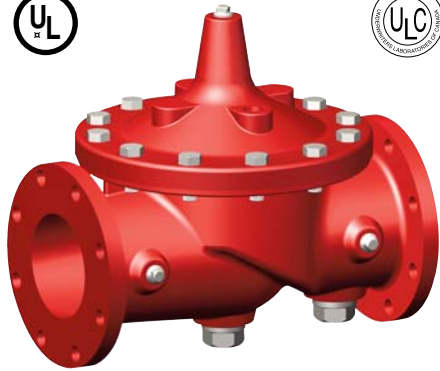




— MODEL — **100G**
2100G

Deluge Valve



- U.L. Listed / U.L.C. Listed
- Globe or Angle Pattern
- Proven Reliable Design

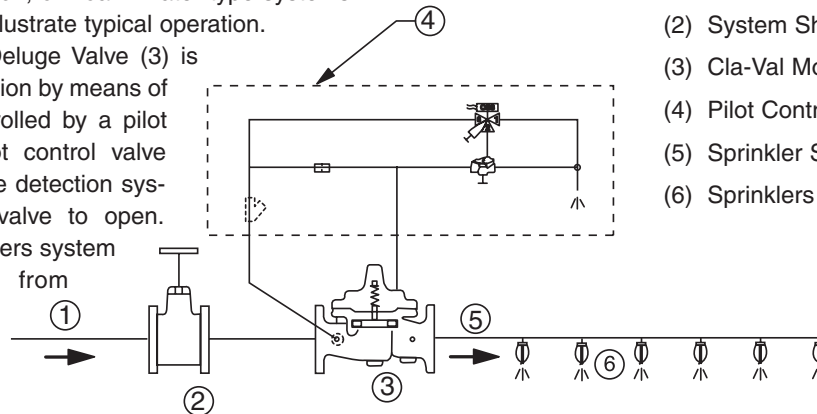
The Cla-Val Model 100G/2100G Deluge Valve is designed for use in controlling water flow to Deluge, Pre-Action, or Foam-Water type fire protection sprinkler systems. This valve is U.L. Listed in "Special Systems Water Control Valves Class I (VLFT)".

The Model 100G-2100G is a hydraulically-operated, diaphragm-actuated, globe or angle pattern Deluge Valve. It consists of three major components: the body, the cover, and the diaphragm assembly. The only moving part is the diaphragm assembly. Packless construction and simplicity of design assures long service life and dependable low maintenance for this valve. All ferrous parts are fusion epoxy coated internally and externally for added corrosion resistance, along with a delrin sleeve stem and teflon coated removable seat.

Typical Application

The Model 100G/2100G is installed to control the water flow to the sprinklers in Deluge, Pre-Action, or Foam-Water type systems. A simplified system is used to illustrate typical operation.

The Model 100G/2100G Deluge Valve (3) is maintained in the closed position by means of system water pressure controlled by a pilot control (4). When the pilot control valve receives a signal from the fire detection system, it allows the deluge valve to open. Firefighting water (1) then enters system piping (5) and discharges from sprinklers (6).



- (1) From System Water Supply
- (2) System Shut-off Valve (Visual Stem)
- (3) Cla-Val Model 100G or 2100G
- (4) Pilot Control System
- (5) Sprinkler System Piping
- (6) Sprinklers

Specifications

- Sizes** *Globe:* 3" – 10"
Angle: 3" – 10"
- End Details** Ductile Iron 150 ANSI B16.42 flanged
Cast Steel 150 ANSI B16.5 flanged
- Pressure Rating** 150 class, 250 psi maximum (Ductile Iron)
150 class, 285 psi maximum (Cast Steel)
300 class, 400 psi maximum
- Temperature Range** Water, to 180°F MAX.
- Materials** **Main Valve Body & Cover:**
Ductile Iron ASTM A-536* **UL, ULC**
Cast Steel ASTM A216-WCB* **UL, ULC**
Nickel Aluminum Bronze ASTM B148 **UL, ULC**
Naval Bronze ASTM B61 **UL, ULC**
Super Duplex Stainless steel UNS32750 **UL, ULC**
Stainless Steel ASTM A743-CF-8M **UL, ULC**
- Main Valve Internal Trim:**
Bronze ASTM B61
Stainless Steel Type 303
Monel QQ-N-281 Class B
- Diaphragm and Disc:**
Buna-N® synthetic rubber
- *Internally & Externally Epoxy Coated Standard

Friction Loss

	For use in hydraulically calculated systems, friction loss equivalent to:
100G (Globe):	2100G (Angle):
3" Size=42 Ft. of 3" Pipe	3" Size=33 Ft. of 3" Pipe
4" Size=92 Ft. of 4" Pipe	4" Size=44 Ft. of 4" Pipe
6" Size=116 Ft. of 6" Pipe	6" Size=79 Ft. of 6" Pipe
8" Size=123 Ft. of 8" Pipe	8" Size=105 Ft. of 8" Pipe
10" Size=201 Ft. of 10" Pipe	10" Size=153 Ft. of 10" Pipe

When Ordering, Please Specify

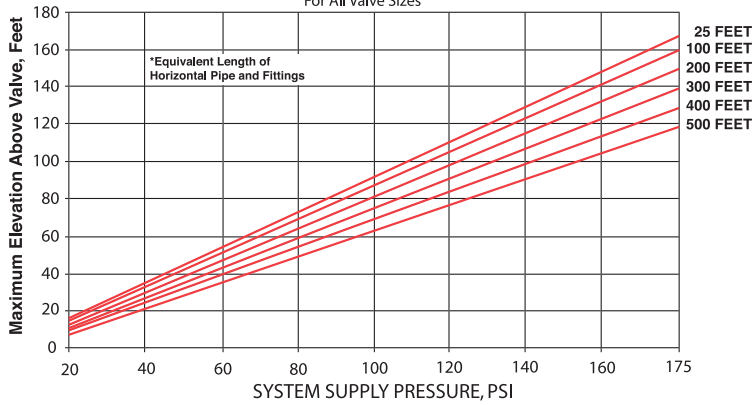
1. Catalog No. 100G or 2100G
2. Size
3. Body and Cover Material
4. Globe or Angle Pattern
5. Pressure Class
6. Internal Trim Material



To calculate the maximum wet sprinkler pilot height above the valve, use the graph below.

CLA-VAL 100G & 2100G WET PILOT LINE DESIGN CRITERIA

For All Valve Sizes

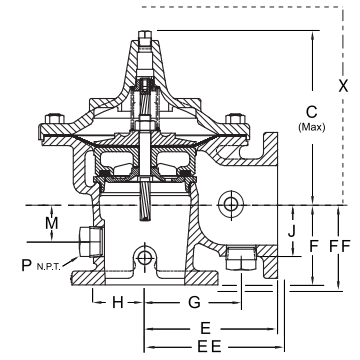
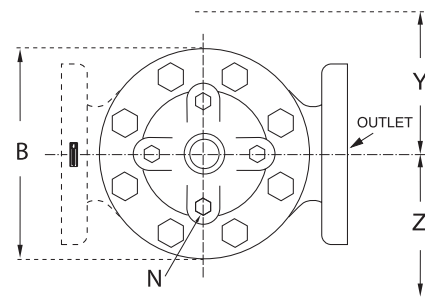
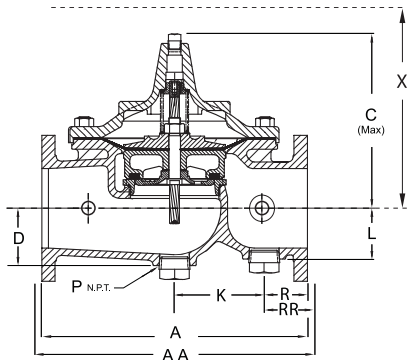


*Based on 1/2 inch schedule 40 pipe, C=120
If system supply pressure is variable, use minimum value

WET PILOT LINE EQUIVALENT LENGTHS MUST BE RECALCULATED FOR SYSTEMS USING PILOT LINE SIZES AND FITTINGS OTHER THAN THAT SPECIFIED IN THE ABOVE GRAPH

Functional Data

Valve Size		Inches	3	4	6	8	10
		mm	80	100	150	200	250
C _v Factor	Globe Pattern	Gal./Min. (gpm)	115	200	440	770	1245
		Litres/Sec. (l/s)	27.6	48	105.6	184.8	299
C _v Factor	Angle Pattern	Gal./Min. (gpm)	139	240	541	990	1575
		Litres/Sec. (l/s)	33.4	58	130	238	378



Valve Size (Inches)	3	4	6	8	10
A 150 ANSI	12.00	15.00	20.00	25.38	29.75
AA 300 ANSI	13.25	15.62	21.00	26.38	31.12
B Dia.	9.12	11.50	15.75	20.00	23.62
C Max.	8.19	10.62	13.38	16.00	17.12
D	2.56	3.19	4.31	5.16	8.50
E 150 ANSI	7.00	8.50	10.00	12.69	14.88
EE 300 ANSI	--	8.81	10.50	13.19	--
F 150 ANSI	4.00	4.97	6.00	8.00	8.62
FF 300 ANSI	--	5.28	6.50	8.50	--
G	4.75	5.94	7.25	8.50	10.50
H	2.69	2.81	3.88	5.31	6.56
J	2.56	2.81	3.81	4.81	5.81
K	7.00	4.03	6.75	17.00	15.50
L	2.56	2.81	3.81	4.81	8.50
M	1.75	2.41	2.75	4.00	4.24
N NPT	1/2"-14	3/4"-14	3/4"-14	1"-11 1/2	1"-11 1/2
P NPT	1/4"-11 1/2	2"-11 1/2"			
R 150 ANSI	2.50	3.47	3.25	4.19	7.12
RR 300 ANSI	3.12	3.78	3.75	4.69	7.81
X Pilot System	15.00	17.00	29.00	31.00	33.00
Y Pilot System	11.00	12.00	20.00	22.00	24.00
Z Pilot System	11.00	12.00	20.00	22.00	24.00

Valve Size (mm)	80	100	150	200	250
A 150 ANSI	305	381	508	645	756
AA 300 ANSI	337	397	533	670	791
B Dia.	232	292	400	508	600
C Max.	208	270	340	406	435
D	65	81	110	131	216
E 150 ANSI	178	216	254	322	378
EE 300 ANSI	--	224	267	350	--
F 150 ANSI	102	126	152	203	219
FF 300 ANSI	--	134	165	216	--
G	121	151	184	216	267
H	68	71	99	135	167
J	65	71	97	122	148
K	178	102	171	432	394
L	65	71	97	122	216
M	45	61	70	102	108
N NPT	1/2"-14	3/4"-14	3/4"-14	1"-11 1/2	1"-11 1/2
P NPT	1/4"-11 1/2	2"-11 1/2"			
R 150 ANSI	64	88	83	106	181
RR 300 ANSI	79	96	95	119	198
X Pilot System	381	432	737	787	838
Y Pilot System	279	305	508	559	610
Z Pilot System	279	305	508	559	610



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