

## PRESSURE CONTROL

# Pressure reducing valve DM 152

Valve for ultrapure media and medium flow rates

# MANKENBERG

### Technical data

Connection DN	15 - 50
Nominal pressure PN	2.5 - 10
Inlet pressure	up to 8 bar
Outlet pressure	0.3 - 5 bar
K <sub>vs</sub> value	2 - 7 m <sup>3</sup> /h
Temperature medium	130 up to 180 °C liquids, gases and 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 152 pressure reducing valve is a diaphragm-controlled spring-loaded 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 metallic seal. The valve does not require an external pilot line.

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 optional V.

### Standard

- » All stainless steel construction
- » Clamping flanges DIN 32676
- » Non-rising adjusting screw
- » Quick-release body clamp ring

### Options

- » Polished version for food, pharmaceutical and superclean applications
- » surface roughness: Ra ≤ 0.25/ ≤ 0.4/ ≤ 0.8 µm
- » Diaphragm protection by PTFE foil
- » Soft seal
- » Electro-pneumatic actuation
- » For toxic or hazardous media: sealed bonnet 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 DIN flanges, NPT, welding spigots; other connections on request
- » Special versions on request

### Product



Picture similar

### Technical specification

#### K<sub>vs</sub> values [m<sup>3</sup>/h]

nominal diameter	DN	15	20	25	32	40	50
K <sub>vs</sub> values	m <sup>3</sup> /h	2	3	4	5	6	7

#### Setting ranges [bar]

outlet pressure bar	1 - 5	0.8 - 2.5	0.3 - 1.1
nominal pressure PN	10 / 10	10 / 6	10 / 2.5

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## Materials

Materials*	
Body, Bonnet, Internals, Spring	stainless steel 1.4404 / 316L
Valve seal	stainless steel 1.4404 / 316L, optional soft seal
Diaphragm	FKM, optional other materials
Protection foil	PTFE

\*All materials equal or of higher quality

## Dimensions and weights

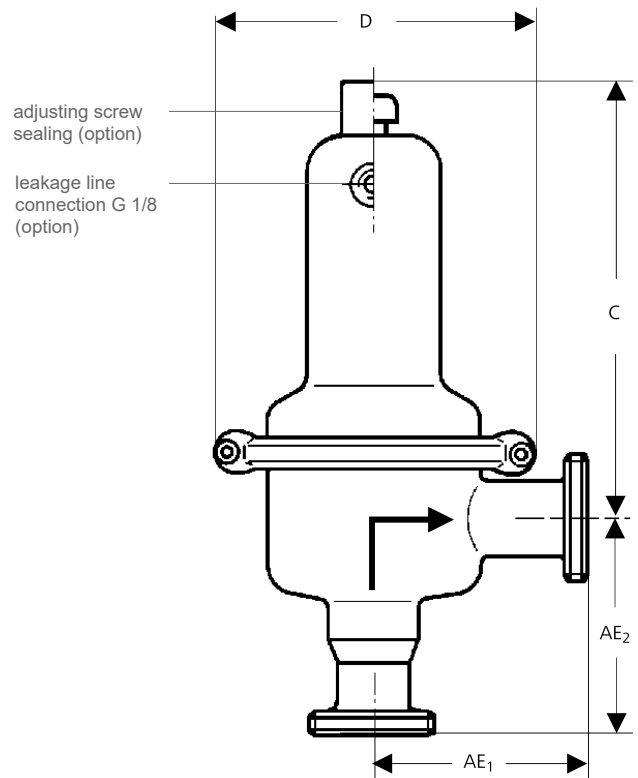
Dimensions [mm]							
setting range bar	size	nominal diameter DN					
		15	20	25	32	40	50
0.8 - 2.5	AE <sub>1</sub> *	90	90	90	120	120	120
1 - 5	AE <sub>2</sub> *	90/100/110 **					
	C	200	200	200	200	200	200
	D	138	138	138	138	138	138
0.3 - 1.1	AE <sub>1</sub> *	120	120	120	120	120	120
	AE <sub>2</sub> *	120/140 **			120	120	120
	C	200	200	200	200	200	200
	D	200	200	200	200	200	200

\*overall length tolerances in acc. with DIN EN 558

\*\*dimensions can vary according to type of connection, please inquire

Weights [kg]						
setting range bar	nominal diameter DN					
	15	20	25	32	40	50
0.8 - 2.5	2	2	2	2.5	2.5	3
1 - 5	2	2	2	2.5	2.5	3
0.3 - 1.1	3	3	3	3.5	3.5	4

Customs tariff number	
84811019	



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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.