PRESSURE CONTROL

Pressure reducing valve DM 462

Valve for ultrapure media and medium to high flow rates

Technical data

Connection DN	25 - 80
Nominal pressure PN	2.5 - 10
Inlet pressure	up to 8 bar
Outlet pressure	0.3 - 5 bar
K_{vs}value	4 - 70 m³/h
Temperature	180 °C
Medium	liquids, gases and steam

*RT = -10 °C up 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 pressure reducing valve DM 462 is a twin seat diaphragm-controlled springloaded proportional control valve which is primarily used for hygienic applications in the food processing and pharmaceutical industries. A PTFE protective foil renders the diaphragm physiologically safe and steamproof up to 180 °C. The valve cone is fitted with a soft seal. No external sense line is required.
This valve is manufactured from deep-drawn stainless steel featuring excellent corrosion resistance. It contains virtually no dead pockets and is suitable for use in CIP and SIP systems. The angled design allows complete draining.
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 range is very easy and without 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 III or V, optional IV.
The design data refer to the maximum inlet pressure, the outlet pressure is limited by the setting range.

Standard

- All stainless steel construction
- Clamping flanges DIN 32676
- Non-rising adjusting screw
- Quick-release body clamp ring
- PTFE protective foil for the diaphragm

Options

- Polished version for food, pharmaceutical and superclean applications
- Surface roughness: Ra ≤ 0.25/ ≤ 0.4/ ≤ 0.8 µm
- Electro-pneumatic actuation
- For toxic or hazardous media: sealed bonnet complete with leakage lineconnection (incl. sealed adjusting screw). Must be installed with a leakageline 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]						
nominal diameter	DN	25	40	50	65	80
K_{vs}value	m³/h	4	22	22	60	70

Setting ranges, nominal pressure PN			
Nominal diameter DN	40 - 80	25 - 80	25 - 80
Outlet pressure [bar]	0.3 - 1.1	0.8 - 2.5	2 - 5
Nominal pressure PN	10 / 2.5	10 / 6	10 / 10

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

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.

Pressure reducing valve DM 462

Valve for ultrapure media and medium to high flow rates

Materials

Materials*		
Temperature	130 °C	180 °C
Body, bonnet, internal parts	stainless steel 1.4404 / 316L	stainless steel 1.4404 / 316L
Spring	stainless steel 1.4310 / 301	stainless steel 1.4310 / 301
Valve seal	EPDM	FEPM
Diaphragm	EPDM	FKM
Protection foil	PTFE	PTFE

*All materials equal or of higher quality

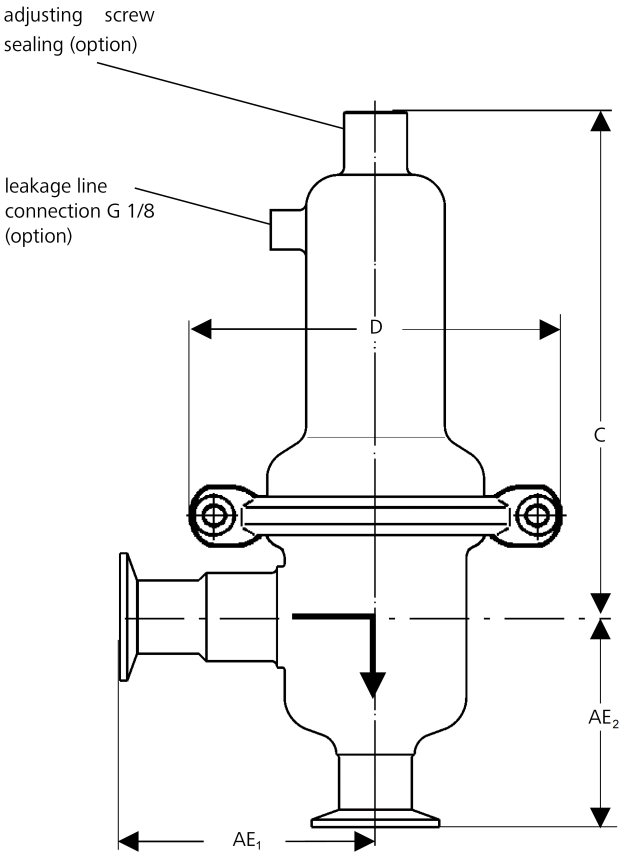
Dimensions and weights

Dimensions [mm]					
Size	Nominal diameter DN				
	25	40	50	65	80
AE_1*	100/115 **	115	125	175	175
AE_2*	100/115 **	115/150 **	125	175	175
C	205	230	230	515	515
D	138	200	200	240	240

*overall length tolerances in acc. with DIN EN 558
**dimensions can vary according to type of connection, please inquire

Weights [kg]				
Nominal diameter DN				
25	40	50	65	80
2.5	6.5	6.5	26	26

Customs tariff number
84811019



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Mankenberg GmbH
Spenglerstrasse 99
D-23556 Luebeck | Germany
Phone: +49 (0) 451-8 79 75 0
Fax: +49 (0) 451-8 79 75 99
info@mankenberg.de
www.mankenberg.com