

Pressure Control Valves

Pressure Reducing Valves DM 644

Epoxy-coated Cast Valve for medium Flow Rates



Technical Data

Connection DN	50 - 150
Nominal Pressure PN	16 - 40
Inlet Pressure	up to 40 bar
Outlet Pressure	1.5 - 6 or 5 - 12 bar
K _{vs} -Value	17 - 155 m ³ /h
Temperature	70 °C
Medium	water

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 644 pressure-reducing valve is a piston-controlled, spring-loaded proportional regulator with relief for large throughputs. The housing is made of spheroidal graphite iron with a continuous epoxy coating. The valve cone is soft-sealed.

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

- » body made of spheroidal graphite iron with an epoxy coating
- » closed spring cap
- » internal control bore

Options

- » pressure gauge pre-installed
- » other outlet pressure ranges on request
- » special designs 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]

nominal diameter DN

50	65	80	100	125	150
17	29	43	68	104	155

Setting Ranges [bar], Nominal Pressure PN, max. Permissible Reduction Ratio

bar	1,5 - 6	5 - 12
PN	40/10	40/16
max. Δp	5 : 1	

Pressure Control Valves

Pressure Reducing Valves DM 644

Epoxy-coated Cast Valve for medium Flow Rates



Materials

Body	spheroidal cast iron epoxy coated
Spring Cap	spheroidal cast iron epoxy coated
Spring	stainless steel 55SiCr6
Internals	stainless steel
Valve Seal	NBR
O-ring (balance)	NBR

Dimensions [mm]

size	nominal diameter DN					
	50	65	80	100	125	150
A	230	290	310	350	400	450
B	83	93	100	117	135	150
C	280	320	350	420	590	690

Weights [kg]

nominal diameter DN						
50	65	80	100	125	150	
12	19	24	34	56	74	

Customs Tariff Number

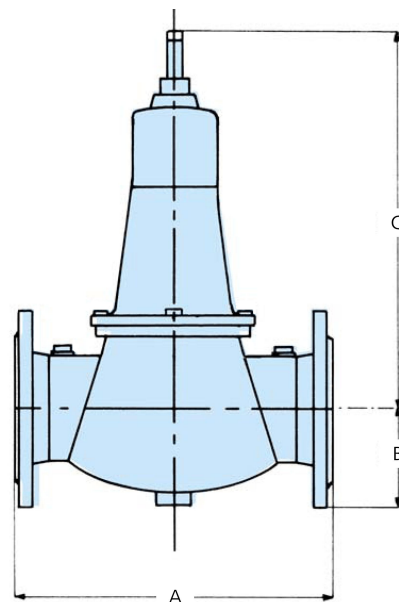
84811019

Special designs on request.

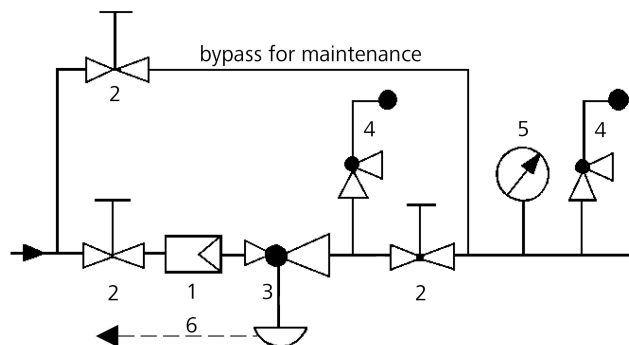
The pressure has always been indicated as overpressure.

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