



R-20 Q

Quick Pressure Relief Valve 2 Way

Introduction

Based on a unique technology that combines innovative design and performance, the Eliptix line of hydraulic control valves offers optimal system solutions. The Eliptix line are suitable for installation in the areas of waterworks, irrigation systems and landscape.

With an innovative elliptical structure, the Eliptix control valve line offers accurate, stable and excellent regulating capabilities for a wide range of flow rates.

Requiring exceptionally low operating pressure for valve opening and rapid, yet gradual closing.

The Eliptix valve is designed for minimal head loss and increased revenue.

With a simple mechanism and a minimal amount of moving parts, the Eliptix hydraulic control valve line delivers reliable operation, extended durability and minimize cavitation risk.

Cost reduction with fast and simple inline maintenance.

Rugged, high quality construction meets applicable engineering standards.

Description

The Eliptix Quick Pressure Relief Valve model R-20 Q is activated by line pressure. The normally closed 2-way pilot valve has a spring-loaded membrane, which is exposed to the upstream pressure. As line pressure reaches the preset level, the valve opens quickly to relieve the excessive pressure. The R-20 Q Quick Pressure Relief Valve protects a water systems from rapid surge by closing gradually after the pressure has stabilized. The general application of the pressure relief valve is as a 2-way pressure relief valve with a pressure rating up to 10 bar.

The Eliptix R-20 Q Quick Pressure Relief valve is used for water supply systems.

The combination of the 2-way command and the elliptical diaphragm enables smooth and precise pressure control.

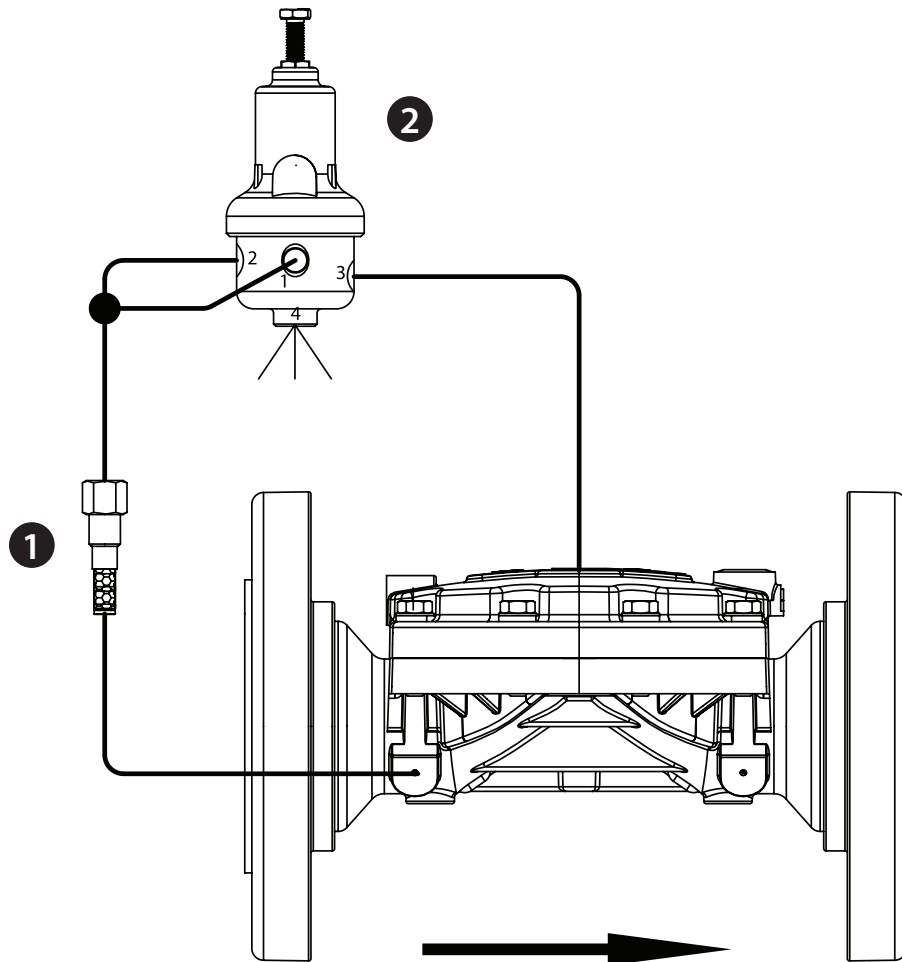
Product Features

- Rugged, high quality construction meets applicable engineering standards
- Long service life and low maintenance
- Unique technology, innovative design and performance
- Free and unobstructed liquid flow with minimal head loss
- Designed to reduce cavitation
- Elliptical diaphragm reacts faster with less movement
- Small control chamber enables quicker response

Schematic Control Loop Diagram

COMPONENTS

1. Finger Filter
2. P-21 Q quick Pressure Relief pilot valve



Quick Pressure Relief Valve - 2 Way

Purchase Specifications

The Hydraulic Control Valve shall automatically control upstream pressure in order to protect the system against excessive pressure.

The control valve shall be a hydraulically operated, pilot controlled, weir type, in-line serviceable valve. The main in-line hydraulic control valve shall have only two moving parts, the resilient diaphragm and the spring.

The diaphragm shall be the only sealing component of the control valve.

Valve Technical Specifications*

Series R-20 PN10

Self-actuated, WEIR type diaphragm actuated, hydraulic control valve

*For dimensions and weights, please refer to the Eliptix Basic Valve leaflet

| | | |
|-------------------|--|---|
| Material | Body & Bonnet | Composite Materials: Reinforced Nylon / Polypropylene |
| | Diaphragm | Natural Rubber / EPDM |
| | Bolts | Steel, Zinc Cobalt Coated / Stainless Steel SAE 316 |
| | Piping & Tubing | Reinforced Nylon / Stainless Steel SAE 316 |
| Pressure Rating | Maximum working pressure - 10 bar Minimum working pressure - 0.4 bar (depending on type of diaphragm) | |
| Water Temp. Range | 5° to 60°C | |

Pilot Valve Technical Specifications

Model: **P-21 Q** PN10

Spring loaded 2W hydraulic control pilot valve

| | | |
|-------------------|---|---|
| Material | Body | Composite Materials: Reinforced Nylon / Polypropylene |
| | Internal Parts | Elastomers: Natural Rubber / EPDM / NBR Metal: Stainless Steel SAE 303 / Stainless Steel SAE 316, Brass Composite Materials: Reinforced Nylon / Polypropylene |
| | Spring | Stainless Steel SAE 302 |
| Pressure Rating | Maximum working pressure - 10 bar Minimum working pressure - 0.4 bar | |
| Water Temp. Range | 5° to 60°C | |

Installation and Storage Recommendations

- Always flush the pipeline to remove debris before the installation of the valve.
- Arrow on the valve bonnet must match the actual flow direction.
- Tighten bolts to the recommended torque for the specific size and model of the Eliptix valve.
- Do not over-torque.
- Tighten bolts using the crossover method.
- If the Eliptix valve is for use in ambient or fluid temperatures below freezing, consult your nearest A.R.I. distributor. If shut down during cold weather, the valve control space and the control system must be drained.

When ordering, please specify

- 1) Eliptix Control Valve Series R-20 model Q
- 2) Eliptix valve size
- 3) Desired end connection / standard
- 4) Static inlet pressure (when valve is closed)
- 5) Dynamic pressures (min – max)
- 6) Flow rates (min-max)
- 7) Required discharge pressure