

# Pressure Control Valves

## Back Pressure Regulators UV 3.8K

Valve for Viscous Media



### Technical Data

Connection DN	15 - 100
Connection G	1/2 - 2
Nominal Pressure PN	10 - 16
Inlet Pressure	2 - 16 bar
K <sub>vs</sub> -Value	3.5 - 9 m <sup>3</sup> /h
Temperature	180 °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 backpressure regulator UV 3.8K is a piston-controlled, spring-loaded proportional valve for viscous media at medium flow rates. The valve cone is provided with a metallic seal.

This valve is manufactured from deep-drawn stainless steel featuring excellent corrosion resistance. It contains virtually no dead pockets. The angled design allows complete draining.

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.

### Standard

- » Medium wetted parts made of CrNiMo-Stahl
- » Piston controlled

### Options

- » Electro-pneumatic actuation
- » 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 O-ring and seal materials suitable for your medium
- » Special connections:  
ANSI or JIS flanges, NPT, welding spigots; other connections on request
- » 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 <sub>vs</sub> Values[m <sup>3</sup> /h]										
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 <sub>vs</sub> value	m <sup>3</sup> /h	3.5	3.5	3.5	3.5	5.5	5.5	9	9	9

Pressure Ranges [bar], Nominal Pressure		
2 - 5	4 - 10	8 - 16
PN 10	PN 16	PN 16

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Materials			
Temperature	80 °C	130 °C	150 °C
Body	CrNiMo-steel	CrNiMo-steel	CrNiMo-steel
Spring Cap	steel welded optional CrNiMo-steel		
Spring	spring steel C optional CrNi-steel		
O-Ring	NBR	EPDM optional FKM	FKM - PTFE coated

Dimensions [mm]									
size	nominal diameter DN								
	15	20	25	32	40	50	65	80	100
A*	90	95	100	105	115	125	145	155	190
B*	90	95	100	105	115	125	145	155	175
C	500	500	500	500	500	500	500	600	800
ø D	200	200	200	200	200	200	200	200	240

\* Overall length tolerances in acc. with DIN EN 558

Weights [kg]									
nominal diameter DN									
15	20	25	32	40	50	65	80	100	
10,8	11,3	11,8	13,0	13,5	15,0	16,7	18,7	22,0	

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	80
B*	80	80	80	85	115	125	
C	500	500	500	500	500	600	
ø D	200	200	200	200	200	200	

\* Overall length tolerances in acc. with DIN EN 558

Weights [kg]						
nominal diameter G						
1/2	3/4	1	1 1/4	1 1/2	2	
8	8,2	8,5	8,8	9	9,4	

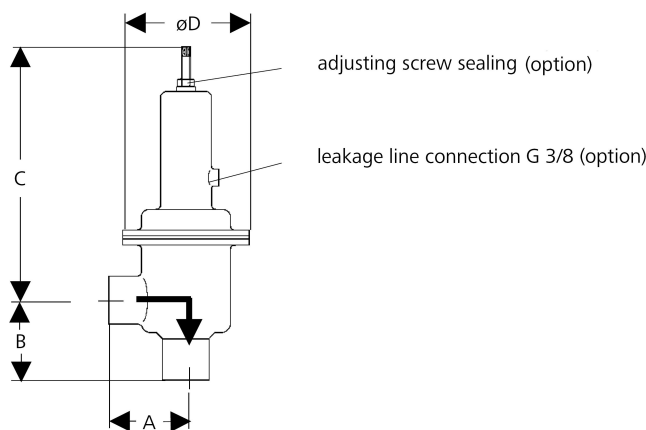
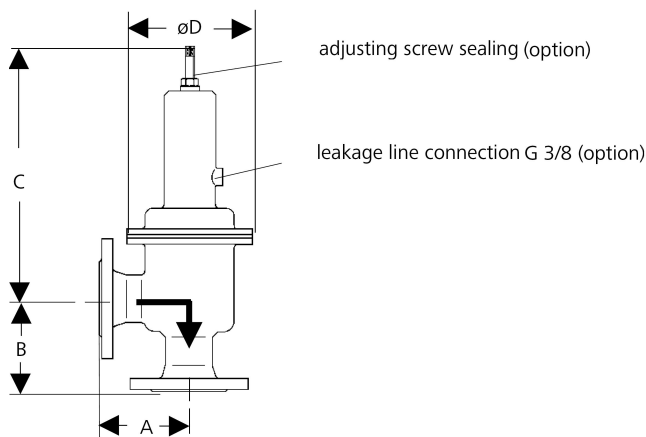
**Customs Tariff Number**  
84814010

Special designs on request.

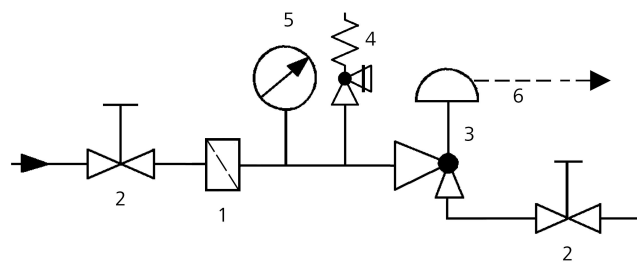
The pressure has always been indicated as overpressure.

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