

PRESSURE CONTROL

Back pressure regulators UV 8.2

High pressure valve for small to medium flow rates



Technical data

Connection DN	15 - 50
Connection G	3/8 - 2
Nominal pressure PN	100
Inlet pressure	2 - 100 bar
K _{vs} value	0.2 - 5.5 m ³ /h
Temperature	400 °C
Medium	liquids, gases and steam
*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 8.2 back pressure regulator is a diaphragm, piston or bellows-controlled spring-loaded proportional control valve for high pressures and small volumes. It can be supplied with three types of connections: sockets, flanges and welding spigots. Each size of valve may be fitted with three different seats. The valve cone can be fitted with a soft or metallic 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, optional IV.

Standard

- » Metallic valve seal

Options

- » Pressure gauge connection
- » Soft seal
- » Hard-faced valve cone and seat
- » 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
- » Various diaphragm and seal materials suitable for your medium
- » Special materials such as Duplex, Superduplex, Hastelloy® or titanium, others on request
- » Special connections: ANSI or JIS flanges, NPT, welding spigots; other connections on request
- » Special versions on request

Product



Picture similar

Technical specification

Kvs values [m ³ /h]								
Nominal diameter	G	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	DN		15	20	25	32	40	50
seat	I	0.2	0.2	0.25	0.25	0.4	0.4	1
	II	0.9	0.9	0.9	0.9	2.5	2.5	3.5
	III	1.7	1.8	2	2.2	3.9	3.9	5.5

Setting ranges [bar], nominal pressure*

Setting range	bar	2 - 4	4 - 7	7 - 10	5 - 16	10 - 20
nominal pressure	PN	6	16	16	25	25

Setting ranges [bar], nominal pressure*

Setting range	bar	10 - 25	20 - 35	35 - 50	45 - 63	60 - 100
nominal pressure	PN	40	63	100	100	100

* inlet and outlet pressure

Materials

Materials		
Temperature	130 °C	400 °C
Body	G 3/8 - 1, DN 15 - 25 = C steel G 1 1/4 - 2, DN 32 - 50 = Steel welded Optional CrNiMo-steel for all diameters	
Bonnet	Steel welded optional stainless steel	
Internals	Stainless steel	Stainless steel
Spring	Stainless steel	Stainless steel
Soft seal	EPDM optional FKM or PTFE	-
Diaphragm	EPDM optional FKM	-
Protection foil	PTFE (option)	-
O-ring for piston	EPDM optional FKM	-
Bellow	-	Stainless steel

*All materials equal or of higher quality

Dimensions and weights

Dimensions [mm] straight-way design				
size	nominal diameter			
	G 3/8	G 1/2	G 3/4	G 1
	-	DN 15	DN 20	DN 25
A*	110	110	110	110
A ₁ *	220	220	220	220
B	30	30	30	30
C	420	420	420	420

Dimensions [mm] angled design				
size	nominal diameter			
	G 3/8 - 1 DN 15 - 25	G 1 1/4 DN 32	G 1 1/2 DN 40	G 2 DN 50
A*	55	100	100	100
A ₁ *	110	**	**	**
B*	65	108	108	108
B ₁ *	120	**	**	**
C	420	650	650	650

*overall length tolerances in acc. with DIN EN 558

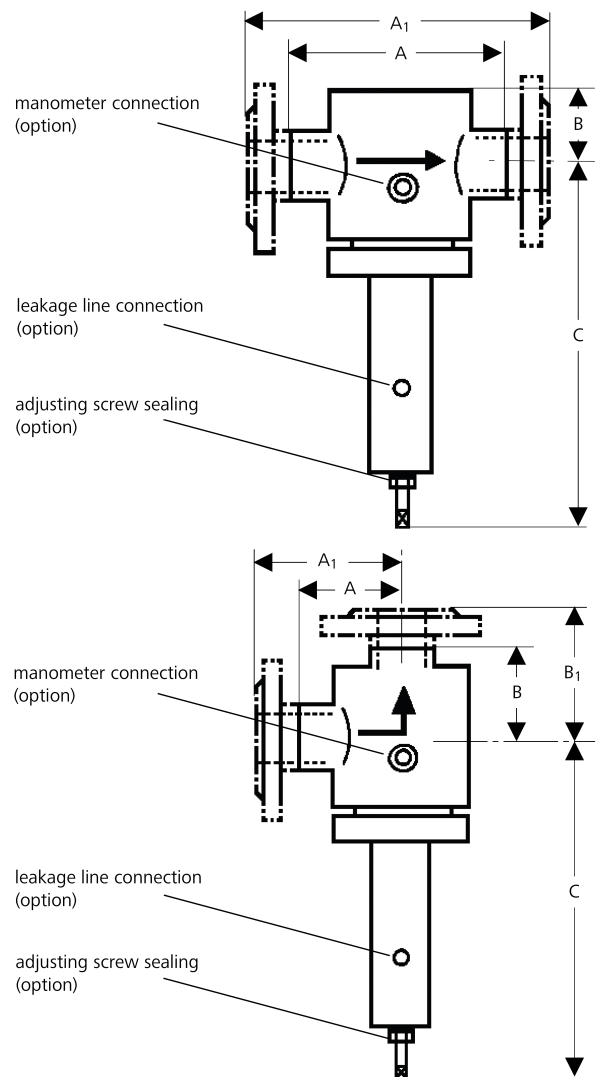
** on request

size C with bellow + 130 mm

Weights [kg] sleeve design						
nominal diameter G						
3/8	1/2	3/4	1	1 1/4	1 1/2	2
13	13	13	13	21	21	21

Weights [kg] flange design						
nominal pressure PN	nominal diameter DN					
	15	20	25	32	40	50
16 - 40	16	16.2	16.6	25.8	26.8	27.8
63	16.4	17.6	19.4	27	30.6	31.6
100	16.4	17.6	19.4	27.4	30.6	31.6

Customs tariff number
84814010



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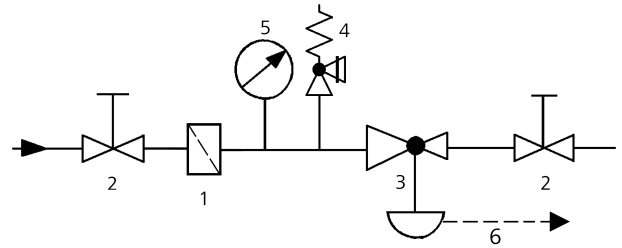
Please send us your enquiry and allow us to advise you. Special designs on request.
The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter technical specifications without notice.

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Recommended installation

- | | | | |
|---|-------------------------|---|-----------------------|
| 1 | Strainer | 4 | Safety valve |
| 2 | Shutoff valves | 5 | Pressure gauge |
| 3 | Back pressure regulator | 6 | Leakage line (option) |



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Authorised Distributor:



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Please send us your enquiry and allow us to advise you. Special designs on request.
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