

Pressure Control Valves

Back Pressure Regulators UV 1.2

Valves for Simple Regulation Tasks



Technical Data

Connection DN	25 - 200
Nominal Pressure PN	16 - 40
Inlet Pressure	2 - 40 bar
K _{vs} -Value	6 - 125 m ³ /h
Temperature	300 °C
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 1.2 backpressure regulator is a spring-loaded, seat-controlled proportional control valve featuring diaphragm, piston or bellows relief. It is designed for simple control tasks and medium volumes. The valve cone can be fitted with a metallic or soft seal.

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.

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

- » 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.



ill. similar

K _{vs} -Values [m ³ /h]					
seat	nominal diameter DN				
	25	32	40	50	65
I	6	12	15	20	35
II	-	6	12	15	20
III	-	-	6	12	15

K _{vs} -Values [m ³ /h]					
seat	nominal diameter DN				
	80	100	125	150	200
I	40	50	80	95	125
II	35	40	50	80	95
III	20	35	40	50	80

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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	CrNi-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				
		25	32	40	50	65
A	PN 16 - 40	160	180	200	230	290
B	PN 16 - 40	-	72	72	72	102
C	PN 16 - 40	on request				

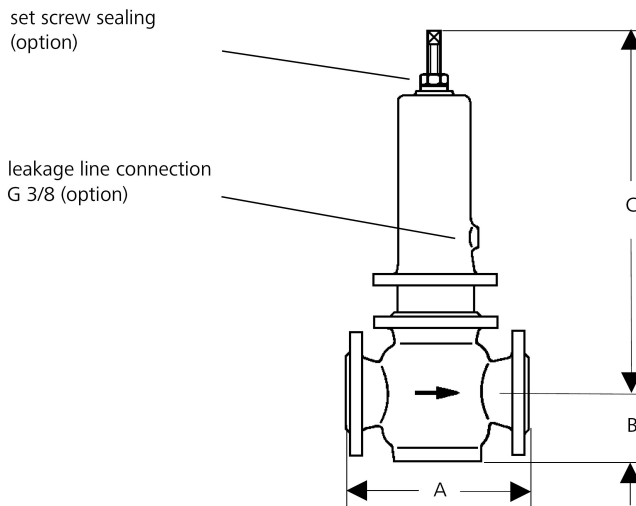
Dimensions [mm]						
size	nominal pressure	nominal diameter DN				
		80	100	125	150	200
A	PN 16 - 40	310	350	400	480	600
B	PN 16 - 40	102	102	240	240	270
C	PN 16 - 40	on request				

Weights [kg]										
nominal pressure	nominal diameter DN									
	25	32	40	50	65	80	100	125	150	200
PN 16	12	17	20	22	32	40	60	100	120	220
PN 40	14	20	24	28	42	50	70	115	140	250

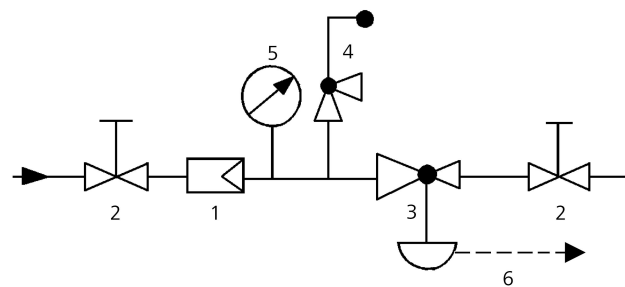
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Special designs on request.
The pressure has always been indicated as overpressure.
Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

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