

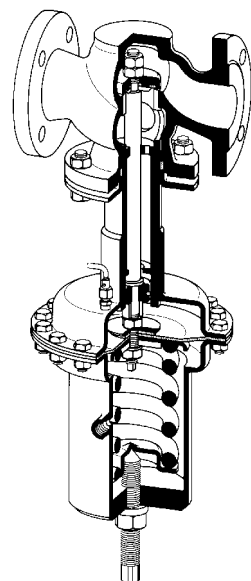
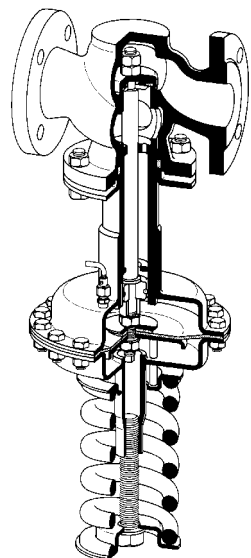
PRESSURE REDUCING VALVES

for liquids and gases
up to 80 / 130 °C



WIR REGELN DAS SCHÖN.

Type 613



TECHNICAL DATA

MEDIUM	liquids, gases
NOMINAL PRESSURE	PN 16 - 40/1 - 16
CONNECTION	DN 15 - 150
INLET PRESSURE	up to 40 bar
OUTLET PRESSURE	0,02 - 10 bar
	in 6 ranges
TEMPERATURE	up to 80 / 130 °C
KVS-VALUE	4 - 160 m ³ /h
DESIGN	open spring cap (standard)
	closed spring cap (special design)

DESCRIPTION

Pressure reducing valves control the pressure at the outlet side.

The pressure reducer type 613 is a diaphragm-controlled, spring-loaded proportional controller with release. The valve cone is built as a soft seal (up to 80 / 130 °C). The tightness of the valve seal is equal to or better than VDI/VDE rule 2174.

With a depressurized pipeline the spring keeps the valve cone in open position. Under pressure the medium flows from the inlet side through the valve seat into the body and acts on the diaphragm /spring system from the outlet side (outlet pressure).

The outlet pressure balances the force of the valve spring across the diaphragm (set value). As the outlet pressure rises above the pressure set using the setting screw, the valve cone moves toward the seat causing the flow to be restricted. As the outlet pressure drops the restricting orifice becomes larger. The valve is fully open if the pipeline is depressurized. Rotating the setting screw clockwise increases the outlet pressure.

The maximum permitted outlet 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 overflow valve 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 pressure reducing valves type 613 are operated by 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]

DN	15	20	25	40	50	65	80	100	125	150
m ³ /h	4	5	6	20	32	50	80	100	140	160

ADJUSTING RATES [bar]

DN 15-50	0,02 - 0,25	0,1 - 0,6	0,2 - 1,2	0,8 - 2,5	2 - 5	4,5 - 10
DN 65-100	0,02 - 0,25	0,1 - 0,6	0,2 - 1,2	0,8 - 2,5	2 - 5	4 - 8
DN 125+150	0,05 - 0,25	0,1 - 0,6	0,2 - 1,2	0,8 - 2,5	2 - 3,5	2 - 5
PN	40/1	40/1	40/2,5	40/6	40/10	40/16

PRESSURE REDUCING VALVES

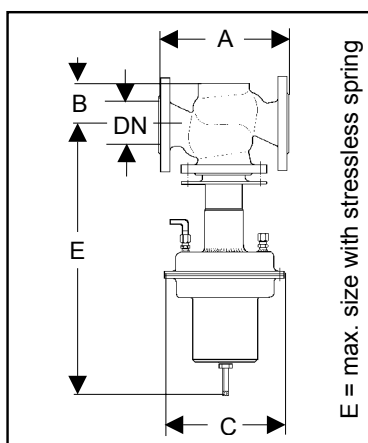
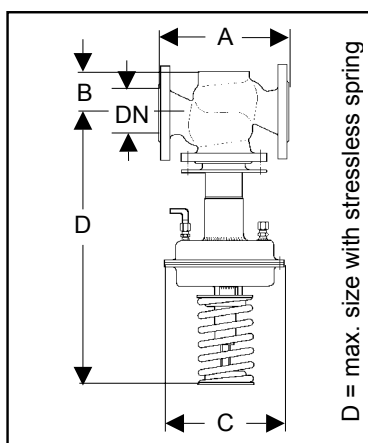
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up to 80 / 130 °C



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Type 613

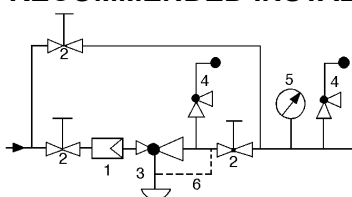
MATERIALS		
TEMPERATURE	80 °C	130 °C
BODY	PN 16	GG-20
	PN 25/40	GS-C25
	PN 16 - 40	CrNiMo-steel
DIAPHRAGM HOUSING	steel welded / CrNiMo-steel	
SPRING CAP	steel welded / CrNiMo-steel	
SPRING	spring steel C / CrNi-steel	
CONE SEALING	NBR	EPDM / FPM
DIAPHRAGM	CR	EPDM / FPM
O-RING (balance)	NBR	EPDM / FPM



DIMENSIONS [mm]													
size	outlet pressure	DN	15	20	25	40	50	65	80	100	125	150	
A	0,02 - 5/8/10	mm	130	150	160	200	230	290	310	350	400	480	
B			55		75		105		220				
C	4,5 - 8/10		ø 175		ø 220								
D	2 - 3,5/5		520		680		760		940				
E	0,8 - 2,5		650		840		920		1100				
C	0,2 - 1,2		ø 220		ø 270								
D			540		680		760		840				
E			670		840		920		1000				
C	0,1 - 0,6		ø 270		ø 360								
D			540		680		760		840				
E			670		840		920		1000				
C	0,02/0,05 - 0,25		ø 360									ø 500	
D			540		560		640		840				
E			670		720		800		1000				

WEIGHTS [kg]												
nominal pressure	outlet pressure	nominal diameter DN										
PN 16	0,8 - 5/8/10	15	20	25	40	50	65	80	100	125	150	
	0,2 - 1,2	17	17	18	30	33	55	58	62	100	120	
	0,1 - 0,6	19	19	20	32	35	57	60	64	102	122	
	0,02/0,05 - 0,25	23	23	24	36	39	61	64	68	106	126	
PN 25/40	0,8 - 5/8/10	23	23	24	34	37	59	62	66	112	132	
	0,2 - 1,2	18	18	19	33	35	58	62	65	108	133	
	0,1 - 0,6	20	20	21	35	37	60	64	67	110	135	
	0,02/0,05 - 0,25	24	24	25	39	41	64	68	71	114	139	
		24	24	25	37	39	62	66	69	120	145	

RECOMMENDED INSTALLATION



- 1 strainer *
- 2 shutoff valves
- 3 **pressure reducer**
- 4 safety valves *
- 5 pressure gauge *
- 6 sense line EO8
- * use MANKENBERG-products

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