

Description and Application

These thermostats are designed to be used with CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling dampers, valves, and refrigeration in HVAC systems. The CTE-5003/5013 series single setpoint thermostats provide triple 0–6.5 VDC outputs for Direct Acting (DA) cooling with adjustable min/max limits, auxiliary control point, Reverse Acting (RA) heating with adjustable deadband, and refrigeration staging. Several mounting methods are available, including direct mounting to a hollow wall or to an electrical box using an adapter backplate.

These inexpensive thermostats provide precise control, while offering the ability to adjust the control points at the thermostat rather than at the controller-actuator. The deadband, minimum, maximum, and auxiliary flow limits can be adjusted from the thermostat (via potentiometers behind the cover). The setpoint adjustment and indication are on the top of the cover and can be hidden by installing the optional setpoint cover.

These thermostats are intended for use with the REE-4019 three-stage refrigeration relay and the following controller/actuators:

- CEE-4000 Series
- CEP-4000 Series
- CSE-4000 Series
- CSP-4000 Series

Features

- ◆ Single setpoint
- ◆ Operates from 9.1 VDC supplied voltage
- ◆ Triple 0–6.5 VDC outputs for DA cooling, RA heating, and refrigeration staging
- ◆ Precise control from the thermostat via the setpoint dial as well as deadband, auxiliary, minimum, and maximum pots on the circuit board (accessed by removing the front cover)
- ◆ CFM and Cooling Output voltage test points accessed by removing the front cover



Models

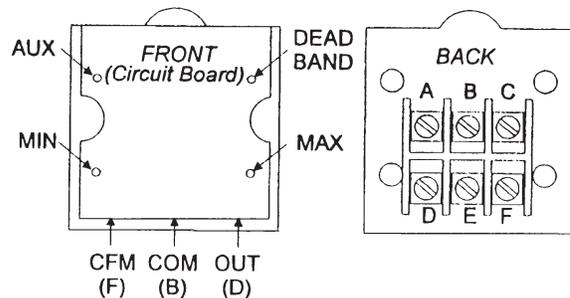
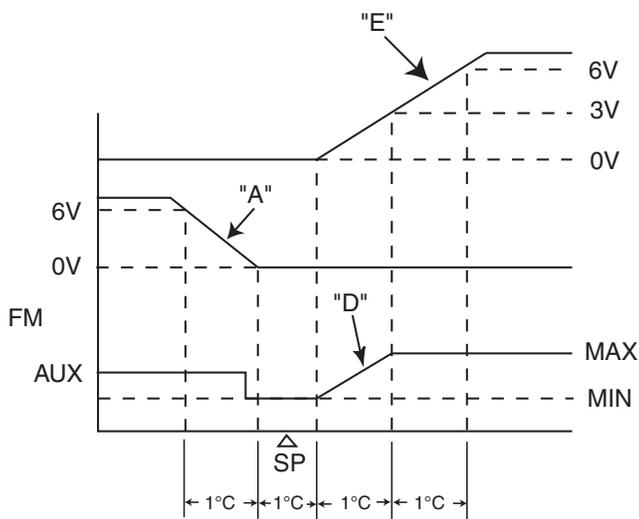
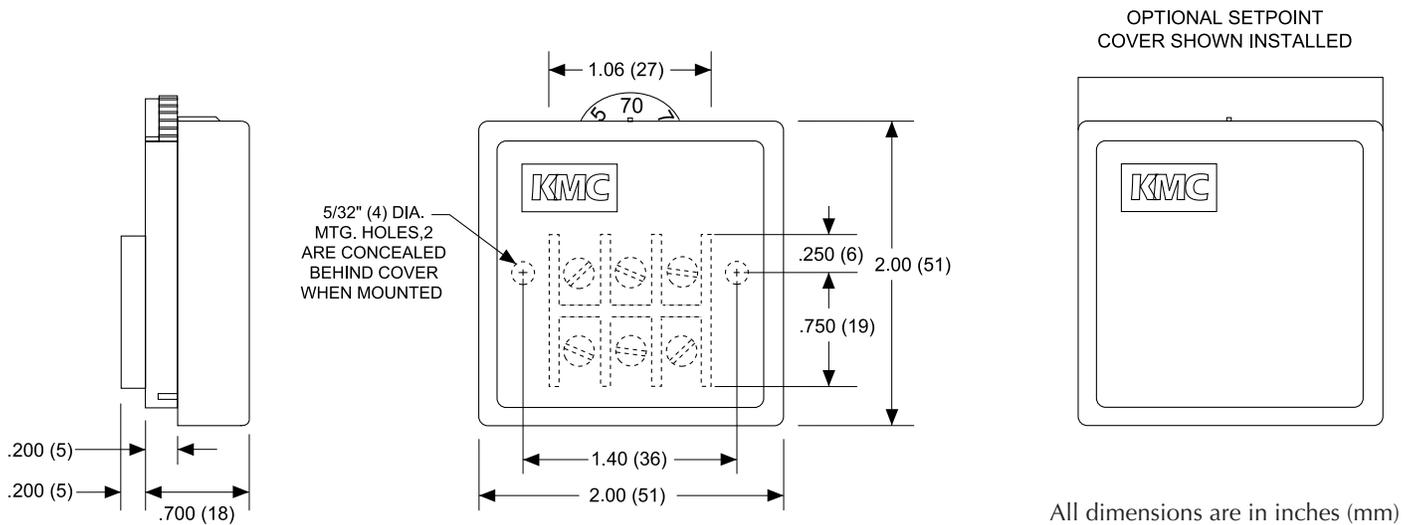
CTE-5003-10	Ash white, °F
CTE-5003-11	Ash white, °C
CTE-5013-10	Light almond, °F
CTE-5013-11	Light almond, °C

Accessories

HMO-5001	Dual toggle bolt for backplate mounting to drywall
HMO-5014	Insulating stand-off, light almond
HMO-5016	Insulating stand-off, white
HMO-5036	Adapter backplate to vertical handy box, light almond
HMO-5037	Adapter, vertical, white
HMO-5038	Adapter backplate to horizontal handy box, white
HMO-5039	Adapter, horizontal, light almond
HPO-0031	Setpoint cover, white
HPO-0032	Setpoint cover, light almond
REE-4019	Relay, 3-stage refrigeration
XEE-4002	Power supply, 24 VAC to 9.1 VDC

For more accessories, see the Thermostats section of the Electronic and Pneumatic Condensed Catalog.

Dimensions and Connectors



- Terminal **A (Heating)**: To relay for reheat control
- Terminal **D (Cooling)**: To CEE/CEP/CSE/CSP-4xxx controller actuator
- Terminal **E (Refrigeration)**: To REE-4019 three-stage refrigeration relay

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6.5 VDC (all outputs)
Temperature Range	54 to 90° F (12 to 32° C)
Proportional Band	
Cooling	1.8° F (1° C)
Heating	1.8° F (1° C)
Refrigeration	3.6° F (2° C)
Deadband Adjust.	1 to 10° F (0.56 to 5.6° C)
Thermostat Action	
Cooling	Direct Acting (DA)
Heating	Reverse Acting (RA)
Refrigeration	Direct Acting (DA)
Cover Type	Blank w/ setpoint indicator
Material	Ash white or light almond flame-retardant plastic

Size	2" (51 mm) square
Weight	1.25 oz. (35 grams)
Temperature Limits	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

NOTE: For similar thermostats without refrigeration, see the CTE-5002/5012 series.

KMC Controls, Inc.

19476 Industrial Drive, New Paris, IN 46553

574.831.5250

www.kmcccontrols.com; info@kmcccontrols.com