

Pressure Relief Valve

PV 710



KOSCN PV710 pressure Relief valve is mainly used for upstream pressure regulating, pressure fluctuation balancing and pressure peak decreasing. The pressure regulating valves are usually installed in the branch pipe that is connected to the main pipeline and they can function as safety valves, also called pressure release valves. For required backpressure application, the pressure regulating valves can be mounted in the main pipeline as counterbalance valves, also called overflow valves.

Easy installation and maintenance

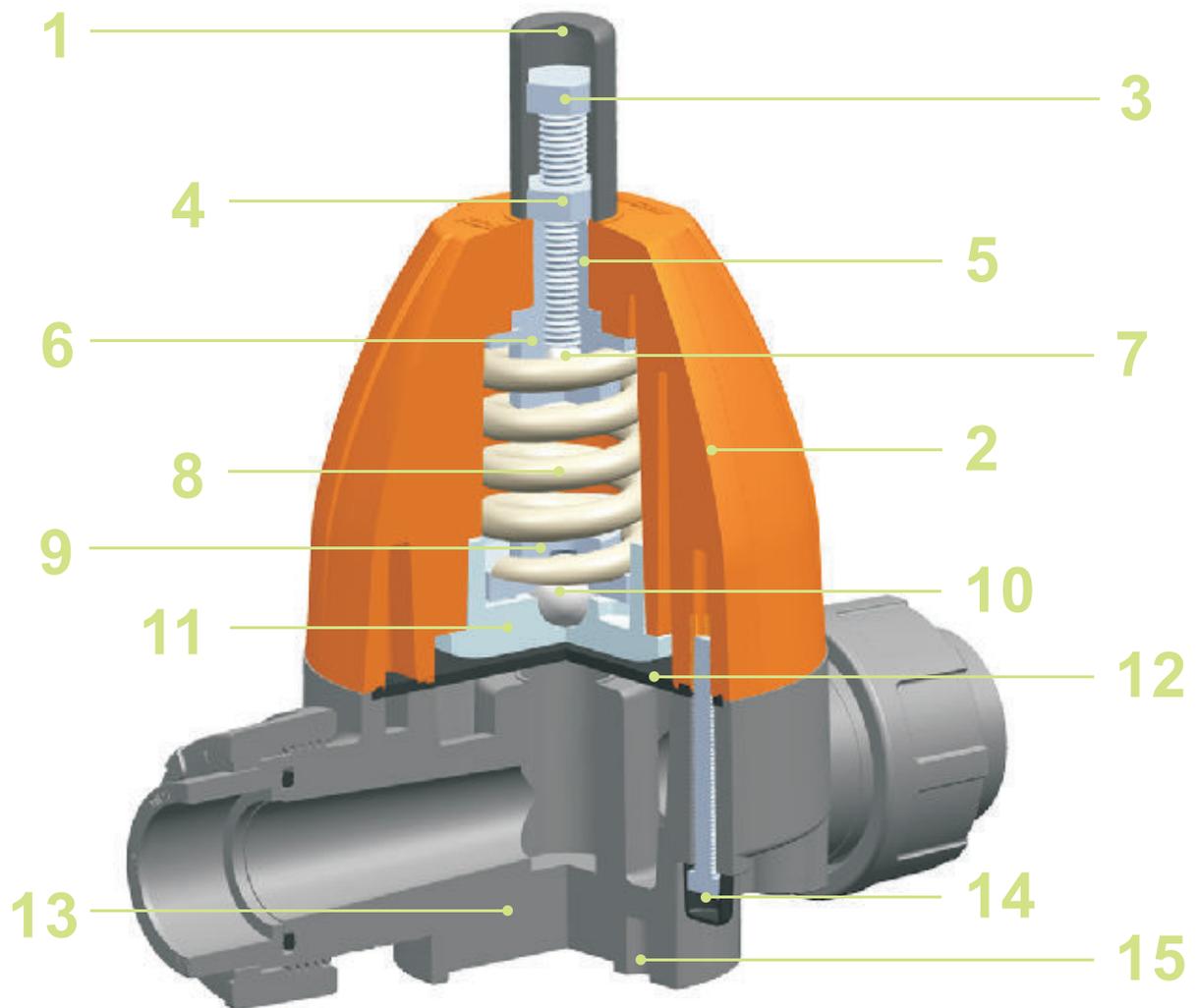
- * All-plastic appearance structure, beautiful and corrosion-resistant
- * Easy to install, no maintenance required
- * The connector implements the international DIN 8063 standard
- * Adjustable at any time, including during work

High safety performance

- * Working pressure up to 10 bar
- * Can effectively balance out pressure pulsation and reduce pressure peaks
- * The instrument interface thread is embedded in stainless steel, which is suitable for various installation strengths
- * Reinforced PTFE rubber laminated diaphragm, with higher pressure guarantee

High Flexibility

- * Wetted material PVC-U, PPH, PVDF, SUS
- * Sealing material EPDM, FPM
- * Connection form Double order, flange, female thread (only stainless steel body)
- * Interface standard DIN, JIS, ANSI
- * The valve end instrument interface can be optionally equipped with pressure gauge and pressure sensor
- * The required working pressure can be preset as required before leaving the factory



1 Protection cap

2 Upper part

3 Adjustment screw

4 Counter nut

5 Lead screw nut

6 Pressure plate

7 Steel ball

8 Spring

9 Spring plate

10 Steel ball

11 Compressor

12 Diaphragm

13 Valve body

14 Anticorrosive plug

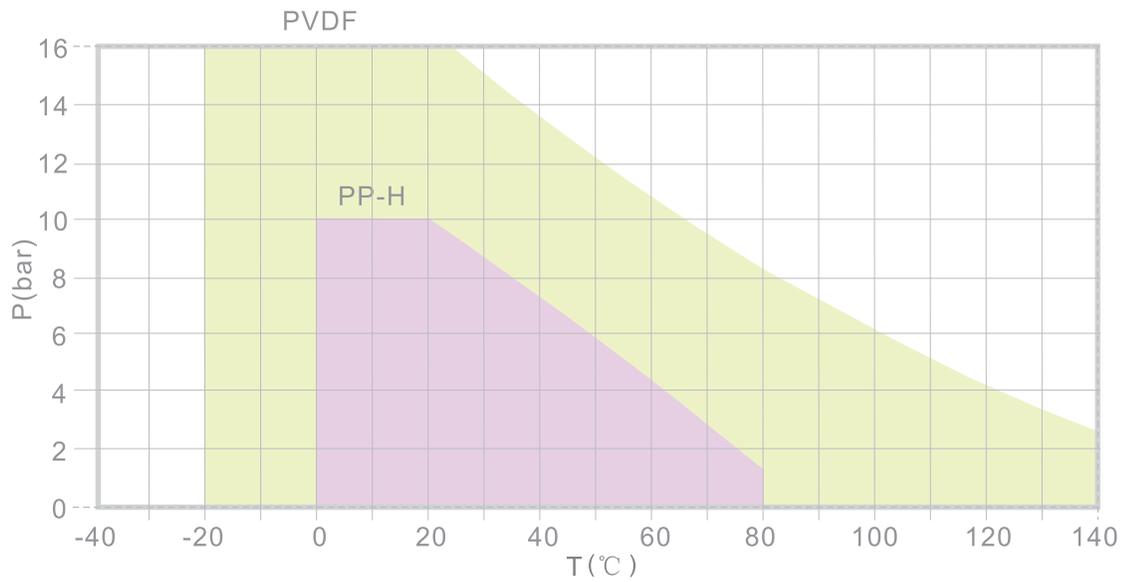
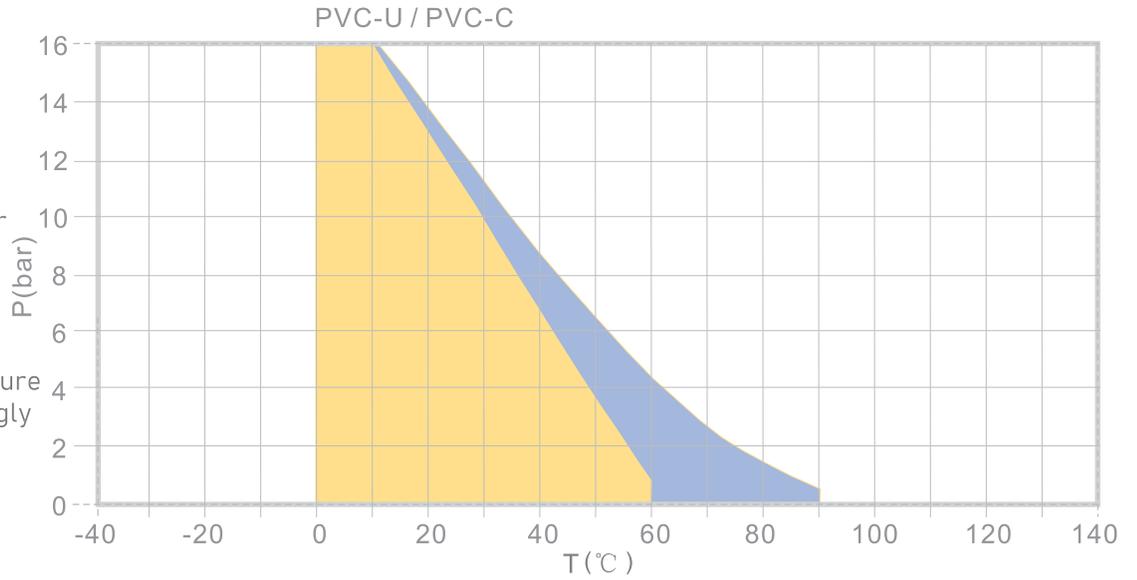
15 Fixed mounting hole

+ Technical characteristics

Pressure temperature curve

All data based on water for considering 25 years safe life time

Other liquids request to reduce the temperature and pressure accordingly



Flow capacity

All data are for 20°C water with 1 bar pressure difference

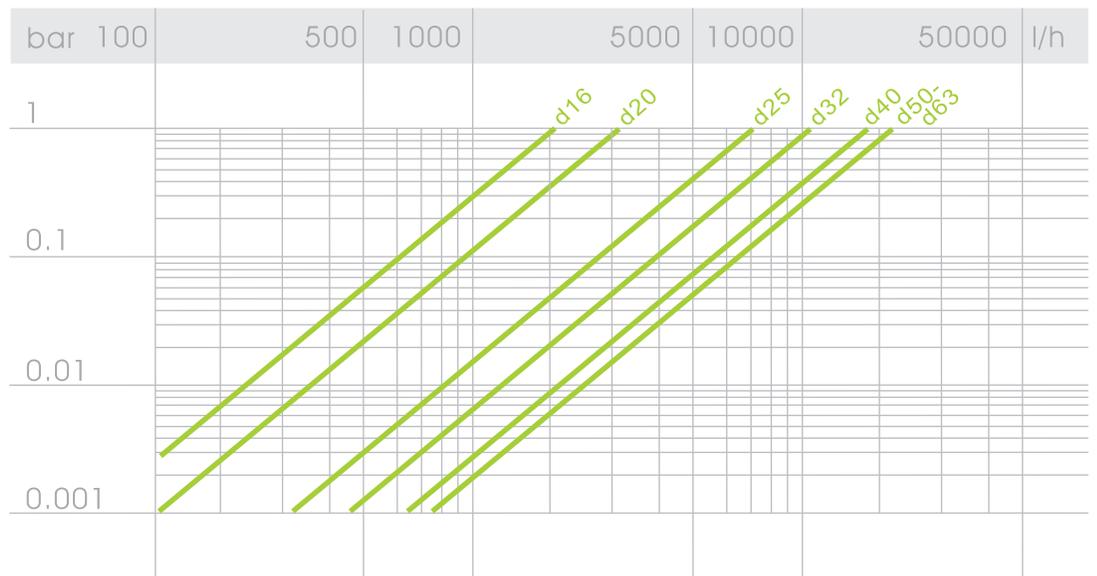
$$C_v = k_v \times 0,07$$

$$F_v = k_v \times 0,0585$$

K_v (l/min)

C_v (gal/min) US

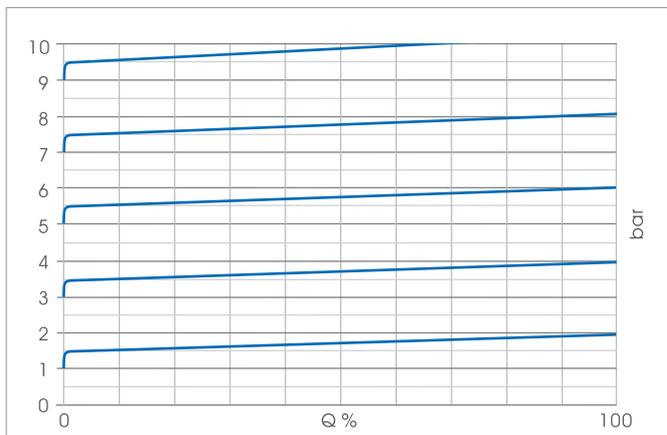
F_v (gal/min) GB



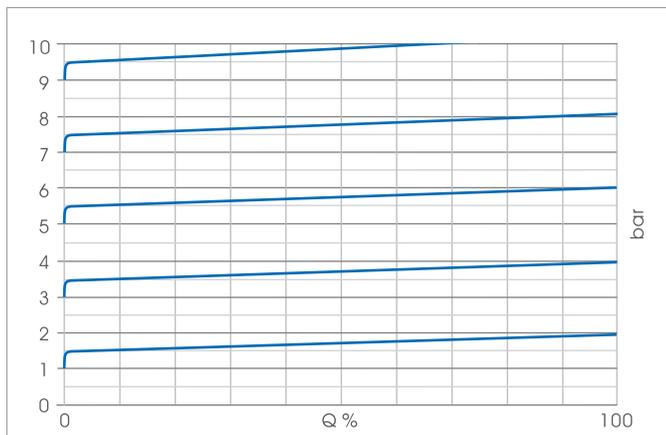
Technical Data

The curves below are valid for the set range 0.5- 10.0 bar and show the secondary or outlet pressure P2 over the flow Q in l/h. Parameter is the set pressure pE at Q = 0 l/h. There curves are valid for water at +20 °C for a flow velocity of 2 m/s.

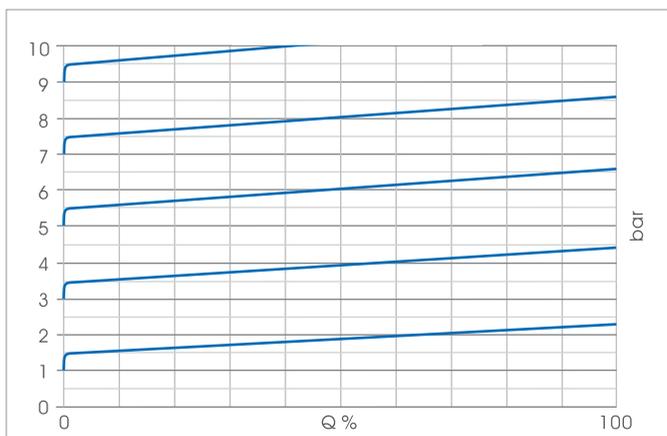
DN 10



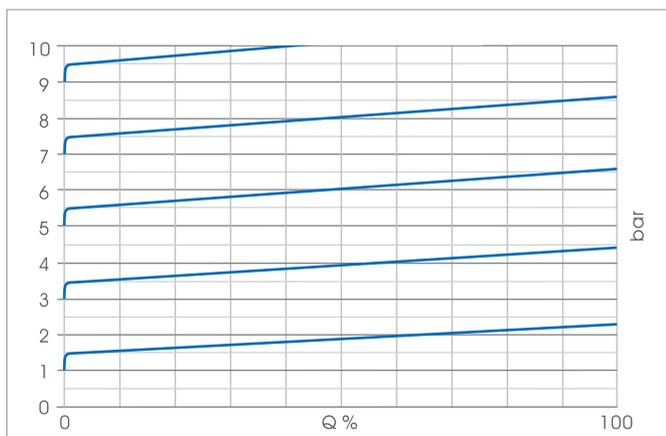
DN 15



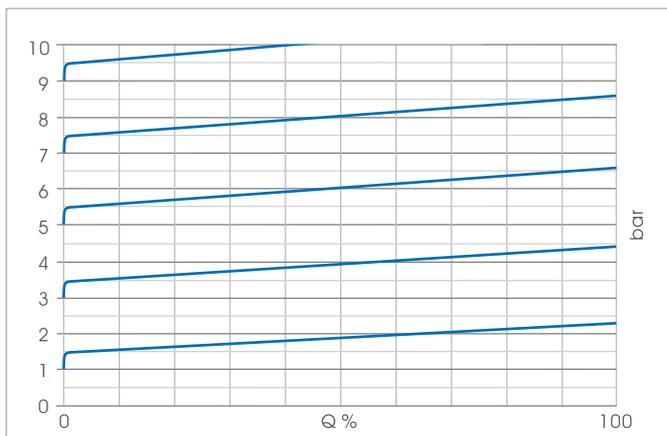
DN 20



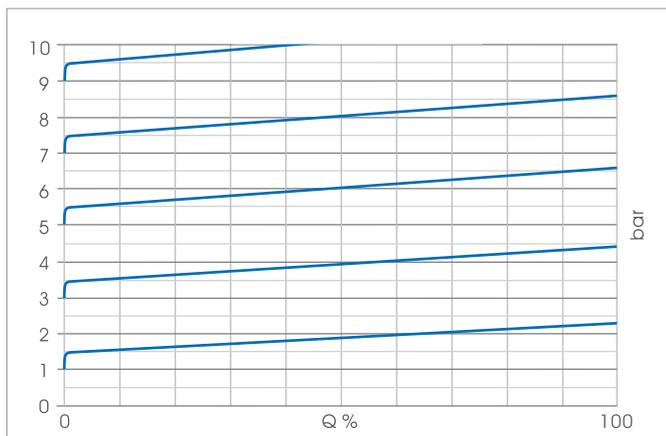
DN 25



DN 32



DN 40-50



+ Order code

PV Pressure relief valves

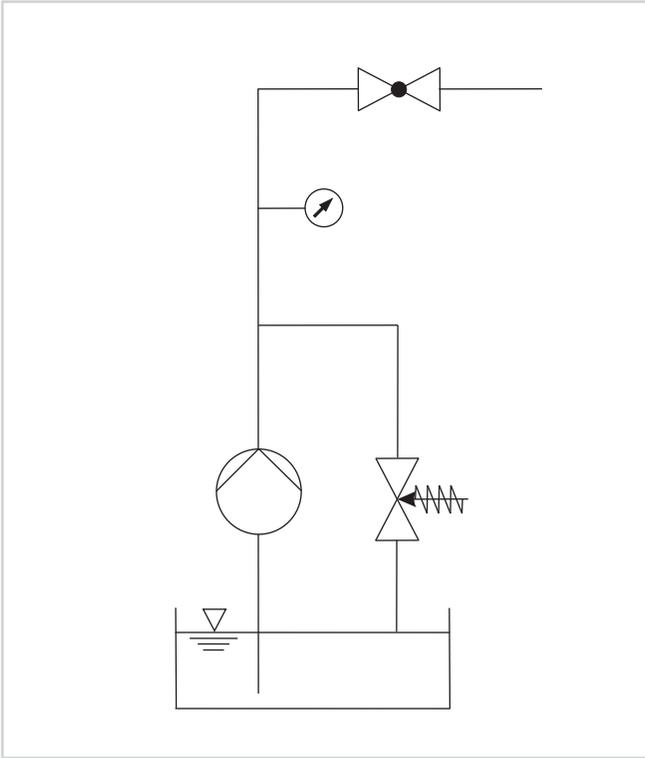
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Series	7	1	0									
Valve body material												
PVC-U				0								
PVC-C				2								
PP				4								
PVDF				6								
SS316				9								
Sealing material												
PTFE-EPDM				1								
PTFE-FPM				3								
PTFE				7								
Adjustment mode												
Manual				0								
Connection mode												
Union Socket-end							1					
Union Spigot Butt-IR							3					
Spigot fix							5					
Flange							7					
Thread							9					
Connection standard												
DIN							0					
JIS							2					
ANSI							4					
BSP/G							6					
Interface size												
d16, DN10										16		
d20, DN15										20		
d25, DN20										25		
d32, DN25										32		
d40, DN32										40		
d50, DN40										50		
d63, DN50										63		
Preset pressure *												
0.5 bar												005
1.0 bar												010
1.5 bar												015
2.0 bar												020
2.5 bar												025
3.0 bar												030
3.5 bar												035
4.0 bar												040
...
10 bar												100

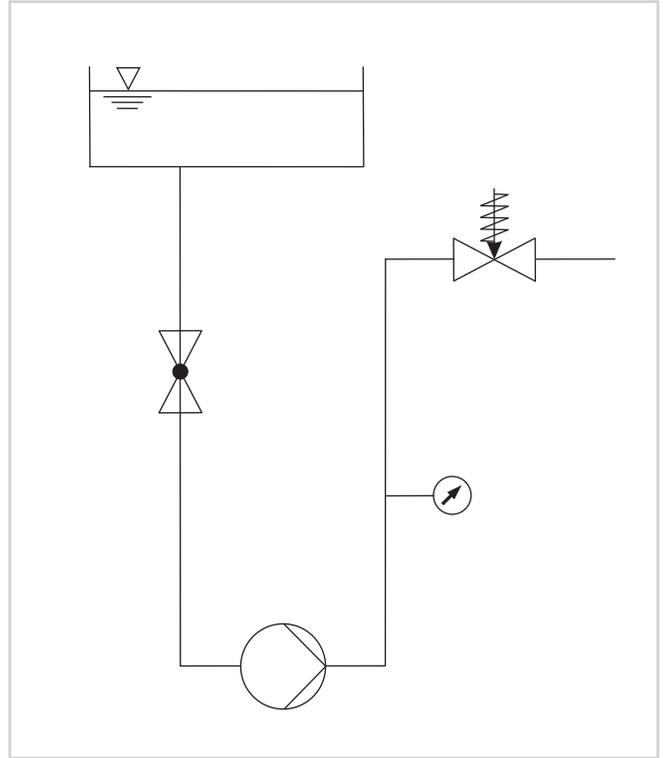
* Blank: No preset pressure requirements

+ Installation examples

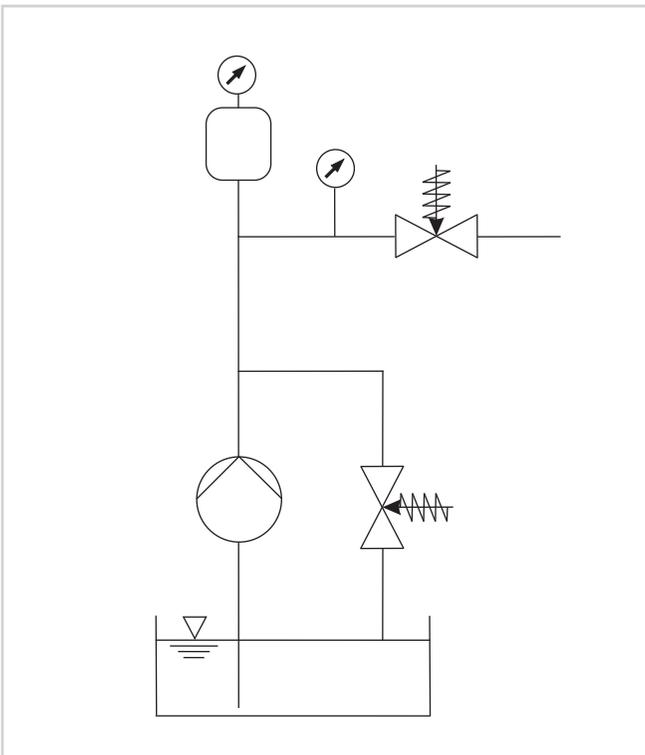
Pressure relief to ensure system safety



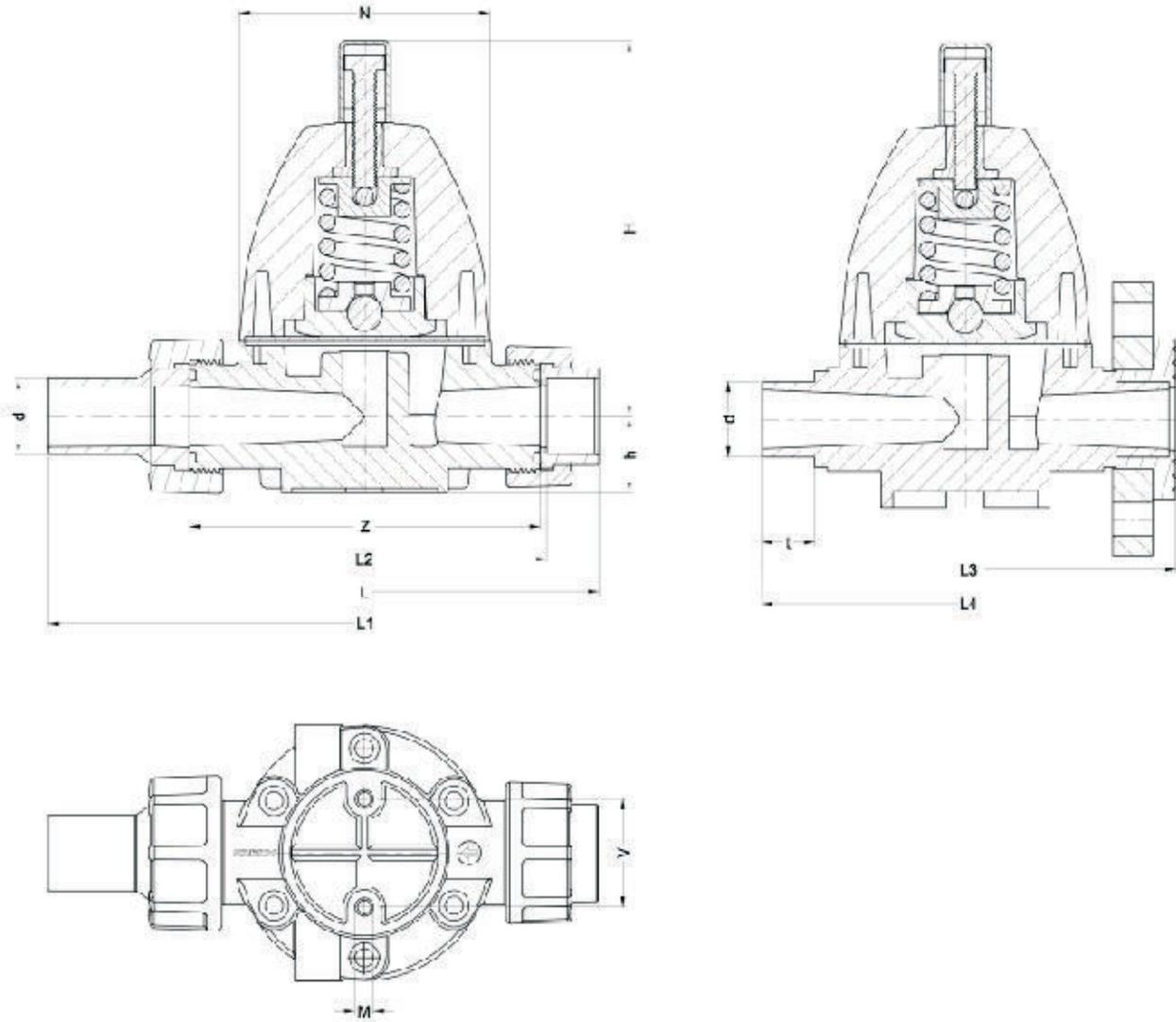
Use at high inlet pressure or
Generation of a constant working pressure



Optimal solution for the reduction of pressure surges with overflow valve to protect the system



+ Size



Unit: mm

d	DN	N	H	h	L	L1	L2	L3	L4	t	V	M
16	10	80	147	25	120	-	126	-	144	14	40	6
20	15	80	147	25	120	228	126	150	144	16	40	6
25	20	107	207	32	150	264	156	180	174	19	46	6
32	25	107	207	32	150	270	156	180	174	22	46	6
40	32	146	272	53	204	331	211	230	224	26	65	8
50	40	146	272	53	204	338	211	230	224	31	65	8
63	50	146	272	53	204	343	211	250	244	38	65	8



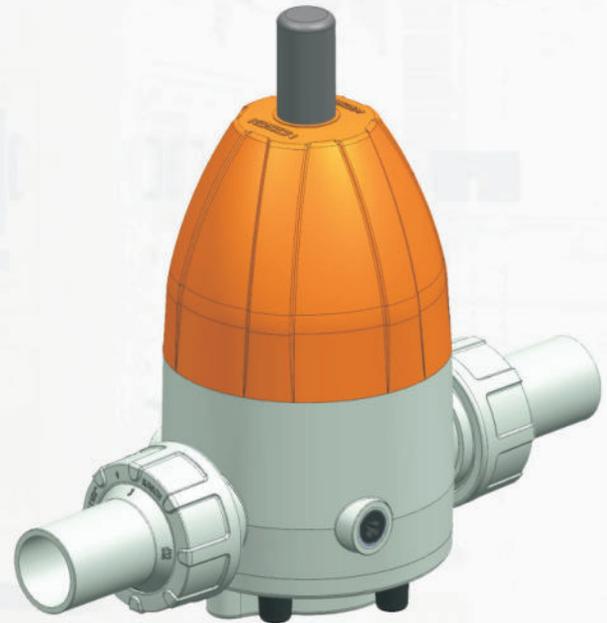
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KOSCN

PV 711

Pressure Reducing Valve



The PV711 pressure reducing valve can ensure the stability of the pressure behind the valve and balance the pressure pulsation. Directly controlled by the medium, the primary pressure is used to reduce the working pressure of the system, and the control of the working pressure is constant. It has stable and low vibration control characteristics, and has good repeatability of regulating pressure. This product cannot be used as a standard safety feature for pressure vessels.

Easy installation and maintenance

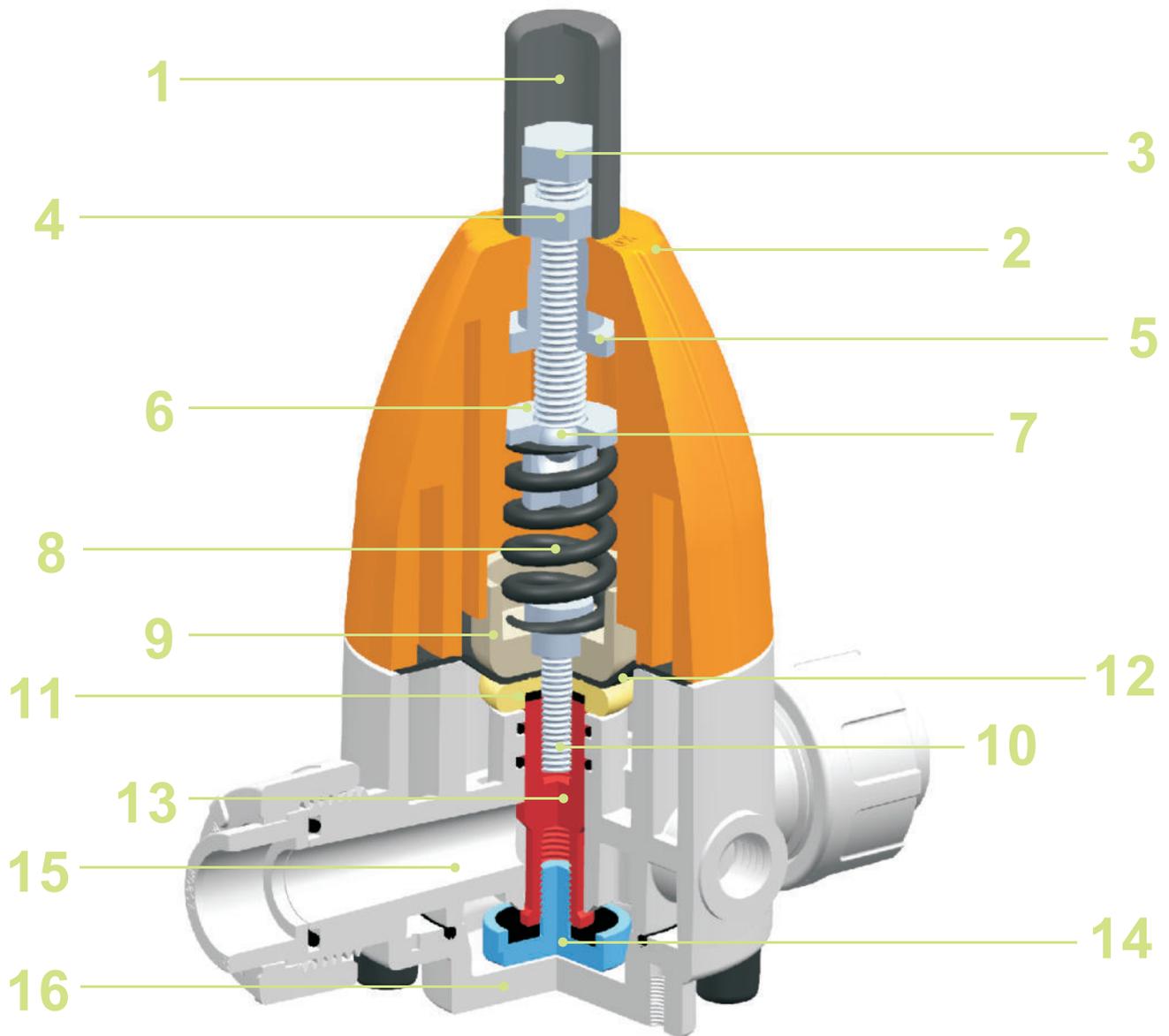
- * All-plastic appearance structure, beautiful and corrosion resistant
- * Easy to install, no maintenance
- * Connectors comply with international DIN8063 standard
- * The pressure can be adjusted at any time, including during work

High safety performance

- * Withstand pressure up to 10 bar
- * Can effectively balance the pressure pulsation, to ensure that the outlet pressure is constant
- * The instrument interface thread is embedded in stainless steel to adapt to various installation strengths
- * Reinforced PTFE rubber coated diaphragm for a higher pressure guarantee

Performance feature

- * Pressure setting 1... 9 bar
- * Maximum and minimum secondary pressure difference ± 0.2 bar
- * Lag pressure 0.1... 0.4 bar
- * Gauges and sensors range 2.5 bar, 4 bar, 6 bar, 10 bar



1 Protective cap

6 Spring base

11 Diaphragm block

2 Mechanism shell

7 Balance ball

12 diaphragm

3 Adjusting screw

8 Regulating spring

13 piston

4 Limit nut

9 Underspring base

14 Piston end barrel

5 Lead screw nut

10 Piston connecting rod

15 Valve body

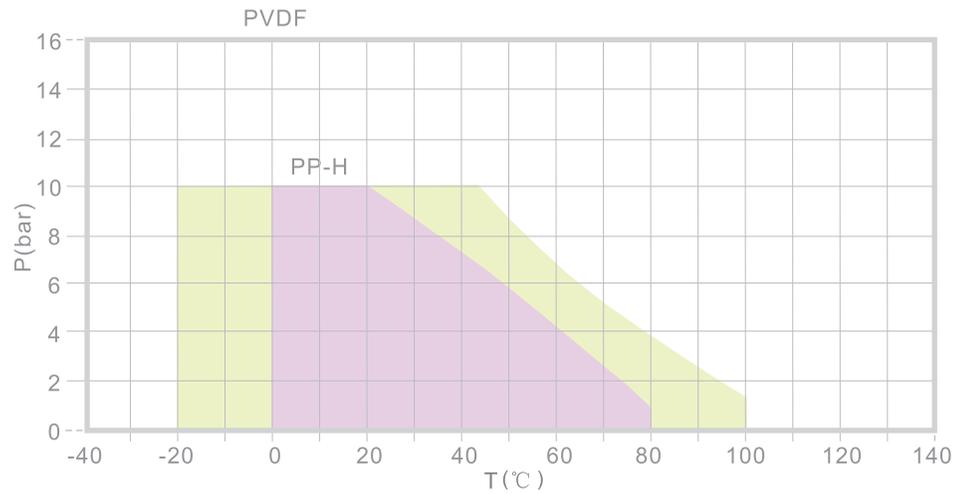
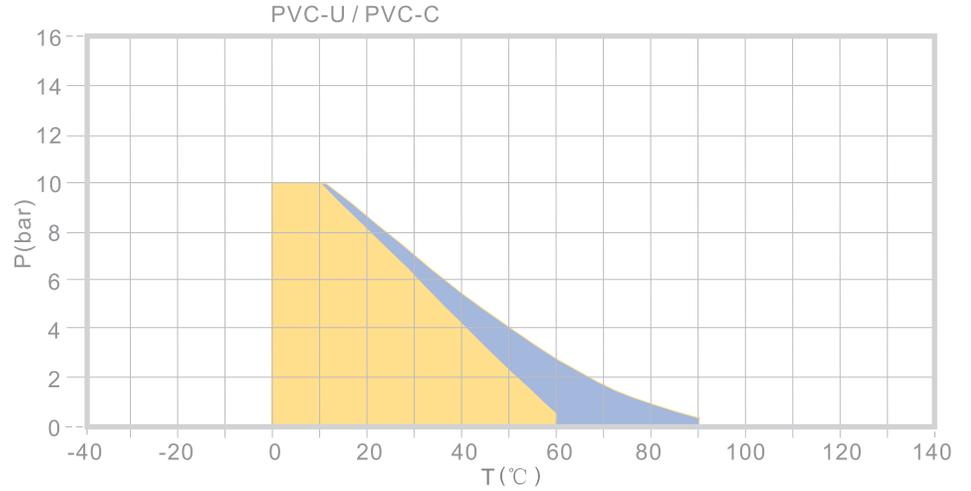
16 Valve body bottom cover

+ Technical characteristics

Pressure temperature curve

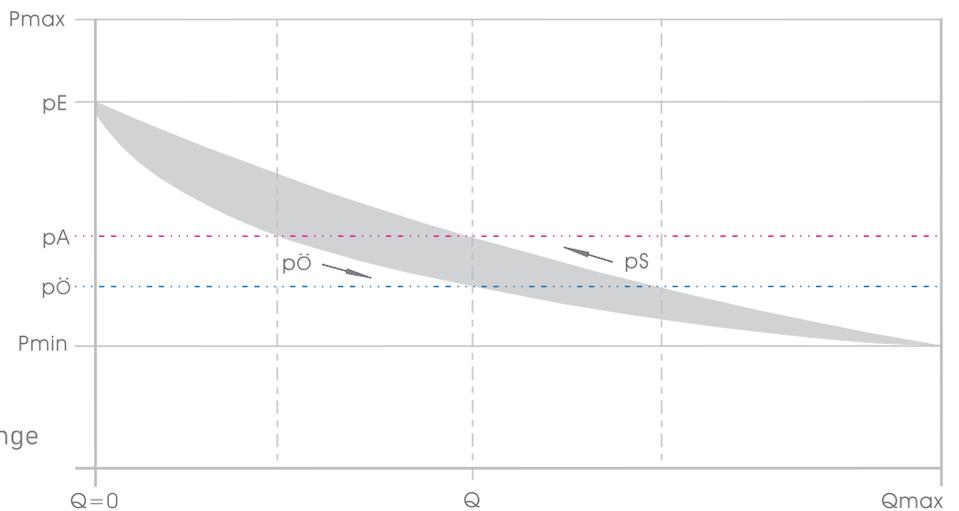
All data based on water for consider -ring 25 years safe life time

Other liquids request to reduce the temperature and pressure accordingly



Operating characteristics

- Pmax Maximum pressure
- Pmin Minimum pressure
- pE Set pressure
- pA Working pressure
- pÖ Opening pressure
- pS Closing pressure
- pÖ - pS Lag pressure
- pA - pE Pressure drop of flow change

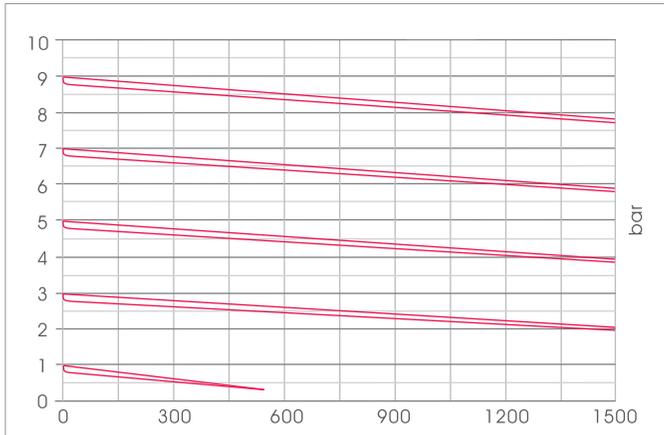


Working pressure and relative flow rate

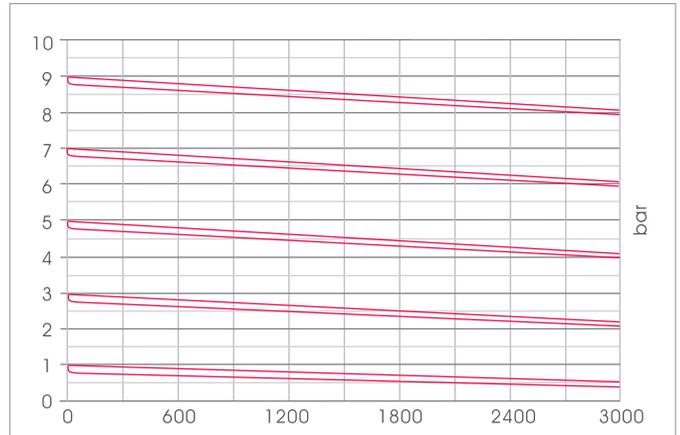
The curve shows the data of pressure change with flow rate. The starting point of the curve is the set pressure at the flow rate $Q = 0$ l/Min.

Outlet pressure: bar

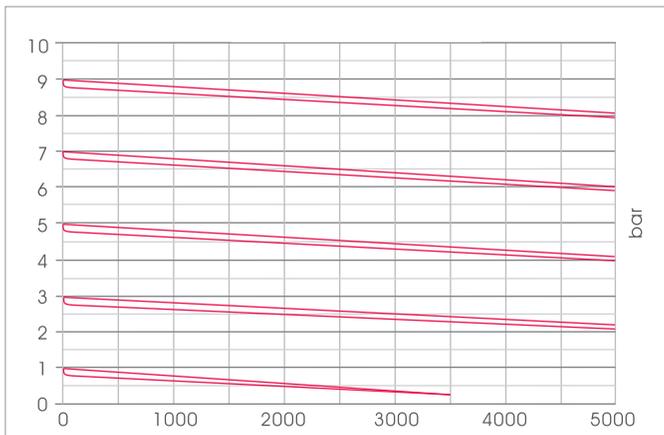
DN 15



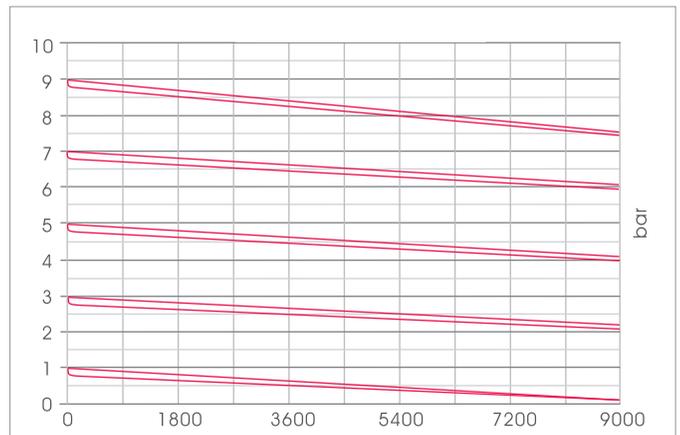
DN 20



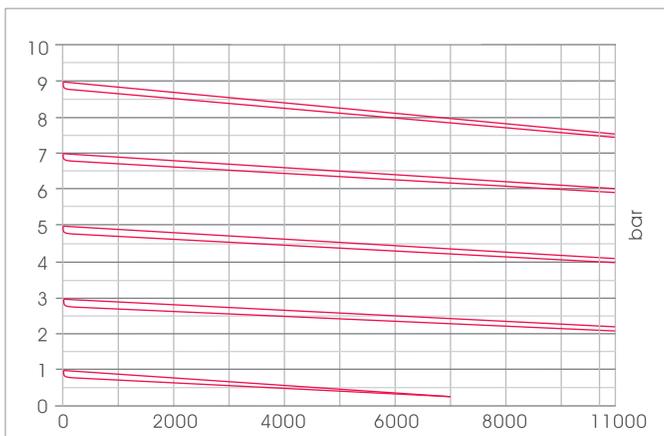
DN 25



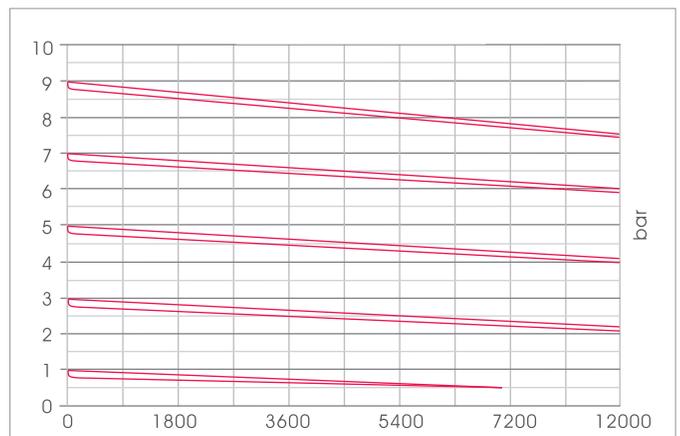
DN 32



DN 40



DN 50

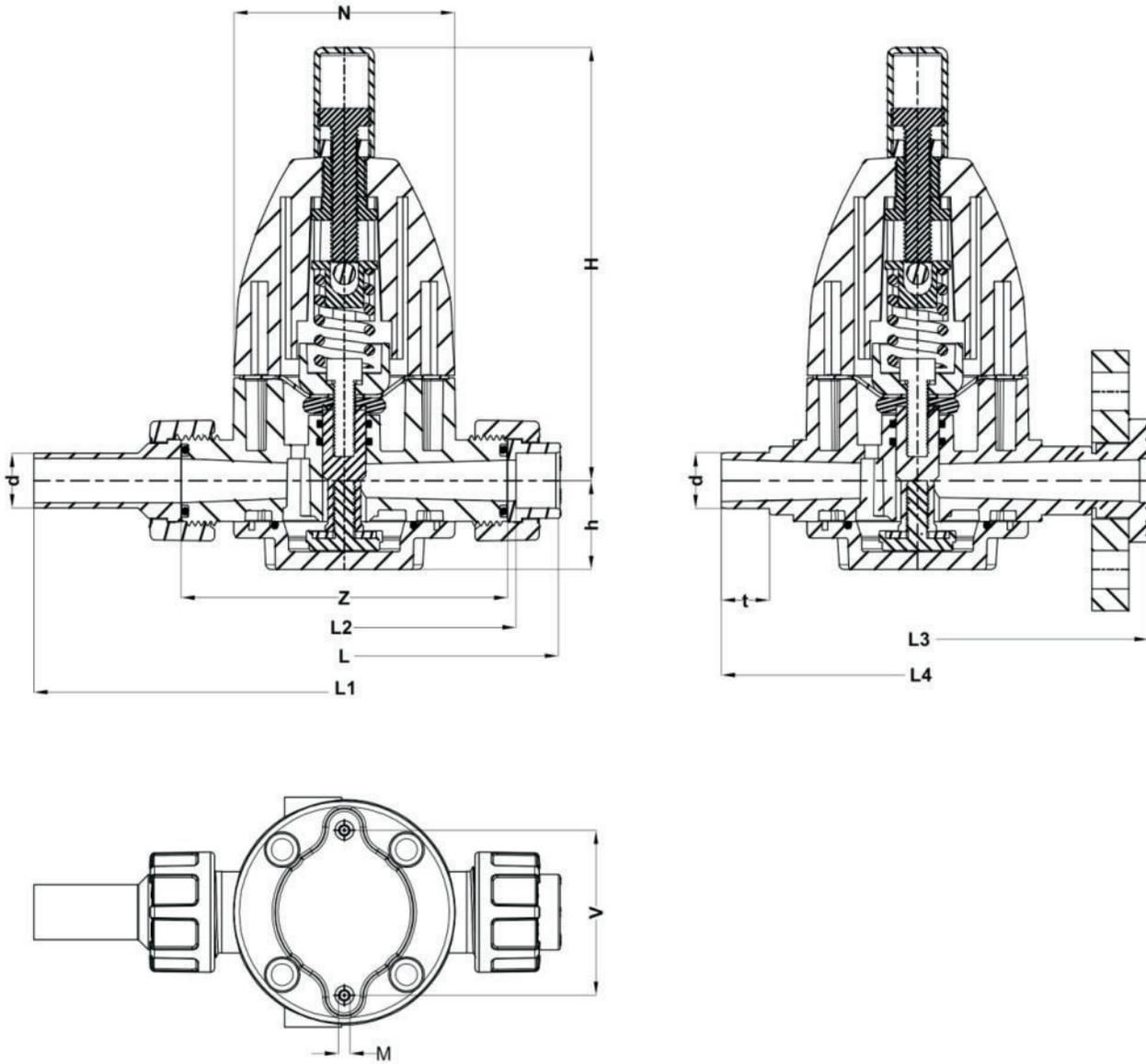


+ Order code

PV 711 Pressure reducing valve

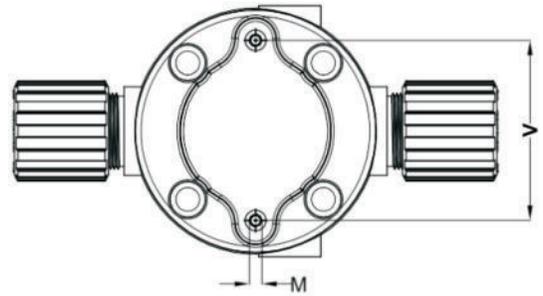
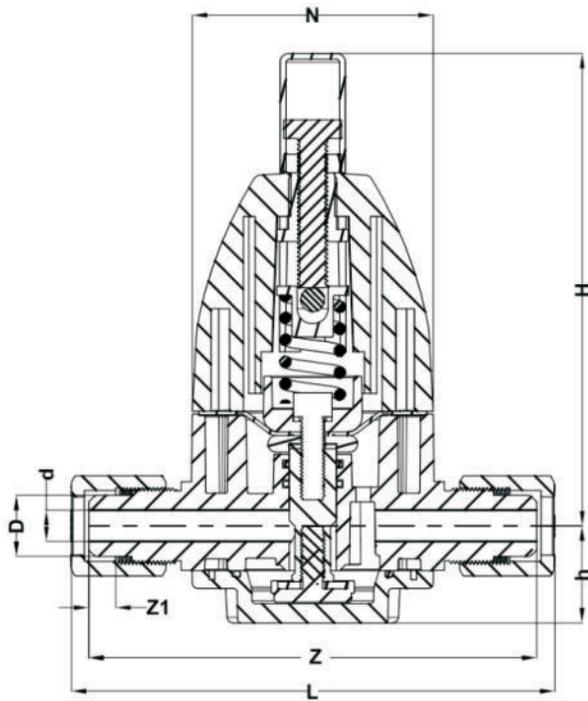
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Product series	7	1	1								
Valve body material											
PVC-U				0							
PVC-C				2							
PP				4							
PP-N				5							
PVDF				6							
Ss316				9							
Sealing material											
PTFE-EPDM					5						
PTFE-FPM					6						
PTFE					7						
Control mode											
Manual						0					
Connection mode											
Union Socket-end							1				
Union Spigot Butt-IR							3				
Spigot fix							5				
Flange							7				
Thread							9				
Flare LINK							0				
Connection standard											
DIN								0			
JIS								2			
ANSI								4			
BSP/G								6			
Interface size											
d16, DN10											16
d20, DN15											20
d25, DN20											25
d32, DN25											32
d40, DN32											40
d50, DN40											50
d63, DN50											63
1/2"											12
3/4"											19
A											

+ Size



Unit: mm

d	DN	N	H	h	L	L1	L2	L3	L4	t	V	M
16	10	80	158	33	120	-	126	-	144	14	61	5
20	15	80	158	33	120	228	126	150	144	16	61	5
25	20	107	183	43	150	264	156	180	174	19	79	6
32	25	107	183	43	150	270	156	180	174	22	79	6
40	32	146			204	331	211	230	224	26		
50	40	146			204	338	211	230	224	31		
63	50	146			204	343	211	250	244	38		



Unit: mm

Inch	D	d	N	H	h	L	Z	Z1	t	V	M
1/2	13,9	9,5	80	158	33	98,5	92,5	15	14	61	5
3/4	20,5	15,9	80	158	33	121,0	114,2	15	16	61	5



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