

Pneumatically Operated Valve

Type 402 DN 15 - 50 (1/2" - 2")

Type 402 pneumatically operated valve with plastic piston actuator normally closed (NC), normally open (NO) or double acting (DA). Various accessories are available for adjustments, control and regulation which can be assembled in the factory or on the job site afterwards.

Features

- Process media can be neutral and aggressive liquid and gaseous, dependent upon material selection of body and diaphragm
- Flow can be in either direction
- Insensitive to dirty or contaminated media
- Excellent flow characteristics
- Bubble tight sealing
- Installation can be in any position
- Eliminates water hammer
- Compact construction
- Maintenance free non corrosive actuator
- Control air connection in flow direction (optional)

Technical specifications

Design	Diaphragm Valve
Size range	DN 15 - 50
Diaphragm size see page 11	MA 25 - 50
Body material	Investment cast 1.4435/316L S.G. iron EN-GJS-400-18-LT (GGG40.3)-PP-Lined Cast iron EN-GJL-250 (GG 25) Cast iron EN-GJL-250 (GG 25)-Hard-Rubber-Lined Carbon steel EN-GP-240-GH (GS-C25)
End connection standards see page 8-9	Threaded socket: DIN ISO 228 Flange: EN 1092 PN10/16, ANSI Class 125/150
Diaphragm material	EPDM, PTFE, NBR, FPM
Max. working pressure	10 bar (150 PSI), DN 15 - 50
Temperature range	-10 °C to +120 °C, depending on diaphragm and body material
Control functions	Single acting (NC or NO) and double-acting (DA) pneumatic diaphragm actuator

Note: Possible actuator and valve body combinations see page 7.
Ordering key see page 60.

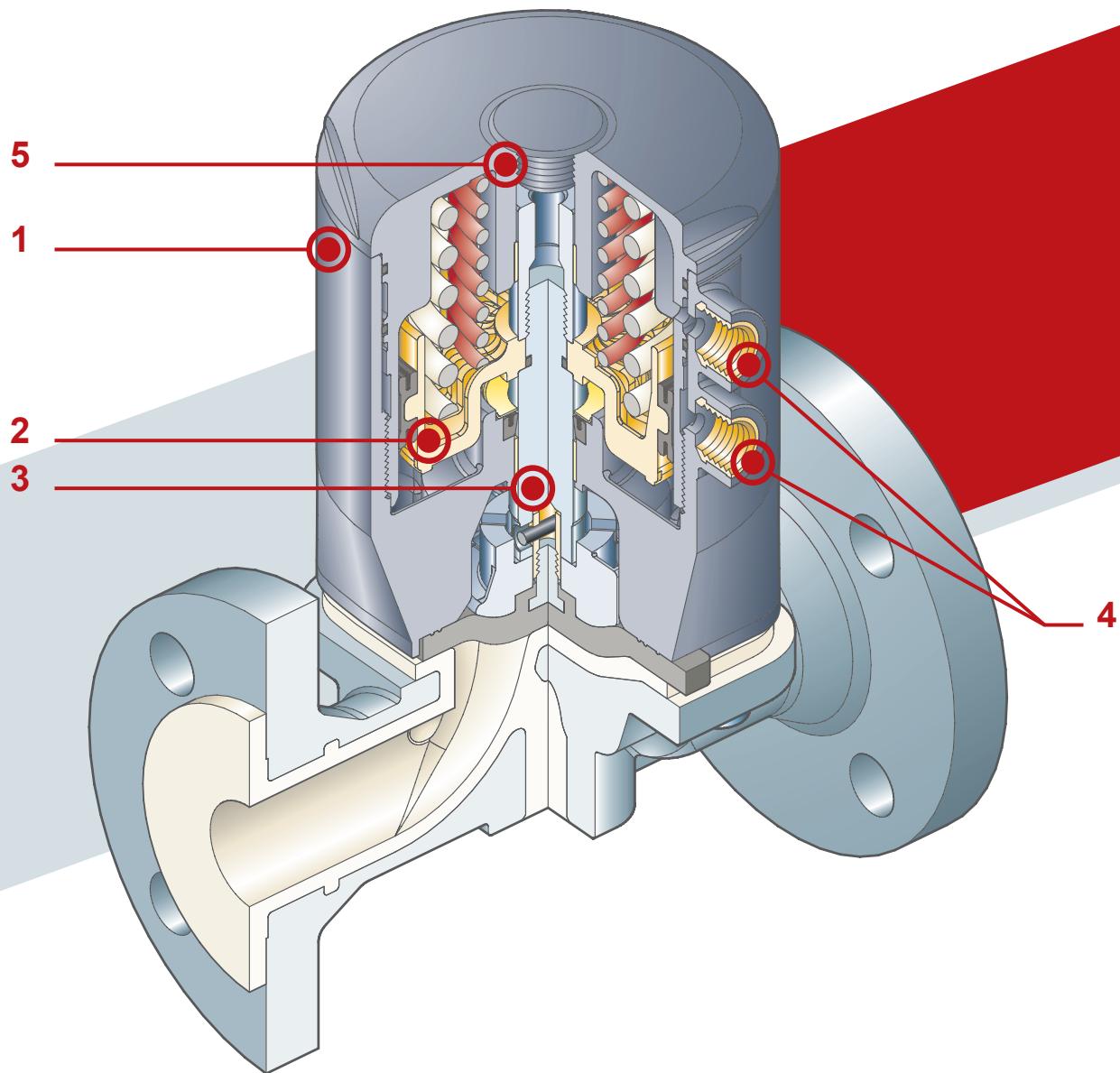
The **piston actuator** in PA MXD6-GF is characterized by its compact construction, making 402 the ideal choice for applications requiring very frequent valve operation and long valve lifetime.

Technical specifications - pneumatic actuator

Design	Plastic Piston Actuator
Actuator material	PA MXD6-GF
Max. control air pressure	NC: 4,5 - 7 bar (65 - 100 PSI) NO/DA: 4 - 5 bar (60 - 72 PSI)
Control media	Dry or lubricated filtered compressed air. If using other fluids, contact the SED service center
Filling volume	MA25 = 0,17 NL (NC), 0,20 NL (NO/DA) MA40 = 0,31 NL (NC), 0,34 NL (NO/DA) MA50 = 0,68 NL (NC), 0,80 NL (NO/DA)
Control media temperature	Max. 40 °C
Ambient temperature	-20 °C to +50 °C
Accessories	See page 54

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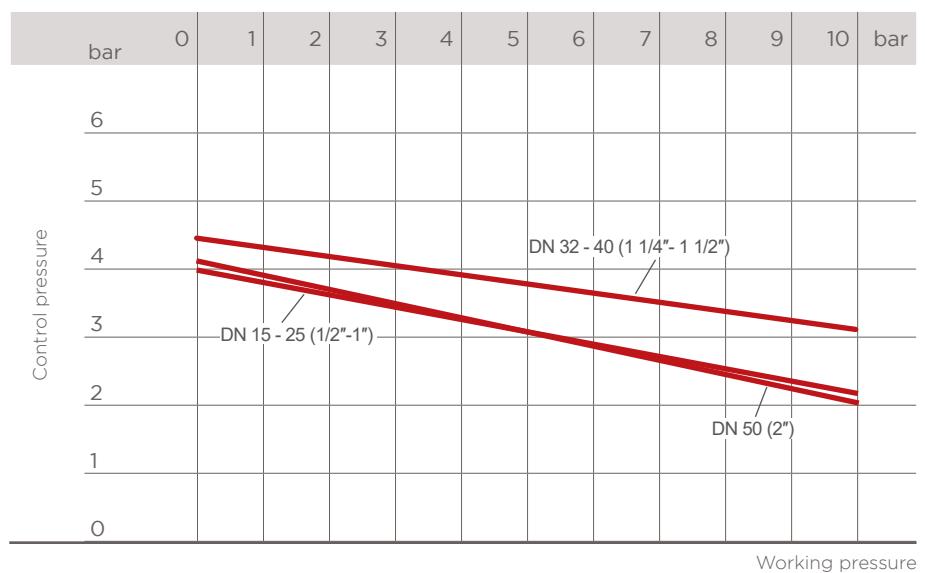
- 1 Light and compact piston actuator in PA MXD6-GF with a diaphragm perimeter containment system that ensures the perfect compression of the hard rubber without any lateral expansions
- 2 Piston in high strength PA MXD6-GF equipped with main gasket with lubrication system that allows up to 1 million valve operations to be performed without showing any signs of wear
- 3 High strength stainless steel stem with floating pin connection between the actuator stem and diaphragm to prevent concentrated loads, improve the seal and extend its lifetime
- 4 Easy to install, even in confined spaces: **compressed air inlets with G 1/4" threaded metal connections**, can be supplied in line with the piping
- 5 Connection thread for assembly of **valve control equipment**

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Type 402 - Technical Data

Control pressure according to Working pressure Type 402 NC

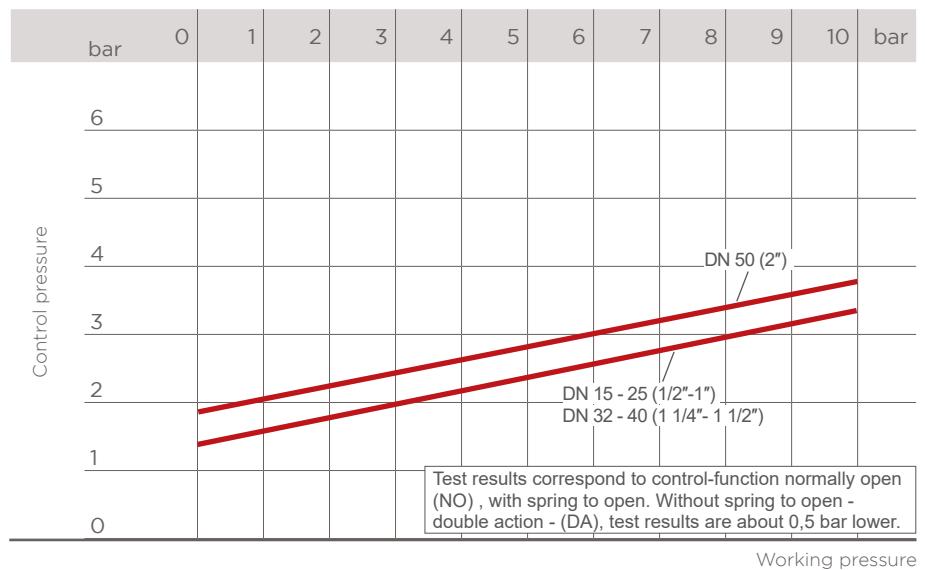
Minimum control pressure according to working pressure with EPDM, FPM diaphragm



Control pressure according to Working pressure Type 402 NO-DA

Minimum control pressure according to working pressure with EPDM, FPM diaphragm.

Higher control pressure than required may affect the lifetime of the working diaphragm.



K_v100 flow coefficient

The K_v100 flow coefficient is the Q flow rate of cubic meter per hour of water at a temperature of 20°C that will generate $\Delta p = 1$ bar pressure drop at a certain valve position.

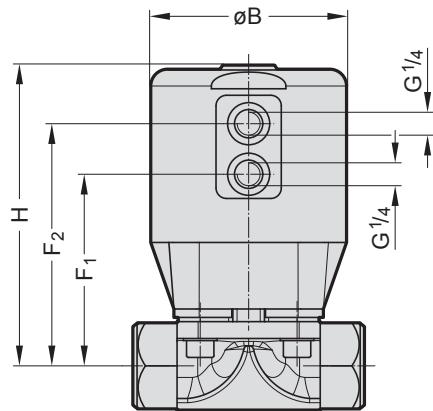
The K_v100 values shown in the table are calculated with the valve completely open.

DN	MA	Unlined		Hard rubber lined		Plastic lined	
		K _v m ³ /h	C _v gpm	K _v m ³ /h	C _v gpm	K _v m ³ /h	C _v gpm
15	25	7	8	-	-	5	6
20	25	12	14	10	12	9	11
25	25	14	16	14	16	13	15
32	40	-	-	29	34	23	27
40	40	40	47	32	37	26	30
50	50	78	91	51	60	50	59

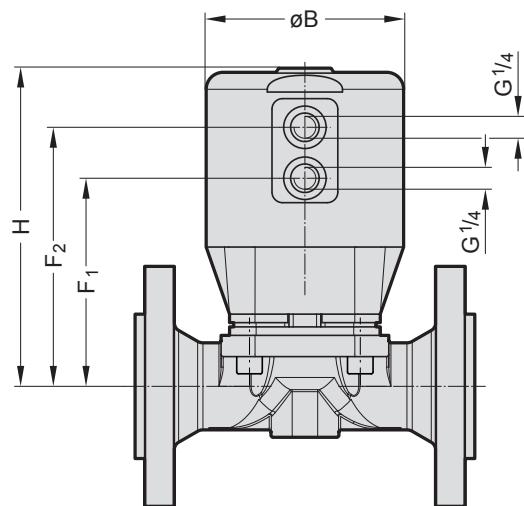
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Threaded Socket



Flanged



Dimensions (mm)

DN	MA	ØB	Threaded Socket Version					Flanged Version				
			F ₁	F ₂	H	Weight kg	F ₁	F ₂	H	Weight kg		
15	25	95	84	108	136	1,75	93	117	146	3,1		
20	25	95	87	111	139	1,86	93	117	146	4,0		
25	25	95	91	115	143	2,2	91	115	141	4,5		
32	40	115	100	124	162	3,6	96	120	154	8,0		
40	40	115	103	127	164	4,1	108	132	169	8,0		
50	50	144	147	171	215	7,0	149	173	211	13,0		

Note: Valve body face to face (FTF) and flange dimensions see page 8.