CHV-TSTAT-FCU-PIR-10

0-10V Heating/Cooling Fan-Coil Thermostat

> *0-10 Volt FCU thermostat for variable heating, cooling, and fan speed control*

> *Additional heating relay for traditional heating elements*

> *Built-in PIR sensor to detect room vacancy for energy efficiency*

> *Cresnet® communications*

> *Backlit LCD display*

> *Large, easy-to-use front panel buttons for heating, cooling, fan speed, temperature scale, and temperature adjustments*

> *Wall-mount installation*

The CHV-TSTAT-FCU-PIR-10 thermostat enables precision 0-10 Volt control of fan coil unit (FCU) HVAC systems. Achieve variable heating, cooling, and fan speed control in hotels, apartments, or other multi-dwelling residences. Built with versatility and energy efficiency in mind, this thermostat has the additional benefit of a built-in passive-infrared (PIR) sensor to ensure that energy spent on climate control is never wasted on a vacant room. Whether used as a standalone unit or as part of a complete Crestron® control system, the CHV-TSTAT-FCU-PIR-10 delivers superior functionality in a stylish wall mount design – a complement to any décor.
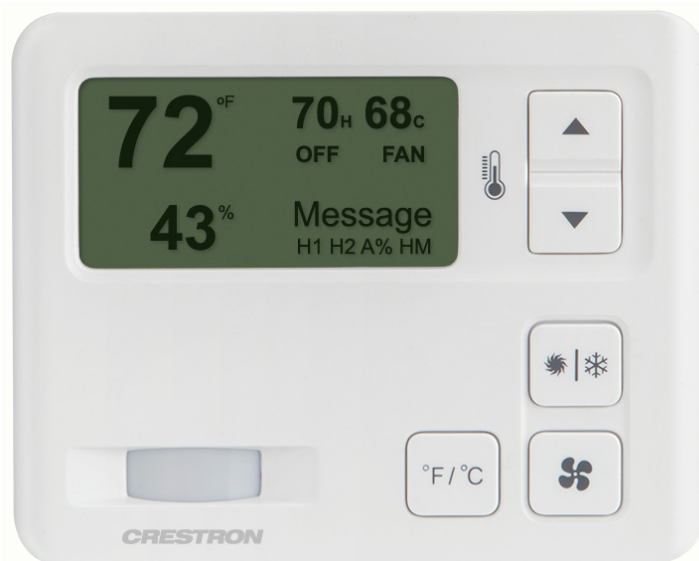
The backlit LCD display and large, easy-to-read pushbuttons make this thermostat easy to navigate and use. The screen displays useful information such as the current room temperature, setpoint, mode, and fan setting. Pushbuttons for raising and lowering the temperature, putting the unit in Heat or Cool mode, adjusting the fan speed, and toggling between temperature scales complete the sleek look and intuitive controls of this thermostat. Climate control features include separate heating and cooling setpoints, with an optional automatic changeover between heating and cooling modes. Adjustable anticipators prevent overshooting the set temperature, and continuous fan operation can be selected when needed for increased circulation.

Multiple Crestron thermostats may be networked via Cresnet® wired communications,[1] 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 any 3-Series® control system, including the DIN-AP3, to enable global temperature and humidity adjustments from any thermostat in the system. Access automation functions such as lighting, motorized blinds, or lawn sprinklers through two custom remote-function pages. Customized text messages such as maintenance reminders and other alerts can be sent to every thermostat's LCD display via the control system.

SPECIFICATIONS

Measurement Range

0º to 110º F (-18º to 43º C)

Temperature Tolerance

Over Full Range: ±1º F (±0.5º C)
At Room Temperatures: ±1º F (+0.1/-0.4º C)

Setpoint Range

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

Relay Rating

1 Amp at 40 Volts DC or 24 Volts AC (nominal)

Power Requirements

Cresnet®: 24 Volts DC
HVAC: 24 Volts AC
Power Consumption: Approximately 1.5 Watts

Communications[1]

Cresnet

Fan Coil Unit Control

Fan Control: Variable speed control via 0-10 Volt signal; 20 mA max sink or source
Cooling: Variable valve control via 0-10 Volt signal; 20 mA max sink or source
Heating (Modulating Valve): Variable valve control via 0-10 Volt signal; 20 mA max sink or source
Heating (Relay): Contact closure to HVAC

CRESTRON®

Buttons

HOT/COLD: Toggles between Heat and Cool modes
FAN: Controls fan speed; Cycles through Auto, High, Medium, Low, and Off settings
UP: Raises the room's setpoint by 1º F or 0.5º C, depending on the active temperature scale
DOWN: Lowers the room's setpoint by 1º F or 0.5º C, depending on the active temperature scale
ºF/ºC: Toggles between Fahrenheit and Celsius temperature scales

Motion Sensor

On-board passive infrared sensor; Enables thermostat to toggle between two previously defined setpoints;
When motion is detected, the Occupied setpoint is used;
When the room is vacant, the Unoccupied setpoint is used

Display

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

Connections

HVAC: (3) 6-position terminal blocks with connections that include the following:
Power Connections (Required):
24 (C): 24V AC common terminal supplies remote 24V AC power to thermostat
24 (R): 24V AC reference terminal – Can be connected to RH or RC by P4 jumper setting, or tied directly to power source
HVAC Control Connections (System Dependent):
FAN 0-10V
FAN COMMON
HEAT 0-10V
HEAT COMMON
COOL 0-10V
COOL COMMON
HEAT RELAY A
HEAT RELAY B

NETWORK: (1) 4-position terminal block;
Cresnet slave port, connects to Cresnet control network

Enclosure

Plastic, surface-mountable to the front of a horizontally-oriented 1-gang electrical box

Dimensions

Height: 3.75 in (96 mm)
Width: 5.00 in (127 mm)
Depth: 1.18 in (30 mm)

Weight

5.80 oz (165 g)

MODELS & ACCESSORIES

Available Models

CHV-TSTAT-FCU-PIR-10-W-T : 0-10V Heating/Cooling Fan-Coil Thermostat, White Faceplate

Available Accessories

CRESNET-HP-NP-TL-SP1000: Cresnet® "High-Power" Control Cable, non-plenum, teal, 1000 ft spool
CRESNET-HP-NP-TL-SP500: Cresnet® "High-Power" Control Cable, non-plenum, teal, 500 ft spool
CRESNET-NP-BK-B500: Cresnet® Control Cable, non-plenum, black, 500 ft box
CRESNET-NP-OR-B500: Cresnet® Control Cable, non-plenum, orange, 500 ft box
CRESNET-NP-TL-B250: Cresnet® Control Cable, non-plenum, teal, 250 ft box
CRESNET-NP-TL-B500: Cresnet® Control Cable, non-plenum, teal, 500 ft box
CRESNET-NP-TL-SP1000: Cresnet® Control Cable, non-plenum, teal, 1000 ft spool
CRESNET-NP-TL-SP500: Cresnet® Control Cable, non-plenum, teal, 500 ft spool
CRESNET-P-BK-SP500: Cresnet® Control Cable, plenum, black, 500 ft spool
CRESNET-P-OR-SP500: Cresnet® Control Cable, plenum, orange, 500 ft spool
CRESNET-P-TL-SP1000: Cresnet® Control Cable, plenum, teal, 1000 ft spool
CRESNET-P-TL-SP500: Cresnet® Control Cable, plenum, teal, 500 ft spool

Notes:

1. Unit is a fully functional standalone thermostat. Cresnet communications are for networking or control system integration.
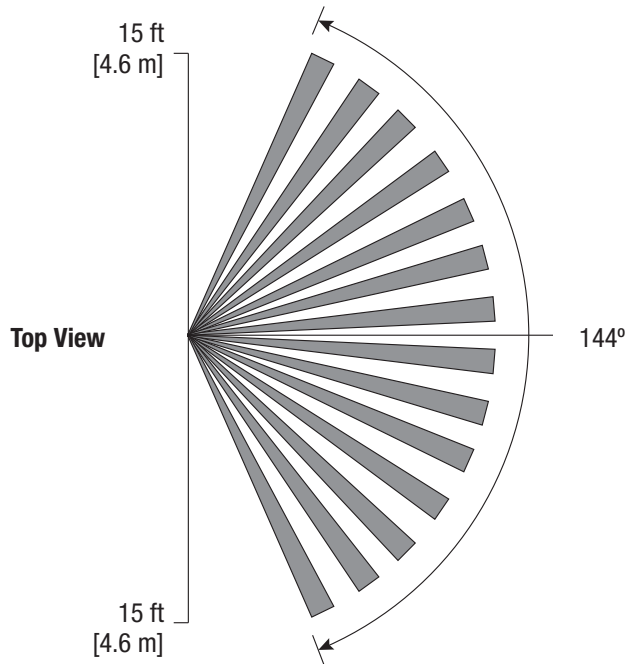
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.
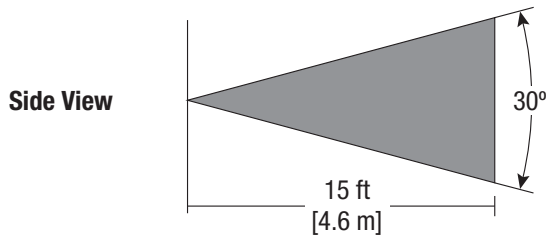
Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

PIR SENSOR COVERAGE PATTERN

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15 ft
[4.6 m]

Top View

144º

15 ft
[4.6 m]

Side View

30º

15 ft
[4.6 m]

CAD DRAWING

4.63 in
[118 mm]

5.00 in
[127 mm]

1.10 in
[28 mm]

0.64 in
[16 mm]

3.27 in
[83 mm]

4.00 in
[102 mm]

3.63 in
[92 mm]

°F/°C