

PRESSURE CONTROL

Pressure reducing valve DM 755

Millibar control valve for small to medium flow rates

Technical data

Connection DN	15 - 50
Connection G	1/2 - 2
Nominal pressure PN	16
Inlet pressure	up to 16 bar
Outlet pressure	0.001 - 0.7 bar
K_{vs} value	0.25 - 4.8 m ³ /h
Temperature	130 °C
Medium	liquids and gases

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 755 pressure reducing valve is a diaphragm-controlled spring-loaded proportional control valve for very small outlet pressures and medium volumes in potentially explosive atmospheres. The valve body and medium-wetted internal parts are made of stainless steel 316Ti and 316L featuring excellent corrosion resistance. The valve cone is soft-seated.

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 design data refer to the maximum inlet pressure, the outlet pressure is limited by the setting range.

standard

- » Housing and media-exposed internal parts made of 316Ti and 316L stainless steel
- » DIN or ANSI flanges, threaded sockets G or NPT
- » Non-rising adjusting screw
- » Quick-release body clamp ring

Options

- » Pressure gauge connection
- » Clean gas version with special connections
- » For toxic or hazardous media: sealed bonnet complete with leakage lineconnection (incl. sealed adjusting screw). Must be installed with a leakage line capable of draining leaking medium safely and without pressure
- » different materials for diaphragm and seals, suitable for your medium
- » Special connections: Aseptic, ANSI or DIN flanges, NPT, welding spigots; other connections on request
- » Special versions on request

Product



Picture similar

Technical specification

K_{vs} values [m³/h] for all body sizes

0.25	0.65	1	2.3	4.8
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diaphragm [mm] setting ranges [bar] for gases

diaphragm [mm]	setting ranges [bar] for gases		
ø 220	0.1 - 0.7	0.04 - 0.20	0.015 - 0.050
ø 270	0.015 - 0.085		0.008 - 0.030
ø 360	0.01 - 0.04		0.002 - 0.020
ø 360	0.003 - 0.020		0.001 - 0.006

diaphragm [mm] Setting ranges [bar] for liquids

ø 220	0.1 - 0.7
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Permissible Reduction Ratio (max. p_1/p_2)

diaphragm [mm]	K_{vs} value m ³ /h				
	0.25	0.65	1	2.3	4.8
ø 220	600	400	400	300	250
ø 270	2000	2000	2000	1750	600
ø 360	8000	5000	5000	3000	1500
ø 500	16000	16000	8000	8000	5400

Materials

Materials		
Temperature	80 °C	130 °C
Body	1.4571 / 316Ti + 1.4404 / 316L	
Bonnet	1.4404 / 316L	
Internals	1.4404 / 316L	
Adjusting screw	A4	
Spring	1.4310 / 304	
Soft seal	NBR	EPDM optional FKM
Diaphragm	NBR	EPDM optional FKM

*All materials equal or of higher quality

Dimensions and weights

Dimensions [mm] threaded connection BSP and NPT						
size	nominal diameter G					
	1/2	3/4	1	1 1/4	1 1/2	2
A ₁ *	175	175	175	230	230	230
B	35	35	35	35	35	35
C	300	300	300	300	300	300
øD	= diaphragm diameter, see table setting ranges					

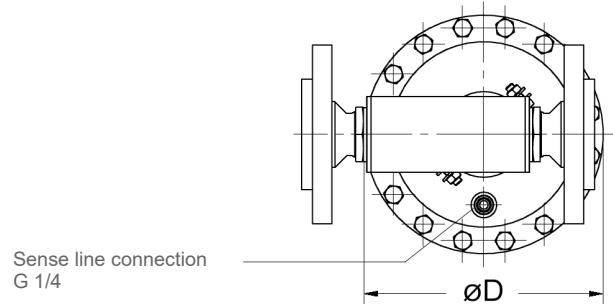
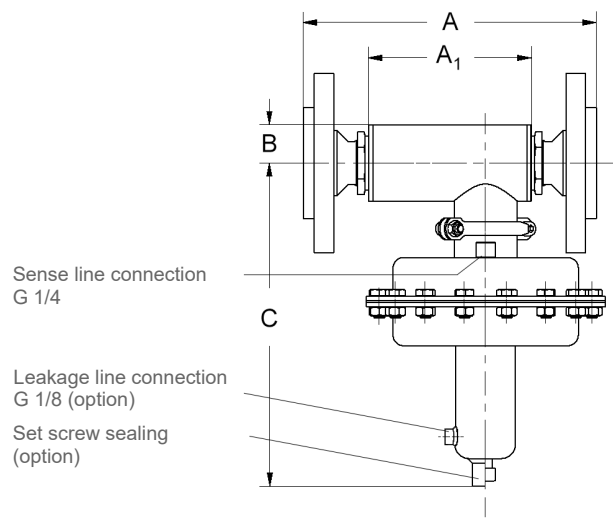
Dimensions [mm] flange connection EN 1092 and ANSI 150, 300						
size	nominal diameter DN					
	15	20	25	32	40	50
A*	270	270	270	270	270	270
B	35	35	35	35	35	35
C	300	300	300	300	300	300
øD	= diaphragm diameter, see table setting ranges					

*overall length tolerances in acc. with DIN EN 558

Weights [kg] threaded connection BSP and NPT						
Diaphragm	nominal diameter G					
	1/2	3/4	1	1 1/4	1 1/2	2
ø 220	7.6	7.6	7.7	8.1	8.3	8.7
ø 270	9.6	9.6	9.7	10.1	10.3	10.7
ø 360	14.6	14.6	14.8	15.2	15.4	15.8
ø 500	17.1	17.1	17.3	17.7	17.9	18.3

Weights [kg] flange connection EN 1092 and ANSI 150, 300						
Diaphragm	nominal diameter DN					
	15	20	25	32	40	50
ø 220	9.3	9.9	10.3	12.3	13.1	14.3
ø 270	11.3	11.9	12.3	14.3	15.1	16.3
ø 360	16.4	17	17.4	19.4	20.2	21.4
ø 500	18.9	19.5	19.9	21.9	22.7	23.9

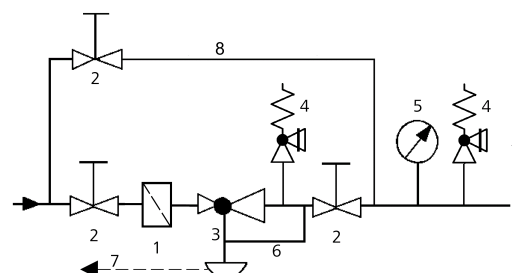
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Recommended installation

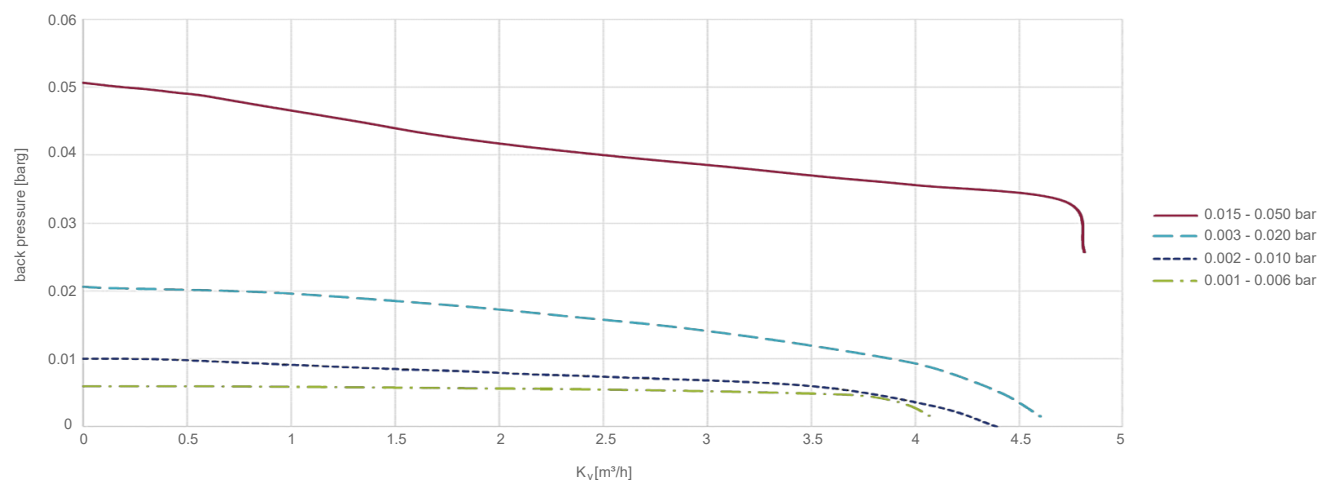
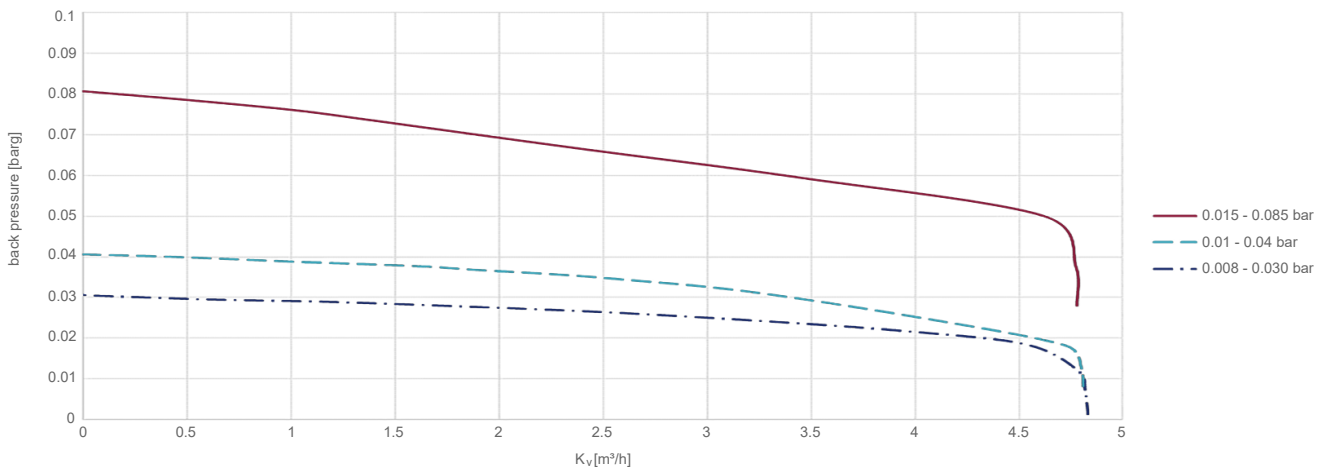
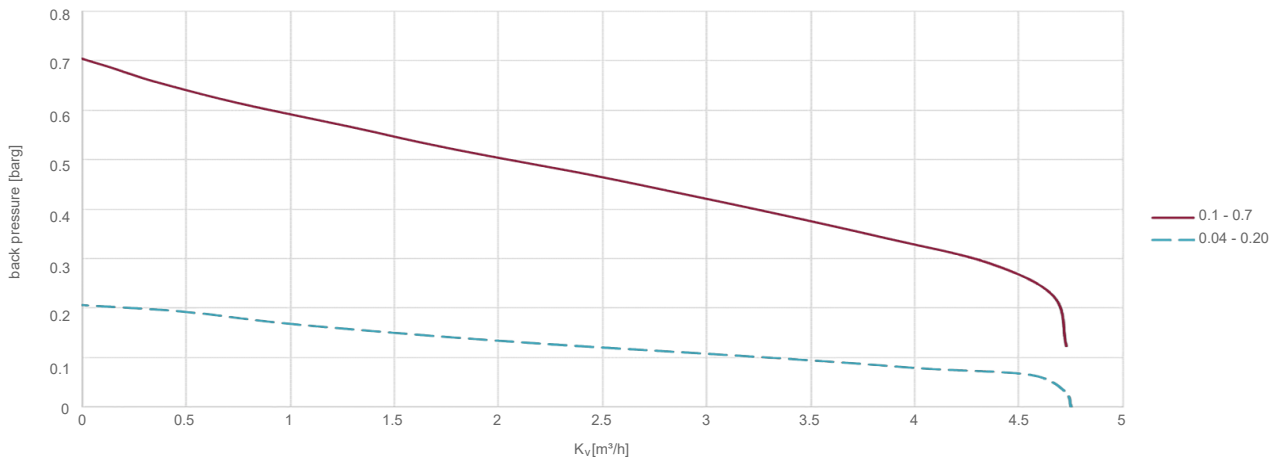
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|---------------------------|------------------|
| 1 Strainer | 5 Pressure gauge |
| 2 Shut-off valves | 6 Sense line |
| 3 Pressure reducing valve | 7 Leakage line |
| 4 Safety valve | 8 Bypass |

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.

Flow chart



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