

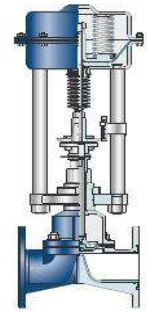
Technical data sheet; On / Off valve series MV401

General data

Series	MV401
Nominal bore DN / NPS	15 – 200 / ½“ – 8“
Nominal pressure PN / ANSI	10/16 / Class 150
Characteristics	On/Off
Plug guide	stem guided
Leakage rate	according to EN 12266-1, leakage rate class A
Flanges	according to DIN EN 1092-1, ANSI B16.5
Diaphragm	standard PTFE-EPDM, (as an option) PTFE-FPM (Viton) or EPDM
Range of application	-30°C to 150°C operating pressure (depend on lining material) 13 mbar to 16 bar

Materials

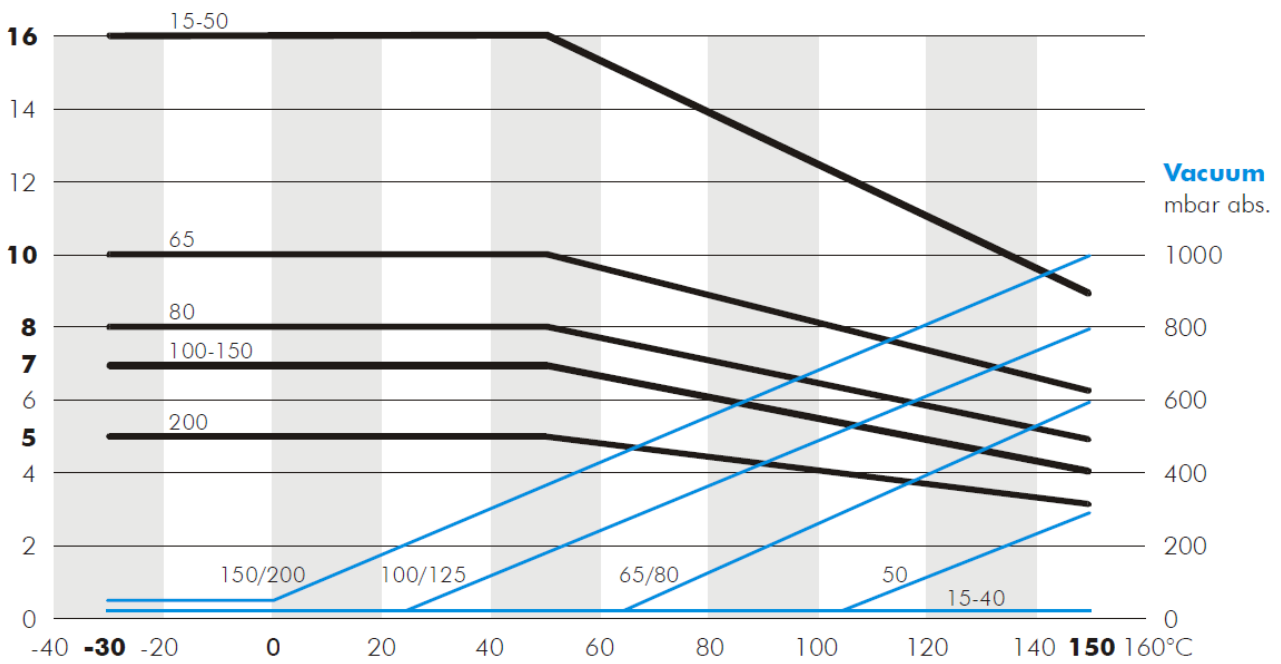
	EN	for temperatures	ASTM	for temperatures
Body material	1.0619 GP240GH	-30 to 150°C	WCB	-30 to 150°C
	1.4408 GX5CrNiMo 19-11-2	-30 to 150°C	CF-8M	-30 to 150°C
Lining	standard: PFA optional: PFA-AS (electrically conductive)			



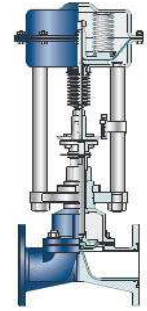
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Pressure- temperature- diagram according to DIN EN, pressures in bar

PS max.
bar



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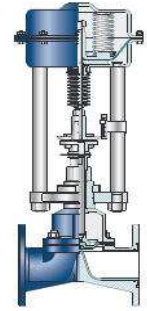
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Actuator allocation and admissible differential pressures Δp

On/Off Diaphragm valve with Po actuator,
Flow against closing direction, spring closes.

Actuator Po		Minimum air pressure setting (bar)			1.4	2	3	4	5	5.5
Spring closes		Actuator size MA2/3...			16 A6 2S	16 A6 3S	16 A6 4S	16 A6 6S	16 A6 7S	
		No. of springs			21 A6 2S	21 A6 3S	21 A6 4S	21 A6 6S	21 A6 7S	
		Spring type			31 A6 2S	31 A6 3S	31 A6 4S	31 A6 5S	31 A6 7S	
					41 A6 4S	41 A6 5S	41 A6 8S	41 A6 10S	41 A6 12S	
					41 B6 4S	41 B6 5S	41 B6 8S	41 B6 10S	41 B6 12S	41 B6 14S
					60 G6 4S	60 G6 6S	60 G6 8S	60 G6 14S		
						60 A6 4G	60 A6 6G	60 A6 8G		

Valve													Actuator size		Permissible differential pressures (in bar) for:												
Nominal bores													MA2/3...	A	B	A		B		A		B		A		B	
15	20	25	32	40	50	65	80	100	125	150	200	kvs				cv	stroke	A	B	A	B	A	B	A	B	A	B
1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	m ³ /h	gpm	mm	MA2/3...	A	B	A	B	A	B	A	B	A	B		
												7.5	8.7	7	16 A6	3	1	7	6	10	10						
															21 A6	10	10										
												9.2	10.7	7	16 A6	1	-	4	3	8	7	10	10				
															21 A6	7	6	10	10								
												13.5	15.7	7	16 A6	-	-	2	1	5	4	10	10				
															21 A6	4	3	10	10								
												21.5	24.9	11	16 A6	-	-	1	-	3	2	7	6	8	8		
															21 A6	2	1	6	5	10	10						
												35	41	18	16 A6	-	-	-	-	1	-	3	2	4	3		
															21 A6	-	-	2	1	5	4	10	10				
															31 A6	10	10										
												63	73	21	21 A6	-	-	1	-	2	1	6	6	7	7		
															31 A6	6	5	10	10								
															41 A6	10	10										
												72	84	23	31 A6	3	2	5	4	8	7	9	9	10	10		
															41 A6	10	10										
												123	143	27	31 A6	2	1	3	2	5	4	6	5	9	8		
															41 A6	6	6	8	8	10	10						
															60 G6	10	10										
												183	212	33	31 A6	-	-	1	1	2	2	3	3	5	4		
															41 A6	4	3	5	4	8	7	9	8	10	10		
															60 G6	9	9	10	10								
												295	342	45	41 B6	2	1	3	2	5	4	7	5	8	6	9	7
															60 G6	6	5	8	7	10	10						
												410	476	52	41 B6	1	-	1	-	2	1	3	2	4	2	5	3
															60 G6	3	2	5	3	7	4	8	5				
												585	697	70	60 A6	-	-	1	1	2	2	3	3				

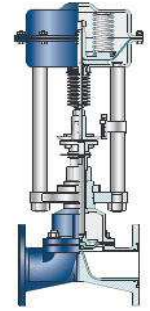


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Actuator allocation and admissible differential pressures Δp

On/Off Diaphragm valve with Ps actuator,
Flow against closing direction, spring opens.

Actuator Ps		Minimum air pressure setting (bar)																						
Spring opens		1.4 2 3 4 5 5.5																						
		Actuator size MA2/3... No. of springs Spring type																						
		16 A6 1S 21 A6 1S 31 A6 1S 41 A6 2S 41 B6 2S 60 G6 2S 60 A6 2G																						
Valve		Nominal bores												kvs m ³ /h	cv gpm	Stroke ↑ mm	Actuator size MA2/3...	Permissible differential pressures (in bar) for:						
15 ½"	20 ¾"	25 1"	32 1¼"	40 1½"	50 2"	65 2½"	80 3"	100 4"	125 5"	150 6"	200 8"	A = EPDM diaphragm B = PTFE / EPDM or PTFE / FPM diaphragm												
																	16 A6	-	3	10				
																	21 A6	10						
																	16 A6	-	-	7	10			
																	21 A6	8	10					
																	16 A6	-	-	4	10			
																	21 A6	4	10					
																	31 A6	-	6	10				
																	21 A6	10						
																	31 A6	-	1	8	10			
																	21 A6	9	10					
																	31 A6	9	10					
																	21 A6	-	-	4	9			
																	31 A6	4	10					
																	21 A6	-	-	1	4	5	6	
																	31 A6	-	4	9	10			
																	31 A6	4	10					
																	21 A6	-	-	1	4	5	6	
																	31 A6	-	4	9	10			
																	31 A6	-	2	5	9	10		
																	41 A6	3	6	10				
																	60 G6	10						
																	31 A6	-	1	3	5	7	8	
																	41 A6	1	4	8	10			
																	60 G6	6	10					
																	41 B6	-	2	5	7			
																	60 G6	3	7	8				
																	41 B6	-	1	2	3	4	5	
																	60 G6	1	3	5	7			
																	60 A6	-	-	2	4	5		



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Diaphragm and body

Diaphragm

- The bayonet lock allows for easy replacement
- Protects internal parts from corrosion
- Diaphragm materials
 - EPDM (without protective foil)
 - With protective foil PTFE-EPDM or PTFE-FPM (Viton)



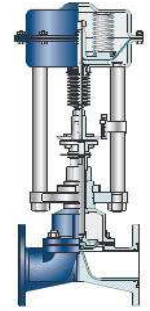
Body

- Cast steel 1.0619 with coating in RAL 5005
- Stainless steel 1.4408 (as an option)

Inner lining

For the use of corrosive, hazardous and slightly solids-containing media

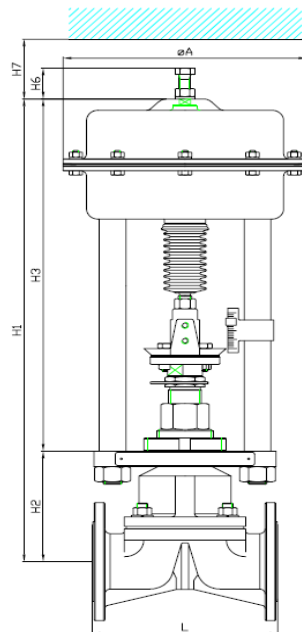
- PFA (comes as standard)
- PFA-AS electrically conductive (as an option)



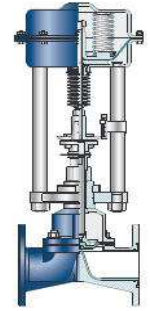
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Dimensions and weights (in mm and kg)

Diaphragm valve (dimensions with flanges according to DIN EN 1092-1)														
DN (mm)		15	20	25	32	40	50	65	80	100	125	150	200	
L	PN 16 ... PN 40	130	150	160	180	200	230	290	310	350	400	480	600	
H2	(mm)	73	75	84	95	113	126	137	162	195	210	262	337	
G	Weight (kg)	2.5	3	3.8	5.2	7.4	9.7	13.5	18	30	43	66	122	
Actuator														
Type	G	øA	H3	H6	H7	H1								
2.16 A6...	4	162	266	30	40	299	301	310	321	339				
2.21 A6...	7	210	383	42	40	456	458	467	478	496	509			
3.31 A6...	16	310	372	42	40			469	485	498	509	534	567	
3.41 A6...	51	415	436	38	40					562	573	598	631	
3.41 B6...	58	415	742	38	40								952	1004
3.60 G6...	160	598	643	38	55							805	838	853
3.60 A6...	192	598	822	38	55									1159

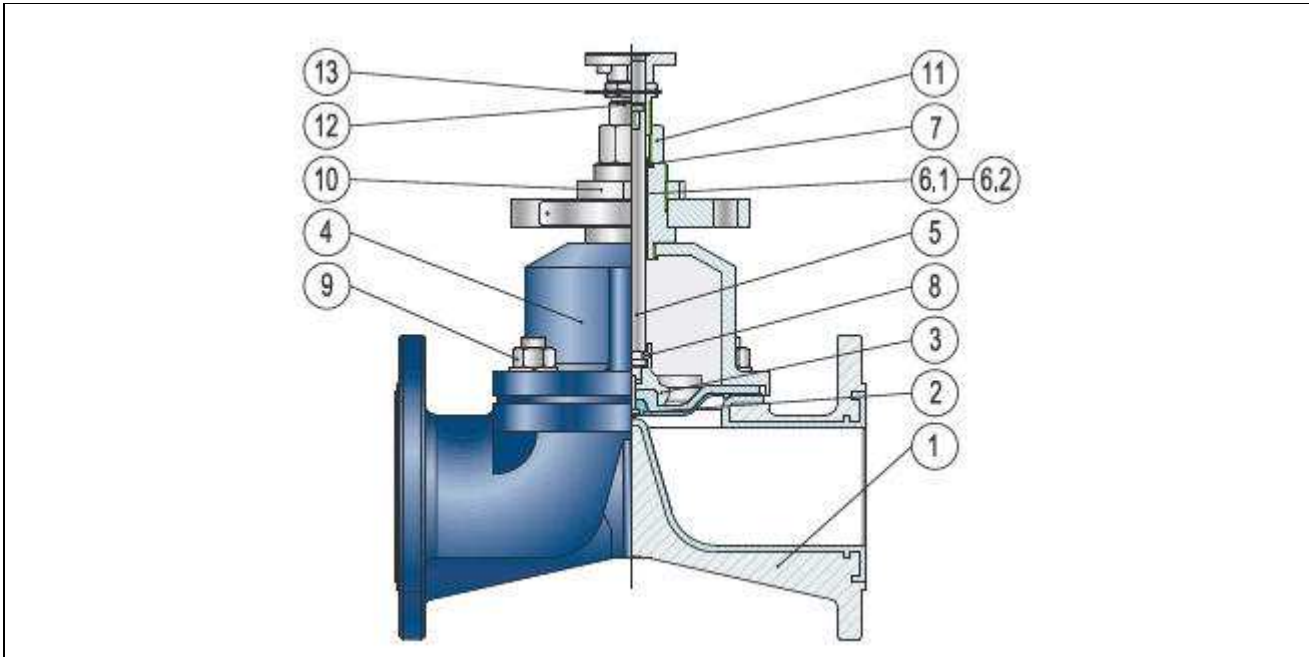


Swiss precision for fluids and flow control



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Spare parts



Pos	Description	piece	Specification	Material / No.
1	Body*	1	PFA-lined, RAL 5005	1.0619
2	Diaphragm	1		PTFE/EPDM
3	Keeper	1	Bayonet	1.4408
4	Bonnet	1	RAL 5005	1.0619
5	Stem	1		1.4021
6.1	Slide bush	1		C-steel galvanized / 1.0737
6.2	Insert	1		Bronze
7	Wiper	1		Nitrile rubber with steel-adhesive ring
8	Grooved pin	2		A2 / 1.4310
9	Studs, nuts und springring	4		A2 / 1.4310
10	Travers nuts	1		St. 5 galvanized
11	Nuts	1		1.0718 galvanized
12	Setting screw	1		1.0718 galvanized
13	Splint pin	1		A2 / 1.4310

* 1.4408 on request

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