

# PTL & PTR Controller

Pneumatic Temperature Controller (used with Air Pilot)

## Pneumatic Temperature Controller

PILOT-OPERATED REGULATING VALVES

- Max Inlet Pressure: 300 PSIG
- Temperature Range: PTR: 0-300 °F  
PTL: 50-350 °F
- Minimum Inlet Pressures:  
15 PSIG when used with standard main valve  
5 PSIG when used with low pressure main valve



**PTL**  
(mounts directly on tank or vessel)



**PTR**  
(mounts remotely with 4-ft. Capillary)

### TYPICAL APPLICATIONS

The **PTL** and **PTR Pneumatic Temperature Controllers** operate over a wider temperature range than our standard "T" temperature pilot. These temperature controllers also react quicker to temperature change which make them an excellent choice for instantaneous hot water applications.

### HOW IT WORKS

The **PTL** and **PTR Pneumatic Temperature Controllers** are used in conjunction with an "A" Air Pilot to control the operation of the HD Regulator. The **PTL** uses a bimetallic element to sense temperature and the **PTR** uses a hydraulically filled bulb with a 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
- Covers control temperature range of 0-350 °F

### MINIMUM OPERATING PRESSURES

Minimum Inlet Pressure:

- 15 PSIG (Standard Main Valve)
- 5 PSIG (Low Pressure Main Valve)

Model	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.

### HOW TO ORDER

#### PTL & PTR PNEUMATIC TEMPERATURE CONTROLLER

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

#### AIR PILOT

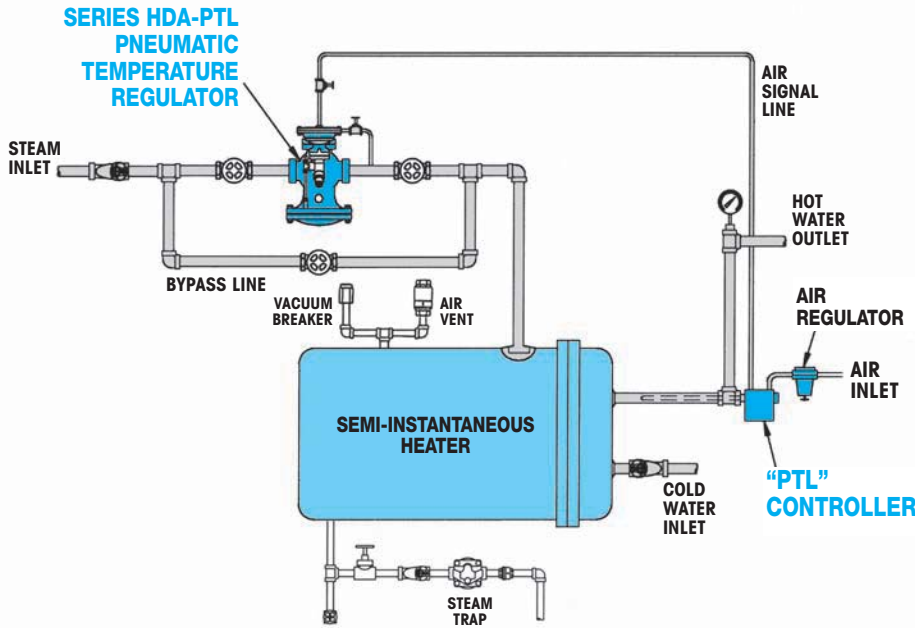
Specify: • A1, A4 or A6 Air Pilot model (refer to Air Pilot section)

#### REGULATOR BODY

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

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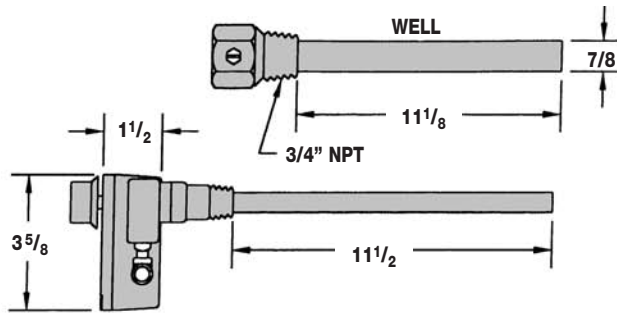


## DESCRIPTION OF OPERATION

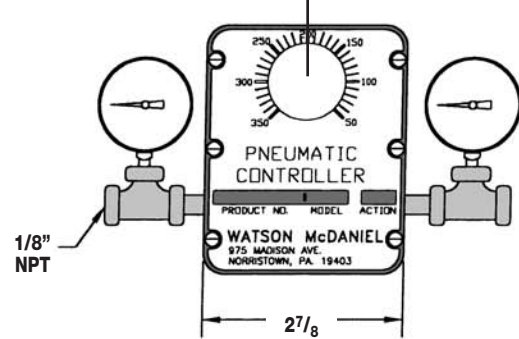
The PTL Pneumatic Temperature Controller senses outlet water temperature on a semi-instantaneous hot water heater. When the outlet water temperature falls below the set point, the PTL pneumatic temperature controller sends an air signal to the A1 Air Pilot which opens the regulator, allowing steam to heat the tank. When the water reaches the desired set temperature, the PTL pneumatic temperature controller shuts off the air signal to the A1 Air Pilot and the regulator closes, cutting off steam to the heater.

PILOT-OPERATED REGULATING VALVES

### Model PTL (direct mounted)

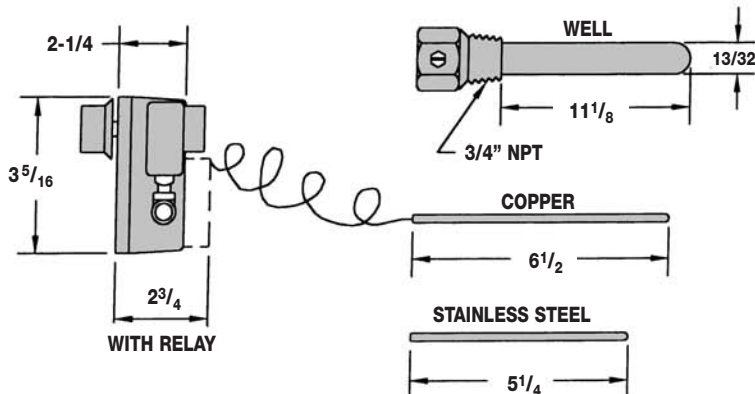


### TEMPERATURE SET POINT ADJUSTMENT KNOB



Units: inches

### Model PTR (remote mounted)



### TEMPERATURE SET POINT ADJUSTMENT KNOB

