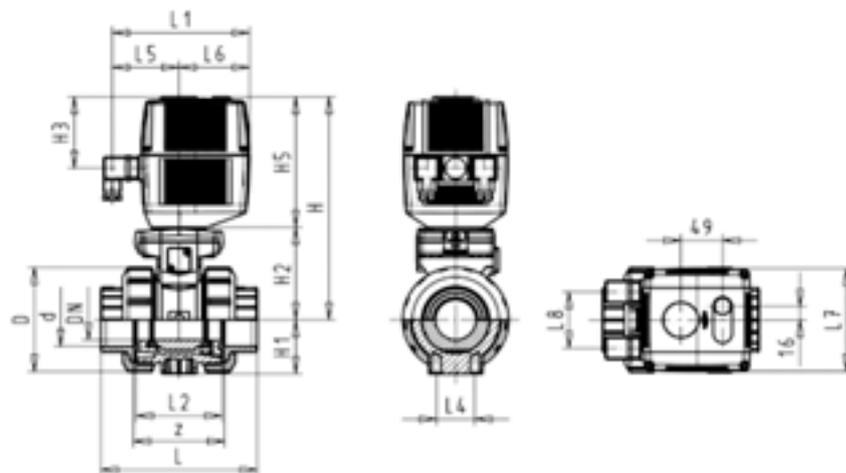
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	3.000	
63	50	10	3100	199 130 008	199 130 018	3.800	
 75	65	10	5000	199 130 009	199 130 019	3.900	
 90	80	10	7000	199 130 010	199 130 020	4.800	
 110	100	10	11000	199 130 011	199 130 021	6.300	

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]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	83	122	64
20	50	231	27	64	94	167	95	180	56	25	97	83	122	64
25	58	240	30	73	94	167	110	180	65	25	97	83	122	72
32	68	240	36	73	94	167	123	180	71	25	97	83	122	79
40	84	251	44	84	94	167	146	180	85	45	97	83	122	94
50	97	251	51	84	94	167	157	180	89	45	97	83	122	95
63	124	273	64	106	94	167	183	180	101	45	97	83	122	107
 75	166	346	85	156	94	190	233	180	136	70	98	83	122	144
 90	200	358	105	168	94	190	254	180	141	70	98	83	122	151
 110	238	365	123	175	94	190	301	180	164	120	98	83	122	174





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

### Model:

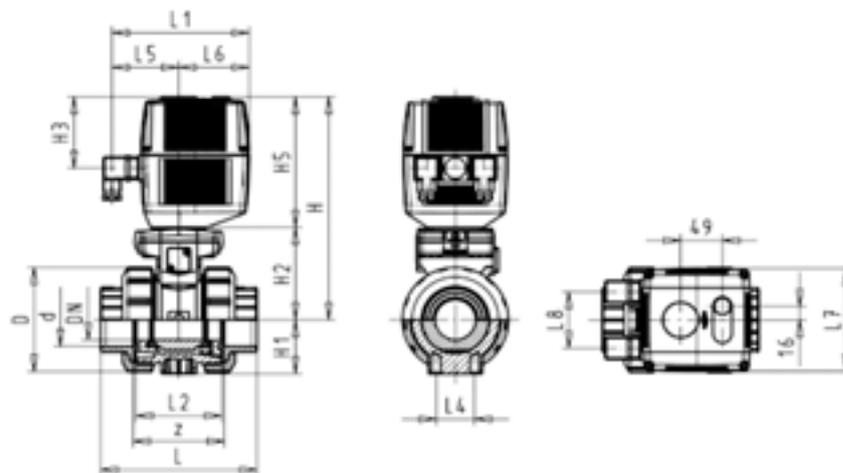
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

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>	3.900	
3	80	10	7000	<b>199 130 130</b>	<b>199 130 140</b>	4.900	
4	100	10	11000	<b>199 130 131</b>	<b>199 130 141</b>	6.300	

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]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	83	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	83	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	83	122	72
1	68	240	36	73	94	167	123	180	71	25	97	83	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	95
2	124	273	64	106	94	167	183	180	101	45	97	83	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	83	122	144
3	200	358	105	168	94	190	254	180	141	70	98	83	122	151
4	238	365	123	175	94	190	301	180	164	120	98	83	122	174





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

### Model:

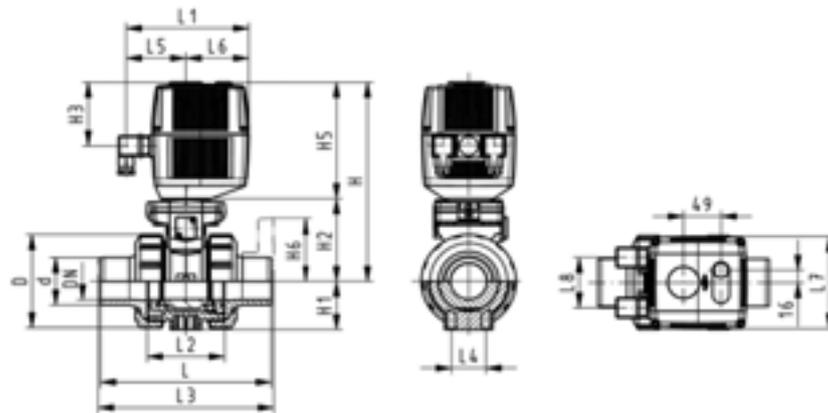
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	4.000	
 90	80	10	7000	199 130 030	199 130 040	5.000	
 110	100	10	11000	199 130 031	199 130 041	6.500	

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]
16	50	231	27	64	94	167	114	180	56	130	25	97	83	122
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122
 75	166	346	85	156	94	190	284	180	136	290	70	98	83	122
 90	200	358	105	168	94	190	300	180	141	310	70	98	83	122
 110	238	365	123	175	94	190	340	180	164	350	120	98	83	122





## 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

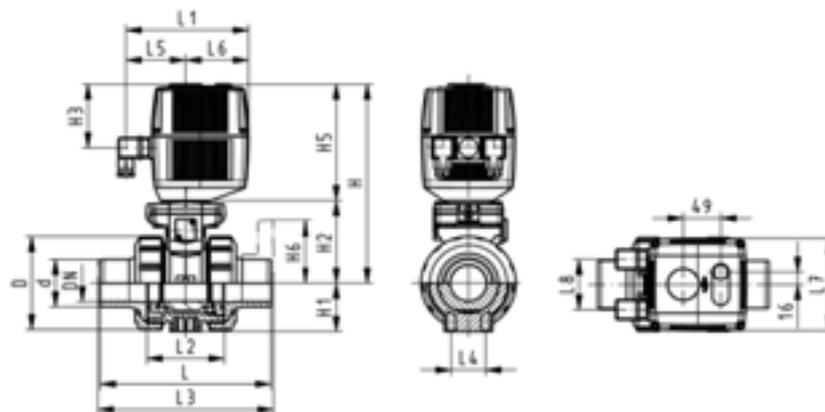
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	<b>199 130 103</b>	<b>199 130 113</b>	2.300
25	20	¾	10	350	<b>199 130 104</b>	<b>199 130 114</b>	2.500
32	25	1	10	700	<b>199 130 105</b>	<b>199 130 115</b>	2.700
40	32	1 ¼	10	1000	<b>199 130 106</b>	<b>199 130 116</b>	3.200
50	40	1 ½	10	1600	<b>199 130 107</b>	<b>199 130 117</b>	3.700
63	50	2	10	3100	<b>199 130 108</b>	<b>199 130 118</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	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 24V With manual emergency override With solvent cement sockets metric

### Model:

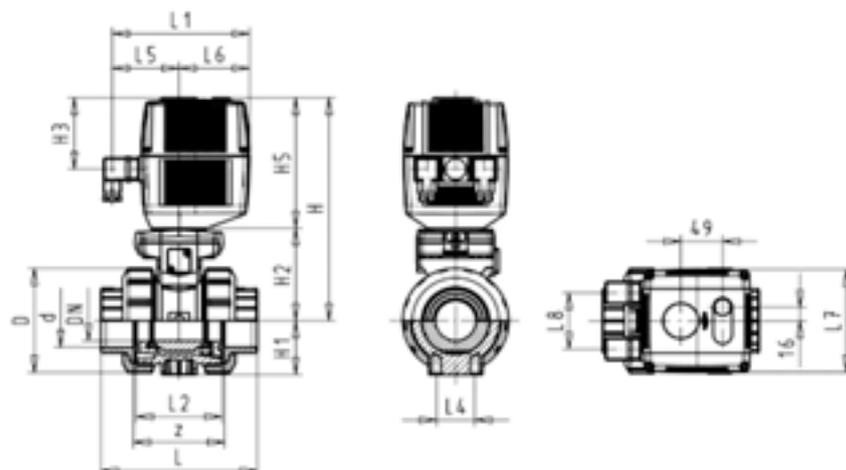
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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>	2.200
32	25	10	700	<b>199 130 045</b>	<b>199 130 055</b>	2.300
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>	3.000
63	50	10	3100	<b>199 130 048</b>	<b>199 130 058</b>	3.800
 75	65	10	5000	<b>199 130 049</b>	<b>199 130 059</b>	3.900
 90	80	10	7000	<b>199 130 050</b>	<b>199 130 060</b>	4.800
 110	100	10	11000	<b>199 130 051</b>	<b>199 130 061</b>	6.300

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]	z [mm]
16	50	231	27	64	94	167	92	180	56	25	97	83	122	64
20	50	231	27	64	94	167	95	180	56	25	97	83	122	64
25	58	240	30	73	94	167	110	180	65	25	97	83	122	72
32	68	240	36	73	94	167	123	180	71	25	97	83	122	79
40	84	251	44	84	94	167	146	180	85	45	97	83	122	94
50	97	251	51	84	94	167	157	180	89	45	97	83	122	95
63	124	273	64	106	94	167	183	180	101	45	97	83	122	107
 75	166	347	85	156	94	190	233	180	136	70	98	83	122	144
 90	200	358	105	168	94	190	254	180	141	70	98	83	122	151
 110	238	365	123	175	94	190	301	180	164	120	98	83	122	174





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

### Model:

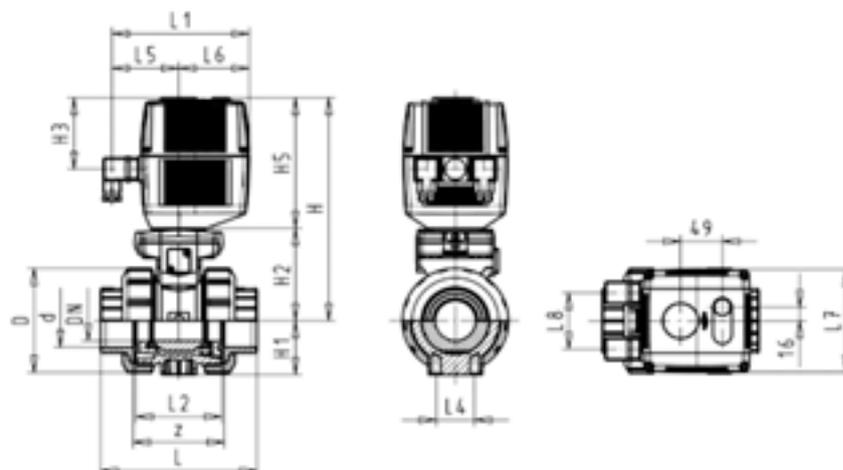
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 130 162</b>	<b>199 130 172</b>	2.100
1/2	15	10	185	<b>199 130 163</b>	<b>199 130 173</b>	2.100
3/4	20	10	350	<b>199 130 164</b>	<b>199 130 174</b>	2.200
1	25	10	700	<b>199 130 165</b>	<b>199 130 175</b>	2.300
1 1/4	32	10	1000	<b>199 130 166</b>	<b>199 130 176</b>	2.600
1 1/2	40	10	1600	<b>199 130 167</b>	<b>199 130 177</b>	3.000
2	50	10	3100	<b>199 130 168</b>	<b>199 130 178</b>	3.800
2 1/2	65	10	5000	<b>199 130 169</b>	<b>199 130 179</b>	3.900
3	80	10	7000	<b>199 130 170</b>	<b>199 130 180</b>	4.900
4	100	10	11000	<b>199 130 171</b>	<b>199 130 181</b>	6.300

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]	z [mm]
3/8	50	231	27	64	94	167	92	180	56	25	97	83	122	64
1/2	50	231	27	64	94	167	95	180	56	25	97	83	122	64
3/4	58	240	30	73	94	167	110	180	65	25	97	83	122	72
1	68	240	36	73	94	167	123	180	71	25	97	83	122	79
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	94
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	95
2	124	273	64	106	94	167	183	180	101	45	97	83	122	107
2 1/2	166	346	85	156	94	190	233	180	136	70	98	83	122	144
3	200	358	105	168	94	190	254	180	141	70	98	83	122	151
4	238	365	123	175	94	190	301	180	164	120	98	83	122	174





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

### Model:

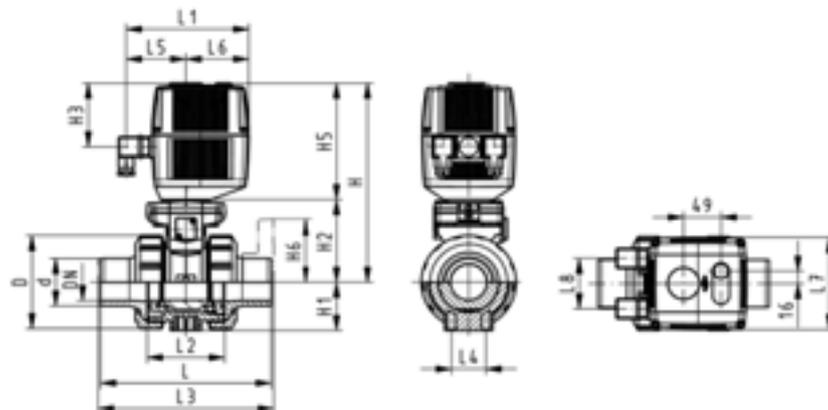
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	4.000
 90	80	10	7000	199 130 070	199 130 080	5.000
 110	100	10	11000	199 130 071	199 130 081	6.500

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]
16	50	231	27	64	94	167	114	180	56	130	25	97	83	122
20	50	231	27	64	94	167	124	180	56	130	25	97	83	122
25	58	240	30	73	94	167	144	180	65	150	25	97	83	122
32	68	240	36	73	94	167	154	180	71	160	25	97	83	122
40	84	251	44	84	94	167	174	180	85	180	45	97	83	122
50	97	251	51	84	94	167	194	180	89	200	45	97	83	122
63	124	273	64	106	94	167	224	180	101	230	45	97	83	122
 75	166	346	85	156	94	190	284	180	136	290	70	98	83	122
 90	200	358	105	168	94	190	300	180	141	310	70	98	83	122
 110	238	365	123	175	94	190	340	180	164	350	120	98	83	122





## 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 form)

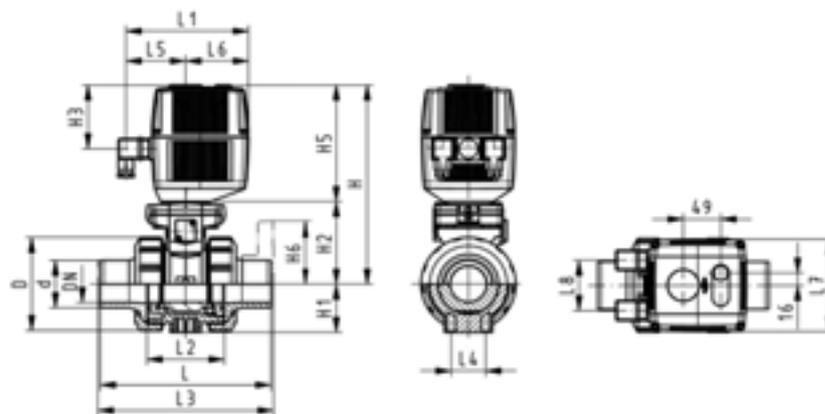
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg								
20	15	½	10	185	<b>199 130 143</b>	<b>199 130 153</b>	2.300								
25	20	¾	10	350	<b>199 130 144</b>	<b>199 130 154</b>	2.500								
32	25	1	10	700	<b>199 130 145</b>	<b>199 130 155</b>	2.700								
40	32	1 ¼	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





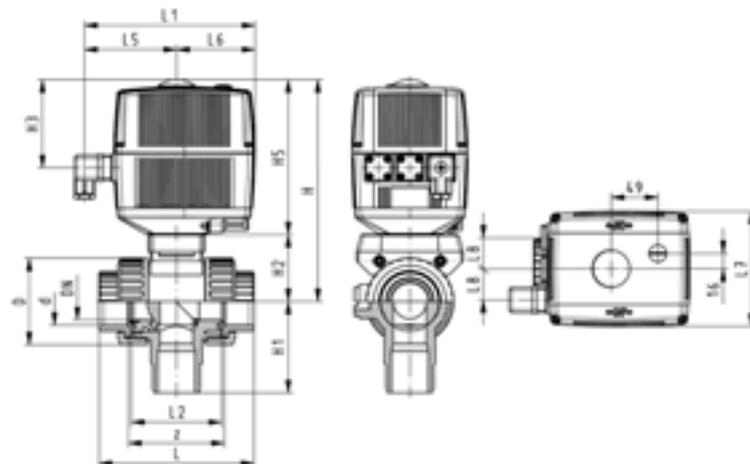
### 3-Way ball valve type 178 PVC-U Vertical/L-port 100-230V With manual emergency override With solvent cement sockets metric

#### Model:

- Built on with electric actuator EA21
- Vertical inlet solvent cement spigot
- Easy installation and removal using union on third outlet
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 178 242</b>	<b>199 178 252</b>	2.317
20	15	10	75	<b>199 178 243</b>	<b>199 178 253</b>	2.317
25	20	10	150	<b>199 178 244</b>	<b>199 178 254</b>	2.449
32	25	10	280	<b>199 178 245</b>	<b>199 178 255</b>	2.579
40	32	10	480	<b>199 178 246</b>	<b>199 178 256</b>	2.857
50	40	10	620	<b>199 178 247</b>	<b>199 178 257</b>	3.060
63	50	10	1230	<b>199 178 248</b>	<b>199 178 258</b>	3.900

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	45	206	57	40	93	166	99	182	63	99	83	122	33	71
20	45	206	62	40	93	166	102	182	63	99	83	122	33	71
25	53	211	72	45	93	166	120	182	75	99	83	122	33	82
32	64	216	77	50	93	166	131	182	79	99	83	122	33	87
40	78	224	87	58	93	166	150	182	89	99	83	122	33	98
50	92	235	97	69	93	166	163	182	95	99	83	122	33	101
63	116	247	112	81	93	166	197	182	115	99	83	122	33	121





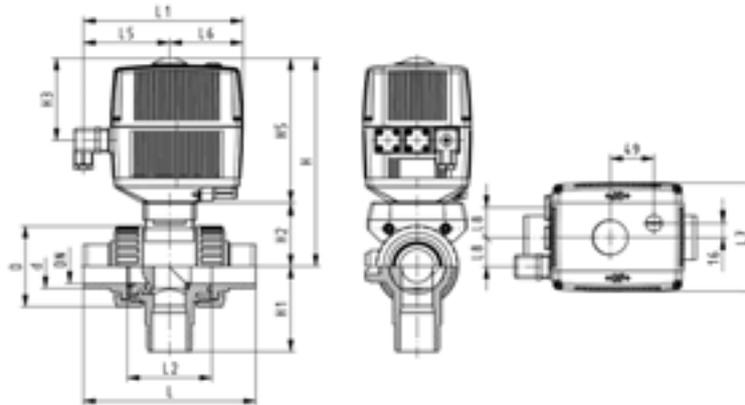
**3-Way ball valve type 178 PVC-U**  
**Vertical/L-port 100-230V**  
**With manual emergency override**  
**With solvent cement spigots metric**

**Model:**

- Built on with electric actuator EA21
- Vertical inlet solvent cement spigot
- Easy installation and removal using union on third outlet
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 178 062</b>	<b>199 178 072</b>	2.320
20	15	10	75	<b>199 178 063</b>	<b>199 178 073</b>	2.320
25	20	10	150	<b>199 178 064</b>	<b>199 178 074</b>	2.454
32	25	10	280	<b>199 178 065</b>	<b>199 178 075</b>	2.591
40	32	10	480	<b>199 178 066</b>	<b>199 178 076</b>	2.875
50	40	10	620	<b>199 178 067</b>	<b>199 178 077</b>	3.105
63	50	10	1230	<b>199 178 068</b>	<b>199 178 078</b>	3.946

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]
16	43	206	57	40	93	166	99	182	63	99	83	122	33
20	43	206	62	40	93	166	102	182	63	99	83	122	33
25	53	211	72	45	93	166	120	182	75	99	83	122	33
32	64	216	77	50	93	166	131	182	79	99	83	122	33
40	78	224	87	58	93	166	150	182	89	99	83	122	33
50	92	235	97	69	93	166	163	182	95	99	83	122	33
63	116	247	112	81	93	166	197	182	115	99	83	122	33





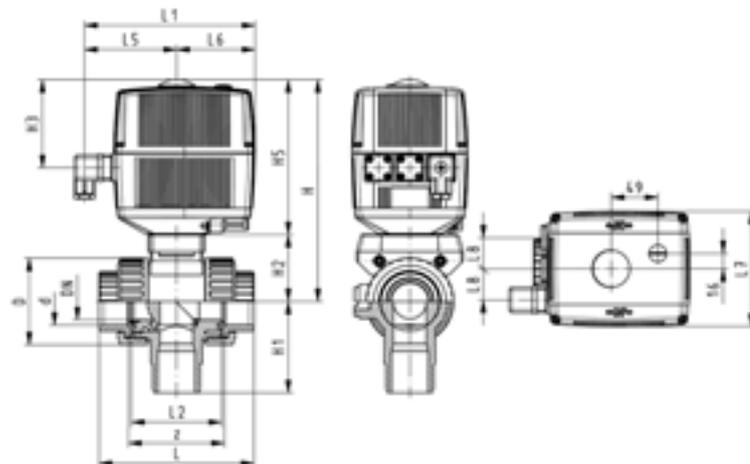
### 3-Way ball valve type 178 PVC-U Vertical/L-port 24V With manual emergency override With solvent cement sockets metric

#### Model:

- Built on with electric actuator EA21
- Vertical inlet solvent cement spigot
- Easy installation and removal using union on third outlet
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 178 262</b>	<b>199 178 272</b>	2.317
20	15	10	75	<b>199 178 263</b>	<b>199 178 273</b>	2.317
25	20	10	150	<b>199 178 264</b>	<b>199 178 274</b>	2.449
32	25	10	280	<b>199 178 265</b>	<b>199 178 275</b>	2.579
40	32	10	480	<b>199 178 266</b>	<b>199 178 276</b>	2.857
50	40	10	620	<b>199 178 267</b>	<b>199 178 277</b>	3.060
63	50	10	1230	<b>199 178 268</b>	<b>199 178 278</b>	3.900

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	45	206	57	40	93	166	99	182	63	99	83	122	33	71
20	45	206	62	40	93	166	102	182	63	99	83	122	33	71
25	53	211	72	45	93	166	120	182	75	99	83	122	33	82
32	64	216	77	50	93	166	131	182	79	99	83	122	33	87
40	78	224	87	58	93	166	150	182	89	99	83	122	33	98
50	92	235	97	69	93	166	163	182	95	99	83	122	33	101
63	116	247	112	81	93	166	197	182	115	99	83	122	33	121





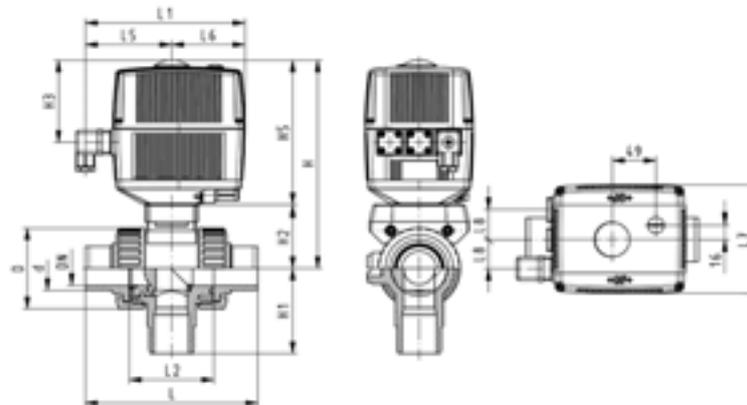
## 3-Way ball valve type 178 PVC-U Vertical/L-port 24V With manual emergency override With solvent cement spigots metric

### Model:

- Built on with electric actuator EA21
- Vertical inlet solvent cement spigot
- Easy installation and removal using union on third outlet
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 178 102</b>	<b>199 178 112</b>	2.320
20	15	10	75	<b>199 178 103</b>	<b>199 178 113</b>	2.320
25	20	10	150	<b>199 178 104</b>	<b>199 178 114</b>	2.454
32	25	10	280	<b>199 178 105</b>	<b>199 178 115</b>	2.591
40	32	10	480	<b>199 178 106</b>	<b>199 178 116</b>	2.875
50	40	10	620	<b>199 178 107</b>	<b>199 178 117</b>	3.105
63	50	10	1230	<b>199 178 108</b>	<b>199 178 118</b>	3.946

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]
16	43	206	57	40	93	166	99	182	63	99	83	122	33
20	43	206	62	40	93	166	102	182	63	99	83	122	33
25	53	211	72	45	93	166	120	182	75	99	83	122	33
32	64	216	77	50	93	166	131	182	79	99	83	122	33
40	78	224	87	58	93	166	150	182	89	99	83	122	33
50	92	235	97	69	93	166	163	182	95	99	83	122	33
63	116	247	112	81	93	166	197	182	115	99	83	122	33





### 3-Way ball valve type 175 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement sockets metric

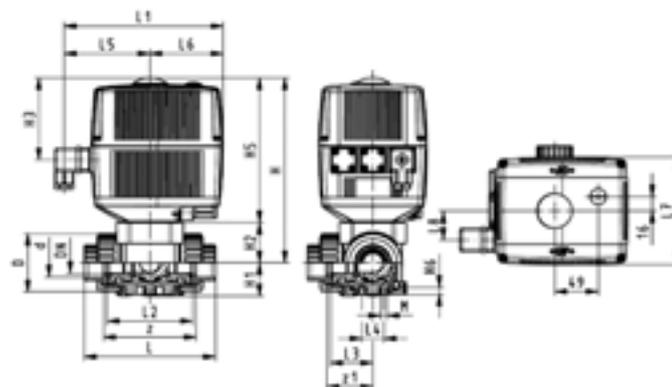
#### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- 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°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 175 022</b>	<b>199 175 032</b>	2.121
20	15	10	75	<b>199 175 023</b>	<b>199 175 033</b>	2.121
25	20	10	150	<b>199 175 024</b>	<b>199 175 034</b>	2.303
32	25	10	280	<b>199 175 025</b>	<b>199 175 035</b>	2.474
40	32	10	480	<b>199 175 026</b>	<b>199 175 036</b>	2.815
50	40	10	620	<b>199 175 027</b>	<b>199 175 037</b>	3.359
63	50	10	1230	<b>199 175 028</b>	<b>199 175 038</b>	4.728

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	45	197	29	31	93	166	8	108	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	111	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	131	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	148	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	176	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	206	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	262	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	80	40
20	33	6	80	40
25	33	6	94	47
32	33	6	104	52
40	33	8	126	63
50	33	8	144	72
63	33	8	186	93





## 3-Way ball valve type 175 PVC-U Horizontal/L-port 100-230V With manual emergency override With solvent cement spigots metric

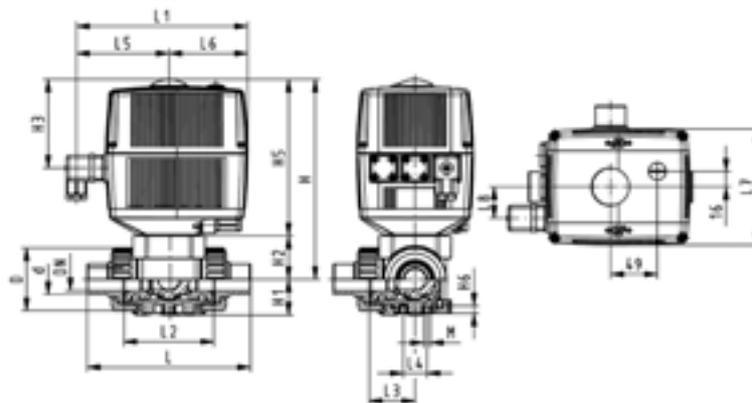
### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- 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°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 175 002</b>	<b>199 175 012</b>	2.121
20	15	10	75	<b>199 175 003</b>	<b>199 175 013</b>	2.121
25	20	10	150	<b>199 175 004</b>	<b>199 175 014</b>	2.303
32	25	10	280	<b>199 175 005</b>	<b>199 175 015</b>	2.474
40	32	10	480	<b>199 175 006</b>	<b>199 175 016</b>	2.815
50	40	10	620	<b>199 175 007</b>	<b>199 175 017</b>	3.359
63	50	10	1230	<b>199 175 008</b>	<b>199 175 018</b>	4.728

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	45	197	29	31	93	166	8	124	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	134	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	156	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	172	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	202	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	238	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	290	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





### 3-Way ball valve type 175 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement sockets metric

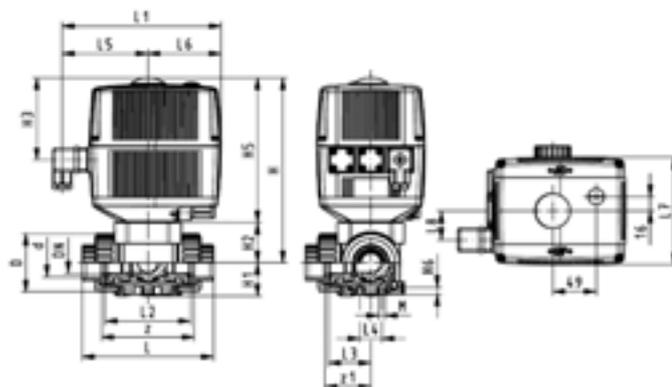
#### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- 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°<

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	<b>199 175 062</b>	<b>199 175 072</b>	2.121
20	15	10	200	<b>199 175 063</b>	<b>199 175 073</b>	2.121
25	20	10	470	<b>199 175 064</b>	<b>199 175 074</b>	2.303
32	25	10	793	<b>199 175 065</b>	<b>199 175 075</b>	2.474
40	32	10	1290	<b>199 175 066</b>	<b>199 175 076</b>	2.815
50	40	10	1910	<b>199 175 067</b>	<b>199 175 077</b>	3.359
63	50	10	3100	<b>199 175 068</b>	<b>199 175 078</b>	4.728

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	45	197	29	31	93	166	8	108	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	111	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	131	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	148	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	176	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	206	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	262	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	80	40
20	33	6	80	40
25	33	6	94	47
32	33	6	104	52
40	33	8	126	63
50	33	8	144	72
63	33	8	186	93





## 3-Way ball valve type 175 PVC-U Horizontal/T-port 100-230V With manual emergency override With solvent cement spigots metric

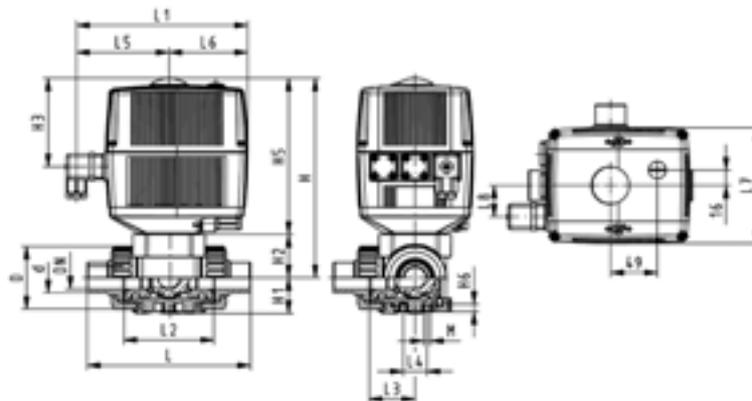
### Model:

- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- 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°<

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	10	<b>199 175 042</b>	<b>199 175 052</b>	2.121
20	15	10	<b>199 175 043</b>	<b>199 175 053</b>	2.121
25	20	10	<b>199 175 044</b>	<b>199 175 054</b>	2.303
32	25	10	<b>199 175 045</b>	<b>199 175 055</b>	2.474
40	32	10	<b>199 175 046</b>	<b>199 175 056</b>	2.815
50	40	10	<b>199 175 047</b>	<b>199 175 057</b>	3.359
63	50	10	<b>199 175 048</b>	<b>199 175 058</b>	4.728

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	45	197	29	31	93	166	8	124	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	134	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	156	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	172	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	202	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	238	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	290	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





### 3-Way ball valve type 175 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement sockets metric

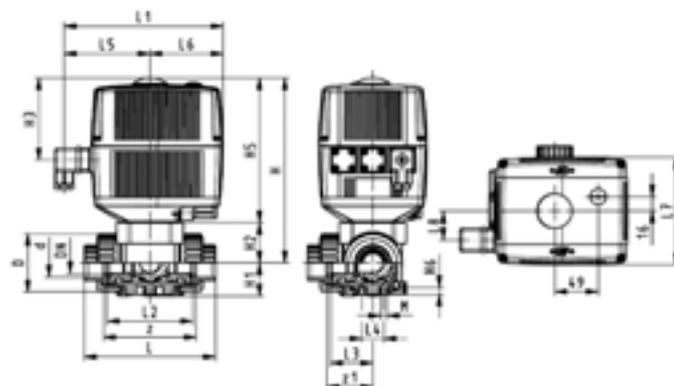
#### Model:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 175 202</b>	<b>199 175 212</b>	2.121
20	15	10	75	<b>199 175 203</b>	<b>199 175 213</b>	2.121
25	20	10	150	<b>199 175 204</b>	<b>199 175 214</b>	2.303
32	25	10	280	<b>199 175 205</b>	<b>199 175 215</b>	2.474
40	32	10	480	<b>199 175 206</b>	<b>199 175 216</b>	2.815
50	40	10	620	<b>199 175 207</b>	<b>199 175 217</b>	3.359
63	50	10	1230	<b>199 175 208</b>	<b>199 175 218</b>	4.728

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	45	197	29	31	93	166	8	108	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	111	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	131	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	148	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	176	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	206	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	262	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	80	40
20	33	6	80	40
25	33	6	94	47
32	33	6	104	52
40	33	8	126	63
50	33	8	144	72
63	33	8	186	93





### 3-Way ball valve type 175 PVC-U Horizontal/L-port 24V With manual emergency override With solvent cement spigots metric

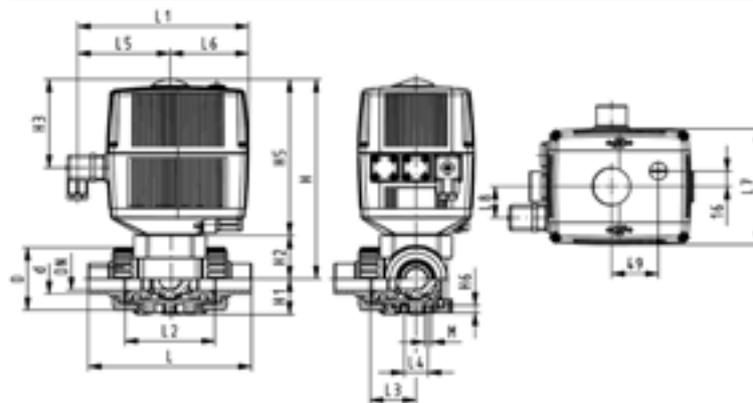
**Model:**

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

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	10	<b>199 175 182</b>	<b>199 175 192</b>	2.121
20	15	10	<b>199 175 183</b>	<b>199 175 193</b>	2.121
25	20	10	<b>199 175 184</b>	<b>199 175 194</b>	2.303
32	25	10	<b>199 175 185</b>	<b>199 175 195</b>	2.474
40	32	10	<b>199 175 186</b>	<b>199 175 196</b>	2.815
50	40	10	<b>199 175 187</b>	<b>199 175 197</b>	3.359
63	50	10	<b>199 175 188</b>	<b>199 175 198</b>	4.728

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	45	197	29	31	93	166	8	124	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	134	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	156	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	172	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	202	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	238	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	290	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





### 3-Way ball valve type 175 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement sockets metric

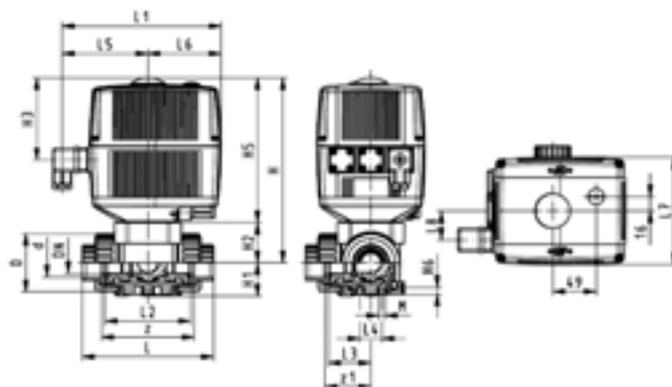
#### Model:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 175 242</b>	<b>199 175 252</b>	2.121
20	15	10	75	<b>199 175 243</b>	<b>199 175 253</b>	2.121
25	20	10	150	<b>199 175 244</b>	<b>199 175 254</b>	2.303
32	25	10	280	<b>199 175 245</b>	<b>199 175 255</b>	2.474
40	32	10	480	<b>199 175 246</b>	<b>199 175 256</b>	2.815
50	40	10	620	<b>199 175 247</b>	<b>199 175 257</b>	3.359
63	50	10	1230	<b>199 175 248</b>	<b>199 175 258</b>	4.728

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	45	197	29	31	93	166	8	108	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	111	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	131	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	148	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	176	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	206	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	262	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	80	40
20	33	6	80	40
25	33	6	94	47
32	33	6	104	52
40	33	8	126	63
50	33	8	144	72
63	33	8	186	93





## 3-Way ball valve type 175 PVC-U Horizontal/T-port 24V With manual emergency override With solvent cement spigots metric

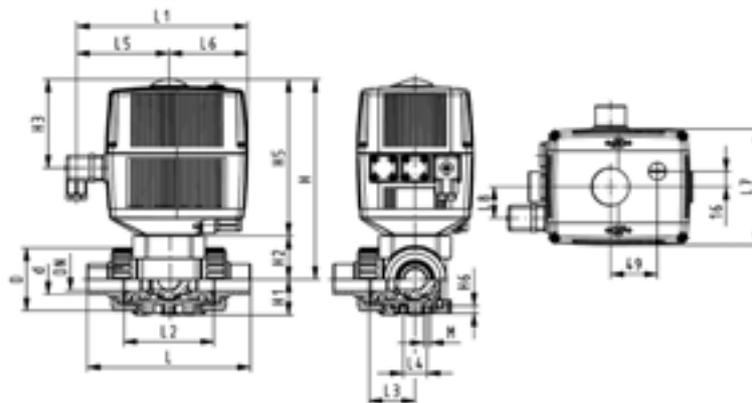
### Model:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 175 222</b>	<b>199 175 232</b>	2.121
20	15	10	75	<b>199 175 223</b>	<b>199 175 233</b>	2.121
25	20	10	150	<b>199 175 224</b>	<b>199 175 234</b>	2.303
32	25	10	280	<b>199 175 225</b>	<b>199 175 235</b>	2.474
40	32	10	480	<b>199 175 226</b>	<b>199 175 236</b>	2.815
50	40	10	620	<b>199 175 227</b>	<b>199 175 237</b>	3.359
63	50	10	1230	<b>199 175 228</b>	<b>199 175 238</b>	4.728

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	45	197	29	31	93	166	8	124	182	72	36	25	99	83	122
20	45	197	29	31	93	166	8	134	182	72	36	25	99	83	122
25	53	205	33	39	93	166	8	156	182	86	43	25	99	83	122
32	65	210	38	44	93	166	8	172	182	96	48	25	99	83	122
40	78	216	44	50	93	166	9	202	182	116	58	45	99	83	122
50	92	229	50	63	93	166	9	238	182	137	69	45	99	83	122
63	116	242	61	76	93	166	9	290	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



# Ball valves pneumatic

## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With solvent cement sockets metric



### Model:

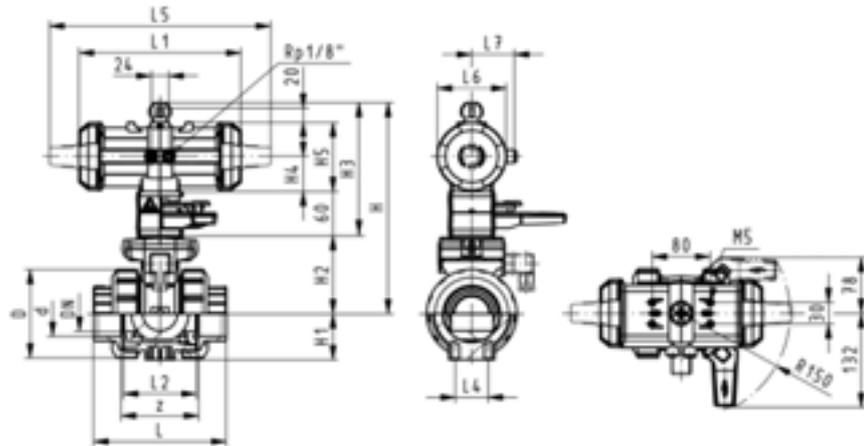
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	1.700
40	32	10	1000	199 230 006	199 230 016	2.751
50	40	10	1600	199 230 007	199 230 017	3.073
63	50	10	3100	199 230 008	199 230 018	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	97	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With solvent cement spigots metric

### Model:

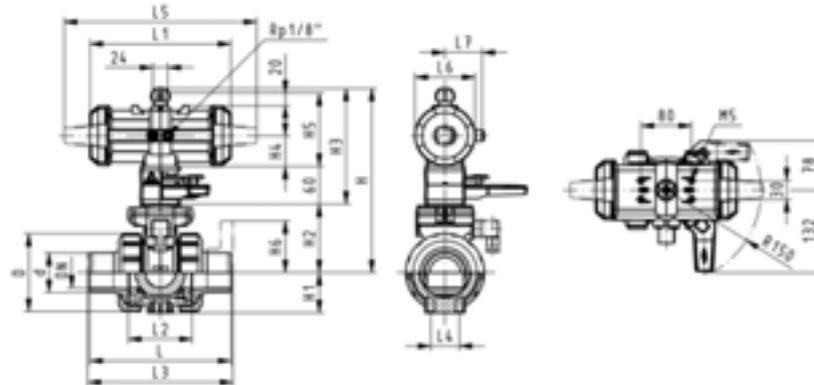
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ \leq$ ) 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 022</b>	<b>199 230 032</b>	1.459
20	15	10	185	<b>199 230 023</b>	<b>199 230 033</b>	1.459
25	20	10	350	<b>199 230 024</b>	<b>199 230 034</b>	1.576
32	25	10	700	<b>199 230 025</b>	<b>199 230 035</b>	1.700
40	32	10	1000	<b>199 230 026</b>	<b>199 230 036</b>	2.751
50	40	10	1600	<b>199 230 027</b>	<b>199 230 037</b>	3.073
63	50	10	3100	<b>199 230 028</b>	<b>199 230 038</b>	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	230	27	62	168	40	97	114	194	56	130	25	261	76	48
20	50	230	27	62	168	40	97	124	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	144	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	154	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	174	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	194	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	224	224	101	230	45	305	95	59





## Ball valve type 230 PVC-U FC (Fail safe to close) With manual override With threaded sockets Rp

### Model:

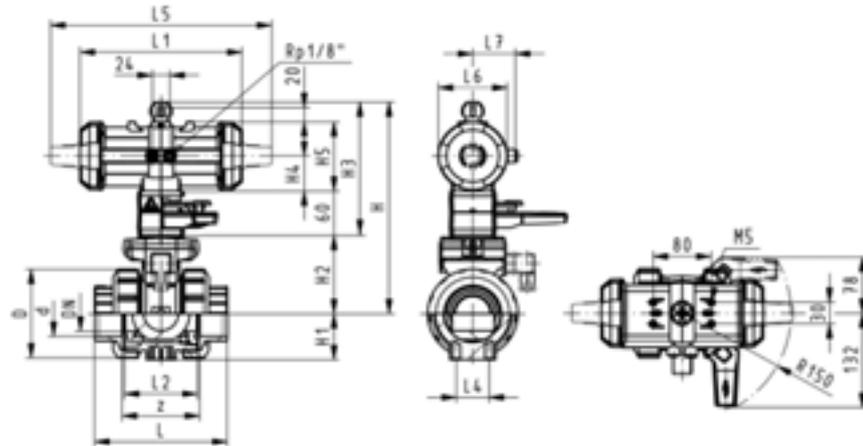
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

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	230	27	62	168	40	97	92	194	56	25	261	76	48	64
1/2	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
1	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
1 1/4	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
1 1/2	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
2	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





## 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  $90^\circ \leq$ ) 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

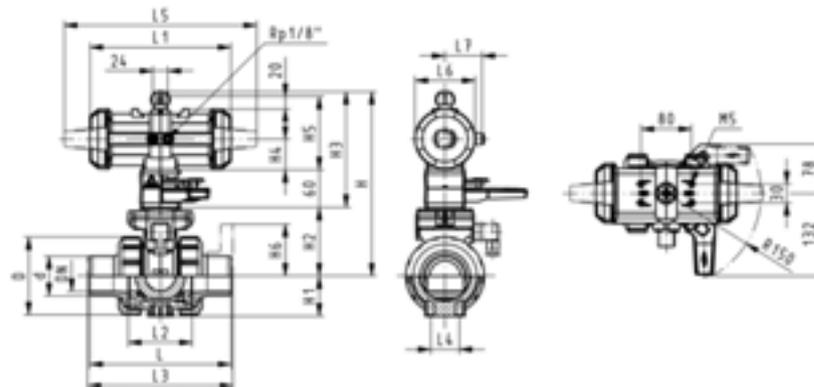
### Option:

- Individual configuration of the valve (see form)

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>199 230 243</b>	<b>199 230 253</b>	1.700
25	20	3/4	10	350	<b>199 230 244</b>	<b>199 230 254</b>	1.900
32	25	1	10	700	<b>199 230 245</b>	<b>199 230 255</b>	2.100
40	32	1 1/4	10	1000	<b>199 230 246</b>	<b>199 230 256</b>	3.400
50	40	1 1/2	10	1600	<b>199 230 247</b>	<b>199 230 257</b>	3.800
63	50	2	10	3100	<b>199 230 248</b>	<b>199 230 258</b>	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	97	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





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

### Model:

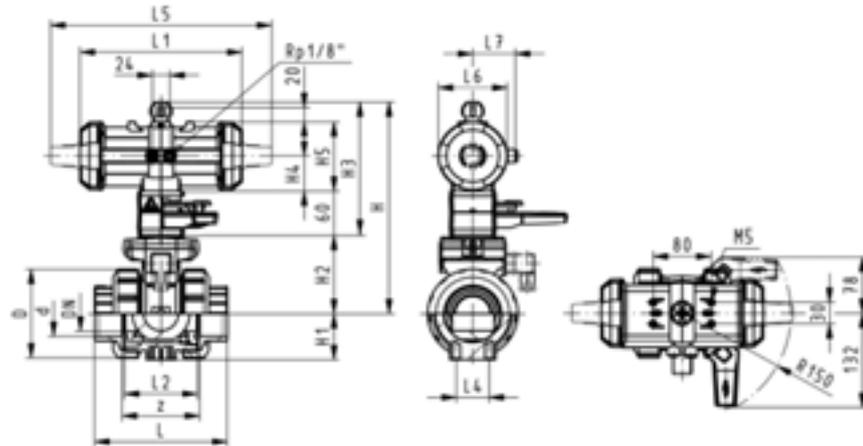
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 042</b>	<b>199 230 052</b>	1.459
20	15	10	185	<b>199 230 043</b>	<b>199 230 053</b>	1.459
25	20	10	350	<b>199 230 044</b>	<b>199 230 054</b>	1.576
32	25	10	700	<b>199 230 045</b>	<b>199 230 055</b>	1.700
40	32	10	1000	<b>199 230 046</b>	<b>199 230 056</b>	2.751
50	40	10	1600	<b>199 230 047</b>	<b>199 230 057</b>	3.073
63	50	10	3100	<b>199 230 048</b>	<b>199 230 058</b>	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	97	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





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

### Model:

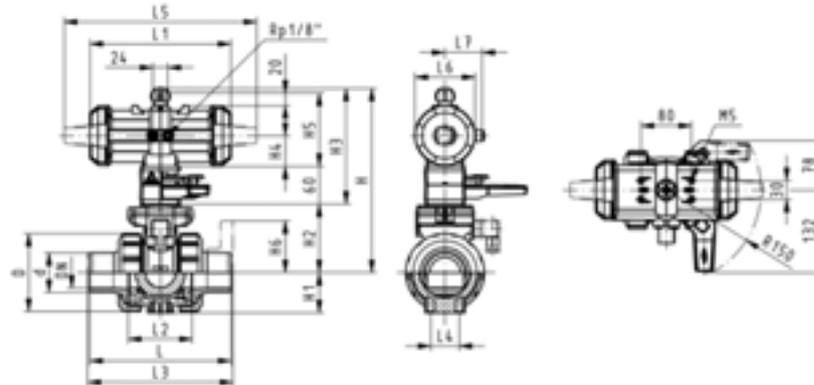
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ \leq$ ) 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 062</b>	<b>199 230 072</b>	1.459
20	15	10	185	<b>199 230 063</b>	<b>199 230 073</b>	1.459
25	20	10	350	<b>199 230 064</b>	<b>199 230 074</b>	1.576
32	25	10	700	<b>199 230 065</b>	<b>199 230 075</b>	1.700
40	32	10	1000	<b>199 230 066</b>	<b>199 230 076</b>	2.751
50	40	10	1600	<b>199 230 067</b>	<b>199 230 077</b>	3.073
63	50	10	3100	<b>199 230 068</b>	<b>199 230 078</b>	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	230	27	62	168	40	97	114	194	56	130	25	261	76	48
20	50	230	27	62	168	40	97	124	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	144	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	154	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	174	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	194	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	224	224	101	230	45	305	95	59





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

### Model:

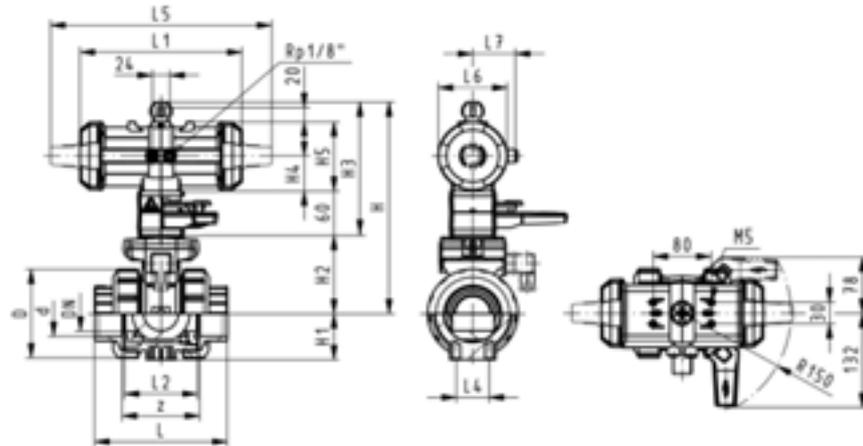
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 230 382</b>	<b>199 230 392</b>	1.500
1/2	15	10	185	<b>199 230 383</b>	<b>199 230 393</b>	1.500
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 1/4	32	10	1000	<b>199 230 386</b>	<b>199 230 396</b>	2.800
1 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]
3/8	50	230	27	62	168	40	97	92	194	56	25	261	76	48	64
1/2	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
1	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
1 1/4	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
1 1/2	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
2	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





## 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  $90^\circ \leq$ ) 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

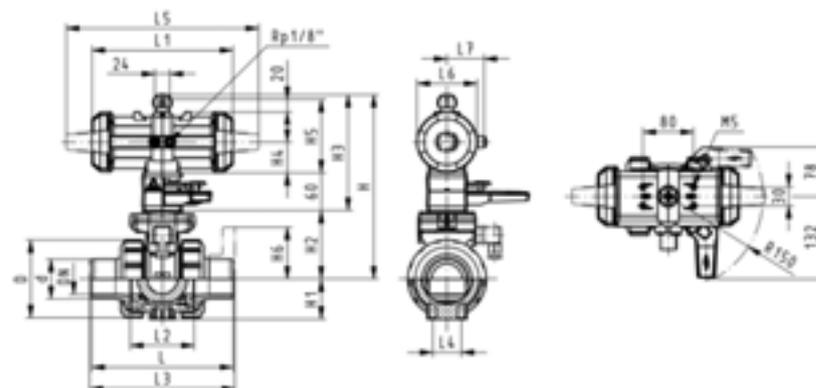
### Option:

- Individual configuration of the valve (see form)

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>199 230 263</b>	<b>199 230 273</b>	1.700
25	20	3/4	10	350	<b>199 230 264</b>	<b>199 230 274</b>	1.900
32	25	1	10	700	<b>199 230 265</b>	<b>199 230 275</b>	2.100
40	32	1 1/4	10	1000	<b>199 230 266</b>	<b>199 230 276</b>	3.400
50	40	1 1/2	10	1600	<b>199 230 267</b>	<b>199 230 277</b>	3.800
63	50	2	10	3100	<b>199 230 268</b>	<b>199 230 278</b>	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	97	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





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

### Model:

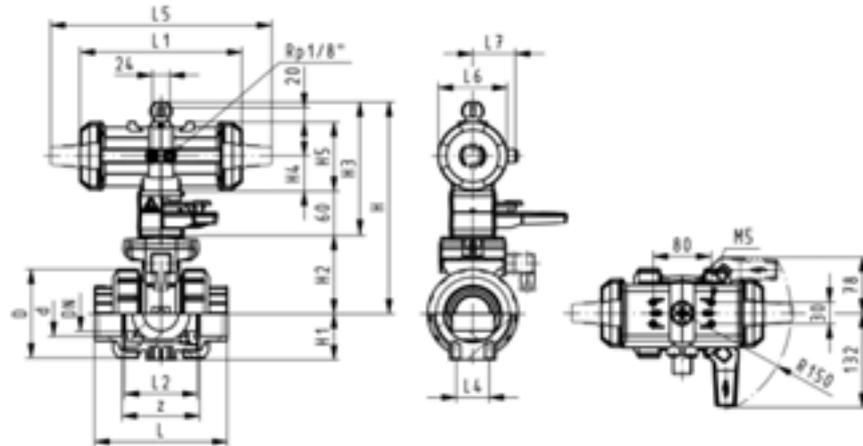
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	1.459
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	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	97	92	194	56	25	261	76	48	64
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
25	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
32	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
40	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
50	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
63	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





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

### Model:

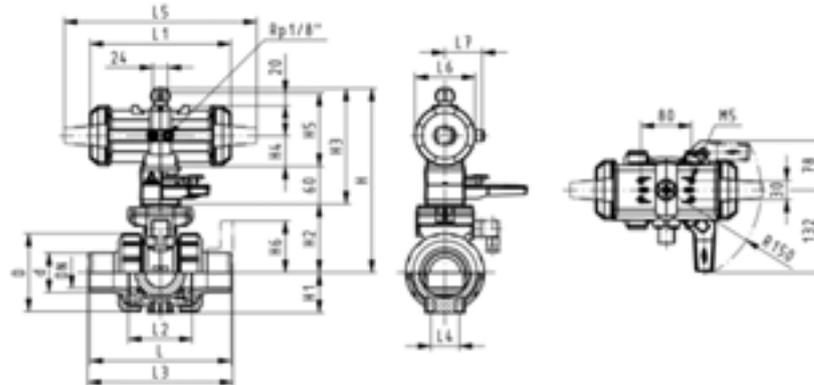
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ \leq$ ) 1-2 s

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 102</b>	<b>199 230 112</b>	1.459
20	15	10	185	<b>199 230 103</b>	<b>199 230 113</b>	1.459
25	20	10	350	<b>199 230 104</b>	<b>199 230 114</b>	1.576
32	25	10	700	<b>199 230 105</b>	<b>199 230 115</b>	1.700
40	32	10	1000	<b>199 230 106</b>	<b>199 230 116</b>	2.751
50	40	10	1600	<b>199 230 107</b>	<b>199 230 117</b>	3.073
63	50	10	3100	<b>199 230 108</b>	<b>199 230 118</b>	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	230	27	62	168	40	97	114	194	56	130	25	261	76	48
20	50	230	27	62	168	40	97	124	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	144	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	154	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	174	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	194	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	224	224	101	230	45	305	95	59





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

### Model:

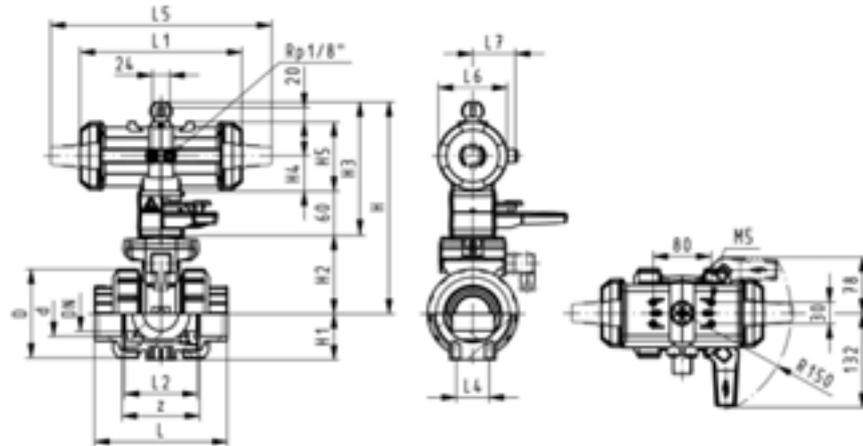
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	<b>199 230 642</b>	<b>199 230 652</b>	1.500
1/2	15	10	185	<b>199 230 643</b>	<b>199 230 653</b>	1.500
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 1/4	32	10	1000	<b>199 230 646</b>	<b>199 230 656</b>	2.800
1 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]
3/8	50	230	27	62	168	40	97	92	194	56	25	261	76	48	64
1/2	50	230	27	62	168	40	97	95	194	56	25	261	76	48	64
3/4	58	239	30	71	168	40	97	110	194	65	25	261	76	48	72
1	68	239	36	71	168	40	97	123	194	71	25	261	76	48	79
1 1/4	84	271	44	84	187	51	115	146	224	85	45	305	95	59	94
1 1/2	97	271	51	84	187	51	115	157	224	89	45	305	95	59	95
2	124	293	64	106	187	51	115	183	224	101	45	305	95	59	107





## 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  $90^\circ \leq$ ) 1-2 s
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

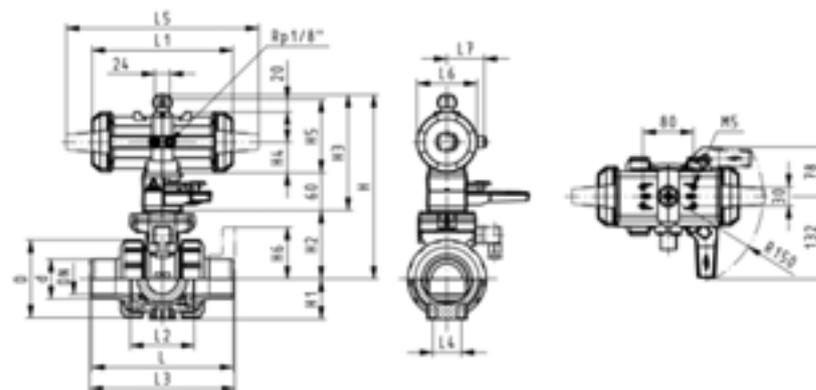
### Option:

- Individual configuration of the valve (see form)

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>199 230 283</b>	<b>199 230 293</b>	1.700
25	20	3/4	10	350	<b>199 230 284</b>	<b>199 230 294</b>	1.900
32	25	1	10	700	<b>199 230 285</b>	<b>199 230 295</b>	2.100
40	32	1 1/4	10	1000	<b>199 230 286</b>	<b>199 230 296</b>	3.400
50	40	1 1/2	10	1600	<b>199 230 287</b>	<b>199 230 297</b>	3.800
63	50	2	10	3100	<b>199 230 288</b>	<b>199 230 298</b>	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	97	48	124	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	144	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	154	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	174	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	194	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	224	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





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

### Model:

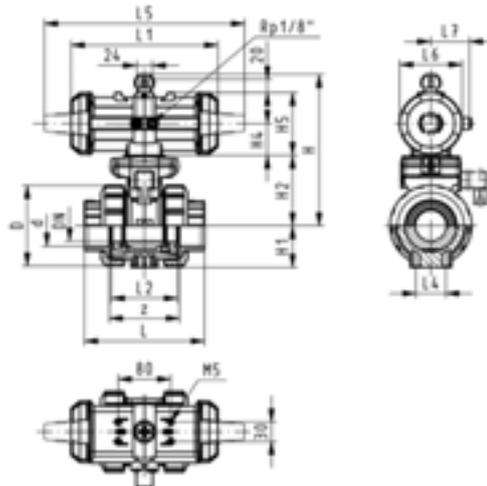
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 122</b>	<b>199 230 132</b>	1.159
20	15	10	185	<b>199 230 123</b>	<b>199 230 133</b>	1.159
25	20	10	350	<b>199 230 124</b>	<b>199 230 134</b>	1.276
32	25	10	700	<b>199 230 125</b>	<b>199 230 135</b>	1.400
40	32	10	1000	<b>199 230 126</b>	<b>199 230 136</b>	2.451
50	40	10	1600	<b>199 230 127</b>	<b>199 230 137</b>	2.773
63	50	10	3100	<b>199 230 128</b>	<b>199 230 138</b>	3.631
75	65	10	5000	<b>199 230 129</b>	<b>199 230 139</b>	4.300
90	80	10	7000	<b>199 230 130</b>	<b>199 230 140</b>	5.200
110	100	10	11000	<b>199 230 131</b>	<b>199 230 141</b>	7.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	92	194	56	25	261	76	48	64
20	50	167	27	62	40	97	95	194	56	25	261	76	48	64
25	58	176	30	71	40	97	110	194	65	25	261	76	48	72
32	68	176	36	71	40	97	123	194	71	25	261	76	48	79
40	84	210	44	84	51	115	146	224	85	45	305	95	59	94
50	97	210	51	84	51	115	157	224	89	45	305	95	59	95
63	124	232	64	106	51	115	183	224	101	45	305	95	59	107
75	166	262	85	156		70	233	218	136	70	276	65		144
90	200	281	105	168		78	254	259	141	70	341	72		151
110	238	292	123	175		86	301	287	164	120	369	80		174





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

### Model:

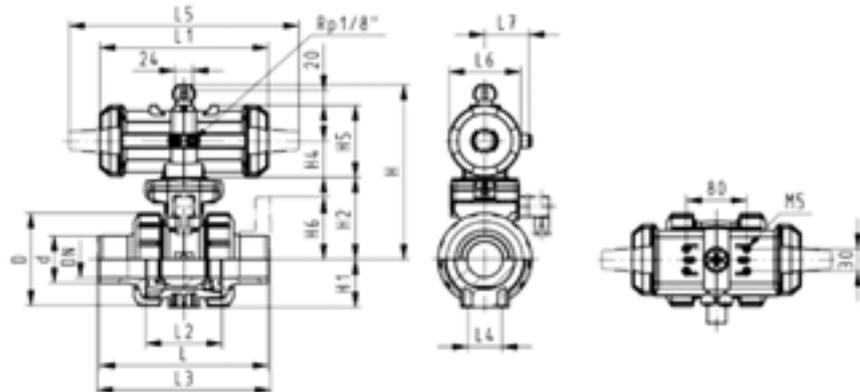
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Image and drawing DN65-100 please see "**New product ball valve DN65-100**"
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	4.400
 90	80	10	7000	199 230 150	199 230 160	5.400
 110	100	10	11000	199 230 151	199 230 161	7.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	114	194	56	0	25	261	76	48
20	50	167	27	62	40	97	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	224	224	101	230	45	305	95	59
 75	166	262	85	156		70	284	218	136	290	70	276	65	
 90	200	281	105	168		78	300	259	141	310	70	341	72	
 110	238	292	123	175		86	340	287	164	350	120	369	80	





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

### Model:

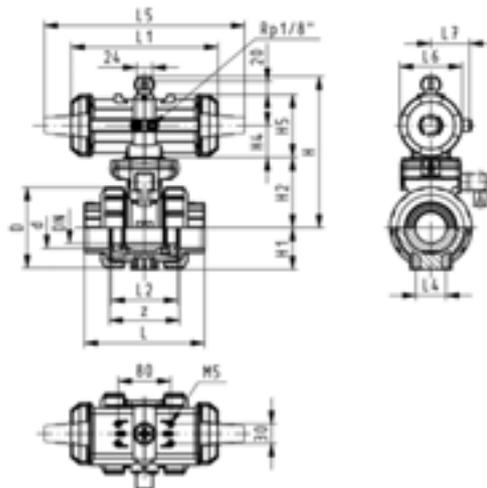
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see form)

Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	70	199 230 662	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	4.300
3	80	10	7000	199 230 670	199 230 680	5.300
4	100	10	11000	199 230 671	199 230 681	7.700

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	167	27	62	40	97	92	194	56	25	261	76	48	64
1/2	50	167	27	62	40	97	95	194	56	25	261	76	48	64
3/4	58	176	30	71	40	97	110	194	65	25	261	76	48	72
1	68	176	36	71	40	97	123	194	71	25	261	76	48	79
1 1/4	84	210	44	84	51	115	146	224	85	45	305	95	59	94
1 1/2	97	210	51	84	51	115	157	224	89	45	305	95	59	95
2	124	232	64	106	51	115	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156		70	233	218	136	70	276	65		144
3	200	281	105	168		78	254	259	141	70	341	72		151
4	238	292	123	175		86	301	287	164	120	369	80		174





## 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

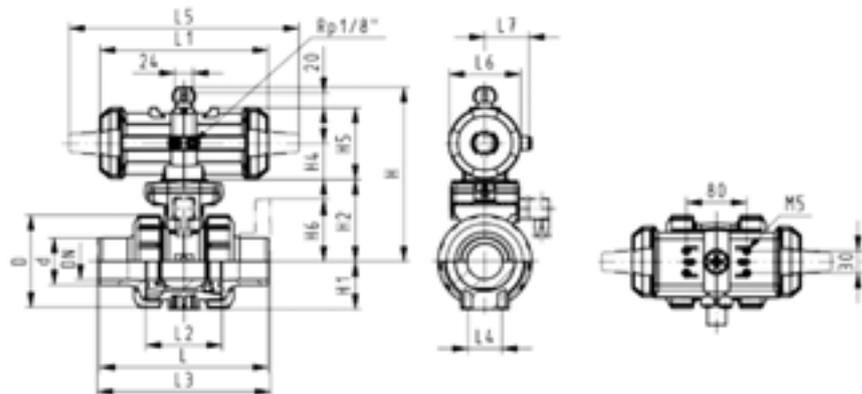
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg									
20	15	½	10	185	<b>199 230 303</b>	<b>199 230 313</b>	1.700									
25	20	¾	10	350	<b>199 230 304</b>	<b>199 230 314</b>	1.900									
32	25	1	10	700	<b>199 230 305</b>	<b>199 230 315</b>	2.100									
40	32	1 ¼	10	1000	<b>199 230 306</b>	<b>199 230 316</b>	3.400									
50	40	1 ½	10	1600	<b>199 230 307</b>	<b>199 230 317</b>	3.800									
63	50	2	10	3100	<b>199 230 308</b>	<b>199 230 318</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	167	27	62	40	97	48	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	224	224	101	230	45	305	95	59





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

### Model:

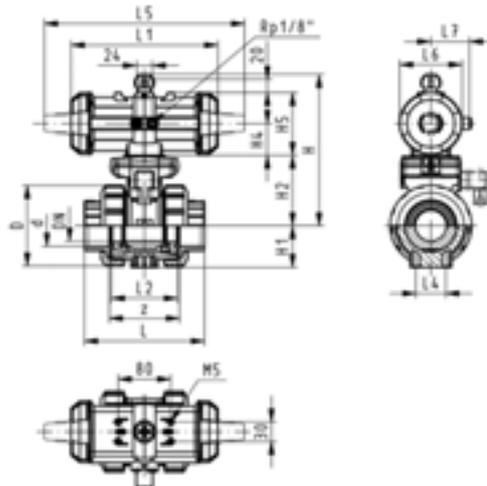
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 162</b>	<b>199 230 172</b>	1.159
20	15	10	185	<b>199 230 163</b>	<b>199 230 173</b>	1.159
25	20	10	350	<b>199 230 164</b>	<b>199 230 174</b>	1.276
32	25	10	700	<b>199 230 165</b>	<b>199 230 175</b>	1.400
40	32	10	1000	<b>199 230 166</b>	<b>199 230 176</b>	2.451
50	40	10	1600	<b>199 230 167</b>	<b>199 230 177</b>	2.773
63	50	10	3100	<b>199 230 168</b>	<b>199 230 178</b>	3.631
 75	65	10	5000	<b>199 230 169</b>	<b>199 230 179</b>	4.300
 90	80	10	7000	<b>199 230 170</b>	<b>199 230 180</b>	5.200
 110	100	10	11000	<b>199 230 171</b>	<b>199 230 181</b>	7.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	92	194	56	25	261	76	48	64
20	50	167	27	62	40	97	95	194	56	25	261	76	48	64
25	58	176	30	71	40	97	110	194	65	25	261	76	48	72
32	68	176	36	71	40	97	123	194	71	25	261	76	48	79
40	84	210	44	84	51	115	146	224	85	45	305	95	59	94
50	97	210	51	84	51	115	157	224	89	45	305	95	59	95
63	124	232	64	106	51	115	183	224	101	45	305	95	59	107
 75	166	262	85	156		70	233	218	136	70	276	65		144
 90	200	281	105	168		78	254	259	141	70	341	72		151
 110	238	292	123	175		86	301	287	164	120	369	80		174





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

### Model:

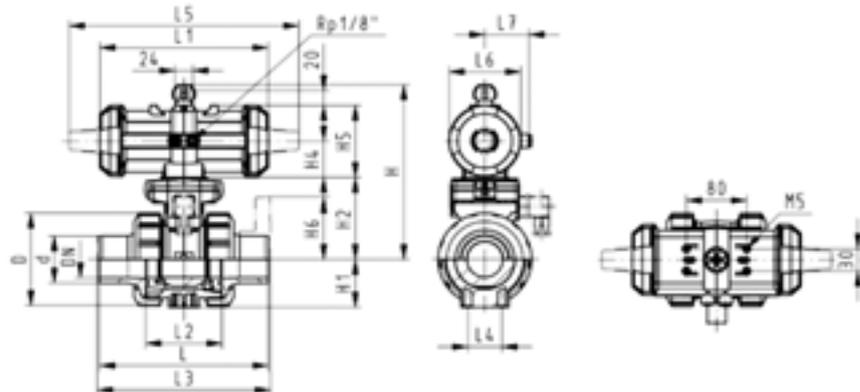
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Image and drawing DN65-100 please see "**New product ball valve DN65-100**"
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	4.400
 90	80	10	7000	199 230 190	199 230 200	5.400
 110	100	10	11000	199 230 191	199 230 201	7.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	114	194	56	0	25	261	76	48
20	50	167	27	62	40	97	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	224	224	101	230	45	305	95	59
 75	166	262	85	156		70	284	218	136	290	70	276	65	
 90	200	281	105	168		78	300	259	141	310	70	341	72	
 110	238	292	123	175		86	340	287	164	350	120	369	80	





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

### Model:

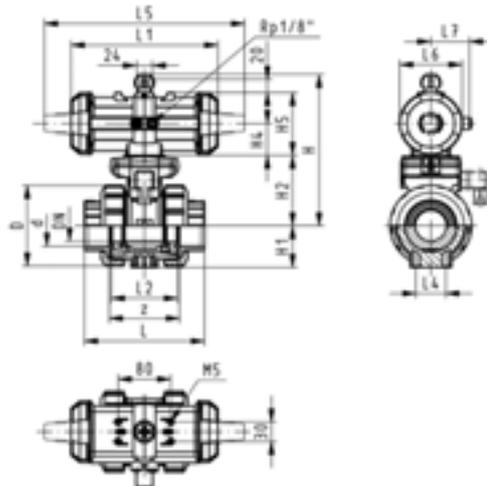
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**

### Option:

- Individual configuration of the valve (see form)

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	4.300
3	80	10	7000	199 230 690	199 230 700	5.300
4	100	10	11000	199 230 691	199 230 701	7.700

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	167	27	62	40	97	92	194	56	25	261	76	48	64
1/2	50	167	27	62	40	97	95	194	56	25	261	76	48	64
3/4	58	176	30	71	40	97	110	194	65	25	261	76	48	72
1	68	176	36	71	40	97	123	194	71	25	261	76	48	79
1 1/4	84	210	44	84	51	115	146	224	85	45	305	95	59	94
1 1/2	97	210	51	84	51	115	157	224	89	45	305	95	59	95
2	124	232	64	106	51	115	183	224	101	45	305	95	59	107
2 1/2	166	262	85	156		70	233	218	136	70	276	65		144
3	200	281	105	168		78	254	259	141	70	341	72		151
4	238	292	123	175		86	301	287	164	120	369	80		174





## 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  $90^\circ <$  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

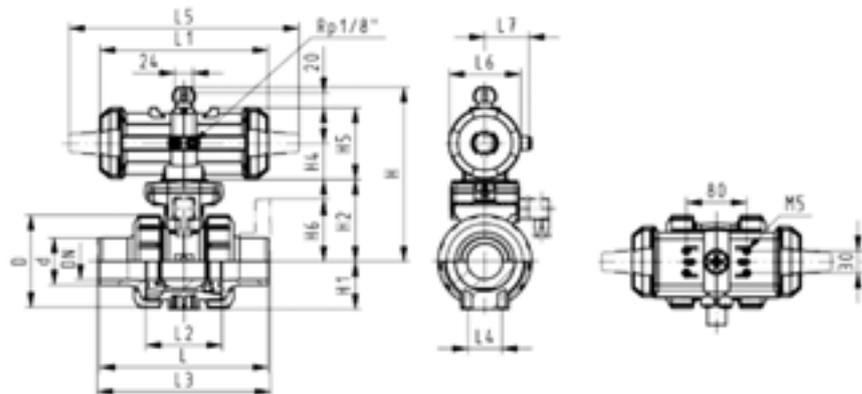
### Option:

- Individual configuration of the valve (see form)

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>199 230 323</b>	<b>199 230 333</b>	1.700	
25	20	3/4	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 1/4	10	1000	<b>199 230 326</b>	<b>199 230 336</b>	3.400	
50	40	1 1/2	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	167	27	62	40	97	48	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	224	224	101	230	45	305	95	59





## Ball valve type 230 PVC-U DA (Double acting) Without manual override With solvent cement sockets metric

### Model:

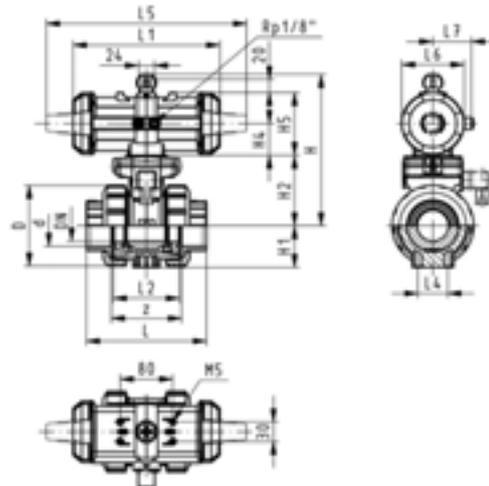
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 230 202</b>	<b>199 230 212</b>	1.159
20	15	10	185	<b>199 230 203</b>	<b>199 230 213</b>	1.159
25	20	10	350	<b>199 230 204</b>	<b>199 230 214</b>	1.276
32	25	10	700	<b>199 230 205</b>	<b>199 230 215</b>	1.400
40	32	10	1000	<b>199 230 206</b>	<b>199 230 216</b>	2.451
50	40	10	1600	<b>199 230 207</b>	<b>199 230 217</b>	2.773
63	50	10	3100	<b>199 230 208</b>	<b>199 230 218</b>	3.631
 75	65	10	5000	<b>199 230 209</b>	<b>199 230 219</b>	3.100
 90	80	10	7000	<b>199 230 210</b>	<b>199 230 220</b>	4.500
 110	100	10	11000	<b>199 230 211</b>	<b>199 230 221</b>	5.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	92	194	56	25	261	76	48	64
20	50	167	27	62	40	97	95	194	56	25	261	76	48	64
25	58	176	30	71	40	97	110	194	65	25	261	76	48	72
32	68	176	36	71	40	97	123	194	71	25	261	76	48	79
40	84	210	44	84	51	115	146	224	85	45	305	95	59	94
50	97	210	51	84	51	115	157	224	89	45	305	95	59	95
63	124	232	64	106	51	115	183	224	101	45	305	95	59	107
 75	166	257	85	156		66	233	144	136	70	190	60		144
 90	200	274	105	168		70	254	152	141	70	198	65		151
 110	238	273	123	175		78	301	169	164	120	235	72		174





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

### Model:

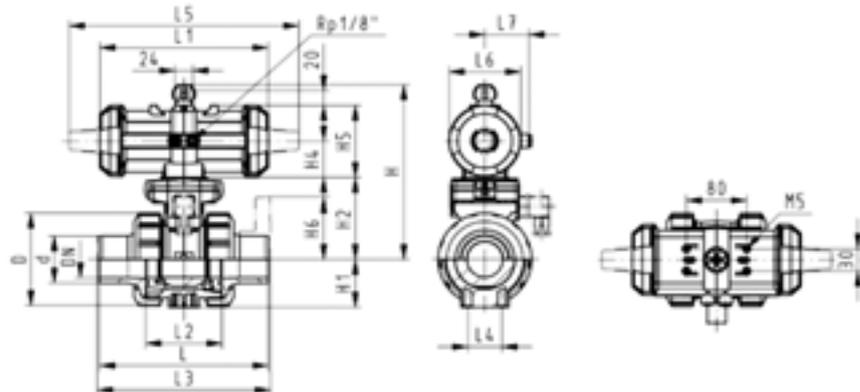
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	3.300
 90	80	10	7000	199 230 230	199 230 240	4.700
 110	100	10	11000	199 230 231	199 230 241	6.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	114	194	56	0	25	261	76	48
20	50	167	27	62	40	97	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	224	224	101	230	45	305	95	59
 75	166	257	85	156		66	284	144	136	290	70	190	60	
 90	200	274	105	168		70	300	152	141	310	70	198	65	
 110	238	273	123	175		78	340	169	164	350	120	235	72	





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

### Model:

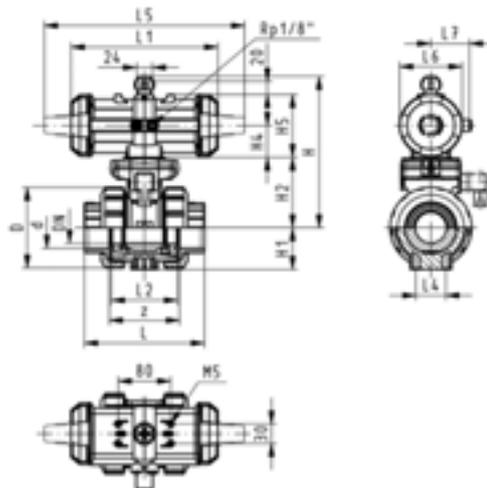
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Image and drawing DN65-100 please see **"New product ball valve DN65-100"**
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

### Option:

- Individual configuration of the valve (see form)

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	3.200
3	80	10	7000	199 230 720	199 230 740	4.700
4	100	10	11000	199 230 721	199 230 741	6.000

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	167	27	62	40	97	92	194	56	25	261	76	48	64
1/2	50	167	27	62	40	97	95	194	56	25	261	76	48	64
3/4	58	176	30	71	40	97	110	194	65	25	261	76	48	72
1	68	176	36	71	40	97	123	194	71	25	261	76	48	79
1 1/4	84	210	44	84	51	115	146	224	85	45	305	95	59	94
1 1/2	97	210	51	84	51	115	157	224	89	45	305	95	59	95
2	124	232	64	106	51	115	183	224	101	45	305	95	59	107
2 1/2	166	257	85	156		66	233	144	136	70	190	60		144
3	200	274	105	168		70	254	152	141	70	198	65		151
4	238	273	123	175		78	301	169	164	120	235	72		174





## 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

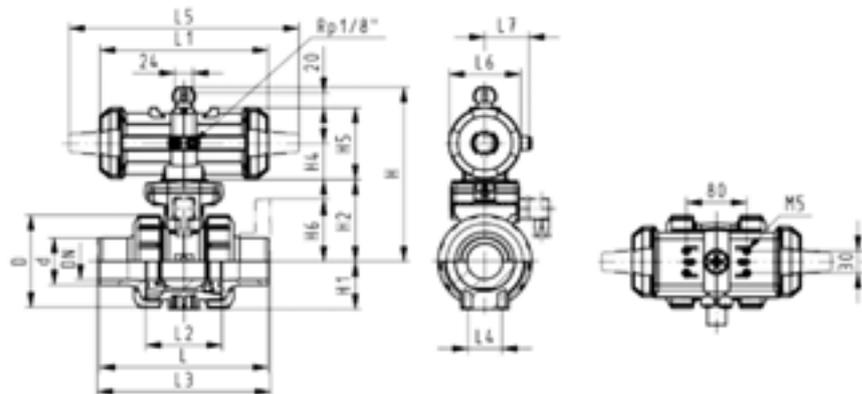
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg									
20	15	½	10	185	<b>199 230 343</b>	<b>199 230 353</b>	1.700									
25	20	¾	10	350	<b>199 230 344</b>	<b>199 230 354</b>	1.900									
32	25	1	10	700	<b>199 230 345</b>	<b>199 230 355</b>	2.100									
40	32	1 ¼	10	1000	<b>199 230 346</b>	<b>199 230 356</b>	3.400									
50	40	1 ½	10	1600	<b>199 230 347</b>	<b>199 230 357</b>	3.800									
63	50	2	10	3100	<b>199 230 348</b>	<b>199 230 358</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	167	27	62	40	97	48	124	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	144	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	154	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	174	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	194	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	224	224	101	230	45	305	95	59





### 3-Way ball valve type 275 PVC-U Horizontal/L-port FC (Fail safe to close) Without manual override With solvent cement sockets metric

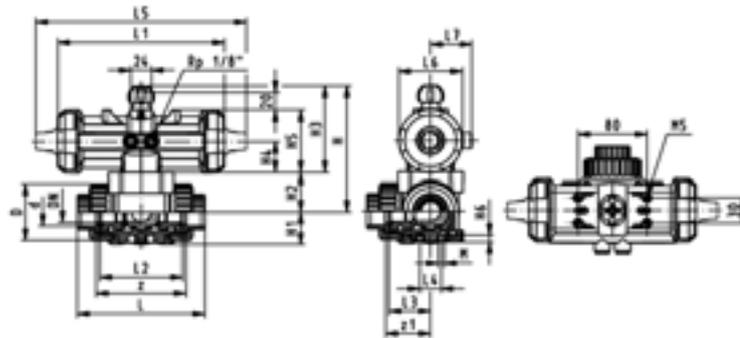
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- 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	<b>199 275 022</b>	<b>199 275 032</b>	1.114
20	15	10	75	<b>199 275 023</b>	<b>199 275 033</b>	1.114
25	20	10	150	<b>199 275 024</b>	<b>199 275 034</b>	1.296
32	25	10	280	<b>199 275 025</b>	<b>199 275 035</b>	1.467
40	32	10	480	<b>199 275 026</b>	<b>199 275 036</b>	2.484
50	40	10	620	<b>199 275 027</b>	<b>199 275 037</b>	3.028
63	50	10	1230	<b>199 275 028</b>	<b>199 275 038</b>	4.397

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	45	136	29	31	105	40	77	8	108	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	111	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	131	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	148	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	176	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	206	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	262	224	179	90	45	305	94

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	80	40
20	48	6	80	40
25	48	6	94	47
32	48	6	104	52
40	59	8	126	63
50	59	8	144	72
63	59	8	186	93





### 3-Way ball valve type 275 PVC-U Horizontal/L-port FC (Fail safe to close) Without manual override With solvent cement spigots metric

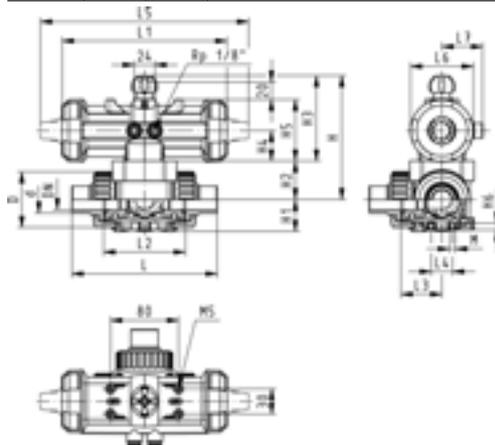
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- 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	199 275 002	199 275 012	1.114
20	15	10	75	199 275 003	199 275 013	1.114
25	20	10	150	199 275 004	199 275 014	1.296
32	25	10	280	199 275 005	199 275 015	1.467
40	32	10	480	199 275 006	199 275 016	2.484
50	40	10	620	199 275 007	199 275 017	3.028
63	50	10	1230	199 275 008	199 275 018	4.397

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	45	136	29	31	105	40	77	8	124	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	134	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	156	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	172	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	202	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	238	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	290	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





### 3-Way ball valve type 275 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement sockets metric

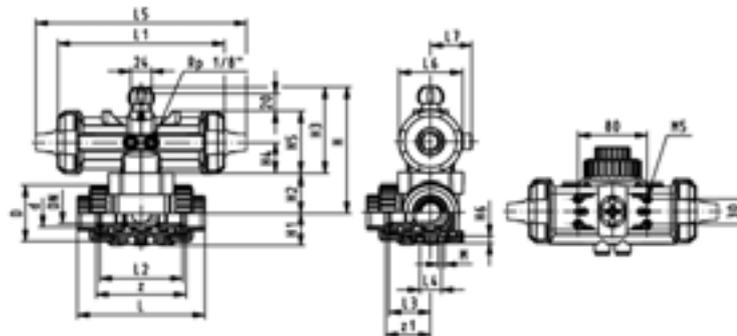
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 275 202</b>	<b>199 275 212</b>	0.924
20	15	10	75	<b>199 275 203</b>	<b>199 275 213</b>	0.924
25	20	10	150	<b>199 275 204</b>	<b>199 275 214</b>	1.106
32	25	10	280	<b>199 275 205</b>	<b>199 275 215</b>	1.277
40	32	10	480	<b>199 275 206</b>	<b>199 275 216</b>	2.060
50	40	10	620	<b>199 275 207</b>	<b>199 275 217</b>	2.604
63	50	10	1230	<b>199 275 208</b>	<b>199 275 218</b>	3.973

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	45	136	29	31	105	40	77	8	108	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	111	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	131	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	148	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	176	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	206	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	262	224	179	90	45	305	94

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	80	40
20	48	6	80	40
25	48	6	94	47
32	48	6	104	52
40	59	8	126	63
50	59	8	144	72
63	59	8	186	93





### 3-Way ball valve type 275 PVC-U Horizontal/L-port DA (Double acting) Without manual override With solvent cement spigots metric

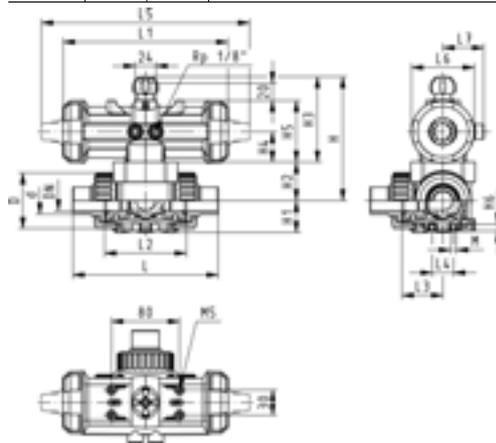
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	<b>199 275 182</b>	<b>199 275 192</b>	0.924
20	15	10	75	<b>199 275 183</b>	<b>199 275 193</b>	0.924
25	20	10	150	<b>199 275 184</b>	<b>199 275 194</b>	1.106
32	25	10	280	<b>199 275 185</b>	<b>199 275 195</b>	1.277
40	32	10	480	<b>199 275 186</b>	<b>199 275 196</b>	2.060
50	40	10	620	<b>199 275 187</b>	<b>199 275 197</b>	2.604
63	50	10	1230	<b>199 275 188</b>	<b>199 275 198</b>	3.973

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	45	136	29	31	105	40	77	8	124	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	134	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	156	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	172	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	202	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	238	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	290	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





### 3-Way ball valve type 275 PVC-U Horizontal/T-port FC (Fail safe to close) Without manual override With solvent cement sockets metric

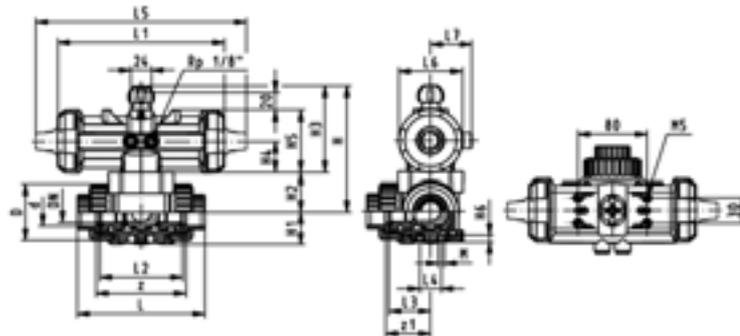
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- For easy installation and removal
- Control time 90° < 1-3 s
- 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	<b>199 275 062</b>	<b>199 275 072</b>	1.114
20	15	10	200	<b>199 275 063</b>	<b>199 275 073</b>	1.114
25	20	10	470	<b>199 275 064</b>	<b>199 275 074</b>	1.296
32	25	10	793	<b>199 275 065</b>	<b>199 275 075</b>	1.467
40	32	10	1290	<b>199 275 066</b>	<b>199 275 076</b>	2.484
50	40	10	1910	<b>199 275 067</b>	<b>199 275 077</b>	3.028
63	50	10	3100	<b>199 275 068</b>	<b>199 275 078</b>	4.397

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	45	136	29	31	105	40	77	8	108	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	111	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	131	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	148	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	176	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	206	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	262	224	179	90	45	305	94

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	80	40
20	48	6	80	40
25	48	6	94	47
32	48	6	104	52
40	59	8	126	63
50	59	8	144	72
63	59	8	186	93





**3-Way ball valve type 275 PVC-U**  
**Horizontal/T-port FC (Fail safe to close)**  
**Without manual override**  
**With solvent cement spigots metric**

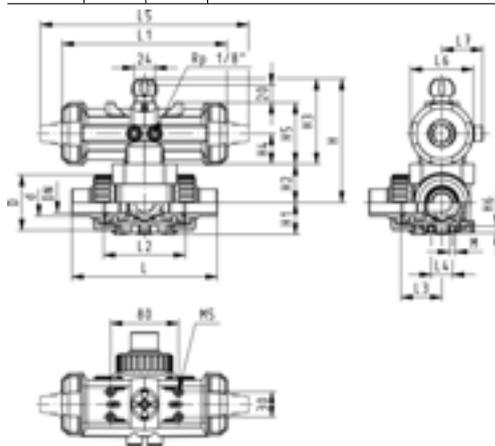
**Model:**

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- For easy installation and removal
- Control time 90°<) 1-3 s
- 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	<b>199 275 042</b>	<b>199 275 052</b>	1.114
20	15	10	200	<b>199 275 043</b>	<b>199 275 053</b>	1.114
25	20	10	470	<b>199 275 044</b>	<b>199 275 054</b>	1.296
32	25	10	793	<b>199 275 045</b>	<b>199 275 055</b>	1.467
40	32	10	1290	<b>199 275 046</b>	<b>199 275 056</b>	2.484
50	40	10	1910	<b>199 275 047</b>	<b>199 275 057</b>	3.028
63	50	10	3100	<b>199 275 048</b>	<b>199 275 058</b>	4.397

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	45	136	29	31	105	40	77	8	124	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	134	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	156	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	172	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	202	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	238	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	290	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





### 3-Way ball valve type 275 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement sockets metric

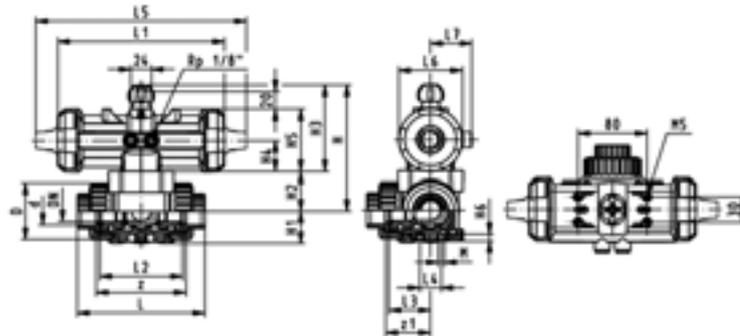
#### Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	<b>199 275 242</b>	<b>199 275 252</b>	0.924
20	15	10	200	<b>199 275 243</b>	<b>199 275 253</b>	0.924
25	20	10	470	<b>199 275 244</b>	<b>199 275 254</b>	1.106
32	25	10	793	<b>199 275 245</b>	<b>199 275 255</b>	1.277
40	32	10	1290	<b>199 275 246</b>	<b>199 275 256</b>	2.060
50	40	10	1910	<b>199 275 247</b>	<b>199 275 257</b>	2.604
63	50	10	3100	<b>199 275 248</b>	<b>199 275 258</b>	3.973

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	45	136	29	31	105	40	77	8	108	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	111	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	131	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	148	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	176	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	206	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	262	224	179	90	45	305	94

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	80	40
20	48	6	80	40
25	48	6	94	47
32	48	6	104	52
40	59	8	126	63
50	59	8	144	72
63	59	8	186	93





### 3-Way ball valve type 275 PVC-U Horizontal/T-port DA (Double acting) Without manual override With solvent cement spigots metric

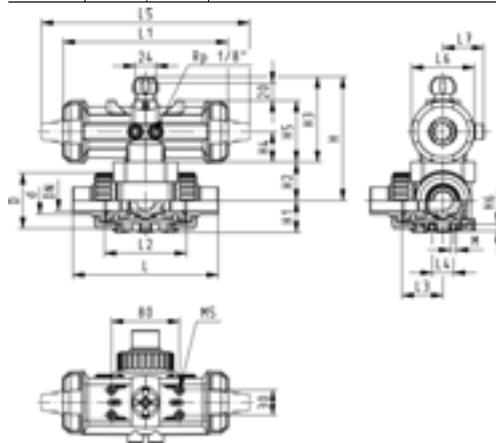
**Model:**

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	<b>199 275 222</b>	<b>199 275 232</b>	0.924
20	15	10	200	<b>199 275 223</b>	<b>199 275 233</b>	0.924
25	20	10	470	<b>199 275 224</b>	<b>199 275 234</b>	1.106
32	25	10	793	<b>199 275 225</b>	<b>199 275 235</b>	1.277
40	32	10	1290	<b>199 275 226</b>	<b>199 275 236</b>	2.060
50	40	10	1910	<b>199 275 227</b>	<b>199 275 237</b>	2.604
63	50	10	3100	<b>199 275 228</b>	<b>199 275 238</b>	3.973

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	45	136	29	31	105	40	77	8	124	194	72	36	25	261	73
20	45	136	29	31	105	40	77	8	134	194	72	36	25	261	73
25	53	144	33	39	105	40	77	8	156	194	86	43	25	261	73
32	65	149	38	44	105	40	77	8	172	194	96	48	25	261	73
40	78	177	44	50	127	51	99	9	202	224	116	58	45	305	94
50	92	190	50	63	127	51	99	9	238	224	137	69	45	305	94
63	116	203	61	76	127	51	99	9	290	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



# Diaphragm valves pneumatic

## Diaphragm valve type DIASTAR PVC-U Series 025 FC (Fail safe to close)

### Unions with solvent cement sockets metric

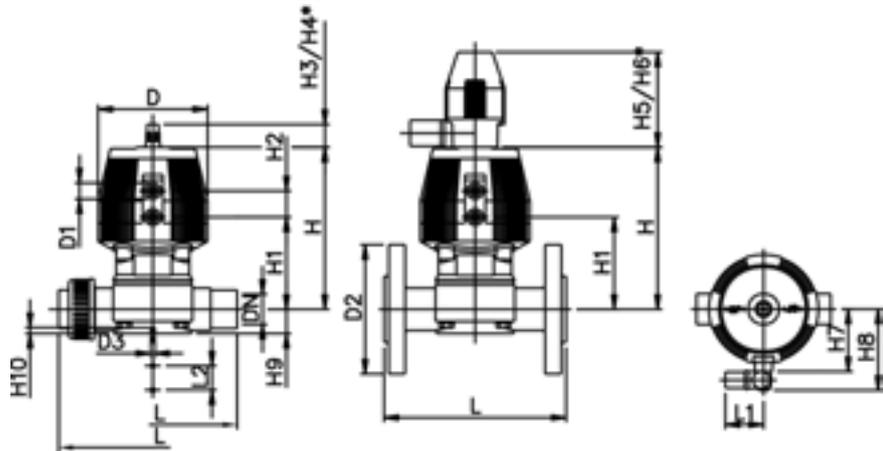
- With position indicator / Working pressure: both sides



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	199 025 061	199 025 091	0.800
25	20	10	120	199 025 062	199 025 092	1.000
32	25	10	238	199 025 063	199 025 093	1.700
40	32	10	341	199 025 064	199 025 094	3.100
50	40	10	460	199 025 065	199 025 095	4.700
63	50	10	685	199 025 066	199 025 096	5.800

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	96	3/8	6	128	60	25	128	69	25	23	44	100	155	56
25	96	3/8	6	152	60	25	130	71	25	23	44	100	155	56
32	120	1/2	6	166	60	25	166	93	26	36	64	100	155	68
40	150	1/4	8	192	60	45	201	106	36	36	64	100	160	85
50	180	1/4	8	222	60	45	233	119	37	36	64	100	170	101
63	180	1/4	8	266	60	45	247	133	37	36	64	100	170	101

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	86	14	12	8
25	88	18	12	10
32	100	21	12	12
40	117	26	15	14
50	133	33	15	18
63	133	39	15	22





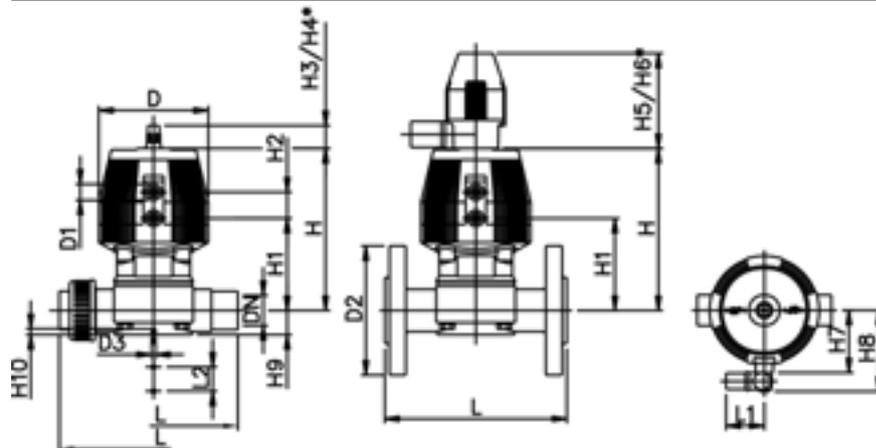
## Diaphragm valve type DIASTAR PVC-U Series 025 FC (Fail safe to close) With solvent cement spigots metric

- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	<b>199 025 001</b>	<b>199 025 031</b>	1.200
25	20	10	120	<b>199 025 002</b>	<b>199 025 032</b>	0.891
32	25	10	238	<b>199 025 003</b>	<b>199 025 033</b>	2.200
40	32	10	341	<b>199 025 004</b>	<b>199 025 034</b>	2.766
50	40	10	460	<b>199 025 005</b>	<b>199 025 035</b>	4.456
63	50	10	685	<b>199 025 006</b>	<b>199 025 036</b>	6.100

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	96	3/8	6	124	60	25	128	69	25	23	44	100	155	56
25	96	3/8	6	144	60	25	130	71	25	23	44	100	155	56
32	120	1/2	6	154	60	25	166	93	26	36	64	100	155	68
40	150	1/2	8	174	60	45	201	106	36	36	64	100	160	85
50	180	3/4	8	194	60	45	233	119	37	36	64	100	170	101
63	180	3/4	8	224	60	45	247	133	37	36	64	100	170	101

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	86	14	12	8
25	88	18	12	10
32	100	21	12	12
40	117	26	15	14
50	133	33	15	18
63	133	39	15	22





## Diaphragm valve type DIASTAR PVC-U Series 025 FC (Fail safe to close) With backing flanges PVC-U metric

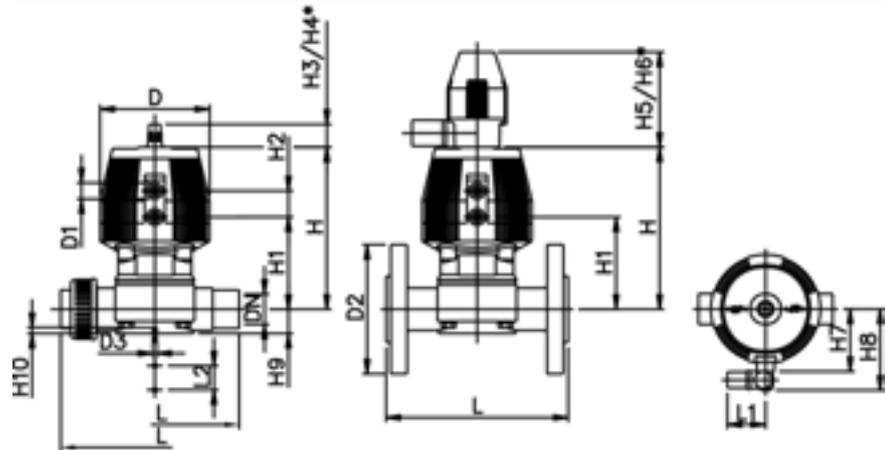
### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	1/2	10	72	<b>199 025 121</b>	<b>199 025 151</b>	0.810
25	20	3/4	10	120	<b>199 025 122</b>	<b>199 025 152</b>	0.891
32	25	1	10	238	<b>199 025 123</b>	<b>199 025 153</b>	1.632
40	32	1 1/4	10	341	<b>199 025 124</b>	<b>199 025 154</b>	2.766
50	40	1 1/2	10	460	<b>199 025 125</b>	<b>199 025 155</b>	4.456
63	50	2	10	685	<b>199 025 126</b>	<b>199 025 156</b>	5.031

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
20	96	1/8	95	6	130	60	25	128	69	25	23	44	100	155
25	96	1/8	105	6	150	60	25	130	71	25	23	44	100	155
32	120	1/8	115	6	160	60	25	166	93	26	36	64	100	155
40	150	1/4	140	8	180	60	45	201	106	36	36	64	100	160
50	180	1/4	150	8	200	60	45	233	119	37	36	64	100	170
63	180	1/4	165	8	230	60	45	247	133	37	36	64	100	170

d [mm]	H7 [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	56	86	14	12	8
25	56	88	18	12	10
32	68	100	21	12	12
40	85	117	26	15	14
50	101	133	33	15	18
63	101	133	39	15	22





## 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**

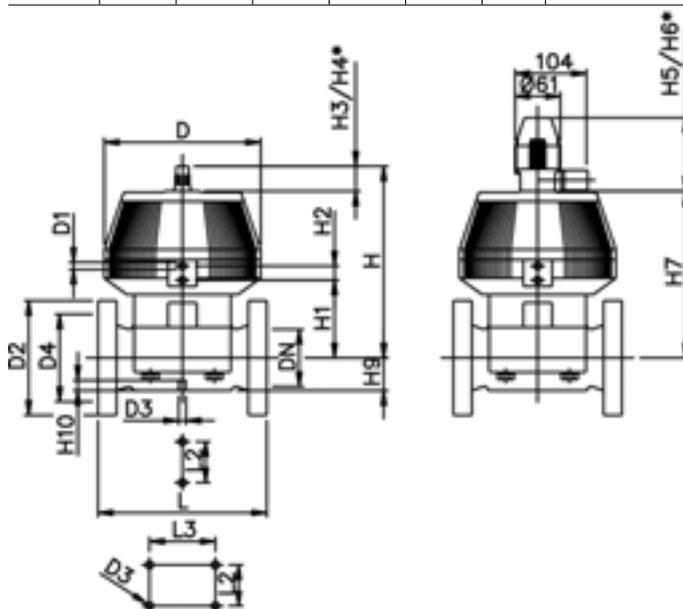
\* with backing flanges PVC-U metric

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

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
*75	65	2 1/2	10	992	<b>199 025 127</b>	<b>199 025 157</b>	13.600
**90	80	3	10	1700	<b>199 025 128</b>	<b>199 025 158</b>	17.400
110	100	4	8	2700	<b>199 025 129</b>	<b>199 025 159</b>	24.700
**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]
*75	280	1/4	185	8	145	290	70		344	148	24	46
**90	280	1/4	200	12	160	310	120		348	150	24	46
110	335	1/4	225	12	180	350	120		395	176	24	46
**160	335	1/4	285	12	240	480	100	200	455	237	24	46

d [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
*75	100	129	195	298	46	15
**90	100	129	195	302	57	15
110	100	129	195	349	69	20
**160	100	129	195	409	108	20





## Diaphragm valve type DIASTAR PVC-U Series 028 FC (Fail safe to close) Unions with solvent cement sockets metric

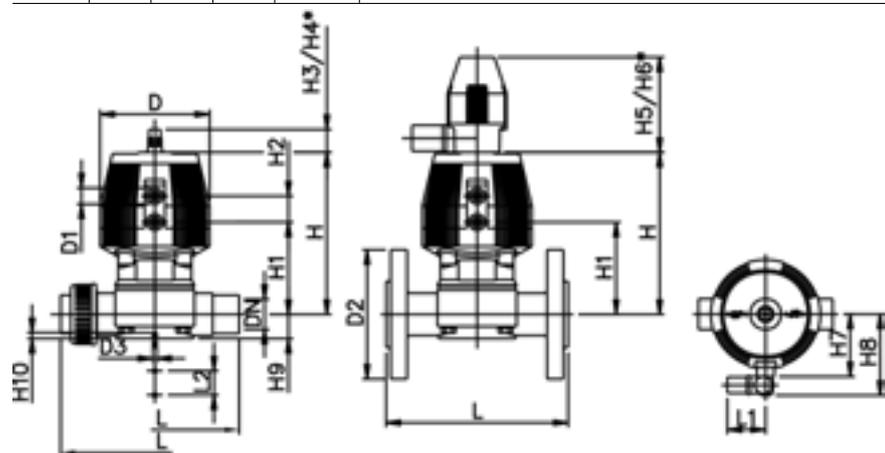
- With position indicator / Working pressure: **one side**

\*PN: EPDM/PTFE

d [mm]	DN [mm]	PN [bar]		kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10 / 5	*	72	<b>199 028 061</b>	<b>199 028 091</b>	0.530
25	20	10 / 7	*	120	<b>199 028 062</b>	<b>199 028 092</b>	1.000
32	25	10 / 7	*	238	<b>199 028 063</b>	<b>199 028 093</b>	1.390
40	32	10 / 7	*	341	<b>199 028 064</b>	<b>199 028 094</b>	1.870
50	40	10 / 7	*	460	<b>199 028 065</b>	<b>199 028 095</b>	4.100
63	50	10 / 7	*	685	<b>199 028 066</b>	<b>199 028 096</b>	3.880

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	128	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	152	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	166	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	192	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	222	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	266	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





## Diaphragm valve type DIASTAR PVC-U Series 028 FC (Fail safe to close) With solvent cement spigots metric

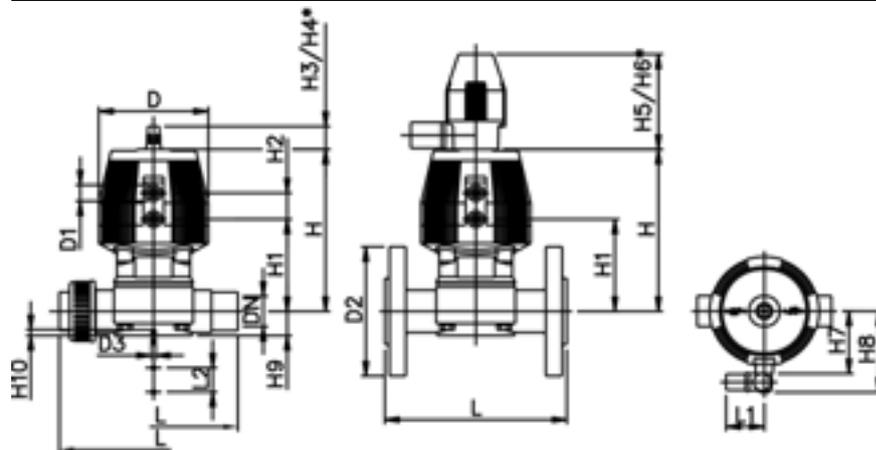
- With position indicator / Working pressure: **one side**

\*PN: EPDM/PTFE

d [mm]	DN [mm]	PN [bar]		kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10 / 5	*	72	<b>199 028 001</b>	<b>199 028 031</b>	0.470
25	20	10 / 7	*	120	<b>199 028 002</b>	<b>199 028 032</b>	0.900
32	25	10 / 7	*	238	<b>199 028 003</b>	<b>199 028 033</b>	1.190
40	32	10 / 7	*	341	<b>199 028 004</b>	<b>199 028 034</b>	1.650
50	40	10 / 7	*	460	<b>199 028 005</b>	<b>199 028 035</b>	3.050
63	50	10 / 7	*	685	<b>199 028 006</b>	<b>199 028 036</b>	5.200

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	124	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	144	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	154	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	174	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	194	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	224	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





## Diaphragm valve type DIASTAR PVC-U Series 028 FC (Fail safe to close) With backing flanges PVC-U metric

### Model:

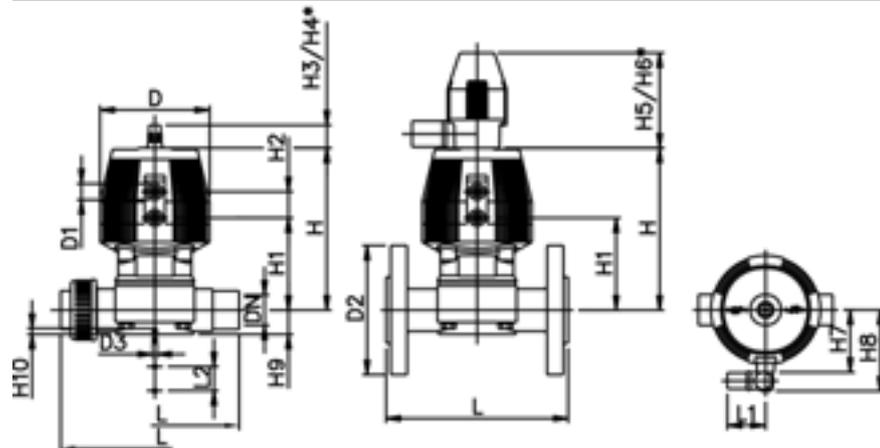
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

\*PN: EPDM/PTFE

d [mm]	DN [mm]	Inch	PN [bar]		kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
20	15	½	10 / 5	*	72	199 028 121	199 028 151	0.690	
25	20	¾	10 / 7	*	120	199 028 122	199 028 152	1.100	
32	25	1	10 / 7	*	238	199 028 123	199 028 153	1.470	
40	32	1 ¼	10 / 7	*	341	199 028 124	199 028 154	2.170	
50	40	1 ½	10 / 7	*	460	199 028 125	199 028 155	3.050	
63	50	2	10 / 7	*	685	199 028 126	199 028 156	4.600	

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
20	68	⅞	95	6	130	60	25	99	59	24	23	44	100	155
25	96	⅞	105	6	150	60	25	130	71	25	23	44	100	155
32	96	⅞	115	6	160	60	25	143	85	25	23	44	100	155
40	120	⅞	140	8	180	60	45	170	97	26	36	64	100	160
50	150	¼	150	8	200	60	45	203	108	36	36	64	100	170
63	150	¼	165	8	230	60	45	220	126	36	36	64	100	170

d [mm]	H7 [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	44	76	14	12	8
25	56	88	18	12	10
32	56	88	21	12	12
40	68	100	26	15	14
50	85	117	33	15	18
63	85	117	39	15	22





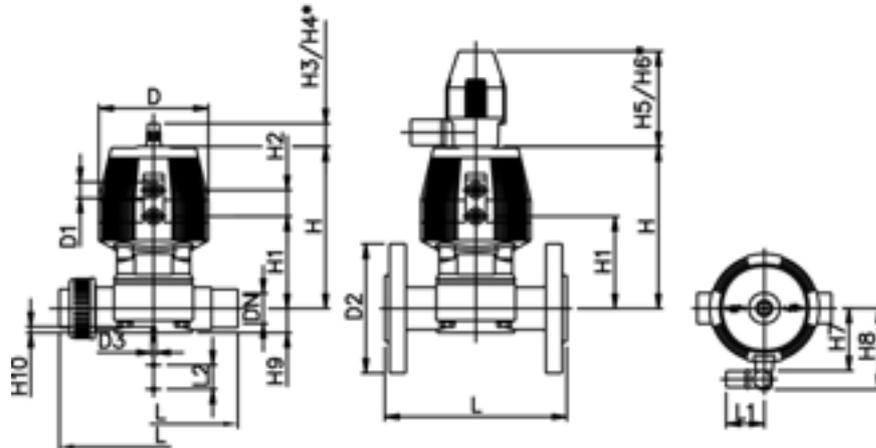
## Diaphragm valve type DIASTAR PVC-U Series 025 FO (Fail safe to open) Unions with solvent cement sockets metric

- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	<b>199 025 071</b>	<b>199 025 101</b>	0.464
25	20	10	120	<b>199 025 072</b>	<b>199 025 102</b>	0.790
32	25	10	238	<b>199 025 073</b>	<b>199 025 103</b>	1.180
40	32	10	341	<b>199 025 074</b>	<b>199 025 104</b>	1.450
50	40	10	460	<b>199 025 075</b>	<b>199 025 105</b>	2.190
63	50	10	685	<b>199 025 076</b>	<b>199 025 106</b>	3.040

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	128	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	152	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	166	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	192	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	222	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	266	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





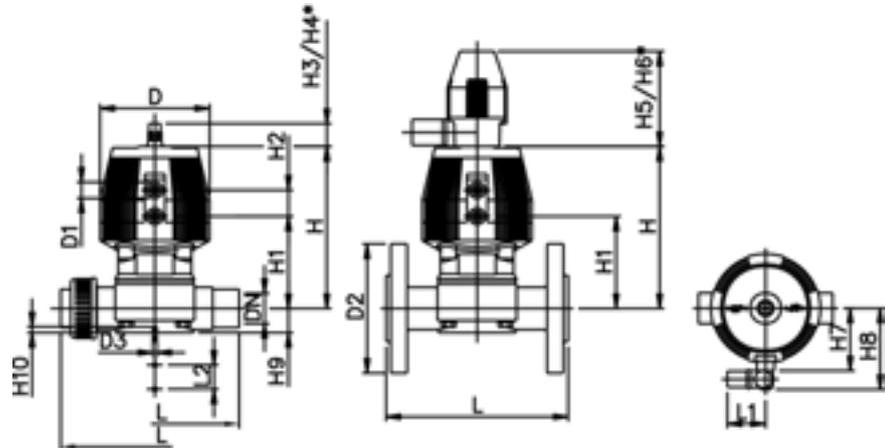
## Diaphragm valve type DIASTAR PVC-U Series 025 FO (Fail safe to open) With solvent cement spigots metric

- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	<b>199 025 011</b>	<b>199 025 041</b>	0.600
25	20	10	120	<b>199 025 012</b>	<b>199 025 042</b>	0.800
32	25	10	238	<b>199 025 013</b>	<b>199 025 043</b>	1.400
40	32	10	341	<b>199 025 014</b>	<b>199 025 044</b>	2.900
50	40	10	460	<b>199 025 015</b>	<b>199 025 045</b>	4.500
63	50	10	685	<b>199 025 016</b>	<b>199 025 046</b>	5.000

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	124	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	144	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	154	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	174	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	194	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	224	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





## Diaphragm valve type DIASTAR PVC-U Series 025 FO (Fail safe to open) With backing flanges PVC-U metric

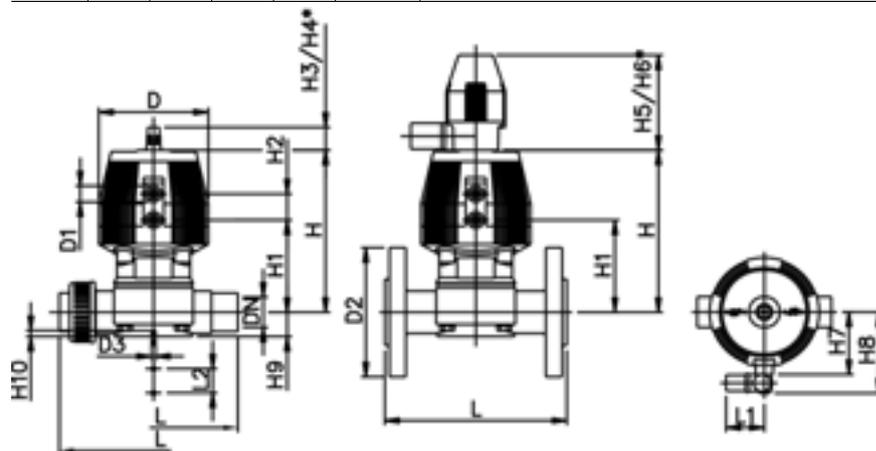
### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	½	10	72	<b>199 025 131</b>	<b>199 025 161</b>	0.597
25	20	¾	10	120	<b>199 025 132</b>	<b>199 025 162</b>	0.890
32	25	1	10	238	<b>199 025 133</b>	<b>199 025 163</b>	1.262
40	32	1 ¼	10	341	<b>199 025 134</b>	<b>199 025 164</b>	1.750
50	40	1 ½	10	460	<b>199 025 135</b>	<b>199 025 165</b>	2.210
63	50	2	10	685	<b>199 025 136</b>	<b>199 025 166</b>	3.760

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
20	68	⅞	95	6	130	60	25	99	59	24	23	44	100	155
25	96	⅞	105	6	150	60	25	130	71	25	23	44	100	155
32	96	⅞	115	6	160	60	25	143	85	25	23	44	100	155
40	120	⅞	140	8	180	60	45	170	97	26	36	64	100	160
50	150	¼	150	8	200	60	45	203	108	36	36	64	100	170
63	150	¼	165	8	230	60	45	220	126	36	36	64	100	170

d [mm]	H7 [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	44	76	14	12	8
25	56	88	18	12	10
32	56	88	21	12	12
40	68	100	26	15	14
50	85	117	33	15	18
63	85	117	39	15	22





## 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**

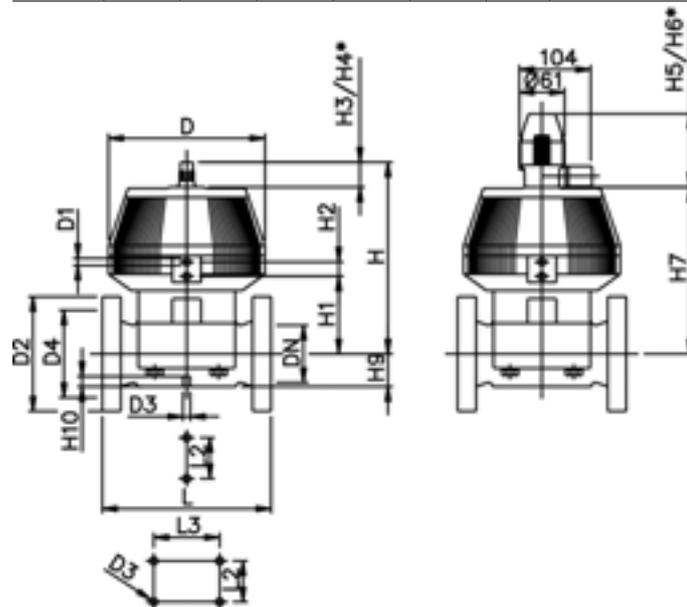
\* with backing flanges PVC-U metric

\*\* 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 ½	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>	17.400
110	100	4	8	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]
*75	280	¼	185	8	145	290	70		344	148	24	46
**90	280	¼	200	12	160	310	120		348	150	24	46
110	335	¼	225	12	180	350	120		395	176	24	46
**160	335	¼	285	12	240	480	100	200	455	237	24	46

d [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
*75	100	129	195	298	46	15
**90	100	129	195	302	57	15
110	100	129	195	349	69	20
**160	100	129	195	409	108	20





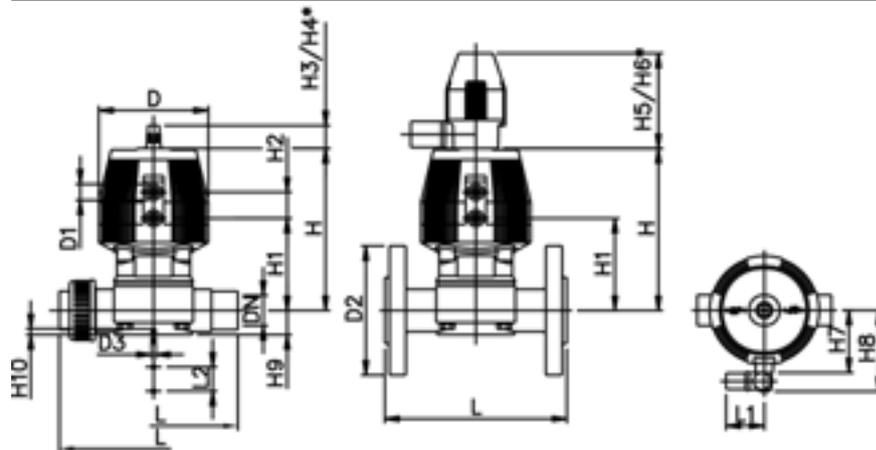
## Diaphragm valve type DIASTAR PVC-U Series 025 DA (Double acting) Unions with solvent cement sockets metric

- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	<b>199 025 081</b>	<b>199 025 111</b>	0.464
25	20	10	120	<b>199 025 082</b>	<b>199 025 112</b>	0.790
32	25	10	238	<b>199 025 083</b>	<b>199 025 113</b>	1.180
40	32	10	341	<b>199 025 084</b>	<b>199 025 114</b>	1.450
50	40	10	460	<b>199 025 085</b>	<b>199 025 115</b>	2.190
63	50	10	685	<b>199 025 086</b>	<b>199 025 116</b>	3.040

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	128	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	152	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	166	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	192	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	222	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	266	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





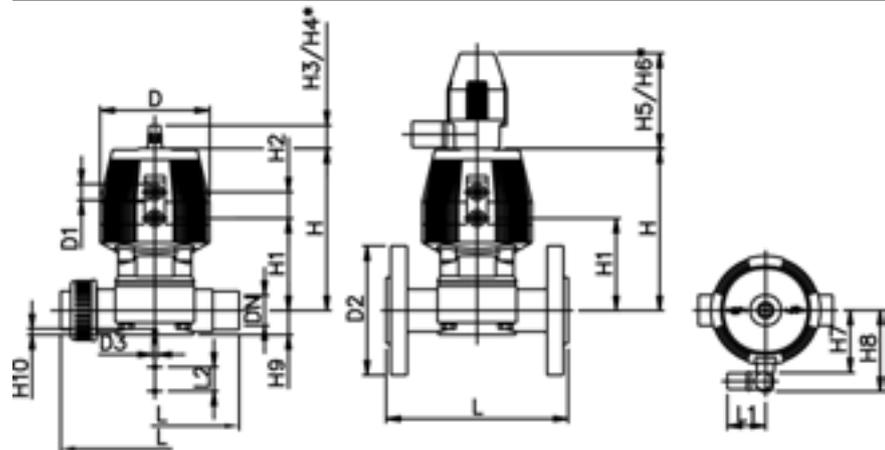
## Diaphragm valve type DIASTAR PVC-U Series 025 DA (Double acting) With solvent cement spigots metric

- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	72	<b>199 025 021</b>	<b>199 025 051</b>	0.404
25	20	10	120	<b>199 025 022</b>	<b>199 025 052</b>	0.690
32	25	10	238	<b>199 025 023</b>	<b>199 025 053</b>	0.980
40	32	10	341	<b>199 025 024</b>	<b>199 025 054</b>	1.230
50	40	10	460	<b>199 025 025</b>	<b>199 025 055</b>	2.210
63	50	10	685	<b>199 025 026</b>	<b>199 025 056</b>	4.360

d [mm]	D [mm]	D1_G [inch]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]
20	68	1/8	6	124	60	25	99	59	24	23	44	100	155	44
25	96	1/8	6	144	60	25	130	71	25	23	44	100	155	56
32	96	1/8	6	154	60	25	143	85	25	23	44	100	155	56
40	120	1/8	8	174	60	45	170	97	26	36	64	100	160	68
50	150	1/4	8	194	60	45	203	108	36	36	64	100	170	85
63	150	1/4	8	224	60	45	220	126	36	36	64	100	170	85

d [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	76	14	12	8
25	88	18	12	10
32	88	21	12	12
40	100	26	15	14
50	117	33	15	18
63	117	39	15	22





## Diaphragm valve type DIASTAR PVC-U Series 025 DA (Double acting) With backing flanges PVC-U metric

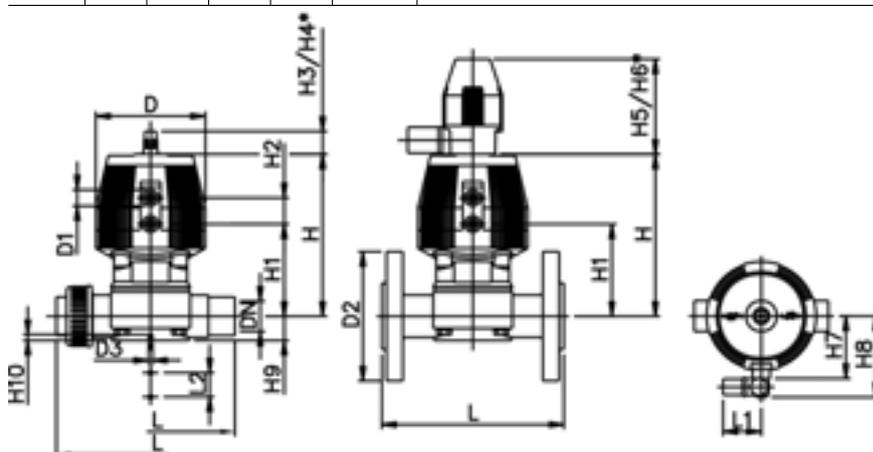
### Model:

- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **both sides**

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	½	10	72	<b>199 025 141</b>	<b>199 025 171</b>	0.624
25	20	¾	10	120	<b>199 025 142</b>	<b>199 025 172</b>	0.890
32	25	1	10	238	<b>199 025 143</b>	<b>199 025 173</b>	1.260
40	32	1 ¼	10	341	<b>199 025 144</b>	<b>199 025 174</b>	1.750
50	40	1 ½	10	460	<b>199 025 145</b>	<b>199 025 175</b>	2.210
63	50	2	10	685	<b>199 025 146</b>	<b>199 025 176</b>	3.760

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]
20	68	⅞	95	6	130	60	25	99	59	24	23	44	100	155
25	96	⅞	105	6	150	60	25	130	71	25	23	44	100	155
32	96	⅞	115	6	160	60	25	143	85	25	23	44	100	155
40	120	⅞	140	8	180	60	45	170	97	26	36	64	100	160
50	150	¾	150	8	200	60	45	203	108	36	36	64	100	170
63	150	¾	165	8	230	60	45	220	126	36	36	64	100	170

d [mm]	H7 [mm]	H8 [mm]	H9 [mm]	H10 [mm]	Lift = Hx [mm]
20	44	76	14	12	8
25	56	88	18	12	10
32	56	88	21	12	12
40	68	100	26	15	14
50	85	117	33	15	18
63	85	117	39	15	22





## 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**

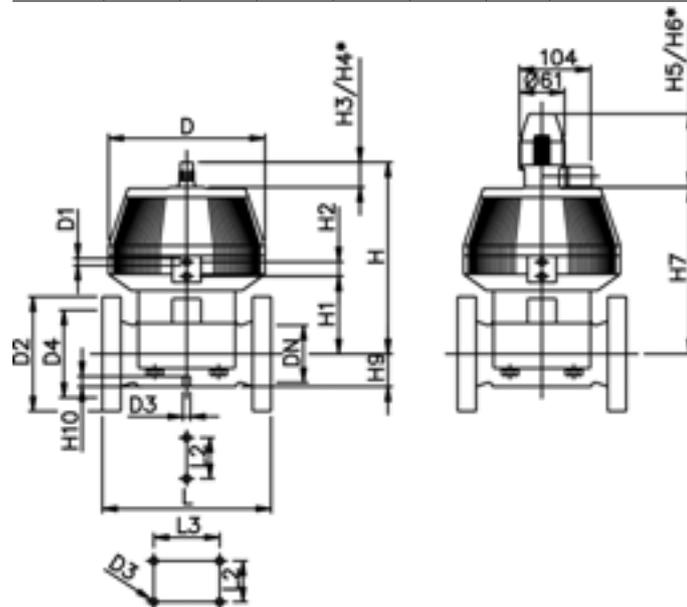
\* with backing flanges PVC-U metric

\*\* 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 ½	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	8	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]
*75	280	¼	185	8	145	290	70		344	148	24	46
**90	280	¼	200	12	160	310	120		348	150	24	46
110	335	¼	225	12	180	350	120		395	176	24	46
**160	335	¼	285	12	240	480	100	200	455	237	24	46

d [mm]	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
*75	100	129	195	298	46	15
**90	100	129	195	302	57	15
110	100	129	195	349	69	20
**160	100	129	195	409	108	20



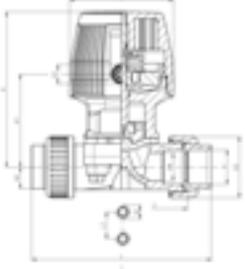


## Diaphragm valve DIASTAR Eco PVC-U FC (Fail safe to close) Unions with solvent cement socket metric



Model:

- Working pressure 6 bar one side



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	72	<b>199 024 031</b>	0.580
25	20	6	120	<b>199 024 032</b>	1.127
32	25	6	238	<b>199 024 033</b>	1.381
40	32	6	341	<b>199 024 034</b>	1.873
50	40	6	460	<b>199 024 035</b>	2.687
63	50	6	685	<b>199 024 036</b>	3.465

d [mm]	D [mm]	D1_G [inch]	D2 (M)	D3 [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	Lift = Hx [mm]	z [mm]
20	68	1/8	M6	43	128	25	99	59	14	44	8	96
25	96	1/8	M6	51	152	25	130	71	18	56	10	114
32	96	1/8	M6	58	166	25	143	85	21	56	12	122
40	120	1/8	M8	72	192	45	170	97	26	68	14	140
50	120	1/8	M8	83	222	45	182	109	33	68	16	160
63	120	1/8	M8	100	266	45	199	126	39	68	16	190

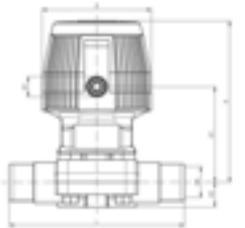


## Diaphragm valve DIASTAR Eco PVC-U FC (Fail safe to close) With solvent cement spigots metric



Model:

- Working pressure 6 bar one side



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	72	<b>199 024 001</b>	0.513
25	20	6	120	<b>199 024 002</b>	1.035
32	25	6	238	<b>199 024 003</b>	1.271
40	32	6	341	<b>199 024 004</b>	1.900
50	40	6	460	<b>199 024 005</b>	2.469
63	50	6	685	<b>199 024 006</b>	3.102

d [mm]	D [mm]	D1_G [inch]	D2 (M)	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	Lift = Hx [mm]
20	68	1/8	M6	124	25	99	59	14	44	8
25	96	1/8	M6	144	25	130	71	18	56	10
32	96	1/8	M6	154	25	143	85	21	56	12
40	120	1/8	M8	174	45	170	97	26	68	14
50	120	1/8	M8	194	45	182	109	33	68	16
63	120	1/8	M8	224	45	199	126	39	68	16

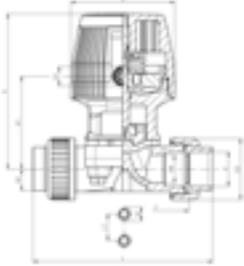


## Diaphragm valve DIASTAR Eco PVC-U FC (Fail safe to close) Unions with threaded sockets Rp



**Model:**

- Working pressure 6 bar **one side**



Rp [inch]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	72	<b>199 024 061</b>	0.582
3/4	20	6	120	<b>199 024 062</b>	1.123
1	25	6	238	<b>199 024 063</b>	1.383
1 1/4	32	6	341	<b>199 024 064</b>	1.873
1 1/2	40	6	460	<b>199 024 065</b>	2.699
2	50	6	685	<b>199 024 066</b>	3.541

Rp [inch]	D [mm]	D1_G [inch]	D2 (M)	D3 [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	Lift = Hx [mm]	z [mm]
1/2	68	1/8	M6	43	128	25	99	59	14	44	8	102
3/4	96	1/8	M6	51	152	25	130	71	18	56	10	122
1	96	1/8	M6	58	166	25	143	85	21	56	12	132
1 1/4	120	1/8	M8	72	192	45	170	97	26	68	14	154
1 1/2	120	1/8	M8	83	222	45	182	109	33	68	16	184
2	120	1/8	M8	100	266	45	199	126	39	68	16	220

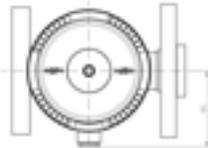
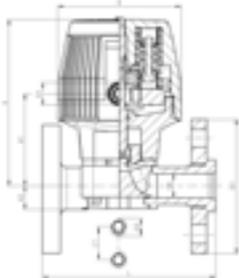


## Diaphragm valve DIASTAR Eco PVC-U FC (Fail safe to close) With backing flanges PVC-U metric



**Model:**

- Working pressure 6 bar **one side**
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	1/2	6	72	<b>199 024 091</b>	0.553
25	20	3/4	6	120	<b>199 024 092</b>	1.130
32	25	1	6	238	<b>199 024 093</b>	1.414
40	32	1 1/4	6	341	<b>199 024 094</b>	2.125
50	40	1 1/2	6	460	<b>199 024 095</b>	3.063
63	50	2	6	685	<b>199 024 096</b>	3.870

d [mm]	D [mm]	D1_G [inch]	D2 (M)	D3 [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	Lift = Hx [mm]
20	68	1/8	M6	95	130	25	99	59	14	44	8
25	96	1/8	M6	105	150	25	130	71	18	56	10
32	96	1/8	M6	115	160	25	143	85	21	56	12
40	120	1/8	M8	140	180	45	170	97	26	68	14
50	120	1/8	M8	150	200	45	182	109	33	68	16
63	120	1/8	M8	165	230	45	199	126	39	68	16

# Butterfly valves electric

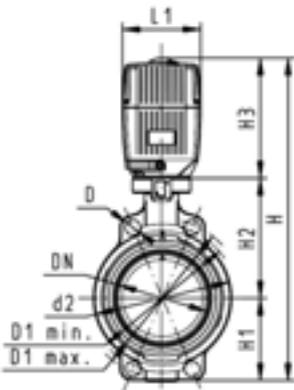
## Butterfly valve type 140 PVC-U 100-230V Without manual override



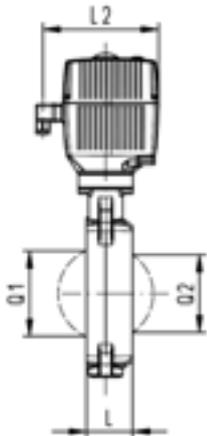
### Model:

- 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
- 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
- The dimension DN300 on request

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>199 140 042</b>	<b>199 140 062</b>	4.182
75	65	2 ½	10	2200	<b>199 140 043</b>	<b>199 140 063</b>	4.286
90	80	3	10	3000	<b>199 140 044</b>	<b>199 140 064</b>	4.453
110	100	4	10	6500	<b>199 140 045</b>	<b>199 140 065</b>	5.073
140	125	5	10	11500	<b>199 140 046</b>	<b>199 140 066</b>	5.644
160	150	6	10	16600	<b>199 140 047</b>	<b>199 140 067</b>	6.654
225	200	8	10	39600	<b>199 140 048</b>	<b>199 140 068</b>	12.634
280	250	10	6	55200	<b>199 140 049</b>	<b>199 140 069</b>	14.481



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	256



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

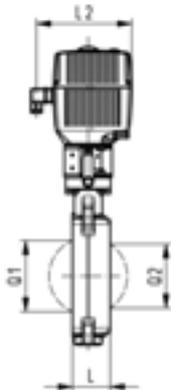
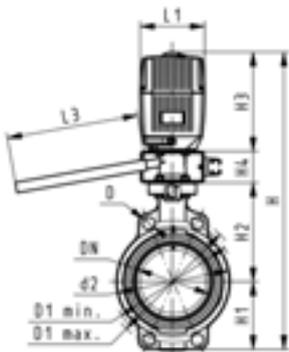


## Butterfly valve type 140 PVC-U 100-230V With manual override



### 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
- 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>199 140 002</b>	<b>199 140 022</b>	5.682
75	65	2 ½	10	2200	<b>199 140 003</b>	<b>199 140 023</b>	5.786
90	80	3	10	3000	<b>199 140 004</b>	<b>199 140 024</b>	5.953
110	100	4	10	6500	<b>199 140 005</b>	<b>199 140 025</b>	6.573
140	125	5	10	11500	<b>199 140 006</b>	<b>199 140 026</b>	7.144
160	150	6	10	16600	<b>199 140 007</b>	<b>199 140 027</b>	8.154
225	200	8	10	39600	<b>199 140 008</b>	<b>199 140 028</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



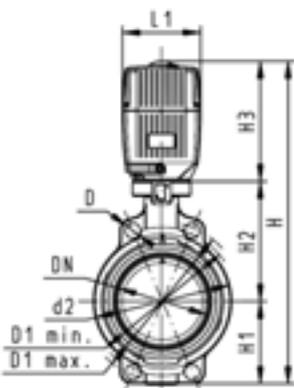
## Butterfly valve type 140 PVC-U 24V Without manual override



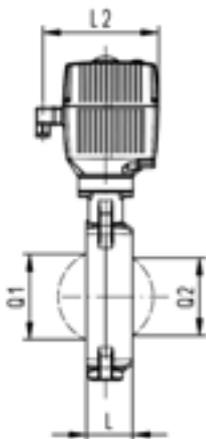
### Model:

- 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
- The dimension DN300 on request

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



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	256



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

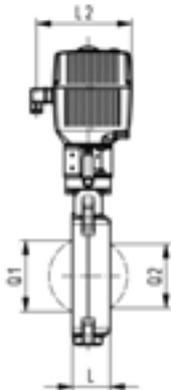
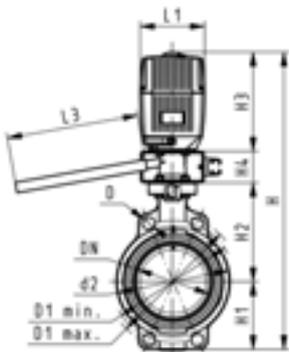


## Butterfly valve type 140 PVC-U 24V With manual override



### 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



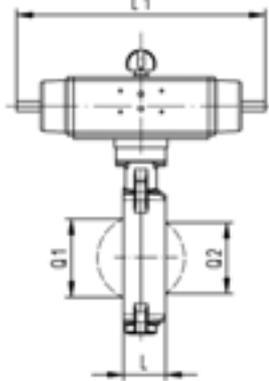
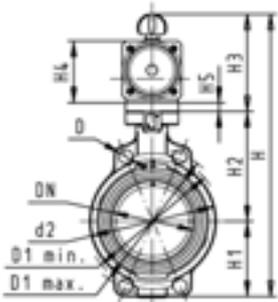
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 140 082</b>	<b>199 140 102</b>	5.682
75	65	2 ½	10	2200	<b>199 140 083</b>	<b>199 140 103</b>	5.786
90	80	3	10	3000	<b>199 140 084</b>	<b>199 140 104</b>	5.953
110	100	4	10	6500	<b>199 140 085</b>	<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

# Butterfly valves pneumatic

## 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 ( $\Delta p=1$ 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>	3.326
90	80	3	10	3000	<b>199 240 004</b>	<b>199 240 024</b>	3.493
110	100	4	10	6500	<b>199 240 005</b>	<b>199 240 025</b>	5.311
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>	10.215
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>	0.001
315	300	12	10	80000	<b>199 240 010</b>	<b>199 240 030</b>	0.001

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

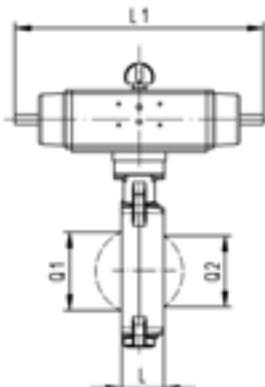
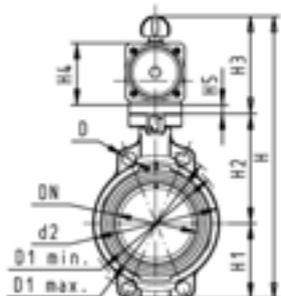


# Butterfly valve type 240 PVC-U FO (Fail safe to open) Without manual override



### 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 ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	<b>199 240 042</b>	<b>199 240 062</b>	3.222
75	65	2 ½	10	2200	<b>199 240 043</b>	<b>199 240 063</b>	3.326
90	80	3	10	3000	<b>199 240 044</b>	<b>199 240 064</b>	3.493
110	100	4	10	6500	<b>199 240 045</b>	<b>199 240 065</b>	5.311
140	125	5	10	11500	<b>199 240 046</b>	<b>199 240 066</b>	6.884
160	150	6	10	16600	<b>199 240 047</b>	<b>199 240 067</b>	10.215
225	200	8	10	39600	<b>199 240 048</b>	<b>199 240 068</b>	14.134
280	250	10	10	55200	<b>199 240 049</b>	<b>199 240 069</b>	0.001
315	300	12	10	80000	<b>199 240 050</b>	<b>199 240 070</b>	0.001

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-65 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



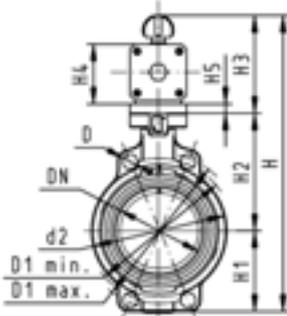
## Butterfly valve type 240 PVC-U DA (Double acting) Without manual override



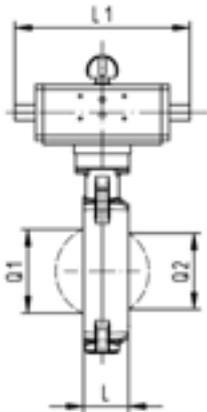
### Model:

- 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
- 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	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>	4.134
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>	0.001
315	300	12	10	80000	<b>199 240 090</b>	<b>199 240 110</b>	0.001



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	748	205	264	161	118		113	350
315	PA-70 DA	25	400.0	432.0	379	816	228	285	173	130		113	381

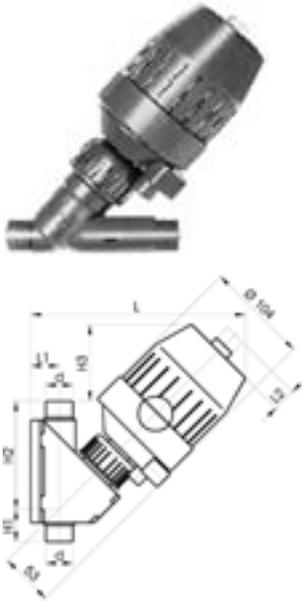


d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	55	40	
75	55	54	35
90	60	67	50
110	65	88	74
140	72	113	97
160	80	139	123
225	90	178	169
280	112	210	207
315	125	256	253

# Angle seat valves pneumatic

## Angle seat valve type 211 PVC-U FC (Fail safe to close)

With solvent cement spigots metric

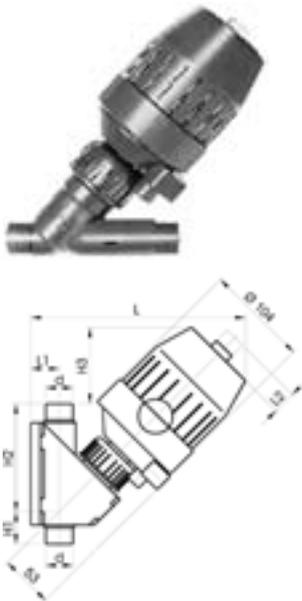


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	6	41	<b>199 211 305</b>	<b>199 211 355</b>	1.000
20	15	6	94	<b>199 211 306</b>	<b>199 211 356</b>	1.200
25	20	6	175	<b>199 211 307</b>	<b>199 211 357</b>	1.400
32	25	6	296	<b>199 211 308</b>	<b>199 211 358</b>	1.600
40	32	6	416	<b>199 211 309</b>	<b>199 211 359</b>	2.100
50	40	3	512	<b>199 211 310</b>	<b>199 211 360</b>	2.900
63	50	2	620	<b>199 211 311</b>	<b>199 211 361</b>	4.900

d [mm]	L [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
16	198	22	14	24	90	74
20	207	25	17	28	96	73
25	221	30	22	37	107	71
32	240	35	22	37	117	72
40	270	42	22	44	130	80
50			22	48	146	82
63			22	60	164	82

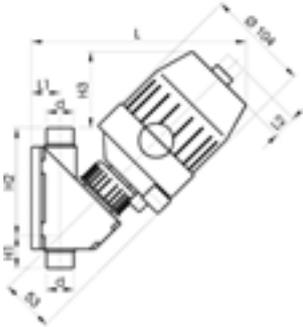
## Angle seat valve type 211 PVC-U FO (Fail safe to open)

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	<b>199 211 705</b>	<b>199 211 755</b>	1.000
20	15	10	94	<b>199 211 706</b>	<b>199 211 756</b>	1.200
25	20	10	175	<b>199 211 707</b>	<b>199 211 757</b>	1.400
32	25	10	296	<b>199 211 708</b>	<b>199 211 758</b>	1.600
40	32	10	416	<b>199 211 709</b>	<b>199 211 759</b>	2.100
50	40	6	512	<b>199 211 710</b>	<b>199 211 760</b>	2.900
63	50	4	620	<b>199 211 711</b>	<b>199 211 761</b>	4.900

d [mm]	L [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
16	198	22	14	24	90	74
20	207	25	17	28	96	73
25	221	30	22	37	107	71
32	240	35	22	37	117	72
40	270	42	22	44	130	80
50			22	48	146	82
63			22	60	164	82



**Angle seat valve type 211 PVC-U  
DA (Double acting)  
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	<b>199 211 105</b>	<b>199 211 155</b>	1.000
20	15	10	94	<b>199 211 106</b>	<b>199 211 156</b>	1.200
25	20	10	175	<b>199 211 107</b>	<b>199 211 157</b>	1.400
32	25	10	296	<b>199 211 108</b>	<b>199 211 158</b>	1.600
40	32	10	416	<b>199 211 109</b>	<b>199 211 159</b>	2.100
50	40	10	512	<b>199 211 110</b>	<b>199 211 160</b>	2.900
63	50	6	620	<b>199 211 111</b>	<b>199 211 161</b>	4.900

d [mm]	L [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
16	198	22	14	24	90	74
20	207	25	17	28	96	73
25	221	30	22	37	107	71
32	240	35	22	37	117	72
40	270	42	22	44	130	80
50			22	48	146	82
63			22	60	164	82

# Process control valves

## Pressure reducing valve type V 182 PVC-U With solvent cement spigots metric



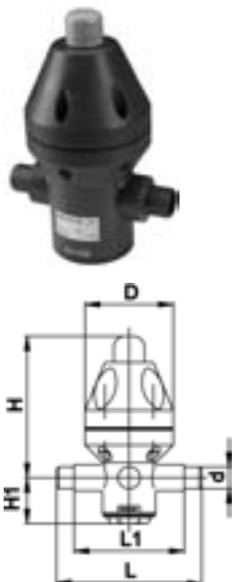
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 600	199 041 611	0.680	70	134	130	100
20	15	0.5 - 10	199 041 601	199 041 612	0.680	70	134	130	100
25	20	0.5 - 10	199 041 602	199 041 613	1.350	100	174	180	134
32	25	0.5 - 10	199 041 603	199 041 614	1.350	100	174	180	134
40	32	0.5 - 10	199 041 604	199 041 615	2.950	130	224	230	175
50	40	0.5 - 10	199 041 605	199 041 616	2.950	130	224	230	175

## Pressure reducing valve type V82 PVC-U With solvent cement spigots metric

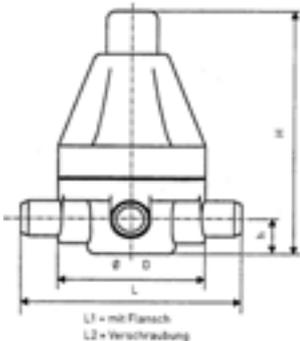


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
63	50	0.5 - 10	199 041 018	199 041 028	5.180	150	244	285	210
75	65	0.5 - 6	199 041 019	199 041 029	10.430	200	300	350	250
90	80	0.5 - 6	199 041 020	199 041 030	19.630	250	360	425	305
110	100	0.5 - 4	199 041 021	199 041 031	31.640	300	420	495	345

## Pressure reducing valve type V782 PVC-U With solvent cement spigots metric

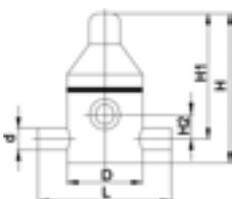


d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 060	199 041 066	0.620	83	134	102	138	48
20	15	0.5 - 10	199 041 061	199 041 067	0.620	83	134	102	138	48
25	20	0.5 - 10	199 041 062	199 041 068	1.700	113	154	110	205	65
32	25	0.5 - 10	199 041 063	199 041 069	1.700	113	154	110	205	65
40	32	0.5 - 10	199 041 064	199 041 070	4.840	165	224	162	248	95
50	40	0.5 - 10	199 041 065	199 041 071	4.840	165	224	162	248	95



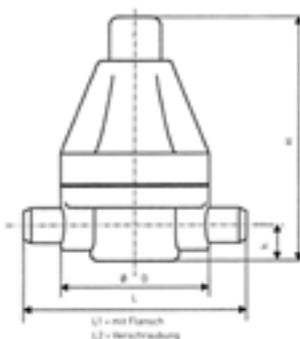
## Pressure relief valve type V185 PVC-U With solvent cement spigots metric

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 360</b>	<b>199 041 330</b>	0.400	83	134	137	20
20	15	0.5 - 10	<b>199 041 361</b>	<b>199 041 331</b>	0.400	83	134	137	20
25	20	0.5 - 10	<b>199 041 362</b>	<b>199 041 332</b>	0.400	83	134	137	20
32	25	0.5 - 10	<b>199 041 363</b>	<b>199 041 333</b>	1.200	112	174	199	27
40	32	0.5 - 10	<b>199 041 364</b>	<b>199 041 334</b>	1.200	112	174	199	43
50	40	0.5 - 10	<b>199 041 365</b>	<b>199 041 335</b>	6.400	165	224	290	43
63	50	0.5 - 10	<b>199 041 366</b>	<b>199 041 336</b>	6.500	165	244	290	43



## Pressure relief valve type V85 PVC-U With solvent cement spigots metric

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]
75	65	1.0 - 6	<b>199 041 919</b>	<b>199 041 984</b>	8.200	180	284	295	250	70
90	80	1.0 - 6	<b>199 041 940</b>	<b>199 041 985</b>	12.800	200	300	400	340	95
110	100	1.0 - 4	<b>199 041 914</b>	<b>199 041 986</b>	22.700	250	380	475	405	110



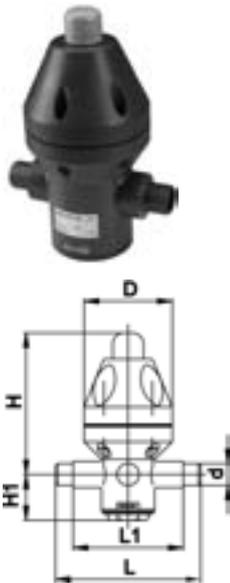
## Pressure retaining valve type V186 PVC-U With solvent cement spigots metric

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	<b>199 041 379</b>	<b>199 041 309</b>	0.400	83	134	137	20
20	15	0.5 - 10	<b>199 041 380</b>	<b>199 041 310</b>	0.400	83	134	137	20
25	20	0.5 - 10	<b>199 041 381</b>	<b>199 041 311</b>	0.400	83	134	137	20
32	25	0.5 - 10	<b>199 041 382</b>	<b>199 041 312</b>	1.200	112	174	199	27
40	32	0.5 - 10	<b>199 041 383</b>	<b>199 041 313</b>	1.200	112	174	199	43
50	40	0.5 - 10	<b>199 041 384</b>	<b>199 041 314</b>	6.400	165	224	290	43
63	50	0.5 - 10	<b>199 041 385</b>	<b>199 041 315</b>	6.500	165	244	290	43



## Pressure retaining valve type V86 PVC-U With solvent cement spigots metric

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	0.2 - 4	199 041 922	199 041 989	7.700	180	284	275	230
75	65	1.0 - 6	199 041 950	199 041 990	7.700	180	284	275	230
90	80	0.2 - 4	199 041 987	199 041 944	17.700	250	360	410	320
90	80	1.0 - 6	199 041 988	199 041 991	17.700	250	360	410	320
110	100	1.0 - 4	199 041 953	199 041 945	19.600	250	380	485	415



## Pressure retaining valve type V786 PVC-U With solvent cement spigots metric

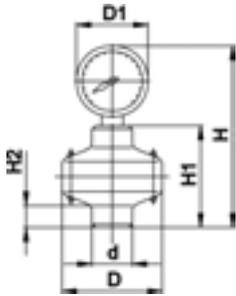
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 090	199 041 096	0.620	83	134	102	138	38
20	15	0.5 - 10	199 041 091	199 041 097	0.620	83	134	102	138	38
25	20	0.5 - 10	199 041 092	199 041 098	1.700	112	154	110	205	55
32	25	0.5 - 10	199 041 093	199 041 099	1.700	112	154	110	205	55
40	32	0.5 - 4	199 041 094	199 041 100	4.840	165	224	162	248	85
50	40	0.5 - 4	199 041 095	199 041 101	4.840	165	224	162	248	85



## Gauge guard type Z700 PVC-U With manometer 0-10 bar

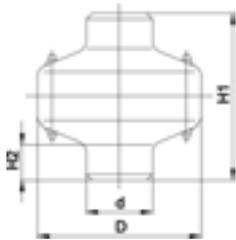
d [mm]	PTFE Code	kg	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 000	0.300	¼	72	63	129	71	15
32	199 041 001	0.600	½	100	100	210	90	22

## Gauge guard type Z700 PVC-U With manometer 0-6 bar



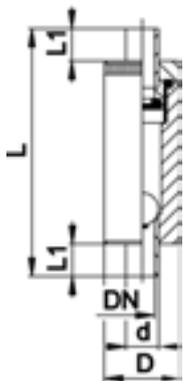
d [mm]	PTFE Code	kg	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	<b>199 041 292</b>	0.300	¼	72	63	129	71	15
32	<b>199 041 293</b>	0.600	½	100	100	210	90	22

## Gauge guard type Z701 PVC-U Without manometer



d [mm]	PTFE Code	kg	G_R	D [mm]	H1 [mm]	H2 [mm]
25	<b>199 041 006</b>	0.140	¼	72	71	15
32	<b>199 041 007</b>	0.250	½	100	90	22

## Ventilating and bleed valve type V91 PVC-U With solvent cement spigots metric



d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 238</b>	0.100	35	114	14
20	15	10	<b>199 041 239</b>	0.140	40	124	16
25	20	10	<b>199 041 240</b>	0.190	45	144	19
32	25	10	<b>199 041 241</b>	0.280	55	154	22
40	32	10	<b>199 041 242</b>	0.550	70	174	26
50	40	10	<b>199 041 243</b>	0.710	80	194	31
63	50	10	<b>199 041 244</b>	1.280	95	224	38
75	65	10	<b>199 041 245</b>	1.900	115	284	44
90	80	10	<b>199 041 246</b>	3.230	150	300	51

## Ventilating valve type V95 PVC-U With solvent cement spigots metric



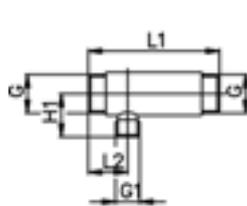
d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	L1 [mm]
16	10	10	<b>199 041 265</b>	0.100	35	114	14
20	15	10	<b>199 041 266</b>	0.140	40	124	16
25	20	10	<b>199 041 267</b>	0.190	45	144	19
32	25	10	<b>199 041 268</b>	0.280	55	154	22
40	32	10	<b>199 041 269</b>	0.550	70	174	26
50	40	10	<b>199 041 270</b>	0.710	80	194	31
63	50	10	<b>199 041 271</b>	1.280	95	224	38
75	65	10	<b>199 041 272</b>	1.900	115	284	44
90	80	10	<b>199 041 273</b>	3.230	150	300	51

## Water jet suction pump type P20 PVC-U

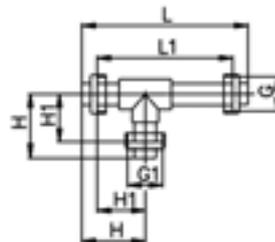
- DN 10-20: BSP parallel female thread
- DN 25-50: Solvent cement socket metric
- DN 65-80: Solvent cement spigot metric



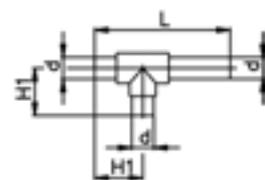
d [mm]	DN [mm]	PN	EPDM Code	kg	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	10	10	<b>199 041 120</b>	0.140	R 3/4	R 3/4		110	40		35
20	15	10	<b>199 041 121</b>	0.220	R 1	R 3/4		125	40		35
25	20	10	<b>199 041 122</b>	0.400	R 1 1/4	R 3/4		145	45		45
32	25	10	<b>199 041 123</b>	0.480	R 1 1/2	R 1 1/2	245	195		96	71
40	32	10	<b>199 041 124</b>	0.870	R 2	R 2	297	239		116	87
50	40	10	<b>199 041 125</b>	1.380	R 2 1/4	R 2 1/4	369	301		139	105
63	50	10	<b>199 041 126</b>	2.450	R 2 3/4	R 2 3/4	433	351		169	128
75	65	10	<b>199 041 127</b>	2.350			388				115
90	80	10	<b>199 041 128</b>	4.090			465				149



DN 10 - 20

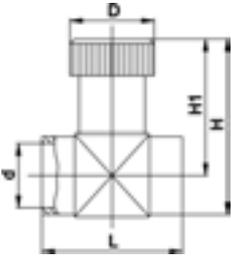


DN 25 - 50



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]
16	10	10	<b>199 041 203</b>	<b>199 041 210</b>	0.048	29	47	57	45
20	15	10	<b>199 041 204</b>	<b>199 041 211</b>	0.120	35	55	66	51
25	20	10	<b>199 041 205</b>	<b>199 041 212</b>	0.124	40	66	80	63
32	25	10	<b>199 041 206</b>	<b>199 041 213</b>	0.219	47	80	96	75
40	32	10	<b>199 041 207</b>	<b>199 041 214</b>	0.150	56	100	111	86
50	40	10	<b>199 041 208</b>	<b>199 041 215</b>	0.662	70	120	133	101
63	50	10	<b>199 041 209</b>	<b>199 041 216</b>	1.240	88	146	158	118

# Variable area flow meters

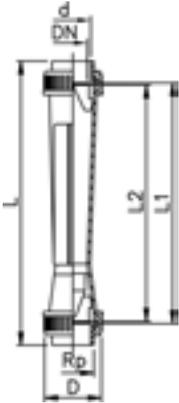
## Standard version

Float in PVDF without magnet

With solvent cement sockets PVC-U metric

Model:

- Union nuts and valve ends in other materials on request



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-rings in EPDM Code	kg
SK 10	32	25	50 - 500	<b>198 801 900</b>	<b>198 801 901</b>	<b>198 803 290</b>	0.410
SK 11	32	25	100 - 1000	<b>198 801 902</b>	<b>198 801 903</b>	<b>198 803 291</b>	0.410
SK 12	32	25	150 - 1500	<b>198 803 734</b>	<b>198 803 735</b>	<b>198 803 736</b>	0.410
SK 18	50	40	200 - 2000	<b>198 803 738</b>	<b>198 803 739</b>	<b>198 803 740</b>	1.020
SK 19	50	40	250 - 2500	<b>198 803 741</b>	<b>198 803 742</b>	<b>198 803 743</b>	1.020
SK 20	50	40	300 - 3000	<b>198 801 904</b>	<b>198 801 905</b>	<b>198 803 292</b>	1.020
SK 21	50	40	600 - 6000	<b>198 801 906</b>	<b>198 801 907</b>	<b>198 803 293</b>	1.020
SK 29	63	50	600 - 6000	<b>198 803 744</b>	<b>198 803 745</b>	<b>198 803 746</b>	1.380
SK 30	63	50	1000 - 10000	<b>198 801 908</b>	<b>198 801 909</b>	<b>198 803 294</b>	1.380
SK 31	63	50	1500 - 15000	<b>198 801 910</b>	<b>198 801 911</b>	<b>198 803 295</b>	1.380
SK 40	75	65	2000 - 20000	<b>198 801 330</b>	<b>198 801 331</b>	<b>198 803 296</b>	2.150
SK 41	75	65	3000 - 30000	<b>198 801 332</b>	<b>198 801 333</b>	<b>198 803 297</b>	2.150

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 10	60	385	341	335	1
SK 11	60	385	341	335	1
SK 12	60	385	341	335	1
SK 18	83	403	341	335	1 ½
SK 19	83	403	341	335	1 ½
SK 20	83	403	341	335	1 ½
SK 21	83	403	341	335	1 ½
SK 29	103	417	341	335	2
SK 30	103	417	341	335	2
SK 31	103	417	341	335	2
SK 40	122	457	342	335	2 ½
SK 41	122	457	342	335	2 ½

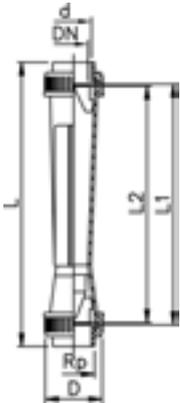


## Standard version Float in PVDF with magnet With solvent cement sockets PVC-U metric

### Model:

- Union nuts and valve ends in other materials on request
- Suitable limit switches see accessories for variable area flow meters

Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polyamid O-rings in EPDM Code	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-Rings in EPDM Code	kg
SK 100	32	25	50 - 500	<b>198 801 912</b>	<b>198 801 913</b>	<b>198 803 300</b>	0.410
SK 110	32	25	100 - 1000	<b>198 801 914</b>	<b>198 801 915</b>	<b>198 803 301</b>	0.410
SK 120	32	25	150 - 1500	<b>198 803 747</b>	<b>198 803 748</b>	<b>198 803 749</b>	0.410
SK 180	50	40	200 - 2000	<b>198 803 750</b>	<b>198 803 751</b>	<b>198 803 752</b>	1.020
SK 190	50	40	250 - 2500	<b>198 803 753</b>	<b>198 803 754</b>	<b>198 803 755</b>	1.020
SK 200	50	40	300 - 3000	<b>198 801 916</b>	<b>198 801 917</b>	<b>198 803 302</b>	1.020
SK 210	50	40	600 - 6000	<b>198 801 918</b>	<b>198 801 919</b>	<b>198 803 303</b>	1.020
SK 290	63	50	600 - 6000	<b>198 803 756</b>	<b>198 803 757</b>	<b>198 803 758</b>	1.380
SK 300	63	50	1000 - 10000	<b>198 801 920</b>	<b>198 801 921</b>	<b>198 803 304</b>	1.380
SK 310	63	50	1500 - 15000	<b>198 801 922</b>	<b>198 801 923</b>	<b>198 803 305</b>	1.380
SK 400	75	65	2000 - 20000	<b>198 801 334</b>	<b>198 801 335</b>	<b>198 803 306</b>	2.150
SK 410	75	65	3000 - 30000	<b>198 801 336</b>	<b>198 801 337</b>	<b>198 803 307</b>	2.150



Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 100	60	385	341	335	1
SK 110	60	385	341	335	1
SK 120	60	385	341	335	1
SK 180	83	403	341	335	1 ½
SK 190	83	403	341	335	1 ½
SK 200	83	403	341	335	1 ½
SK 210	83	403	341	335	1 ½
SK 290	103	417	341	335	2
SK 300	103	417	341	335	2
SK 310	103	417	341	335	2
SK 400	122	457	342	335	2 ½
SK 410	122	457	342	335	2 ½

## Short version Float in PVDF without magnet With solvent cement sockets PVC-U metric

### Model:

- Union nuts and valve ends in other materials on request



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-rings in EPDM Code	kg	
SK 50	16	10	2.5 - 25	<b>198 801 880</b>	<b>198 803 310</b>	0.080	
SK 51	16	10	5 - 50	<b>198 801 881</b>	<b>198 803 311</b>	0.080	
SK 52	16	10	10 - 100	<b>198 801 882</b>	<b>198 803 312</b>	0.080	
SK 60	20	15	8 - 80	<b>198 801 883</b>	<b>198 803 313</b>	0.130	
SK 61	20	15	15 - 150	<b>198 801 884</b>	<b>198 803 314</b>	0.130	
SK 62	20	15	20 - 200	<b>198 801 885</b>	<b>198 803 315</b>	0.130	
SK 70	32	25	15 - 150	<b>198 801 886</b>	<b>198 803 316</b>	0.240	
SK 71	32	25	30 - 300	<b>198 801 887</b>	<b>198 803 317</b>	0.240	
SK 72	32	25	50 - 500	<b>198 801 888</b>	<b>198 803 318</b>	0.240	
SK 73	32	25	100 - 1000	<b>198 801 889</b>	<b>198 803 319</b>	0.240	

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]	
SK 50	35	199	171	165	3/8	
SK 51	35	199	171	165	3/8	
SK 52	35	199	171	165	3/8	
SK 60	43	223	191	185	1/2	
SK 61	43	223	191	185	1/2	
SK 62	43	223	191	185	1/2	
SK 70	60	250	206	200	1	
SK 71	60	250	206	200	1	
SK 72	60	250	206	200	1	
SK 73	60	250	206	200	1	

## Short version Float in PVDF with magnet With solvent cement sockets PVC-U metric

### Model:

- Union nuts and valve ends in other materials on request
- Suitable limit switches see accessories for variable area flow meters



Type	d [mm]	DN [mm]	Scale range [l/h]	Taper tube in Polysulfone O-rings in EPDM Code	Taper tube in PVC-U transp. O-rings in EPDM Code	kg
SK 500	16	10	2.5 - 25	<b>198 801 890</b>	<b>198 803 320</b>	0.080
SK 510	16	10	5 - 50	<b>198 801 891</b>	<b>198 803 321</b>	0.080
SK 520	16	10	10 - 100	<b>198 801 892</b>	<b>198 803 322</b>	0.080
SK 600	20	15	8 - 80	<b>198 801 893</b>	<b>198 803 323</b>	0.130
SK 610	20	15	15 - 150	<b>198 801 894</b>	<b>198 803 324</b>	0.130
SK 620	20	15	20 - 200	<b>198 801 895</b>	<b>198 803 325</b>	0.130
SK 700	32	25	15 - 150	<b>198 801 896</b>	<b>198 803 326</b>	0.240
SK 710	32	25	30 - 300	<b>198 801 897</b>	<b>198 803 327</b>	0.240
SK 720	32	25	50 - 500	<b>198 801 898</b>	<b>198 803 328</b>	0.240
SK 730	32	25	100 - 1000	<b>198 801 899</b>	<b>198 803 329</b>	0.240

Type	D [mm]	L [mm]	L1 [mm]	L2 [mm]	Rp [inch]
SK 500	35	199	171	165	$\frac{3}{8}$
SK 510	35	199	171	165	$\frac{3}{8}$
SK 520	35	199	171	165	$\frac{3}{8}$
SK 600	43	223	191	185	$\frac{1}{2}$
SK 610	43	223	191	185	$\frac{1}{2}$
SK 620	43	223	191	185	$\frac{1}{2}$
SK 700	60	250	206	200	1
SK 710	60	250	206	200	1
SK 720	60	250	206	200	1
SK 730	60	250	206	200	1

## Accessories Limit switch control bistable for standard version



Type	GK 01 Code	kg
SK100-120 / 190-210 / 300-410	<b>198 801 936</b>	0.050
SK 180 / SK 290	<b>198 801 841</b>	0.050



## Accessories

### Limit contact (min/max.)

### For short version

Type	top Code	bottom Code	kg
SK500-730 GK 03 SK500-730 GK 04	<b>198 801 878</b> -	- <b>198 801 879</b>	0.080 0.024



## Accessories

### 4-20 mA sensor

- Kit GK 05:
- 1 x sensor 4-20 mA
- 1 x float PVDF with magnet (monostable)
- Basic unit is standard version (without magnet)

Type	d [mm]	DN [mm]		Code	kg
GK 05	32	25	SK 10 / 11	<b>199 190 334</b>	0.286
GK 05	50	40	SK 20 / 21	<b>199 190 335</b>	0.420
GK 05	63	50	SK 30 / 31	<b>199 190 336</b>	0.610
GK 05	75	65	SK 40	<b>199 190 337</b>	0.610
GK 05	75	65	SK 41	<b>199 190 338</b>	0.610

## Special scale for standard version

### Water l/h

Type	Scale range [l/h]	Code	kg
SK 10 / 100	50 - 500	<b>198 801 955</b>	0.001
SK 11 / 110	100 - 1000	<b>198 801 956</b>	0.001
SK 12 / 120	150 - 1500	<b>198 803 800</b>	0.002
SK 18 / 180	200 - 2000	<b>198 803 801</b>	0.001
SK 19 / 190	250 - 2500	<b>198 803 802</b>	0.002
SK 20 / 200	300 - 3000	<b>198 801 957</b>	0.001
SK 21 / 210	600 - 6000	<b>198 801 958</b>	0.001
SK 29 / 290	600 - 6000	<b>198 803 803</b>	0.001
SK 30 / 300	1000 - 10000	<b>198 801 959</b>	0.001
SK 31 / 310	1500 - 15000	<b>198 801 960</b>	0.001
SK 40 / 400	2000 - 20000	<b>198 801 876</b>	0.001
SK 41 / 410	3000 - 30000	<b>198 801 877</b>	0.001

## Special scale for standard version Water in %

Type	measure- ment range [%]	Code	kg
SK 10 / 110	10 - 100	<b>198 802 076</b>	0.001
SK 11 / 110	10 - 100	<b>198 802 077</b>	0.001
SK 12 / 120	10 - 100	<b>198 803 804</b>	0.001
SK 18 / 180	10 - 100	<b>198 803 805</b>	0.001
SK 19 / 190	10 - 100	<b>198 803 806</b>	0.001
SK 20 / 200	10 - 100	<b>198 802 078</b>	0.001
SK 21 / 210	10 - 100	<b>198 802 079</b>	0.001
SK 29 / 290	10 - 100	<b>198 803 807</b>	0.001
SK 30 / 300	10 - 100	<b>198 802 080</b>	0.001
SK 31 / 310	10 - 100	<b>198 802 081</b>	0.001
SK 40 / 410	10 - 100	<b>198 802 082</b>	0.001
SK 41 / 410	10 - 100	<b>198 802 083</b>	0.001

## Special scale for standard version m<sup>3</sup>/h

Type	Scale range [m <sup>3</sup> /h]	Code	kg
SK 10 / 100	0,05 - 0,5	<b>198 801 937</b>	0.001
SK 11 / 110	0,1 - 1	<b>198 801 938</b>	0.001
SK 12 / 120	0,15 - 1,5	<b>198 803 808</b>	0.002
SK 18 / 180	0,2 - 2	<b>198 803 809</b>	0.001
SK 19 / 190	0,25 - 2,5	<b>198 803 810</b>	0.002
SK 20 / 200	0,3 - 3	<b>198 801 939</b>	0.001
SK 21 / 210	0,6 - 6	<b>198 801 940</b>	0.001
SK 29 / 290	0,6 - 6	<b>198 803 811</b>	0.002
SK 30 / 300	1 - 10	<b>198 801 941</b>	0.001
SK 31 / 310	1,5 - 15	<b>198 801 942</b>	0.001
SK 40 / 400	2 - 20	<b>198 801 318</b>	0.001
SK 41 / 410	3 - 30	<b>198 801 319</b>	0.001

## Special scale for standard version Imp. GPM

Type	Scale range [gal/min]	Code	kg
SK 10 / 100	0,183 - 1,83	<b>198 801 943</b>	0.001
SK 11 / 110	0,366 - 3,66	<b>198 801 944</b>	0.001
SK 12 / 120	0,55 - 5,5	<b>198 803 812</b>	0.001
SK 18 / 180	0,733 - 7,33	<b>198 803 813</b>	0.001
SK 19 / 190	0,916 - 9,16	<b>198 803 814</b>	0.001
SK 20 / 200	1,09 - 10,9	<b>198 801 945</b>	0.001
SK 21 / 210	2,19 - 21,9	<b>198 801 946</b>	0.001
SK 29 / 290	2,2 - 22	<b>198 803 815</b>	0.001
SK 30 / 300	3,66 - 36,6	<b>198 801 947</b>	0.001
SK 31 / 310	5,49 - 54,9	<b>198 801 948</b>	0.010

## Special scale for standard version US GPM

Type	Scale range [gal/min]	Code	kg
SK 10 / 100	0,22 - 2,2	<b>198 801 949</b>	0.001
SK 11 / 110	0,44 - 4,4	<b>198 801 950</b>	0.001
SK 12 / 120	0,66 - 6,6	<b>198 803 816</b>	0.002
SK 18 / 180	0,66 - 6,6	<b>198 803 817</b>	0.002
SK 19 / 190	1,1 - 11	<b>198 803 818</b>	0.001
SK 20 / 200	1,32 - 13,2	<b>198 801 951</b>	0.001
SK 21 / 210	2,64 - 26,4	<b>198 801 952</b>	0.001
SK 29 / 290	2,64 - 26,4	<b>198 803 819</b>	0.001
SK 30 / 300	4,40 - 44,02	<b>198 801 953</b>	0.001
SK 31 / 310	6,60 - 66,04	<b>198 801 954</b>	0.001
SK 40 / 400	8,80 - 88	<b>198 801 320</b>	0.001
SK 41 / 410	13,20 - 132	<b>198 801 321</b>	0.001

## Special scale for standard version Air/0bar/Nm3/h

Type	Scale range [m³/h]	Code	kg
SK 10 / 100	2,1 - 16	<b>198 801 284</b>	0.001
SK 11 / 110	4,2 - 32	<b>198 801 285</b>	0.001
SK 18 / 180	10 - 70	<b>198 803 821</b>	0.002
SK 20 / 200	12,1 - 90	<b>198 801 286</b>	0.001
SK 21 / 210	21,1 - 177	<b>198 801 287</b>	0.001
SK 29 / 290	22 - 190	<b>198 803 823</b>	0.002
SK 30 / 300	34,2 - 276	<b>198 801 288</b>	0.001
SK 31 / 310	49,6 - 414	<b>198 801 289</b>	0.001
SK 40 / 400	60 - 580	<b>198 801 322</b>	0.001
SK 41 / 410	100 - 860	<b>198 801 323</b>	0.001

## Special scale for standard version HCI 30-33% l/h

Type	Scale range [l/h]	Code	kg
SK 10 / 100	50 - 450	<b>198 801 290</b>	0.001
SK 11 / 110	150 - 900	<b>198 801 291</b>	0.002
SK 18 / 180	200 - 1900	<b>198 803 825</b>	0.002
SK 20 / 200	500 - 2500	<b>198 801 292</b>	0.001
SK 21 / 210	700 - 5000	<b>198 801 293</b>	0.001
SK 29 / 290	800 - 5600	<b>198 803 827</b>	0.001
SK 30 / 300	700 - 8500	<b>198 801 294</b>	0.001
SK 31 / 310	1000 - 12000	<b>198 801 295</b>	0.001
SK 40 / 400	2000 - 18000	<b>198 801 324</b>	0.001
SK 41 / 410	3600 - 25000	<b>198 801 325</b>	0.001

## Special scale for standard version NaOH 30% l/h

Type	Scale range [l/h]	Code	kg
SK 10 / 100	15 - 240	<b>198 801 296</b>	0.001
SK 11 / 110	50 - 600	<b>198 801 297</b>	0.001
SK 18 / 180	100 - 1400	<b>198 803 829</b>	0.002
SK 20 / 200	200 - 2000	<b>198 801 298</b>	0.001
SK 21 / 210	500 - 4500	<b>198 801 299</b>	0.001
SK 29 / 290	400 - 4600	<b>198 803 831</b>	0.001
SK 30 / 300	500 - 7500	<b>198 801 300</b>	0.001
SK 31 / 310	800 - 11000	<b>198 801 301</b>	0.001
SK 40 / 400	1400 - 15000	<b>198 801 326</b>	0.001
SK 41 / 410	2000 - 20000	<b>198 801 327</b>	0.001

## Special scale for standard version NaOH 50% l/h

Type	Scale range [l/h]	Code	kg
SK 10 / 100	2 - 60	<b>198 801 302</b>	0.001
SK 11 / 110	10 - 190	<b>198 801 303</b>	0.001
SK 18 / 180	20 - 600	<b>198 803 833</b>	0.001
SK 20 / 200	50 - 1000	<b>198 801 304</b>	0.001
SK 21 / 210	100 - 2500	<b>198 801 305</b>	0.001
SK 29 / 290	200 - 3400	<b>198 803 835</b>	0.002
SK 30 / 300	100 - 4750	<b>198 801 306</b>	0.001
SK 31 / 310	300 - 7000	<b>198 801 307</b>	0.001
SK 40 / 400	500 - 11000	<b>198 801 328</b>	0.001
SK 41 / 410	1000 - 14000	<b>198 801 329</b>	0.001

## Special scale for short version Water l/h

Type	Scale range [l/h]	Code	kg
SK 50 / 500	2,5 - 25	<b>198 801 386</b>	0.001
SK 51 / 510	5 - 50	<b>198 801 387</b>	0.001
SK 52 / 520	10 - 100	<b>198 801 388</b>	0.001
SK 60 / 600	8 - 80	<b>198 801 389</b>	0.001
SK 61 / 610	15 - 150	<b>198 801 390</b>	0.001
SK 62 / 620	20 - 200	<b>198 801 391</b>	0.001
SK 70 / 700	15 - 150	<b>198 801 392</b>	0.001
SK 71 / 710	30 - 300	<b>198 801 393</b>	0.001
SK 72 / 720	50 - 500	<b>198 801 394</b>	0.001
SK 73 / 730	100 - 1000	<b>198 801 395</b>	0.001

## Special scale for short version US GPM

Type	Scale range [gal/min]	Code	kg	
SK 50 / 500	0,01 - 0,11	<b>198 801 961</b>	0.001	
SK 51 / 510	0,02 - 0,22	<b>198 801 962</b>	0.001	
SK 52 / 520	0,04 - 0,44	<b>198 801 963</b>	0.001	
SK 60 / 600	0,03 - 0,35	<b>198 801 964</b>	0.001	
SK 61 / 610	0,06 - 0,66	<b>198 801 965</b>	0.001	
SK 62 / 620	0,08 - 0,88	<b>198 801 966</b>	0.001	
SK 70 / 700	0,06 - 0,66	<b>198 801 967</b>	0.001	
SK 71 / 710	0,13 - 1,32	<b>198 801 968</b>	0.001	
SK 72 / 720	0,22 - 2,20	<b>198 801 969</b>	0.001	
SK 73 / 730	0,44 - 4,40	<b>198 801 970</b>	0.001	

## Special scale for short version Air/0bar/Nm<sup>3</sup>/h

Type	Scale range [m <sup>3</sup> /h]	Code	kg
SK 50 / 500	0,5 - 0,95	<b>198 801 308</b>	0.001
SK 51 / 510	0,5 - 1,9	<b>198 801 309</b>	0.001
SK 52 / 520	0,8 - 3,0	<b>198 801 310</b>	0.001
SK 60 / 600	0,6 - 2,8	<b>198 801 311</b>	0.001
SK 61 / 610	1,4 - 5,6	<b>198 801 312</b>	0.001
SK 62 / 620	1,5 - 7,0	<b>198 801 313</b>	0.001
SK 70 / 700	1,0 - 6,5	<b>198 801 314</b>	0.001
SK 71 / 710	1,5 - 11,0	<b>198 801 315</b>	0.001
SK 72 / 720	3,0 - 18,0	<b>198 801 316</b>	0.001
SK 73 / 730	6,0 - 30,0	<b>198 801 317</b>	0.001

## Special scale for short version HCl 30 - 33% l/h

Type	Scale range [l/h]	Code	kg
SK 50 / 500	2,5 - 20	<b>198 806 511</b>	0.001
SK 51 / 510	5 - 40	<b>198 806 512</b>	0.001
SK 52 / 520	10 - 85	<b>198 806 513</b>	0.001
SK 60 / 600	8 - 70	<b>198 806 514</b>	0.001
SK 61 / 610	15 - 125	<b>198 806 515</b>	0.001
SK 62 / 620	20 - 170	<b>198 806 516</b>	0.001
SK 70 / 700	5 - 125	<b>198 806 517</b>	0.001
SK 71 / 710	30 - 260	<b>198 806 518</b>	0.001
SK 72 / 720	50 - 425	<b>198 806 519</b>	0.001
SK 73 / 730	100 - 850	<b>198 806 520</b>	0.001

## Special scale for short version NaOH 30% l/h

Type	Scale range [l/h]	Code	kg
SK 50 / 500	0,2 - 5	<b>198 806 521</b>	0.001
SK 51 / 510	1 - 14	<b>198 806 522</b>	0.001
SK 52 / 520	3 - 35	<b>198 806 523</b>	0.001
SK 60 / 600	2 - 23	<b>198 806 524</b>	0.002
SK 61 / 610	3 - 55	<b>198 806 525</b>	0.001
SK 62 / 620	5 - 80	<b>198 806 526</b>	0.001
SK 70 / 700	3 - 55	<b>198 806 527</b>	0.001
SK 71 / 710	6 - 130	<b>198 806 528</b>	0.001
SK 72 / 720	10 - 250	<b>198 806 529</b>	0.001
SK 73 / 730	40 - 590	<b>198 806 530</b>	0.001

## Special scale for short version NaOH 50% l/h

Type	Scale range [l/h]	Code	kg
SK 60 / 600	0,2 - 3,5	<b>198 806 531</b>	0.001
SK 61 / 610	0,5 - 10	<b>198 806 532</b>	0.001
SK 62 / 620	0,5 - 16	<b>198 806 533</b>	0.001
SK 70 / 700	0,5 - 11	<b>198 806 534</b>	0.001
SK 71 / 710	1 - 33	<b>198 806 535</b>	0.001
SK 72 / 720	2 - 80	<b>198 806 536</b>	0.001
SK 73 / 730	10 - 220	<b>198 806 537</b>	0.001

# 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:



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.

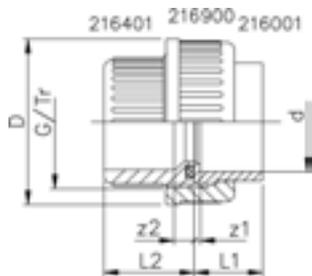
### Maintenance

For safety reasons we recommend changing the entire valve body when dismantling the valves.

# PVC-U Silicon Free

21 51 01

## Unions for solvent cement jointing, PVC-U metric



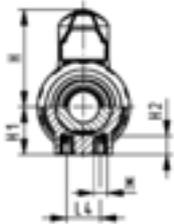
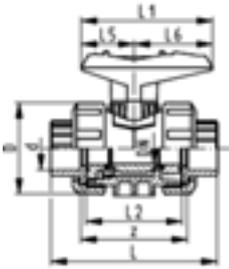
### Model:

- Silicon-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]	L [mm]	L1 [mm]	G/Tr
10	16	721 510 178	721 510 153	0.020	3	10	31	22	15	5/8
12	16	721 510 179	721 510 154	0.019	3	10	31	22	15	5/8
16	16	721 510 180	721 510 155	0.031	3	10	35	24	17	3/4
20	16	721 510 181	721 510 156	0.040	3	10	43	26	19	1
25	16	721 510 182	721 510 157	0.066	3	10	51	29	22	1 1/4
32	16	721 510 183	721 510 158	0.090	3	10	58	32	25	1 1/2
40	16	721 510 184	721 510 159	0.175	3	12	72	38	29	2
50	16	721 510 185	721 510 160	0.215	3	14	83	45	34	2 1/4
63	16	721 510 186	721 510 161	0.380	3	18	100	56	41	2 3/4
75	10	721 510 187	721 510 162	0.615	3	18	135	62	47	Tr 108x5
90	10	721 510 188	721 510 163	0.925	5	18	158	69	56	Tr 128x5
110	10	721 510 189	721 510 164	1.425	5	11	188	72	66	Tr 154x6



DN10-50



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

### Model:

- Image and drawing DN65-100 please see "New product ball valve DN65-100"
- Silicon-free / paint-compatible
- For easy installation and removal
- z-dimension, valve end and valve 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 form)
- Multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ 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	4.900
 90	80	16	7000	800 000 609	800 000 619	7.400
 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]
16	50	57	27	12	92	77	56	25	32	45	M6	64
20	50	57	27	12	95	77	56	25	32	45	M6	64
25	58	67	30	12	110	97	65	25	39	58	M6	72
32	68	73	36	12	123	97	71	25	39	58	M6	79
40	84	90	44	15	146	128	85	45	54	74	M8	94
50	97	97	51	15	157	128	89	45	54	74	M8	95
63	124	116	64	15	183	152	101	45	66	87	M8	107
 75	166	149	85	15	233	270	136	70	64	206	M8	144
 90	200	161	105	15	254	270	141	70	64	206	M8	151
 110	238	178	123	22	301	320	164	120	64	256	M12	174



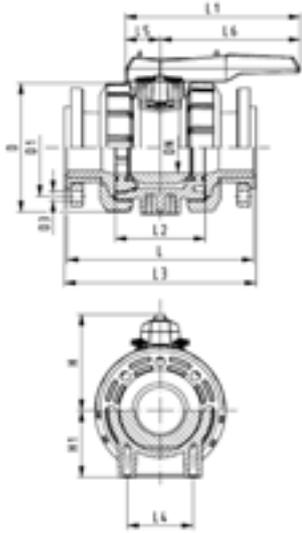
## Ball valve type 546 PVC-U SF With mounting inserts With backing flanges PVC-U metric

### Model:

- Image and drawing DN65-100 please see "New product ball valve DN65-100"
- Silicon-free / paint-compatible
- For easy installation and removal
- z-dimension, valve end and valve 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 form)
- 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	

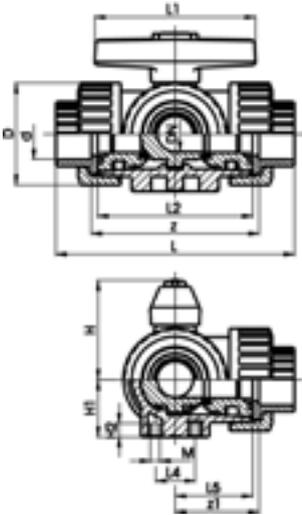
d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M	
75	166	145	18	284	270	136	290	70	64	206	149	85	8	
90	200	160	18	300	270	141	310	70	64	206	161	105	8	
110	238	180	18	340	320	164	350	120	64	256	178	123	12	



### 3-Way ball valve type 343 PVC-U SF Horizontal/ L-port With solvent cement sockets metric

**Model:**

- L-port ball
- Silicon-free / paint-compatible
- Union ends for easy installation and removal
- Pneumatic or electric actuator available separately
- Angle of operation 360°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	50	<b>161 343 141</b>	<b>161 343 151</b>	0.199	
20	15	10	75	<b>161 343 142</b>	<b>161 343 152</b>	0.199	
25	20	10	150	<b>161 343 143</b>	<b>161 343 153</b>	0.370	
32	25	10	280	<b>161 343 144</b>	<b>161 343 154</b>	0.504	
40	32	10	480	<b>161 343 145</b>	<b>161 343 155</b>	0.838	
50	40	10	620	<b>161 343 146</b>	<b>161 343 156</b>	1.359	
63	50	10	1230	<b>161 343 147</b>	<b>161 343 157</b>	2.622	

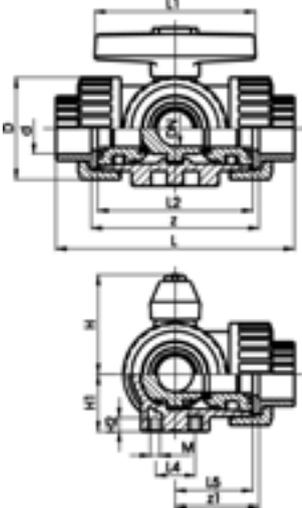
d [mm]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	80	40	45	108	78	72	25	36	50	27	8	6
20	80	40	45	111	78	72	25	36	50	27	8	6
25	94	47	53	131	92	86	25	43	60	33	8	6
32	104	52	65	148	100	96	25	48	68	36	8	6
40	126	63	78	176	110	116	45	58	79	44	9	8
50	144	72	92	206	120	137	45	69	90	49	9	8
63	186	93	116	262	146	179	45	90	109	61	9	8



### 3-Way ball valve type 343 PVC-U SF Horizontal/ T-port With solvent cement sockets metric

**Model:**

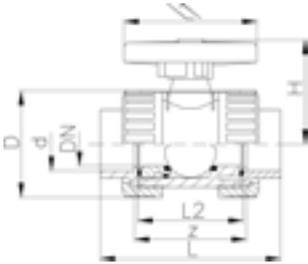
- T-port ball
- Silicon-free / paint-compatible
- Union ends for easy installation and removal
- Pneumatic or electric actuator available separately
- Angle of operation 90°, without turn limiter



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	140	<b>161 343 341</b>	<b>161 343 351</b>	0.199	
20	15	10	200	<b>161 343 342</b>	<b>161 343 352</b>	0.199	
25	20	10	470	<b>161 343 343</b>	<b>161 343 353</b>	0.370	
32	25	10	793	<b>161 343 344</b>	<b>161 343 354</b>	0.504	
40	32	10	1290	<b>161 343 345</b>	<b>161 343 355</b>	0.838	
50	40	10	1910	<b>161 343 346</b>	<b>161 343 356</b>	1.359	
63	50	10	3100	<b>161 343 347</b>	<b>161 343 357</b>	2.622	

d [mm]	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	80	40	45	108	78	72	25	36	50	27	8	6
20	80	40	45	111	78	72	25	36	50	27	8	6
25	94	47	53	131	92	86	25	43	60	33	8	6
32	104	52	65	148	100	96	25	48	68	36	8	6
40	126	63	78	176	110	116	45	58	79	44	9	8
50	144	72	92	206	120	137	45	69	90	49	9	8
63	186	93	116	262	146	179	45	90	109	61	9	8



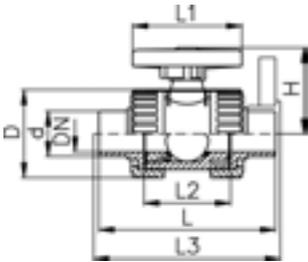
## Metering ball valve type 323 PVC-U SF With solvent cement sockets metric

### Model:

- Silicon-free / paint-compatible
- For easy installation and removal
- Ball seals PVDF
- Angle of operation 180° with scale

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	11	161 323 001	161 323 011	0.158
20	15	10	20	161 323 002	161 323 012	0.169

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
16	71	45	99	78	63	50
20	71	45	102	78	63	50



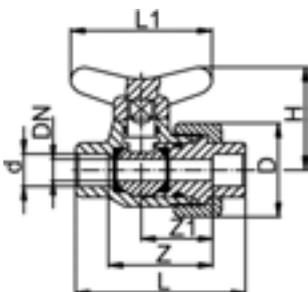
## Metering ball valve type 323 PVC-U SF With solvent cement spigots metric

### Model:

- Silicon-free / paint-compatible
- For easy installation and removal
- Ball seals PVDF
- Angle of operation 180° with scale
- 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	11	161 323 041	161 323 051	0.158
20	15	10	20	161 323 042	161 323 052	0.169

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]
16	43	114	78	63	120	50
20	43	124	78	63	130	50



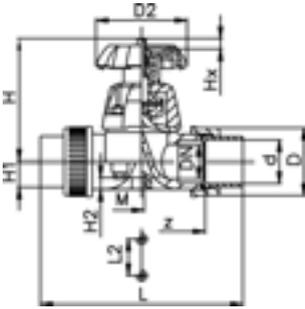
## Laboratory ball cock type 322 PVC-U SF With solvent cement sockets metric

### Model:

- Silicon-free / paint-compatible
- Disconnection one end only
- Ball seals PVDF

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 314 PVC-U SF With solvent cement sockets metric

### Model:

- Silicon-free / paint-compatible
- For easy installation and removal
- Short overall length

### Option:

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

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE with EPDM supp. diaphragm Code	kg					
20	15	10	72	<b>161 314 717</b>	<b>161 314 732</b>	0.400					
25	20	10	137	<b>161 314 718</b>	<b>161 314 733</b>	0.630					
32	25	10	207	<b>161 314 719</b>	<b>161 314 734</b>	0.880					
40	32	10	354	<b>161 314 720</b>	<b>161 314 735</b>	1.140					
50	40	10	517	<b>161 314 721</b>	<b>161 314 736</b>	1.540					
63	50	10	713	<b>161 314 722</b>	<b>161 314 737</b>	2.805					

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	
20	96	43	128	80	25	90	14	12	M6	8	
25	114	51	152	80	25	102	18	12	M6	11	
32	122	58	166	94	25	119	21	12	M6	13	
40	140	72	192	117	45	126	26	15	M8	16	
50	160	83	222	117	45	139	33	15	M8	21	
63	190	100	266	152	45	172	39	15	M8	28	



## Diaphragm valve type 317 PVC-U SF With flanges PVC-U metric

### Model:

- Silicon-free / paint-compatible
- Jointing face flat
- 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

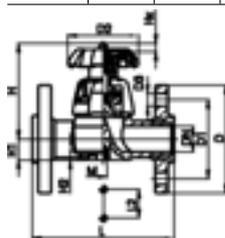
### Option:

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

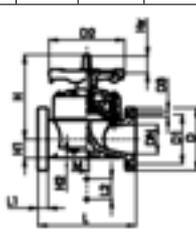
### \* DN80 and DN150 fixed flanges metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	PTFE with EPDM supp. diaphragm Code	kg
20	15	½	10	72	161 317 717	161 317 732	0.400
25	20	¾	10	137	161 317 718	161 317 733	0.630
32	25	1	10	207	161 317 719	161 317 734	0.880
40	32	1 ¼	10	354	161 317 720	161 317 735	1.140
50	40	1 ½	10	517	161 317 721	161 317 736	1.540
63	50	2	10	713	161 317 722	161 317 737	2.805
75	65	2 ½	10	992	161 317 723	161 317 738	4.420
*90	80	3	10	1700	161 317 424	161 317 439	9.600
110	100	4	10	2700	161 317 425	161 317 440	13.360
*160	150	6	7	6033	161 317 427	161 317 442	29.250

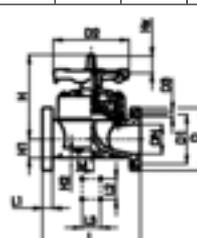
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
20	95	65	80	14	130		25		90	14	12	M6	4	8
25	105	75	80	14	150		25		102	18	12	M6	4	11
32	115	85	94	14	160		25		119	21	12	M6	4	13
40	140	100	117	18	180		45		126	26	15	M8	4	16
50	150	110	117	18	200		45		139	33	15	M8	4	21
63	165	125	152	18	230		45		172	39	15	M8	4	28
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



DN 15-65



DN 80-100



DN 150

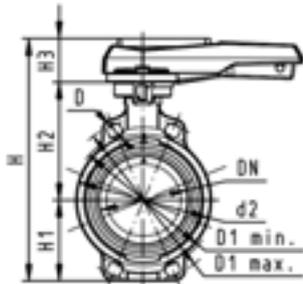


## Butterfly valve type 567 PVC-U SF Hand lever with ratchet settings

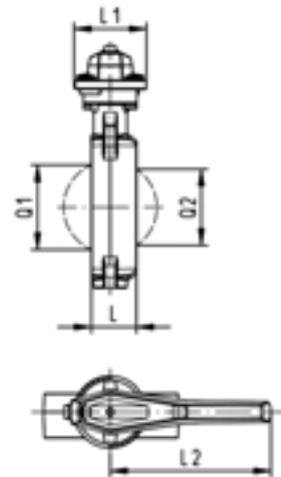


### Model:

- Silicon-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>	2.554
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

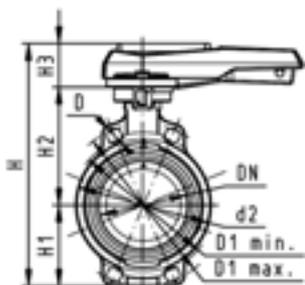


## Butterfly valve type 567 PVC-U OF Hand lever with ratchet settings

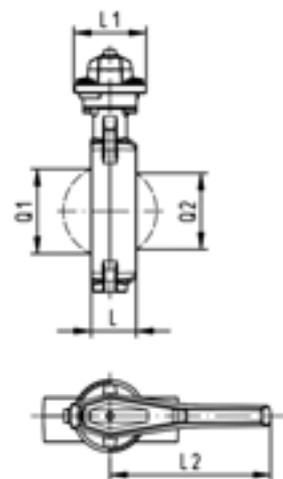


### Model:

- 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>	1.143
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>	3.541
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

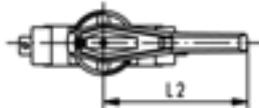
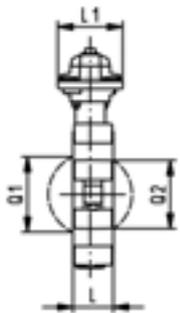
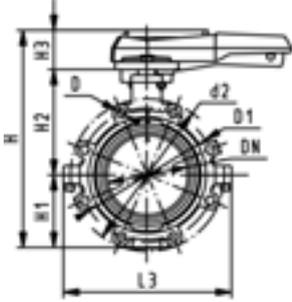


## Lugstyle butterfly valve type 568 PVC-U SF Hand lever with ratchet settings



### Model:

- Silicon-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 ½	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

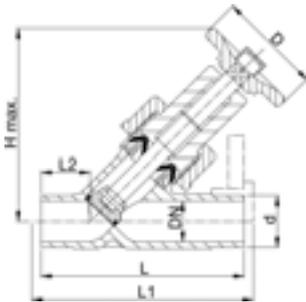
d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74
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



## Angle seat valve type 300 PVC-U SF With solvent cement spigots metric

### Model:

- Silicon-free / paint-compatible
- For horizontal or vertical installation
- Overall length EN 558



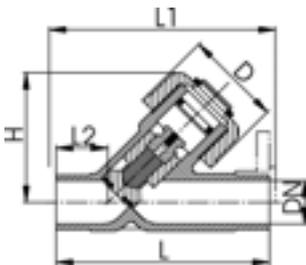
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	PE Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H max. [mm]
16	10	10	41	<b>161 300 800</b>	0.125	50	114	120	24	105
20	15	10	95	<b>161 300 801</b>	0.180	63	124	130	28	126
25	20	10	180	<b>161 300 802</b>	0.250	63	144	150	37	140
32	25	10	327	<b>161 300 803</b>	2.600	80	154	160	37	166
40	32	10	484	<b>161 300 804</b>	0.580	80	174	180	44	191
50	40	10	725	<b>161 300 805</b>	1.005	100	194	200	48	233
63	50	10	1130	<b>161 300 806</b>	0.944	100	224	230	60	264
75	65	10	1700	<b>161 300 807</b>	2.610	160	284	290	74	335
90	80	10	2500	<b>161 300 808</b>	3.945	200	300	310	85	390



## Angle seat check valve type 303 PVC-U SF With solvent cement spigots metric

### Model:

- Silicon-free / paint-compatible
- For horizontal or vertical installation
- Leakproof even at minimum pressure
- Overall length EN 558



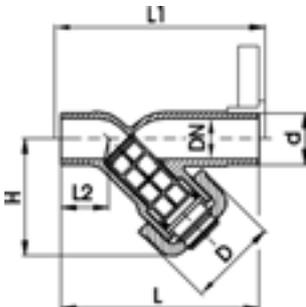
d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
16	10	10	41	<b>161 303 015</b>	<b>161 303 040</b>	0.094	39	114	120	24	58
20	15	10	95	<b>161 303 016</b>	<b>161 303 041</b>	0.132	43	124	130	28	65
25	20	10	180	<b>161 303 017</b>	<b>161 303 042</b>	0.200	47	144	150	37	75
32	25	10	327	<b>161 303 018</b>	<b>161 303 043</b>	0.323	56	154	160	37	90
40	32	10	484	<b>161 303 019</b>	<b>161 303 044</b>	0.498	64	174	180	44	102
50	40	10	725	<b>161 303 020</b>	<b>161 303 045</b>	0.860	82	194	200	48	123
63	50	10	1130	<b>161 303 021</b>	<b>161 303 046</b>	1.455	95	224	230	60	144
75	65	10	1700	<b>161 303 022</b>	<b>161 303 047</b>	2.450	92	284	290	74	186
90	80	10	2500	<b>161 303 023</b>	<b>161 303 048</b>	3.511	104	300	310	85	204



## Line strainer type 305 PVC-U SF Transparent body with solvent cement spigots metric

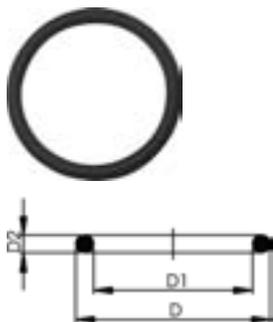
### Model:

- Silicon-free / paint-compatible
- With screen PVC-U, perforation  $\varnothing$  0.8 mm
- Overall length EN 558



d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]
20	15	10	35	<b>192 305 821</b>	<b>192 305 831</b>	0.114	43	124	130	28	65
25	20	10	63	<b>192 305 822</b>	<b>192 305 832</b>	0.170	47	144	150	37	76
32	25	10	85	<b>192 305 823</b>	<b>192 305 833</b>	0.255	56	154	160	37	90
40	32	10	150	<b>192 305 824</b>	<b>192 305 834</b>	0.386	64	174	180	44	104
50	40	10	225	<b>192 305 825</b>	<b>192 305 835</b>	0.643	82	194	200	48	124
63	50	10	346	<b>192 305 826</b>	<b>192 305 836</b>	1.033	95	224	230	60	148
75	65	10	535	<b>192 305 827</b>	<b>192 305 837</b>	1.835	106	284	290	74	188
90	80	10	750	<b>192 305 828</b>	<b>192 305 838</b>	2.565	120	300	310	85	205

EPDM 48 41 30  
FPM 49 41 30



## O-Ring Gaskets

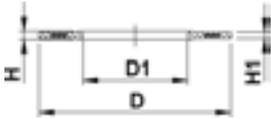
### Model:

- Silicon-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	748 413 001	749 413 001	0.002	30	23	4
25	20	748 413 007	749 413 007	0.002	35	28	4
32	25	748 413 002	749 413 002	0.003	43	36	4
40	32	748 413 003	749 413 003	0.007	55	44	5
50	40	748 413 012	749 413 012	0.008	64	53	5
63	50	748 413 013	749 413 013	0.011	80	69	5
75	65	748 413 014	749 413 014	0.012	93	82	5
90	80	748 413 015	749 413 015	0.015	112	101	5
110	100	748 413 016	749 413 016	0.031	134	120	7
125	100	748 413 017	749 413 017	0.036	149	136	7
140	125	748 413 018	749 413 018	0.039	166	152	7
160	150	748 413 019	749 413 019	0.047	191	177	7
200	200	748 413 163	749 413 163	0.056	136	222	7
225	200	748 413 022	749 413 022	0.060	255	241	7
250	250	748 413 182	749 413 182	0.100	280	266	7
280	250	748 413 173	749 413 173	0.144	305	292	7

EPDM 48 44 11  
FPM 49 44 11

## Flange Gaskets SF



### Model:

- Silicon-free / paint-compatible
- Fulfill chloroform contact test
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- For flange adaptors, jointing face flat/serrated

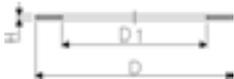
d [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]
20	748 441 101	749 441 101	0.008	51	20	4	3
25	748 441 102	749 441 102	0.011	61	25	4	3
32	748 441 103	749 441 103	0.014	71	32	4	3
40	748 441 104	749 441 104	0.020	82	40	4	3
50	748 441 105	749 441 105	0.021	92	50	4	3
63	748 441 106	749 441 106	0.040	107	63	5	4
75	748 441 107	749 441 107	0.054	127	75	5	4
90	748 441 108	749 441 108	0.060	142	90	5	4
110	748 441 109	749 441 109	0.083	162	110	6	5
125	748 441 110	749 441 110	0.154	192	125	6	5
140	748 441 111	749 441 111	0.115	192	140	6	5
160	748 441 112	749 441 112	0.149	218	160	8	6
200	748 441 114	749 441 114	0.257	273	200	8	6
225	748 441 115	749 441 115	0.177	273	225	8	6
250	748 441 116	749 441 116	0.400	303	250	8	6
280	748 441 117	749 441 117	0.220	328	280	8	6

FPM 49 40 13

## Flat Gaskets

### Model:

- Silicon-free / paint-compatible
- Fulfill chloroform contact test
- Hardness approx. 65° Shore
- For flange adaptors, jointing face serrated
- **Only standard packagings SP are delivered**



d [mm]	DN [mm]	FPM Code	kg	D [mm]	D1 [mm]	H [mm]
16	10	-		27	16	2
20	15	749 401 315	0.003	32	20	2
25	20	749 401 316	0.003	39	25	2
32	25	749 401 317	0.004	48	32	2
40	32	749 401 318	0.008	59	40	3
50	40	749 401 319	0.012	71	50	3
63	50	749 401 320	0.017	88	63	3
75	65	749 401 321	0.024	104	75	3
90	80	749 401 322	0.032	123	90	3
110	100	749 401 323	0.062	148	110	4
125	100	749 401 324	0.058	168	125	4
140	125	749 401 325	0.058	186	140	4
160	150	749 401 326	0.063	211	160	4
225	200	749 401 327	0.103	272	220	5

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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 to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

## 2 Tenders

- 2.1 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 of the ICC, latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and importlicences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still out-standing 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 months, either party may cancel the contract forthwith.  
Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, 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 month which equally is not met.  
The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to liquidated damages in the amount of 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.

## 11 Packing

- 11.1 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 ICC, 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 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 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 undertake to repair or replace at their discretion, as quickly as possible and free of charge all Products supplied which demonstrably suffer from faulty design, materials or workman-ship or from faulty operating or installation instructions.  
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.
- 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 cancel the contract or to demand a reduction in the contract price if also a second attempt to repair or replace the Products has failed.
- 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, over-stressing 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 as well as, in case of negligence, all other direct damages caused by the defective Product (damage to property and injury to or death of persons) up to CHF 1 000 000 per occurrence.
  - the statute of limitations for warranty or damage claims - contrary to Section 15.6 - will be 5 years from the date of installation.

## 16 Limitation of Liability

- 16.1 All cases of breach of contract and the relevant consequences as well as all rights and claims on the part of the customer, irrespective of what ground they are based, are exhaustively covered by these general conditions of supply. In particular, any claims not expressly mentioned for damages, reduction of price, termination of or withdrawal from 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 and other direct or indirect or consequential damage. This exclusion of liability, however, does not apply to unlawful intent or gross negligence on the part of Georg Fischer and in case of strict liability under applicable product liability statutes, but does apply to unlawful intent or gross negligence of persons employed or appointed by Georg Fischer to perform any of its obligations.

## 17 Severability

- 17.1 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 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.
- 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

# GF Piping Systems → worldwide at home

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

[www.piping.georgfischer.com](http://www.piping.georgfischer.com)



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

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