

SPECIFICATION SUBMITTAL SHEET



**APPLICATION**

The Pressure Relief Valve prevents pressure build-up in a fire protection system or other closed type system whenever the line pressure exceeds the setting of the spring. The valve will relieve excess pressure to atmosphere preventing damage to the distribution network. Ideal for installation on fire protection systems to protect against excessive pressure build-up caused by pumps, elevated piping and thermal expansion.

**MATERIALS**

Main Valve Body & Cover	Cast Bronze ASTM B62
	Stainless Steel ASTM A743
Trim	Brass & Stainless Steel 303
Rubber	Buna-N Rubber

**SIZES**

- 1/2"     3/4"

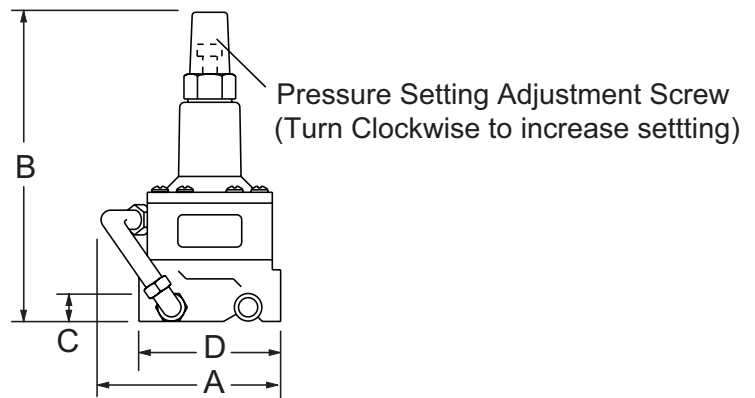
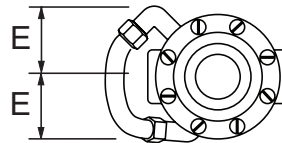
TEMPERATURE RATING:     water 33°F to 180°F

PRESSURE RATINGS:        Cast Bronze 400 psi Max.  
   Stainless Steel 400 psi Max.

PRESSURE RANGE:         20 to 175 psi (UL)  
   20 to 200 (FM)  
   Factory set at 60 psi

**OPTIONS**

- P4000LR - Pressure Range 0-75 psi  
   Factory set at 50 psi
- P4000HR - Pressure Range 100-300 psi  
   Factory set at 100 psi



<b>UL Listed</b> Range psi	Approx. Increase for Each Clockwise Turn of Adjusting Screw
20 to 175	28.0 psi
<b>FM Approved</b> Range psi	Approx. Increase for Each Clockwise Turn of Adjusting Screw
0 to 75	8.5 psi
20 to 200	28.0 psi
100 to 300	18.0 psi

**DIMENSIONS**

MODEL SIZE		DIMENSIONS (approximate)									
		A		B		C		D		E	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
1/2	10	4 1/2	114	7 7/16	189	23/32	18	3 1/2	89	1 3/4	45
3/4	15	4 1/2	114	7 7/16	189	23/32	18	3 1/2	89	1 3/4	45

## OPERATION

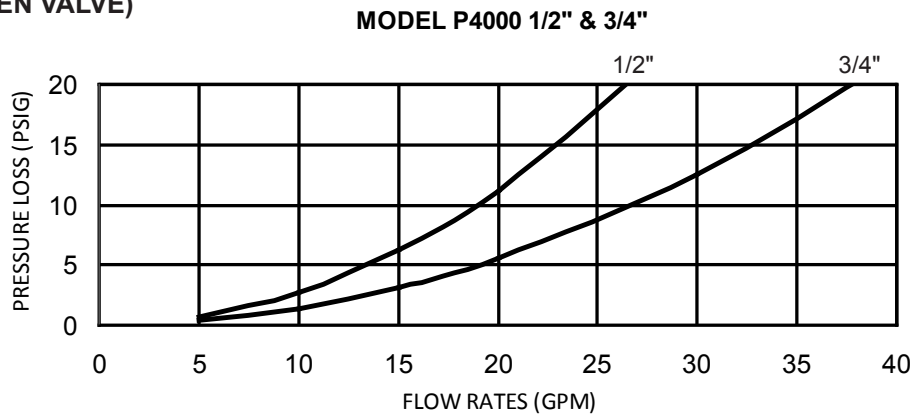
The Model P4000 Pressure Relief Valve is a direct-action, spring loaded, diaphragm type relief valve. The valve may be installed in any position and will open and close within very close pressure limits.

The Model P4000 is normally held closed by the force of the compression spring above the diaphragm. When the controlling pressure applied under the diaphragm exceeds the spring setting, the disc is lifted off its seat, permitting flow through the control. When control pressure drops below the spring setting, the spring forces the control back to its normally closed position. The controlling pressure is applied to the chamber beneath the diaphragm through an external tube on the P4000.

Pressure adjustment is simply a matter of turning the adjusting screw to vary the spring load on the diaphragm. To prevent tampering, the adjustment cap can be wire sealed by using the lock wire holes provided in the cap and cover.

## FLOW CHARACTERISTICS (WIDE OPEN VALVE)

Valve Size	Cv Factor
1/2"	6
3/4"	8.5



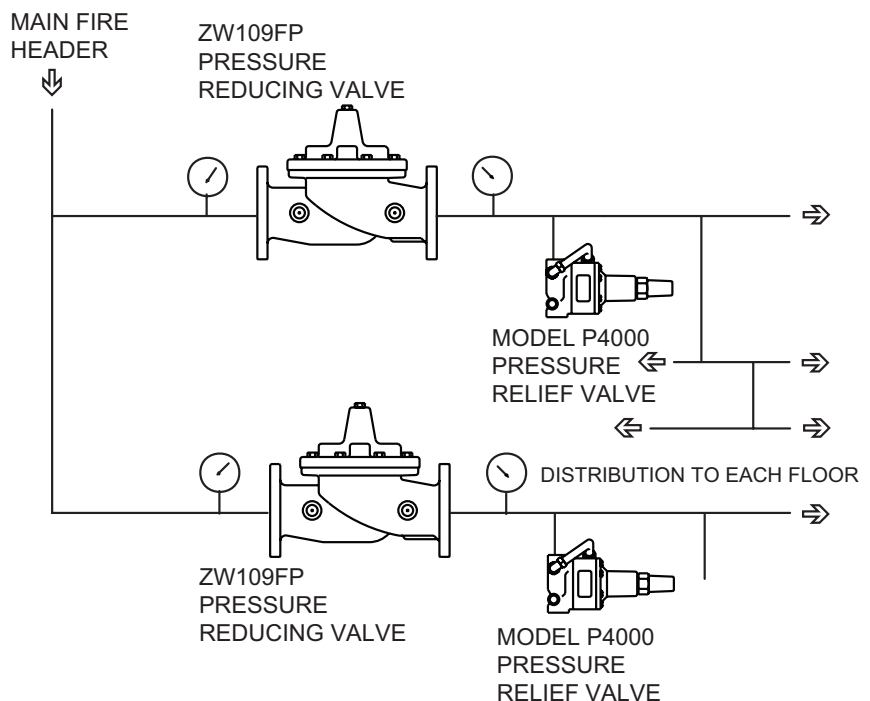
## TYPICAL INSTALLATION

Underwriters Laboratories requires the installation of pressure gauges upstream and downstream of the Pressure Reducing Valve. Also, a relief valve of not less than 1/2" in size must be installed on the downstream side of the pressure control valve. Adequate drainage for the relief valve discharge must be provided.

## UL INSTALLATION SPECIFICATIONS REQUIREMENTS

The valve is to be installed in accordance with the standard for installation of sprinkler systems, NFPA 13.

The valve is to be inspected, tested and maintained in accordance with the standard for the inspection, testing and Maintenance of Water-Based Fire Protection Systems, NFPA 25.



## SPECIFICATIONS

The Pressure Relief Valve shall be direct-acting, spring loaded, diaphragm type relief valve. The main valve body shall be Cast Bronze ASTM B 62 or Stainless Steel ASTM A743. The Pressure Relief Valve shall contain no packing glands or stuffing boxes. The Pressure Relief Valve shall be a WILKINS Model P4000.