PRESSURE CONTROL

Pressure reducing valve DM 701

High pressure valve for high temperatures, small to medium flow rates

Technical data

Connection DN	15 - 50
Nominal pressure PN	315
Inlet pressure	up to 160 bar
Outlet pressure	0.5 - 40 bar
K_{vs} value	0.2 - 5.5 m³/h
Temperature	500 °C
Medium	steam

*RT = -10 °C TO + 50 °C

Description

Self-acting 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 701 pressure reducing valve is a piston controlled, spring loaded proportional control valve for small capacities with high pressure drops. The valve cone is fitted with a metallic seal.
The outlet pressure to be controlled is balanced across the control unit 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 valve requires a sense line (to be installed on-site).
These valves are no shut-off elements ensuring a tight closing of the valve. In accordance with DIN EN 60534-4 and/or ANSI FCI 70-2 they may feature a leakage rate in closed position in compliance with the leakage classes III. The design data refer to the maximum inlet pressure, the outlet pressure is limited by the setting range.

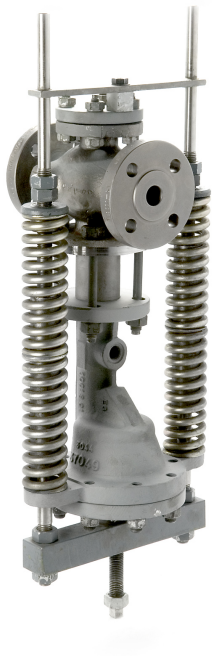
Standard

- Open spring
- Sense line connection

Options

- Mid section for higher temperatures (400 - 500 °C)
- Various diaphragm and seal materials suitable for your medium
- Special versions on request

Product



Picture similar

Technical specification

K_{vs} values [m³/h]						
seat	nominal diameter DN					
	15	20	25	32	40	50
I	0.2	0.25	0.25	0.4	0.4	1
II	0.9	0.9	0.9	2.5	2.5	3.5
III	1.8	2	2.2	3.9	3.9	5.5

Setting ranges [bar] diaphragm controlled	
1.5 - 6	6 - 13

Setting ranges [bar] piston controlled		
12 - 18	16 - 24	24 - 32

Mankenberg GmbH | Spenglerstrasse 99 | D-23556 Luebeck | Germany

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Materials

Materials PN 16	
Temperature	300°C
Body, bottom part	cast steel
Spring	spring steel C
Internal parts, piston	on request
O-ring	NBR or EPDM

Materials PN 25 - 40			
Temperature	300°C	350°C	400°C
Body, bottom part	cast steel	cast steel	cast steel
Mid section	-	-	GS 17 CrMo 55
Spring	spring steel C	spring steel C	spring steel C
Internal parts, piston	on request		
O-ring	NBR or EPDM	NBR or EPDM	NBR or EPDM

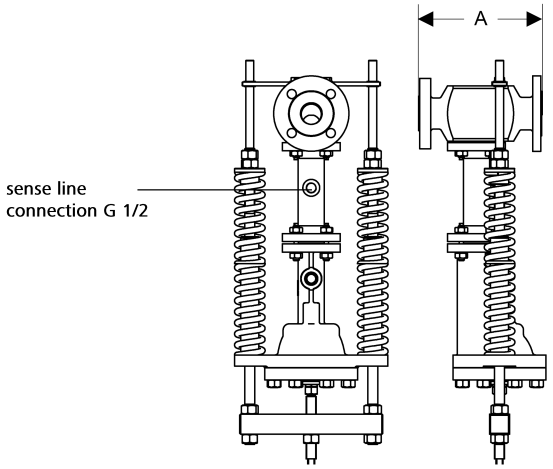
Materials PN 63 - 315			
Temperature	350°C	400°C	500°C
Body, bottom part	C 22 N	C 22 N	10 CrMo 9-10
Bottom part	cast steel	cast steel	cast steel
Mid section	-	GS 17 CrMo 55	GS 17 CrMo 55 or 10 CrMo 9-10
Spring	spring steel C	spring steel C	spring steel C
Internal parts, piston	on request		
O-ring	NBR or EPDM	NBR or EPDM	NBR or EPDM

Dimensions and weights

Dimensions [mm]							
nominal pressure	size	nominal diameter DN					
		15	20	25	32	40	50
PN 16 - 40	A*	130	150	160	180	200	230
PN 63 - 160		210	230	230	260	260	300
PN 250 - 315		210	260	260	300	300	350

*overall length tolerances in acc. with DIN EN 558
As the DM 701 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.

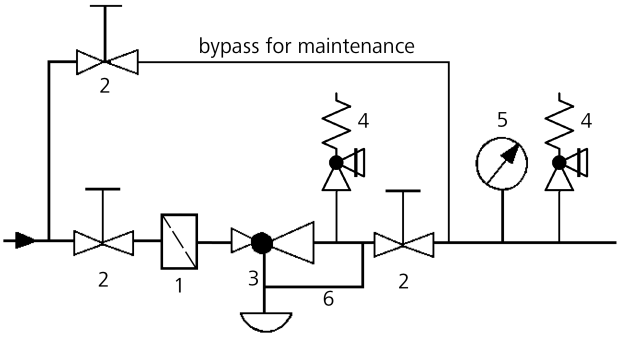
Customs tariff number
84811019



Recommended installation

1	Strainer	4	Safety valves
2	Shut-off valves	5	Pressure gauge
3	Pressure reducer	6	Sense line G 1/2

Sense line connection 10 - 20 x DN behind the valve



Please send us your enquiry and allow us to advise you. Special designs on request.
The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter technical specifications without notice.

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