

Universal Thermocouple Calibrator



CL542-PLUS



CL542-PLUS.

- ✓ **Source and Read 14 T/C Types Plus mV J, K, T, E, R, S, B, N, G, C, D, L (J DIN), U (T DIN) & P (Platinel); -13.000 to 80.000 mV**
- ✓ **Resolution of 0.1°F and °C; Accurate to 0.2°**
- ✓ **Instantly Select Three Outputs With Check Switch**
- ✓ **Easily Change T/C Types, Scale (°C and °F)**
- ✓ **Easy-to-Read Display—Just Turn on the Backlight to Read in Dark Areas**
- ✓ **Verify Cold Junction Temperature and Output Secondary Display of Compensated Millivolt Setting and Cold Junction Temperature**

With the CL542-PLUS you can check and calibrate all your thermocouple instruments and measure thermocouple sensors.

Calibrate Directly in Temperature (°C and °F)

Stop carrying around a millivolt source and thermocouple tables. The CL542-PLUS works with the thermocouples you use including Types J, T, E, K, R, S, B, N, G, C, D, L (J-DIN), U (T-DIN) and Platinel II. Easily set any value quickly to within 0.1° with the adjustable digital potentiometer "DIAL" plus store any three temperatures for instant recall with the check switch.

Calibrate Quickly with Automatic Output Stepping

Choose between 2, 3, 5, 11 and 21 steps to automatically increment the output in 100%, 50%, 25%, 10% or 5% of span.

Compatible with All Process Instruments

Connect directly to the thermocouple inputs of smart transmitters, PLCs, DCS and multichannel recorders and verify their outputs or displays. Carry it without worry—it comes protected with a rubber boot and rugged, low profile switch. Easy to operate even in the dark areas of the plant with the backlit display.

Specifications

(Unless otherwise indicated all specifications are rated from a nominal 23°C, 70% RH for 1 year from calibration)

Accuracy: $\pm (0.008\% \text{ of Reading} + 0.006 \text{ mV})$

Cold Junction Compensation: $\pm 0.16^\circ\text{F} (\pm 0.1^\circ\text{C})$

Millivolt Range: -13.000 to 80.000 mV

Operating Temperature Range: -25 to 60°C (-10 to 140°F)

Relative Humidity Range: 10% \leq RH \leq 90% (0 to 35°C), non-condensing; 10% \leq RH \leq 70% (35 to 60°C), non-condensing

Dimensions: 143 L x 76.2 W x 40.64 mm H (5.63 x 3.00 x 1.60")

Weight: 12.1 ounces (including boot and batteries)

Power: 4 "AA" Alkaline 1.5V (LR6) (included)

Battery Life: 50 Hours, low battery low battery indication with nominal 1 hour of life left. Protection against misconnection over-voltage protection to 60 Vdc (rated for 30 seconds)

Display: High contrast graphic LCD. LED backlighting for use in low lit areas.



Read

Input Impedance: > 10 Megohms

Open Thermocouple Threshold: 10,000 Ω nominal

Pulse: <10 microamp pulse for 300 milliseconds

Normal Mode Rejection: 50/60 Hz, 50 dB

Common Mode Rejection: 50/60 Hz, 120 dB

Source

Output Impedance: < 0.3 Ω

Source Current: > 20 mA (drives 80 mV into 10 Ω)

Noise: ≤ 4 microvolts p-p for frequencies of 10 Hz or below

To Order

Model No.	Description
CL542-PLUS	Universal thermocouple calibrator
SC-530	Replacement soft carrying case

Comes complete with rubber boot, 1 red and 1 black leads with retractable shield banana plugs and alligator clips, 4 "AA" alkaline batteries, NIST certificate of calibration, carrying case, and operator's manual.