INSTRUCTION MANUAL

PANEL MOUNT ETR-4 TEMPERATURE CONTROL

SPECIFICATIONS:

INPUT

- Type J or Type K thermocouple with cold junction compensation or RTD, PT 100 ohm DIN Dual scale 0-1000°F, 0-500°C Type J (ETR-4-01,02) Dual scale 0-2000°F, 0-1100°C Type K (ETR-4-03) Dual scale 32-750°F, 0-400°C RTD, Two Wire, PT 100 ohm DIN (ETR-4-05)
- Output de-energizes on sensor break

OUTPUT

- SPDT 20 amp Relay (ON-OFF)
- Latching output with manual reset when specified as latching control (ETR-4-02,02,05)

ACCEPTION OF CONTROL LEG

INDICATION

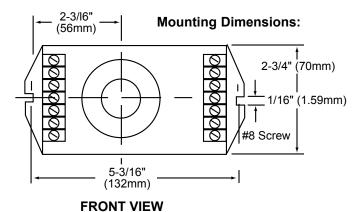
- Red power light ON, power is applied
- Yellow load light ON, heater on

CONTROL MODE

- Proportional band fixed at 2½% of scale Standard cycle time, 20 seconds
- On/Off Hysteresis 0.5% of scale symmetrically above and below set point

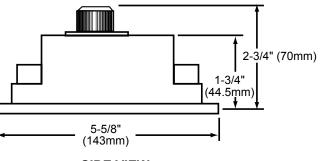
SET POINT METHOD

Analog potentiometer, remote or local with dual scale temperature range

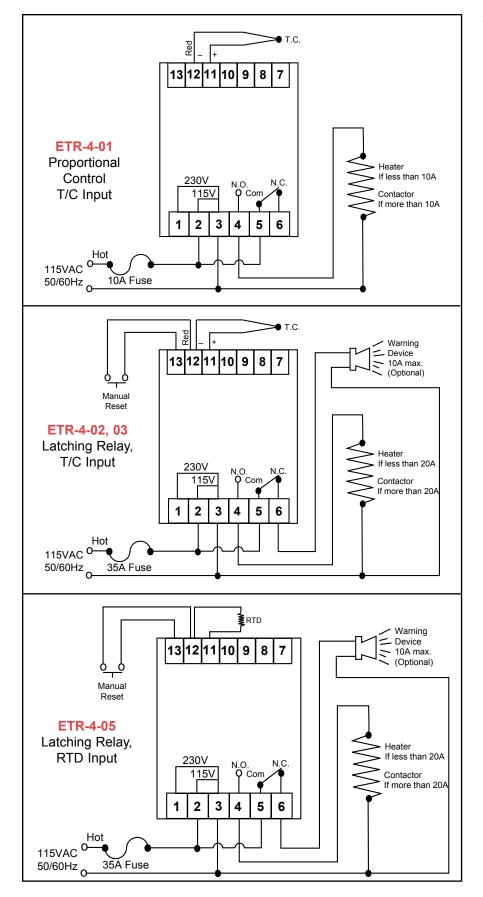


Set Point Accuracy: ±1% of scale
Set Point Resolution: 0.3% of scale
Wiring: Screw terminal strips
Common Mode Rejection: 60dB
Normal Mode Rejection: 120dB
Input Impedance: 20M ohms
Dielectric Strength: 2000VAC, 50/60Hz, 1 minute
Vibration: 10-55Hz, Amplitude 1.0mm
Shock: 660 ft/S² (20g)
Line Voltage: 115/230VAC, ±10%. 50-60Hz field selectable
Operating Condition: 32-130°F (0-55°C), 0-90% RH, non-condensing

Weight: .75 lbs. (320gr)



SIDE VIEW





TROUBLESHOOTING

Experience has proven that many control problems are not caused by a defective instrument. See below for some of the common causes of failures:

Line wires are improperly connected.

No voltage between line terminals Incorrect voltage between line terminals.

Connections to terminals are open, missing or loose.

Thermocouple is open at tip.

Thermocouple lead is broken.

Shorted thermocouple leads.

Short across terminals.

Open or shorted heater circuit.

Open coil in external contactor.

Burned out line fuses.

Defective line switches.

Burned out contactor.

Defective circuit breakers.

If these points have been checked and the controller still does not function, it is suggested that the instrument be returned to the factory for inspection.

Do not attempt to make repairs. It usually creates costly damage. Also, it is advisable to use adequate packing materials to prevent damage in shipment.