



# Dry Block Temperature Calibrator

## UTC Series

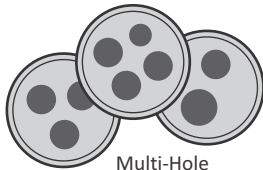


### Application

Ideal for calibration of thermocouples, RTDs, gauges, thermometers, switches, transmitters, etc.

### FEATURES

Dry Block . Graphical Display . Microcontroller Based . Feather Touch Key Pad . Fast Heating & Cooling . Reads Set temperature and device input simultaneously . Good Stability . Loop Power Supply for Transmitters . Facility to check Temperature Switch Test . Measurement Facility for RTD, Thermocouple, mV, V, mA, Ohms . Internal Cold Junction Compensation



Multi-Hole  
Insertion Tube



Carrying Case

### Measurement Specification

Parameter	Range	Resolution	Accuracy <sup>1</sup>
<b>mA</b>	0 to 25 mA	0.001 mA	±0.025% of Reading + 10 µA
<b>mV</b>	0 to 1000.0 mV	0.01 mV	±0.025% of Reading + 0.25 mV
<b>Volts</b>	0 to 10.000 V	0.001 V	±0.025% of Reading + 3 mV
<b>Ohms</b>	0 to 400 Ohms	0.01 Ohms	±0.025% of Reading + 0.1 Ohms
<b>RTD (Pt 100)<sup>3</sup></b>	-200 to 850°C	0.1°C	±0.025% of Reading + 0.3°C

### Thermocouple<sup>2</sup> Types

Type	Range	Resolution	Accuracy
<b>T</b>	-200 to 400°C	0.1°C	±0.025 % of Reading + 1°C
<b>J</b>	-200 to 1200°C	0.1°C	±0.025 % of Reading + 1°C
<b>K</b>	-200 to 1372°C	0.1°C	±0.025 % of Reading + 1°C
<b>N</b>	-200 to 1300°C	0.1°C	±0.025 % of Reading + 1°C
<b>R</b>	300 to 1760°C	1°C	±0.025 % of Reading + 2°C
<b>S</b>	300 to 1760°C	1°C	±0.025 % of Reading + 2°C

Note 1: Accuracy specifications include effect of non-linearity, hysteresis and repeatability at 23±5°C  
 Note 2: Thermocouple measurement accuracy does not include CJC sensor accuracy (CJC error ±1.0°C)  
 Note 3: Measurement by 3 wire at an excitation current of 1mA

### Technical Specification

Model	Range	Accuracy <sup>1</sup>	Bath Stability	Stabilisation Time	Heating Time	Cooling Time
<b>350 UTC</b>	50 to 350°C	±0.4°C	±0.05°C	15 Min.	50 to 350°C	350 to 100°C
					18 to 20 Min.	30 to 35 Min.
<b>650 UTC</b>	50 to 650°C	±0.6°C	±0.05°C	20 Min.	50 to 650°C	650 to 100°C
					30 to 32 Min.	40 to 45 Min.

Resolution	<b>0.1°C</b>
Units	<b>°C / °F Switchable</b>
Display	<b>Graphical with LED Backlight</b>
Power Supply	<b>230V AC ± 5% / 50Hz, 1.2 KW for 650UTC &amp; 500 W for 350UTC</b>
Transmitter Supply	<b>24V DC ± 10% (Loop Powered)</b>
Block Diameter	<b>25.4 mm</b>
Block Depth	<b>120 mm</b>
Insertion Tube Depth	<b>110 mm</b>
Temperature Setting	<b>Digital Display through feather touch keypad</b>
Display Stability	<b>±0.2°C</b>
Radial Uniformity	<b>±0.3°C with similar probes</b>
Fixed Steps for temp. setting in °C	<b>5 Steps (Preset)</b>
Switch Test	<b>Continuity check with OPEN / CLOSE indication</b>

### Standard Delivery

- Instrument : 1 no.
- Power Cable : 1 no.
- Carrying Case : 1 no.
- Test Lead (2 wire) : 1 no.
- Test Lead (3 wire) : 1 no.
- Insertion Tube :  
Dual Hole - 1 x 1/4" + 1 x 12.5 mm,  
Dual Hole - 1 x 1/4" + 1 x 8.2 mm
- Insertion Tool : 1 no.
- Spare Fuses : 6A - 2 nos.
- User Manual : 1 no.
- Traceable Calibration Certificate

### Optional

- RS232 with RnD Cal-T Software
- Insertion Tube of size: 1 x 1/4" + 1 x 10 mm, 2 x 1/4" + 2 x 5 mm
- 110 VAC Power Supply
- Accredited (NABL) Calibration Certificate as per ISO/IEC 17025:2005 Standard

Current Terminal Input Protection: Fuse 100mA / 250V

Safety Protection: Thermal Cutout

System Fuse: 6A 250V

Size: 155 mm (W) x 240 mm (H) x 350 mm (D)

Weight: 8 kgs.

Manufacturer of  
**TEST BENCHES  
CALIBRATION INSTRUMENTS**

**ISO 9001:2008  
Certified Company**

[www.rndinstruments.com](http://www.rndinstruments.com)

### Contact

5, Natesan Nagar, Alapakkam,  
Chennai 600116. Tamilnadu, INDIA.  
Tel.: +91-44-4283 9039 / 4284 1119

Mobile Nos.: +91-87544 78464 / 87544 68463

email: [sales@rndinstruments.com](mailto:sales@rndinstruments.com)

[service@rndinstruments.com](mailto:service@rndinstruments.com)

**ACCREDITED CALIBRATION LABORATORY**

As per ISO / IEC 17025

**THERMAL  
MECHANICAL  
ELECTROTECHNICAL**

[www.calibrationlab.in](http://www.calibrationlab.in)