

MULTI-STAGE TEMPERATURE CONTROLLERS

Models 1411 to 1414 & 1421 to 1424

These precision multi-stage controllers are designed for ON/OFF actuation of power components like solenoids, motors, pumps, compressors, fans, etc. Typical applications include monitoring and controlling bio-medical freezers, incubators, temperature baths, photo-developers or any product or process where temperature performance is critical.

FEATURES:

Input for our **Nickel RTD sensors** which have long-term stability and repeatability of 1/10 of one degree.

Large red display is about ½" high for excellent readability. LED dots indicate output status (on/off).

Simple calibration procedure can be performed in the field to fine-tune readings to user standards.

Meter connects with sensor via **two 18 GA wires** for up to 75 feet or **three 22 GA wires** for up to 200 ft.

Setpoints are simple to view and adjust with a small screwdriver. Models are available with 1-4 setpoints. Wide setpoint adjustment has coarse & fine trimmers.

Mechanical relays, 10 amp. @ 230 VAC max., 5 amp. @ 120 VAC max., or 1 amp. @ 48 V max.



ENGINEERED AND MANUFACTURED IN WI, U.S.A.

Transistor drive outputs are optionally available for buzzers, lamps or solid-state relays.

SPECIFICATIONS:

Display Range:

-199.9° to +199.9° F or C. Usable range is -60° to 199.9° F (-70° to 121° C). Probe limit is 300°F.

Measuring Accuracy:

±0.2° F (±0.1° C) for readings from 32° to 160° F (0° to 70°C) & ±0.4° F (±0.2° C) to the extremes.

Instrument Environmental Range:

-15° to 130° F (-26° to 54° C) and 90% RH max. (no condensation).

Ambient Temperature Effects:

±0.2° F max. from 40° to 105° F (5° to 40°C), or ±0.005 deg. per deg. offset from 70° F (21° C).

Cable (3 wire) Resistance Effect:

0.2 % max. span change per ohm of wire (when all three wires have equal resistance).

Display Indication:

Updated three times per second on LED digits 0.56" (11mm) high.

Control Action:

Selectable high (cooling) or low (heating) with 1-2 second delay and 0.1 degree repeatability. Reset is adjustable 0.1 to 1.0 degrees.

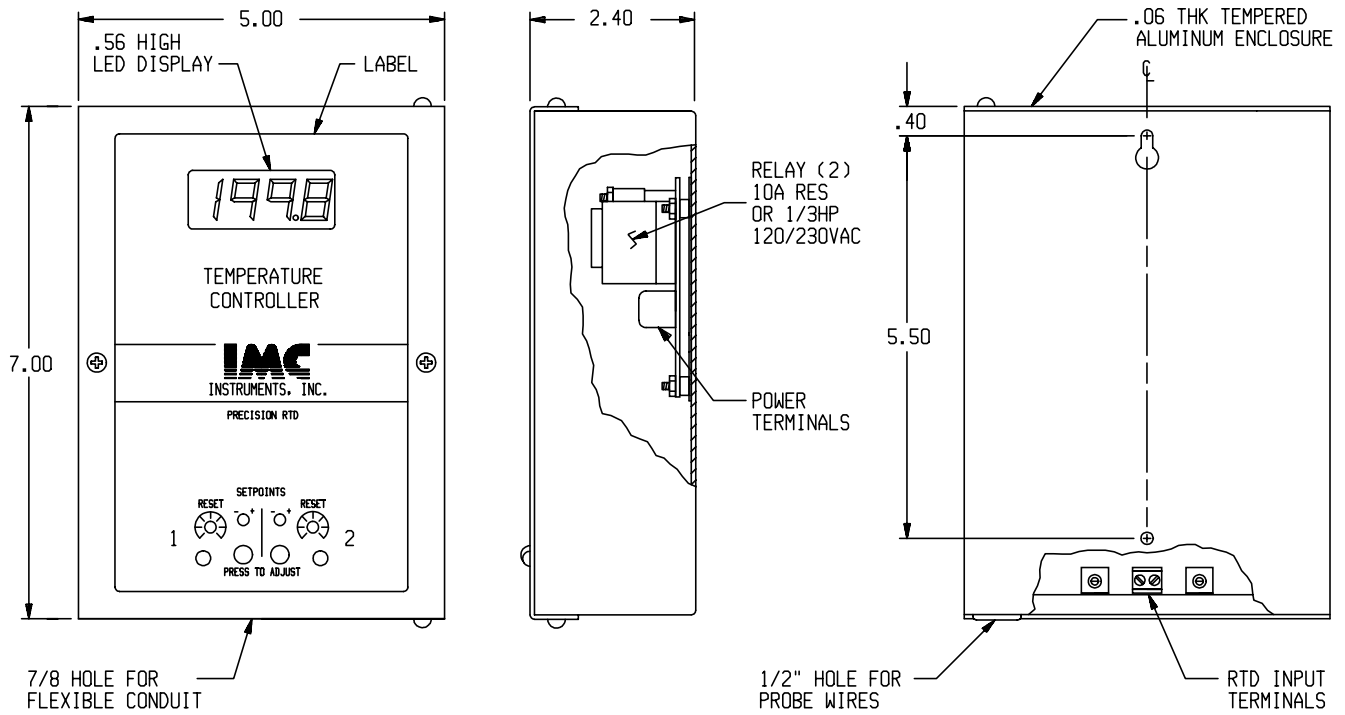
Construction & weight:

Aluminum enclosure with features provided for surface mounting. The swing-out front panel allows internal access for mounting and wiring. Weighs appx. 1.8 lbs (0.8 kg.).

Power Requirement:

120VAC at 0.2 amp. or 230VAC at 0.1 amp.

MECHANICAL DETAIL: Model 9420-1412 shown, other models have slight differences.



ALL DIMENSIONS ARE INCHES

ORDERING INFORMATION:

Refer to sheet titled "PERMANENT INSTALLATION RTD PROBES" for the selection of probes to complete any measuring system. All prices listed below are F.O.B. factory or distributor warehouse. Contact distributor listed below for assistance. Products are warranted against material or workmanship defects for a full year from date of shipment.

SETPOINTS: _____

- 1 setpoint with 1 - 10A control relay
- 2 setpoints with 2 - 10A control relays
- 4 setpoints with 4 - 10A control relays

POWER INPUT: _____

- 120 VAC 50/60 HZ at screw terminals
- 230 VAC 50/60 HZ at screw terminals

SCALE: _____

- Fahrenheit reading
- Celsius reading

OPTION - MODEL

