

Pressure Control Valves

Back Pressure Regulators UV 3.2

Valve for small and medium Flow Rates

Technical Data

Connection DN	15 - 50
Nominal Pressure PN	16 - 40
Inlet Pressure	2 - 40 bar
K _{vs} -Value	0.2 - 5.5 m ³ /h
Temperature	300
Medium	liquids and gases

Description

Self-acting back pressure regulators are simple control valves offering accurate control while being easy to install and maintain. They control the pressure upstream of the valve without requiring pneumatic or electrical control elements.

The UV 3.2 backpressure regulator is a spring-loaded proportional control valve featuring diaphragm, piston or bellows control. It is designed for small volumes. The valve cone can be fitted with a metallic or soft seal.

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:

Leakage class III (metal sealing cone) = 0.1 % K_{vs} value

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

*D=seat diameter

Options

The inlet pressure to be controlled is balanced across the valve seat by the force of the valve spring (set pressure). If the inlet pressure rises above the set pressure, the valve opens. With decreasing inlet pressure the valve control orifice reduces, when the pipeline is depressurised, the valve is closed. Rotating the adjusting screw clockwise increases the inlet pressure.

- » 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 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]

seat	nominal diameter DN					
	15	20	25	32	40	50
I	0.2	0.25	0.25	0.4	0.4	1
II	0.9	0.9	0.9	2.5	2.5	3.5
III	1.8	2.2	2.2	3.9	3.9	5.5

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Materials			
Temperature	80 °C	130 °C	300 °C
Body	cast steel optional CrNiMo-steel		
Spring Cap	steel welded optional CrNiMo-steel		
Spring	spring steel optional CrNiMo-steel		
Metallic seal	CrMo-steel optional CrNiMo-steel		
Soft Seal	NBR	EPDM optional FPM	-
Diaphragm	CR	EPDM optional FPM	-
O-Ring	NBR	EPDM optional FPM or FXM	-
Bellow	CrNiMo-steel	CrNiMo-steel	CrNiMo-steel

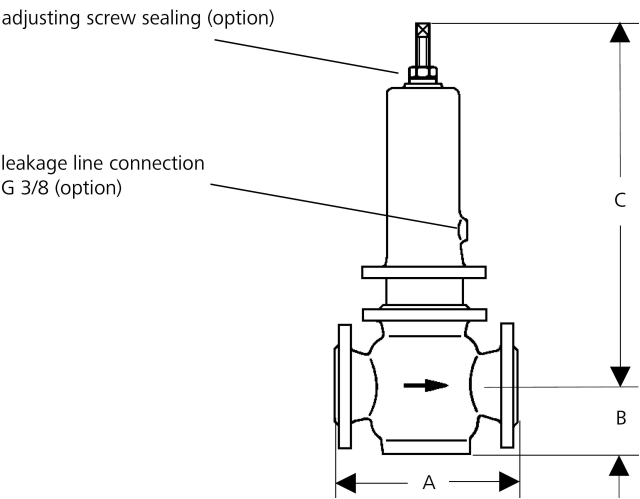
Dimensions [mm]						
size	nominal pressure	nominal diameter DN				
		15	25	32	40	50
A	PN 16 - 40	130	160	180	200	230
B	PN 16 - 40	-	-	72	72	72
C	PN 16 - 40	on request				

Weights [kg]						
nominal pressure	nominal diameter DN					
	15	20	25	32	40	50
PN 16	10	13	15	17	20	23
PN 25/40	13	15	17	20	23	26

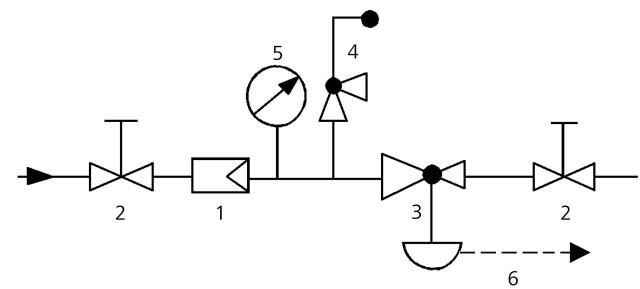
Customs Tariff Number
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Special designs on request.
 The pressure has always been indicated as overpressure.
 Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

Dimensional Drawing



Recommended Installation



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