ICL CALIBRATION LABORATORIES, INC.

ISO/IEC 17025 & ANSI-NCSL Z-540-1 Accredited   *Setting new standards in calibration excellence!*

ThermoProbe
TL2
-20 to 150°C
Laboratory
Thermometer

The TL2 is a 2-channel precision bench top thermometer offering a higher level of metrology accuracy in a very affordable package. The TL2 is a complete NIST traceable system that is ready to use, right out of the box. Based on successful TL1-R technology, the TL2 has been developed for laboratory applications demanding high precision reference thermometry with the added versatility of 2 channel measurement. To fully realize the benefits of 2 channel measurement, the TL2 provides data logging capabilities with the convenience of PC or USB flash drive interface. The ergonomic design and large display make the TL2 ideally suited for use as a calibration reference thermometer and for recording temperature-time based data.

The TL2 calibration software creates custom coefficients for Callendar Van Dusen or ITS-90 curves using the reference points and TL2 readings. It then loads the coefficients to the TL2 and creates a report for each channel.

The TL2 is supplied with a NIST traceable, ISO/IEC 17025 accredited report of calibration at test points of -20, 0.01 (TPW) 50, 100, 150°C for each channel.

SPECIFICATIONS

Temperature Measurement

- *2 Channel temperature measurement*
- *Standard 5-pin DIN connector*
- *200 Ω 4-wire sensor probe*
- *Linearization by Callendar-Van Dusen**
- *Factory calibrations yield a tolerance of ±0. 03 °C*
- *(±0. 05 °F) (@ 23°C ambient temp.)*
- *Temperature time constant: 19 sec.*

User Interface

- *Large 13mm (0.5"), 6-digit LCD display with backlight*
- *Selectable 0.01 or 0.001 display resolution*
- *F (Fahrenheit), C (Celsius), K (Kelvin), or Ω (Ohms) selectable display output*
- *Easy viewing of Highest, Lowest, and Average Readings*
- *Channel Differential Reading*
- *Easy Zero Offset adjustment for sensor drift*
- *Programmable SPDT relay output (3 Amp maximum)*

Construction

- *Rugged, powder coated, steel enclosure 184mm x 133mm x 57mm (7.25" x 5.25" x 2.25")*
- *Standard 1.5m (5') cable*
- *316 L stainless steel sensor design 6mm (¼") diameter*
- *Highly durable display window, graphics, and silicone keypad*
- *0.74kg (1 lb, 10 oz) without temperature sensor & power cord*

Electronics

- *Microcontroller and precision 20-bit A/D converter. Recommended Ambient Temperature Range for Best Accuracy is 0 to 44°C (32 to 112°F)*

Data Logging

- *Internal real-time clock reference*
- *PC interface via USB (type A) for direct data capture using Windows OS HyperTerminal function*
- *Stand alone data capture to a dedicated USB (type B) flash drive interface, saved in comma delimited format*
- *n 0.001 logging display resolution*
- *n 1 second logging interval*

Included

- *Wall mount AC power adapter for US & Canada (120 VAC) ***
- *USB type 'A' to PC cable included*

Catalog No.

Catalog No.	Description
TL2.1.3110	ThermoProbe TL2 precision digital thermometer, Single Sensor, -20 to 150°C (-4/302°F), 3/16 x 12" stem, 0.001 resolution, +/- 0.03°C Accuracy. Supplied with an ISO/IEC 17025, NIST traceable certificate of calibration @ -20, 0.01, 50, 100, 150°C and storage case.
TL2.2.3110	ThermoProbe TL2 precision digital thermometer, Two Sensors, -20 to 150°C (-4/302°F), 3/16 x 12" stem (x2), 0.001 resolution, +/- 0.03°C Accuracy. Supplied with an ISO/IEC 17025, NIST traceable certificate of calibration for each channel @ -20, 0.01, 50, 100, 150°C and storage case
TL2.1.3210	ThermoProbe TL2 precision digital thermometer, Single Sensor, -20 to 150°C (-4/302°F), 3/16 x 12" stem, 0.001 resolution, +/- 0.03°C Accuracy. Supplied with an ISO/IEC 17025, NIST traceable certificate of calibration @ -4, 32, 110, 212, 302°F and storage case.
TL2.2.3210	ThermoProbe TL2 precision digital thermometer, Two Sensors, -20 to 150°C (-4/302°F), 3/16 x 12" stem (x2), 0.001 resolution, +/- 0.03°C Accuracy. Supplied with an ISO/IEC 17025, NIST traceable certificate of calibration for each channel @ -4, 32, 110, 212, 302°F and storage case