The Cla-Val Model 50B-4KG1 Globe / 2050B-4KG1 Angle Pressure Relief Valve is designed specifically to automatically relieve excess pressure in fire protection pumping systems. Pilot controlled, it maintains constant system pressure at the pump discharge within very close limits as demands change. The 50B-4KG1 and 2050B-4KG1 can be supplied with optional internal and external epoxy coating of the main valve wetted surfaces.

At pump start, Cla-Val Relief Valve modulates to relieve excess pump capacity, maintaining positive system pressure at the pump discharge.

When fire demand slows or ceases, Cla-Val Model 50B-4KG1 opens, diverting entire pump output to discharge, allowing fire pump to be stopped without causing surging in the lines.

(Please note that if the Model 50B-4KG1 is to be used on a continuous duty basis to maintain fire-system pressure, suitable back pressure must be provided on the valve to prevent cavitation damage. Consult the factory for details.)

Optional UL Listed Materials for Seawater and Severe Service Applications:
- Nickel Aluminum Bronze (NAB) - ASTM B148 Alloy C95800
- Monel - QQ-N-288 Comp B - ASTM A494 Grade M30H
- Cast Steel - ASTM A216 Grade WCB
- 316 Stainless Steel - ASTM A743 Grades CF3M and CFM8
- Super Austenitic Stainless Steel - ASTM A351 Grade CK3MCuN (SMO 254)
- Super Duplex Stainless Steel - ASTM A890 Grade 5A (CE3MN)
Specifications

Sizes
Globe: 2" - 10" flanged
Angle: 2" - 10" flanged

End Details
150 and 300 ANSI B16.42
Pressure Ratings
Class 150 - 250 psi Max.
Class 300 - 400 psi Max.
Water, to 180°F Max.

Standard Materials
Main Valve Body & Cover
Ductile Iron ASTM A536 Grade 65-45-12

Standard Main Valve Trim:
Bronze Seat, Teflon Coated
Stainless Steel Stem, Dura-Kleen Stem

Standard Pilot Control System:
Cast Bronze with
Stainless Steel trim

Adjustment Range
20-200 psi (150 Class)
100-300 psi (300 Class)

Protection epoxy resin coating
of wetted surfaces of main
valve cast iron components
(UL listed HNFEX EX2585)

Optional

Purchase Specifications

The Fire Pump Pressure Relief Valve shall modulate to relieve excess pressure in a fire protection system. It shall maintain constant pressure in the system regardless of demand changes. It shall be pilot controlled and back pressure shall not affect its set point. It shall be actuated by line pressure through a pilot control system and open fast in order to maintain steady system pressure as system demand decreases. It shall close gradually to control surges and shall re-seat drip-tight within 5% of its pressure setting. The main valve shall be of the hydraulically-operated, pilot-controlled, diaphragm-type, globe or angle valve. It shall have a single, removable, teflon-coated seat, a grooved stem guided at both ends, and a resilient disc with a rectangular cross section, being contained on 3 1/2 sides. No external packing glands shall be permitted and the diaphragm shall not be used as a seating surface. The pilot control shall be a direct-acting, adjustable, spring-loaded, diaphragm-type valve designed for modulating service to permit flow when controlling pressure exceeds spring setting. This valve shall be UL Listed and Factory Mutual Approved. It shall be the Model 50B-4KG1 (globe) or Model 2050B-4KG1 (angle) Pressure Relief Valve as manufactured by Cla-Val Newport Beach, California.

*Special Note:
The Model 50B-4KG1 Pressure Relief Valve is available with 300# ANSI inlet flange and 150# ANSI outlet flange. This valve is used on higher pressure systems where 300# flange connections are required, and allows for adapting of a discharge cone (generally supplied with 150# flange) to accommodate “atmospheric break” at relief valve discharge. This relief valve, with 300#/150# flanges is available on special order, flange) to accommodate “atmospheric break” at relief valve discharge. It allows for adapting of a discharge cone (generally supplied with 150# flange) to accommodate “atmospheric break” at relief valve discharge. This valve shall be UL Listed and Factory Mutual Approved.

We recommend providing adequate space around valve for maintenance work.

Valve Size (inches)
2" 2-1/2" 3" 4" 6" 8" 10"

Adjustment Range
Threaded Ends
A 150 Flanged
300 Flanged
300 X 150
B
C
D

Optional

Purchase Specifications:

Seawater Service Option

Sizes
Globe: 2" - 8" flanged
Angle: 2" - 8" flanged

Consult factory for flange ratings.
See page 1 for seawater service materials options.