

Series MV401



Every component precisely matched

Powerful valve actuator

Most commonly used is the pneumatic multi-spring actuator series MA as shown here. It is robust, ex-proof, features low actuating times, provides a constant seating force and is cost effective. Different sizes, strokes and materials can be manufactured according to your requirements. von Rohr control valves are optional also available with electric actuators. For more details, see the von Rohr brochures MA actuators or SHE actuators.

Signal box type 827S

For signalling intermediate or limit positions the signal box 827S can be employed. It is mounted on the actuator pillars according to NAMUR and reads off the stroke level. Up to three inductive proximity switches are activated by adjustable switching disks and thus indicate the current position of the valve.

Cotter pin and stroke limitation

The cotter pin relieves the diaphragm before commissioning. The mechanical stroke limitation protects against high closing forces and extends the lifetime of the diaphragm.

Stem guiding

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m

The compression plug is exactly guided by the spindle. The wiper ring protects against dirt effects. The diaphragm valve is designed so that no packing is required.

Diaphragm

In the heart of the valve works a diaphragm, which is specially designed for the prevailing flow conditions in your plant. It protects the internal parts from corrosion and hermetically seals the bonnet. The diaphragm is available in EPDM, PTFE-EPDM and PTFE-FPM (Viton). The bayonet lock allows for an easy exchange service of diaphragm. We ensure that you will not have to worry about the tightness. Stem surface, slide bush and design are finely matched so that neither friction, corrosion nor emission limit values will cause you any issues. The valve design is also TA-Luft (Clean Air Act) compliant.

Body and lining

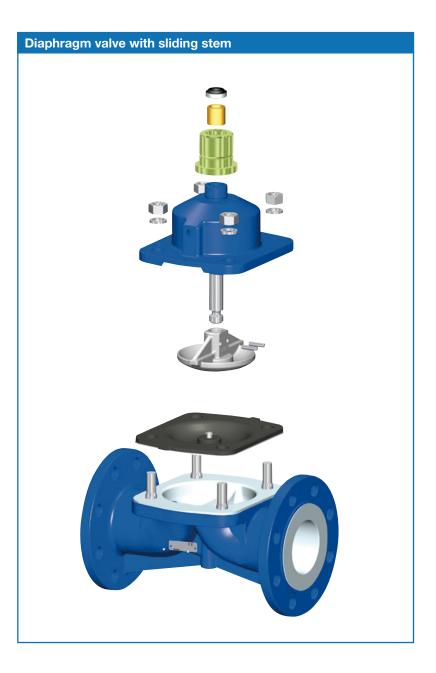
The one-piece body is available in cast steel with coating in RAL 5005 or stainless steel. The inner PFA-lining protects against corrosive, hazardous and slightly solids-containing media.

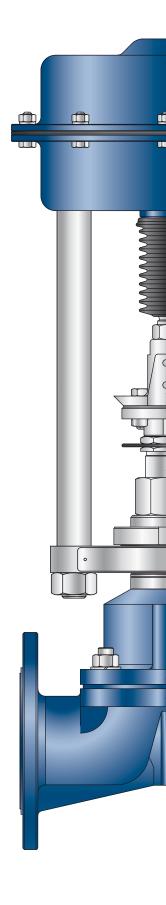
Valve design

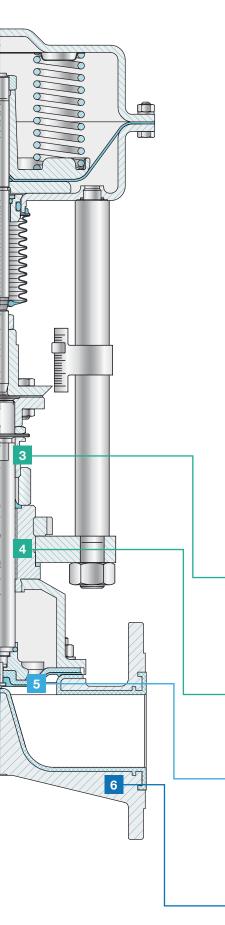
In order to fulfill its function properly within an installation, the valve has to be designed to the particular operating conditions such as flow rate, operating pressure difference, tightness and noise requirements. This is realised thanks to the numerous combinations that the modular design allows.

Diaphragm

The type of the diaphragm is dependent on both, the medium as well as on the operating conditions such as temperature and pressure. It also, however, has decisive influence on the operational safety, the maintenance and, last not least, on the availability of the valve.







Manual diaphragm valve The diaphragm valve is also available as a manual shutoff valve

Cotter pin and stroke limitation

- The cotter pin relieves the diaphragm before commissioning
- The mechanical stroke limitation protects against high closing forces and extends the lifetime of the diaphragm

Inner parts and stem guiding

- Made of stainless steel
 Stem guiding no wear of packing

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 **Inner lining** • Cast steel 1.0619 with coating in RAL 5005 For the use of corrosive, hazardous and slightly Stainless steel 1.4408 (as an option) solids-containing media PFA (comes as standard)PFA-AS electrically conductive (as an option)

Series MV401

Standard version with limit switches



Features	Advantages		
Body designed to meet flow path criteria	 Less wear Less maintenance Less pressure loss 		
Lined body	 Control of corrosive, hazardous and/or slightly solids-containing media 		
Highly accurate stem guiding	 Precise guiding of compression plug Wiper ring protects against dirt effects No wear of packing 		
Cotter pin to relieve the diaphragm before commissioning	 Diaphragm without load until commissioning 		
Stroke limitation	 Extends lifetime of the diaphragm 		
Inner parts separated by diaphragm	No corrosion		
Easy interchangeability of components	 Low operating expenses 		
Optionally available with manual, pneumatic- or electric actuator	Wide range of choice		
Pillars comply with NAMUR	• Simple mounting of positioners, limit switches etc.		

Series MV401

General data		
Series	MV401	
Nominal bore DN/NPS	15 to 200 / ½" to 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						
Body material	EN	for temperatures	ASTM	for temperatures		
	1.0619 GP240GH	–30° C to 150° C	WCB	–30° C to 150° C		
	1.4408 GX5CrNiMo19-11-2	–30° C to 150° C	CF-8M	–30° C to 150° C		
Lining	standard: PFA optional: PFA-AS (electrically conductive)					

Swiss precision for fluids and flow control