

## ACV Schematic

# LEAD FREE\*

## S114-8 (Globe)

### Rate-of-Flow Control Valve with Pressure Sustaining Feature

#### Features

- Throttles to maintain constant rate-of-flow
- Throttles to maintain minimum upstream pressure
- Adjustable Closing Speed
- Orifice Plate Assembly is remote mounted (field installed)
- Rate-of-Flow and Sustaining setpoints are separately adjustable

#### Standard Components

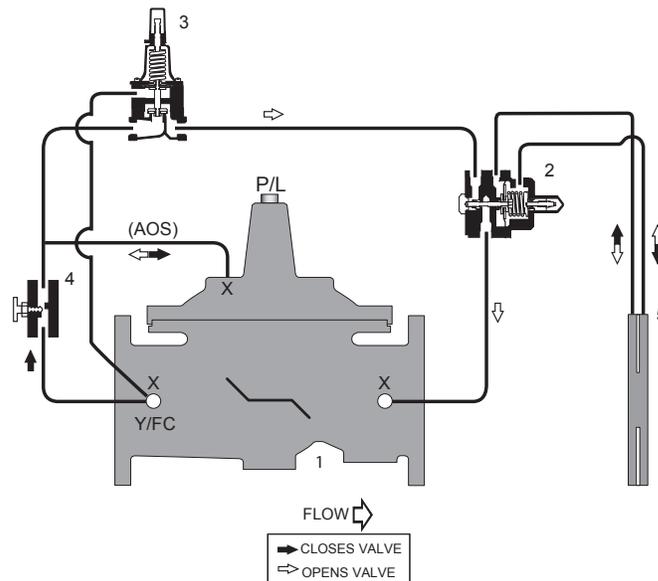
- 1 - Main Valve (S100 - Single Chamber)
- 2 - Rate-of-Flow Control
- 3 - Pressure Sustaining Control
- 4 - Adjustable Closing Speed
- 5 - Orifice Plate Assembly
- X - Isolation Cocks

#### Options and Accessories

- FC - Flo-Clean Strainer
- Y - Y-Strainer (Replaces Flo-Clean)
- AOS – Adjustable Opening Speed
- P - Position Indicator
- L - Limit Switch

#### Operation

The ACV Rate-of-Flow Control Valve with Pressure Sustaining Feature is designed to automatically limit flow rate to a constant, adjustable, maximum, and sustain a minimum upstream pressure. The flow control action of the valve is controlled by a normally open, differential control pilot designed to: 1) Open (allowing fluid out of the main valve cover chamber) when the differential pressure across the orifice plate is below its adjustable set point, and, 2) Close (allowing fluid to fill the main valve cover chamber) when the differential pressure across the orifice plate is above its adjustable set point. A decrease in differential pressure causes the valve to modulate towards an open position, increasing flow rate. An increase in differential pressure causes the valve to modulate towards a closed position, decreasing flow rate.



The normally closed sustaining pilot remains open when upstream pressure is above the adjustable setpoint, and modulates toward a closed position if upstream pressure falls below the setpoint. As the sustaining pilot closes, fluid is directed into the main valve cover chamber, allowing the valve to modulate toward a closed position, raising upstream pressure. Normal flow control operation resumes when upstream pressure is above the sustaining pilot setpoint.

The Orifice Plate Assembly should be installed three to five pipe diameters downstream of the Rate-of-Flow Valve, and field connected with 3/8" minimum copper tubing in accordance with factory piping schematic. Please specify desired flow rate prior to ordering.

**\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

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