



— MODEL —

# 50B-4KG1 Globe 2050B-4KG1 Angle

## Fire Protection Pressure Relief Valve



Type Approved



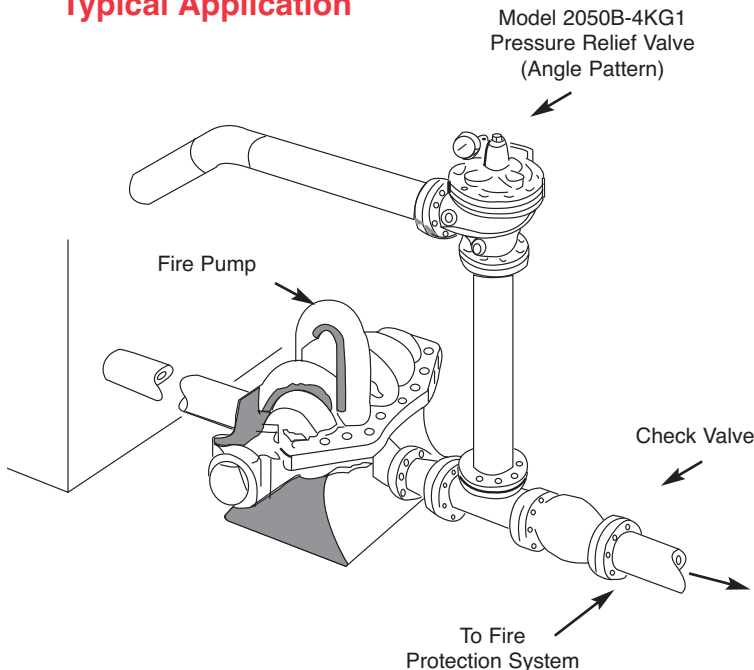
2050B-4KG1 (Angle)

- UL / ULC Listed
- Factory Mutual Approved
- Fast Opening to Maintain Steady Line Pressure
- Accommodates Wide Range of Flow Rates
- Closes Gradually for Surge-Free Operation
- Adjustable Pressure Settings, Not Affected by Pressure At Valve Discharge
- Now Available in Grooved Ends Sizes 3"-6"

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. On ductile iron valves, epoxy coating is standard.

UL/ULC Listed ..... Sizes 3" thru 8"  
FM Approved ..... Sizes 3" thru 8"

### Typical Application



**"Fluid Control at its Best"**

### Operation Sequence

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 surges 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.

For anti-cavitation model, see E-50B-4KG1KOL.

#### 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)

## Dimensions

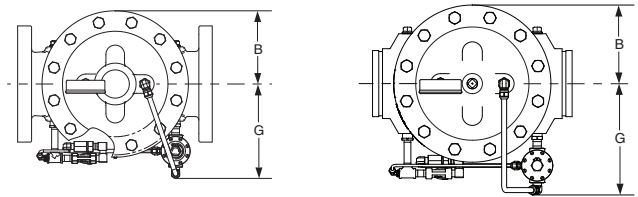
Valve Size (inches)	3"	4"	6"	8"
<b>A</b> Threaded Ends	12.50	---	---	---
<b>A</b> 150 Flanged	12.00	15.00	20.00	25.38
<b>A</b> 300 Flanged	13.25	15.62	21.00	26.38
<b>A</b> 300 X 150	12.88	15.31	20.56	25.88
<b>A</b> Grooved End	12.50	15.00	20.00	25.38
<b>B</b>	4.56	5.75	7.88	10.00
<b>C</b>	13.38	14.84	16.41	18.25
<b>D</b>	2.56	3.19	4.31	5.16
<b>D</b> Grooved End	3.62	4.50	6.31	7.81
<b>E</b> Threaded Ends	6.25	---	---	---
<b>E</b> 150 Flanged	6.00	7.50	10.00	12.69
<b>E</b> 300 Flanged	6.38	7.81	10.50	13.19
<b>E</b> Grooved End	---	7.50	10.00	---
<b>F</b> Threaded Ends	4.50	---	---	---
<b>F</b> 150 Flanged	4.00	4.97	6.00	8.00
<b>F</b> 300 Flanged	4.38	5.28	6.50	8.50
<b>F</b> Grooved End	---	5.00	6.00	---
<b>G</b> Flanged	7.91	10.00	10.65	11.41
<b>G</b> Grooved End	9.28	10.00	11.66	13.10
<b>H</b> Flanged	9.66	10.50	11.16	16.66
<b>H</b> Grooved End	---	10.41	11.16	---

Valve Size (mm)	80	100	150	200
<b>A</b> Threaded Ends	318	---	---	---
<b>A</b> 150 Flanged	305	381	508	645
<b>A</b> 300 Flanged	337	397	533	670
<b>A</b> 300 X 150	327	389	522	657
<b>A</b> Grooved End	318	381	508	645
<b>B</b>	116	146	200	254
<b>C</b>	340	377	417	464
<b>D</b>	65	81	109	131
<b>D</b> Grooved End	92	114	160	198
<b>E</b> Threaded Ends	159	---	---	---
<b>E</b> 150 Flanged	152	191	254	322
<b>E</b> 300 Flanged	162	198	267	335
<b>E</b> Grooved End	---	191	254	---
<b>F</b> Threaded Ends	114	---	---	---
<b>F</b> 150 Flanged	102	126	152	203
<b>F</b> 300 Flanged	111	134	165	216
<b>F</b> Grooved End	---	127	152	---
<b>G</b> Flanged	201	254	271	290
<b>G</b> Grooved End	236	254	296	333
<b>H</b> Flanged	245	267	283	423
<b>H</b> Grooved End	---	264	283	---

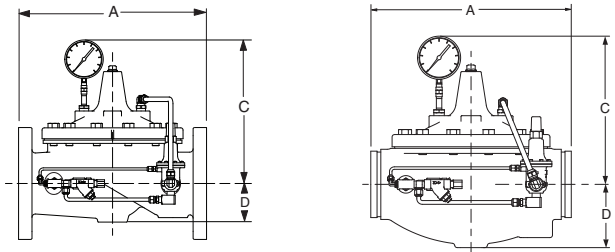
## Valve Capacity

Valve Sizes in Inches:	3"	4"	6"	8"
NFPA 20 Maximum	500	1000	2500	5000

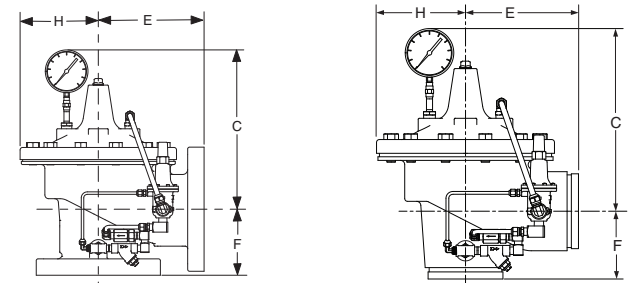
All Sizes UL, FM and ULC



Model 50B-4KG1 Globe



Model 2050B-4KG1 Angle



We recommend providing adequate space around valve for maintenance work.

## Specifications:

**Sizes** *Globe:* 3" - 8" flanged or grooved  
*Angle:* 3" - 8" flanged  
*Angle:* 3" - 6" grooved

**End Details** 150, 300 ANSI B16.42 and Grooved Ends

**Pressure Ratings** Class 150 (250 psi Max)  
Class 300 (300 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:**  
Stainless Steel Seat  
Stainless Steel Dura-Kleen Stem  
**Standard Pilot Control System:**  
Cast Bronze with  
Stainless Steel Trim

**Adjustment Range** *Available in the Following Relief Pressure Ranges:*  
20-200 psi (150 Class)  
100-300 psi (300 Class)

## Specifications: Seawater Service Option

**Sizes** *Globe:* 3" - 8" flanged or grooved  
*Angle:* 3" - 8" flanged  
*Angle:* 3" - 6" grooved

Consult factory for flange ratings.

See page 1 for seawater service materials options.