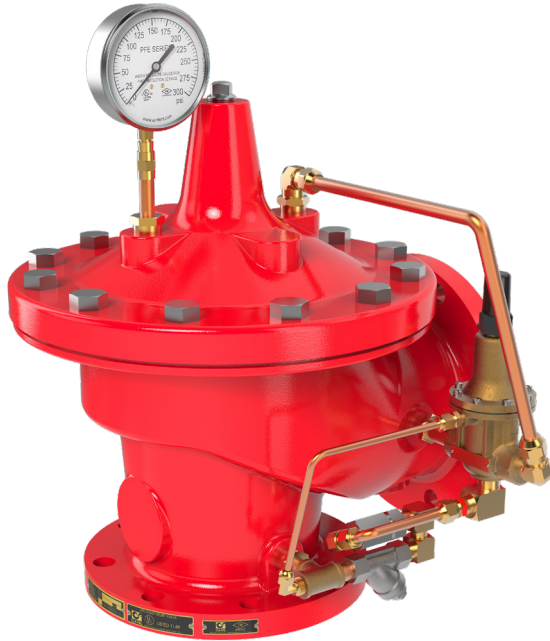




Models **50B-4KG1 (Globe)**
2050B-4KG1 (Angle)
Fire Protection Pressure Relief Valve



2050B-4KG1 (Angle)

Description

The Cla-Val Model 50B-4KG1 (Globe) / 2050B-4KG1 (Angle) Pressure Relief Valve is designed specifically to automatically relieve excess pressure in fire protection systems. This pilot controlled relief valve maintains constant system pressure at the pump discharge within very close limits as demands change.

Main Valve Features

- Dual Guided Stem Internal for Consistent Linear Seating
- Tapered Metal Seat for Drip Tight Shut-off
- Replaceable 316 Stainless Steel Seat
- Single Internal Guided Assembly
- Proven Repeat Functionality in Harsh Conditions
- In-Line Maintenance

Listings and Approvals

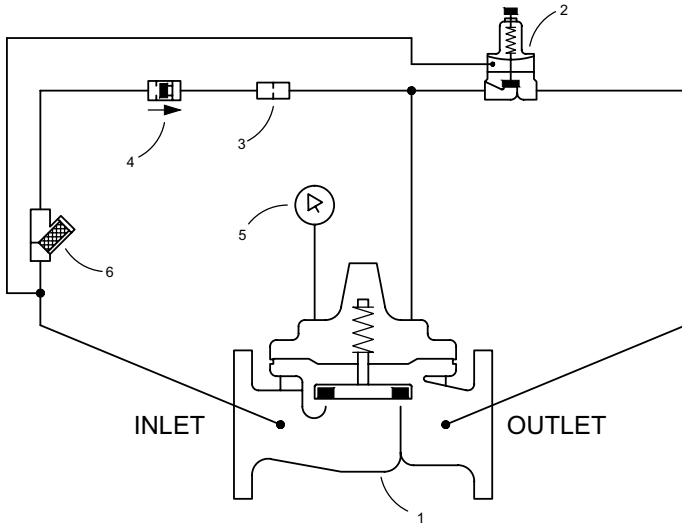


Typical Applications

- Fire Pump Regulation
- System Pressure Regulation
- Foam Applications



Model **50B-4KG1/2050B-4KG1**
Fire Protection Pressure Relief Valve



Schematic Diagram

- | Item | Description |
|------|-----------------------------|
| 1 | Hytrol Main Valve |
| 2 | X58C Restriction Assembly |
| 3 | CRL Pressure Relief Control |
| 4 | Check Valve |
| 5 | Pressure Gauge |
| 6 | X43 "Y" Strainer |

Main Valve Specifications

APPROVED SIZES

- Flanged: 3" - 8"
- Grooved: 3" - 8"
- Grooved (Angle): 3" - 6"

PRESSURE RATINGS

- 150 class, 250 psi maximum (Ductile Iron)
- 150 class, 285 psi maximum (All other materials)
- 300 class, 300 psi maximum (All materials)

TEMPERATURE RANGE

Water: to 180° F. Max

FLUIDS

Water

Materials

- Main valve body & cover:**
Standard Epoxy Coated Ductile Iron
ASTM A-536*
- Main valve trim:**
Stainless Steel
- Pilot control system:**
Cast Bronze
- Rubber Parts:**
Buna-N® Synthetic Rubber

Optional 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 CF8M
- **Super Austenitic Stainless Steel**
ASTM A351 Grade CK3MCuN (SMO 254)
- **Super Duplex Stainless Steel** ASTM A890
Grade 5A (CE3MN)

Selection Guidelines

NFPA 20 Guidelines (GPM)	
Valve Size	Maximum
3"	500
4"	1000
6"	2500
8"	5000

Functional Data

Valve Size		Inches	3	4	6	8
		mm	80	100	150	200
C _v Factor	Globe Pattern	Gal./Min. (gpm)	115	200	440	770
		Litres/Sec. (l/s)	27.6	48	105.6	184.8
	Angle Pattern	Gal./Min. (gpm)	139	240	541	990
		Litres/Sec. (l/s)	33.4	58	130	238

Pressure Adjustment Ranges

Flange Rating	Spring Range
150 Class	10-75
150 Class	20-200
300 Class	100-300

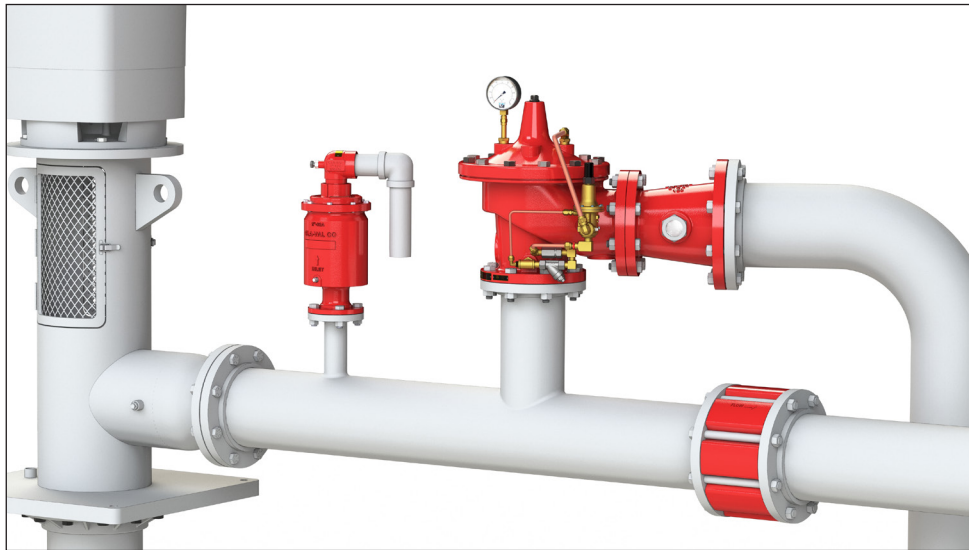


Model **50B-4KG1/2050B-4KG1**
Fire Protection Pressure Relief Valve

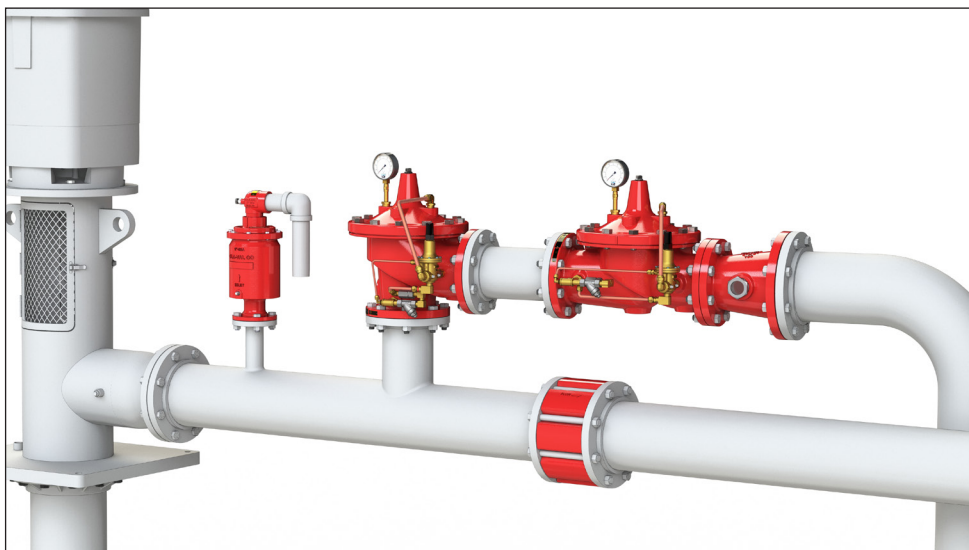
System Parameters

- Cla-Val's Model 33ATD Combination Air and Vacuum Valve is recommended for use with fire pump pressure relief valves
- Cla-Val's model WC-1 waste cone is recommended for instillation on the outlet of our fire pump relief valves for visual indication of water flow

Single Stage



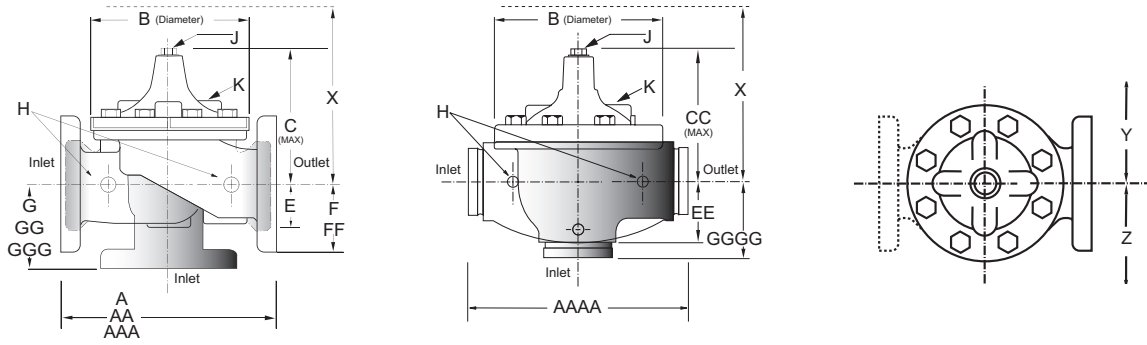
Dual Stage





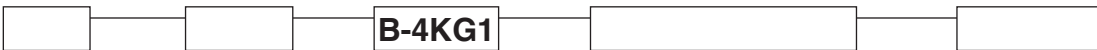
Model **50B-4KG1/2050B-4KG1** Fire Protection Pressure Relief Valve

Dimensions



Valve Size	inch	mm	inch	mm	inch	mm	inch	mm
	3	80	4	100	6	150	8	200
A Threaded	12.50	318	—	—	—	—	—	—
AA 150 ANSI	12.00	305	15.00	381	20.00	508	25.38	645
AAA 300 ANSI	13.25	337	15.62	397	21.00	533	26.38	670
AAAA Grooved End	12.50	318	15.00	381	20.00	508	25.38	645
B Diameter	9.12	232	11.50	292	15.75	400	20.00	508
C Maximum	8.19	208	10.62	270	13.38	340	16.00	406
CC Maximum Grooved End	7.25	184	9.31	236	12.12	308	14.62	371
E	2.06	52	3.19	81	4.31	110	5.31	135
EE Grooved End	3.12	79	4.25	108	6.00	152	7.56	192
F 150 ANSI	3.75	95	4.50	114	5.50	140	6.75	171
FF 300 ANSI	4.13	105	5.00	127	6.25	159	7.50	191
G Threaded	4.50	114	—	—	—	—	—	—
GG 150 ANSI	4.00	102	5.00	127	6.00	152	8.00	203
GGG 300 ANSI	4.38	111	5.31	135	6.50	165	8.50	216
GGGG Grooved End	4.25	108	5.00	127	—	—	—	—
H NPT Body Tapping	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00
J NPT Cover Center Plug	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00
K NPT Cover Tapping	0.50	0.50	0.75	0.75	0.75	0.75	1.00	1.00
Stem Travel	0.80	20	1.10	28	1.70	43	2.30	58
Approx. Ship Weight (lbs)	70	32	140	64	285	129	500	227
Approx. X Pilot System	15	381	17	432	29	737	31	788
Approx. Y Pilot System	11	280	12	305	20	508	22	559
Approx. Z Pilot System	11	280	12	305	20	508	22	559

Model Number Codes



Size
3"
4"
6"
8"

Main Valve	
50	Globe
2050	Angle

Options	
C	Closing Speed Control
S	Opening Speed Control
P	Pressure Gauges
KOL	Anti-Cavitation Seat
V	X101 Valve Position Indicator

Orientation	
H	Horizontal
V	Vertical



Body	
D	Ductile Iron
C	Cast Steel
T	316 SS
N	N.A.B.
U	Super Duplex
X	Other

Trim	
S	Stainless Steel
T	316 SS (F)
M	Bronze/Monel
U	Super Duplex
X	Other

Pilots	
B	Bronze w/SST
BM	Bronze with Monel Internals
T	316 SS (F)
M	Monel
U	Super Duplex
X	Other

Tubing & Fittings	
B	Copper with Brass Fittings
T	316 SS (F)
M	Monel
U	2507
X	Other

Elastomer	
B	Buna
E	EPDM
V	Viton

Flange	
	ANSI 150#
	ANSI 300#
	ISO PN10
	ISO PN16
	ISO PN25
V	Grooved 300#

Face	
	RF
	FF
X	Other