

# **RTD Simulator**

Model 11



#### **General description**

Altek Model 11 Resistance Temperature Detector (RTD) Simulators provide 11 precise temperatures for inputs to transmitters, recorders, controllers, alarms, data acquisition and computer systems. The Model 11 allows 2, 3 or 4 wire connections. Factory calibration includes compensation for the resistance of the builtin lead wires. Conformity to the particular RTD curve is in accordance with the latest standards for exact temperature simulation.

Simulate temperature into any instument that measures a Pt 100 ohm RTD based on the worldwide DIN/IEC 751 standard curve with an alpha of 1.3850 (sometimes displayed as 0.00385 or 385). Resolution is 25, 50 or 100 degrees, corresponding to full scale output of 250, 500 and 1000 degrees respectively. Positive switch selection allows quick, easy settings for any output. Calibrated accuracy is  $\pm 0.1^{\circ}$ C. The low cost Model 11 is a complete compact simulator for checkout and calibration of all RTD instruments in the field, shop or control room.

- **Direct temperature output** Instant simulation of 11 temperature points
- **0.1°C accuracy** 25, 50, or 100 degree resolution
- Simple to use Replaces cumbersome decade box
- Worldwide Pt 100 Ohm RTD Curve DIN/IEC 751, Alpha=1.3850

#### Connections





# **Operating instructions**

Select the Model 11 for correct temperature scale (F or C), and range. Connect the leads tightly to the input terminals of the instrument to be tested, the field mounted head or the junction box terminals. Set the temperature selection switch to the desired temperature. End point calibration temperatures of the instrument are then selected on the Model 11 and any required adjustments are made. Intermediate points may be selected to verify instrument linearity or check critical points.

# Specifications

(Unless otherwise indicated, all specifications are referred to at an ambient temperature of  $23^{\circ}$ C)

Accuracy:  $\pm 0.1^{\circ}$ C ( $\pm 0.2^{\circ}$ F) Temperature drift:  $\pm 0.01\%^{\circ}$ C Allowable excitation current: 0 to 15 milliamps, steady or intermittent Operating temperature range: -25 to 55°C (-10 to +130°F) Storage temperature range: -40 to 70°C (-40 to 180°F) Relative humidity: 10 to 90%, non-condensing Size: 2 1/8 x 4 x 2 1/4 inches (54 x 102 x 55 mm) Weight: 3 ounces (0.12 kg)

# Warranty

Altek products are warranted to be free from defects in material and workmanship (excluding fuses, batteries and leads) for a period of three years from the date of shipment. Warranty repairs can be obtained by returning the equipment prepaid to our factory. Products will be replaced, repaired, or adjusted at our option. *Altek gives no other warranties, including any implied warranty of fitness for a particular purpose.* Also, Altek shall not be liable for any special, indirect, incidental or consequential damages or losses arising from the sale or use of its products.



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