

Pressure Control Valves

Pressure Reducing Valves DM 765

Millibar Control Valve

Technical Data

Connection G	G 1/2
Nominal Pressure PN	16
Inlet Pressure	up to 8 bar
Outlet Pressure	0.03 - 0.8 bar
K _{vs} -Value	0.2 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 765 pressure reducing valve is a diaphragm-controlled spring-loaded proportional control valve for very small outlet pressures and small volumes.

This pressure reducer is manufactured from deep-drawn stainless steel featuring excellent corrosion resistance. The valve cone is fitted with a soft seal.

For correct functioning the valve requires a minimum pressure drop of 1 bar ($p_1 - p_2$).

If a larger valve is needed, please select DM 762 (K_{vs} rating up to 3.6 m³/h).

The spring module comprising spring cap, spring, adjusting screw, diaphragm and internal components, is connected to the valve body only by means of a clamp ring and two bolts. Changing the diaphragm or the complete spring assembly for a different control pressure range is extremely simple and does not call for special tools. The same applies to servicing and maintenance.

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.

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 V (soft seal cone = $1.8 \times 10^{-5} \times \Delta p \times D^*$ [l/h], *D=seat diameter).

Standard

- » all stainless steel construction
- » quick-release body clamp ring

Options

- » pressure gauge connection
- » clean gas version with special connections
- » for toxic or hazardous media: sealed spring cap complete with leakage line connection (incl. sealed adjusting screw). Must be installed with a leakage line capable of draining leaking medium safely and without pressure
- » various diaphragm and seal materials suitable for your medium
- » special connections: Aseptic, ANSI or JIS flanges, NPT, welding spigots; other connections on request
- » 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.



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

0.2

Setting Ranges [bar]

0.03 - 0.12

0.08 - 0.32

0.2 - 0.8

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Materials		
Temperature	80 °C	130 °C
Body, Spring Cap, Internals, Screws	CrNiMo-steel	CrNiMo-steel
Spring	CrNi-steel	CrNi-steel
Valve Seal	FPM	FPM
Diaphragm	NBR	EPDM optional FPM

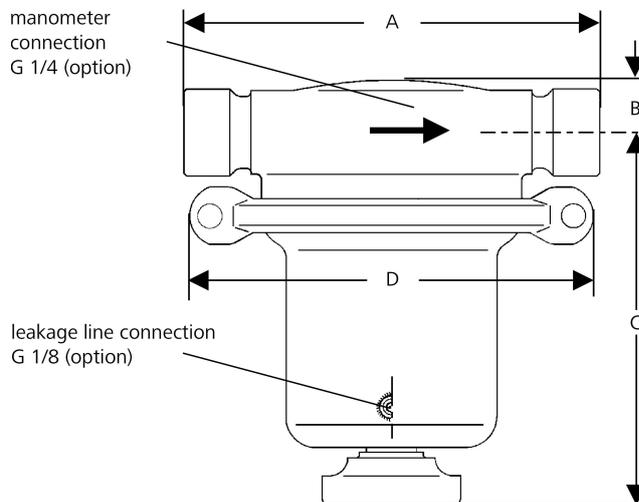
Dimensions [mm]		
size	nominal diameter	
	G 1/2	
A	140	
B	~20	
C	~130	
D	138	

Weights [kg]	
1.5	

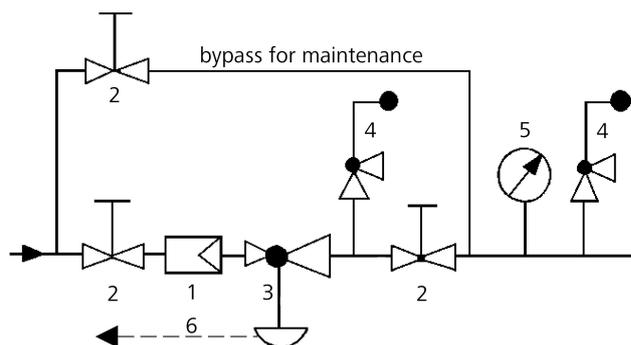
Customs Tariff Number	
84811019	

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.

Dimensional Drawing



Recommended Installation



- 1 Strainer
 - 2 Shutoff valves
 - 3 Pressure Reducer
 - 4 Safety Valve
 - 5 Pressure Gauge
 - 6 Leakage Line G 1/8 (option)
- use MANKENBERG-Products