

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)

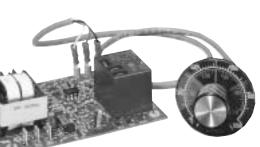
Dual scale 32-750°F, 0-400°C RTD, Two Wire, PT 100 ohm DIN (ETR-4-05)

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)





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

2-3/16" Mounting Dimensions:

2-3/4" (70mm)

1/16" (1.59mm)

5-3/16"
(132mm)

FRONT VIEW

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)

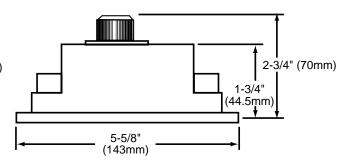
Line Voltage: 115/230VAC, ±10%. 50-60Hz field

selectable

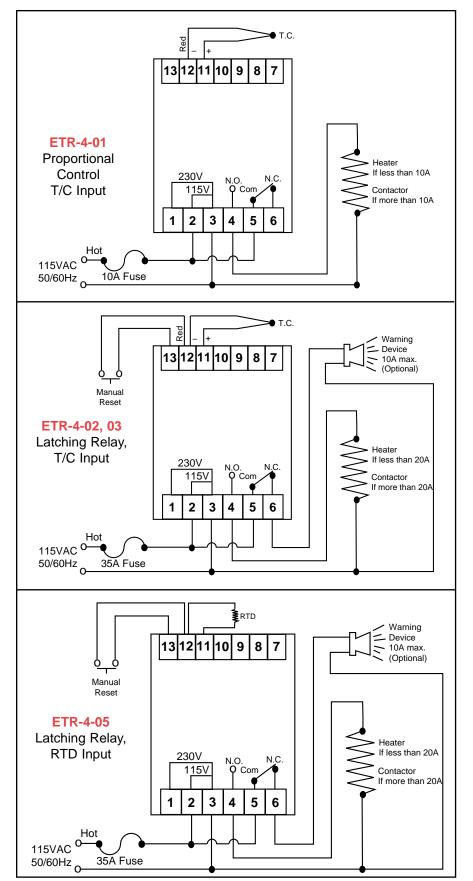
Operating Condition: 32-130°F (0-55°C), 0-90% RH,

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.

Return Control to:

