



— MODEL — 50-AT

Fire Hydrant Pressure Relief Valve



angle pattern

Product Features

- Fast opening to relieve excess pressure
- Slow closing to prevent surges
- Available in globe and angle patterns
- Available in 2-1/2 inch only

The Cla-Val Model 50-AT Pressure Relief Valve is installed on fire hydrants to provide temporary relief protection when water storage tanks are taken out of service for inspection, maintenance, painting or when emergencies occur. The valve is actuated by line pressure through a pilot control system, opening fast to maintain steady line pressure but closing gradually to prevent surges. Operation is completely automatic and pressure settings are field adjustable.

The valve is provided with a hydrant adapter fitting with the following features:

- 2-1/2" Female Fire Hose Thread X 2-1/2" Male Iron Pipe Thread
- Easily converts a female IPT into a Female NST end
- Equipped with a Hex x Pin lug wrenching feature standard on the Swivel, with rocker lug available in limited sizes

Specifications

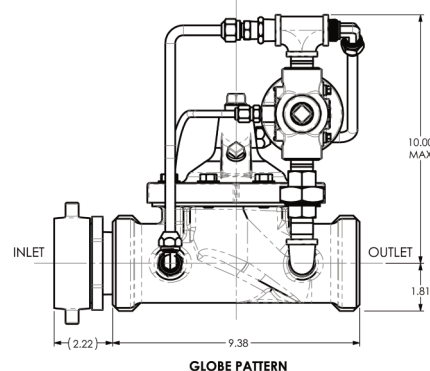
Materials

Body & Cover: Ductile Iron ANSI B16.42;
Fusion Bonded Epoxy Coating Optional

Disc & Diaphragm: Buna-N®

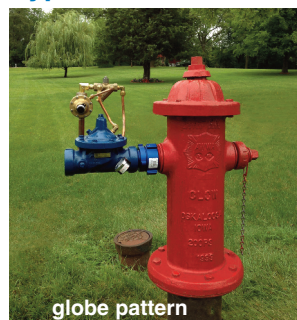
Trim - Disc Guide, Seat & Cover Bearing: Bronze is standard
Stainless Steel is optional

Dimensions

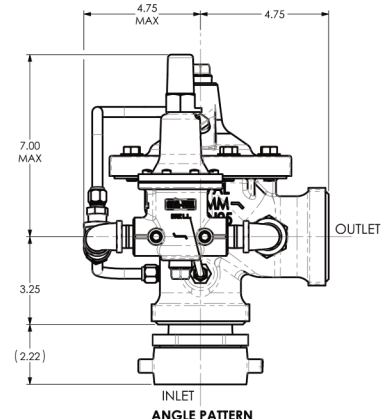


GLOBE PATTERN

Typical Installation



globe pattern



ANGLE PATTERN

Schematic Diagram

Item	Description
1	Hytrol 100-01 (Main Valve)
2	* Fire Hydrant Adapter
3	X43A Flow Clean Assembly
4	X58C Restriction Assembly
5	CRL-60 Pressure Relief Pilot Control

Optional Features

B	CK2 Cock (Isolation Valve)
C	CV Flow Control (Closing)
F	Remote Pilot Sensing
H	Drain to Atmosphere
P	X141 Pressure gauge
S	CV Flow Control (Opening)
V	X101 Valve Position Indicator

*Note: 2.5-inch fire hydrant threaded swivel adapter

CRL-60 Pressure Relief/Pressure Sustaining Pilot Control

Operation

50 Series valves are actuated by line pressure through a pilot control system featuring the CRL-60 Pressure Relief Pilot Control, allowing the valve to open quickly to maintain steady line pressure but close gradually to prevent surges.

The CRL-60 is normally held closed by the force of the compression spring above the diaphragm. Control pressure is applied under the diaphragm. When the controlling pressure exceeds the spring setting, the disc is lifted off its seat, permitting flow through the control. When control pressure drops below the spring setting, the spring forces the control back to its normally closed position. The controlling pressure is applied to the chamber beneath the diaphragm through a sensing port on the CRL-60 Pilot Control.



Model CRL-60 maintains constant upstream pressure to close limits at a remote point in pressure reducing and pressure sustaining pilot control systems.

Cla-Val 50 Series Pressure Relief Valves use CRL-60 to sense and actuate main valve using inlet line pressure through pilot system. In event of a pressure surge in pipeline, CRL-60 remotely sensing valve inlet pressure opens quickly to control main valve opening and maintains water flow to atmosphere to dissipate pressure surge.

CRL-60 closes slowly as the inlet pressure lowers to a safe pressure to prevent new surges, and finally when inlet pressure is below the pressure setting, the main valve closes drip tight. Pressure setting adjustment is made with a single adjusting screw that has a protective cap to discourage tampering.

Specifications

Pressure Ratings	Bronze 400 psi Max. Stainless Steel 400 psi Max.
Other Materials	Available on special order
Adjustment Ranges	0 to 75 psi 20 to 105 psi 20 to 200 psi 100 to 300 psi

CRL-60 PSI	Approximate Increase For Each Clockwise Turn Of Adjusting Screw
0 to 75	8.5 psi
20 to 105	12.0 psi
20 to 200	28.0 psi
100 to 300	18.0 psi

Materials

Standard Pilot System Materials

Pilot Control:	UNS C87850 Low Lead Bronze
Trim:	Stainless Steel Type 303
Rubber:	Buna-N® Synthetic Rubber

Tubing & Fitting: Copper and Bronze

Optional Pilot System Materials

Pilot Systems are available with optional Aluminum, Stainless Steel or Monel materials.



E-50-AT (R-02/2021)

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