

## PRESSURE CONTROL

# Back pressure regulators UV 4.7

Valve for high flow rates



### Technical data

Connection DN	50 - 100
Nominal pressure PN	16
Inlet pressure	0.02 - 10 bar
$K_{vs}$ value	32 - 100 m <sup>3</sup> /h
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 4.7 back pressure regulator is a spring-loaded diaphragm-controlled and balanced proportional control valves for large volumes. The valve cone is fitted with a soft seal (up to 130 °C). This bypass valve is manufactured from deep-drawn stainless steel featuring excellent corrosion resistance.

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.

The valve requires a sense line (to be installed on-site).

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 V optional IV.

### Standard

- » All stainless steel construction
- » Sense line connection

### Options

- » 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 connections: Aseptic, ANSI or JIS flanges, welding spigots; other connections on request
- » Special versions on request

### Product



Picture similar

### Technical specification

#### $K_{vs}$ values [m<sup>3</sup>/h]

nominal diameter	DN	50	65	80	100
$K_{vs}$ value	m <sup>3</sup> /h	32	50	80	100

#### Setting ranges [bar], nominal pressure

4.5 - 10	2 - 5	0.8 - 2.5	0.2 - 1.2	0.1 - 0.6	0.02 - 0.25	0.02 - 0.15
PN 16	PN 10	PN 6	PN 2.5	PN 1	PN 1	PN 1

## Materials

Materials	
Body, Diaphragm housing, Internals, Bonnet	Stainless steel
Spring	Stainless steel
Valve seal	EPDM optional FKM
Diaphragm	EPDM optional FKM
O-ring	EPDM optional FKM

\*All materials equal or of higher quality

## Dimensions and weights

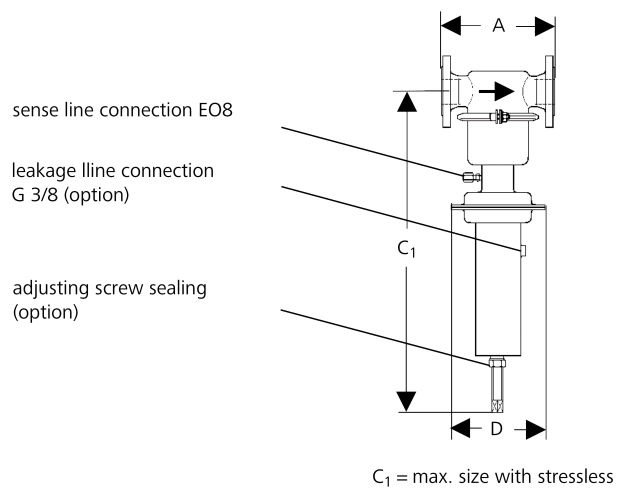
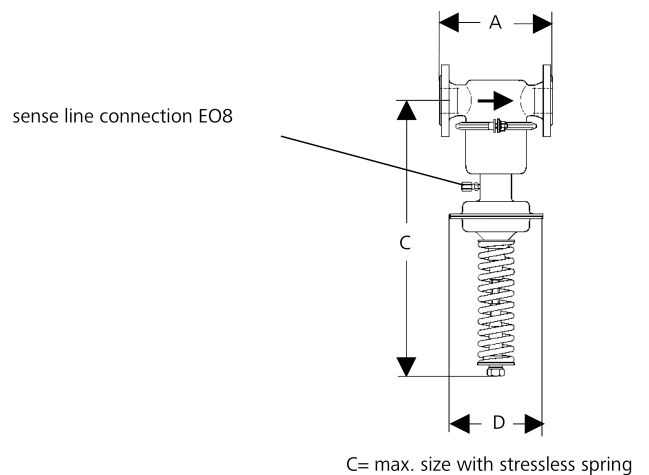
Dimensions [mm]									
setting range bar	nominal diameter DN								
	50				65				D
	A*	C	C <sub>1</sub>	D	A*	C	C <sub>1</sub>		
4.5 - 10	230	610	750	220	290	750	890	220	
2 - 5	230	610	750	220	290	750	890	220	
0.8 - 2.5	230	610	750	220	290	750	890	220	
0.2 - 1.2	230	610	750	270	290	750	890	270	
0.1 - 0.6	230	610	750	360	290	750	890	360	
0.02 - 0.25	230	500	640	360	290	640	780	360	
0.02 - 0.15	230	500	640	500	290	640	780	500	

Dimensions [mm]									
setting range bar	nominal diameter DN								
	80				100				D
	A*	C	C <sub>1</sub>	D	A*	C	C <sub>1</sub>		
4.5 - 10	310	750	890	220	350	750	890	220	
2 - 5	310	750	890	220	350	750	890	220	
0.8 - 2.5	310	750	890	220	350	750	890	220	
0.2 - 1.2	310	750	890	270	350	750	890	270	
0.1 - 0.6	310	750	890	360	350	750	890	360	
0.02 - 0.25	310	640	780	360	350	640	780	360	
0.02 - 0.15	310	640	780	500	350	640	780	500	

\*Length tolerances according to ANSI/ISA-75.08.01-2016

Weights [kg]				
setting range bar	nominal diameter DN			
	50	65	80	100
4.5 - 10	30	31	33	35
2 - 5	30	31	33	35
0.8 - 2.5	30	31	33	35
0.2 - 1.2	33	34	36	38
0.1 - 0.6	36	37	39	41
0.02 - 0.25	37.5	38.5	38.5	38.5
0.02 - 0.15	37.5	38.5	38.5	38.5

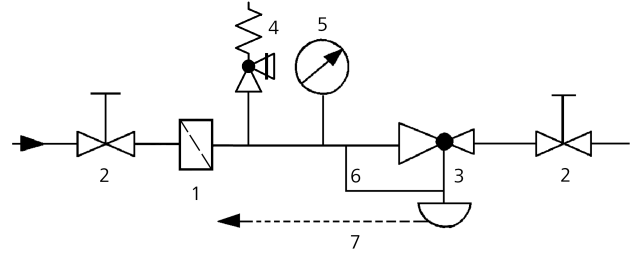
Customs tariff number	
84814010	



## Recommended installation

- |                           |                               |
|---------------------------|-------------------------------|
| 1 Strainer                | 5 Pressure gauge              |
| 2 Shut-off valves         | 6 Sense line EO8              |
| 3 Back pressure regulator | 7 Leakage line (option) G 3/8 |
| 4 Safety valve            |                               |

Sense line connection 10 x DN before and behind the valve



**Authorised Distributor:**



46, Jalan SS 22/21, Damansara Jaya,  
47400 Petaling Jaya,  
Selangor Darul Ehsan, Malaysia.

Email: [ampmech@ampmech.com](mailto:ampmech@ampmech.com)  
Website: [www.ampmech.com](http://www.ampmech.com)

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.