

UKL SELF ACTUATED PRV :-**Features:**

- Simple and Compact design.
- Upstream pressure and Downstream pressure balancing by stainless steel bellows.
- Exchangeable actuator and Spring.
- Screwed seat ring.
- Flow dividers for noise reduction.

Application:

Pressure reducing valve is direct acting regulator which regulate the downstream pressure to the adjusted point and the valve closes when the downstream pressure rises. Suitable for Water , steam and gas up to temperature 350°C with condensate pot. Valve sizes DN25 to DN100, class rating 150 and 300.

**Principle of operation:**

Media flows through the upstream side of valve as shown in fig.1. The Plug with stem is connected to the actuator stem. The Downstream pressure is applied through control line to the actuator diaphragm where it is converted into spring force. With the set point adjuster, we can adjust spring pretension the required downstream pressure.

When the downstream pressure increases above the set point adjusted pressure, the valve closes proportionally to the change in pressure.

The balancing valve have balancing bellow where the upstream pressure act on outer surface of bellow and downstream pressure act on inside surface of bellow. As effective area of balancing bellow is equal to seat area the differential forces compensated so there is no effect of any changes fluctuations in upstream pressure.

DIMENSIONS (MM) :

BILL OF MATERIAL :

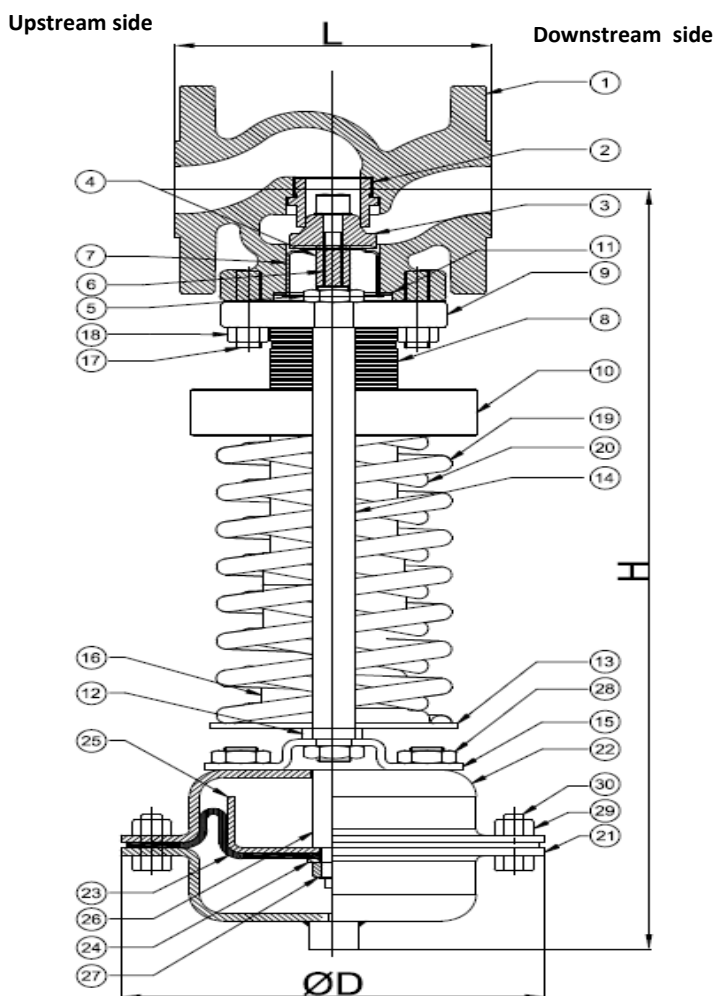


Fig. 1

SR NO.	PART NAME	MATERIAL
1	Body	ASTM A216 WCB
2	Seat	AISI 316
3	Plug	AISI 316
4	Bellow stem	AISI 316
5	Bellow	AISI 316 Ti / 1.4571
6	Threaded bolt	AISI 316
7	Cup (Bonnet)	AISI 304
8	Bonnet pipe	C22.5/A105
9	Bottom flange	ASTM A515 Gr. 70
10	Set point spring adjuster	C22.5/A105
11	Body gasket	Graphite
12	Travel stopper	C22.5/A105
13	Top spring plate	ASTM A620/IS513-CR3-DD Plated
14	Guide pillar	C22.5/A105
15	Pillar plate	GR. 8
16	Clamp nut	C22.5/A105
17	Stud	A 193 B7
18	Hex nut	A194 2H
19	Main spring	50CrV4
20	Inner spring	50CrV4
21	Top cover of actuator	ASTM A620/IS513-CR3-DD Plated
22	Bottom cover of actuator	ASTM A620/IS513-CR3-DD Plated
23	Rolling diaphragm	NBR/EPDM
24	Diaphragm plate top	C22.5/A105
25	Diaphragm plate bottom	ASTM A620/IS513-CR3-DD Plated
26	Diaphragm spindle	AISI 304
27	Spindle hex nut	A194 2H
28	Actuator lock nut	A194 2H
29	Hex nut	GR. 10
30	Hex bolt	GR. 10.9

DIMENSIONS (MM)										
Valve size	Rating		UDA320		UDA160		UDA80		UDA40	
	#150	#300								
	L		D	H	D	H	D	H	D	H
DN 25	127	203.2	290	415	224	415	168	396	168	396
DN 40	165.1	228.6	290	480	224	480	168	460	168	460
DN 50	203.2	266.7	290	495	224	495	168	475	168	475
DN 65	215.9	306	290	590	224	590	168	570	168	570
DN 80	241.3	327	290	600	224	600	168	580	168	580

TECHNICAL DATA:

Valve size	1"	1-1/2"	2"	2-1/2"	3"	4"
Kv	8	20	32	50	80	125
Seat bore, mm	22	40	40	65	65	90
Travel, mm	6	8	8	11	14	16
Maximum differential pressure drop, bar (g)	25	25	25	20	20	16

Downstream Pressure Range					
Set Point Range, Bar(g)	0.2-1.2	0.8-2.5	2.0-5.0	4.5-10.0	8.0-16.0
Pneumatic Actuator, cm2	UDA320	UDA160	UDA80	UDA40	UDA40
Maximum Pressure at Actuator, Bar(g)	1.2	2.5	5	10	10

Process Parameters required for PRV :-

- Inlet Pressure (Kg/cm2) : _____ (Min./Nor./Max.)
- Outlet Pressure (Kg/cm2) : _____ (Min./Nor./Max.)
- Media : _____
- Media properties : _____ (Other than Steam)
- Temperature (°C) : _____
- Flow Rate (Kg/hr) : _____ (Min./Nor./Max.)

Application :-

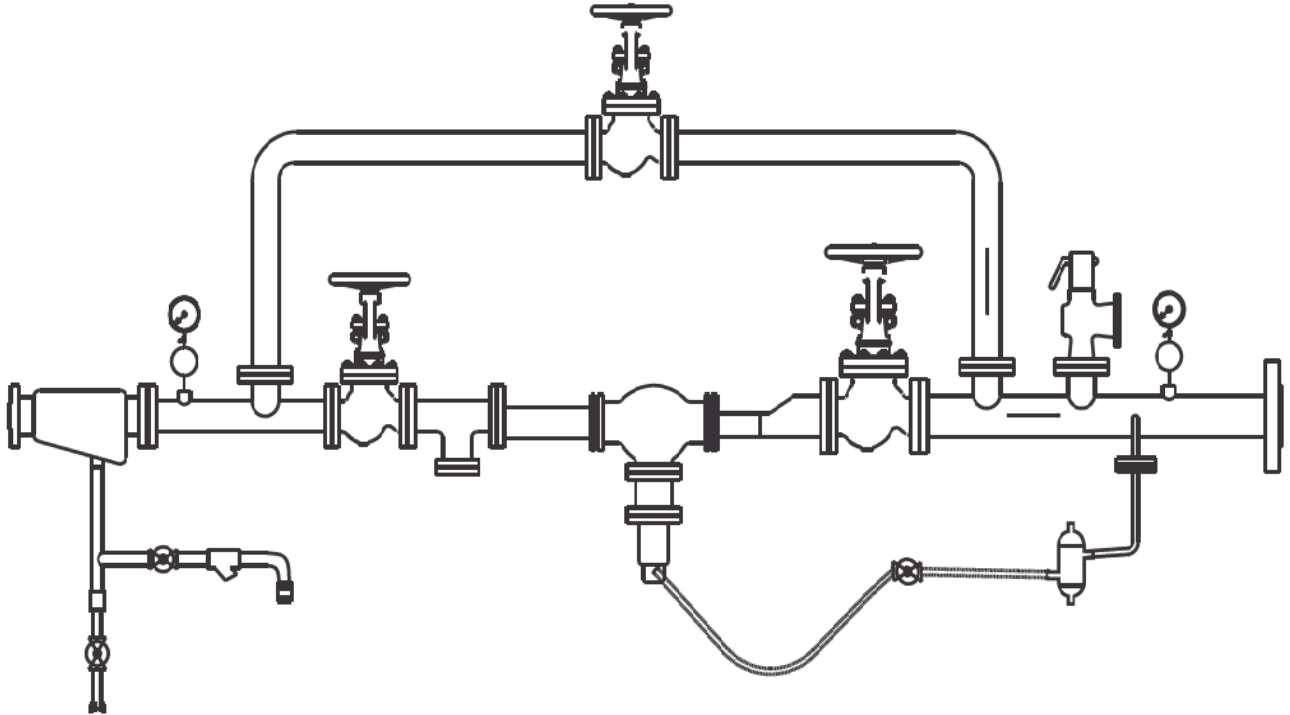


Fig. 2

Codes & Standards:-

- Valves – Flange End - ASME B16.34
- Valve flanges - ASME B 16.5
- Valve Leakage - IEC 60534-4, Part 4
- Valve face to face – ASME B 16.10

Please refer below text while ordering,

UPRV

- 1) Nominal diameter:
- 2) Pressure Class:
- 3) Set pressure:
- 4) Body Material:
- 5) Actuator Model:
- 6) Accessories Required:

Note : For Hot Media , Condensate Pot is recommended

Other Products :

Cast / Forged Steel Piston Valves, Bellow seal valves, High Pressure valves (Gate/Globe) , Strainers – “Y” Type, ITVS
Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps and IBT), Pressure Reducing Station, Condensate Recovery Products.
Level Gauges (Reflex, Transparent, Bicolor), Sight Glass, Hot Water Generation System.
FSD Products : Compressed Asbestos / Non Asbestos Fiber Sheet / Cut Gaskets, Spiral Wound Gaskets.
Safety and Relief Valves, Control Valves.



In view of technical progress designs and dimensions are subject to change without notice.



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