Pressure Control Valves

Pressure Reducing Valves DM 401

Valve for High Pressures + High Temperature

Technical Data

Connection DN Nominal Pressure PN Inlet Pressure Outlet Pressure K_{vs}-Value Temperature Medium

16 - 250 up to 160 bar 1.5 - 32 bar 6 - 360 m³/h 500 °C steam

25 - 250

Description

Medium-controlled pressure reducers are simple control valves offering accurate control while being easy to install and maintain. They control the pressure downstream of the valve without requiring pneumatic or electrical control elements.

The DM 401 pressure reducing valve is a diaphragm or piston-controlled spring-loaded proportional control valve with pressure relief for large flow rates at low pressure drops. The valve cone is fitted with a metallic seal.

The outlet pressure to be controlled is balanced across the diaphragm by the force of the valve spring (set pressure). As the outlet pressure rises above the pressure set using the adjusting screw, the valve cone moves towards the seat and the volume of medium is reduced. As the outlet pressure drops the valve control orifice increases; when the pipeline is depressurised the valve is open. Rotating the adjusting screw clockwise increases the outlet pressure.

The valves requires a pilot line (to be installed on-site).

These valves are no shut-off elements ensuring a tight closing of the valve. In accordance with the VDI/VDE guideline 2174 a leakage rate of 0.5 percent of the constant volume flow is permitted for the valve in closed position..

Standard

- » relieved cone for controlling the outlet pressure indipendently from the initial pressure.
- open spring
- » pilot line connection

Options

- » mid section for higher temperatures (400 500 °C)
- » hydraulic damping
- » enlarged outlet
- » various diaphragm and seal materials suitable for your medium
- » special versions on request

Operating instructions, know how and safety instructions must be observed. All the pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice. 50 65 80

VS									
Kvalues [m³/h]									
m³/h	6	11	16	25	42	65			
DN	25	32	40	50	65	80			

K_{vs}-values [m³/h]

N _{vs} value						
DN	100	125	150	200	250	
m³/h	80	120	170	230	360	





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Materials DM 4	01 PN 16							
Body	cast i	cast iron						
Bottom Part	cast i	cast iron						
Spring		spring	g steel C					
Internals		on re	quest					
Diaphragm		CR						
Materials DM 4	01 PN 25 - 4	40						
Temperature	300°C		350°C	400°C				
Body	cast iron		cast iron	GS 17 CrMo 55				
Bottom Part	cast iron		cast iron	cast iron				
Mid Section	-		-	GS 17 CrMo 55				
Spring	spring steel	С	spring steel C	spring steel C				
Internals	on request							
Diaphragm	CR		Cr	Cr				
O-ring	NBR		NBR	NBR				
Materials DM 4	01 PN 63 - '	100						
Temperature	350°C		400°C	500°C				
Body	cast iron		GS 17 CrMo 55	GS 17 CrMo 5				
Bottom Part	cast iron		cast iron	cast iron				
Mid Section	-		GS 17 CrMo 55	GS 17 CrMo 55 10 CrMo 9-10				
Spring	spring steel	С	spring steel C	spring steel C				
Internals	on request							
Diaphragm	CR		Cr	Cr				
O-ring	NBR or EPD	M	NBR or EPDM	NBR or EPDM				
Dimensions [mr	n]							
cizo nominal	nominal d	iamoto	DN DN					

size	nominal	nominal diameter DN										
	pressure	25	32	40	50	65	80	100	125	150	200	250
A	PN 16 - 40	-	180	200	230	290	310	350	400	480	600	730
	PN 63 - 100	230	-	260	300	330	380	430	500	-	-	-

As the DM 401 pressure reducing valve is designed specifically for your operating data and may vary considerably in terms of construction, we are unable at this stage to give any dimensions or weights. Please contact us if you have specific queries.

Special designs on request.

The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.



Recommended Installation



- Strainer
 Shut-off Valves
- 6 Sense Line G 1/2
- 3 Pressure Reducer
- 4 Safety Valve
- sense line connection 10 20 x DN behind the valve use MANKENBERG-Products