PRV-S type STAINLESS STEEL PRESSURE REDUCING VALVE

CHARACTERISTICS

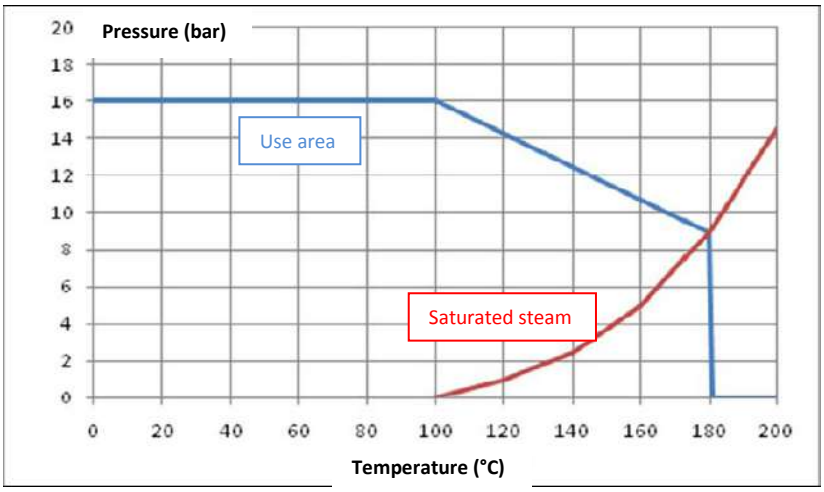
The Elite PRV-S stainless steel pressure reducing valve is dedicated to clean steam systems. Its stainless steel construction has FKM/PTFE tightness. The downstream pressure can be adjusted with the screw. The manometer allows checking the relieved pressure. This device only works if installed in the position indicated by the arrow marked on the body. The PRV-S is suitable for clean steam having no particles in suspension and has to be protected by a stainless steel strainer installed upstream.

AVAILABLE ITEMS

BSP threaded connections: 1/2" to 1"
PN16 flanged connections: DN15 to 25 according to EN 1092-1
Downstream adjustment range: 1-6 bar and 4-10 bar

LIMITS OF USE

Max. allowable pressure	16 bar
Max. allowable temperature	180 °C
Use on steam	9 bar / 180 °C
Minimum ΔP:	1 bar
Maximum ΔP:	10 bar



DIRECTIVES AND CONSTRUCTION STANDARDS

	Standard		Standard
EC 97/23 Pressure Directive	1/4"to 1": excluded	Shell design	ANSI B16.34
Material	ASTM A182	Final testing	API 598
Threaded connections	ISO 228	Flanged connections	EN 1092-1

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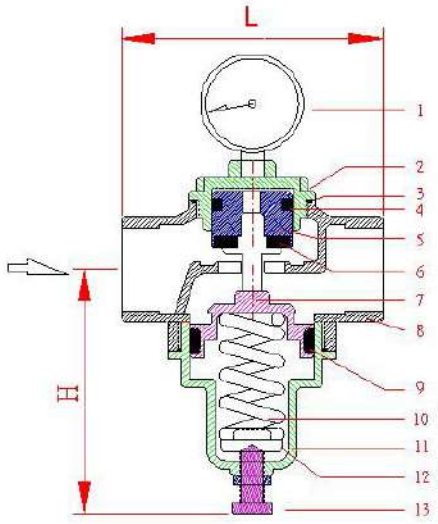
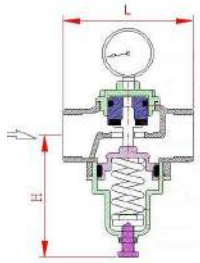
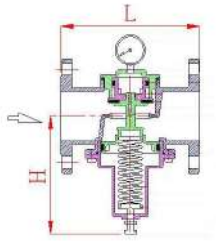
CONSTRUCTION

#	Item	Material	Plan
1	Manometer Ø 63	Full stainless steel	
2	Cap	Stainless steel 1.4408 / CF8M	
3	Gasket	FKM	
4	Gasket	PTFE	
5	Piston	Stainless steel 1.4408 / CF8M	
6	Clack	PTFE	
7	Stem	Stainless steel 1.4408 / CF8M	
8	Body	Stainless steel 1.4408 / CF8M	
9	Gasket	PTFE	
10	Gasket	FKM	
11	Spring	Spring steel	
12	Spring rod	Stainless steel 1.4408 / CF8M	
13	Spring base	Brass	
14	Adjustment screw	Stainless steel 1.4401 / F316	

DIMENSIONS (mm)

	DN	H (mm)	L (mm)	Manometer connection	Weight (kg)	
Threaded connections	½''	80	70	BSP ¼"	0.8	
	¾''	105	85		1	
	1''	105	92		1.1	
Flanged connections	15	85	155	BSP ¼"	2	
	20	105	155		2.8	
	25	105	155		5.3	

SPARE PARTS

DN	1/2" – DN 15	3/4" – DN 20	1" – DN 25
Gasket kit (marks 3, 4, 6, 9, 10)	981830	980831	980832
Spring 1-6 bar	981730	980733	980736
Spring 4-10 bar	981731	980734	980377

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FLOW RATE Kv (m3/h)

1/2" – DN 15	3/4" – DN 20	1" – DN 25
2.4	7.6	9.4

SATURATED STEAM FLOW TABLE (kg/h)

Flow rates (kg/h)		Upstream pressure (bar)	3	4	5	6	8	10	12
Downstream pressure (bar)	1	1/2"	72	96	120	144	192	240	288
		3/4"	205	273	342	410	547	684	820
		1"	324	432	540	648	864	1080	1296
	2	1/2"	70	96	120	144	192	240	288
		3/4"	201	273	342	410	547	684	820
		1"	317	432	540	648	864	1080	1296
	3	1/2"		88	120	144	192	240	288
		3/4"		250	342	410	547	684	820
		1"		395	539	648	864	1080	1296
	4	1/2"			102	141	192	240	288
		3/4"			291	402	547	684	820
		1"			460	634	864	1080	1296
	6	1/2"					176	240	288
		3/4"					500	684	820
		1"					790	1080	1296
	8	1/2"						204	282
		3/4"						583	803
		1"						920	1268

MOUNTING AND MAINTENANCE INSTRUCTIONS

1. Mounting

Please check the fit between the pressures indicated on the body and the use. Please shut off the up and downstream pipes, depressurize the piping and lower the installation temperature to room temperature before any use. Install an upstream strainer and an isolating valve upstream and downstream. Carefully remove any particle remaining on the piping by clearing with water or blowing with compressed air. Install the pressure reducer following the direction of the arrow marked on the body, and with the manometer heading upwards. Check the manometer connection tightness. Open the up and downstream valves. To adjust the downstream pressure, please use the adjusting screw (*mark 14 on the drawing, page 2*) and the manometer pressure indication.

2. Maintenance

Before any intervention, please shut off the up and downstream piping using the isolating valves. Depressurize the piping and lower the installation temperature to room temperature. Completely unscrew the adjustment screw *(mark 14).* Remove the upstream filter cap and clean or replace the strainer. For a complete check of the device, disassemble part *(2)* and *(12).* Check the condition of the gaskets *(mark 3, 4, 9 and 10)* and replace them if necessary. Check the condition of the spring *(mark 11)* and replace it if broken. Clean all the internal parts. Re-install the dismantled parts in the reverse order. Put the device back to operation by slowly opening the upstream valve, and then the downstream valve. Re-adjust the outlet pressure using the screw *(mark 14).*

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