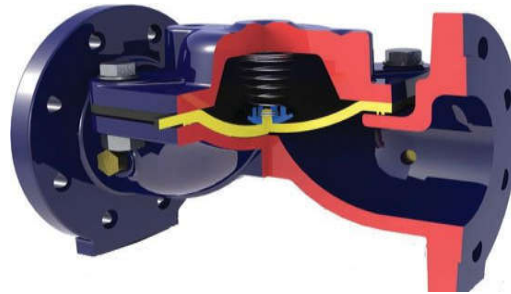


PRODUCT DESCRIPTION



Having been designed to control pressure, flow rate and level in closed loop pipe networks, hydraulic control valves with diaphragm actuator are automatic hydraulic control valves operating with the network pressure. Hydraulic valve body consists of 3 main components: Valve Cover, Valve Body and Diaphragm materials. Since the components such as shaft, flap, seal bushing, shaft sleeve etc do not exist in hydraulic control valves with diaphragm actuator, their maintenance and usage are quite easy

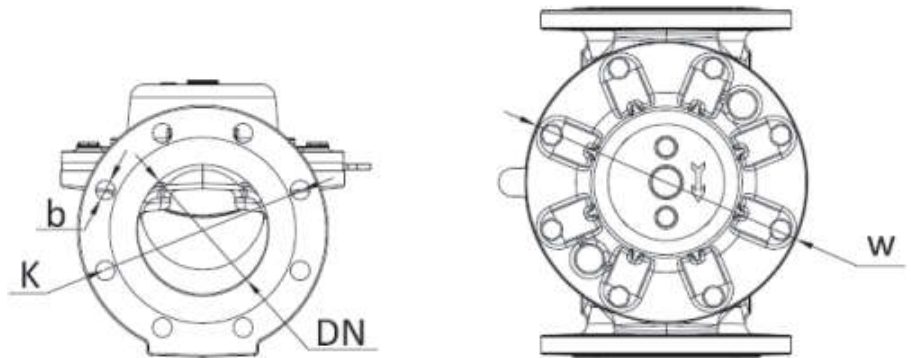
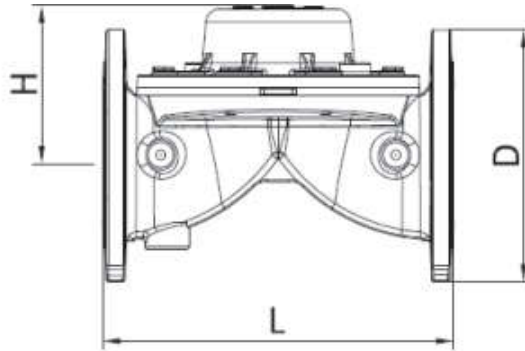
MATERIAL LIST



Name	Material
1 Valve Body	GGG 40 Ductile iron
2 Valve Cover	GGG 40 Ductile iron
3 Spring	Standard : SS304 Optional : SS316
4 Spring seal	Nylon 6
5 Bolt	Standard : 8.8 Galvanized Steel
6 Rondela	8.8 Galvanized steel
7 Diaphragm	Standard: EPDM rubber
8 Nut	Standart: 8.8 Galvanized Steel Optional: Inox stainless
9 Control Fittings	Ms 58 forged brass



DI-QRV QUICK PRESSURE RELIEF VALVE



DIMENSION AND WEIGHT TABLE

	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
DN	50	2"	65	2½"	80	3"	100	4"	125	5"	150	6"	200	8"
D	165	6 1/2	185	7 9/32	200	7 7/8	220	8 21/32	250	9 27/32	285	11 7/32	340	13 25/64
H	125	4 59/64	135	5 5/16	190	7 31/64	200	7 7/8	227	8 15/16	244	9 39/64	272	10 45/64
L	195	7 43/64	215	8 15/32	300	11 13/16	300	11 13/16	380	14 61/64	400	15 3/4	450	17 23/32
K	125	4 59/64	145	5 45/64	160	6 19/64	180	7 3/32	210	8 17/64	240	9 29/64	295	11 39/64
W	115	4 17/32	115	4 17/32	200	7 7/8	200	7 7/8	320	12 19/32	320	12 19/32	320	12 19/32
b	19	3/4	19	3/4	19	3/4	19	3/4	19	3/4	23	29/32	23	29/32
Weight	7 kg	15lbs	9 kg	21lbs	18kg	45lbs	23kg	50lbs	45kg	103lbs	48kg	105lbs	76kg	165lbs



DI-QRV QUICK PRESSURE RELIEF VALVE

TECHNICAL SPECIFICATIONS

Nominal Diameter DN 50 - DN 65 - DN 80 - DN 100 - DN 125 - DN 150 - DN 200

Nominal Pressure ISO PN 10 - Medium Pressure Range
ISO PN 16 - High Pressure Range

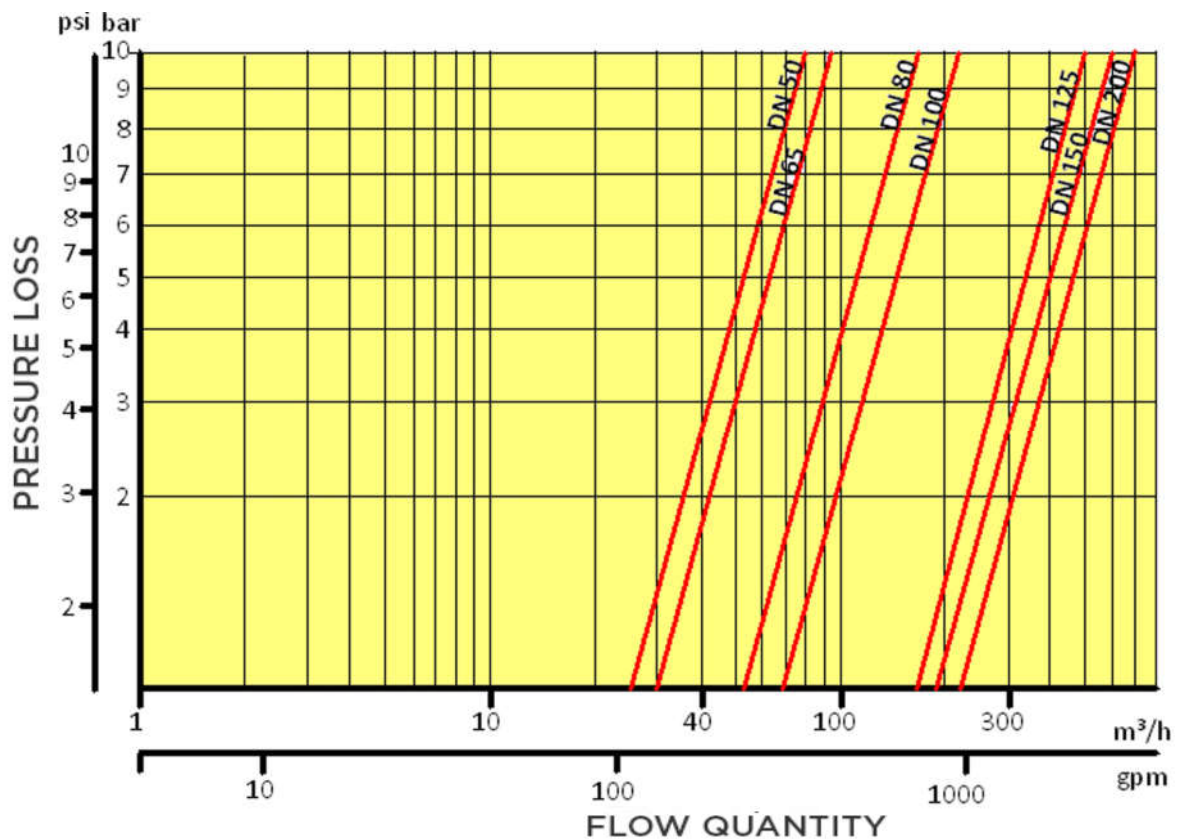
Operating pressure Medium Pressure Range : 0,7 - 10 bar
High Pressure Range : 0,7 - 16 bar

Flange Connection Dimensions TS ISO 7005/2 - EN 1092 - 2

Operating temperature -10 °C - 80 °C

Test Body Sealing Test: 1,5 X PN (TS EN 12266-1)
Diaphragm Sealing Test: 1,2 X PN (TS EN 12266-1)

PRESSURE LOSS GRAPH



PRODUCT DESCRIPTION

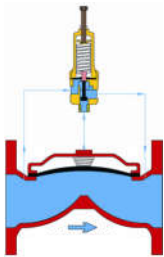
High-speed pressure relief hydraulic control valves are safety control valves which protect the piping systems against excessive pressure fluctuation due to opening & closing of pumps used in irrigation networks and distribution lines, by discharging that pressure fluctuation to atmosphere.

PROPERTIES

- 1- Protects piping system and other armatures through discharging excessive pressure which may occur within the valve network to atmosphere quickly.
- 2- Valve opens quickly, and then, after the discharge is completed, it is closed slowly and with a full-sealing, without causing any pressure fluctuation again in the line.
- 3- Operates hydraulically, completely with line pressure, without requiring an extra power supply.
- 4- Owing to its design with diaphragm actuator, its maintenance is considerably easy and cheap.
- 5- Operates safely, even in horizontal and vertical installations.

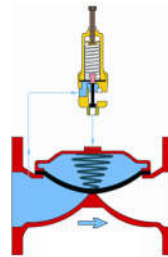


WORKING PRINCIPLE



VALVE OPEN

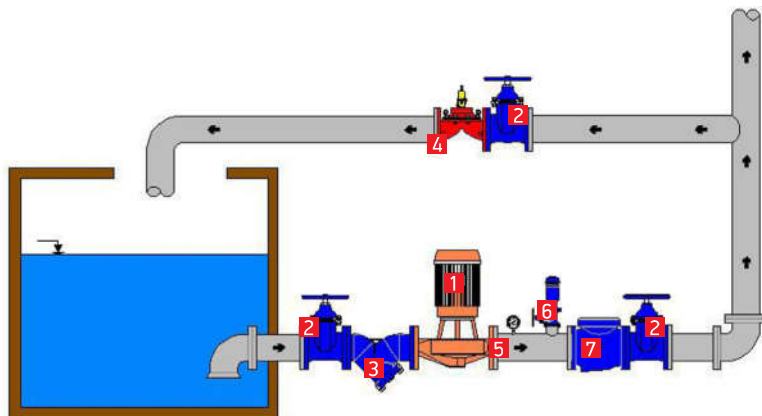
In case of a sudden pressure increase in the line, spring force in the 2 way relief pilot valve is overcome and discharge port of pilot valve opens. Pressurized water in the actuator of the main valve is discharged through the discharge port to atmosphere and thus, excessive pressure is discharged to atmosphere through opening of main valve body.



VALVE CLOSED

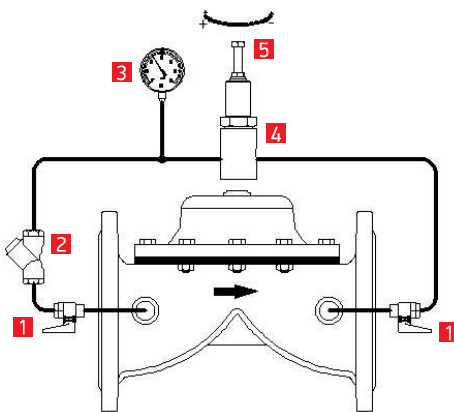
Once the pressure in the line reduces to its normal value, spring force in the pilot valve pushes the piston which is connected to diaphragm of pilot valve and closes the discharge port. Line pressure at the normal level enables the actuator of the main valve to be filled up with the pressurized water from the inside of the pilot valve. Hence, pressurized water in the actuator pushes the diaphragm with the help of valve's spring force and switches the valve to closed position with a full-sealing.

SAMPLE MOUNTING AND APPLICATION SCHEME



- 1- Pump
- 2- Isolation Valve (Gate Valve, Butterfly Valve , etc.)
- 3- High-speed pressure Relief Hydraulic Control Valve
- 4- Monometer
- 5- Air Discharge Valve (Vacuum Lifter)
- 7- Check Valve

APPLICATION SCHEME



- 1) Mini Ball Valve
- 2) Strainer
- 3) Manometer
- 4) Pressure Reducing Pilot Valve
- 5) Pilot Adjusting Bolt

Install the valve according to the flow direction arrow on it.

Mount the high-speed pressure relief control valve in such a way that it is in a "TE" configuration with respect to the system and its valve outlet is open to atmosphere.

In order the high-speed pressure relief control valve to be operated in full efficiency, a valve diameter which is equal to the diameter of the pipeline should not be chosen. In general, the diameter of the high-speed pressure relief control valve should be chosen as 1/3 of the diameter of the pipeline. For example, in case of a main pipeline diameter with DN 150, the diameter to be chosen for the valve should be DN 50.

For the sake of simplicity in case of service maintenance, it is recommended to mount isolation valves (gate, butterfly or ball etc. valves) to close the water in the inlet direction of the line.

To avoid frosting in the winter, discharge the water in the valve actuator into atmosphere.

The adjustment of the high-speed pressure relief hydraulic control valve is made by means of adjusting bolt of pilot valve on the valve. If the pilot adjusting bolt is turned clockwise, pressure increases. When turned counterclockwise, then, pressure decreases.

If the valve does not close itself at the adjusted pressure value, untighten the needle valve on the pilot valve with a 1/2 or 1 turn