

Application

The Zurn Wilkins P4000A Thermal Expansion Relief Valve will relieve excess pressure in Fire Protection Systems, protecting fire distribution networks from high pressure build-up. The P4000A is an adjustable direct acting pressure relief valve which senses upstream pressure. The valve will open when the upstream pressure rises above the valve's set pressure. Once the upstream pressure descends below the set pressure, the P4000A will close drip tight within close limits. The valve is designed for use in systems where thermal expansion, pumps or elevated plumbing could cause destructive pressure rise.



Standards Compliance:

- UL Listed
- FM® Approved



Options

(Add suffix letters to P4000A)

- HR - 150 - 300 psi High Pressure Range
- SP - Stainless Steel Relief Valve (replaces all brass/bronze parts with stainless steel parts)

Materials

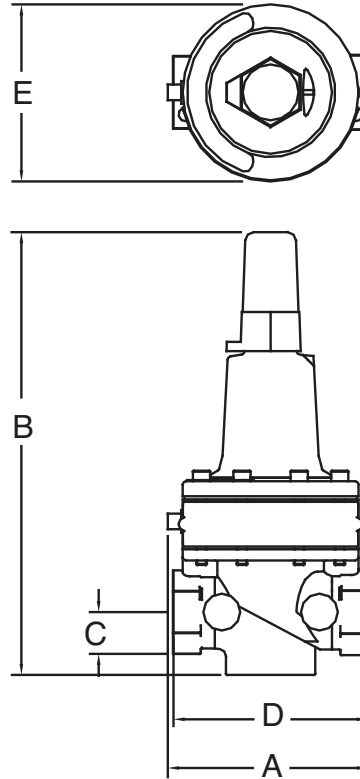
Main Valve Body & Cover	Cast Bronze ASTM B 806
Plunger	No Lead Brass
Diaphragm	Nylon Reinforced Buna-N
Plunger Rubber	EPDM (Rubber (FDA Approved))
Stem & Seat	Stainless Steel

Features

Sizes: 1/2", 3/4"

- Threaded ends NPT ANSI B1.20.1
- Internal Sensing Port
- Standard Pilot Spring Range: 50 - 200 psi (UL)
- Optional Pilot Spring Range: 150 - 300 psi (UL)
- Temperature Rating: Water 33°F to 140°F

- Maximum Inlet Pressure: 300 psi



Dimensions & Weights (do not include pkg.)

MODELS	DIMENSIONS (approximate)										WEIGHT	
	A		B		C		D		E		lbs.	kg.
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
P4000A	3 9/16	91	7 15/16	202	3/4	19	3 1/2	89	3 1/4	84	5.25	2.38
P4000AHR	3 9/16	91	10	254	3/4	19	3 1/2	89	3 1/4	84	6.25	2.85

Operation

The Zurn Wilkins P4000A is a direct acting, spring controlled, pressure relief valve which opens from the force of upstream pressure pushing up on the internal diaphragm. The relief set pressure can be easily adjusted by altering the compression force on the spring in the bell. Once upstream pressure rises above the set pressure the diaphragm will further compress the spring on top of the diaphragm allowing the plunger to rise off the seat and water to flow. When the upstream pressure drops back down below the set pressure the compressed spring will force the plunger back on the valve seat sealing the valve drip tight. The valve will open and close drip tight close to the relief set pressure.

Typical Installation

The Zurn Wilkins P4000A can be installed in any position and is ideal for use in fire protection systems where thermal expansion, pumps or elevated plumbing could cause pressure surges within the fire protection distribution network. The Thermal Expansion Relief Valve prevents pressure build-up by venting excess pressure to atmosphere.

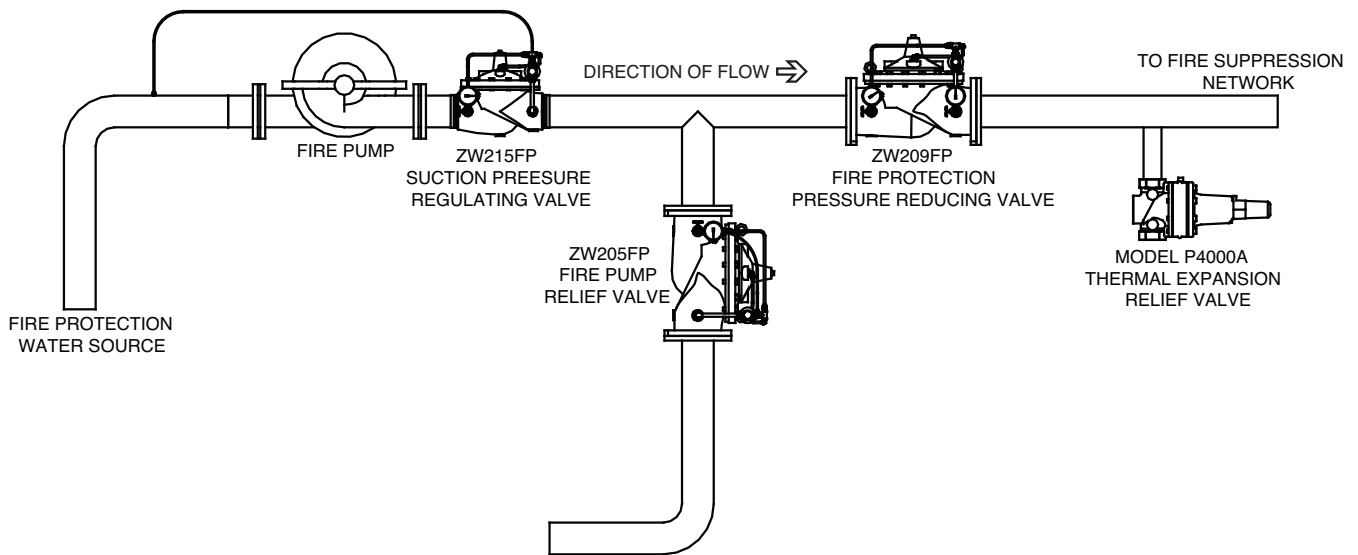
Underwriters Laboratories requires the installation of a relief valve of not less than 1/2" in size on the downstream side of the pressure reducing valve. Adequate drainage for the relief valve discharge must be provided.

UL Installation Specification Requirements

The valve 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.

Typical Installation



Specifications

The Thermal Expansion Relief Valve shall be direct-acting, spring loaded diaphragm type relief valve. The main valve body shall be Cast Bronze ASTM B 806. The Thermal Expansion Relief Valve shall contain no packing glands or stuffing boxes. The Thermal Expansion Relief Valve shall be a ZURN WILKINS Model P4000A.

Job Name _____ **Contractor** _____

Job Location _____ **Engineer** _____