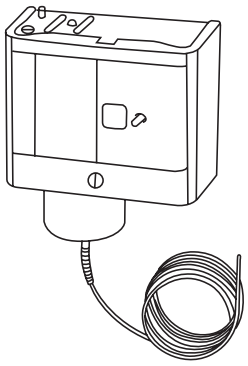
Low Temperature Cutout Thermostat Line Voltage

Installation Instructions

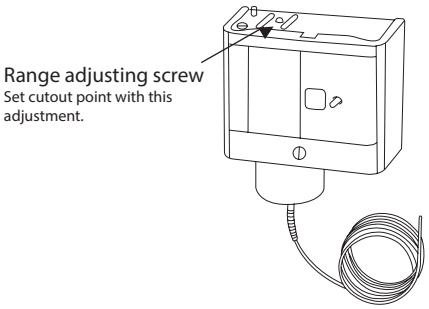


APPLICATION

The LTC2 low temperature cutout thermostats have electrical contacts operated by a temperature sensing element. The switching mechanism on the single-pole, single-throw models opens the circuit on a drop in temperature. On the 4-wire, two-circuit models the main load contacts (LINE-M2) open on a temperature drop and simultaneously the auxiliary or alarm contacts (LINE-M1) close. The thermostat is used as a low temperature cutout device on heating and cooling coils or other applications where there is a possibility of air being stratified. It responds only to the lowest temperature along the 20 feet of the sensing element. The sensing element is usually located on the downstream side of the coil. When the temperature at any point along the sensing element reaches the set point, the thermostat will stop the fan. The outdoor damper is installed to close when the fan stops. The thermostats with manual reset will lock out when the sensed temperature drops below the set point. The reset must be pushed and released before the contacts can be reclosed.

All Series LTC2 thermostats are designed for use only as operating controls. Where an operating control failure would result in personal injury and/or loss of property, it is the responsibility of the installer to add devices (safety, limit controls) that protect against, or systems (alarm, supervisory systems) that warn of, control failure.

Figure 1 - Electric Themostat shown with manual reset

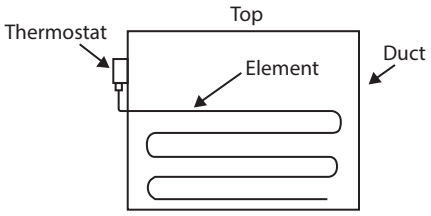


MOUNTING

CAUTION: Locate the thermostat case and bellows where the ambient temperature is always warmer than the set point. The thermostat operates only from the lowest temperature along the entire 20 foot sensing element. Avoid sharp bends or kinks in the sensing elements.

The thermostat may be mounted to a wall surface or panel board using the two mounting holes provided in the back of the case. The desired mounting position is with the element bellows pointing down. For accurate thermostat operation, the sensing element should be horizontally serpentined across the face of the coil to sense temperature in all areas.

Figure 2 - Recommended mounting and sensing element installation



WIRING

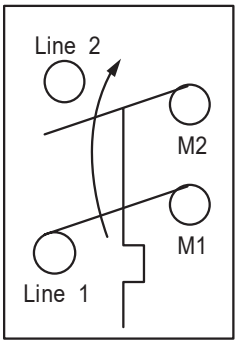
WARNING: Disconnect the power supply before wiring connections are made to avoid possible electrical shock or damage to the equipment.

Make all wiring connections using copper conductors only, and in accordance with the National Electrical Code and local regulations. For maximum electrical rating of the thermostat, see the label on the inside of the thermostat cover. Loads exceeding the rating of the thermostat can be handled with a relay or motor starter.

For terminal configuration see Figure 3

CAUTION: Use terminal screws furnished in the switch (8-32 × 1/4 in.). Longer terminal screws can interfere with the switch mechanism and damage the switch.

Figure 3 - Terminal block information



Action on Increase on Temperature Action Diagram

CHECKOUT PROCEDURE

The operating point of the thermostat should be confirmed by an accurate thermometer. Before leaving the installation, observe at least three complete operating cycles to be sure that all components are functioning correctly.

REPAIRS AND REPLACEMENT

Field repairs must not be made. For a replacement thermostat, contact the nearest Greystone.

SPECIFICATIONS

Type Number ..... **LTC2A:** 4-Wire, 2-Circuit, Main (LINE-M2) Contacts Open on Temperature Drop, Simultaneously Auxiliary Contacts Close

LTC2M: 4-Wire, 2-Circuit, Main (LINE-M2) Contacts Open on Temperature Drop, Simultaneously Auxiliary Contacts Close, Manual Reset

Range ..... -9 to 13°C (15 to 55°F) with stop at 1.7°C (35°F)

Minimum Differential ..... Approximately 2.8°C (5°F) Nonadjustable

Maximum Overrun Temperature @ Element ..... 204°C (400°F)

Element ..... Vapor Pressure, 6.1m (20 ft) Long

Agency Approvals ..... UL Listed

4-WIRE, 2-CIRCUIT

POLE NUMBER	LINE- M2 (Main)				LINE-M1 (Auxiliary)			
MOTOR RATING	120 V	208 V	240 V	277 V	120V	208 V	240 V	277 V
AC FULL LOAD AMP	16.0	9.2	8.0		6.0	3.3	3.0	
AC LOCKED ROTOR AMP	96.0	55.2	48.0		36.0	19.8	18.0	
AC NON-INDUCTIVE AMP	16.0	9.2	8.0	7.2	6.0	6.0	6.0	6.0
PILOT DUTY - BOTH POLES	125 VA, 120 to 600 VAC 57.5 VA, 120 to 300 VDC							

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