



— MODEL — **834-05**

800 Series (Tubular Diaphragm Valve)  
**Fire Deluge Valve**



- Low Head Loss
- Cast Steel Construction
- Stainless Steel Pilot and Tubing
- Stainless Steel Solenoid
- Anti-Cavitation Design
- Fusion Coated Epoxy Inside and Out
- Nickel Aluminum Bronze Construction Option (Alloy C95800)
- Duplex Stainless Steel Construction Option (Alloy 2205)
- Low Maintenance
- Simple and Reliable Operation
- 1-Year Warranty

The Cla-Val 834-05 Deluge Valve is a pressure-operated, in-line axial valve. A tube diaphragm actuates the valve, which is comprised of three major components: 1) Tube 2) Barrier and 3) Body. There is only one moving part in the valve - the tube diaphragm. There are no shafts, packing, stem guides or springs.

The tube diaphragm is a one piece, homogeneous nitrile rubber part which is extremely durable. The ends of the tube are thick solid rubber, designed to fit between mating flanges. This design eliminates the possibility of cutting the tube diaphragm due to over tightening or piping misalignment during installation.

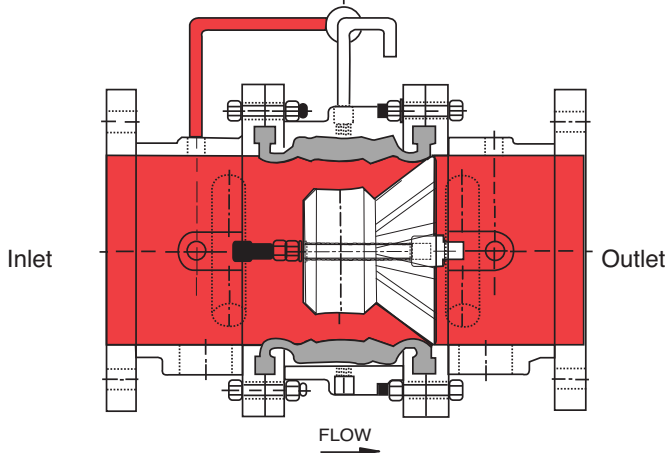
The tube forms a drip tight seal around the barrier when the pressure is equalized between the valve inlet and the control chamber. When pressure is removed from the control chamber, the valve is open. The minimum recommended operating pressure is 40 P.S.I. of inlet pressure.



**Principle of Operation**

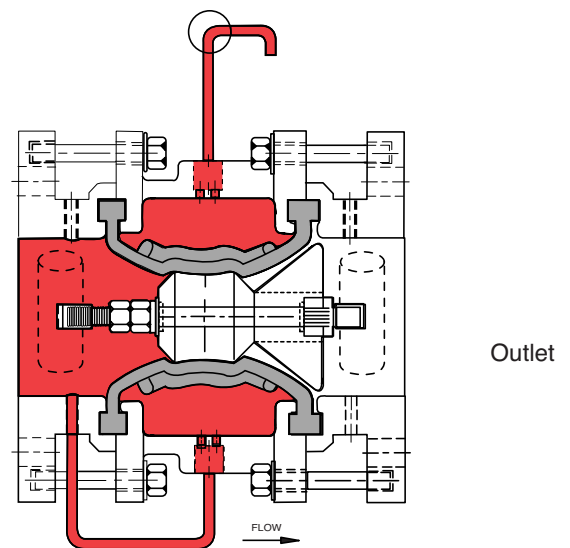
Control Options

- Electric Operation
- Pneumatic Operation
- Hydraulic Operation
- Manual Operation



**Full Open Operation**

When pressure in control chamber is relieved, the valve is open.

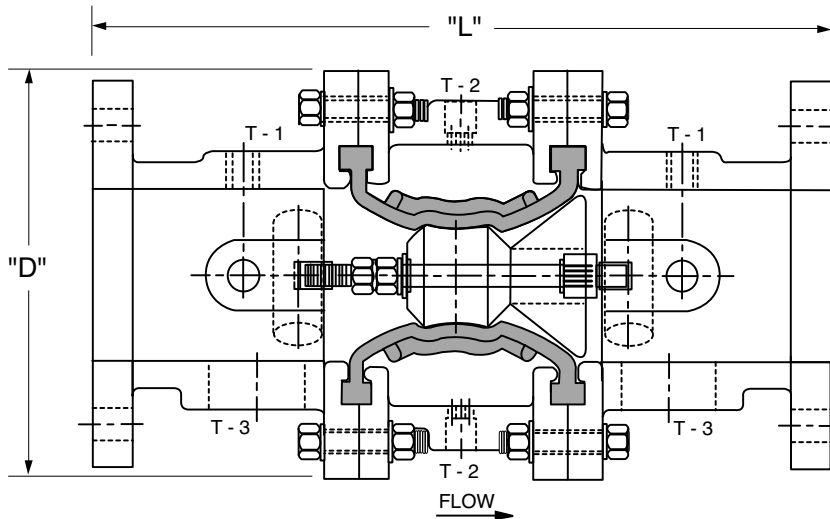


**Tight Closing Operation**

Water pressure from valve inlet is applied to the control chamber. Valve closes bubble tight.



## Dimensions



## Model 834-05

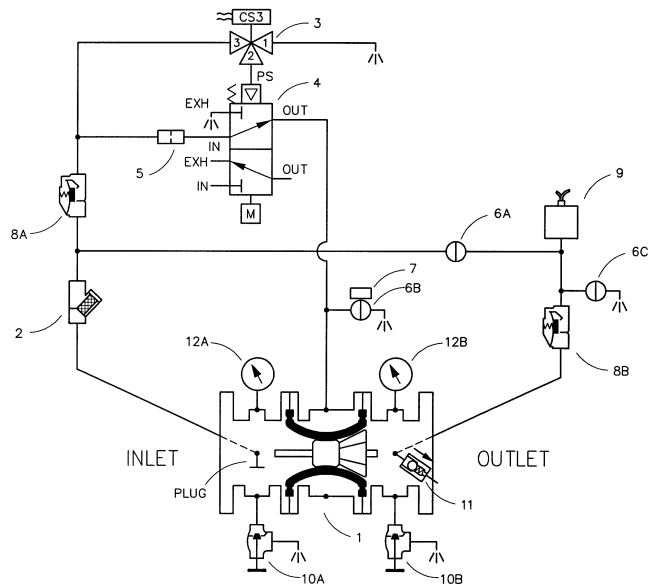
Valve Size (Inches)	4	6	8	10
L	17.25	18.25	20.00	22.00
D	9.5	11.75	14.00	16.00
T-1/T-2 (NPT)	1/2	1/2	1/2	1/2
T-3 (NPT)	2	2	2	2
Approx. Wt. (Lbs.)	151	196	285	330

Valve Size (mm)	100	150	200	250
L	438	464	508	559
D	241	299	356	406
T-1/T-2 (NPT)	1/2	1/2	1/2	1/2
T-3 (NPT)	2	2	2	2
Approx. Wt. (kgs)	68	89	129	150

4", 6", 8"  
Factory Mutual  
Approved  
(with approved  
Pilot  
Components)

FLOW FACTORS		
SIZE (IN)	CV (gpm)	KV
4"	340	77.3
6"	885	201
8"	1667	379
*10"	2424	550

\*Calculated



### MAIN VALVE

Ends:	Flanged ANSI B16.5 (150lb Class)
Body:	Cast Steel (ASTM A216 WCB)
Tube Diaphragm:	Nitrile Rubber
Barrier:	Urethane
Bolts:	316 SS
Pressure:	250 psig (17.24 BAR)
Temp. Range:	32° F to 180° F (0° C to 82.2° C)

### MAIN VALVE OPTIONS

Body:	Nickel Aluminum Bronze (Alloy C95800) or Duplex SS (Alloy 2205)
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### PILOT VALVE

All Parts:	Bronze / Monel
O-Rings:	Nitrile Rubber
Control Range:	20 to 250 PSIG
Pilot Pressure Range:	20 to 250 PSIG
Operation:	Latches in operated position; manual reset

### PILOT VALVE OPTIONS

All Parts:	Monel (Alloy 400)
Operation:	Non-latching

Item	Description	Item	Description
1	800GS TDV Main Valve	9	Pressure Switch
2	X43 "Y" Strainer	10	CGA Angle Valve
3	CS3 Solenoid Control	11	Automatic Drain Valve
4	Latching Deluge Pilot	12	Pressure Gauge
5	X58C Restriction Assembly		
6	CK2 Cock (Isolation Valve)		

CLA-VAL 800 Series Control Valves operate with maximum efficiency when mounted in horizontal or vertical piping. We recommend isolation valves be installed on inlet and outlet for maintenance. Adequate space above and around the valve for service personnel should be considered essential. A regular maintenance program should be established based on the specific application data. However, we recommend a thorough inspection be done at least once a year. Consult factory for specific recommendations.



E-834-05 (R-3/2011)

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