

Installation Guide

Mounting

The controller can be mounted in any position, but avoid locations subject to excessive vibration. For manual reset models, position the controller to permit convenient access to the reset button.

1. Loosen the front screw and remove the cover.
2. Using the two 3/8" mounting keyholes, mount the case flush against the duct work or any flat surface.
3. Install the sensing capillary in a horizontal serpentine fashion across the downstream side of a water coil.
4. Using the included HMO-4523 capillary clips, support the sensing capillary at sufficient points to prevent damage from vibration and/or air movement.

CAUTION

Do not kink or apply excessive force to the capillary element.

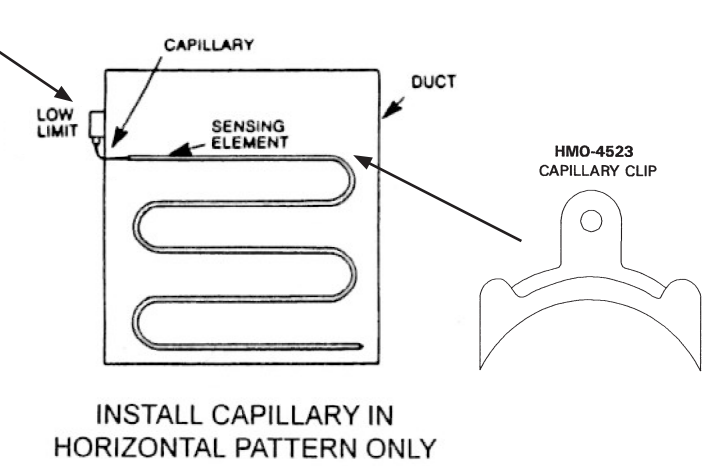
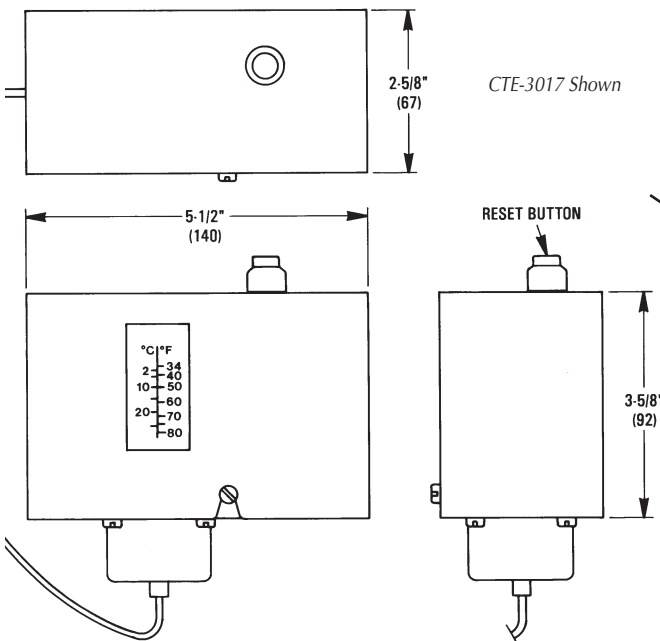
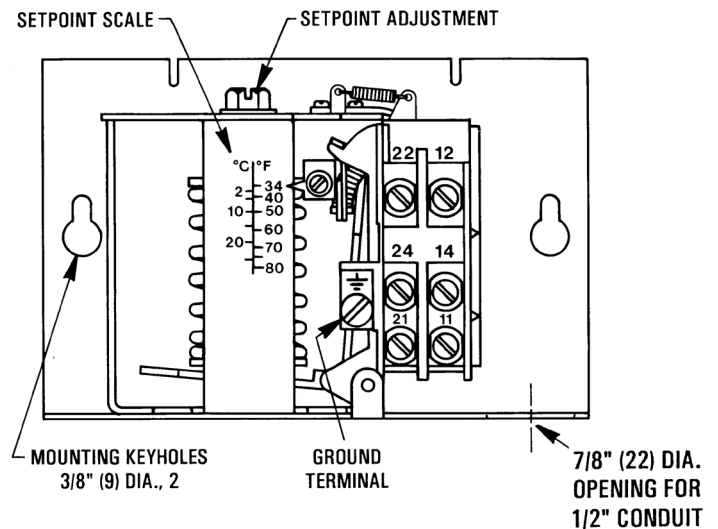
5. Make the appropriate connections to the terminal blocks. (See the Wiring section.)

Wiring

An opening for installing a connector for 1/2" conduit is provided in the bottom of the case.

All wiring should comply with national and local electrical codes. Using 14 AWG solid copper wire is recommended.

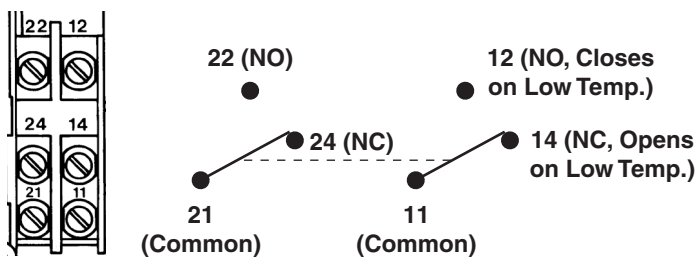
Strip wire ends 3/8", insert the wire ends under the cup washers on the switch block, and securely retighten terminal screws. **Wire terminals according to the Actuation and Reset section on the next page.**



Actuation and Reset

Terminals 11 and 21 are “common” terminals, 14 and 24 are Normally Closed (above setpoint), and 12 and 22 are Normally Open (see the diagram below). When the sensed temperature falls below setpoint, connections “11–14” and “21–24” open and connections “11–12” and “21–22” close. The switch latches in this position until the sensed temperature rises 5° F (3° C) above setpoint and the controller is reset either (depending on the model) automatically or manually by depressing the reset button located in the top of the controller case.

The controller cannot be manually reset until the sensed temperature is at least 5° F (3° C) above the setpoint.



(Connections Shown in Above-Setpoint, NC, Unactuated Position)

Setpoint Adjustment

The setpoint is the temperature at which contacts “11–14” and “21–24” open as the unit senses a fall in temperature. To adjust the setpoint:

- Turn the range adjustment screw CW to decrease the setpoint.
- Turn the range adjustment screw CCW to increase the setpoint.

Testing

A manual test lever located under the cover (below and to the left of the controller spring) allows the unit to be manually actuated during system tests.

Accessories

HMO-4523 Capillary Clip (3 or 5 provided, depending on length)

Maintenance

No routine maintenance is required. Each component is designed for dependable, long-term reliability, and performance. Careful installation will also ensure long-term reliability and performance.

Specifications

Range	34° to 70° F (1.1° to 21° C)
Differential	4.5° F fixed (2.5° C)
Switch Action	DPDT
Element	3/32" (2.4 mm) diameter, 6-foot (183 cm) or 20-foot (607 cm) length, vapor-filled, tin-plated copper capillary, maximum temperature 300° F (149° C)

Electrical Ratings

Inductive	14 FLA (Full Load Amperes) @ 120 VAC, 12 FLA @ 240 VAC 84 LRA (Locked Rotor Amperes) @ 120 VAC, 72 LRA @ 240 VAC 3/4 HP @ 120 VAC, 2 HP @ 240 VAC
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Pilot Duty	720 VA max. @ 120 to 600 VAC, 144 VA max. @ 24 VAC
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Approvals

CUL US Listed, CE Compliant, RoHs compliant

Weight

1.2 lbs. (0.54 kg)

Materials

Plated steel case, plastic cover

Mounting

Surface mount with capillary installed in horizontal serpentine pattern

Temperature Limits

Operating	-60 to 160° F (-51 to 71° C)
Shipping	-60 to 160° F (-51 to 71° C)

NOTE: See the CTE-3016/3017/3026/3027 Data Sheet (717-035-21) for more information.

Important Notices

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