PRAHER PLASTICS

POWER.
VALVE-CONTROLLED

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WAGNER Armaturen
Wagner Armaturen GmbH
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www.wagner-armaturen.de

PRAHER PLASTICS

We are specialist for production of technical parts made of high-performance plastics in Schwertberg/Austria.

Two fields of competence in plastics distinguish our company:

- manual and automated valves, pipes, fittings as well as comprehensive accessories for industrial piping systems,
- customized developments from resinformulation right through to the final product, with flexibility according to customer's needs.

www.praher-plastics.com

For more than 50 years, we have been an international specialist

… for the production of technical parts made of high-performance plastics in Schwertberg/Austria. The core competences of the family-owned company are the manufacturing of functional plastic parts and assemblies and the own range of industrial valves and accessories. Our speed in expediting and logistics, which complements both fields of competence, sets us apart as specialists in our field.

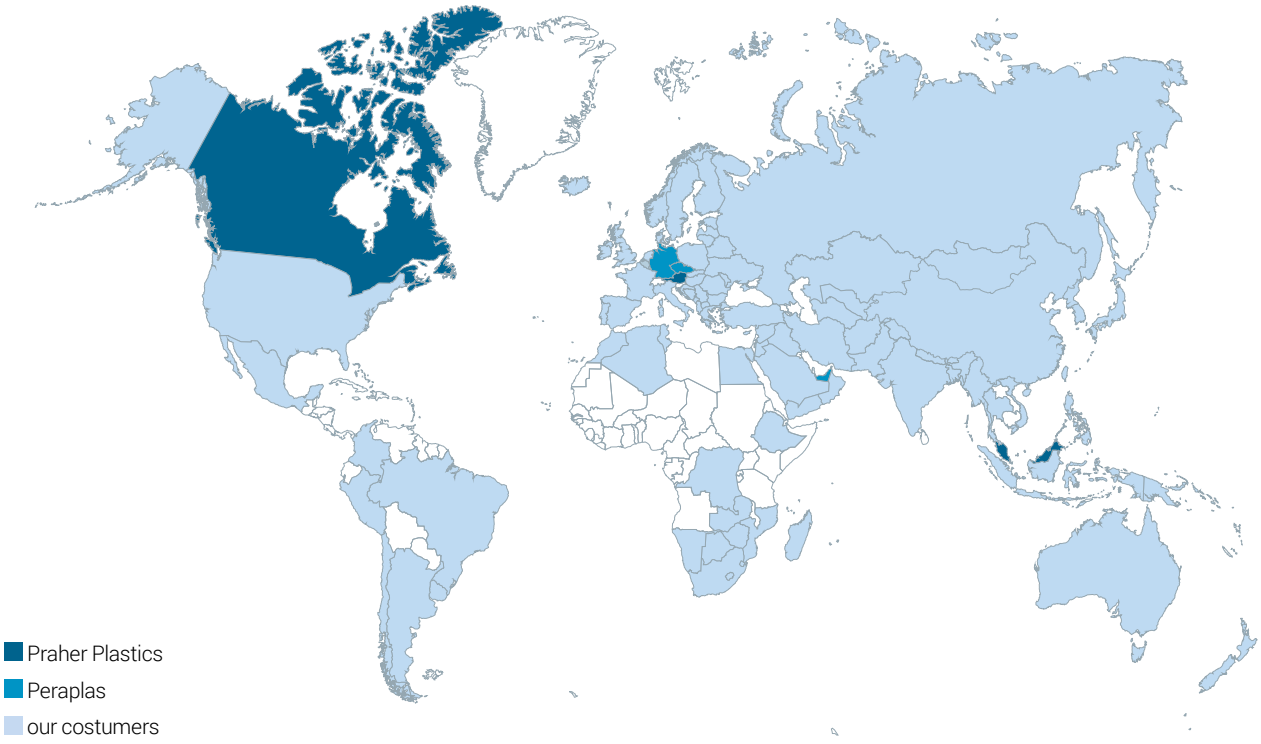
Partnership with our customers
Not only our products are high in quality – so is our customer service. With us, you will always be assigned a personal contact person, who will always have an open ear for you and your wishes.

Serial and individual
More than five decades of experience in processing thermoplastic materials speaks for itself. And this expertise also makes us highly efficient and creative when it comes to individual solutions.

Quality generates safety
Quality always means improvement. This leads to the development of ever more efficient products, technologies and company processes. We have worked for decades with a quality management system certified according to ISO 9001.

High value creation
From creation of the tools and processing of the input stock to the planning, design and series production – we carry out all steps with the highest competence.

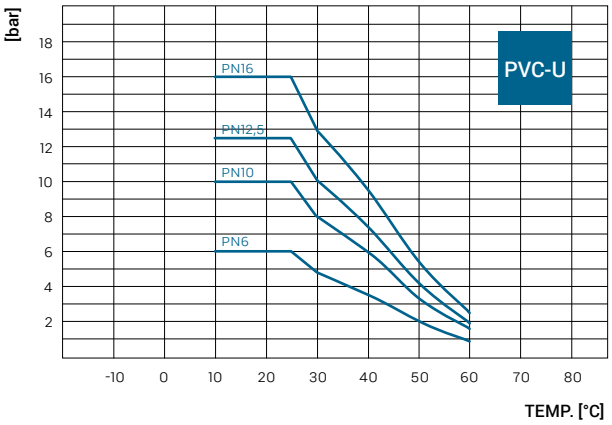
Highly qualified employees
Our employees are part of our big traditional family run business. They are all specialists in their fields. All unique personalities but with one important trait in common: a desire for maximum customer satisfaction.

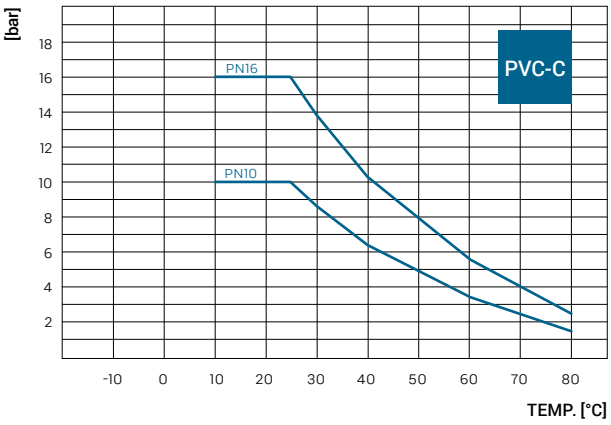


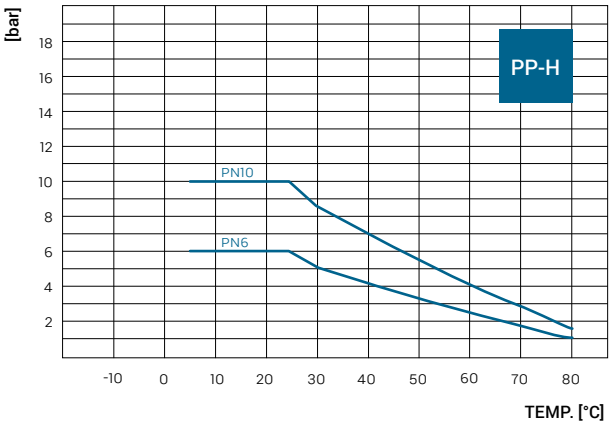
Praher Plastics Austria GmbH offers different materials for different applications

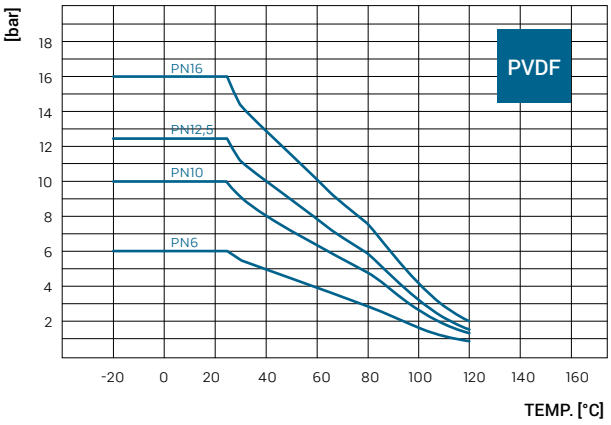
Depending on pressure, temperature and transported media our customers can choose between PVC-U, PVC-C, PP and PVDF. Connections to other materials like PE or metallic materials can be realised by means of mechanical connections (threaded connections, flanges).

Pressure-temperature-behavior of thermoplastics
According to the standard, the pressure rating of thermoplastic valve bodies is generally determined for the medium water at a temperature of 20°C and a life time of 25 years. The pressure-temperature-load capacity is of great importance for an optimal operation of a plastic valve. Attention should be paid to the fact that with higher temperature the maximum operating pressure decreases. Furthermore, it should be taken into consideration that not only the conveyed medium but also the environment conditions of the piping system has an influence on the pressure load.









Technical data raw materials

	Property	Norm	Unit	PVC-U	PVC-C	PVDF	PP-H	PE-HD
	Specific density at 23 °C	ISO 1183	g/cm³	1,375	1,5	1,78	0,905	0,959
	Melt flow rate MFR	ISO 1133	g/10 min.	2,5[1]	11,5[2]	24[4]	0,5[3]	0,25[3]
Mechanics	Stress at yield	ISO 527	MPa	50	54	55	30	25
	Elastic modulus		MPa	3.500	3.100	2.600	1.300	1.100
Thermal properties	Vicat B50	ISO 306	°C	77,5	108	140	91	75
	HDT	ISO 75	°C	64,5	-	115	96	50
	Class of flammability	UL94	-	V-0	V-0	V-0	HB	HB
Electricity	Contact resistivity	DIN 53482	Ohm cm	> 10^{15}	> 10^{15}	> 10^{15}	> 10^{17}	> 10^{17}
	Surface resistivity	DIN 53482	Ohm	10^{13}	> 10^{13}	10^{14}	> 10^{13}	> 10^{14}
	Dielectric strenght	DIN 53481	kV/mm	35	30	40	50	-
	Relativ capacitivity at 106 Hz	DIN 53485	-	3	3	7,6	2,2	2,3
	Colour	-	-	dark grey RAL 7011	light grey RAL 7045	nature -	grey RAL 7032	black -
	Certification	-	-	Details are mentioned in the manufacturers decalaration for raw material.				

[1] ... 195 °C, 15 kg [2] ... 215 °C, 21,6 kg [3] ... 190 °C, 5 kg [4] ... 230 °C, 5 kg

The Praher Plastics Austria GmbH, Poneggenstraße 5, 4311 Schwertberg, declares herewith that the used plastics for valves and fittings are based on the following technical data of the raw material. The technical data refer to the technical data sheet of the raw material manufacturer and to specific specialist literature and do not make demands on liability. We are pleased to assist you if you have further questions about our technical polymers.

The following international standards are applied

ÖNORM EN ISO 16135
Industrial valves – Ball valves of thermoplastics materials

ÖNORM EN ISO 16136
Industrial valves – Butterfly valves of thermoplastics materials

ÖNORM EN ISO 16137
Industrial valves – Check valves of thermoplastics materials

ÖNORM EN ISO 16138
Industrial valves – Diaphragm valves of thermoplastics materials

ÖNORM EN ISO 16139
Industrial valves – Gate valves of thermoplastics materials

ÖNORM EN ISO 21787
Industrial valves – Globe valves of thermoplastics materials

ÖNORM EN ISO 10931
Plastic piping systems for industrial applications – Polyvinylidene fluoride (PVDF)

DIN EN ISO 1452
Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure – unplasticized polyvinyl chloride (PVC-U)

ÖNORM EN ISO 15494
Plastics piping systems for industrial applications – Polybutene (PB), polyethylene (PE), polyethylene of raised temperature resistance (PE-RT), crosslinked polyethylene (PE-X), polypropylene (PP) – metric series for specifications for components and the system

DIN 8062
Unplasticized polyvinyl chloride (PVC-U) pipes

ÖNORM EN ISO 15493
Plastics piping systems for industrial applications – Acrylonitrile-butadiene-styrene (ABS), unplasticized poly(vinyl chloride) (PVC-U) and chlorinated poly(vinyl chloride) (PVC-C) – Specifications for components and the system

ISO 727
Fittings made from unplasticised poly(vinyl chloride) (PVC-U), chlorinated poly(vinyl chloride) (PVC-C) or acrylonitrile/butadiene/styrene (ABS) with plain sockets for pipes under pressure

DIN EN 10226
Pipe threads where pressure tight joints are made on the threads

ÖNORM EN ISO 228
Pipe threads where pressure-tight joints are not made on the threads

DIN EN ISO 1092
Flanges and their joints – circular flanges for pipes, valves, fittings and accessories, PN designated – Part 1: Steel flanges

ÖNORM EN ISO 580
Plastic piping and ducting systems – Injection-mouldes thermoplastics fittings – Methods for visually assessing the effects of heating

ISO 9393
Thermoplastics valves for industrial applications

ISO 7
Pipe threads where pressure-tight joints are made on the threads

Our products have the following approvals / compliance

Drinking water approval according to KIWA NSF/ANSI 61 for M1 PVC-U ball valve EPDM
Drinking water approval according to ACS for 2W M1 PVC-U ball valve EPDM
Conformity for laboratory ball valve S4 PVC-U EPDM according to „ Federal Environment Agency - Assessment basis for plastics and other organic materials in contact with drinking water“ for the application area equipment (P1) in cold water (23°C)

Our raw materials are tested according to the following international standards

PVC-U raw material for Valves

Licenses/tests/recommendations:
NSF/ANSI 61 „Drinking Water Systems Components-Health Effects“
FDA section 21 CFR 174-175-176-177-178-179
WRAS – BS6920
ACS concerning products in contact with drinking water
Representative on the basis of a product KTW-BWGL for the area of application equipment (P1) in cold water (23°C) valid until 07/2026
KIWA
Regulation (EC) No 1935/2004
Commission Regulation (EU) 2011/10
Doesn't contain Phtalates including DEHP and BPA
ROHS - Directive 2011/65/EU
REACH - Regulation 1907 /2006/EC
Fire class V0 according to UL-94
Free from PCB (polychlorinated biphenyl)

PVC-C raw materials for valves

Licenses/tests/recommendations:
EU 10/2011
EU 1935/2004
EU 2023/2006
Free from phthalates incl. DEHP and BPA
ROHS - Directive 2011 /65/EU
REACH - Regulation 1907 /2006/EC

PVC-U raw materials for fittings

Licenses/tests/recommendations:

NSF/ANSI 61 „Drinking Water Systems Components-Health Effects“
WRAS – BS6920
ACS concerning products in contact with drinking water
KIWA Certificate for selected fittings (marked with the KIWA Logo)
Doesn´t contain Phtalates including DEHP and BPA
EU Regulation 2011/10
EU Regulation 1935/2004
ROHS - Directive 2011 /65/EU
REACH - Regulation 1907 /2006/EC
Fire class V0 according to UL-94
Free from PCB (polychlorinated biphenyl)

PVC-U raw materials for pipes

Licenses/tests/recommendations:

DVGW GW 335-A1
UBA KTW

PP-H material for Valves

Licenses/tests/recommendations:

Fulfills the requirements of microbial growth regarding KTW-BWGL, tested in accordance with DIN EN 16421 chapter 5.6
FDA, CRF title 21 (2013), 177.1520(a)(1), (b) and (c) 1.1 Olefin polymers
considered safe with respect to BSE and TSE transmissions
Regulation (EC) No 1935/2004
Commission Regulation (EU) 2011/10
ROHS - Directive 2017/65/EU
REACH - Regulation 1907 /2006/EC

Furthermore it can be confirmed that parts made of PP-H meet the DVS guideline 2207-11 and have a MFR value between 0,4–1,0 g/10 min. due to ISO1133 (190 °C, 5 kg). Due to DVS 2207-11 parts and pipes made of PP-H, that meet a MFR value in this range, can be welded via butt welding, socket fusion and heating element spiral welding. If the MFR value doesn't correlate a proof of suitability with the creep behavior-tensile strength test due to DVS 2203-4 is recommended.

ABS raw material for multiport valves V6

Licenses/tests/recommendations:

NSF/ANSI Standard 51
FDA section 21 CFR 181.32 „Acrylonitrile copolymers and resins"
European Standard EN71 - Sicherheit von Spielzeug
REACH 1907/2006
ROHS Directive 2011/65/EC
EU Directive 10/2001 (with the exception of single-use applications such as food packaging)
Free from conflict minerals

PVDF Valves

Licenses/tests/recommendations:

NSF/ANSI 61 „Drinking Water Systems Components-Health Effects"
NSF/ANSI 51 „Food Equipment materials" up to 127 °C (260 °F)
FDA volume 21 CFR 177.2510(a)
considered safe with respect to BSE and TSE transmissions
Regulation (EC) No 1935/2004
Commission Regulation (EU) 2011/10
attestation of conformity regarding the hygiene suitability of pre-products in contact with drinking water (P2) at 23°C and 85°C valid until 04/2028

Furthermore it can be confirmed that parts made of PVDF meet the DVS guideline 2207-15 and have a density between 1,70–1,80g/cm³ and a MFR value between 1,0–25,0 g/10 min. due to ISO1133 (230 °C, 5 kg). Due to DVS 2207-15 parts and pipes made of PVDF that meet a density and MFR value in this range, can be welded via butt welding and socket fusion. If the density or MFR value doesn´t correlate a call back to the semi-finished product supplier is recommended.

Declaration concerning REACH regulation (EG) No. 1907/2006

In accordance with REACH regulation (EG) no. 1907/2006, Praher Plastics Austria GmbH acts as downstream user as well as a manufacturer of products and is thus not subject to any compulsory registration. All our suppliers have guaranteed the registration (or pre-registration) of the raw materials. As a manufacturer of articles, we are not obliged to prepare safety data sheets. If any information on substances of very high concern in our articles according to REACH Article 33 is required, we will pass it on to our customers immediately and unrequested.

Declaration concerning RoHS regulation 2011/65/EU respectively 2015/863/EU

Praher Plastics Austria GmbH strives to comply with the limits according to RoHS regulation (2011/65/EU) in all manufactured products that may become part of electrical and electronic equipment. Our suppliers have ensured to comply with the limits of the RoHS regulation (2011/65/EU) concerning raw materials. If this is not possible for certain products due to technical reasons, we will inform our customers without delay. From July 22nd, 2019 we guarantee to comply with the new limit values according to the delegated Directive (EU) 2015/863. At the present moment, we will inform you in any case if our products should contain one of the new restricted substances above the limit values.

Statement on conflict minerals

Praher Plastics Austria GmbH informs herewith that only raw materials, elements and components from notable manufacturers and long lasting as well as familiar distributors are used for the final products. Information relating to the „Dodd-Frank Wall Street Reform“ and „Consumer Protection Act“ implemented in July 2010 were gathered from our suppliers and based on the actual state of knowledge and referring to the replies of our manufacturers no conflict minerals have their seeds in the Democratic Republic of Congo or an adjoining country. Beyond that we do not assume any liability whatsoever for the accuracy and completeness of such information. We are pleased to assist you during the negotiation/approval process to exclude the use of conflict minerals for sure.

Technical declaration: dry installation of IBG® PVC-U fittings

Praher Plastics Austria GmbH, Poneggenstraße 5, 4311 Schwertberg declares herewith that all manufactured IBG® PVC-U fittings are produced according to the standard ISO 727 and the thereby specified tolerances and ovality. IBG® PVC-U fitting range is therefore in conformity to the respectively national valid standards. Praher Plastics Austria GmbH guarantees that, by using adhesive manufactured according to international standard, all IBG® PVC-U fittings can be glued with pipes, which are produced according to international accepted standards. In addition, IBG® PVC-U fittings range is optimized for the process of dry installation. To facilitate this process and according to the requirements of the standard ISO 727, IBG® PVC-U fittings are manufactured with a tight and optimized tolerance.

A premise for dry installation of IBG® PVC-U fittings is the use of IBG® PVC-U pipes, which are also produced with a tight and optimized tolerance (see table 1 next page). Respecting this, optimal conditions will be fulfilled for a good and easy dry installation. However, even when IBG® PVC-U fittings are used in connection with tolerance-optimized IBG® PVC-U pipes, interfering factors might complicate or hinder a dry installation.

Some examples of interfering factors:
- the use of a non-deburred pipe,
- transport and storage conditions,
- pipe ovality (see table 2 next page),
- use of a non-corresponding pipe.

All of these interfering factors can lead to an overlap of tolerance zones for IBG® PVC-U fittings and IBG® PVC-U pipes and therewith to hinder the dry installation (see example next page).

Additional information

Outside diameter		
Ø	Standard	IBG®
20	20,00–20,20 mm	20,00–20,10 mm
25	25,00–25,20 mm	25,00–25,10 mm
32	32,00–32,20 mm	32,00–32,10 mm
40	40,00–40,20 mm	40,00–40,10 mm
50	50,00–50,20 mm	50,00–50,10 mm
63	63,00–63,30 mm	63,00–63,15 mm
75	75,00–75,30 mm	75,00–75,15 mm
90	90,00–90,30 mm	90,00–90,15 mm

Table 1 – special outer diameter for IBG® PVC-U pipes

Ovality PN6		
Ø	Standard	IBG®
20	-	-
25	-	-
32	-	-
40	1,40 mm	0,80 mm
50	1,40 mm	0,80 mm
63	1,50 mm	0,90 mm
75	1,60 mm	1,00 mm
90	1,80 mm	1,20 mm

Ovality PN10/PN16		
Ø	Standard	IBG®
20	-	-
25	-	-
32	-	-
40	1,40 mm	0,80 mm
50	1,40 mm	0,80 mm
63	1,50 mm	0,90 mm
75	1,60 mm	1,00 mm
90	1,80 mm	1,20 mm

Table 2 – special allowable ovality for IBG® PVC-U pipes

Example: Overlapping tolerance zones

	IBG® PVC-U pipe d50 PN10		IBG® PVC-U fitting d50 PN10
	without considering the ovality	with considering the ovality (= total of 0,5 mm)	without considering the ovality
smallest permissible diameter	50,00 mm	49,75 mm	50,10 mm
largest permissible diameter	50,10 mm	50,35 mm	50,30 mm

One IBG® PVC-U fittings manufactured at the maximum tolerance (50,30 mm) will not smoothly fit into one IBG® PVC-U pipe manufactured at the allowed diameter of 50,35 mm, therefore a dry installation will be hindered.

Declaration concerning warranty

Valves, fittings and pipes delivered by Praher Plastics Austria GmbH are developed and produced according to **international and national standards.** Our products have to be exclusively used in the appropriate applications fields. In this regards, the technical data sheet (pressure-loss-diagram) as well as the operation manual (correct installation, dismounting) and technical regulations published by the plastics industry as well as chemical resistance lists must be complied with. Modifications on the product realized on a stand-alone basis are the responsibility and the risk of the plant manufacturer. Information regarding certificates and eligibility for certifications can be found in the manufacturer's declaration. Declarations of conformity for the corresponding valves are available according to the pressure equipment directive.

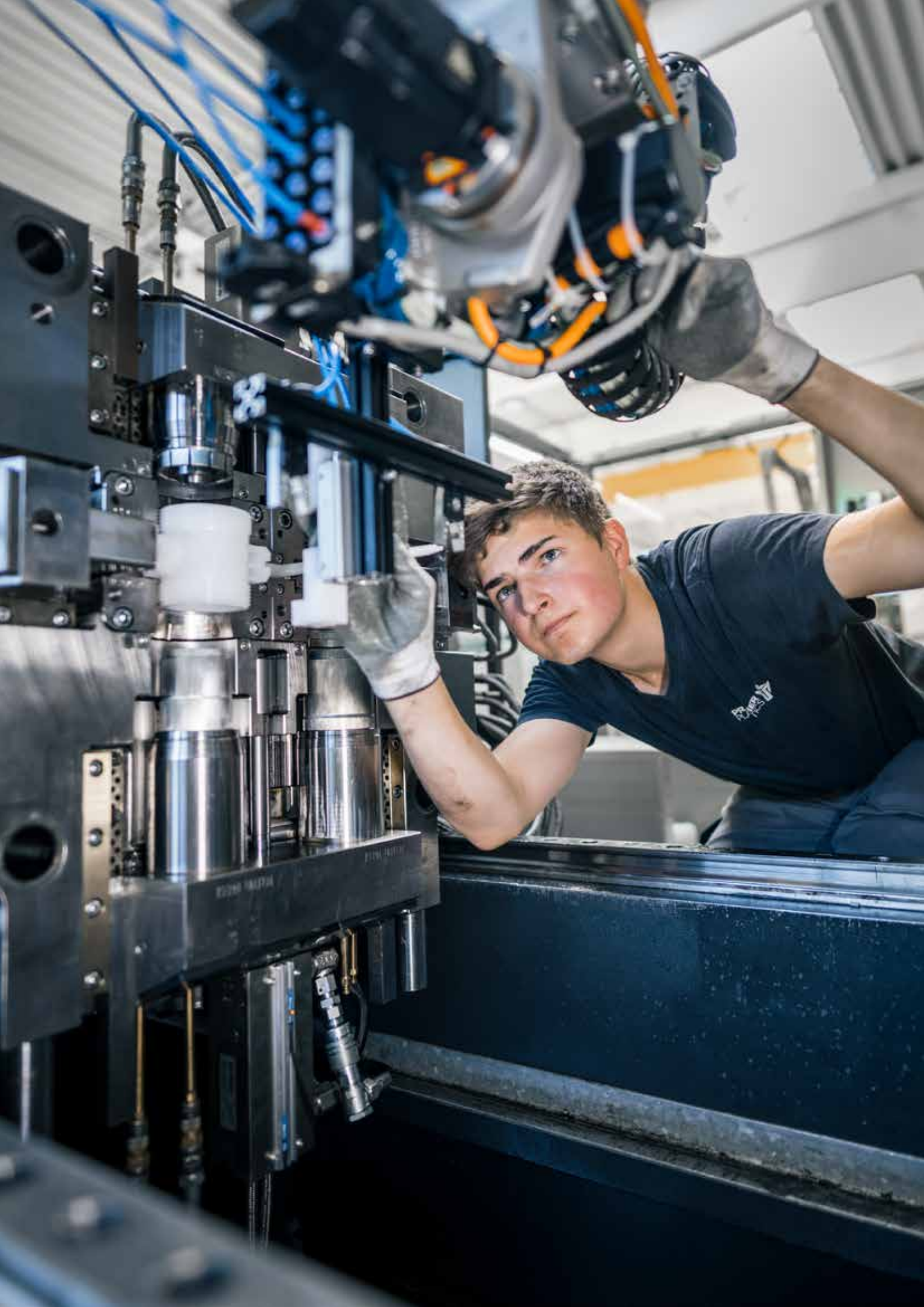
Leak and function tests have to be carried out before **commissioning**. After the pressure test, all nuts and screws of the entire pipe system must be retightened in a depressurized state.

We recommend a **maintenance service** (testing of functionality and tightness) and careful visual inspection in regular maintenance intervals, whereas with high aggressive media, strong vibrations and significant variations of temperature, the intervals must be shortened. Seals must be considered as wear materials and must be lubricated and/or changed regularly. With unfiltered media we recommend the installation of line strainers. Before returning the product, we kindly ask you to inform our representation in your country. In order to make a **guarantee claim**, it is necessary to demonstrate that a test of functionality and tightness has been carried out.

Further **information** as well as above mentioned information sheets can be provided by our representation in your country or under **www.praher-plastics.com**. Our products are improved continuously in regards to technical progress and further development. Thus, we reserve the right to implement changes and improvements without notice.

Content

All the technical data presented in this catalogue is valid at the time of printing. As we are continuously improving and developing our products, we reserve the right to introduce modifications to the technical data at any time. As a consequence, we cannot accept legal liability for the above information, nor for any printing mistakes that may have occured.



PRAHER PLASTICS

Valves

As an Austrian company, our internal processes are DIN ISO 9001 certified. The raw materials, seals and accessories are tested for quality before production even begins. Continuous inspections are carried out during the entire production process and the injection molded products are tested over and over. Final leak, tensile and pressure tests guarantee the high quality of Praher valves.

2 way industrial ball valve M1

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Laboratory ball valve S4

30

2 way ball valve S4

31

3 way ball valve S4

32

Cone check valve S4

36

Footvalve, aerating valve S4

37

Line strainer S4

38

2 way ball valve S6

39

Diaphragm valve T7

40

Diaphragm valve T4

44

Butterfly valve K4

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Wafer check valve K6

56

Wafer check valve K4

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Wafer check valve S4

60

Flow meter M123/M335/ M350

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6-way backwash valve V6

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Aquastar®

63

Knife gate valve

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Accessories

<?>

Pipes and Fittings IBG

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PRAHER PLASTICS

At **www.praher-plastics.com** you will find data sheets, CAD data and further detailed information about our products.

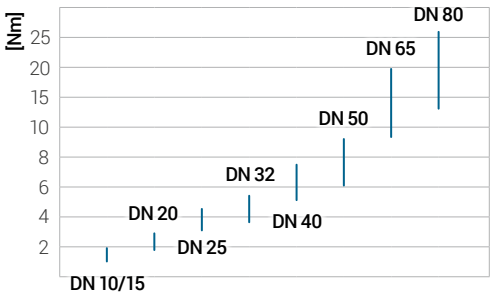
Modular industrial ball valve M1

- Modular design
- Silicon-free
- Buttress thread for perfect fit of the union nut
- Integrated bracket for fix point mounting
- Integrated fixations for the modular adapter set: one-piece injected valve body
- Cushion O-Ring for PTFE seat
- Double sealed shaft
- Locking handle with integrated PLS (Praher Labelling System)
- Version with plastic screws available on request
- Drinking water approvals

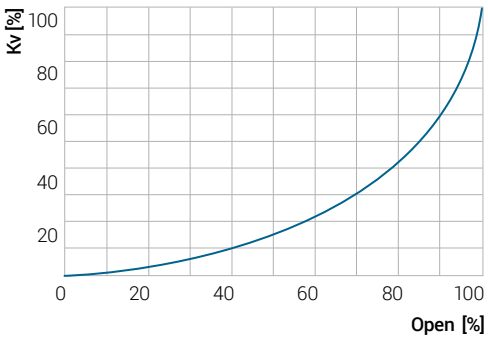
Please consider the technical information in our data sheets.

Performance

Torque



Flow Rate



1 Position Feedback

2 Adapter Set PA-GF

3 Clamping/Spacing Element

4 Labelling Inserts

5 Plastic screws (on request)

6 Fix point mounting

7 Dome cover

8 Buttress thread

9 Handle locking plate

10 Different connector types

11 Union nut lock

12 Flow Adjust

13 Adapter Set PP-GF

14 Customized handle

NEW

Flow Adjust

Anti-twist positioning of ball in flow. Repeatable and accurate adjustment of the flow rate by 5° grid and scaling.

NEW

Adapter Set PP-GFR

The new PP-GFR Adapter Set M1 is characterized by both high chemical resistance and long life in acid applications.

2 way industrial ball valve M1

- Modular design
- Silicon-free
- Buttress thread for perfect fit of the union nut
- Integrated bracket for fix point mounting
- Integrated fixations for the modular adapter set: one-piece injected valve body
- Cushion O-Ring for PTFE seat
- Double sealed shaft
- Locking handle with integrated PLS (Praher Labelling System)
- Version with plastic screws available on request

		Seals	Dimensions	PN	Connections
Models					
 PVC-U	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16 10	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot PE fusion spigot long Fix flange Backing flange
 PP-H	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	10	Fusion socket Fusion spigot Fusion spigot long Threaded socket PE fusion socket PE fusion spigot PE fusion spigot long Backing flange
 PVDF	FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16	Fusion socket Fusion spigot Threaded socket Backing flange

Cv-value-table/Pressure Loss

PVC-U	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80 d90	DN80 d110
0,001 bar	6,2	7,1	12,6	19,9	28,4	67,0	94,8	162,8	240,3	240,3
1 bar	198	225	400	630	900	2120	3000	5150	7600	7600

Specification in l/min (PN16 Pipe)

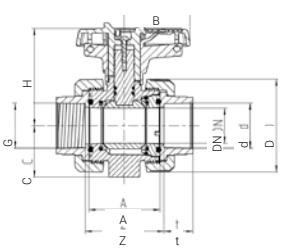
PP & PVDF	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80 d90	DN80 d110
0,001 bar	4,1	6,0	13,9	20,6	34,2	62,6	102,5	164,4	237,1	279,8
1 bar	130	190	440	650	1080	1980	3240	5200	7500	8850

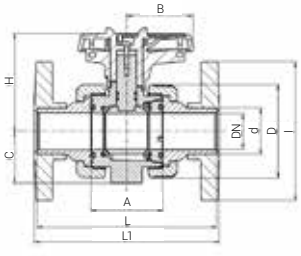
Specification in l/min

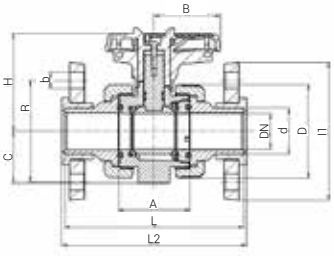
PVC–U	d	DN	G	A	B	C	D	E	F	H	I	t	Z	L	L1	L2
Dimensions	16	10	3/8"	45	39,5	33	55,5	5,5	34	70,5	–	13–17	48–52,5	95–98	–	–
	20	15	½"	45	39,5	33	55,5	5,5	34	70,5	97	14–16,5	50	106,5–123,5	130	129,5
	25	20	¾"	53,5	51	40	62	5,5	36	77	105	15,5–19,5	59,5–62	126,5–143,5	150	149,5
	32	25	1"	54	51	43	70	6,5	38	79,5	125	18,5–23	60–64,5	131–153,5	160	159,5
	40	32	1 ¼"	62	63,5	51	84	6,5	40	98	140	15–26,5	68–75	120–173,5	180	178,5
	50	40	1 ½"	78	72	56	101	6,5	45	105,5	150	25–31,5	86–97	162,5–193,5	200	200
	63	50	2"	87	84	64	115	6,5	50	114	165	29,5–38,5	98–110,5	175–223,5	230	228,5
	75	65	2 ½"	111,5	110	85	149	8,3	65	142	185	32–44,5	122–139,5	227–259,5	266	265,5
	90	80	3"	135,5	132	100	182	10,3	80	153	200	30–56,5	152,5–181,5	265,5–297	307,5	308
	110	80	4"	135,5	132	100	182	10,3	80	153	229	35,5–61	162–185,5	324,5	324,5	325

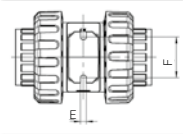
PP & PVDF	d	DN	G	A	B	C	D	E	F	H	I	t	Z	L	L1
Dimensions	16	10	3/8"	61,5	40	33	56,5–58	5,4	34	74,5	–	13–14,5	66–69,5	111,5–114	–
	20	15	½"	61,5	40	33	56,5–58	5,4	34	74,5	95	14–16	66,5–67,5	123–124	168
	25	20	¾"	69	51,5	40	67–68,5	5,4	36	83	108	15,5–17,5	74–79	141,5–143	185
	32	25	1"	73	51,5	43,5	73,5–75,5	6,4	38	85,5	115	18–19,5	80–84	150–152	190
	40	32	1¼"	83	64	51	90–92	6,4	40	104,5	140	20,5–22	89–97	141–171	206
	50	40	1½"	94	73	56,5	105,5–108	6,4	45	113	150	23–25,5	102–114	179–191	321
	63	50	2"	108,5–109	85	64,5	124,5–127,5	6,4	50	121,5	165	27–29	119–136,5	197–221	385
	75	65	2 ½"	131,5	110	85	157,5–160	8,3	65	151,5	184–186	31–35	142–159,5	247–278	420
	90	80	3"	156,5	132	100	192,5–196,5	10,3	80	167	194–202	36–38,5	173,5–206,5	186,5–292	380
	110	80	4"	156,5	132	100	192,5–196,5	10,3	80	167	220–229	40–44	204,5–207,5	316–318,5	437

The table shows the total dimension range for PP and PVDF ball valves. Please find exact dimensions in our technical data sheets at www.praher-plastics.com.









2 way industrial ball valve M1 LIM

With positon feedback

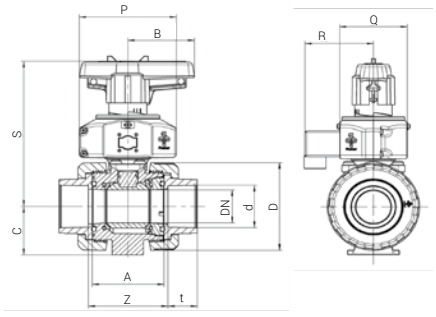
Limit switch IP67 mechanical
Ag-Ni, inductive or NAMUR incl. stainless steel bolts and device plug IP65

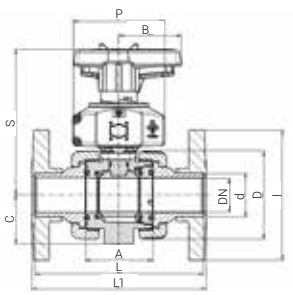
On request
• mechanical Au

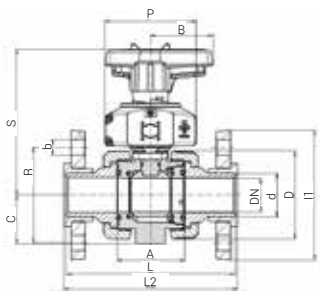
		Seals	Dimensions	PN	Connections
Models	PVC-U	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16 10	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot Fix flange Backing flange
	PP-H	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	10	Fusion socket Fusion spigot PE fusion socket PE fusion spigot Backing flange
	PVDF	FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16	Fusion socket Fusion spigot Backing flange

PVC-U	d	DN	G	A	B	C	D	I	P	Q	R	S	t	Z	L1	L2
Dimensions	16	10	3/8"	45	39,5	33	55,5	–	98	64	70	126	13–17	48–52,5	–	–
	20	15	½"	45	39,5	33	55,5	97	98	64	70	126	14–16,5	50	130	129,5
	25	20	¾"	53,5	51	40	62	105	102	64	70	137	15,5–19,5	59,5–62	150	149,5
	32	25	1"	54	51	43,5	70	125	102	64	70	139,5	18,5–23	60–64,5	160	159,5
	40	32	1 ¼"	62	63,4	51	84	140	105	74	75	159,5	15–26,5	68–75	180	178,5
	50	40	1 ½"	78	72	56,5	101	150	105	74	75	167	29–31,5	86–97	200	200
	63	50	2"	87	84	64,5	115	165	105	74	75	175,5	31–38,5	98–110,5	230	228,5
	75	65	2 ½"	111,5	110	85	149	185	116	99	88	213	32–44,5	122–139,5	266	265,5
	90	80	3"	135,5	132	100	182	200	116	99	88	238	30–56,5	152,5–181,5	307,5	308
	110	80	4"	135,5	132	100	182	229	116	99	88	238	35,5–61	162–185,5	324,5	325

PP & PVDF	d	DN	G	A	B	C	D	I	P	Q	R	S	t	Z	L2
Dimensions	16	10	3/8"	61,5	40	33	56,5–58	–	98	64	70	127	13–14,5	66,8–69,5	–
	20	15	½"	61,5	40	33	56,5–58	95	98	64	70	127	14–16	66,5–67,5	168
	25	20	¾"	69	51,5	40	67–68,5	102–108	102	64	70	138	15,5–17,5	74–79	185
	32	25	1"	73	51,5	43,5	73,5–75,5	114–115	102	64	70	141	18–19,5	80–84	190
	40	32	1 ¼"	83	64	51	90–92	130–140	105	74	75	159,5	20,5–22	89–97	206
	50	40	1 ½"	94	73	56,5	105,5–108	133–150	105	74	75	168,5	23–25,5	102–114	321
	63	50	2"	108,5–109	85	64,5	124,5–127,5	162–165	105	74	75	177,5	27–29	119–137	385
	75	65	2 ½"	131,5	110	85	157,5–160	184–186	116	99	88	215	31–35	142–159,5	420
	90	80	3"	156,5	132	100	192,5–196,5	194–202	116	99	88	246,5	36–38,5	173,5–206,5	380
	110	80	4"	156,5	132	100	192,5–196,5	220–229	116	99	88	246,5	40–44	204,5–207,5	437







2 way industrial ball valve M1 ELE

Valpes actuator (1)
- 24V AC/DC or 90–240V AC
- Optical position indication
- Manual hand override
- 4 adjustable limit switches
- Torque and force limiters
- Travel time 6–50 sec
- Duty cycle 30%
- IP 65 protected
- Versions: Fail-safe (IP 66) or 4–20 mA Positioner (IP 66)

EO510 actuator (2)
(d16/DN10–d32/DN25)
- 12–24V AC/DC or 100–230V AC
- Optical position indication
- Manual hand override
- Short travel time
- IP 65 protected

2

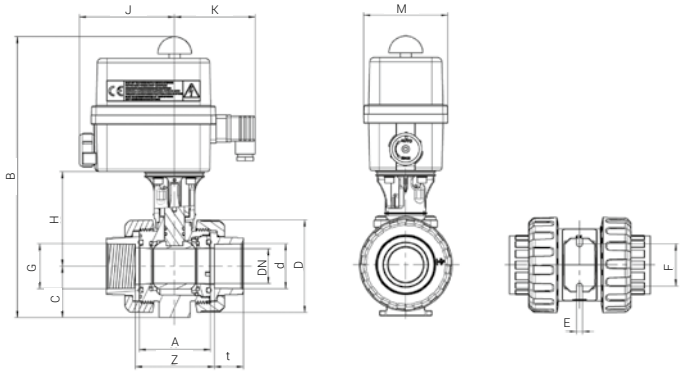
1

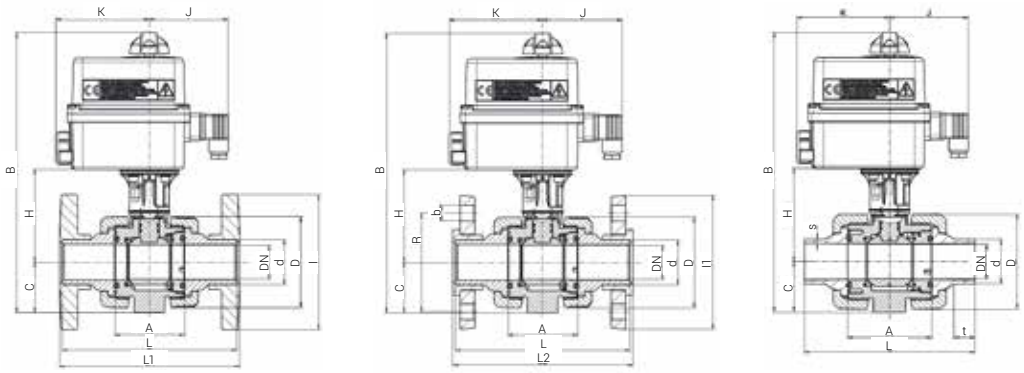
EO510
The handle of the EO510 ensures an optimal handling of the manual override.

		Seals	Dimensions	PN	Connections
Models					
	PVC-U	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16 10	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot Fix flange Backing flange
	PP-H	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	10	Fusion socket Fusion spigot Backing flange
	PVDF	FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16	Fusion socket Fusion spigot Backing flange

PVC-U	d	DN	G	A	B	C	D	E	F	H	I	t	J	K	Z	L	L1	L2	M
Dimensions	16	10	3/8"	45	265	33	55,5	5,5	34	80	–	13–17	90	107	48–52,5	95–98	–	–	92
	20	15	½"	45	265	33	55,5	5,5	34	80	97	14–16,5	90	107	50	106,5–123,5	130	129,5	92
	25	20	¾"	53,5	277,5	40	62	5,5	36	85,5	105	15,5–19,5	90	107	59,5–62	126,5–143,5	150	149,5	92
	32	25	1"	54	283	43	70	6,5	38	88	125	18,5–23	90	107	60–64,5	131–153,5	160	159,5	92
	40	32	1 ¼"	62	300	51	84	6,5	40	97	140	15–26,5	90	107	68–75	120–173,5	180	178,5	92
	50	40	1 ½"	78	311	56	101	6,5	45	103	150	29–31,5	90	107	86–97	162,5–193,5	200	200	92
	63	50	2"	87	325,5	64	115	6,5	50	109,5	165	31–38,5	90	107	98–110,5	175–223,5	230	228,5	92
	75	65	2 ½"	111,5	398	85	149	8,3	65	136,5	185	32–44,5	98	107	122–139,5	227–259,5	266	265,5	128
	90	80	3"	135,5	436,5	100	182	10,3	80	159,5	200	30–56,5	98	107	152,5–181,5	265,5–297	307,5	308	128
	110	80	4"	135,5	436,5	100	182	10,3	80	159,5	229	35,5–61	98	107	162–185,5	324,5	324,5	325	128

PP & PVDF	d	DN	G	A	B	C	D	E	F	H	I	t	J	K	Z	L	L2	M
Dimensions	16	10	3/8"	61,5	266	33	56,5–58	5,4	34	81	–	13–14,5	90	107	66,8–69,5	111,5–114	–	92
	20	15	½"	61,5	266	33	56,5–58	5,4	34	81	95	14–16	90	107	66,5–67,5	123–124	168	92
	25	20	¾"	69	278,5	40	67–68,5	5,4	36	86,5	102–108	15,5–17,5	90	107	74–79	141,5–143	185	92
	32	25	1"	73	285	43,5	73,5–75,5	6,4	38	89,5	114–115	18–19,5	90	107	80–84	150–151	190	92
	40	32	1 ¼"	83	300	51	90–92	6,4	40	97	130–140	20,5–22	90	107	89–97	141–171	206	92
	50	40	1 ½"	94	313	56,5	105,5–108	6,4	45	104,5	133–150	23–25,5	90	107	102–114	179–191	321	92
	63	50	2"	108,5–109	328	64,5	124,5–127,5	6,4	50	111,5	162–165	27–29	90	107	119–137	197–221	385	92
	75	65	2 ½"	131,5	400	85	157,5–160	8,3	65	138,5	184–186	31–35	98	107	142–159,5	247–278	420	128
	90	80	3"	156,5	445	100	192,5–196,5	10,3	80	168	194–202	36–38,5	98	107	173,5–206,5	186,5–292	380	128
	110	80	4"	156,5	445	100	192,5–196,5	10,3	80	168	220–229	40–44	98	107	204,5–207,5	316–318,5	437	128





2 way industrial ball valve M1 PNE

PO-NC[1]
PO-NO[2]
PO-DA[3]

- Aluminium anodised body
- Aluminium epoxy powder coated end caps
- Any installation position
- Rotation angle 90°, +/- 10°
- Integrated optical position indication
- Limit switch box
- Solenoid valve
- Limit switch box and Solenoid valve

1 Single acting: normally closed

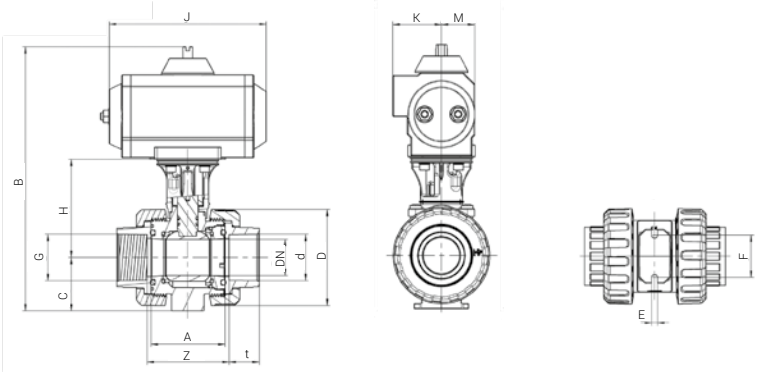
2 Single acting: normally open

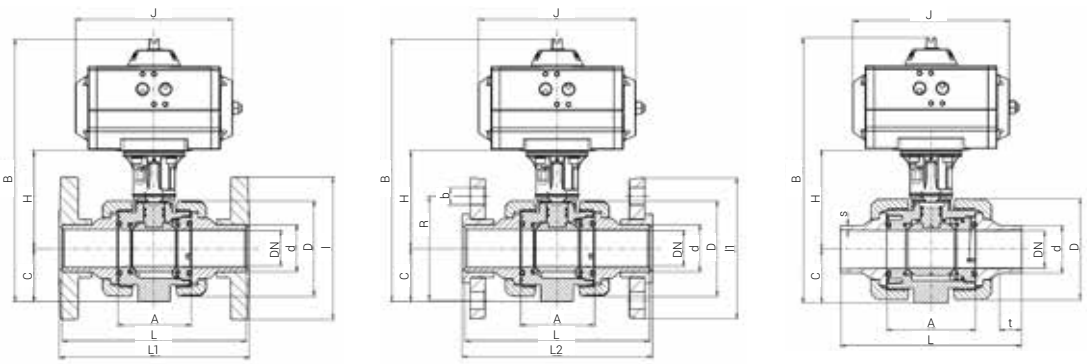
3 Double acting

		Seals	Dimensions	PN	Connections
Models	PVC-U	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16 10	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot Fix flange Backing flange
	PP-H	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	10	Fusion socket Fusion spigot Backing flange
	PVDF	FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16	Fusion socket Fusion spigot Backing flange

PVC-U	d	DN	G	A	B	C	D	E	F	H	I	t	J	K	Z	L	L1	L2	M
Dimensions	16	10	3/8"	45	214	33	55,5	5,5	34	80	-	13-17	119	40	48-52,5	95-98	-	-	27
	20	15	½"	45	214	33	55,5	5,5	34	80	97	14-16,5	119	40	50	106,5-123,5	130	129,5	27
	25	20	¾"	53,5	226,5	40	62	5,5	36	85,5	105	15,5-19,5	119	40	59,5-62	126,5-143,5	150	149,5	27
	32	25	1"	54	232	43	70	6,5	38	88	125	18,5-23	119	40	60-64,5	131-153,5	160	159,5	27
	40	32	1 ¼"	62	269	51	84	6,5	40	97	140	15-26,5	165	50	68-75	120-173,5	180	178,5	35
	50	40	1 ½"	78	280	56	101	6,5	45	103	150	29-31,5	165	50	86-97	162,5-193,5	200	200	35
	63	50	2"	87	294,5	64	115	6,5	50	109,5	165	31-38,5	165-197	50	98-110,5	175-223,5	230	228,5	35
	75	65	2 ½"	111,5	364,5-383,5	85	149	8,3	65	136,5	185	32-44,5	178-230	53-61,5	122-139,5	227-259,5	266	265,5	43-52
	90	80	3"	135,5	402,5-455	100	182	10,3	80	159,5	200	30-56,5	178-246	53-72,5	152,5-181,5	265,5-297	307,5	308	43-65,5
	110	80	4"	135,5	402,5-455	100	182	10,3	80	159,5	229	35,5-61	178-246	53-72,5	162-185,5	324,5	324,5	325	43-65,5

PP & PVDF	d	DN	G	A	B	C	D	E	F	H	I	t	J	K	Z	L	L2	M
Dimensions	16	10	3/8"	61,5	214	33	56,5-58	5,4	34	81	-	13-14,5	119	40	66,8-69,5	111,5-114	-	27
	20	15	½"	61,5	214	33	56,5-58	5,4	34	81	95	14-16	119	40	66,5-67,5	123-124	168	27
	25	20	¾"	69	226,5	40	67-68,5	5,4	36	86,5	102-108	15,5-17,5	119	40	74-79	141,5-143	185	27
	32	25	1"	73	232	43,5	73,5-75,5	6,4	38	89,5	114-115	18-19,5	119	40	80-84	150-151	190	27
	40	32	1 ¼"	83	269	51	90-92	6,4	40	97	130-140	20,5-22	165	50	89-97	141-171	206	35
	50	40	1 ½"	94	280	56,5	105,5-108	6,4	45	104,5	133-150	23-25,5	165	50	102-114	179-191	321	35
	63	50	2"	108,5-109	294,5	64,5	124,5-127,5	6,4	50	111,5	162-165	27-29	165-197	50	119-137	197-221	385	35
	75	65	2 ½"	131,5	364,5-383,5	85	157,5-160	8,3	65	138,5	184-186	31-35	178-230	53-61,5	142-159,5	247-278	420	43-52
	90	80	3"	156,5	402,5-455	100	192,5-196,5	10,3	80	168	194-202	36-38,5	178-246	53-72,5	173,5-206,5	186,5-292	380	43-65,5
	110	80	4"	156,5	402,5-455	100	192,5-196,5	10,3	80	168	220-229	40-44	178-246	53-72,5	204,5-207,5	316-318,5	437	43-65,5





2 way industrial ball valve M1 ADA

With adapter set

- Automation electric, pneumatic or manual with position feedback
- Flange pattern according to EN ISO 5211 – F04, F05 or F07

Adapter Set

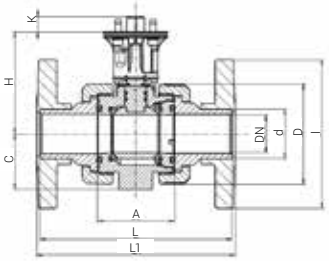
The modular design of the M1 ball valve enables a simple extension for individual automation. Flange pattern according to EN ISO 5211 – F04, F05 or F07.

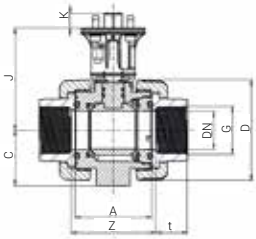
Available in two versions:
PP-GFR, for applications with high chemical concentrations.
PA-GFR, for high strength and long life in water applications.

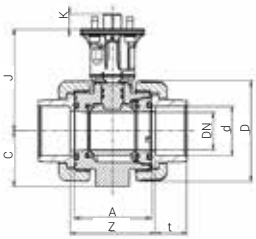
		Sales	Dimensions	PN	Connections
Models	PVC-U	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16 10	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot Fix flange Backing flange
	PP-H	EPDM, FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	10	Fusion socket Fusion spigot Threaded socket PE fusion socket PE fusion spigot Backing flange
	PVDF	FPM PTFE	DN10 / d16 / 3/8" – DN80 / d110 / 4"	16	Fusion socket Fusion spigot Threaded socket Backing flange

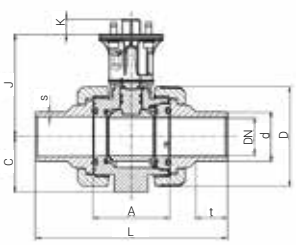
PVC-U	d	DN	ISO Flange	G	A	C	D	I	J	K	L	L1	L2
Dimensions	16	10	F04	3/8"	45	33	5,5	–	80	11	95–98	–	–
	20	15	F04	½"	45	33	55,5	97	80	11	106,5–123,5	130	129,5
	25	20	F04	¾"	53,5	40	62	105	85,5	11	126,5–143,5	150	149,5
	32	25	F04	1"	54	43	70	125	88	11	131–153,5	160	159,5
	40	32	F05	1 ¼"	62	51	84	140	97	15	120–173,5	180	178,5
	50	40	F05	1 ½"	78	56	101	150	103	15	162,5–193,5	200	200
	63	50	F05	2"	87	64	115	165	109,5	15	175–223,5	230	228,5
	75	65	F07	2 ½"	111,5	85	149	185	136,5	18	227–259,5	266	265,5
	90	80	F07	3"	135,5	100	182	200	159,5	18	265,5–297	307,5	308
	110	80	F07	4"	135,5	100	182	229	159,5	18	324,5	324,5	325

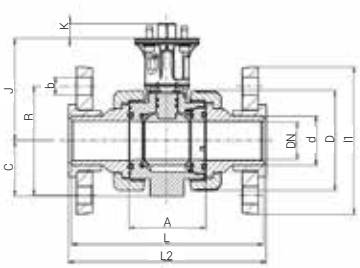
PP & PVDF	d	DN	ISO Flange	G	A	C	D	I	J	K	L	L2
Dimensions	16	10	F04	3/8"	61,5	33	56,5–58	–	81	11	111,5–114	–
	20	15	F04	½"	65,5	33	56,5–58	95	81	11	123–124	168
	25	20	F04	¾"	69	40	67–68,5	102–108	86,5	11	141,5–143	185
	32	25	F04	1"	73	43,5	76,5–75,5	114–115	89,5	11	150–151	190
	40	32	F05	1 ¼"	83	51	90–92	130–140	97	15	141–171	206
	50	40	F05	1 ½"	94	56,5	105,5–108	133–150	104,5	15	179–191	321
	63	50	F05	2"	108,5–109	64,5	124,5–127,5	162–165	11,5	15	197–221	385
	75	65	F07	2 ½"	131,5	85	157,5–160	184–186	138,5	18	247–278	420
	90	80	F07	3"	156,5	100	192,5–196,5	194–202	168	18	186,5–292	380
	110	80	F07	4"	156,5	100	192,5–160	220–229	168	18	316–318,5	437











Laboratory ball valve S4

- Safety locking ring for handle
- PTFE ball seat
- Connection set
- Assembling set

1 | Accessories

		Seals	Dimensions	PN	Connections
Models	PVC	EPDM, FPM PTFE	DN6 / d10 / R¼", R$^{3}/_{8}$"	10	Thread BSP, NPT
	PVDF	FPM PTFE	DN6 / d10 / R¼"	10	

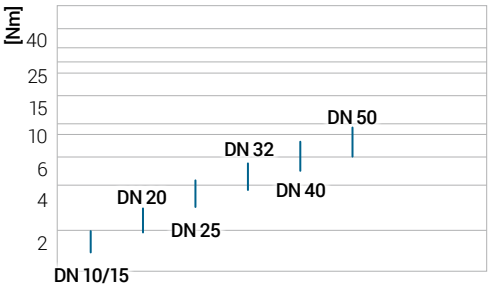
2 way ball valve PVC-C S4

- Locking handle with integrated PLS (Praher Labelling System)
- Machined ball
- Cushion O-Ring for PTFE seat
- Double sealed shaft
- Simple upgrade to automatic actuation
- Customized handle possible

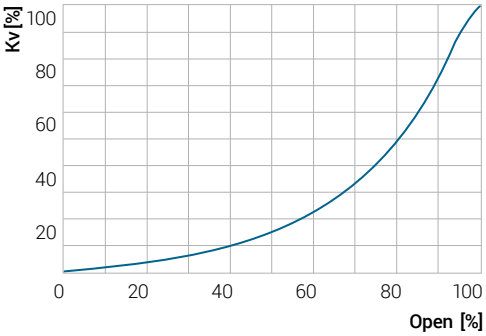
		Seals	Dimensions	PN	Connections
Model	 PVC-C	EPDM, FPM PTFE	DN10 / d16 /3/8" – DN50 / d63 / 2"	16	solvent cement socket solvent spigot threaded socket fix flange

Performance

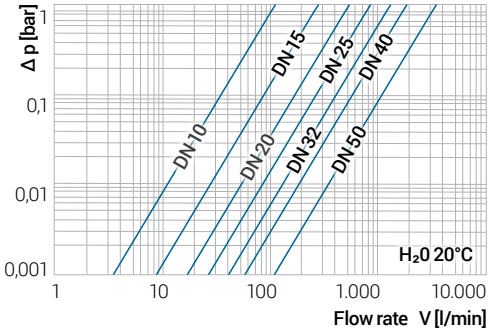
Torque



Flow Rate



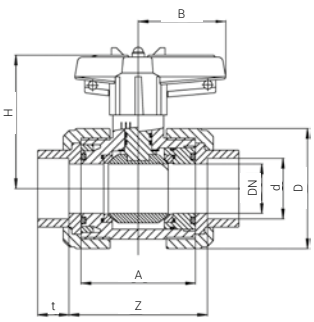
Pressure Loss

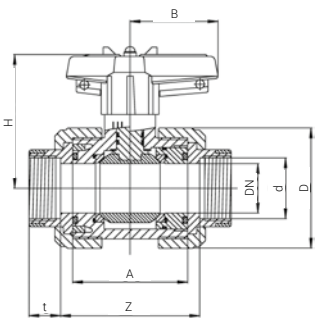


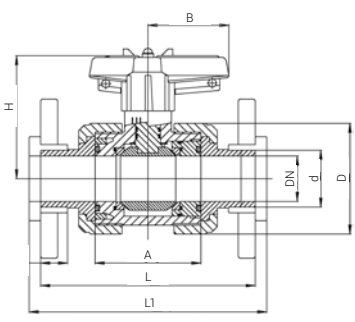
Dimensions

* Depends on material. For detailed dimensions see data sheet.

d	DN	G	L	L1	A	D	H	B	Z*	t*
16	10	3/8"	114	120	62	53	72	40	67,5–71	14,5–16,5
20	15	½"	124	130	62	53	72	40	67,5–71	14,5–16,5
25	20	¾"	144	150	70	63	78,5	51,5	76,5–79	17–19,5
32	25	1"	154	160	74	70	81,5	51,5	81–84	19,5–22,5
40	32	1 ¼"	174	180	84	85	100	64	90–96	22–26,5
50	40	1 ½"	194	200	95	101	107,5	73	104–114	25–31,5
63	50	2"	224	230	109	121,5	116,5	85	121–134	29–38,5







3 way ball valve S4

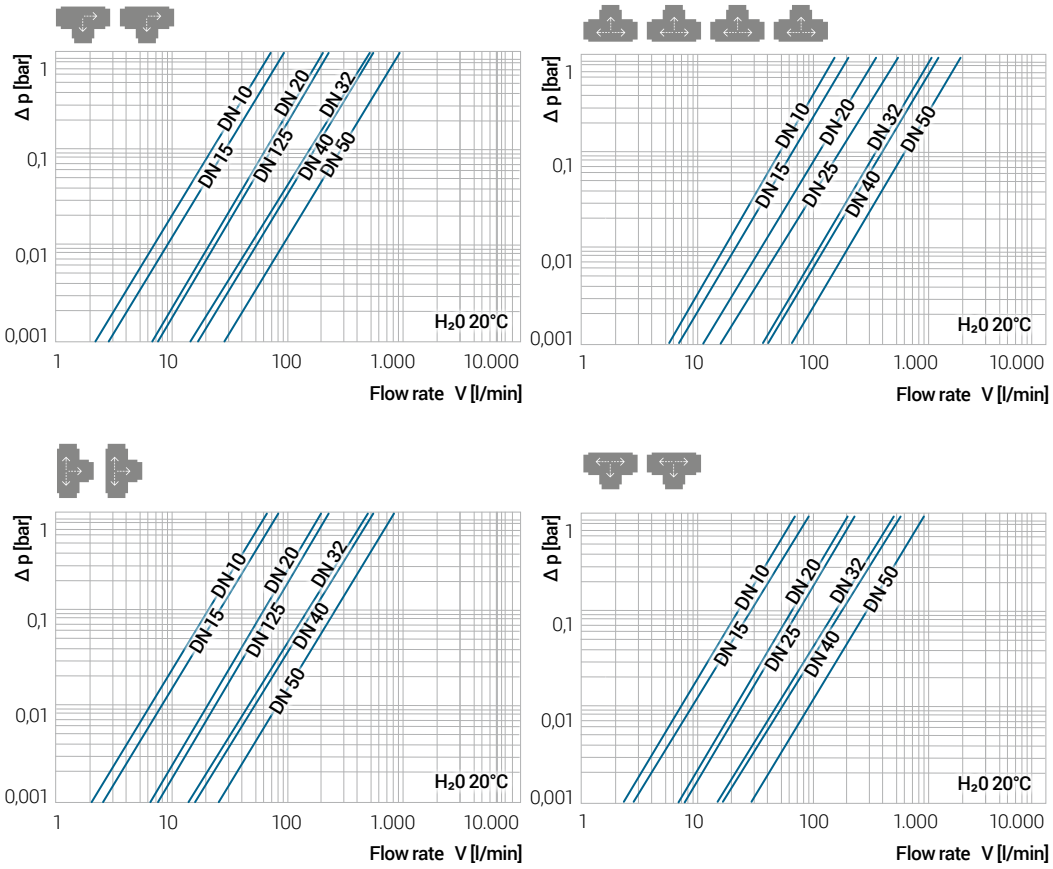
- L or T ball
- Locking handle with integrated PLS (Praher Labelling System)
- Machined ball
- Cushion O-Ring for PTFE seat
- Double sealed shaft
- 90° or 180° limitation on optional basis
- Simple upgrade to automatic actuation
- Customized handle possible

Models

	Seals	Dimensions	PN	Connections
PVC-U	EPDM, FPM PTFE	DN10 / d16 /$^{3}/_{8}$" – DN50 / d63 / 2"	16	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
PP	EPDM, FPM PTFE	DN10 / d16 / $^{3}/_{8}$" – DN50 / d63 / 2"	10	Fusion socket Fusion spigot Threaded socket Flange
PVDF	FPM PTFE	DN10 / d16 / $^{3}/_{8}$" – DN50 / d63 / 2"	16	

Performance

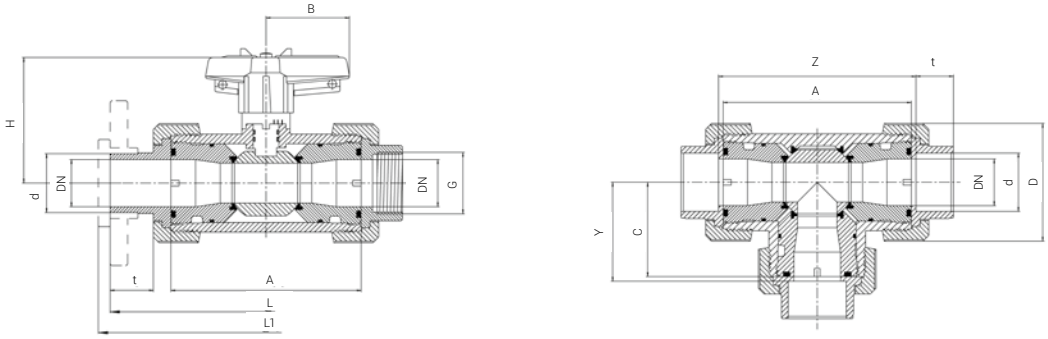
Pressure Loss



Dimensions

d	DN	G	L	L1	A	D	H	B	Y	C	Z*	t*
16	10	$^{3}/_{8}$"	152	158	100	53	72	40	52,8	50	105,5–109	14,5–16,5
20	15	½"	162	168	100	53	72	40	52,8	50	105,5–109	14,5–16,5
25	20	¾"	191	197	120	70	81,5	51,5	63	60	126–129	17–20
32	25	1"	200	206	120	70	81,5	51,5	63,5	60	127–130	19,5–22,5
40	32	1 ¼"	249	255	162	101	107,5	73	84,5	81	169–178	22–27,5
50	40	1 ½"	261	267	162	101	107,5	73	85,5	81	171–181	25–31,5
63	50	2"	296	302	181	121,5	116,5	85	96,5	90,5	193–206	29–38,5

* Depends on material.
For detailed dimensions see data sheet.



3 way ball valve S4 ELE

L or T Ball

2

1

Valpes actuator (1)
- 15–30 V AC, 12-48 V DC or 100–240V AC
- Optical position indication
- Manual hand override
- 7 adjustable limit switches
- Electronic torque limitation
- Travel time 12 sec
- Duty cycle 50%
- IP 66 protected
- Anti-condensation-system

EO510 actuator (2)
(d16/DN10 – d32/DN25)
- 12–24 V AC/DC or 100–230V AC
- Optical position indication
- Manual hand override
- 4 limit switches
- Short travel time
- IP 65 protected

EO510
The handle of the EO510 ensures an optimal handling of the manual override.

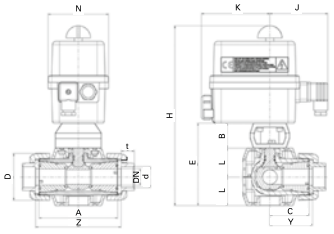
		Seals	Dimensions	Ant.	PN	Connections
Models	PVC-U	EPDM, FPM PTFE	DN10/d16/3/8"–DN25/d32/1" DN10/d16/3/8" –DN50/d63/2"	EO510 Valpes	10 16	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
	PP	EPDM, FPM PTFE	DN10/d16/3/8"–DN25/d32/1" DN10/d16/3/8" –DN50/d63/2"	EO510 Valpes	10 10	Fusion socket Fusion spigot Threaded socket Flange
	PVDF	FPM PTFE	DN10/d16/ 3/8"–DN25/d32/1" DN10/d16/3/8" –DN50/d63/2"	EO510 Valpes	10 16	

Dimensions

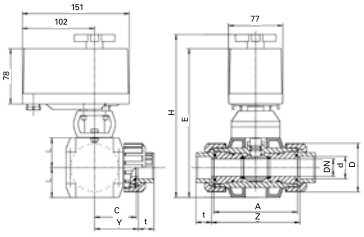
* Depends on material. For detailed dimensions see data sheet.

	d	DN	G	A	C	D	E	L	H	Y	Z*	t*
EO510	16	10	3/8"	100	50	53	105	33,5	257	53	106–136	13–16,5
	20	15	1/2"	100	50	53	105	33,5	257	53	106–136	14,5–16,5
	25	20	3/4"	120	60	70	122	42	274	63	126–163	16,5–20
	32	25	1"	120	60	70	122	42	274	63,5	126–167	18–22,5
VALPES	16	10	3/8"	100	50	53	105	33,5	257	53	106–136	13–16,5
	20	15	1/2"	100	50	53	105	33,5	257	53	106–136	14,5–16,5
	25	20	3/4"	120	60	70	122	42	274	63	126–163	16,5–20
	32	25	1"	120	60	70	122	42	274	63,5	126–167	18–22,5
	40	32	1¼"	162	81	101	277	56	307	84,5	169–178	22–27,5
	50	40	1½"	162	81	101	277	56	307	85,5	171–181	25–31,5
	63	50	2"	181	90,5	121,5	293	64	323	96,5	193–206	29–38,5

VALPES



EO510



PRAHER PLASTICS

3 way ball valve S4 PNE

PO-NC[1]
PO-NO[2]
PO-DA[3]

- L or T ball
- Aluminium anodised body with aluminium epoxy powder coated end caps
- Any installation position
- Rotation angle 90°, +/- 10°
- Integrated optical position indication

Accessories
- Limit switch box
- Solenoid valve

1 Single acting: normally closed

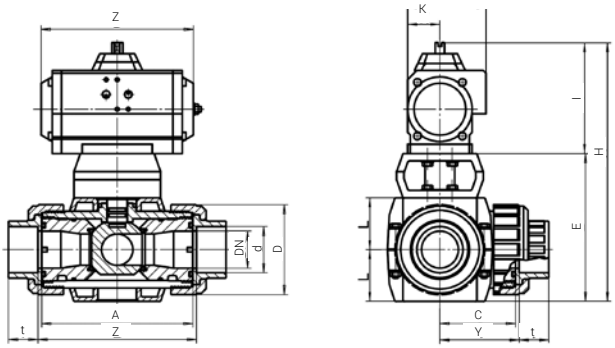
2 Single acting: normally open

3 Double acting

		Seals	Dimensions	PN	Connections
Models	PVC-U	EPDM, FPM PTFE	DN10 / d16 / ³⁄₈" – DN50 / d63 / 2"	10	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
	PP	EPDM, FPM PTFE	DN10 / d16 / ³⁄₈" – DN50 / d63 / 2"	10	Fusion socket Fusion spigot Threaded socket Flange
	PVDF	FPM PTFE	DN10 / d16 / ³⁄₈" – DN50 / d63 / 2"	10	

	d	DN	G	L	L1	A	D	H	B	Y	C	Z*	t*
Dimensions	16	10	³⁄₈"	152	158	100	53	72	40	52,8	50	105,5–109	14,5–16,5
	20	15	½"	162	168	100	53	72	40	52,8	50	105,5–109	14,5–16,5
	25	20	¾"	191	197	120	70	81,5	51,5	63	60	126–129	17–20
	32	25	1"	200	206	120	70	81,5	51,5	63,5	60	127–130	19,5–22,5
	40	32	1 ¼"	249	255	162	101	107,5	73	84,5	81	169–178	22–27,5
	50	40	1 ½"	261	267	162	101	107,5	73	85,5	81	171–181	25–31,5
	63	50	2"	296	302	181	121,5	116,5	85	96,5	90,5	193–206	29–38,5

* Depends on material. For detailed dimensions see data sheet.



Cone check valve S4

- Modular series concept
- Spring material AISI 316 (V4A) or PTFE coated
- Reduces noise and vibrations during in line turbulence

1 Cone

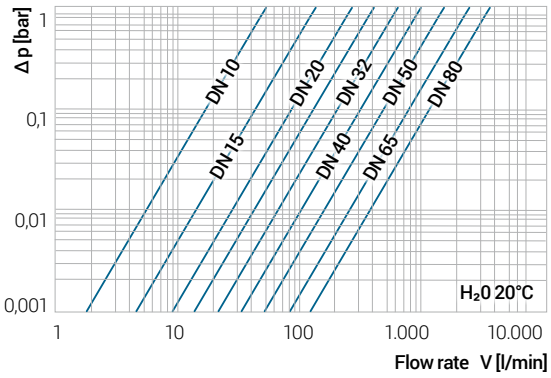
1

Models

	Seals	Dimensions	PN	Connections
 PVC-U	EPDM, FPM	DN10/d16/3/8"–DN65/d75/2 ½" DN80 / d90 / 3" DN80 / d110 / 4"	16 10 6	Solent cement socket Solent spigot Threaded socket Flange PE fusion socket PE fusion spigot
 PVC-C	EPDM, FPM	DN10/d16/3/8"–DN50/d63/2"	16	
 PP	EPDM, FPM	DN10/d16/3/8"–DN50/d63/2" DN65/d75/2 ½" DN80/d90/3"–DN80/d110/4"	10 8 6	Fusion socket Fusion spigot Threaded socket Flange
PVDF	FPM	DN10/d16/3/8"–DN65/d75/2 ½" DN80/d90/3" DN80/d110/4"	16 10 6	

Performance

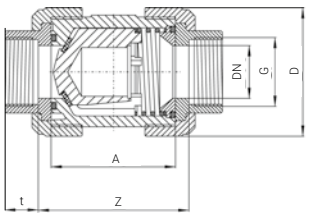
Pressure Loss

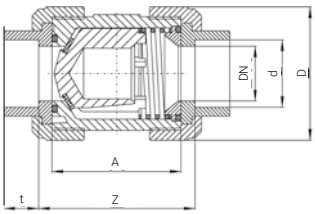


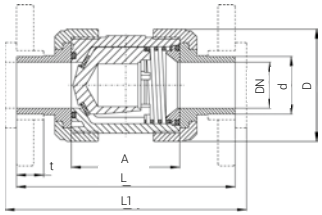
Dimensions

* Depends on material. For detailed dimensions see data sheet.

d	DN	G	L	L1	A	D	Z*	t*
16	10	3/8"	114	120	62	53	67,5–71	14,5–16,5
20	15	½"	124	130	62	53	67,5–71	14,5–16,5
25	20	¾"	144	150	70	63	76–79	17–19,5
32	25	1"	154	160	74	70	81–84	19,5–22,5
40	32	1 ¼"	174	180	84	85	90–96	22–26,5
50	40	1 ½"	194	200	95	101	104–114	25–31,5
63	50	2"	224	230	109	121,5	121–134	29–38,5
75	65	2 ½"	284	290	137	155	148–162	34,5–45
90	80	3"	300	310	163	188	183–211	38,5–55,5
110	80	4"	340	350	163	188	176–207	44–64







PRAHER PLASTICS

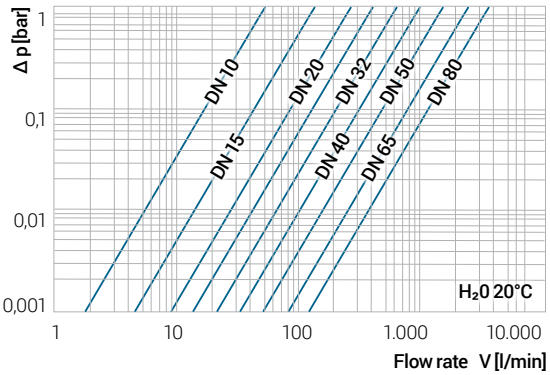
Footvalve, aerating valve S4

- Modular series concept
- Two cone design options for the two different aerating valve applications
- PP strainer for foot valve

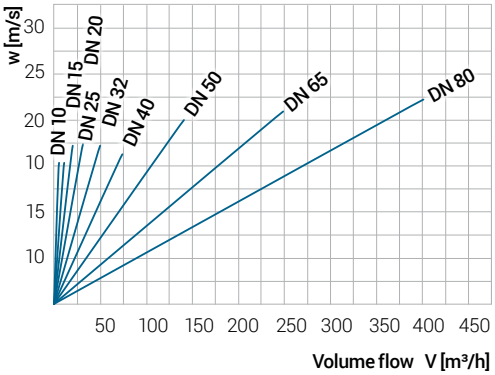
		Seals	Dimensions	PN	Connections
Models					
	PVC-U	EPDM, FPM	DN10/d16/⅜"–DN65/d75/2 ½" DN80 / d90 / 3" DN80 / d110 / 4"	16 10 6	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
	PP	EPDM, FPM	DN10/d16/⅜"–DN50/d63/2" DN65/d75/2 ½" DN80/d90/3"–DN80/d110/4"	10 8 6	Fusion socket Fusion spigot Threaded socket Flange

Performance

Pressure Loss



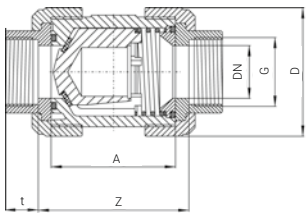
Air Volume (aer. v.)

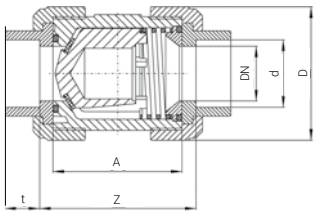


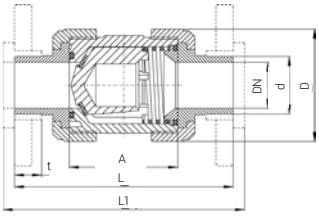
Dimensions

* Depends on material. For detailed dimensions see data sheet.

d	DN	G	L	L1	A	D	Z*	t*
16	10	⅜"	114	120	62	53	67,5–71	14,5–16,5
20	15	½"	124	130	62	53	67,5–71	14,5–16,5
25	20	¾"	144	150	70	63	76–79	17–19,5
32	25	1"	154	160	74	70	81–84	19,5–22,5
40	32	1 ¼"	174	180	84	85	90–96	22–26,5
50	40	1 ½"	194	200	95	101	104–114	25–31,5
63	50	2"	224	230	109	121,5	121–134	29–38,5
75	65	2 ½"	284	290	137	155	148–162	34,5–45
90	80	3"	300	310	163	188	183–211	38,5–55,5
110	80	4"	340	350	163	188	176–207	44–64







Line strainer S4

With plastic or stainless steel screen

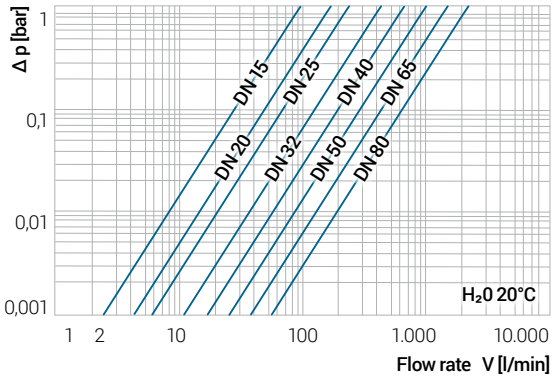
- Transparent body (PVC model only)
- Line strainer with PP plastic insert, mesh size 1 mm or 2 x 4 mm
- Stainless steel screen AISI 304, mesh size 0.5 mm, 0.75 mm or 1 mm
- Also as sight glass suitable (available on request)

Plastic screen
with mesh size 1 mm

		Seals	Dimensions	PN	Connections
Models					
	PVC-U	EPDM, FPM	DN10/d16/3/8"–DN65/d75/2 ½" DN80 / d90 / 3" DN80 / d110 / 4"	16 10 6	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
	PP	EPDM, FPM	DN10/d16/3/8"–DN50/d63/2" DN80/d90/3"–DN80/d110/4"	10 6	Fusion socket Fusion spigot Threaded socket Flange

Performance

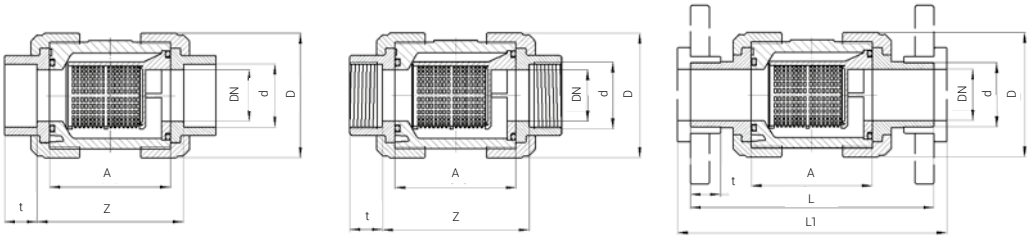
Pressure Loss



Dimensions

* Depends on material. For detailed dimensions see data sheet.

d	DN	G	L	L1	A	D	Z*	t*
16	10	3/8"	114	120	62	53	67,5–71	14,5–16,5
20	15	½"	124	130	62	53	67,5–71	14,5–16,5
25	20	¾"	144	150	70	63	76–79	17–19,5
32	25	1"	154	160	74	70	81–84	19,5–22,5
40	32	1 ¼"	174	180	84	85	90–96	22–26,5
50	40	1 ½"	194	200	95	101	104–114	25–31,5
63	50	2"	224	230	109	121,5	121–134	29–38,5
75	65	2 ½"	284	290	137	155	148–162	34,5–45
90	80	3"	300	310	163	188	183–211	38,5–55,5
110	80	4"	340	350	163	188	176–207	44–64



PRAHER PLASTICS

2 way ball valve S6

- Compact design
- PTFE or PE ball seating joint
- Double sealed shaft
- Customized handle possible

Manually operatied(1)
EO510 (2)

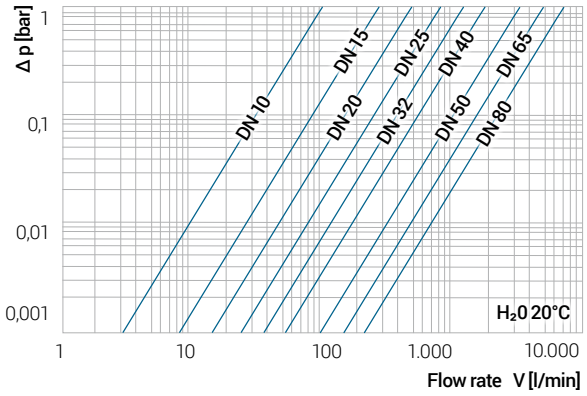
2

1

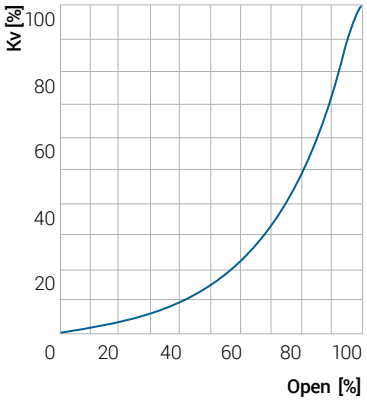
		Seals	Dimensions	PN	Connections
Models	PVC-U	EPDM, FPM PE PTFE	DN10/d16/¾"–DN80/d110/4"	16	Solvent cement socket Solvent spigot Threaded socket PE fusion socket PE fusion spigot
		EPDM	DN32/d40/1¼ "–DN50/d63/2"	3	Solvent cement socket

Performance

Pressure Loss



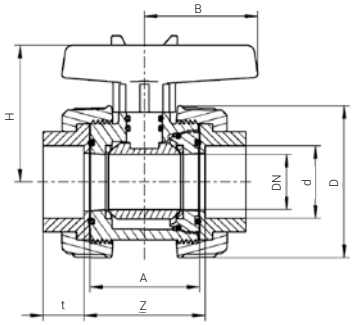
Flow Rate



Dimensions

* Depends on material.
For detailed dimensions see data sheet.

d	DN	G	A	D	H	B	Z	t
16	10	3/8"	44,5	55,5	47	42,5	49,5	16,5
20	15	½"	44,5	55,5	47	42,5	49,5	16,5
25	20	¾"	50	62	53	55	56	19,5
32	25	1"	52,5	70	55,5	55	58,5	23
40	32	1 ¼"	61	87	76	65	67,5	26,5
50	40	1 ½"	77	101,5	88,5	75	87	31,5
63	50	2"	87	115,3	95	75	99	38,5
75	65	2 ½"	110	144,5	126	111	121,5	45
90	80	3"	163	188	160	133	183	55,5
110	80	4"	163	188	160	133	176	64



Diaphragm valve T7

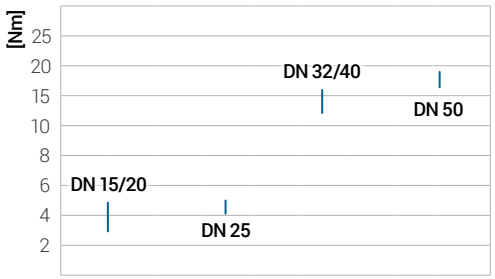
NEW

- Torque limiter
- Nominal pressure PN12,5
- Fully open position limit stop
- Silicone-free
- Zero dead leg valve
- Suitable for slurries and abrasive media
- Suitable for high viscosity fluids
- Embedded and recessed nuts
- Optimized diaphragm contour
- Multiple end connection options
- Full body cavity drain position markings
- Ergonomic safety hand wheel with locking positions
- Praher Labeling System
- Visual position indication
- Pollution repellent design
- Easy maintenance bayonet connection of diaphragm
- Floating and guided diaphragm compressor

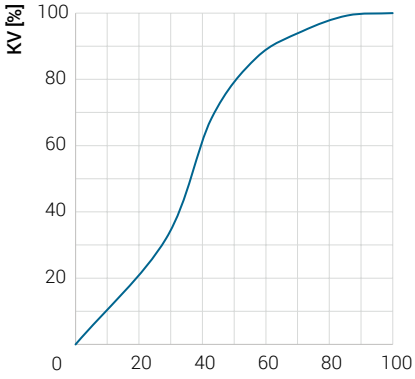
Please consider the technical information in our data sheets.

Performance

Torque



Flow Rate



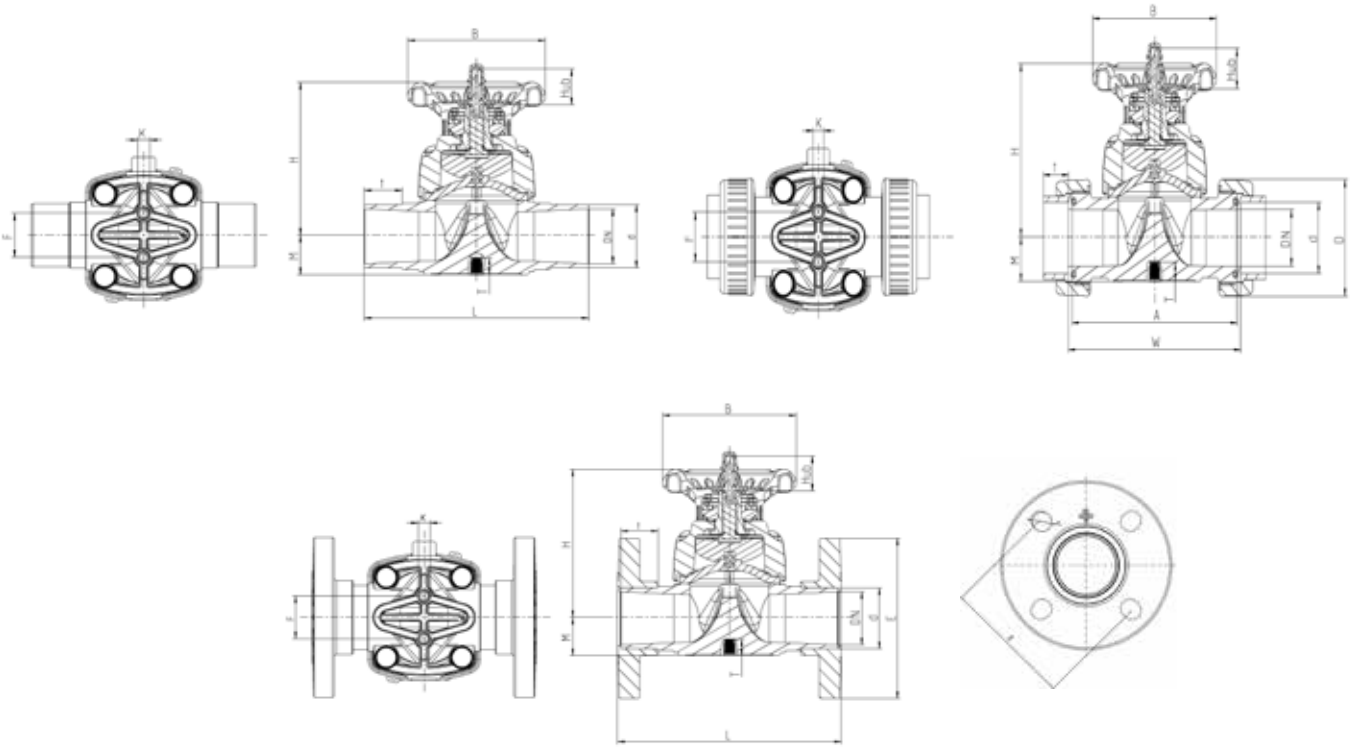
Dimensions

	d	DN	G	H	B	F	K	Hub	t_{spigot}	L	L_{flange}	M	t_{metric}	t_{ASTM}	t_{JIS}	A	D	W_{metric}	W_{ASTM}	W_{JIS}	E
	20	15	½"	87	85	25	M6	13	16	124-214	131	18,6	17	16,5	17	90	44	96	95	96	97
	25	20	¾"	89	85	25	M6	13	19	144-245	151	16,5	18,5	19,5	19,5	108	53	115	115	115	105
	32	25	1"	96	85	25	M6	15	22	154-286	162	20	22	23	22,5	116	60	122	122	123	125
	40	32	1 ¼"	135	138	44	M8	22	36	174-294	180	25,5	27	27	27	136	74	142	142	142	140
	50	40	1 ½"	140	138	44	M8	22	33,5	194-323	200	32	27	31,5	31,5	154	83	171	160	160	150
	63	50	2"	153	138	44	M8	30	38	224-365	230	39,5	28	39	*	184	103	192	190	*	165

* Depends on matrial. For detailed dimensions see datasheet.

Flansch Mutinorm DIN-ANSI-JIS

	d	DN	G	DIN 2501		ANSI Class 150		JIS 10 k	
				b	Z	b	Z	b	Z
	20	15	½"	14	65	15,5	60,3	15	70
	25	20	¾"	14	75	15,5	69,8	15	75
	32	25	1"	14	85	15,5	79,3	19	90
	40	32	1 ¼"	18	100	15,5	89	19	100
	50	40	1 ½"	18	110	15,5	98,5	19	105
	63	50	2"	18	125	19	120,6	19	120



Diaphragm valve T7

Ergonomic hand wheel

Special body geometry

Hand wheel with locking position

Visual position indication

Clear markings for installation

Visible information

			Diaphragm	Dimensions	PN	Connections
Models		PVC-U	EPDM, FPM, PTFE-coated	DN15/d20/½"–DN50/d63/2"	12,5	Solvent cement socket Solvent spigot Threaded socket Flange PE fusion socket PE fusion spigot
		PP	EPDM, FPM, PTFE-coated	DN15/d20/½"–DN50/d63/2"	10	Fusion socket Fusion spigot Threaded socket Flange
		PVDF	EPDM, FPM, PTFE-coated	DN15/d20/½"–DN50/d63/2"	12,5	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4


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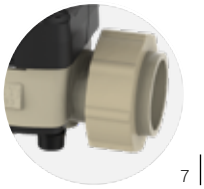
6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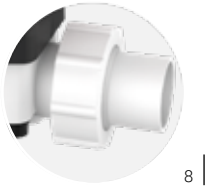

8

1 Fixed Flange

2 Fix Flange

3 Threaded Socket

4 Socket

5 Spigot

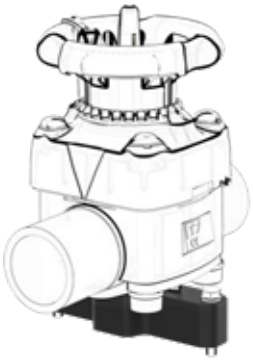
6 Spigot-long

7 Fusion Socket

8 Fusion Spigot

PP Mounting plates

- For valve mounting to external support structures
- For height compensation of different pipe diameters
- DN15/d20/ ½" – DN50/d63/2"



Diaphragm valve T4

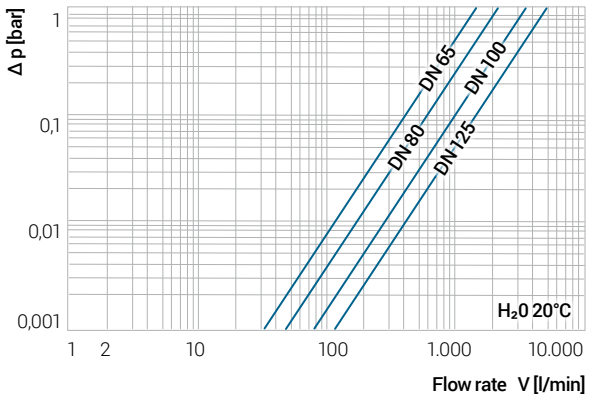
- Safety hand wheel with locking positions
- Visual position indication
- Zero dead leg valve
- Suitable for slurries and abrasive media
- High viscosity or solid content applications

Models

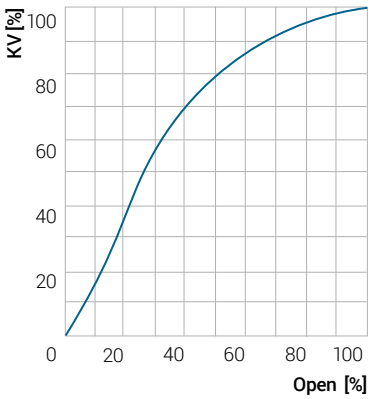
	Diaphragm	Dimensions	PN	Connections
PVC-U	EPDM, FPM, PTFE-coated	DN65/d75/2 ½"–DN125/d140/5"	10	Solvent cement socket Solvent spigot Flange
PP	EPDM, FPM, PTFE-coated	DN65/d75/2 ½"–DN125/d140/5"	10	Threaded socket Flange
PVDF	EPDM, FPM, PTFE-coated	DN65/d75/2 ½"–DN125/d140/5"	10	

Performance

Pressure Loss



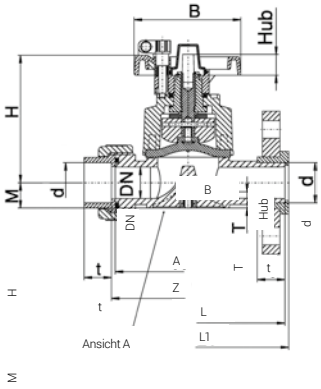
Flow Rate



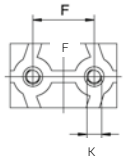
Dimensions

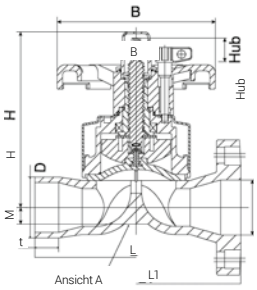
d	DN	d	M	H	B	F	Hub	K	L	L1	T	A	Z	t*
75	65	2 ½"	25	260	234	–	35	–	284	290	–	–	–	44–37
90	80	3"	25	260	234	–	35	–	300	310	–	–	–	54,5–37
110	100	4"	25	330	234	–	45	–	340	350	–	–	–	50
140	125	5"	25	330	234	–	45	–	340	400	–	–	–	–

* Depends on material. For detailed dimensions see data sheet.

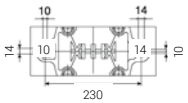


DN15–DN50





DN65–DN125



Diaphragm valve T4 I PNE

PO-NC[1]
PO-NO[2]
PO-DA[3]

- Plastic actuator body
- Visual position indication
- Insert/outlet stainless steel
- NAMUR adaptor for solenoid valve
  (with adaptation for K122 and K123)

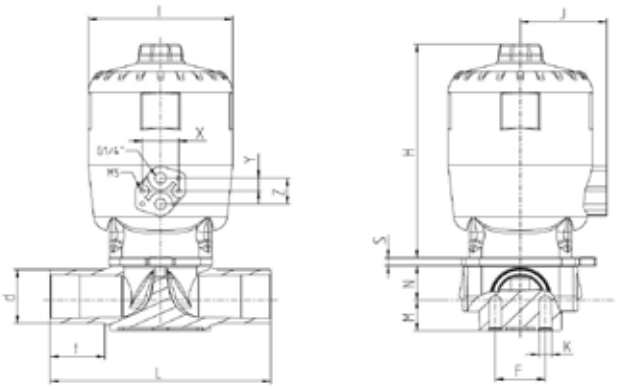
Accessories
- Electrical position indication
- Electropneumatic positioner
  0–10 V
  0–20 mA
  4–40 mA
- Solenoid valve with combined 5/2 and 3/2 ways function
  Attention: For diaphragm valves with pneumatic actuating drive K122/K123 (DN32–DN50) an additional adapter (item 50826) is required.
- This diaphragm valve is available up to DN50.

1 Single acting: fail safe closed
2 Single acting: fail safe open
3 Double acting

		Diaphragm	Dimensions	PN	Connections
Models	**PVC-U**	**EPDM, FPM, PTFE-coated**	**DN15/d20/½"–DN50/d63/2"**	**10**	**Solvent cement socket Solvent spigot Threaded socket Flange**
	PP	**EPDM, FPM, PTFE-coated**	**DN15/d20/½"–DN50/d63/2"**	**10**	**Fusion socket Fusion spigot Threaded socket Flange**
	PVDF	**EPDM, FPM, PTFE-coated**	**DN15/d20/½"–DN50/d63/2"**	**10**	

	d	DN	G	S	F	K	L	t_{KS} [1]	M_{PVC}	N_{PVC}	Drive	H	I	J	X	Y	Z
Dimensions	20	15	½"	5	25	M6	124	16	17	19	K62	129,5	80	52	32	12	24
	25	20	¾"	5	25	M6	144	19	17	19	K62	129,5	80	52	32	12	24
Depends on material. For detailed dimensions see data sheet.											K82-62*	151	100	60,5	32	12	24
	32	25	1"	6	25	M6	154	22	21	20	K82	151	100	60,5	32	12	24
	40	32	1 ¼"	7	45	M8	174	26	33	31	K122	240	160	87	32	12	30
Dimensions in mm	50	40	1 ½"	7	45	M8	194	31	33	31							
	63	50	2"	7,5	45	M8	224	38	40,5	34,5	K123	240	160	87	32	12	30

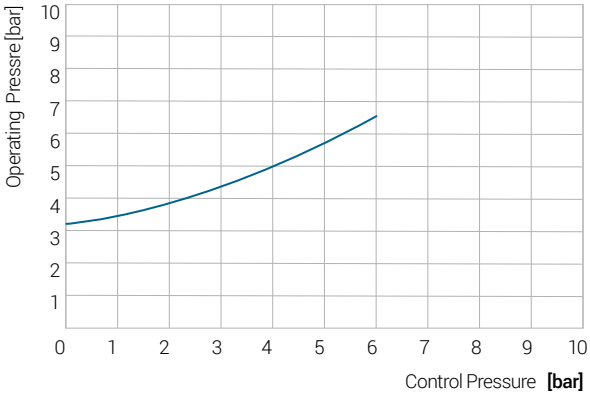
*for version PO-NC with PTFE-Membrane
[1]KS = Solvet spigot



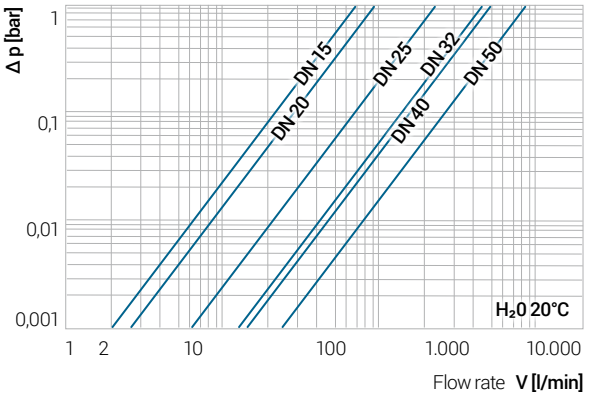
Diaphragm valve T4 DIR

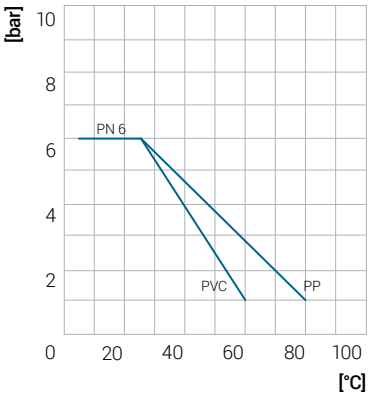
- Opening due to medium pressure, therefore easy assembly
- Corrosion resistant
- Maintenance free operation over a long working life
- Suitable for aggressive and dirty media
- Radial installation or removal
- Easy replacement of the diaphragm
- Connection G ¼" for direct screw in of a solenoid valve or a pneumatic couple

Accessories
3/2 way solenoid valve



- To protect the diaphragm do not choose the control pressure higher than necessary (see diagramm above)!
- Due to the direct actuated diaphragm, the operating pressure of the diaphragm valve is PN6 and not PN10 as stated at the diaphragm body!





		Diaphragm	Dimensions	PN	Connections
Models	**PVC-U**	**EPDM, FPM**	**DN15/d20/½"–DN50/d63/2"**	**6**	**Solvent cement socket Solvent spigot**
	PP	**EPDM, FPM**	**DN15/d20/½"–DN50/d63/2"**	**6**	**Fusion socket Fusion spigot**

Butterfly valve K4 Lug-Type

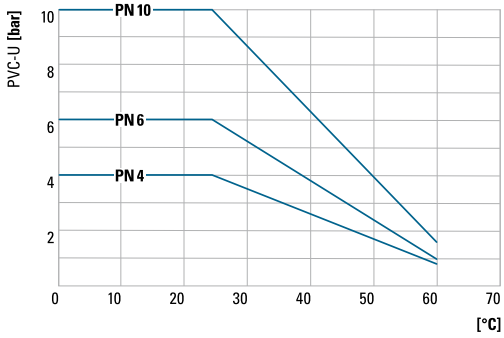
Our complete K4 butterfly valve series is also available in Lug-type version!

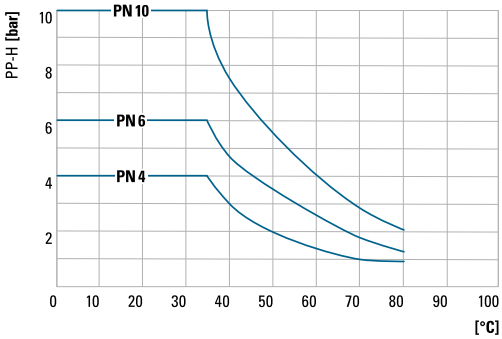
- Inserts enable installation as intermediate butterfly valve or as end-of-line valve or for individual dismantling of piping system on one side
- Flange standards:
  - DIN 2501 PN 10
  - ANSI B 16,5 Class 150
- Insert material: INOX A4
- Pin material: INOX A2
- Operating pressure for PVC-U, CPVC, PP-H, PVDF used as intermediate butterfly valve: PN10
- Pressure has to be reduced if a flange is disassembled on one side and only for temporary usage
  - DN65 to DN125: max. 6 bar
  - DN150 to DN250: max. 4 bar

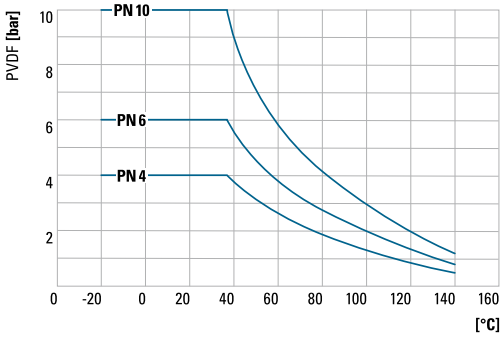
Please consider the technical information in our data sheets.

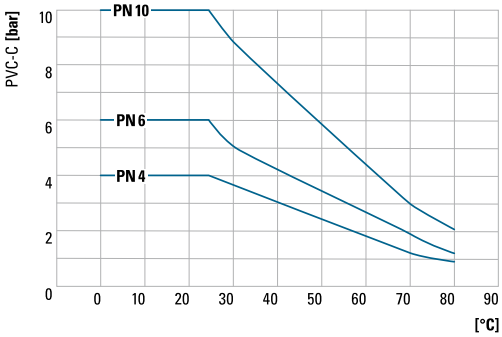
Performance

Pressure-temperature





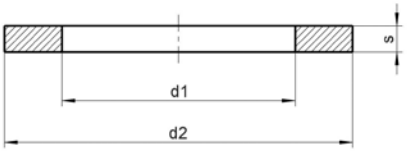




General installation instructions

- We recommend the use of suitable washers in accordance with DIN125A (see drawing and table).
- Adapt screw length to flange or stub flange.
- Check torque of screws on the opposite side, when one-side is removed (see torque of screws at flange connections).
- If used as End-of-line valve a blind flange has to be mounted on the free connection side. Pressure has to be reduced if a flange is disassembled on one side:
  - DN65 to DN125: max. 6 bar
  - DN150 to DN250: max. 4 bar

  Only temporary usage.

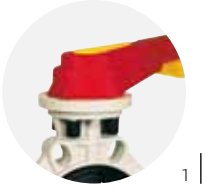


DN	65	80	100	125
Thread	M16	M16	M16	M16
d1	17	17	17	17
d2	30	30	30	30
s	3	3	3	3

DN	150	200	250
Thread	M20	M20	M20
d1	21	21	21
d2	37	37	37
s	3	3	3

Butterfly valve K4

- Hand lever with integrated position feedback or gear box and hand wheel with built-on position feedback
- Safety handle with PLS – Praher Labelling System
- Ten different locking positions
- Double sealed shaft
- Encapsulated wetted parts
- Integrated brackets for fix point mounting
- Simple upgrade to automatic actuation
- ISO 5211 flange type (F07, F10)
- Safety handle with …



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2

1 Model with hand lever without position feedback

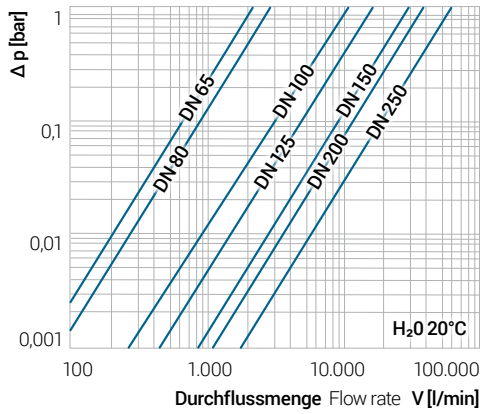
2 Model with gear box and hand wheel

Models

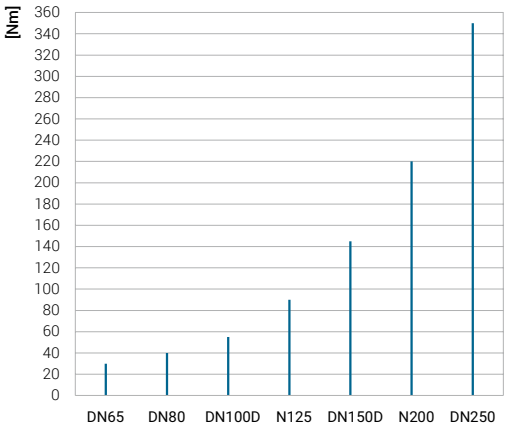
	Seals	Dimensions	PN	Connections
 PVC-U	EPDM, FPM	DN65/d75/2½"–DN250/ d280/10"	10	Flange (ANSI, DIN, JIS)
 PVC-C	EPDM, FPM	DN65/d75/2½"–DN100/d110/4"	10	
 PP	EPDM, FPM	DN65/d75/2½"–DN250/ d280/10"	10	
 PVDF	FPM	DN65/d75/2½"–DN250/ d280/10"	10	

Performance

Pressure Loss



Torque



Torque screw joint

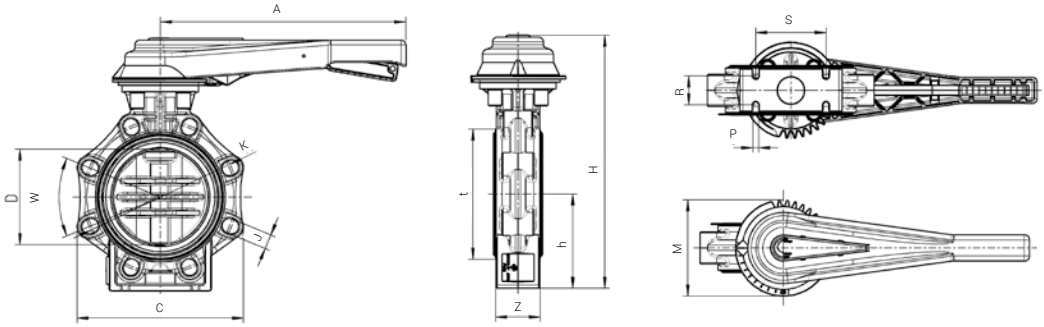
DN	65	80	100	125	150	200	250
Nm	15	18	20	30	40	55	60

Dimensions

d	DN	G	W	J	K	D	C	Z	S	R	P	h	H	E	A	M
75	65	2 ½"	90°	19	127–145	65	133	46	55	25	7	100	285	98	230	114
90	80	3"	45°	19	146–160	80	176	49	70	30	9	100	292	116	230	114
110	100	4"	45°	19	175–190,5	100	206	56	85	35	9	115	322	146	300	114
140	125	5"	45°	23	209,5–216	125	234,5	64	100	45	9	130	358	170	300	114
160	150	6"	45°	23	234,5–241,3	150	261	70	110	45	9	147,5	396	196	386	150
225	200	8"	45°	23	290–298,5	200	314	71	145	40	9	175	458	251	386	150
280	250**	10"	30°	22/25,4	350-362	231	392	114	160	40	9	215	613 **	125	209,5**	50

* Depends on material. For detailed dimensions see data sheet.

** DN 250 is only available with hand wheel



Butterfly valve K4 LIM

With position feedback

Version hand lever:
Limit switch IP67 mechanical Ag-Ni NO (normally open)

On request:
- Mechanical
  - AG-NI NC (normally closed)
  - AU NO (normally open)
  - AU NC (normally closed)
- Inductive
  - NPN/PNP
  - Namur

Version gear box with hand wheel:
General:
- Limit switch box with two mechanical limit switches
- IP65 protected
- cable connection M20 × 1,5

Material:
- Body polycarbonate black
- Cover polycarbonate with position indication
- Mounting bridge + screws stainless steel
- Seals EPDM

Operating voltage:
- Volgate max.:
  - 250 V AC
  - 30 V DC
- Current max.:
  - Nominal voltage:
    250 V AC
    30 V DC
  - Resistive load:
    3 Amp
    4 Amp
  - Inductive load:
    2 Amp
    3 Amp

1

2

1 Model with hand lever

2 Model with gear box and hand wheel

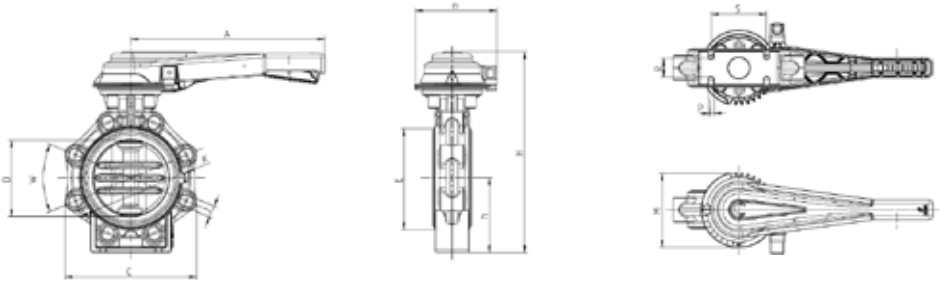
Models

	Seals	Dimensions	PN	Connections
PVC-U	EPDM, FPM	DN65/d75/2½"–DN250/d280/10"	10	Flange (ANSI, DIN, JIS)
PVC-C	EPDM, FPM	DN65/d75/2½"–DN100/d110/4"	10	
PP	EPDM, FPM	DN65/d75/2½"–DN250/d280/10"	10	
PVDF	EPDM, FPM	DN65/d75/2½"–DN250/d280/10"	10	

Dimensions

* Depends on material. For detailed dimensions see data sheet.

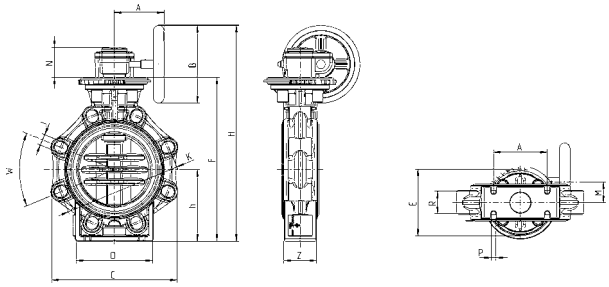
d	DN	G	W	J	K	D	C	Z	S	R	P	h	H	E	A	m	M	PN
75	65	2 ½"	90°	19	127–145	65	133	46	55	25	7	100	285	98	230	108,9	114	10
90	80	3"	45°	19	146–160	80	176	49	70	30	9	100	292	116	230	108,9	114	10
110	100	4"	45°	19	175–190,5	100	206	56	85	35	9	115	322	146	300	108,9	114	10
140	125	5"	45°	23	209,5–216	125	234,5	64	100	45	9	130	358	170	300	–	114	10
160	150	6"	45°	23	234,5–241,3	150	261	70	110	45	9	147,5	396	196	386	–	150	10
225	200	8"	45°	23	290–298,5	200	314	71	145	40	9	175	458	251	386	–	150	10



Dimensions

* Depends on material. For detailed dimensions see data sheet.

d	DN	G	W	J	K-DIN	K-ANSI	D	C	Z	S	R	P	h	F	N	H	A	B	M	E
75	65	2 ½"	90	19	145	139,7	65	133	46	55	25	7	100	232	52	308	120	100	42,5	114
90	80	3"	45	19	160	152,4	80	176	49	70	30	9	100	239	52	315	120	100	42,5	114
110	100	4"	45	19	180	190,5	100	206	56	85	35	9	115	269	52	357,5	121	125	42,5	114
140	125	5"	45	23	210	215,9	125	234,5	64	100	45	9	130	303,5	52	392	121	125	42,5	114
160	150	6"	45	23	240	241,3	150	261	70	110	45	9	147,5	337,5	60	447,5	122	160	50	137
225	200	8"	45	23	295	298,45	200	314	71	145	40	9	175	399,5	60	509,5	122	160	50	137
280	250	10"	30	22/25,4	350	362	231	392	114	160	40	9	215	460	68	613	209,5	250	50	125



Butterfly valve K4 ELE

- Installation without additional adaptor or screws
- Manual override
- Protection class IP65 resp. IP67
- Position indication
- Torque and force limiters
- Travel time 6–50 sec

Accessories
- Fail-safe
- Multivoltage
- 4–20 mA Positioner

Models

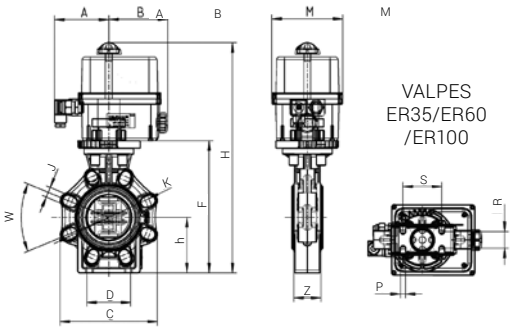
	Seals	Dimensions	PN	Connections
PVC-U	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	**Flansch** flange **(ANSI, DIN, JIS)**
PVC-C	**EPDM, FPM**	**DN65/d75/2½"–DN100/d110/4"**	**10**	
PP	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	
PVDF	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	

Dimensions

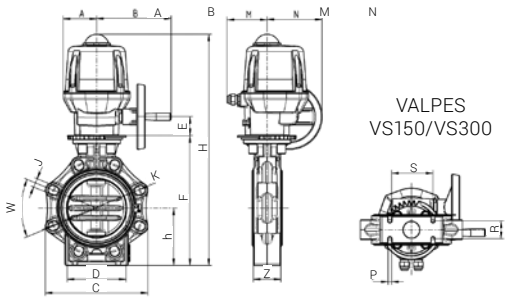
* Depends on actuator. For detailed dimensions see data sheet.

**Technical data of DN 250 can be provided on request

	d	DN	G	W	J	K	D	C	Z	S	R	P	h	F	H	A	B	N	M	E
ER35	75	65	2 ½"	90	19	127-145	65	133	46	55	25	7	100	232	409	98	107	–	128	–
ER60	90	80	3"	45	19	146-160	80	176	49	70	30	9	100	239	416	98	107	–	128	–
ER60	110	100	4"	45	19	175-190,5	100	206	56	85	35	9	115	269	446	98	107	–	128	–
ER100	140	125	5"	45	23	209,5–216	125	234,5	67	100	45	9	130	303,5	480,5	98	107	–	128	–
VS150	160	150	6"	45	23	234,5-241,5	150	261	70	110	45	9	147,5	333	591	85	190	140	94	48
VS300	225	200	8"	45	23	290-298,5	200	314	71	145	40	9	175	395	653	85	190	140	94	48
	280	250**	10"	30	22/25,4	350-362	231	392	114	160	40	9	215	460						



VALPES ER35/ER60 /ER100



VALPES VS150/VS300

PRAHER PLASTICS

Butterfly valve K4 PNE

PO-NC[1]
PO-NO[2]
PO-DA[3]

- Aluminium anodised body
- Aluminium epoxy powder coated end caps
- Any installation position
- Rotation angle 90°, +/- 10°
- Integrated optical position indication

Accessories
- Limit switch box
- Solenoid valve

1 Single acting: normally closed

2 Single acting: normally open

3 Double acting

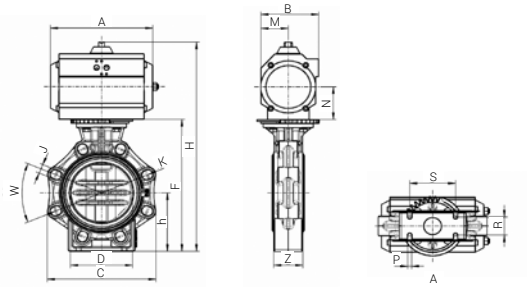
		Seals	Dimensions	PN	Connections
Models	**PVC-U**	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	**Flange (ANSI, DIN, JIS)**
	PVC-C	**EPDM, FPM**	**DN65/d75/2½"–DN100/d110/4"**	**10**	
	PP	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	
	PVDF	**EPDM, FPM**	**DN65/d75/2½"–DN250/d225/8"**	**10**	

Dimensions

* For detailed dimensions see data sheet.

**Technical data of DN 250 can be provided on request

	d	DN	G	W	J	K	D	C	Z	S	R	P	h	F	A	B	N	M	H
UT-25 SR	75	65	2,5"	90	19	127-145	65	133	46	55	25	7	100	232	239	96	63	43	353
UT-30 SR	90	80	3"	45	19	146-160	80	176	49	70	30	9	100	239	230	113	70	52	382
UT-35 SR	110	100	4"	45	19	175-190,5	100	206	56	85	35	9	115	269	246	138	87,5	65,5	412
UT-40SR	140	125	5"	45	23	209,5–216	125	234,5	64	100	45	9	130	303,5	290	138	87,5	65,5	499,5
UT-45 SR	160	150	6"	45	23	234,5-241,5	150	261	70	110	45	9	147,5	333	351	151	92	73	529
UT-50 SR	225	200	8"	45	23	290-298,5	200	314	71	145	40	9	175	395	361	185	114	91	591
UT-17 DA	75	65	2,5"	90	19	127-145	65	133	46	55	25	7	100	232	197	85	48	35	353
UT-20 DA	90	80	3"	45	19	146-160	80	176	49	70	30	9	100	239	177	96	60	43	382
UT-25 DA	110	100	4"	45	19	175-190,5	100	206	56	85	35	9	115	269	239	96	63	43	412
UT-30 DA	140	125	5"	45	23	209,5–216	125	234,5	64	100	45	9	130	303,5	230	113	70	52	465,5
UT-35 DA	160	150	6"	45	23	234,5-241,5	150	261	70	110	45	9	147,5	333	246	138	87,5	65,5	529
UT-35 DA	225	200	8"	45	23	290-298,5	200	314	71	145	40	9	175	395	246	138	87,5	65,5	591
	280	250**	10"	30	22/25,4	350-362	231	392	114	160	40	9	215	460					



Wafer check valve K6

- Operating temperature up to 60°C
- Tight as of max. 0.3bar counterpressure
- Conical sealing surface for highest of requirements and long service life
- Back-flushed shaft for prevention of deposits
- Cylindrically housed valve shaft for optimal force transmission
- Screw centering for DIN2501 PN10 and ANSI class150
- Integrated mounting aid with defined breaking point for simple removal
- Horizontal and vertical installation
- Spring in Hastelloy C-4 available

1

2

3

1 Sealing surface design

2 Identification marks

3 Flap opening

PRAHER PLASTICS

Wafer check valve K6

Models

	Seals	Dimensions	MOP	Connections
 PVC-U	EPDM, FPM	DN40/d50/1 ½"–DN200/ d225/8"	10	Flange
 PVC-U	EPDM, FPM	DN250/d280/10", DN300/ d315/12"	8	Flange
 PVC-U	EPDM, FPM	DN350/d355/14"	6	Flange

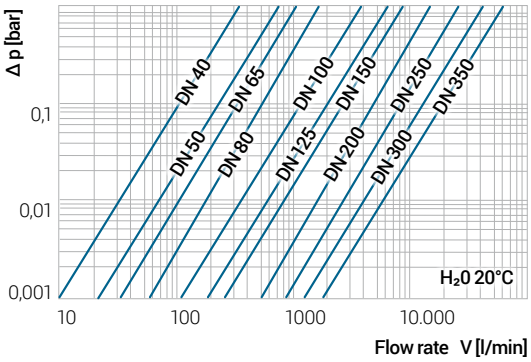
Performance

KV Value

	1 bar	0.001 bar
DN40	333l/min	10.5l/min
DN50	700 l/min	22.1 l/min
DN65	1050 l/min	33.2 l/min
DN80	1750 l/min	55.3 l/min
DN100	3633 l/min	114.9 l/min
DN125	6067 l/min	191.9 l/min
DN150	8217 l/min	259.8 l/min
DN200	15733 l/min	497.5 l/min
DN250	25833 l/min	816,8 l/min
DN300	41167 l/min	1301.8 l/min
DN350	58167 l/min	1 839.4 l/min

Measurements as per DIN EN 60534-2-3

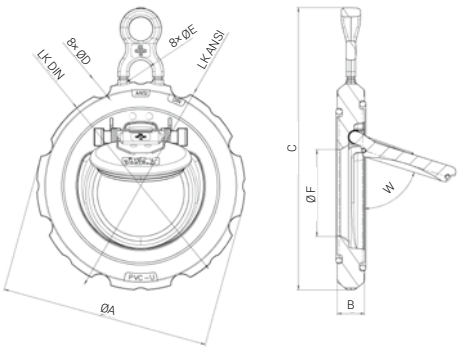
Pressure loss



Dimensions

* For detailed dimensions see data sheet.

d	DN	G	ØA	B	C	LK DIN	ØD	LK ANSI	ØE	ØF	Flap opening angle (W)				
											PN10	PN6	sched.40	sched.80	PE100 SDR17
50	40	1 ½"	95	16	141,8	110	18	98,5	15,5	23,5	91	93,5	80,5	–	88
63	50	2"	109	18	159,5	125	18	120,65	19	33	88,5	92,5	79,5	–	85,5
75	65	2 ½"	130	20	185	145	18	139,7	19	42	82	86	72	63	78,5
90	80	3"	146	20	200,4	160	18	152,4	19	53	84,5	88,5	79,5	72	81,5
110	100	4"	175	23	237,2	180	18	190,5	19	73	72,5	78	76	69	68,5
140	125	5"	198	25	262,3	210	18	215,9	22,2	93	73,5	79	75	68	69,5
160	150	6"	223	30	288,8	240	22	241,3	22,2	110	69	75	78,5	71	64,5
225	200	8"	280	34	348,3	295	22	298,45	22,2	150	74	79	73	66	70
280	250	10"	434	42	–	350	22	361,95	25,4	186	74,5	80	75,5	68,5	71
315	300	12"	406,4	47	–	400	22	431,8	25,4	229	66,5	72	75	68,5	62
355	350	14"	447,6	51	–	460	22	476,25	28,6	261	69	75	70	–	66



Wafer check valve K4

- Media does not contaminate metal parts
- Visual position indication
- Disc opening up to 85°
- Excellent flow-rates due to a wider opening cross section
- Integrated spacer
- Mounting between DIN, ANSI, JIS flanges
- Flap stopper and body stiffening ribs for increased strength

1 Adjustable spring packs for vibration damping

2 Screw tabs for easier assembly

3 X-ring for optimized sealing

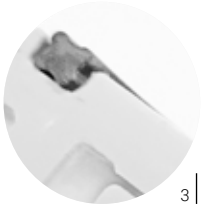
4 O-ring fixed by undercut

5 Flap stopper ensures increased strength

6 Visual position indication


1


2


3


4


5


6

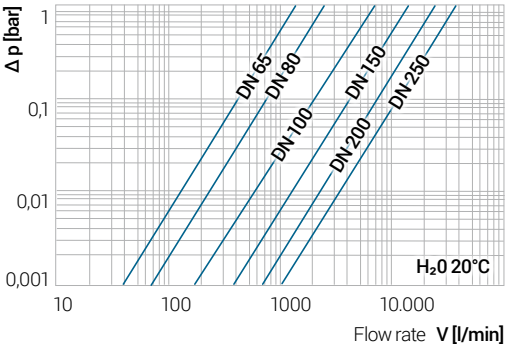
Wafer check valve K4

Models

	Seals	Dimensions	PN	Connections
PVC-U	EPDM, FPM	DN65/d75/2 ½"–DN250/ d250,D280/10"	10	Flange (ANSI, DIN, JIS)
PP	EPDM, FPM	DN65/d75/2 ½"–DN250/ d250,D280/10"	6	
PP GF	EPDM, FPM	DN65/d75/2 ½"–DN250/ d250,D280/10"	10	
PVDF	FPM	DN65/d75/2 ½"–DN250/ d250,D280/10"	10	

Performance

Pressure Loss



	1 bar	0.001 bar
DN65	1300 l/min	41 l/min
DN80	2200 l/min	70 l/min
DN100	5700 l/min	180 l/min
DN150	12500 l/min	395 l/min
DN200	21200 l/min	670 l/min
DN250	28000 l/min	885 l/min

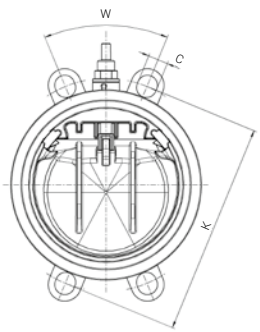
Dimensions

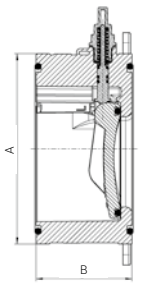
* Depends on material. For detailed dimensions see data sheet.

d	DN	G	A	B	C	K*	W
75	65	2 ½"	115	63	20	139–145	90
90	80	3"	128	71	20	150–160	45
110	100	4"	155	80	20	175–191	45
160	150	6"	212	106	24	134–242	45
200–225	200	8"	264	140	24	290–299	45
250–280	250	10"	325	140	27	350–362	30

Torque screw joint

DN	65	80	100	150	200	250
Nm	15	18	20	40	55	60





Wafer check valve S4

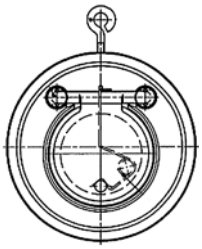
- Wafer type style
- With spring (S4.70)
  or without spring (S4.60) available
- Easier installation with integrated eyebolt
- Compact and lightweight
- Use of spacer recommended

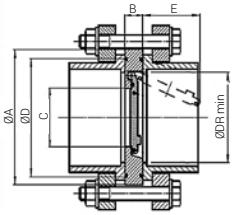
		Seals	Dimensions	MOP	Spring
Models	PVC	EPDM, FPM	DN400 –DN500	5 / 3	WSt 1.4571 (AISI316) WSt. 2.4610 (Hastelloy C4)
	PP	EPDM, FPM	DN32–DN500	6 / 4	

Dimensions

* Without spring.
For detailed dimensions see data sheet.

d	DN	G	A	B	C	D	E	DR
40	32	1 ¼"	85	15	18	59	22	37
50	40	1 ½"	95	16	22	72	25	43
63	50	2"	109	18	32	86	37	54
75	65	2 ½"	129	20	40	105	50	70
90	80	3"	144	20	54	119	61	82
110	100	4"	164	23	70	146	77	106
140	125	5"	195	23	92	173	94	131
160	150	6"	220	26	105	197	100	159
225	200	8"	275	34	154	255	152	207
280	250	10"	330	40	192	312	180	260
315	300	12"	380	45	227	363	215	309
355	350	14"	440	49	266	416	245	341
400	400	16"	491	65	310	467	285	392
450	450	18"	541	68 (78*)	350	520	330	443
500	500	20"	596	78 (87*)	400	550	385	493





PRAHER PLASTICS

Flow meter M123 M335 M350

- Measuring tube: PA, PSU or PVC
- End-connections: PVC or PP
- Floats: PVDF or PVDF magnetic
- Dimensions: DN10—DN65
- Measuring range: 1,5–60.000 l/h
- Inserts with damping feature for float in case of water hammer
- PVDF coated stainless steel guide rod for the dimensions DN50 and DN65 to stabilize the float
- Double scale for water in percent and l/h
- Special adhesive scales for liquid and gaseous media

Accessories
- Limit switch for max (Z42) and min (Z40)
- Measuring sensor (Z60)

	Seals	Float	Connections
Models	**EPDM**	**PVDF**	**PVC solvent cement socket** **PP fusion socket**

	d	DN	G (Imperal)	l/h*	Measuring tube	
* Messuring range H_2O 20°C					M123	M335/M350
	16	10	3/8"	1,5 – 15	PSU PVC	–
	16	10	3/8"	2,5 – 25	PSU PVC	–
	16	10	3/8"	5 – 50	PSU PVC	–
	16	10	3/8"	10 – 100	PSU PVC	–
	20	15	½"	8 – 80	PSU PVC	–
	20	15	½"	15 – 150	PSU PVC	–
	20	15	½"	20 – 200	PSU PVC	–
	32	25	1"	15 – 150	PSU PVC	–
	32	25	1"	30 – 300	PSU PVC	–
	32	25	1"	50 – 500	PSU PVC	PA PSU PVC
	32	25	1"	100 – 1.000	PSU PVC	PA PSU PVC
	40	32	1 ¼"	150 – 1.500	–	PA PSU PVC
	40	32	1 ¼"	250 – 2.500	–	PA PSU PVC
	50	40	1 ½"	200 – 2.000	–	PA PSU PVC
	50	40	1 ½"	300 – 3.000	–	PA PSU PVC
	50	40	1 ½"	600 – 6.000	–	PA PSU PVC
	63	50	2"	600 – 6.000	–	PA PSU PVC
	63	50	2"	1.000 – 10.000	–	PA PSU PVC
	63	50	2"	1.500 – 15.000	–	PA PSU PVC
	75	65	2 ½"	2.000 – 20.000	–	PA PSU PVC
	75	65	2 ½"	3.000 – 30.000	–	PA PSU PVC
	75	65	2 ½"	8.000 – 60.000	–	PA PSU PVC

6 way backwash valve V6

Body material in ABS (black or white):
Side Mount (SM) 1 ½“, 2“, 3“
Top Mount (TM) 1 ½“; 2“ 3,5 bar

Body material in ASA-GF (nature):
SM 1 ½“, 2“ 6 bar
SM 3“ 5 bar

Seals: TPE + NBR

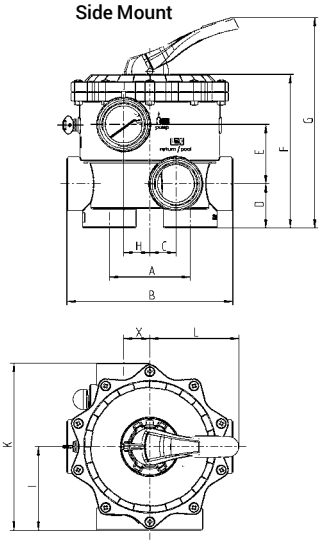
Pipe connection Side Mount (SM):
1 ½“ valve
- solvent socket d50 metric
- thread R1 ½“ BSP
- thread R1 ½“ NPT 2“ valve
- solvent socket d63 metric
- thread R2“ BSP
- thread R2“ NPT 3“ valve
- solvent socket d90 metric
- thread R3“ BSP

Flange connection Top Mount (TM):
- 6“ BS thread flange
- clamping flange
- screw flange

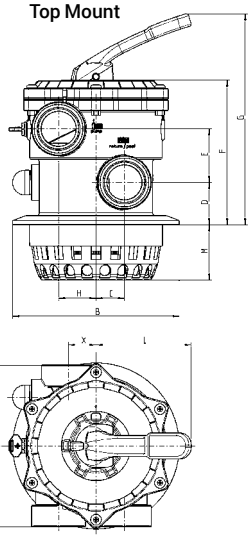
Accessories:
- pipe system for Side Mount
- clamp ring for Top Mount
- Praher Plastics adapter unions
- AQUASTAR®

	d	A	B	C	D	E	F	G	H	I	K	L	M	X
Dimensions	1½" SM	99	180	31,5	48,5	60	165	247	41,5	87,5	175	135,5	–	30
* For detailed dimensions see data sheet.	2" SM	110	227	36	60	81	210	296	36	115	230	135,5	–	36
	3" SM	170	329	50	85,5	110	304	434	50	165	330	206	–	50
	1½" TM	130	– *	31,5	38	59,5	235,5	245	41,5	90	180	135,5	46	30
	2" TM	125	– *	36	43	81	280	292	36	114,5	229	135,5	57	36

Side Mount



Top Mount



* Dimensions vary according to type (see data sheet on www.praher-plastics.com)

AQUASTAR® mp6 plc

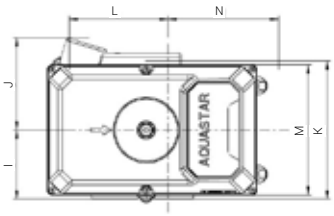
For industry and trade (e. g. car wash systems)

- A microcontroller-controlled lifting and rotating actuator for PLC-systems
- Integrated error-handling
- Relays with gold-plated contacts for feedback
- Available in 24V AC/DC or multi-voltage 100-240 VAC 50-60Hz/150-300VDC
- For dimensions 1 ½", 2" and 3"
- Two different actuators for all dimensions

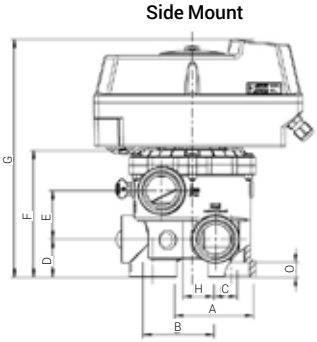
Advantages:

- Emergency handle
- Visual position indication
- Electric feedbacks
- Protection IP65
- Additional position CLOSED
- Additional position WINTER
- Simple retrofitting to a manual backwash valve V6 from Praher Plastics

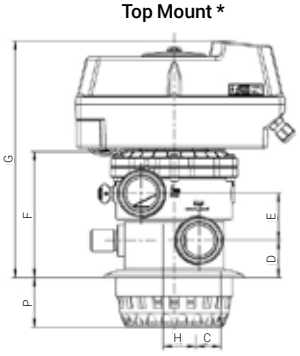
	d	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Dimensions	1½" SM	99,5	90	29,5	48	61,5	163,5	304	39	87,5	117	175	125	165	140	18,5	–
	1½" TM	–	–	31,5	47	59,5	160	300	42,5	90	117	180	125	165	140	18,5	62,5
* For detailed dimensions see data sheet.	2" SM	110	114	38	60	81	210	348	36	114	117	228	125	165	140	26	–
	3" SM	170	165	50	85,5	110	306	445	50	165	117	117	330	125	165	35	–



Side Mount



Top Mount *



* Top Mount (TM) only separately available for self-installation

AQUASTAR® Easy II

Applied in small and medium private pools

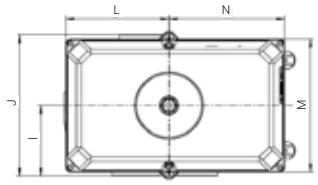
- A self-sufficient lifting and rotating actuator for a V6-valve with minimalistic functionality
- For dimensions 1 ½" and 2"
- Multi-voltage 100-240 VAC 50-60Hz/150-300VDC

Advantages:

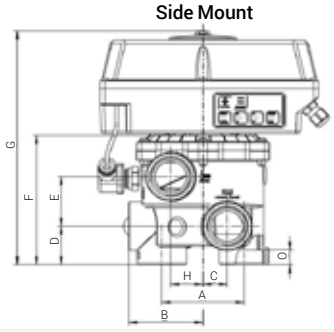
- Backwash triggered by
  - Pressure sensor optional
  - Time switch on the circuit board
  - Test button on the keypad
- Protection IP65
- Emergency handle
- Simple retrofitting to a manual backwash valve V6 from Praher Plastics
  - Visual position indicator
  - Complete wiring diagram on the inside of the cover
  - External position "Circulation"
  - Pump monitoring
  - System stabilization

	d	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P
Dimensions	1½" SM	99,5	90	29,5	48	61,5	163,5	295	39	87,5	175	125	165	140	18,5	–
	1½" TM	–	–	31,5	47	59,5	160	291	42,5	90	180	125	165	140	18,5	62,5
	2" SM	110	114	38	60	81	210	339	36	114	228	125	165	140	26	–

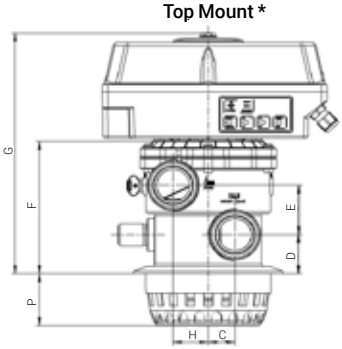
* For detailed dimensions see data sheet.



Side Mount



Top Mount *



* Top Mount (TM) only separately available for self-installation

PRAHER PLASTICS

AQUASTAR® Control

Applied in swimming pools and water purification

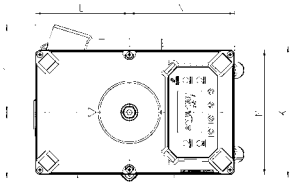
- Automation of the 6 way valves of Praher Plastics Austria GmbH
- A lifting and rotating actuator with control functions
- For 1,5", 2" un d 3" Valves
- 24V AC/ DC and 100 265V AC

Advantages:

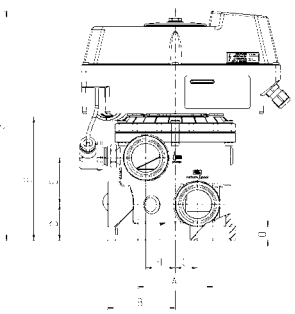
- Control and regulating functions
- Easy-to-read display
- User-friendly operation with display and buttons included into the cover
- Individually programmable
- Secure system
- Alarm system
- More language options
- Real RTC with 10 year battery
- Easy to retrofit
- Automated backwash trigger
- Automated pump trigger

	d	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Dimensions	1½" SM	99,5	90	29,5	48	61,5	163,5	304	39	87,5	117	175	125	165	140	18,5	–
	1½" TM	–	–	31,5	47	59,5	160	300	42,5	90	117	180	125	165	140	18,5	62,5
	2" SM	110	114	38	60	81	210	348	36	114	117	228	125	165	140	26	–
	3" SM	170	165	50	85,5	110	306	445	50	165	117	330	125	125	140	35	–

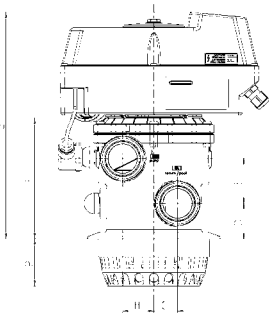
* For detailed dimensions see data sheet.



Side Mount



Top Mount *



* Top Mount (TM) only separately available for self-installation

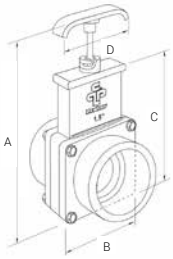
Knife gate valve

- Double O-ring shaft seals (3" & 4") in EPDM
- Safety close system
- Full flow
- ¼" × 20 male thread on shaft for easy handle extension (3" & 4")
- Simple and maintenance free operation
- DN25/d32/1"–DN65/d75/2 ½" PN 3,5
- DN80/d90/3"–DN100/d110/4" PN 1

	A*	A**	B	C	D
d1 ½"	146,5	187	73	126	70
d2"	168,5	225	85	147	70
d2 ½"	208	282	104	181	94
d3–d4"	390	497	180	300	120

** completely closed*

*** completely open*



Accessories

Valve brackets for 2 way ball valve S4 PVC-C

- DN10/d16/3⁄8"–DN50/d63/2"

Valve brackets for 3 way ball valve S4 PVC-U/PP-H/PVDF

- DN10/d16/3⁄8"–DN50/d63/2

Handle elongation, 200 mm

- DN10/d16/3⁄8"–DN80/d110/4"

For 2 way ball valve M1,
2 way ball valve S6 and
3 way ball valves S4

PRAHER PLASTICS

Pipes & fittings IBG

Our PVC-U product range includes a complete system of pipes, pipeclips, fittings, solvent cement and solvent cleaner for solvent and threaded connections for applications in water treatment, desalination facilities, chemical industry and many more.

PVC-U pipes & fittings IBG

- Modular system with exactly aligned tolerances enables dry installation according to standard ISO 727
- Quick and simple installation
- Pipes manufactured according to EN1452-2
- Raw material approvals according to Manufacturers Declaration (www.praher-plastics.com)
- d16–d400
- Operation Temperature 0–60 °C
- Outstanding chemical resistance
- Above average durability

1 45° marking

2 90° marking

3 Moulding calender

4 Solvent length

5 Dimension/pressure

PRAHER PLASTICS

Pressure pipes

Pipeclips

Elbows, bends, crosses, tees, etc.

Threaded and reinforced fittings

Adapter fittings (sockets, reducing bushes, nipples, etc.)

Unions, container adatpors, etc.

Flange connections

CPVC & PVC-C Solvent cements/cleaners

IBG FlexFit® Fittings

- Dimensions DN40/d50 and DN50/d63
- patented system mainly for pool installations
- removable and easy to assemble:
  fast connection, quick assembly time, no drying time, no protection measures required
- Optional applications:
  with IBG FlexFit® Fittings hoses, with rigid PE Pipe, with rigid PVC-U pipe
  (brass ring is required – see data sheet www.praher-plastics.com)

1 Optional applications:
with IBG FlexFit® Fittings hoses, with rigid PE Pipe, with rigid PVC-U pipe
(brass ring is required – see data sheet www.praher-plastics.com)

1

Adapter unions BSP

Adapter unions with solvent connection

Double Unions

Elbows 90°

Adapter elbows 90°

Adapter elbows 45°

Adapter Tee 90°

Flexible PVC pressure hoses

Abbreviations

ABS	Acrylnitril-Butadien-Styrol
ADA	Adapter set
ASA-GF	Acrylonitrile Styrene Acrylate glass-fibre reinforced
ASTM	American society for testing and materials
BSP	British Standard Pipe
CPVC	Chlorinated Polyvinylchloride
d	Outside diameter of pipe
DN	Nominal bore (Nominal diam.)
DIN	Deutsches Institut für Normung
DIR	Directly actuated
ELE	Electrically operated
EPDM	Ethylene-Propylene
FPM	Fluoridized rubber
G	Size
GFK	Glass fibre reinforced plastic (GRP)
GTW	Malleable cast iron
ISO	International Standards Organisation
JIS	Japanese International Standard
LIM	Limit switch
METR	Metric
MOP	Maximum operating preassure
MVO	Multi Voltage Operated
NPT	National Pipe Taper
PA	Polyamid
PE	Polyethylene
PN	Nominal pressure
PNE	Pneumatically operated
PP	Polypropylene
PP-GFK	Polypropylene – glass fibre reinforced
PP-GFR	Polypropylene – glass fibre reinforced
PSU	Polysulfone
PTFE	Polyterafluorethylene
PVC	Polyvinyl chloride
PVC-C	Chlorinated Polyvinylchloride
PVC-U	Polyvinylchloride unplasticised
PVDF	Polyvinylidene fluoride
VE	Standard packing unit

Notes

Notes

PRAHER PLASTICS

Made in Austria/Europe.

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