

PRESSURE CONTROL

Back pressure regulators UV 3.8M

Valve for medium to high flow rates



Technical data

Connection DN	15 - 100
Connection G	1/2 - 2
Nominal pressure PN	6 - 16
Inlet pressure	0.8 - 10 bar
K _{vs} value	3.5 - 9 m ³ /h
Surface roughness	< 3.2 μm
Temperature	130 °C
Medium	liquids and gases
*RT	= -10 °C TO + 50 °C

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 3.8 backpressure regulator is a spring-loaded piston-controlled proportional control valve designed for medium flow rates. The valve cone is fitted with a hard seal.

The valve is completely made of high-quality stainless steel with excellent corrosion resistance. It contains virtually no dead pockets and is suitable for use in CIP and SIP systems. The angled design allows complete draining.

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.

Changing the control pressure setting does not affect the height of the valve (non rising adjusting screw).

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.

Standard

- » All stainless steel construction
- » Piston controlled

Options

- » Polished version for food, pharmaceutical and superclean applications, surface roughness Ra ≤ 0.8 μm
- » 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
- » different materials for diaphragm and seals, suitable for your medium
- » Special connections: Aseptic, ANSI or JIS flanges, NPT, welding spigots; other connections on request
- » Special versions on request

Product



Picture similar

Technical specification

K _{vs} value m ³ /h		15	20	25	32	40	50	65	80	100
Nominal diameter	DN	15	20	25	32	40	50	65	80	100
	G	1/2	3/4	1	1 1/4	1 1/2	2	-	-	-
K _{vs} value	m ³ /h	3.5	3.5	3.5	3.5	5.5	5.5	9	9	9

Pressure ranges [bar], nominal pressure

pressure range	bar	0.8 - 2.5	2 - 5	4 - 10
nominal pressure	PN	6	10	16

Materials

Materials*	
Temperature	130 °C
Body	stainless steel
Bonnet	steel welded optionally stainless steel
Spring	spring steel C optional stainless steel
Diaphragm	EPDM optional FKM
Protection foil for diaphragm (optional)	PTFE

*All materials equal or of higher quality

Dimensions and weights

Dimensions [mm]									
size	nominal diameter DN								
	15	20	25	32	40	50	65	80	100
A*	90	95	100	105	115	125	145	155	175
B*	90	95	100	105	115	125	145	155	175
C	200	200	200	500	500	500	600	640	700
øD	138	138	138	200	200	200	200	200	200

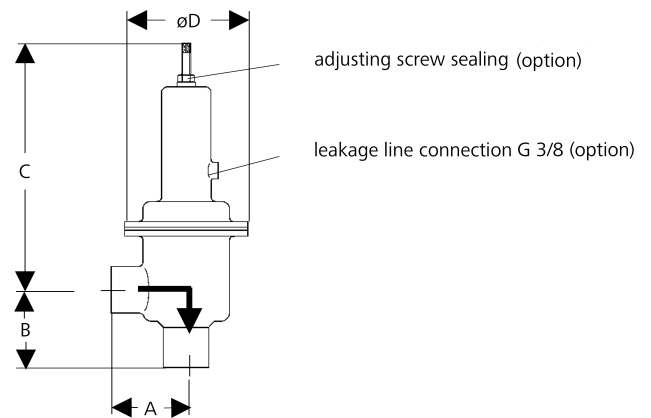
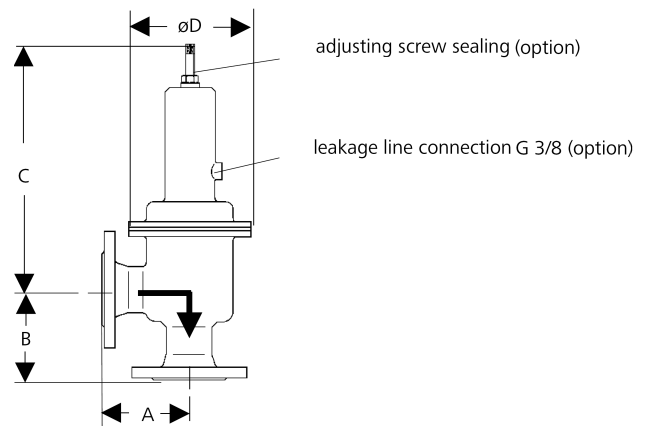
Dimensions [mm]						
size	nominal diameter G					
	1/2	3/4	1	1 1/4	1 1/2	2
A*	80	80	80	80	80	80
B*	80	80	80	80	80	80
C	200	200	200	200	200	200
øD	138	138	138	200	200	200

*overall length tolerances in acc. with DIN EN 558

Weights [kg]									
nominal diameter DN									
15	20	25	32	40	50	65	80	100	
3.9	4.5	4.8	6.1	6.7	8.1	9.9	11.9	15.1	

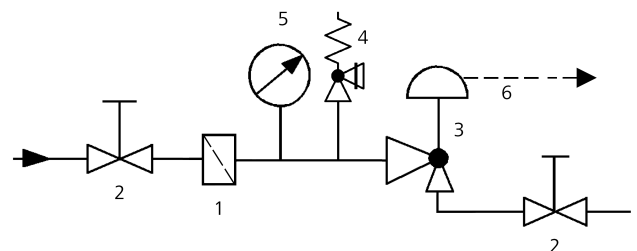
Weights [kg]					
nominal diameter G					
1/2	3/4	1	1 1/4	1 1/2	2
3.0	3.2	3.5	3.8	4.0	4.4

Customs tariff number	
84814010	



Recommended installation

- | | |
|---------------------------|--|
| 1 Strainer | 4 Safety valve |
| 2 Shut-off valves | 5 Pressure gauge |
| 3 Back pressure regulator | 6 Leakage line connection G 3/8 (optional) |



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.

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