

2/2-Way Piston-operated Diaphragm Valve with Plastic Body

Type 2030

DN 15-50 mm



Advantages / Benefits

- ▶ Closed or open by spring action, pneumatically operated
- ▶ Body: PVC-true union PVDF-fusion spigot
- ▶ High flow rate
- ▶ Flow direction as required
- ▶ Self-draining, when installed appropriately
- ▶ Optical position indication
- ▶ Electrical feedback, stroke limitation, hand-wheel and NAMUR-adaptor available as accessories

Design

These diaphragm valves are operated by connecting an external pilot fluid to the piston actuator. The 2-way PVC or PVDF body ensures high flow rates. The diaphragm between the actuator and body isolates the fluid from the actuator. The maintenance-free and very robust valves can be fitted with a comprehensive range of accessories for position indication, stroke limitation or hand wheel operation.

Applications

For contaminated and aggressive fluids

Water treatment

Systems engineering

Process technology

Chemical industry

Semi-conductor industry

Environmental technology

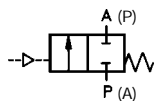
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Technical Data

Control Function

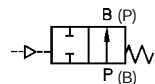
A 2/2-way valve,
normally closed by spring action.



Material

Body PVC, PVDF
Actuator PA, PPS (on request)

B 2/2-way valve,
normally open by spring action.



Specifications

Orifice [mm]	Kv-Value Water [m³/h]	Operating Pressure Diaphragm		Actuator Size [mm]	Weight	
		EPDM [bar]	PTFE [bar]		Plain spigot/ Fusion spigot [kg]	Socket Union [kg]
15	5,0	6	-	50	0,5	0,6
		10	6	63	0,9	1,0
20	7,5	6	-	63	0,9	1,1
		10	6	80	1,7	1,8
25	13,5	10	6	80	1,7	1,9
32	28,0	8	6	100	3,2	3,4
40	36,0	6	-	100	3,4	3,6
		10	6	125	5,2	5,4
50	53,0	8	6	125	5,7	6,6

Operating Data (Valve)

Fluid temperature depending on diaphragm material
PVDF: 0-120 °C
PVC: 0-60 °C

Ambient temperature -10 °C to +60 °C

Diaphragm material EPDM,
PTFE/Butyl
FPM¹⁾, PTFE/FPM¹⁾,

Control Pressure

Circuit function A (spring to close):

Min. required control pressure 5,5 bar
Max. admissible control pressure 10,0 bar

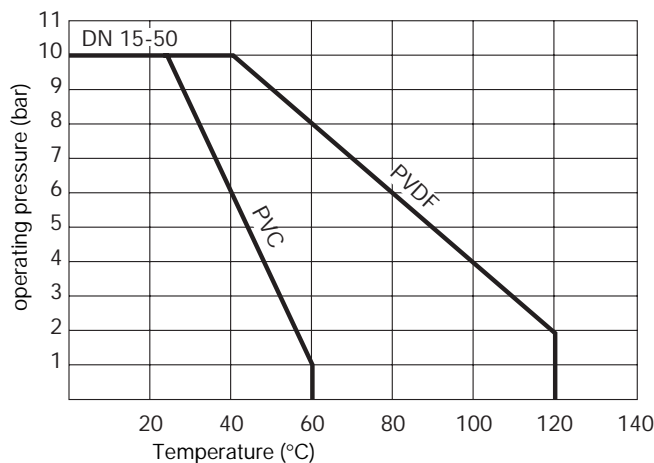
Circuit function B (spring to open):

The following max. control pressures are required to provide max. operating pressure:

EPDM-diaphragm $P_{ST} = 4,5$ bar
PTFE-diaphragm $P_{ST} = 5,0$ bar

Control fluid Neutral gases, air

Operating Pressure Depending on Fluid Temperature



Installation

Installation as required

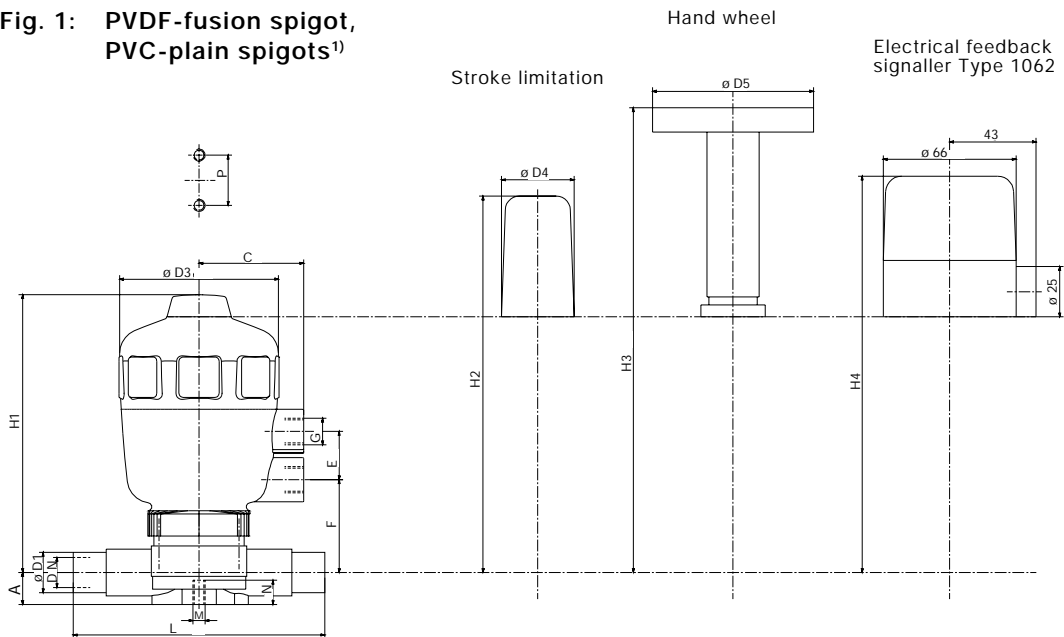
¹⁾ on request

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Dimensions in mm

**Fig. 1: PVDF-fusion spigot,
PVC-plain spigots¹⁾**



Dimensions Fig. 1: PVDF-fusion spigot, PVC-plain spigot¹⁾

Orifice [mm]	15	15	20	20	25	32	40	40	50
Actuator [mm]	Ø50	Ø63	Ø63	Ø80	Ø80	Ø100	Ø100	Ø125	Ø125
A	14	14	18	18	21	26	33	33	39
C	39	52	52	60	60	73	73	86	86
Ø D1	20	20	25	25	32	40	50	50	63
Ø D2	43	43	53	53	60	74	83	83	103
Ø D3	64	80	80	101	101	127	127	153	153
Ø D4	36	36	36	36	36	-	-	-	-
Ø D5	80	80	80	80	80	-	-	-	-
E	20	24	24	24	24	24	24	30	30
F	46	45	54,5	63	66	82	89	98	105
G	G1/8	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4
H1	121	137	146	172	175	229	236	276	283
H2	171	187	196	222	225	-	-	-	-
H3	215	231	240	266	269	-	-	-	-
H4	180	196	205	231	234	285	292	332	339
L	124	124	144	144	154	174	200	200	230
M	M6	M6	M6	M6	M6	M8	M8	M8	M8
N	12	12	12	12	12	15	15	15	15
P	25	25	25	25	25	45	45	45	45

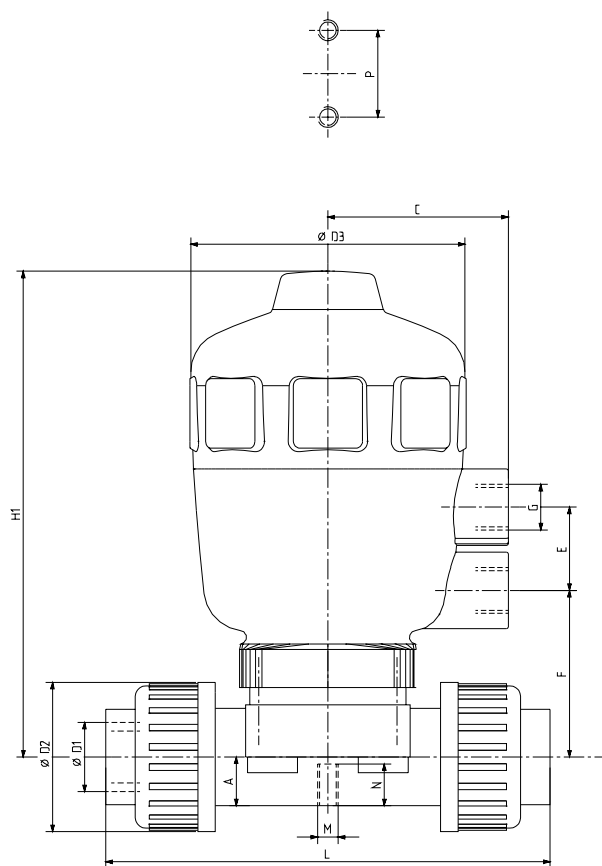
¹⁾ on request.

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Dimensions in mm

Fig. 2: PVC-socket union



Dimensions Fig. 2: PVC-socket union

Orifice [mm]	15	15	20	20	25	32	40	40	50
Actuator [mm]	ø50	ø63	ø63	ø80	ø80	ø100	ø100	ø125	ø125
A	14	14	18	18	21	26	33	33	39
C	39	52	52	60	60	73	73	86	86
Ø D1	20	20	25	25	32	40	50	50	63
Ø D2	43	43	53	53	60	74	83	83	103
Ø D3	63	80	80	101	101	127	127	153	153
Ø D4	36	36	36	36	36	-	-	-	-
Ø D5	80	80	80	80	80	-	-	-	-
E	20	24	24	24	24	24	24	30	30
F	48	47	56,5	64	67	84	92	99	106
G	G1/8	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4
H1	123	139	148	173	176	231	239	277	284
H2	173	189	198	223	226	-	-	-	-
H3	217	233	242	267	270	-	-	-	-
H4	182	198	207	232	235	287	294	333	340
L	128	128	152	152	166	192	222	222	266
M	M6	M6	M6	M6	M6	M8	M8	M8	M8
N	12	12	12	12	12	15	15	15	15
P	25	25	25	25	25	45	45	45	45

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Ordering Chart (Other Versions on Request)

Type 2030 with plastic body, PA-actuator with stainless steel inserts

Control Function	Orifice [mm]	Diaphragm	Operating Pressure [bar]	Actuator Size [mm]	Order-No. PVC Body true union	PVDF Fusion Connection
A	15	EPDM	6	50	001 179 A	-
	15	EPDM	10	63	001 230 H	-
	15	PTFE/Butyl	6	63	001 191 P	001 201 H
	20	EPDM	6	63	001 180 Y	-
	20	EPDM	10	80	001 517 M	-
	20	PTFE-Butyl	6	80	001 192 Q	001 202 A
	25	EPDM	10	80	001 181 M	-
	25	PTFE/Butyl	6	80	001 193 R	001 203 B
	32	EPDM	8	100	001 182 N	-
	32	PTFE/Butyl	6	100	001 194 J	001 204 C
	40	EPDM	6	100	001 183 P	-
	40	EPDM	10	125	001 518 W	-
	40	PTFE/Butyl	6	125	001 195 K	001 205 D
	50	EPDM	8	125	001 184 Q	-
	50	PTFE/Butyl	6	125	001 430 S	001 521 R
B	15	EPDM	6	50	001 185 R	-
	15	EPDM	10	63	001 231 W	-
	15	PTFE/Butyl	6	63	001 196 L	001 206 E
	20	EPDM	6	63	001 527 P	-
	20	EPDM	10	80	001 186 J	-
	20	PTFE/Butyl	6	80	001 197 M	001 207 F
	25	EPDM	10	80	001 187 K	-
	25	PTFE/Butyl	6	80	001 198 W	001 208 Q
	32	EPDM	8	100	001 188 U	-
	32	PTFE/Butyl	6	100	001 199 X	001 209 R
	40	EPDM	6	100	001 189 V	-
	40	EPDM	10	125	001 523 K	-
	40	PTFE/Butyl	6	125	001 200 L	001 210 D
	50	EPDM	8	125	001 190 S	-
	50	PTFE/Butyl	6	125	001 431 P	001 526 N

Accessories and Options on Request

- Control function I (double-acting actuator)
- Electrical position feedback Type 1062
- Magnetic-inductive proximity sensors for position sensing mounted to the actuator
- Independently adjustable stroke limitation:
 - for maximum flow
 - for minimum flow
- Hand wheel
- Namur adaptor for pilot valve

- Pilot valves:

	Order-No.
Type 375, DN 1,2; 220/≡ (incl. double nipple) for 50 mm actuator size	700 874 Q
Type 375, DN 1,2; 220/≡ (incl. double nipple) for 63 mm actuator size	700 875 R
Type 311, DN 2,0; 220/50 (incl. double nipple) for 63, 80, 100 and 125 mm actuator sizes	700 876 J

For other operating voltages please refer to data sheets 375/311

In case of special requirements please consult for advice.

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