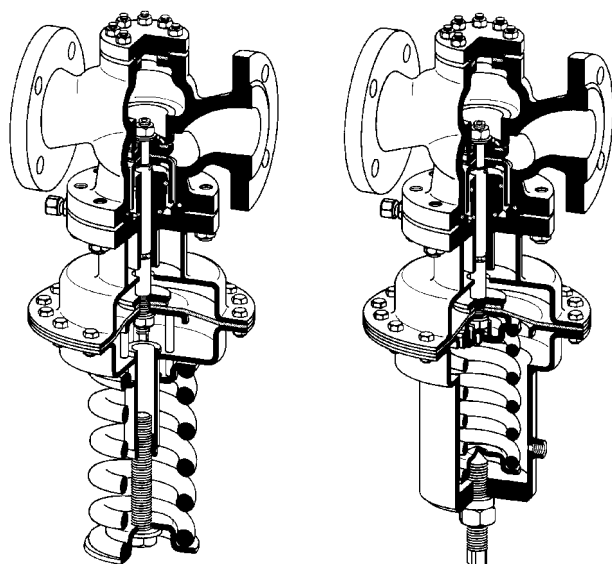


OVERFLOW VALVES

for liquids and gases (steam)
up to 80 / 130 °C (200 °C)

Type 4.1



TECHNICAL DATA

MEDIUM	liquids, gases (steam)
NOMINAL PRESSURE	PN 16 - 40
CONNECTION	DN 15 - 150
INLET PRESSURE	0,02 - 10 bar
TEMPERATURE	in 6 adjusting ranges
KVS-VALUE	up to 80 / 130 °C (200 °C)
DESIGNS	4 - 160 m³/h
	open spring cap (standard)
	closed spring cap (special design)

DESCRIPTION

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

The overflow valve type 4.1 is a spring-loaded proportional controllers for high flow rates. The valve cone is built as soft seal. The tightness of the valve seal is equal to or better than VDI/VDE rule 2174.

With a depressurized system the valve is kept closed by the spring. An increasing inlet pressure acts on the control section spring system. The inlet pressure is balanced by the force of the valve spring (set pressure). As the inlet pressure rises above the pressure set by means of the setting screw, the valve starts to open. The pressure setting can be increased by turning the setting screw clockwise.

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

If toxic or hazardous media are used the valve must feature a sealed spring cover (including setting spindle seal) fitted with a leakage line connection. When the pressure reducer is installed on site a leakage line must be fitted capable of safely draining the escaping medium in case the control valve should become defective.

The overflow valve type 4.1 only works with a sense line (which has to be installed at site).

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

Special designs on request.

KVS-VALUES [m³/h]						
Nominal diameter	DN	15	20	25	40	50
Kvs-value	m³/h	4	5	6	20	32

KVS-VALUES [m³/h]						
Nominal diameter	DN	65	80	100	125	150
Kvs-value	m³/h	50	80	100	140	160

ADJUSTING RANGES and max. INLET PRESSURE [bar]						
Adjusting ranges	0,02 - 0,25	0,1 - 0,6	0,2 - 1,2	0,8 - 2,5	2 - 5	4,5 - 10*
max. inlet pressure	0,5	0,9	1,8	3,75	7,5	15

* does not apply to DN 125 and DN 150

OVERFLOW VALVES

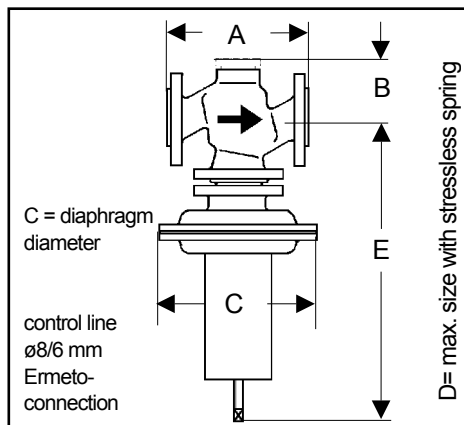
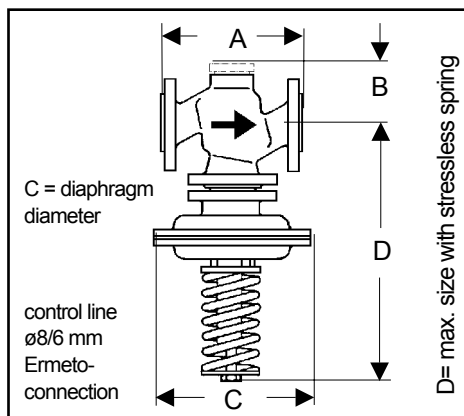
for liquids and gases (steam)
up to 80 / 130 °C (200 °C)



WIR REGELN DAS SCHON.

Type 4.1

MATERIALS		
TEMPERATURE	80 °C	130 °C
BODY	PN 16	GG - 20
	PN 25/40	GS-C 25
	PN 16 - 40	CrNiMo-steel
DIAPHRAGM HOUSING	steel welded / CrNiMo-steel	
SPRING CAP	steel welded / CrNiMo-steel	
SPRING	spring steel C / CrNiMo-steel	
CONE SEALING	NBR	EPDM / FPM (FXM)
DIAPHRAGM	CR	EPDM / FPM
O-RING (balance)	NBR	EPDM / FPM (FXM)

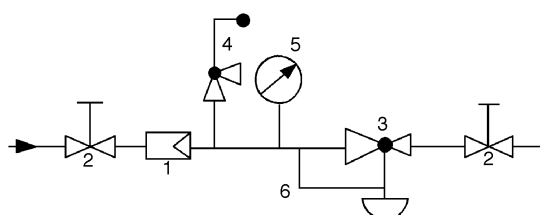


DIMENSIONS [mm]											
Adjusting ranges bar	Size	Nominal diameter DN									
all ranges	A	15	20	25	40	50	65	80	100	125	150
	B	55	55	60	75	85	105	105	110	220	220
0,02-0,25 (0,05-0,25 DN 125 + 150)	C	360									500
	D	510			520			570			810
	E	640			680			730			970
0,1 - 0,6	C	270			360						
	D	510			630			680			810
	E	640			790			840			970
0,2 - 1,2	C	220			270						
	D	510			630			680			810
	E	640			790			840			970
0,8 - 2,5 2 - 5 4,5 - 10	C	175			220						
	D	490			650			680			810
	E	620			810			840			970

WEIGHTS PN 16 [kg]										
Adjusting ranges bar	Nominal diameter DN									
0,02 - 0,25	15	20	25	40	50	65	80	100	125	150
0,1 - 0,6	24	24	25	37	40	65	68	72	112	132
0,2 - 1,2	26	26	27	39	42	67	70	74	114	134
0,8 - 10	22	22	23	35	38	63	66	70	110	130
	20	20	21	33	36	61	64	68	108	128

WEIGHTS PN 25/40 [kg]										
Adjusting ranges bar	Nominal diameter DN									
0,02 - 0,25	15	20	25	40	50	65	80	100	125	150
0,1 - 0,6	25	25	26	40	42	68	72	75	120	145
0,2 - 1,2	27	27	28	42	44	70	74	77	122	147
0,8 - 10	23	23	24	38	40	66	70	73	118	143
	21	21	22	36	38	64	68	71	116	141

RECOMMENDED INSTALLATION



sense line: tube ø 8/6 mm
connection: 10 - 20 x DN before the valve

- 1 strainer *
- 2 shutoff valves
- 3 **overflow valve**
- 4 safety valve *
- 5 pressure gauge *
- 6 sense line ø8/6
- * use MANKENBERG-products

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Special designs on request.