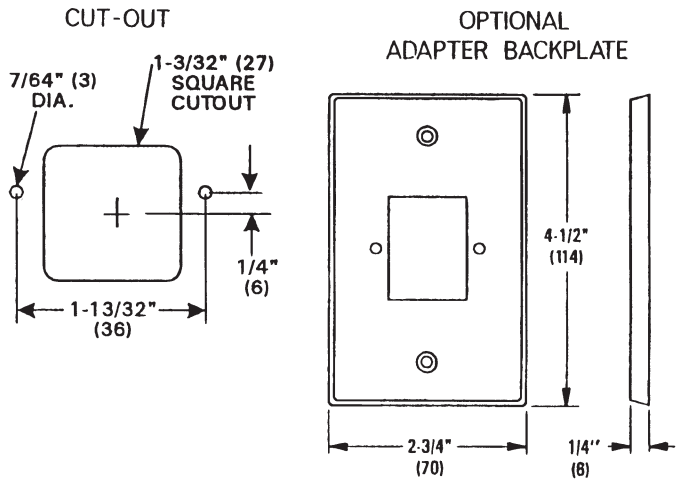
Installation Guide

Mounting

- Attach the optional adapter backplate (see the Accessories section) to a standard 2" x 4" (51 x 102 mm) handy box or directly to a hollow wall.
- Remove the cover and, using the two 6-20 self-threading screws (included), attach the thermostat to the backplate.

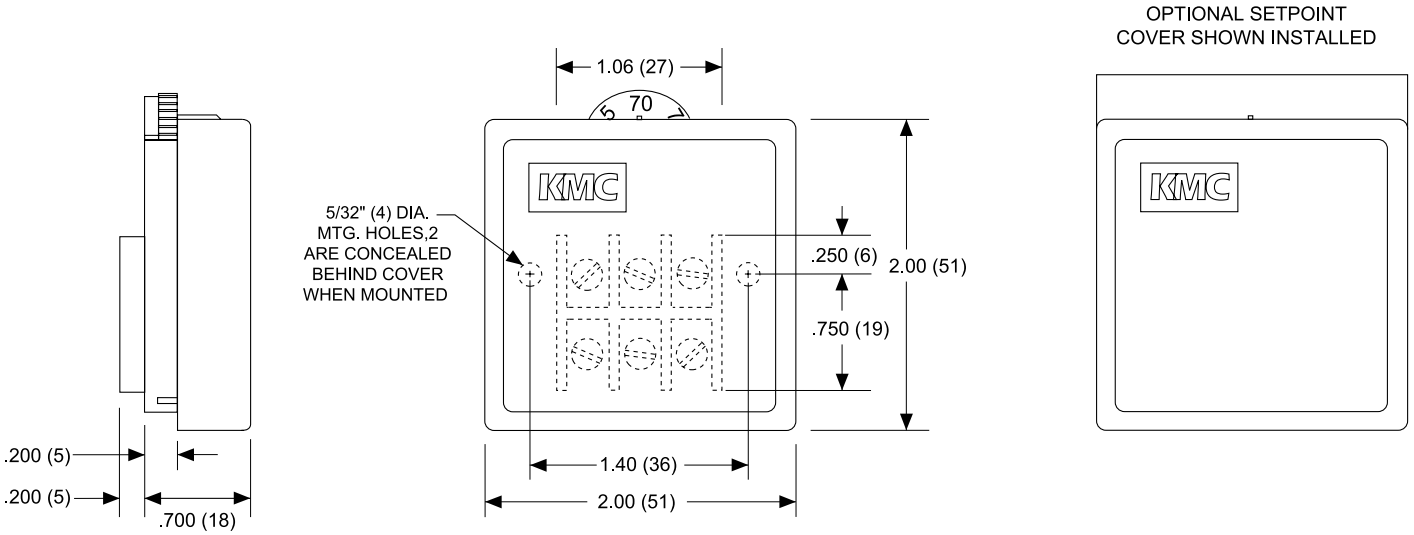


Connections and Wiring

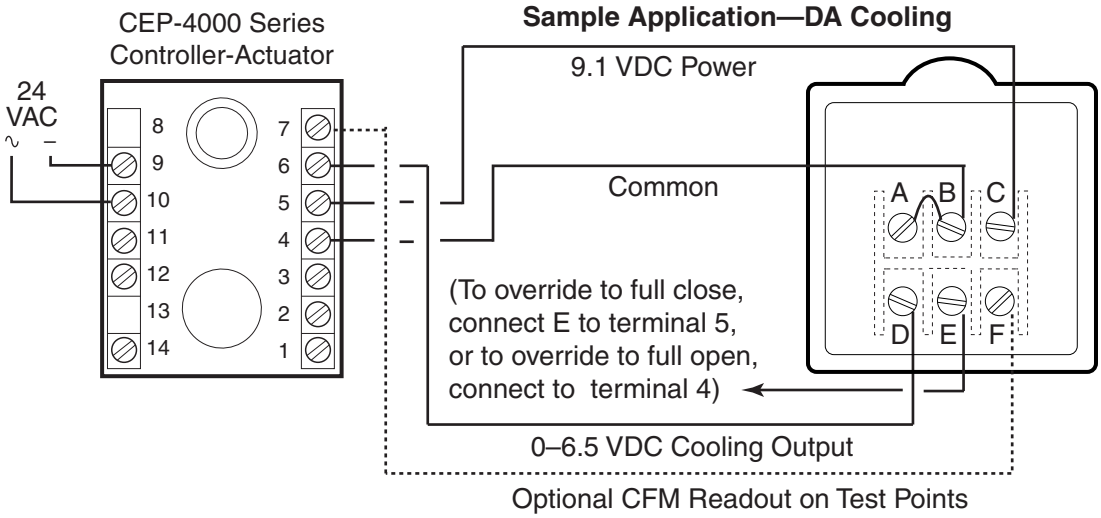
See the basic instructions below and the diagrams on the next page. The first sample application on the next page illustrates basic DA cooling. The second sample application illustrates DA cooling with RA heating changeover.

- **Terminal A:** For **Direct Action**, jumper to terminal **B**; or for **Reverse Action**, connect to terminal **5** of the CEP/CSP-4xxx controller/ actuator.
- **Terminal B**: Connect to CEP/CSP-4xxx terminal **4**.
- **Terminal C:** For **DA**, connect to CEP/CSP-4xxx terminal **5**; or for **RA**, jumper to thermostat terminal **B**.
- **Terminal D:** Connect to the CEP/CSP-4xxx **In** terminal **6**.
- **Terminal E:** To override to full **close**, connect to CEP/CSP-4xxx terminal **5**; or to override full **open**, connect to CEP/CSP-4xxx terminal **4**.
- **Terminal F**: For optional flow readout at thermostat test points, connect to the CEP/CSP-4xxx **Out** terminal **7**.

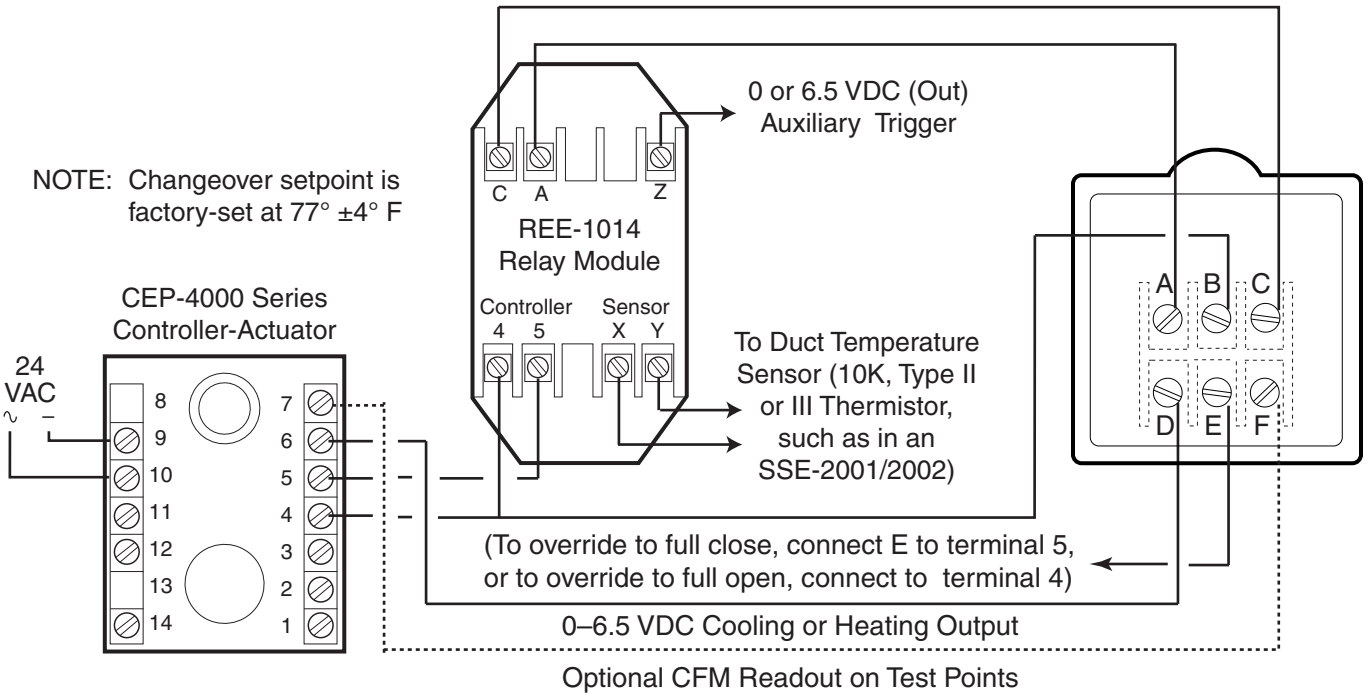
NOTE: See the data sheet for specifications.

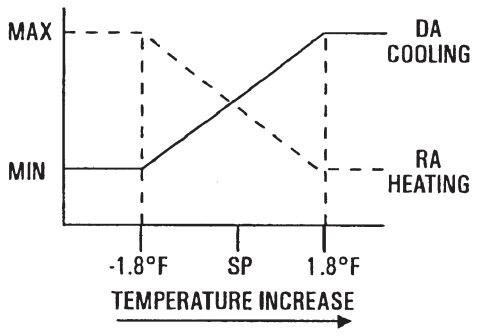


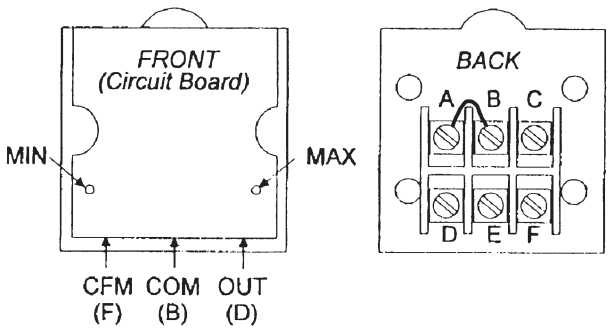
Sample Application—DA Cooling



Sample Application—DA Cooling with RA Heating Changeover







Adjustments and Calibration

Thermal calibration is not required. Minimum and maximum control points can be calibrated before or after the thermostat has been installed.

NOTE: In 2009, the boards were changed, and the new potentiometers can only be adjusted from the front of the board (instead of from both the front and the back as in the older boards).

To set the flow rates and the deadband:

1. Remove the cover by pulling up on it from the bottom.
2. With a voltmeter, measure the voltage between Common (B) and Out (D).
3. Adjust the **Minimum** Flow—turning the potentiometer **clockwise** (CW) **increases** the flow:
   - For **DA**, turn the setpoint dial to the **highest** (warmest) temperature, and (with a small Phillips screwdriver) adjust the Minimum Flow.
   - For **RA**, turn the setpoint dial to the **lowest** (coldest) temperature, and (with a small Phillips screwdriver) adjust the Minimum Flow.
4. Adjust the **Maximum** Flow—turning the potentiometer **clockwise** (CW) **increases** the flow:
   - For **DA**, turn the setpoint dial to the **lowest** (coolest) temperature, and adjust the Maximum Flow. Always adjust Maximum Flow to a value higher than the Minimum Flow—if in doubt, turn Maximum Flow fully CW (increase) at the beginning of the adjustment.
   - For **RA**, turn the setpoint dial to the **highest** (warmest) temperature, and adjust the Maximum Flow. Always adjust Maximum Flow to a value higher than the Minimum Flow—if in doubt, turn Maximum Flow fully CW (increase) at the beginning of the adjustment.
5. Reinstall the cover.

NOTE: If using a **changeover** application, be aware of which mode the system is in and follow the appropriate procedure for adjusting DA or RA minimum and maximum flows. To help determine the mode, turn the Min. pot CCW to zero and Max. pot CW to full and determine if the output increases or decreases as the setpoint is moved back and forth.

Maintenance

Careful installation will also ensure long-term reliability and performance. Remove dust accumulation as necessary from slots in top and bottom. Clean cover with a soft, damp cloth and mild soap.

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 backplate, vertical, white
HMO-5038	Adapter backplate to horizontal handy box, white
HMO-5039	Adapter backplate, horizontal, light almond
HPO-0031	Setpoint cover, white
HPO-0032	Setpoint cover, light almond
REE-1014	Relay module, heat/cool changeover for CTE-5000 series
SSE-2001/2002	Duct flow/temperature sensors for VAV systems
XEE-4002	Power supply, 24 VAC to 9.1 VDC

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

Important Notices

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