

Pressure Relief Valve

Fig. A500

Feature

Pressure Relief/Pressure Holding Valve is a hydraulically operated, pilot-controlled regulating valve designed to maintain upstream pressure within a narrow specified range.

This valve can be used for pressure relief, pressure holding, backpressure regulation, or safety relief/load dumping in bypass systems.

During operation, the valve is actuated by line pressure through a pilot control system. It rapidly opens to stabilize line pressure and gradually closes to prevent surge, ensuring smooth system performance.

Adjustment Range

0.0 ~ 2.8 Bar

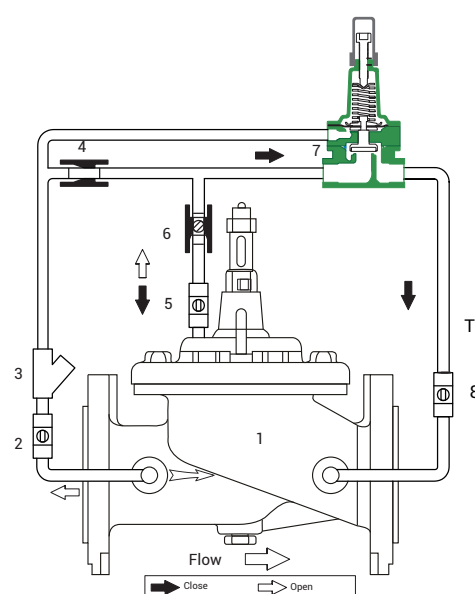
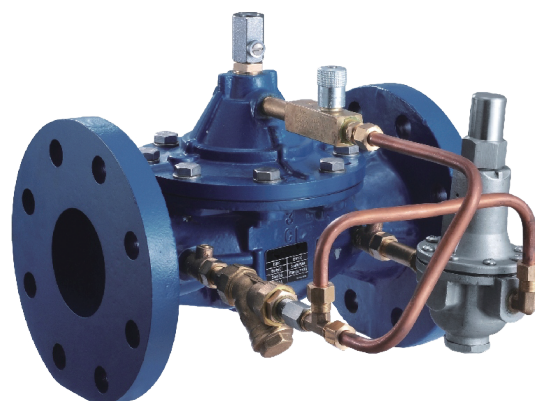
1.7 ~ 8.6 Bar (Default)

6.9 ~ 17.2 Bar

Material

No.	Part	Material	Standard
1	Main valve	Cast Iron Ductile Iron	EN-GJL-200 EN-JS 1050
2	Ball valve	Brass	EN 12165 W603N
3	Strainer	Brass	EN 12165 W603N
4	Orifice	Brass	EN 12165 W603N
5	Ball valve	Brass	EN 12165 W603N
6	Throttle valve	Brass	EN 12165 W603N
7	Pilot valve	SS	BS970 304 S15
8	Ball valve	Brass	EN 12165 W603N
Verticle installation	Spring	SS	BS970 304 S15

Schema

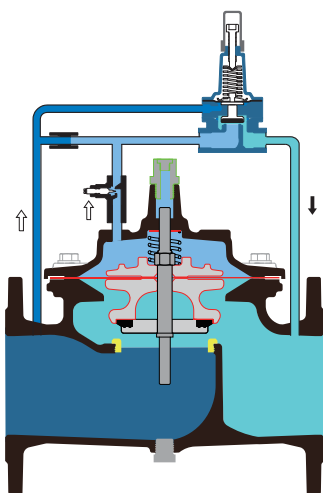


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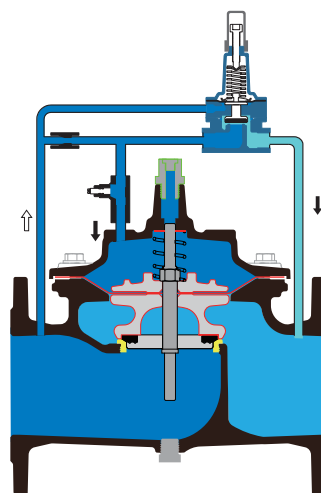
Working Principle

Main valve open



When the upstream pressure drops below the pilot valve's set pressure, the pilot valve closes, allowing water to enter the upper bonnet chamber of the main valve and forcing the main valve to shut.

Main valve close

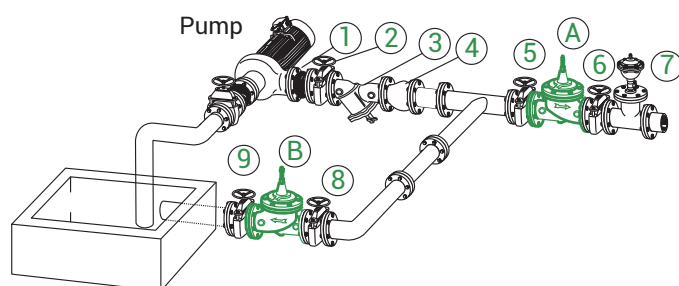


When the upstream pressure exceeds the pilot valve's set pressure, the pilot valve opens, allowing the upper bonnet chamber of the main valve to drain and enabling the main valve to open.

Installation Key Points:

1. Install a strainer upstream of the valve to effectively protect the main valve.
2. A front shut-off valve facilitates maintenance.
3. When the control valve is installed horizontally, the maximum allowable tilt angle must not exceed 45°.
4. For vertical installation, corresponding spring accessories (optional components) must be procured

Typical Application



1. Regulate and maintain the preset upstream pressure of the control valve.
2. Prevent pump overloading when system water demand exceeds pump capacity.

1: Connector 2、5、6、8、9: Cut-off Valve 3: Strainer
7: Air Vent A: Control valve B: Pressure Relief Valve