

The Phoenix Controls PTC Series Thermostats are specifically designed for room applications where constant volume valves are used and there is a need for local hydronic reheat control.

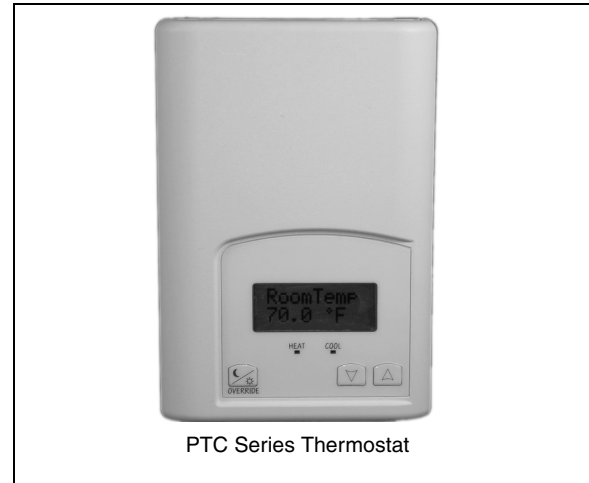
The product features a backlit LCD display with dedicated function menu keys for simple operation. Accurate temperature control is achieved with a Proportional Integral (PI) control algorithm, virtually eliminating temperature drift associated with traditional, differential-based thermostats. Models are available for three point floating and analog 0 - 10 Vdc control. Remote room sensing is also available.

- All devices include a LonTalk® or BACnet® MS/TP network adapter.
- All models contain a Single Pole, Single Throw (SPST) auxiliary switch that can be used to control lighting or auxiliary reheat.
- Three additional inputs are also provided for monitoring and/or various advanced functions.

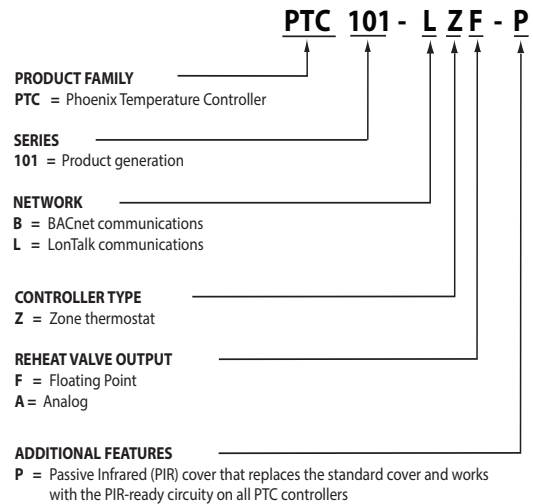
The thermostats are also compatible with a Passive Infrared (PIR) cover for providing advanced active occupancy logic, which automatically switch occupancy levels from Occupied to Stand-By and Unoccupied as required by local activity being present or not. This advanced occupancy functionality provides advantageous energy savings during occupied hours without sacrificing occupant comfort.

FEATURES AND BENEFITS

- Through the network or smart local occupancy sensing for occupied, unoccupied, standby.
- Ready for PIR accessory cover for fully integrated motion-detecting occupancy functionality with optional PIR accessory cover.
- Three configurable inputs. BACnet: 2 floating point, 1 digital. LonMark: 2 analog, 1 digital for remote timer, door-contact or occupancy trigger, heat/cool changeover functions.
- Pre-configured sequences of operation - full Proportional Integral (PI) functionality to prevent short cycling, anticipate demand, and conserve energy.
- Configuration utility provides single interface to configure multiple devices.
- Lockable keypad - tamper proof, no need for thermostat guards.
- Available for 24 Vac On/Off, Floating Point or Analog reheat control; meets requirements for either type of valve.
- Auxiliary output for lighting or reheat.
- LonTalk® or BACnet® communication providing network integration functionality mapping points to building management system.
- Simple plug and play operation: pre-configured default values for stand-by setpoints and PIR timer settings.



ORDERING GUIDE



NOTE:
PTC101-LZA and PTC101-LZF are not available without suffix -P for passive infrared cover.

RETROFIT UPGRADE

Existing standard PTCs can be upgraded to make use of the passive infrared (PIR) capability built into their circuitry. All that is required is a PIR cover to replace the existing standard one. The PIR cover accessory can be ordered as PTCACC-P.

SPECIFICATIONS

Power

24 Vac (19-30 Vac range), 50/60 Hz, 2 VA Class 2

Ambient Temperature

- Operating: 32-122 °F (-30-50 °C)
- Storage: -22-122 °F (-30-50 °C)

Humidity

0-95% RH non-condensing

Dimensions

4.94" H x 3.38" W x 1.13" D
(125 mm x 86 mm x 29 mm)

PIR Cover Power Requirement

5 Vdc current draw of 7 mA

Sensor

Local Passive Infrared Sensor

Shipping Weight

0.75 lb. (0.34 kg)

Wire Gauge

18 gauge maximum, 22 gauge recommended

Binary Inputs

Dry contact across terminal BI1, BI2 and UI3 to Scom

Contact Output Rating

- Triac output: 30 Vac, 1 Amp Maximum, 3 Amp in-rush
- Analog: 0 to 10 Vdc into 2k ohm resistance minimum

Temperature Sensor

Local 10 K NTC thermistor

Temperature Sensor Resolution

±0.2 °F (±0.1 °C)

Temperature Control Accuracy

±0.9 °F (±0.5 °C) @ 70°F (21 °C) typical calibrated

Occ, Stand-by and Unocc Cooling Set Point Range

54 to 100 °F (12 to 37.5 °C)

Occ, Stand-by and Unocc Heating Set Point Range

40 to 90 °F (4.5 to 32 °C)

Room and Outdoor Air Temperature Display Range

-40 to 122 °F (-40 to 50 °C)

Proportional Band for Room Temperature Control

Cooling and Heating: 3.2 °F (1.8 °C)

Regulatory Compliance



- RoHS
- FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

- EU Contact Address:

Honeywell GmbH
Boeblinger Str. 17
71101 Schoenaich
Germany

- UL 873 (US)
- Industry Canada (ICES-003)
- C-Tick (AS/NZS CISPR 22 Compliant)



APPLICATIONS

PTC Series thermostats can be used in any application where a local temperature display and keypad interface is desired for users to change temperature setpoints. The PTC Series thermostats includes a keypad that can be locked-out for applications where it is necessary to prevent users from changing temperature settings.

The LCD display shows the following indications, which scroll for ease of readability:

- Room temperature with 0.5° resolution (°F or °C)
- Occupied status (Occupied, Unoccupied, Override)
- Equipment status (Heat, Cool)
- Demand status LEDs (call-for-heating, call-for-cooling)

The PTC Series thermostats can also be wired with optional room or duct temperature sensors for projects that require remote temperature sensing, space temperature averaging, or the absence of wall-mounted units for architectural reasons.

An optional component to the PTC Series thermostats is a Passive Infrared (PIR) cover which houses a motion detector to sense movement in the room. The PIR cover enables automatic stand-by or unoccupied modes and setpoints to take effect when the space is not used and energy savings are desired. The time between movement sensing by the PIR is configurable so that different types of space occupancy scenarios can be implemented.