

Description and Application

The KMC CTE-5201-16 is a single-setpoint, direct-acting electronic room thermostat with a modular connector. Use this thermostat with relays or actuators, such as the KMC MEP-4042/4842, that have high impedance inputs (10K ohms or higher) and that require a 2–10 volt DC input.

Features

- ◆ Modular connector simplifies wiring to relays or actuators with modular connectors
- ◆ Large LCD display with backlight for easy viewing
- ◆ Display space temperature in either degrees Fahrenheit or degrees Celsius
- ◆ Flip-open cover to access advanced features
- ◆ Pushbutton initiation of unoccupied/occupied modes
- ◆ Adjustable min./max. limits, proportional band, integral, and temperature offset

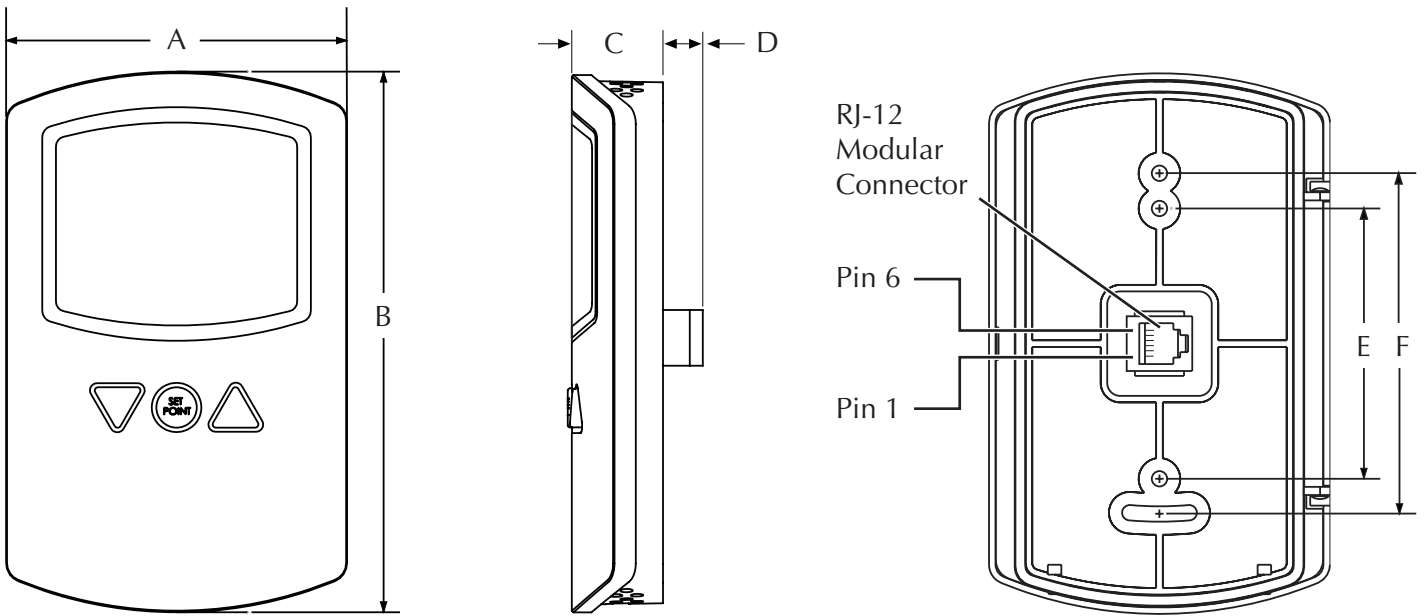


Specifications

Supply Voltage	16 volts DC (14 to 19 VDC)	Display	Temperature continuously updated on 0.56 inch, three-character, liquid crystal display; automatic backlight
Output	Direct acting, 2 to 10 VDC (0 VDC during Unoccupied Off mode)	Temperature Sensor	
Setpoint Range	60 to 85° F (15.6 to 29.4° C)	Type	10,000 ohm thermistor
Proportional Band	Adjustable from 2 to 6° F (1.1 to 3.3° C)	Accuracy	±0.36° F (±0.2° C)
Limits	Minimum and maximum limits adjustable over 0 to 100% of output	Operating Range	34 to 125° F (1 to 51° C)
Unoccupied Mode	Off (default) or deadband	Connector Type	Output and power supply connection via modular six-wire RJ-12 connector
Off Mode	Output set to 0 VDC (to maintain 50 to 55° F, safety override cycles output from 0 to 2 volts)	Weight	2.8 ounces (80 grams)
Deadband Mode	Integral action disabled and setpoint set to default with ±10° F deadband (deadband output is set midway between the min. and max. limits)	Material	Light almond flame-resistant plastic
Temperature Offset	Adjustable ± 2° F (± 1.1 C°)	Mounting	Backplate mounts to 2 x 4 inch vertical standard handy-box; thermostat secured to backplate by two concealed screws
Integration Time	15 to 60 minutes (0 = none); default setting is 30 minutes	Environmental Limits	
		Operating	34 to 125° F (1.1 to 51.6° C)
		Humidity	0 to 95% RH, non-condensing
		Shipping	-40 to 140° F (-40 to 60° C)

Specifications and design subject to change without notice.

Details

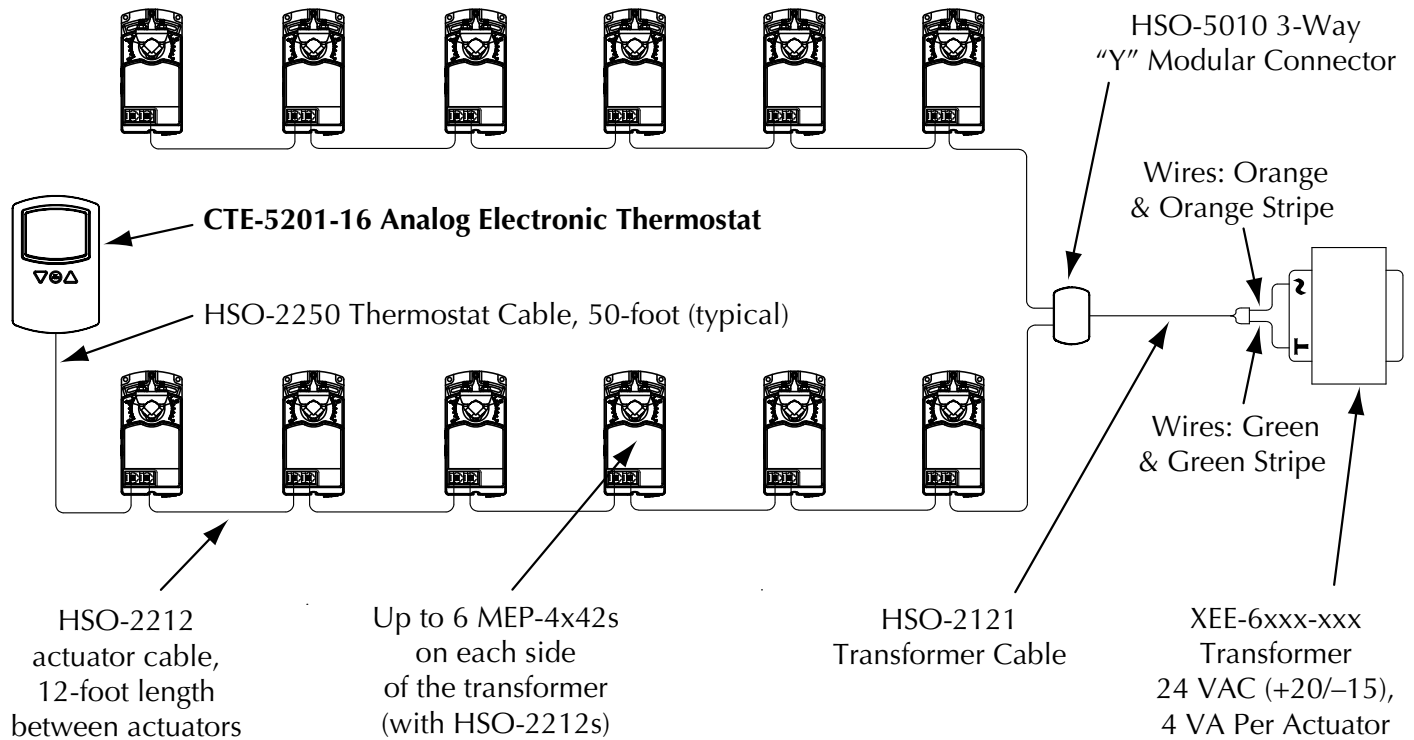


A	B	C	D	E	F
3.25 in.	5.16 in.	0.88 in.	0.38 in.	2.58 in.	3.25 in.
83 mm	116 mm	22 mm	10 mm	66 mm	83 mm

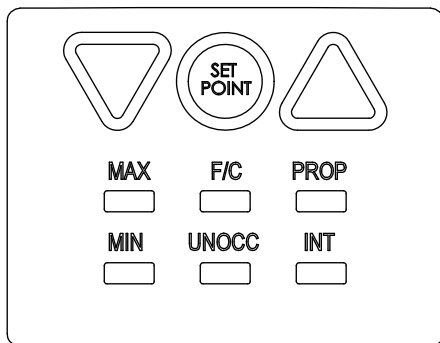
Pin 1 and 6	Pin 2 and 5	Pin 3	Pin 4
N/C	Common	Supply (14–19 VDC)	Output (2–10 VDC)*

*0 VDC during Unoccupied Off mode when temperature stays above 50° F

Sample Application



Operation



Turn On Backlight

Pressing any button turns on the backlight, which will remain on until about nine seconds after the last button press.

Change Setpoint

To change the setpoint, push the Setpoint button to display the current value. Use the Up/Down buttons to change the value. After the display reverts back (after about nine seconds) to displaying the room temperature, the thermostat will control at the new setpoint.

NOTE: After a power loss, the setpoint will revert to the default value (70° F or 21.1° C is the factory default). This default value is also used in the deadband unoccupied mode. To change the default value, see the [CTE-5201 Installation Guide](#).

Start Unoccupied Mode

Flip open the cover (hinged on the left side) and momentarily push the UNOCC button. The thermostat will stay in Unoccupied mode until the Setpoint button or one of the Up/Down buttons are pushed.

NOTE: There are two unoccupied mode options, Off (the default) or Deadband. See the [CTE-5201 Installation Guide](#) for details.

Toggle Between °F and °C

To **temporarily** view the other temperature scale, flip open the cover (hinged on the left side), and momentarily press the F/C button. The alternative scale will appear as long as the backlight is on.

To make the desired F or C scale mode **permanent** (the scale persists instead of being momentary), press and hold the F/C button down for approximately 10 seconds until the display begins to flash. To return to the previous scale mode, repeat the process.

Accessories

Cables

- HSO-5012 Thermostat plenum cable, 50 ft., with RJ-12 plug on one end and stripped/tinned wires on the other end
- HSO-22xx Modular thermostat plenum cables, RJ-12 plug on both ends (see the table below and the sample application on the previous page for the appropriate part number)

Cable P/N	Cable Length	Max. # of Daisy-Chained MEP-4x42s	
		WithOUT HSO-5010	With HSO-5010
HSO-2203	3 feet	6	12
HSO-2206	6 feet	6	12
HSO-2212	12 feet	6	12
HSO-2220	20 feet	4	8
HSO-2250	50 feet	2	4

Miscellaneous

- HMO-1161 4 x 4 inch mounting backplate, light almond
- HPO-0044 Replacement cover hex screws
- HPO-1161 Foam insulating gasket
- MEP-4042/4842 Modular actuators
- SP-001 KMC-branded screwdriver with flat blade and 1/16" hex end for cover screws

KMC Controls, Inc.

19476 Industrial Drive
New Paris, IN 46553
574.831.5250

www.kmcccontrols.com
info@kmcccontrols.com