

RANCO

ETC COMMERCIAL TEMPERATURE CONTROLS



The Ranco ETC is a microprocessor-based family of temperature controls designed to provide on/off control for commercial heating, cooling, A/C & Refrigeration applications. With its wide temperature range, one and two stage capability, selectable heating/cooling modes and multi-voltage input, the ETC is one of the most versatile temperature controls available.

DIGITAL DISPLAY

Unlike many electronic controls, the ETC is simple to install and set up. One finger is all you need to program it. The standard digital display and keypad allow the user to adjust the temperature setting with 1 resolution. Setpoint temperature, differential and mode of operation (heating or cooling) can all be selected using the keypad and display. When not in the programming mode, the display gives a constant readout of the sensor temperature. Annunciators on the liquid crystal display also indicate when the relay is energized.

CHOICE OF ONE OR TWO STAGE MODELS

The ETC line includes both one and two stage models. On two stage control, each stage can be set independently thus eliminating the bothersome task of calculating interstage temperatures. And two stage models can be set up with overlapping heating or cooling stages.

REMOTE TEMPERATURE SENSING

The ETC is capable of remote temperature sensing up to 400 feet away from the control when using standard 22 gauge Sensor wire.

BUILT-IN SAFETY

Every ETC is capable of remote temperature sensing up to 400 feet away from the control when using standard 22 gauge sensor wire.

OPTIONAL ANALOG OUTPUT

ETC models are available with a 0 to 10 volt analog output that can be used for remote temperature indication or as input to central monitoring system. This signal is a linear representation of the sensor temperature with 0 volt = -30°F and 10 volts = 220°F.

SPECIFICATIONS

| | |
|-------------------------------|---|
| Temperature setpoint range: | -30°F to 220°F |
| Differential range: | 1°F to 30°F |
| Input power requirements: | 120 or 208/240 VAC (24 VAC optional) |
| Sensor Thermister: | 2" long x 1/4" dia. with 8' cable |
| Control Ambient Temperatures: | |
| Operating | -20°F to 140°F |
| Storage | -40°F to 176°F |
| Ambient humidity | 0 to 95% RH, non-condensing |
| Enclosure Dimensions | NEMA 1, plastic (NEMA 4X optional) |
| | NEMA 1 models, 6.52" high x 2.7" wide x 2.48" deep |
| | NEMA 4X models, 7.84" high x 2.7" wide x 2.48" deep |
| 0 to 10 V output impedance: | 1 K ohms |
| Agency Approvals: | UL listed, file E94419, Guide XAPX |
| | CSA certified, file LR68340. Class 4813 02 |
| Switch action | SPDT |

| RELAY OUTPUT RATINGS - NO (NC): | ONE STAGE | | TWO STAGE | |
|---------------------------------|--------------------------|-------------|---------------|---------------|
| | 120V | 208/240V | 120V | 208/240V |
| Full load amps | 16 (5.8) A | 8 (2.9) A | 9.8 (5.8) A | 4.0 (2.9) A |
| Locked rotor amps | 96 (34.8) A | 48 (17.4) A | 58.8 (34.8) A | 29.4 (17.4) A |
| Resistive amps | 15 (5.8) A | 8 (2.9) A | 9.8 (5.8) A | 4.9 (2.9) A |
| Horsepower | 1 (1/4) HP | 1 (1/4) HP | 1/2 (1/4) HP | 1/2 (1/4) HP |
| Pilot duty | 125VA at 120/208/240 VAC | | | |

| PART NO | NUMBER OF STAGES | ENCLOSURE | INPUT VOLTAGE | 0 TO 10 VOLT OUTPUT |
|----------------|------------------|-----------|-----------------|---------------------|
| RAN-ETC-111000 | ONE | NEMA 1 | 120/208/240 VAC | NO |
| RAN-ETC-111100 | ONE | NEMA 1 | 24 VAC | YES |
| RAN-ETC-112000 | ONE | NEMA 1 | 24 VAC | NO |
| RAN-ETC-112100 | ONE | NEMA 1 | 24 VAC | YES |
| RAN-ETC-141000 | ONE | NEMA 4 | 120/208/240 VAC | NO |
| RAN-ETC-211000 | TWO | NEMA 1 | 120/208/240 VAC | NO |
| RAN-ETC-211100 | TWO | NEMA 1 | 120/208/240 VAC | YES |
| RAN-ETC-212000 | TWO | NEMA 1 | 24 VAC | NO |
| RAN-ETC-212100 | TWO | NEMA 1 | 24 VAC | YES |
| RAN-ETC-241000 | TWO | NEMA 4 | 120/208/240 VAC | NO |