



TL1-R

Intrinsically Safe
Precision Reference
Thermometer for Field and Laboratory

The TL1-R thermometer is a compact reference thermometer with accuracy comparable to instrument systems costing twice as much. It has all the features of our standard TL1-A plus a higher level of accuracy. It can be used in applications where extreme accuracy is required. The TL1-R is also perfect for metrology applications and as a calibration reference thermometer. It is an extremely accurate portable hand held instrument that is ideally suited for field applications and indoor laboratory uses. Battery replacement is easily done through a sealed cover. Encoded Calibration is unaffected by temperature, vibration, or battery removal. The rugged enclosure is designed to withstand use in the field, factory or lab.

A one year warranty, protective case and NIST traceable 5 point calibration report are included.



On/Off Button



Function Button:
MIN / MAX / AVERAGE, F-C, 0.01- 0.001

CERTIFICATIONS



II 2 G Ex ib IIC T4
DEMKO 11 ATEX CO09993X
IECEX ULD 11.0009X

Temperature:

Accuracy +/-0.06°F (0.03°C)
-over standard calibrated range
Standard 5 Point Calibration: -4°F(-20°C), 32°F(0°C),
120°F(49°C), 199°F(93°C) & 300°F(149°C)
Resolution: 0.001 Degrees
Range: -40°F to 400°F (-40°C to 204°C)
-Note: Standard Calibration does not provide full range accuracy
Custom calibration points and ranges available.
Temperature Time Constant: 19 seconds in circulated water bath
(63.2% response to temperature change)
Recommended Immersion Depth: 4" (11cm)

Interface Features:

0.25" (6.4mm) character LCD
Switchable units °C or °F
Resolution 0.01 or 0.001
Low Battery & Fault Indication
Zero Correction Mode
Continuous operation or Auto Off after 20 minutes.
Stores and displays Average, Lowest & Highest readings.
Arrows indicating increasing/decreasing temperature.
Recommended Ambient Temperature range: 32°F to 112°F
(0°C to 44°C)

Construction:

Stainless Steel RTD temperature sensor
- 200Ω Precision wire wound platinum RTD
- Standard 8"(20cm) or 12"(30cm) lengths
- Standard 0.25"(6.35mm) diameter
Anodized Aluminum Enclosure with silicone seal and a durable polyester graphics window.
Nominal Body Dimensions: 4.5 x 1.75 x 1.75"
(11.4 x 4.4 x 4.4cm)
Nominal Weight: 130 grams

Battery:

2 AAA Duracell MN2400
200 hours service life at 70°F (21°C)
Operating Temperature Range -4°F to 130°F
(-20°C to 54°C)
Note: Battery may not provide adequate power if used outside operating range.

TYPICAL APPLICATIONS

Distillations, temperature baths, melting point tests, flash point tests, reference, thermowells, provers, temperature calibration for flow meters.

Industries: Laboratory
Petroleum
Pipeline
Pharmaceutical
Food