Pressure Control Valves — UV 6.7, 6.8

Overflow Valve sandwich design
for liquids, gases and steam up to 80 / 300 °C

Technical Data

Connection		clamping flanges DIN 32676
		DN 25 - 100
Medium		liquids, gases, steam
Nom. Pressure	iInlet	PN 10 - 16
	outlet	PN 2,5 - 16
Inlet Pressure		up to 8 bar
Outlet Pressure		0,8 - 12 bar
		in 5 adjusting ranges
Temperature		bis 130 (180)°C

Description

Overflow valves limit the inlet side pressure to a value no greater than the preset pressure level of the valve.

The overflow valves valves type 6.7 and 6.8 are spring-loaded proportional controllers for high flow rates. The tightness of the valve seal is equal to or better than VDI/VDE rule 2174.

Their special features are:
- sandwich design in order to save space
- low weight (especially with large nominal diameters)
- body geometry independent of pressure levels for PN 10 - 40
- high Kvs-values
- high tightness
- noiseless working

Two slotted disks, which glide on one another and in this way tighten each other, are moved by a medium-controlled, spring-loaded diaphragm impetus.

With non-pressurized line the slots are closed by the valve spring. Under pressure the medium acts from the inlet side (onlet pressure) on the diaphragm/spring system by means of the sense line. At the diaphragm the inlet pressure which has to be controlled is kept in balance by the force of the valve spring (set point). When the inlet pressure rises above the set point, which is adjusted by means of the set screw, the slots open. With falling inlet pressure the throttle diameter is narrowed. Clockwise turning of the set screw causes the inlet pressure to rise.

The maximum permitted inlet pressure is 1,5 times the set pressure, unless otherwise specified.

With steam (design for temperatures up to 300 °C) the diaphragm control element has to be filled with water via the sense line connection before the start up. It is recommended to install a compensation vessel into the sense line.

The overflow valves type 6.7 and 6.8 only work with a sense line.

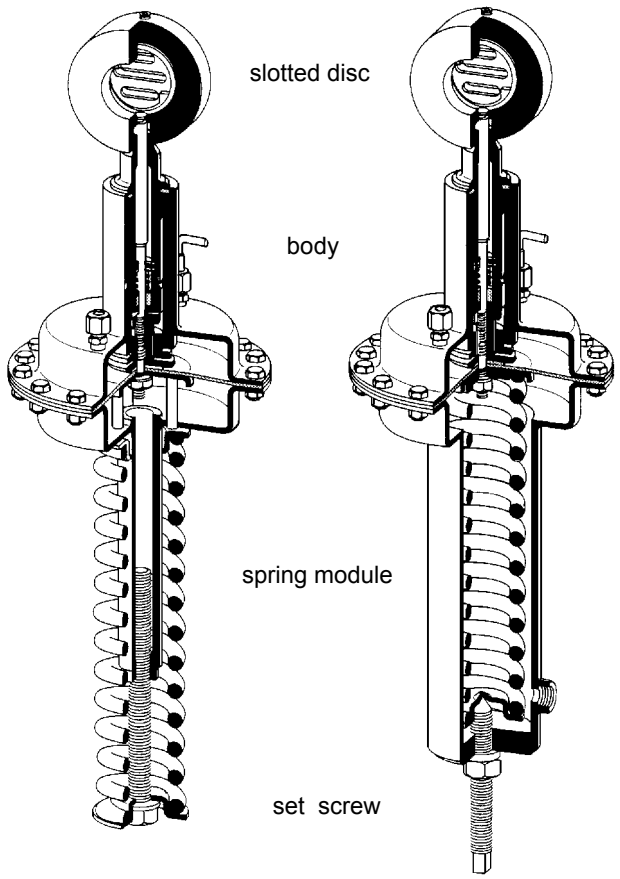
OPTIONS

- For toxic or hazardous applications, use a spring cap with the set-screw sealing fitted with a leakage line connection. During installation a leakage line MUST be installed.
- Different materials for gaskets and diaphragms are available for comparability with your product.
- other connections such as aseptic flanges, ANSI and DIN flanges, welded spigots
- Special designs are available to suit your specifications. Please inquire.

Operating instructions, Know How and Notes on Safety etc. MUST be followed.

Mankenberg reserves the right to change specifications without notice.

Type 6.7 **Type 6.8**



K_{VS}-value [m^3/h] and max. ΔP [bar]							
Nom. diam.	DN	15	20	25	32	40	50
Kvs-value	m^3/h	4	6,4	11	16	26	45
max. ΔP	bar	10	10	10	10	10	10

K_{VS}-value [m^3/h] and max. ΔP [bar]						
Nom. diam.	DN	65	80	100	125	150
Kvs-value	m^3/h	52	92	154	237	338
max. ΔP	bar	10	6	3,8	2,4	1,9

Adjusting Ranges and Nominal Pressure						
0,1 - 0,15	0,1 - 0,3	0,2 - 0,6	0,5 - 1,2	1 - 2,5	2 - 5	4 - 10
PN 1	PN 1	PN 1	PN 2,5	PN 6	PN 10	PN 16

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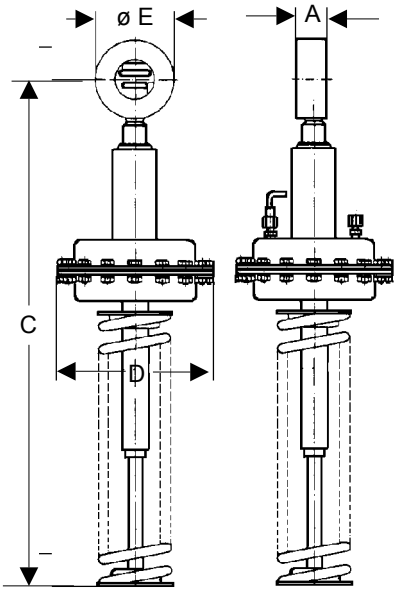
Materials			
Design	standard	medium wetted CrNiMo-St	completely CrNiMo-Stahl
Body	C-steel	CrNiMo-steel	CrNiMo-steel
Diaphragm Body	C-steel	CrNiMo-steel	CrNiMo-steel
Spring Cap	C-steel	C-steel	CrNiMo-steel
Spring	spring steel C	spring steel C	CrNi-steel
Plates (Valve Seal)	CrNiMo-steel / special carbon material, metallic impregnation		



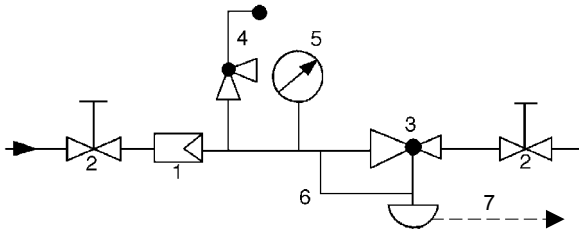
D = diaphragm ø
sense line ø 8/6 mm Ermeto

Dimensions [mm]												
setting ranges bar	size	nominal diameter DN 15	20	25	32	40	50	65	80	100	125	150
ranges	A	33					43	46		52		
all	øE	53	62	72	82	92	108	127	142	164	194	219
0,1 - 0,3	C*	550	555	560	680	685	695	705	715	725	740	755
	D	360			500							
0,2 - 0,6	C*	550	555	560	680	685	695	705	715	725	740	755
	D	270			360							
0,5 - 1,2	C*	550	555	560	680	685	695	705	715	725	740	755
	D	220			270							
1,0 - 2,5	C*	530	535	540	680	685	695	705	715	725	740	755
2-5 / 4-10	D	175			220							

*max. size with stressless spring
type 6.8 (closd spring cap) size C + 200 mm

Weights[kg]											
setting ranges bar	nominal diameter DN 15	20	25	32	40	50	65	80	100	125	150
0,1 - 0,3	19,7	19,8	19,9	23	23,1	24,2	24,7	25,4	25,6	28,4	30,4
0,2 - 0,6	16,7	16,8	16,9	22	22,1	23,2	23,7	24,4	24,6	27,4	29,4
0,5 - 1,2	23,7	23,8	13,9	19	19,1	20,2	20,7	21,4	22,6	24,4	26,4
1,0 - 10	12,7	12,8	12,9	16	16,1	17,2	17,7	18,4	19,6	21,4	23,4

Recommended Installation



1 Strainer
2 Shutoff Valves
3 Overflow Valves
4 Safety Valves
5 Pressure Gauge
6 Sense Line tube ø8/6
7 Leakage Line (optional)

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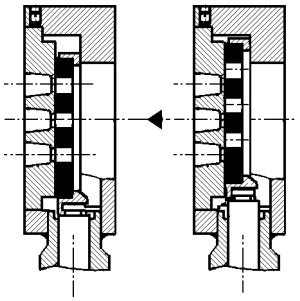
Valve Closing Principle



Mankenberg reserves the right, to alter or improve the designs or specifications of the products described herein without notice.
Special designs on request.

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