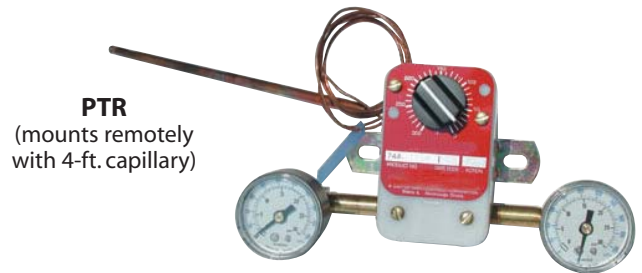


Pneumatic Temperature Controllers (must be used with PA-Air Pilot)

Pilot-Operated REGULATORS

Temperature Controller	PTL	PTR
Temperature Adjustment Range	50 - 350 °F	0 - 300 °F
Maximum Air Supply Pressure	35 PSIG	35 PSIG
Sensing Bulb	Bi-Metallic	Hydraulic Fill
Max. Pressure	250 PSIG	250 PSIG
Max. Temperature	400 °F	350 °F
Material	Copper	Copper
Optional Material	Stainless Steel	Stainless Steel
Capillary Length	N/A	4-ft.

- Temperature Range: PTR: 0-300 °F
PTL: 50-350 °F



Typical Applications

The **PTL** and **PTR Pneumatic Temperature Controllers** operate over a wider temperature range and react faster than our standard **PT** temperature pilot. This makes them a preferable choice for instantaneous hot water applications.

How it Works

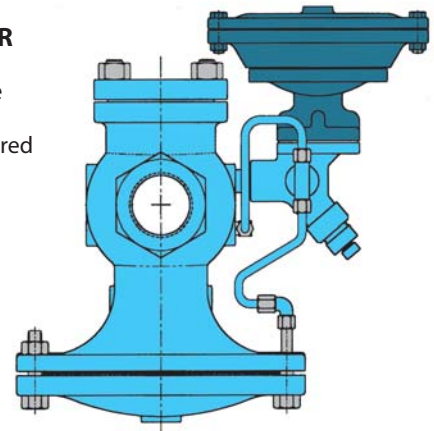
The **PTL** and **PTR Pneumatic Temperature Controllers** are used in conjunction with a **PA-Air Pilot** to control the operation of the **HD Regulator**. The **PTL** uses a bi-metallic element to sense temperature and the **PTR** uses a hydraulically-filled bulb (with 4-ft. capillary) to sense temperature. The air supply is connected to the inlet of the controller and the air output signal is fed directly to an Air Pilot, which controls the opening and closing of the steam regulating valve.

Features

- Accurate and rapid response to temperature changes
- Temperature control range of 0-350 °F

Model Code	Product Description Bulb & Capillary	Capillary Length	Weight lbs
PTL-E7	Pneumatic temperature controller, direct mount	N/A	5.3
PTR-E8	Pneumatic temperature controller, remote mount	4'	3.0

for **PTL & PTR**
Pneumatic
Temperature
Controller,
Air Pilot is required



OPERATING PRESSURES

Inlet Pressure Range:

15-300 PSIG (Standard Main Valve)

5-20 PSIG (Low Pressure Main Valve)

Minimum Differential Pressure:

10 PSI (Standard Main Valve)

3 PSI (Low Pressure Main Valve)

How to Size / Order

PTL & PTR PNEUMATIC TEMPERATURE CONTROLLER

Specify: • **PTL** or **PTR** controller model (air pilot required for operation)

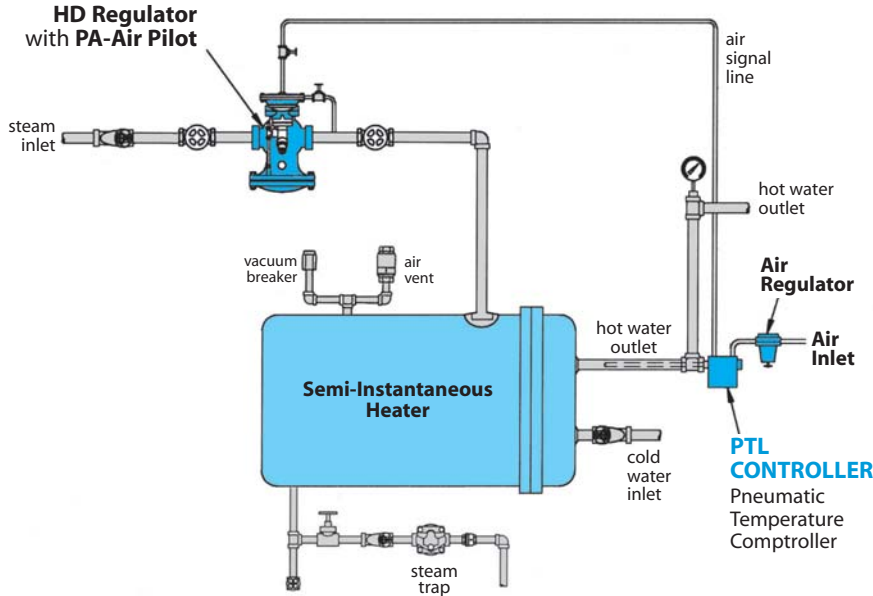
AIR PILOT

Specify: • **PA1**, **PA4** or **PA6** Air Pilot model (refer to Air Pilot section)

REGULATOR BODY

Specify: • **HD** regulator body
• Regulator size or capacity
• End connections (threaded, 150/300# flanged)

Pneumatic Temperature Controllers (must be used with PA-Air Pilot)

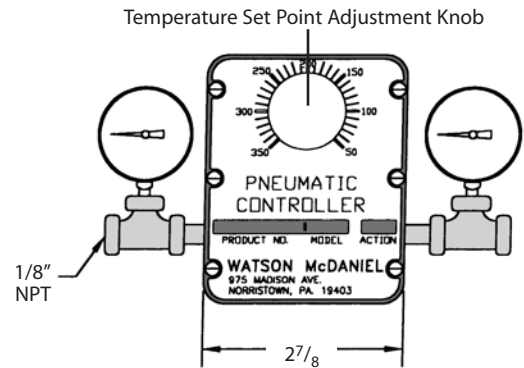
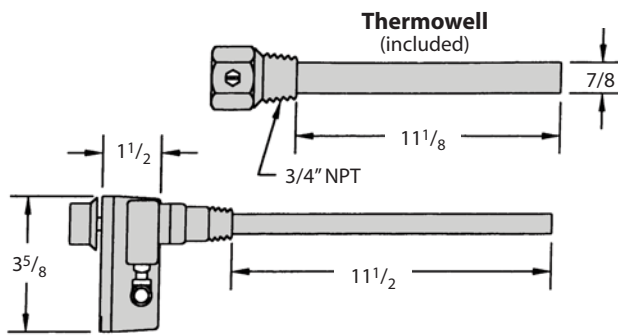


Description of Operation

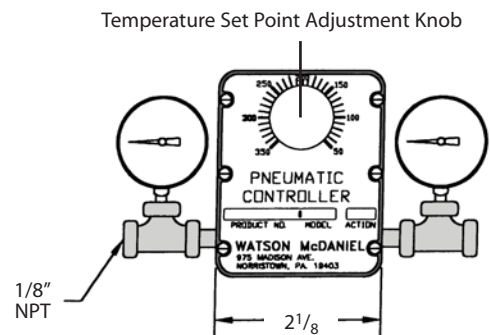
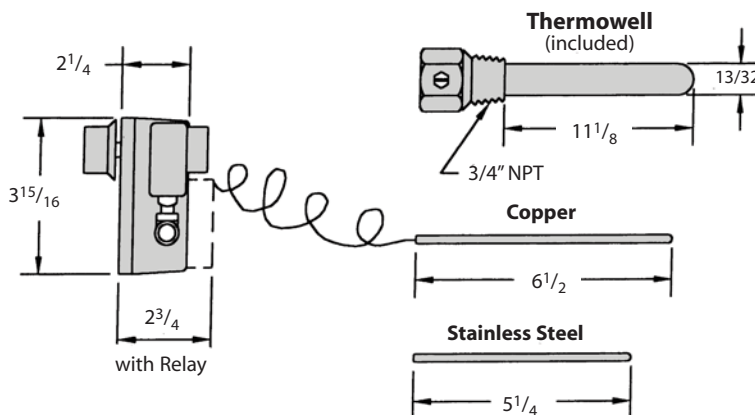
The PTL Pneumatic Temperature Controller senses outlet water temperature on a semi-instantaneous hot water heater. When the outlet water temperature falls below the set point, the PTL pneumatic temperature controller sends an air signal to the PA Air Pilot, which opens the regulator, allowing steam to heat the tank. When the water reaches the desired set temperature, the PTL pneumatic temperature controller shuts off the air signal to the PA Air Pilot and the regulator closes, cutting off steam to the heater.

Pilot-Operated REGULATORS

Model PTL (DIRECT Mounted)



Model PTR (REMOTE Mounted)



Units: inches