Self-operated Pressure Regulators

Type 50 EM Pressure Reducing Valve

Application
Pressure regulator for set points from **0.2** to **10 bar** · Valves **G** 3/8 and **G** ½ · Nominal pressure **PN 16** · Suitable for **water** and other **liquids**, **air** and **non-flammable gases** up to **50 °C**

The valve closes when the downstream pressure rises.

The regulator consists of a valve, a spring-loaded operating diaphragm and a set point adjuster.

Special features

- Low-maintenance proportional regulators requiring no auxiliary energy
- Wide set point range and convenient set point adjustment
- Tight-closing, spring-loaded, single-seated valve, which can be used for upstream pressures up to 16 bar
- Suitable for media that do not affect the operating diaphragm and do not cause the materials used to corrode

Versions
Type 50 EM · (Fig. 1) Pressure reducing valve with connection for a pressure gauge (Ø 63 mm housing, G ¼ connection) to indicate the downstream pressure.

Accessories · Pressure gauge with G ¼ connection, Ø 63 mm housing, scale division 0 to 4 bar, 0 to 6 bar or 0 to 16 bar

Table 1: *Technical data · All pressures in bar (gauge)*

Type	50 EM	
Thread size	G 3/8	G ½
K_{VS} coefficient	0.93	
Max. permissible upstream pressure	16 bar	
Max. permissible temperature	50 °C	
Set point range in bar	Continuously adjustable: 0.2 to 4, 2.5 to 6 or 4 to 10	
Materials · Material numbers according to DIN EN		
Body, seat	CW617N (brass)	
Plug	Stainless steel 1.4104 with NBR soft seal	
Diaphragm	CR (chloroprene rubber)	

Fig. 1: *Options for pressure gauge attachment with Type 50 EM*

Associated Information Sheet ▶ **T 2500 EN**

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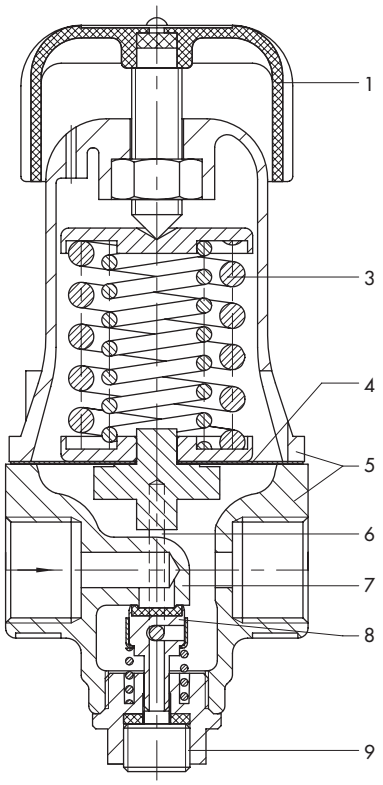
Data Sheet **T 2555 EN**

Principle of operation

The plug connection link (6) connects the operating diaphragm (4) and the valve plug (8). The downstream pressure to be maintained at a constant pressure produces a force on the operating diaphragm (4), which is used to adjust the valve plug (8) as a function of the adjusted set point.

Installation

- The valve can be mounted in any desired position.
- Direction of flow must match the direction indicated by the arrow on the body



1 Set point adjuster
2 Compression spring
4 Operating diaphragm
5 Body
6 Plug connection link
7 Seat
8 Valve plug with soft seal
9 Connection for pressure gauge

Fig. 2: *Functional diagram of Type 50 EM Pressure Reducing Valve*

Table of dimensions

Table 2: *Dimensions in mm*

Type	50 EM	
Thread size	G ⅜	G ½
Length L	60	
Height H1	113	
Height H2	37	
Weight, approx.	0.7 kg	

Ordering text

Type 50 EM Pressure Reducing Valve

Thread size G ..., set point range ... bar

Pressure gauge Ø 63 mm, G ¼	
– 0 to 4 bar	Order no.: 8520-0111
– 0 to 6 bar	Order no.: 8520-0119
– 0 to 16 bar	Order no.: 8520-0134

Optionally, accessories ...

Specifications subject to change without notice

Dimensions

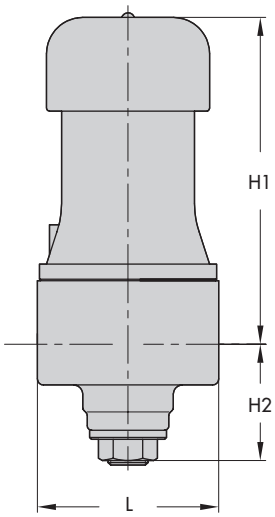


Fig. 3: *Dimensions of Type 50 EM*

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