

UKL SELF ACTUATED PRV :-

Features:

- Simple and Compact design.
- 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 DN15 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.

Technical Data:

Valve size	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
Kv	4	6.3	8	20	32	50	80	125
Seat bore, mm	15	18	22	40	40	65	65	90
Travel, mm	4	4	6	8	8	11	14	16
Maximum differential pressure drop, bar (g)	25	25	25	25	25	20	20	16

Downstream Pressure Range							
Set Point Range, Bar(g)	0.1-0.6	0.2-1.2	0.8-2.5	2.0-5.0	4.5-10.0	8.0-16.0	
Pneumatic Actuator, cm2	UDA640	UDA320	UDA160	UDA80	UDA40	UDA40	
Maximum Pressure at Actuator, Bar(g)	0.6	1.2	2.5	5	10	10	

Dimensions (mm) :

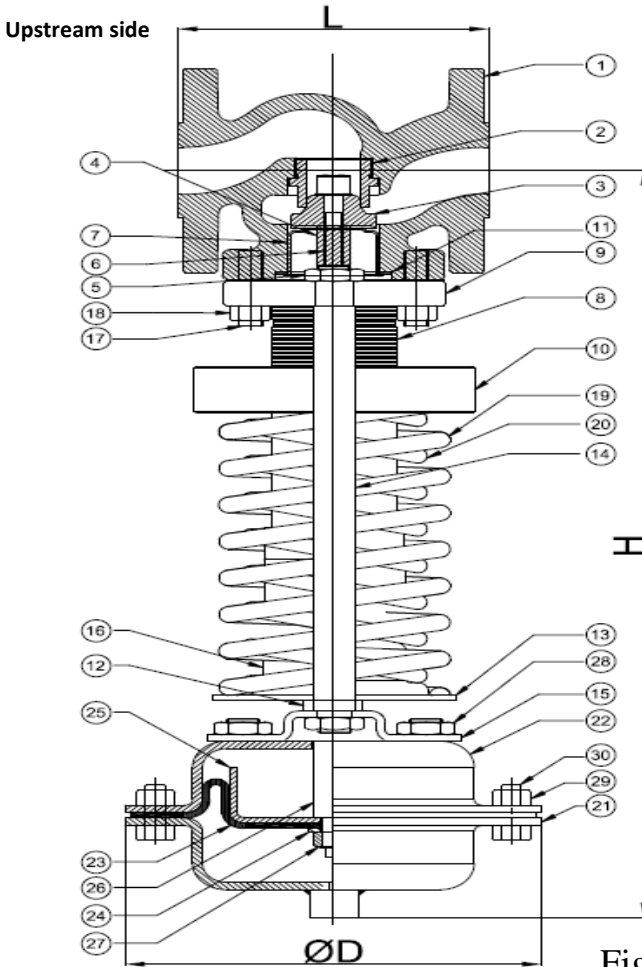


Fig. 1

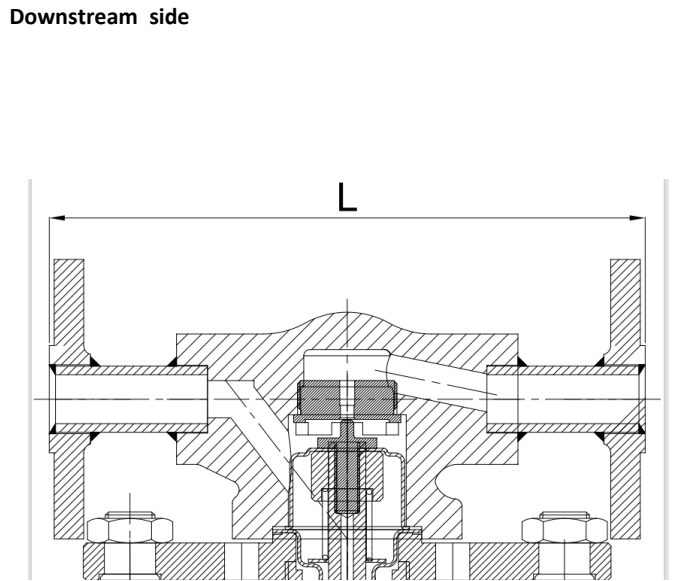


Fig. 2

Dimensions												
Valve size	Rating		UDA640		UDA320		UDA160		UDA80		UDA40	
	#150	#300										
	L		D	H	D	H	D	H	D	H	D	H
DN 15	192	192	365	430	290	405	224	405	168	385	168	385
DN 20	192	192	365	430	290	405	224	405	168	385	168	385
DN 25	127	203.2	365	440	290	415	224	415	168	396	168	396
DN 40	165.1	228.6	365	495	290	480	224	480	168	460	168	460
DN 50	203.2	266.7	365	498	290	495	224	495	168	475	168	475
DN 65	215.9	292	365	605	290	590	224	590	168	570	168	570
DN 80	241.3	318	365	630	290	600	224	600	168	580	168	580
DN 100	292.1	356	365	645	290	630	224	630	168	610	168	610

Bill Of Material :

Valve Size		1/2" & 3/4"	1" to 4"
Sr No.	Part Name	Material	
1	Body	ASTM A105	ASTM A216 Gr. WCB
2	Seat	ASTM A479 Gr. 316	
3	Plug	ASTM A479 Gr. 316	
4	Bellow stem	ASTM A479 Gr. 316	
5	Bellow	AISI 316 Ti / 1.4571	
6	Threaded bolt	ASTM A479 Gr. 316	
7	Cup (Bonnet)	AISI 304	
8	Bonnet pipe	A105	
9	Bottom flange	ASTM A515 Gr.70	
10	Set point spring adjuster	A105	
11	Body gasket	Graphite	
12	Travel stopper	A105	
13	Top spring plate	ASTM A620/IS1079 HR-DD Plated/MS Plated	
14	Guide pillar	A105	
15	Pillar plate	A105	
16	Clamp nut	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/IS1079 HR-DD Plated/MS Plated	
22	Bottom cover of actuator	ASTM A620/IS1079 HR-DD Plated/MS Plated	
23	Rolling diaphragm	NBR/EPDM	
24	Diaphragm plate top	A105	
25	Diaphragm plate bottom	ASTM A620/IS1079 HR-DD Plated/MS 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	

Application :-

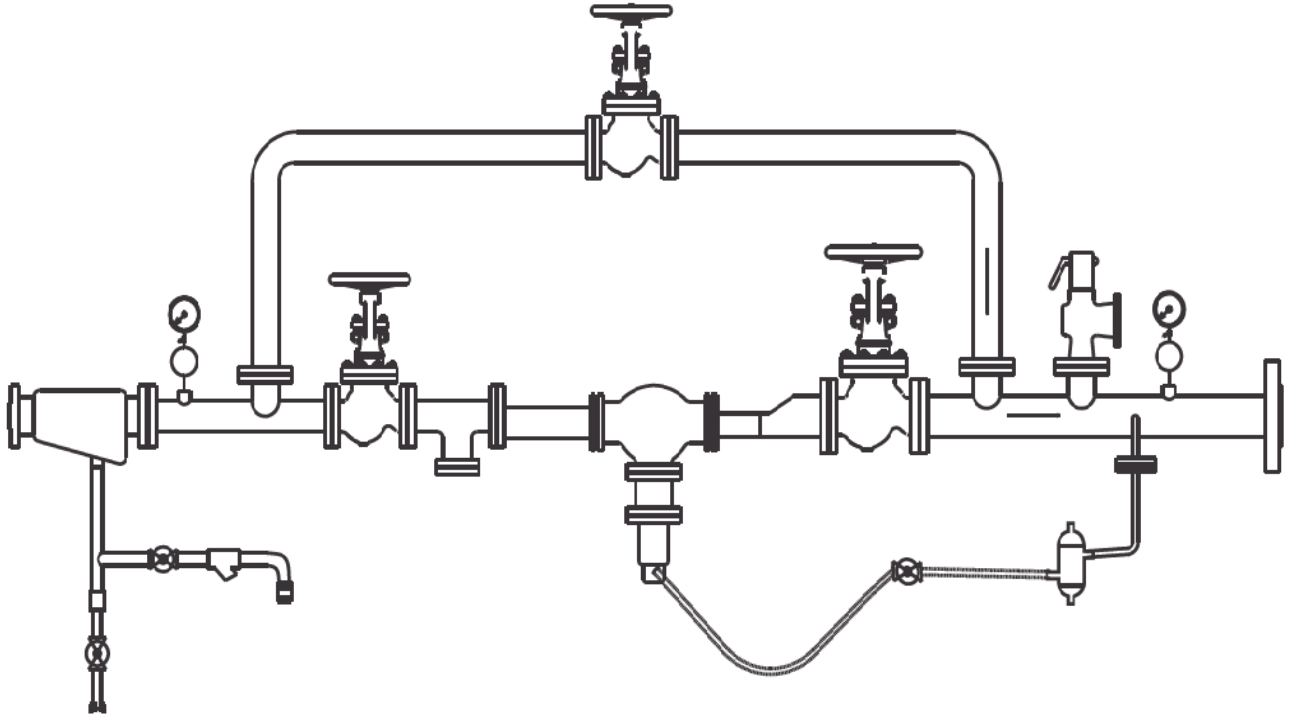


Fig. 2

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 Sheetting / Cut Gaskets, Spiral Wound Gaskets.
 Safety and Relief Valves, Control Valves.



In view of technical progress design and dimensions are subjected to change without notice.



UNI KLINGER LIMITED

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