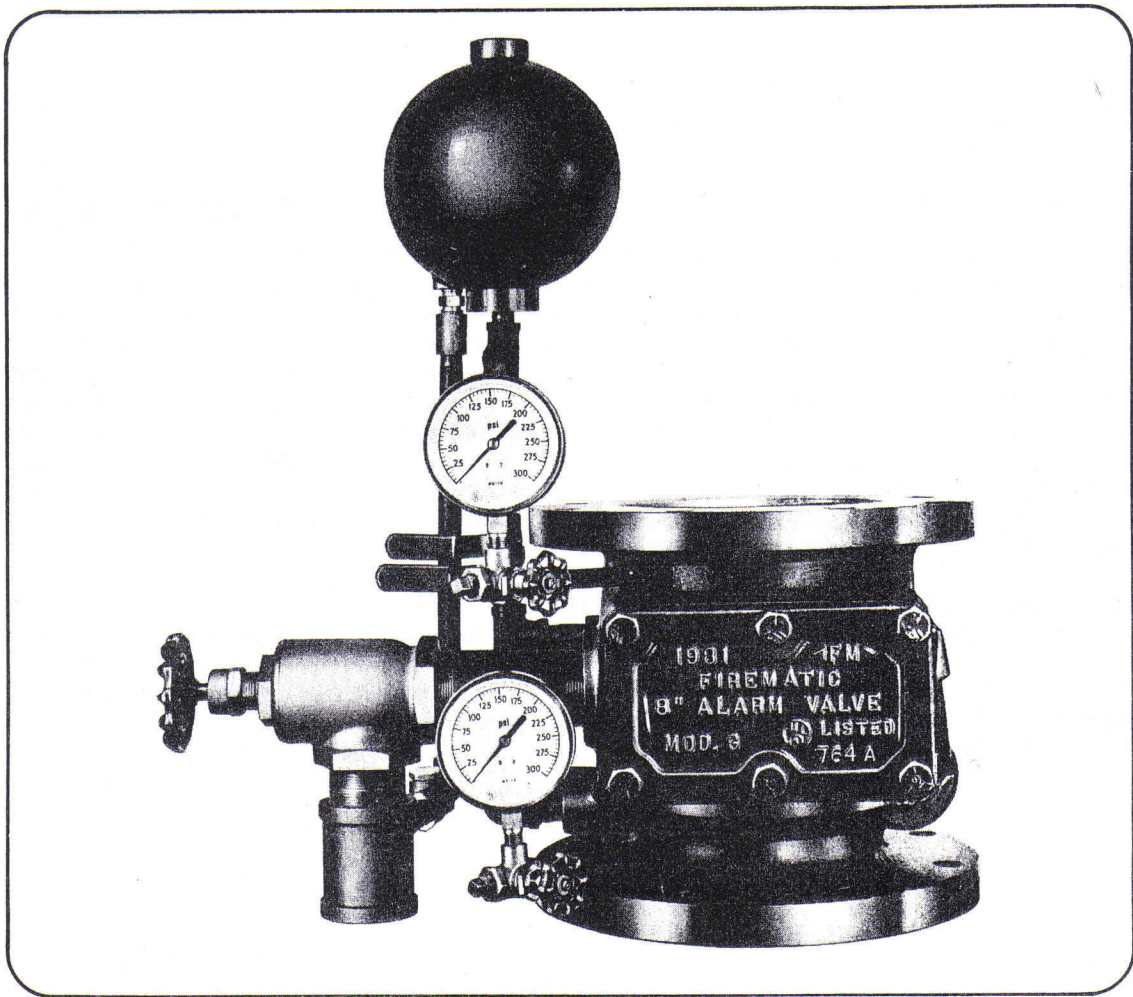


Model G 8 Inch Alarm Valve

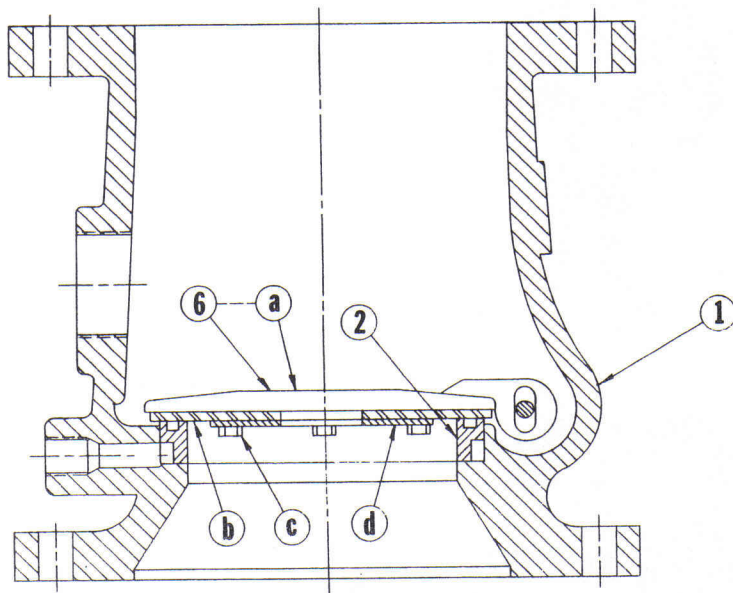
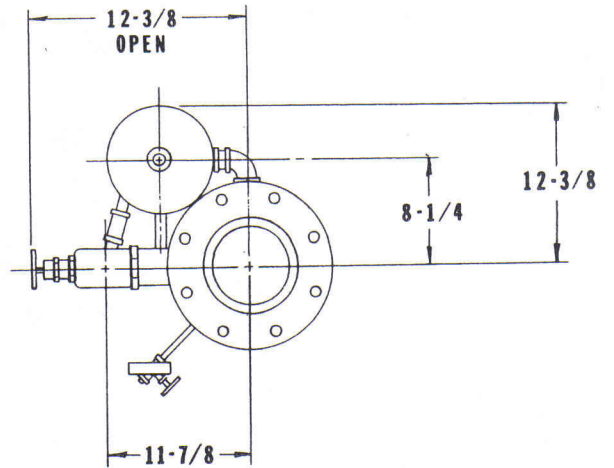
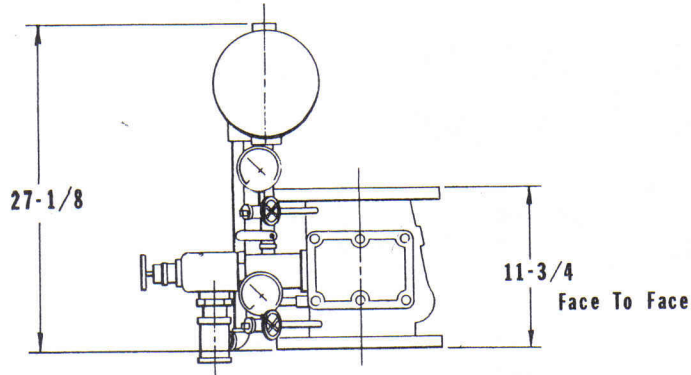


Listed by: Underwriters Laboratories, Inc.
Approved by: Factory Mutual
B.S. & A. of New York City

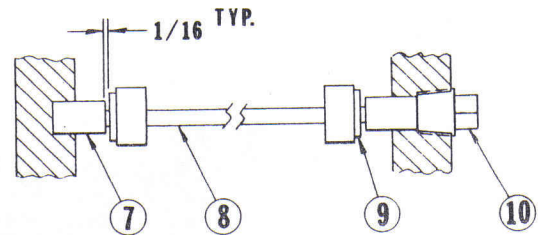
FIREMATIC Sprinkler Devices, Inc.

900 BOSTON TURNPIKE, SHREWSBURY, MASSACHUSETTS 01545
Phone: (508) 845-2121 Outside Massachusetts: (800) 225-7288

INSTALLATION DIMENSIONS



MODEL "G" 8" ALARM VALVE	
Weight	120 lbs.
Face To Face	11-3/4"



PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY.	MATERIAL
1	501-020	Body	1	Cast Iron
2	301-019	Seat Ring	1	Bronze
3	301-021	Cover (Not Illustrated)	1	Cast Iron
4	301-020	Cover Gasket (Not Illustrated)	1	Rubber
5	101-053	Cover Bolts (Not Illustrated)	6	Steel
6	101-072	Clapper Assembly	1	-----
CLAPPER DETAILS				
6a	501-022	Clapper	1	Cast Iron
b	301-018	Clapper Seal	1	Rubber
c	101-071	Retainer Bolts	5	St. Steel
d	101-073	Retainer Ring	1	St. Steel
7	101-063	Bushing	2	Brass
8	101-259	Clapper Pin	1	St. Steel
9	101-070	Clapper Bushing	2	Brass
10	101-067	Plug	1	Steel

DESCRIPTION

The Firematic Model G Alarm Valve, differential type, consists of a rubber faced bronze swing clapper seating on a grooved bronze seat. The seat is tinned to prevent the rubber clapper facing from sticking to the seat. An external by-pass allows a pressure surge from the supply side to by-pass the alarm valve clapper and become entrapped in the sprinkler system thus creating an excess system pressure that will steady the clapper. Should a heavy surge from the supply side unseat the clapper, water will flow into the retarding chamber.

The Model E Retarding Chamber is connected into the alarm line piping between the grooved seat of the Alarm Valve and alarm devices such as Circuit Opener and Circuit Closer and Water Motor Gong. Specially designed inlet and drain orifices allow the retard chamber to drain with sufficient speed to prevent false alarms.

The Firematic Model G 8 inch Alarm Valve carries Underwriter's Laboratories Listing and Factory Mutual's approval, for installation in the vertical position.

ALARM VALVE OPERATION

When a sprinkler head or inspectors test valve is opened, pressure on the system side of the clapper is reduced below the pressure on the supply side. The clapper then raises off the grooved seat and permits water from the supply to enter the system for distribution on the fire.

Water now flows through the uncovered groove and into the Retarding Chamber and after filling the retarding chamber, to the alarm devices.

A pressure surge or water hammer in the supply line will increase the pressure on the supply side of the clapper, causing it to lift intermittently which may result in a false alarm. The Firematic Model "G" Alarm Valve will prevent such false alarms by two features:

- a. The external By-Pass with check valve allows a pressure surge from the supply to by-pass the Alarm Valve Clapper. This will create an excess system pressure and thus steady the clapper. Should a heavy surge unseat the clapper and allow water to flow into the alarm line, the Model E retarding chamber then comes into action.
- b. The retarding chamber consists of two specially designed inlet and drain orifices, which will allow the chamber to be drained before filling and activating an alarm device. The retarding chamber has a strainer in the intake line to prevent foreign matter from clogging the intake orifice.

Care must be exercised when installing check valves in the trim to be certain that they are located with the arrow on the body pointing in the right direction. The arrow on the body of the $\frac{3}{4}$ " check valve in the by-pass must point towards the valve. The arrow on the body of the $\frac{1}{2}$ " check valve in the drain line from the retard chamber must point towards the main drain.

ALARM VALVE MAINTENANCE

The Firematic Model "G" Alarm Valve is so constructed that there is nothing to adjust and under normal water and operating conditions requires very little maintenance.

The two water gauges in the alarm valve trim should indicate different pressure readings. Should these pressure readings be equal, and assuming that no test or drain valves have been recently opened, or any sprinkler heads have operated before the system pressure has had a chance to build up, such a condition indicates a leak is occurring at some point.

In this event check all valves in the trimming installation, as well as all test and drain valves on the system, making positive that all have been tightly closed and no leakage is occurring. Inspect the system carefully for broken fittings or similar damage to the overhead pipe. If this inspection reveals that no leakage is occurring, it is likely that the rubber clapper facing within the alarm valve needs replacing. A defective rubber facing is also a major cause of false alarms and renewal will tend to correct this condition. Such replacement may be found necessary from time to time and a new rubber facing should be obtained from the valve manufacturer. When this change is necessary it is done as follows:

