PRESSURE CONTROL VALVES

Model VRP232

Pressure Reducing Valve

PRODUCT DESCRIPTION

VRP232 pressure reducing valve is a diaphragm type of hydraulic control valve driven by the hydraulic pressure within the piping system. The function of the valve is to reduce the high pressure to the pre-set lower pressure, and despite the fluctuation of medium flow or pressure upstream the pressure after the valve will always remain stable and maintain the set pressure range.

TECHNICAL DATA

Model	VRP232
Sizes	2” DN50, 2 ½” DN65, 3” DN80, 4” DN100, 6” DN150, 8” DN200, 10” DN250, 12” DN300, 14” DN350, 16”DN400, 18”DN450, 20”DN500 & 24”DN600
End connection	Flanged PN16 to BS EN 1092-2:1997
Inlet working pressure	36 to 232 psi (2,5 to 16 bar)
Minimum outlet pressure	7,25 psi (0,5 bar)
Test pressure	348 psi (24 bar)
Installation position	Horizontal
Water temperature	32 ºF to 212 ºF (0 ºC to 100 ºC)
Materials	Main valve body and cover: Ductile Iron Diaphragm: EPDM Control loop & accessories: Stainless Steel Pilot valve: Brass nickel plated
Finish	Red RAL 3000

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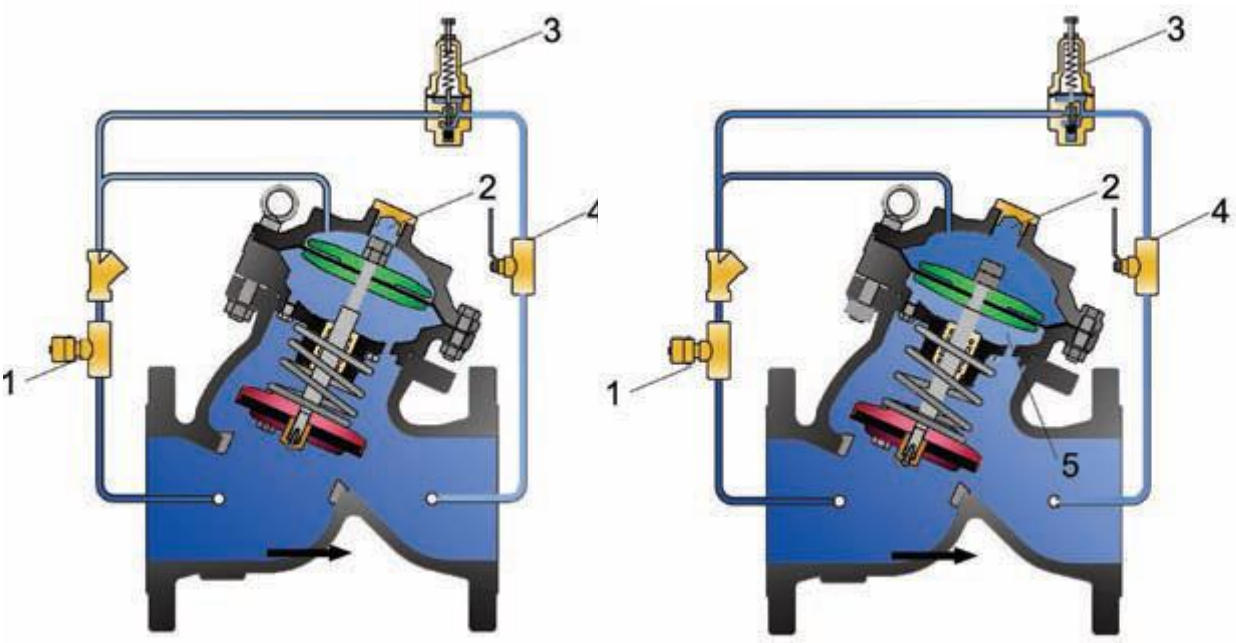
OPERATION

VRP232 pressure reducing valve is controlled by pressure reducing pilot valve and equipped with pressure reducing pilot valve, needle valve, mini strainer and ball valve, etc.

Under normal conditions, water flow comes continuously from the inlet opening to the upper cavity room (2) of the basic valve through the needle valve (1). When the pressure before the pilot valve (3) is lower than its pre-set value, the pilot valve will remain at full open position and the upper cavity room of the basic valve is not able to get accumulating pressure. Under this condition, the disc of the basic valve will be open at the water pressure from the inlet opening to allow water flow. The pressure reducing pilot valve closes gradually when the pressure after pilot valve exceeds its pre-set value. Pressure gets accumulated within the upper cavity room and membrane drives the disc down to close the valve till the pressure after the pilot valve gradually reduces to its pre-set value. The pilot valve opens again when the pressure after the valve becomes lower than the pre-set value, and the basic valve will then open with the release of the accumulated pressure in the upper cavity room.

The throttle orifice (5) that connects the lower cavity to the outlet serves to keep the reaction of the valve gentle and stable. The ball valve (4) controls the outlet waterflow rate from the upper cavity room and thus to stabilize the action of the basic valve. The ball valve can be adjusted with different working conditions. In case of emergency, the ball valve can also be closed manually for cutting off of the basic valve.



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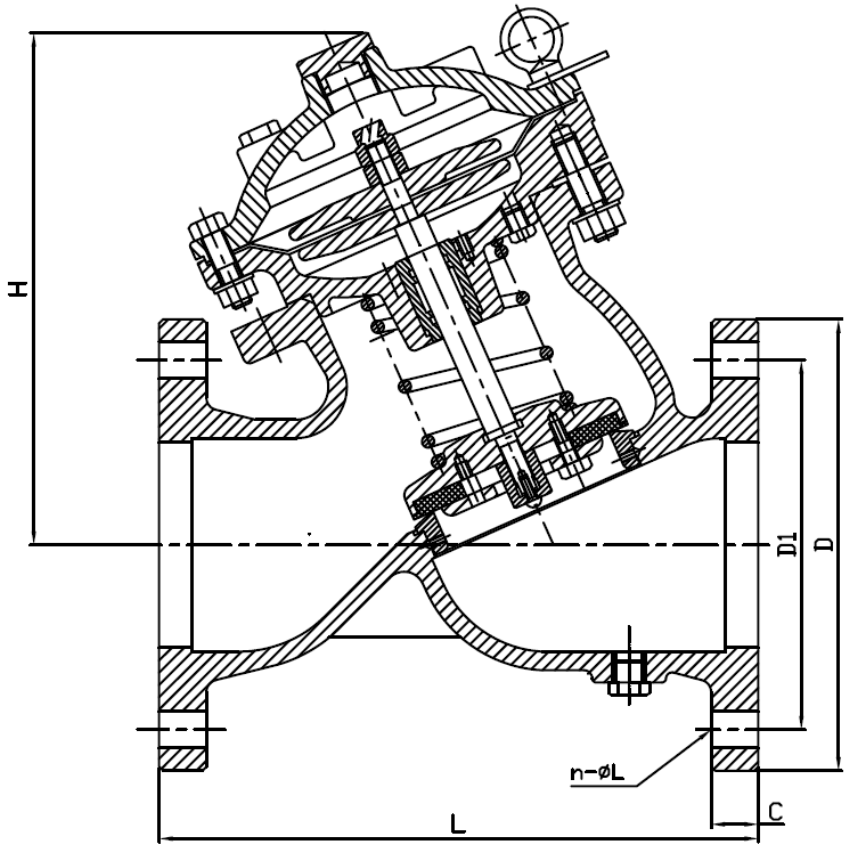
DIMENSIONS



VALVE SIZE	DIMENSIONS (mm)							
	L	H	D	D1	d	C	T	n-ØL
2" DN50	203	170	165	125	99	19	3	4-Ø19
2 ½" DN65	216	195	185	145	118	19	3	4-Ø19
3" DN80	241	215	200	160	132	19	3	8-Ø19
4" DN100	292	255	220	180	156	19	3	8-Ø19
5" DN125	330	290	250	210	184	19	3	8-Ø19
6" DN150	356	360	265	240	211	19	3	8-Ø23
8" DN200	495	450	340	295	266	20	3	12-Ø23
10" DN250	622	550	405	355	319	22	3	12-Ø28
12" DN300	698	645	460	410	370	24.5	4	12-Ø28
14" DN350	787	700	520	470	429	26.5	4	16-Ø28
16" DN400	914	790	580	525	480	28	4	16-Ø31
18" DN450	978	850	640	580	548	30	4	20-Ø31
20" DN500	978	900	715	625	609	21.5	4	20-Ø34
24" DN600	1295	1030	840	770	720	36	5	20-Ø37

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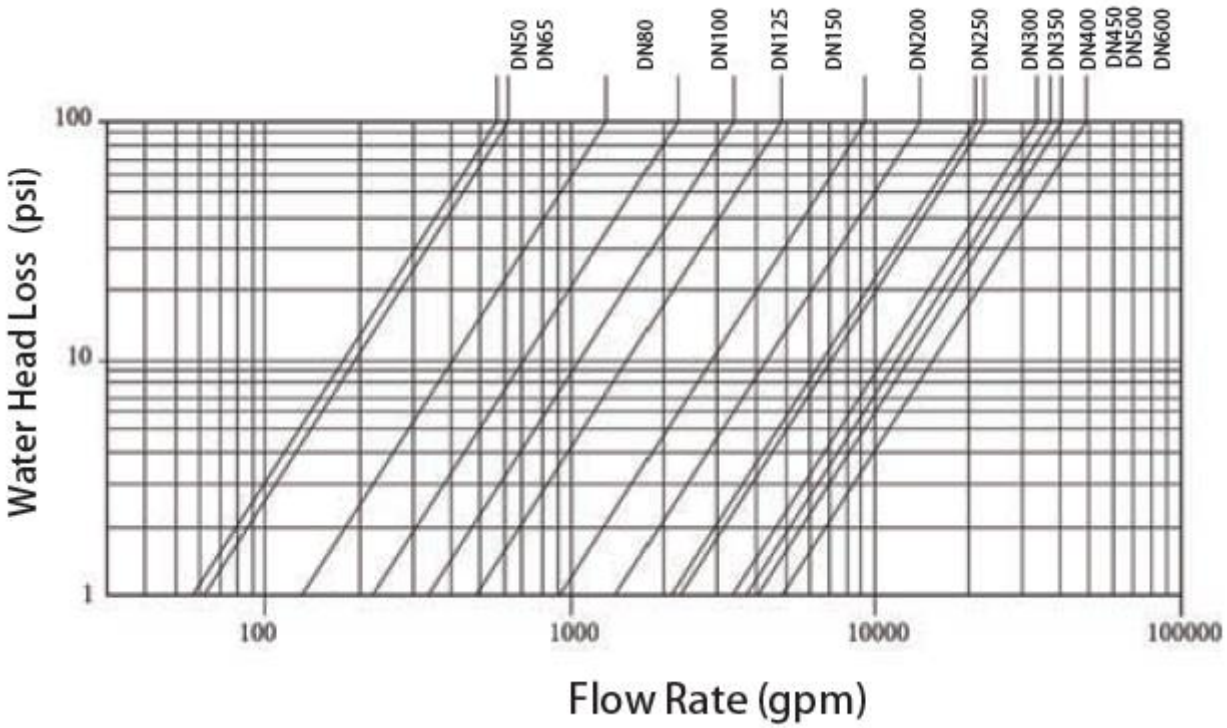
FLOW CHART

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Kv	41	53	105	175	285	402	730	1160	1400	1770	3010	3225	3395	4272



INSTALLATION, TESTING AND MAINTENANCE

All the pressure reducing valves have been finished initial debugging tests before delivery. Further debugging test is also suggested during using according to different working conditions.

After the pipe system becomes stable, please loose the adjusting screw on the top of pilot valve to the top-most position.

Tighten adjusting screw of pilot valve in clockwise slowly. When outlet pressure increase to the set pressure please fasten the locknut under the adjusting screw.

If go beyond the set pressure during adjusting, please repeat the above steps. Remember, pressure can be only adjusting from low level to high level and pay attention to make the adjusting slowly.

ORDERING INFORMATION

Specify:

Model number	
Quantity	
Size of valve	
Installation position	

The equipment presented in this data sheet is to be installed in accordance with the latest published Standards of the national fire protection association (NFPA), FM Global, LPCB, VdS or other similar organizations, also with the provisions of governmental codes or ordinances whenever applicable.

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