CHV-THSTAT-PIR-10

Heating/Cooling Thermostat, 0-10V or Relay Control, with Occupancy Sensor



- Compatible with conventional heat/cool 2H/2C systems, heat pump 2H/2C systems with auxiliary heat, dual-fuel heat pump, 2-Pipe FCU, 4-Pipe FCU, and humidity control
- Supports 0-10V or relay control for heating, cooling, and fan speed
- Backlit LCD display
- Large, backlit push buttons for heating, cooling, fan speed, temperature scale, and temperature adjustments
- Built-in passive infrared (PIR) sensor to detect room occupancy for energy efficiency
- Designate up to four setpoints based on occupancy and hospitality room booking status
- External temperature/humidity sensor input enables the use of an extra, alternative, or auto-changeover sensor
- Control system integration via the Cresnet® network
- Utilizes built-in temperature and humidity sensors
- Wall-mount installation
- Available in white and black finishes

The CHV-THSTAT-PIR-10 thermostat enables precision control of two stage heat/cool systems, two stage heat pump systems with an auxiliary heat stage, 2-pipe and 4-pipe FCU systems, and humidity systems. Achieve variable heating, cooling, and fan speed control in hotels, apartments, or other multi-dwelling residences with 0-10V or relay control options. A built-in passive infrared (PIR) sensor detects room occupancy for energy efficiency. Whether used as a standalone unit or as part of a complete Crestron control system, the CHV-TSTAT-PIR-10 delivers complete functionality in a stylish wall mount design.

Simple Operation

The backlit LCD display with a simple user interface and intuitive push buttons make this thermostat easy to use and ideal for hospitality installs. The screen displays useful information such as the current setpoint, mode, fan setting, and (optionally) the current room temperature. The thermostat provides buttons for raising or lowering the temperature, changing the climate mode, adjusting the fan speed, and toggling between Fahrenheit and Celsius.

Complete Climate Control

Climate control features include separate heating and cooling setpoints, with an optional automatic changeover between heating and cooling modes. Adjustable anticipators and staging parameters ensure a comfortable space. Continuous fan operation can be selected when needed for increased circulation.

Occupancy Sensing

Built with versatility and energy efficiency in mind, the CHV-THSTAT-PIR-10 features a built-in PIR sensor to ensure that energy spent on climate control is never wasted on a vacant room.

Automation System Integration

Multiple Crestron thermostats may be networked via Cresnet wired communications, a simple 4-wire network bus that acts as the communications backbone for Crestron lighting dimmers, keypads, shades, thermostats, and other devices. Integrate the thermostat network with a Crestron control system to enable global temperature and humidity adjustments from any thermostat in the system.

Specifications

Measurement Range

0° to 110°F (-18-43°C)

Temperature and Humidity Tolerance

Over Full Range	±1°F (±0.5°C)
Humidity	±5%

Setpoint Range

Heat	38° to 89°F (3° to 32°C)
Cool	59° to 99°F (15° to 37°C)

Relay Rating

1A @ 40VDC or 24VAC (nominal)

Power Requirements

Cresnet® Network	24VDC
HVAC Unit	24VAC
Power Consumption	Approximately 1.5 W

NOTE: The device can be powered entirely via Cresnet 24VDC by placing a jumper between the Cresnet 24/G and HVAC 24R/24C connections and setting the POWER jumper to 24R. Powering the CHV-THSTAT-PIR-10 from the HVAC system is recommended when possible.

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Communications

Cresnet Wired	Control system integration or networking; Unit is a fully functional standalone thermostat and does not require a connection to the Cresnet network

Buttons

Mode	Switches between Off, Heat, Cool, and Auto modes
FAN	Controls fan speed; Cycles through Auto, High, Medium, and Low settings
UP	Raises the room's setpoint by 1.0°F, 1.0°C, or 0.5°C, depending on the active temperature scale and device settings
Down	Lowers the room's setpoint by 1.0°F, 1.0°C, or 0.5°C, depending on the active temperature scale and device settings
C|F	Switches between Fahrenheit and Celsius temperature scales

Motion Sensor

On-board passive infrared sensor;
Enables thermostat to switch between four previously defined setpoints based on occupancy and hospitality room booking status;
When motion is detected, the Occupied setpoint is used;
When the room is vacant, the Unoccupied setpoint is used

Sensor Range	15 ft (4.6 m)
Sensor Angle	144 degrees horizontal; 30 degrees vertical

Display

Displays current room temperature, current setpoint, current Heat or Cool mode, thermostat's call for heating or cooling, and current fan setting

Type	Transflective LCD, backlit
Size	2.75 in. (70 mm)
Resolution	128 x 64
Viewing Angle	±50° horizontal at 0° vertical; ±50° vertical at 0° horizontal

Connections

24C	(3) Common for 24VAC/VDC device power connection
24R	(1) 24VAC/VDC Device Power Connection
R	(1) Reference voltage for heat, cool, compressor and fan relay calls.
GH	Non-FCU: (1) Fan call FCU: (1) Fan call (high)
GM*	Non-FCU: (1) W2 or O call; FCU: (1) Fan call (medium)
GL*	Non-FCU: (1) Y2 (compressor stage 2) call; FCU: (1) Fan call (low)
Y	Non-FCU: (1) Cool or compressor stage 1 call; FCU (4-Pipe): (1) Cool valve call; FCU (2-Pipe C): (1) Cool valve call
W	Non-FCU: (1) Heat call; FCU (4-Pipe): (1) Heat valve call; FCU (2-Pipe H/C): (1) Valve call; FCU (2-Pipe H): (1) Heat valve call
HUM	(1) Humidistat call
RHU	(1) Reference, humidistat call
TS+ and TS-	(2) Remote sensor inputs, comprised of TS1+ and TS1- terminals; For remote temperature sensors (CHV-RTS, CHVI-RTS-1G-N-W, and CHVI-RTS-1G-SM-W), remote slab sensor (CHV-RSS), remote temperature and humidity sensors (CHV-RTHS), and 10k thermistors (all sensors and thermistors are sold separately); Using CAT5 or similar low-capacitance wire, connect up to (2) Crestron temperature sensors, (1) Crestron temperature/humidity sensor, or (1) 10k thermistor; Can also be designated as an autochangeover sensor for an FCU 2-pipe heat/cool system

NOTES:

- **TS1+** and **TS1-** connections are non-polarized. The + and - designations are provided to simplify wiring.
- Use a seperate run of wire for each sensor.
- Sensor lines should not be run parallel to any other wiring. Lines should cross other cables at right angles.
- Using one twisted pair on CAT5/CAT6 or similar low-capacitance wire allows wiring lengths up to 500ft (152 m) from the CHV-THSTAT-PIR-10.
- If possible, use STP cable and connect the shield to ground. If no ground is present, connect the shield to the thermostat 24C connection.
- In situations where ordinary two-conductor thermostat wire (18 or 20 AWG) has been installed, it may be used for runs up to 100ft (30m) but this is not a preferred method of installation.

GM	(1) 0-10V fan control
WM	FCU (4-Pipe): (1) Heat valve call FCU (2-Pipe H/C): (1) Valve call FCU (2-Pipe H): (1) Heat valve call
YM	FCU (4-Pipe): (1) Cool valve call FCU (2-Pipe C): (1) Cool valve call
Cresnet Network (G, Z, Y, 24)	(1) 4-position terminal block; Cresnet device port, connects to Cresnet control network

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Environmental

Humidity	10% to 95% RH (noncondensing)
Temperature	32° to 122°F (0° to 50°C)

Construction

White or black plastic, surface-mountable to the front of a horizontally-oriented 1-gang electrical box

Dimensions

Height	4.00 in. (102 mm)
Width	5.00 in. (127 mm)
Depth	1.10 in. (28 mm)

Weight

5.80 oz (165 g)

Compliance

Regulatory Model: M202349001

FCC Part 15 Class B, IC Class B, CE, Intertek® Listed for US and Canada

Models

CHV-THSTAT-PIR-10-W-T
Heating/Cooling Thermostat, 0-10V or Relay Control, with Occupancy Sensor, White Textured

CHV-THSTAT-PIR-10-B-T
Heating/Cooling Thermostat, 0-10V or Relay Control, with Occupancy Sensor, Black Textured

Available Accessories

For a list of available accessories, visit the CHV-THSTAT-PIR-10 product page.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting www.crestron.com/contact/our-locations for your local contact.

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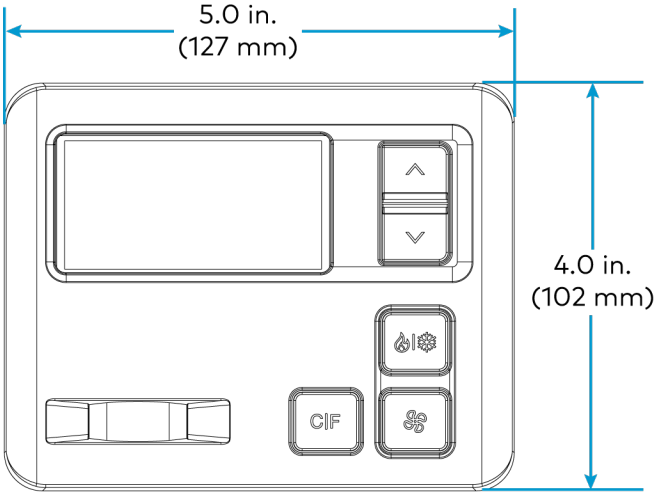
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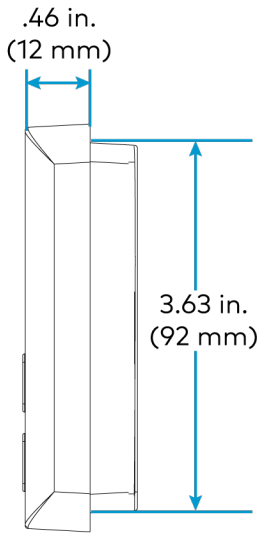
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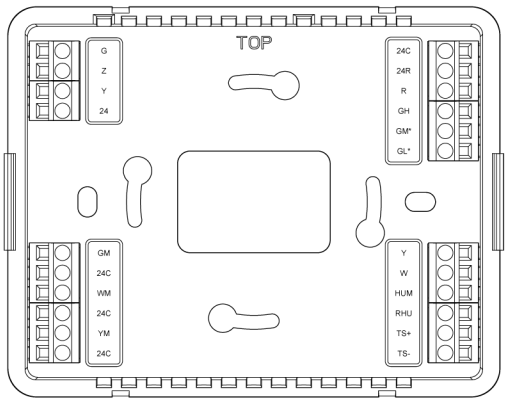
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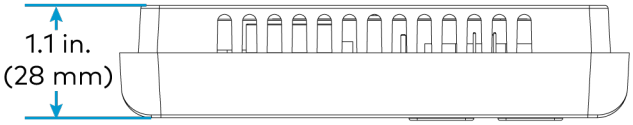
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