VALFONTA

SELF-OPERATED PRESSURE REGULATORS

EXCESS PRESSURE VALVE MODEL PRV53

PRODUCT FEATURES

PRV53 model is a self-operated pressure excess valve.

Used to maintain an stable pressure in main line, the PRV53 reliefs the excess of pressure.

When upstream pressure rises above adjusted set point, the valve opens proportionally.

Easy to adjust and doesn't need any maintenance. It is possible to install the valve in any position.

Maximum inlet pressure 10 bar (ask for other ranges).

Pressure range: 0,5 a 3 | 1 – 6 | 3 – 10 bar

Temperature range:

NBR	-20 to 80 ºC
EPDM	-30 to 125 ºC
Viton	-10 to 150 ºC

Fluids
Fluid group 1 and 2.
Liquids, compressed air, fuel-oil, water, nitrogen, neutral gases, ...

Body material → Stainless steel AISI 316L

Trim material → Stainless steel AISI 316L

Cover material → Stainless steel AISI 316L

Connections → Threaded BSP or NPT
→ Flanges DIN PN25 or ANSI 150#RF

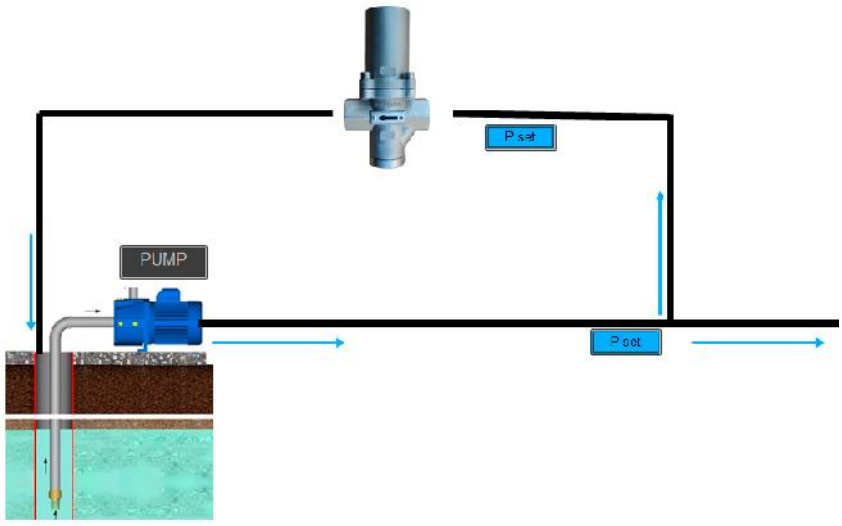
Under request:

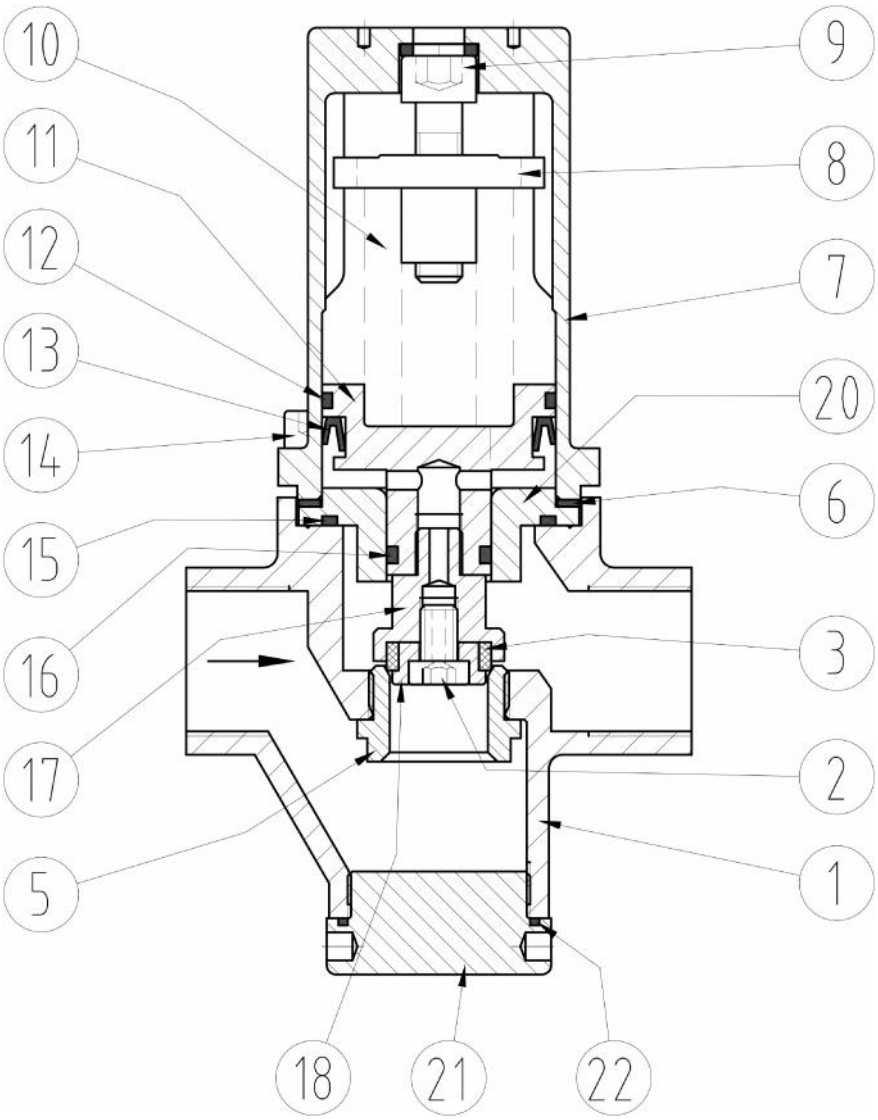
- Reduced Kv to: 0,2 / 0,6 / 1 m3/h
- Bronze / Super duplex materials
- Connection Socket weld or butt welding
- Connection clamp
- Degreased valve for oxygen services

More common applications

Chemical laboratory installations, sanitary plants, compressed air, sprinkler systems, fuel-oil, steam, heat exchangers, steam plants, stills, chemical laboratories, cylinders and vulcanized, dry cleaner's, laundries,...

Typical installation in a by-pass after a pump





HOW IT WORKS

The excess pressure valves PRV53 model work under direct action principle. Upstream pressure reaches the valve and moves the piston and obturator assembly, opening the valve. This pressure is fully balanced by the piston and in the pressure less state the valve is closed by the force of the regulating spring (10).
When upstream pressure arrives to the piston through the stem (internal sensing line), and rises above the adjusted set point, valve opens proportionally.

It is recommended to leave between 0,5 and 1 meter until isolation valve for a better compensation.

To increase inlet set pressure, the regulating screw (9) has to be turned anticlockwise.

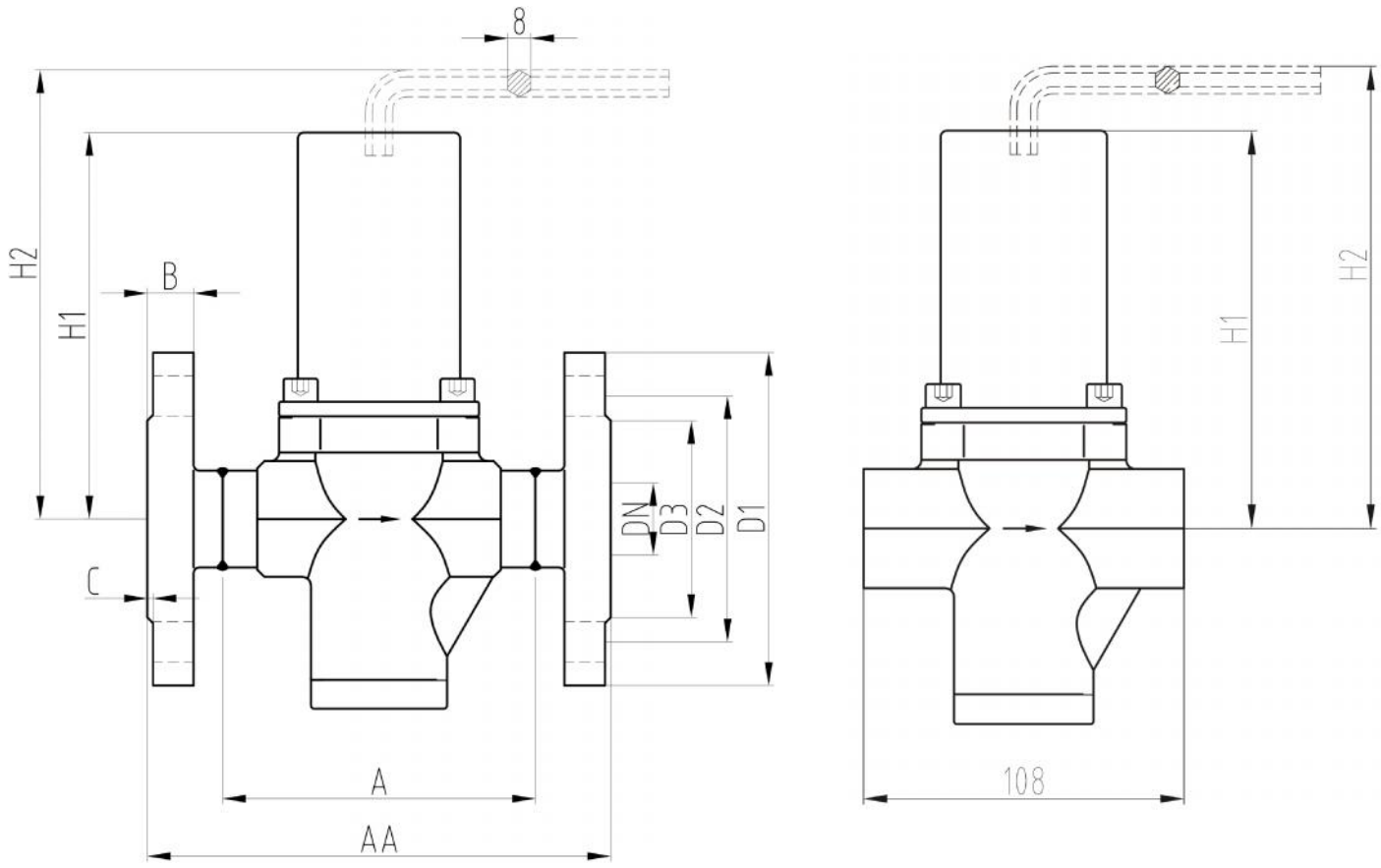
	Description	Material		Description	Material
1	Body	Stainless steel A351 CF3M	12	O-ring	NBR (EPDM,FKM)
2	Seal screw	Stainless steel A2-70	13	Gasket	NBR (EPDM,FKM)
3	Obturator	NBR (EPDM, PTFE+GR,FKM)	14	Screw (x4)	Stainless steel A2-70
5	Seat	Stainless steel Aisi 316L	15	O-ring	(= item 12)
6	Gasket	PTFE	16	O-ring	NBR (EPDM,FKM)
7	Spring cover	Stainless steel A351 CF3M	17	Obturator support	1.4404 - SS 316L
8	Washer spring	Galvanized steel ST-52	18	Obturator guide	1.4404 - SS 316L
9	Regulation screw	Stainless steel A2-70	20	Guide	1.4404 - SS 316L
10	Regulation spring	Spring steel 52SiCrNi5 (epoxy painting 60-100 micras)	21	Lower Cover	1.4404 - SS 316L
11	Piston	1.4404 - SS 316L	22	Gasket	NBR (EPDM,FKM)
	SOFT PARTS			Special gaskets for special fluid on demand	

Recommended spare parts

Reference	Description	Design temperature	Item
PRV53.SP1	NBR gasket Kit	80ºC	3+6+12+13+15+16+22
PRV53.SP2	EPDM gasket Kit	125ºC	3+6+12+13+15+16+22
PRV53.SP3	FKM gasket Kit	150ºC	3+6+12+13+15+16+22
PRV53.SP5	Spring	-	10

DN	½ ”	¾ ”	1”	15	20	25	15	20	25
Connection	Threaded			Flanged EN PN16/25			Flanged ANSI CL150		
Kv value	2	2.5	3.5	2	2.5	3.5	2	2.5	3.5
A	108	108	108	-	-	-	-	-	-
AA	-	-	-	150	150	160	184	184	184
H1	135			135			135		
H2	185			185			185		
D1	-	-	-	95	105	115	89	98	108
D2	-	-	-	65	75	85	60.5	70	79.5
D3	-	-	-	45	58	68	35	43	51
B	-	-	-	16	16	16	12	12	12
C	-	-	-	2	2	2	2	2	2
Nº holes	-	-	-	4	4	4	4	4	4
Ø hole	-	-	-	14	14	14	16	16	16
Weight (Kg)	2.5	2.5	2.5	5	5	5	5	5	5

All sizes in millimeters. In red color, sizes out of standards.



Classification according pressure equipment Directive, 2014/68/UE

Fluid	Chart	PN	Size	Category	CE Marked
Gases and liquids group 2	7	PN25	DN15 – DN25	Apar 3-art 3	Not required
Gases and liquids group 1	6	PN25	DN15 – DN25	Apar 3-art 3	Not required