

Automated Universal RTD Calibrator



CL514-PLUS



**Source and Read Multiple
RTD Curves Plus Ω**

**Easy-to-Read Backlight
Display**

**Automatically Detects 2,
3 and 4 Wire Connections**

**Calibrate Quickly With
Automatic Output
Stepping**

**Comes Protected With a
Rugged Rubber Boot**

**Calibrate Directly in
Temperature ($^{\circ}\text{C}$ or $^{\circ}\text{F}$)**

**Compatible With All RTD
Process Instruments**

With the CL514-PLUS you can check and calibrate all your RTD instruments and measure RTD sensors. Automatic indication of connections on the display for simple hookups. Take it without worry into the shop, plant or field. 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. Stop carrying around a decade box and RTD resistance tables, you can calibrate directly in temperature ($^{\circ}\text{C}$ and $^{\circ}\text{F}$). The CL514-PLUS works with a wide variety of RTD curves including Platinum 100 ($\alpha = 3850$, 3902, 3926) and 1000 ($\alpha = 3850$, 3750) Ω , Copper 10 and 50 Ω , Nickel 100 and 120 Ω . Easily set any value quickly to within 0.1° with the adjustable digital potentiometer "DIAL" plus store any three temperatures for instant recall. 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. Select the step time to match your system from 5, 6, 7, 8, 10, 15, 20, 25, 30 and 60 seconds. Connect directly to RTD inputs of smart transmitters, PLCs,

controllers and multichannel recorders and verify their outputs or displays. Measure and trouble shoot RTD sensor connections and find broken wires. Connect your 2, 3 or 4 wire RTD sensor and the CL514-PLUS automatically measures the RTD in $^{\circ}\text{C}$ or $^{\circ}\text{F}$.

Specifications

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

Accuracy: $\pm(0.025\%$ of Reading + 0.05 Ω)

Temperature Drift: $\pm 0.01\%$ of span outside of $23^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ($73^{\circ}\text{C} \pm 18^{\circ}\text{F}$)

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

Relative Humidity Range: $10\% \leq \text{RH} \leq 90\%$ (0 to 35°C), non-condensing
 $10\% \leq \text{RH} \leq 70\%$ (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 oz (including boot and batteries)

Batteries: 4 "AA" Alkaline 1.5V (included)

Battery Life: 50 Hours

Low Battery: Low battery indication with nominal 1 hour of operation left

Protection Against Misconnection: Over-voltage protection to 60 V dc (rated for 30 seconds)

Display: High contrast graphic liquid crystal display. LED backlighting for use in low lit areas.

Read

Excitation Current: 0.5 mA nominal

Normal Mode Rejection: 50/60 Hz, 50 dB

Common Mode Rejection: 50/60 Hz, 120 dB



CL514-PLUS.

Source

Accuracy From 1 to 10.2 mA External

Excitation Current: $\pm(0.025\%$ of Reading + 0.05 Ω)

Below 1 mA of External Excitation

Current: $\pm(0.025\%$ of Reading + 0.025 mV/ mA Excitation Current + 0.05 Ω)

Resistance Ranges: 0.00 to 410.00, 410.1 to 2001.0 Ω

Allowable Excitation Current Range: <410 Ω : 10.2 mA max; steady or pulsed/intermittent

410 to 2001 Ω : 1 mA max; steady or pulsed/intermittent

Pulsed Excitation Current

Compatibility: DC to 0.01 second pulse width

To Order

Model No.	Description
CL514-PLUS	Automated universal RTD calibrator
SC-530	Replacement soft carrying case

Comes complete with rubber boot, 4 "AA" alkaline batteries, NIST certificate of calibration, carrying case, RTD wire kit with 2 red and 2 black leads with retractable shield banana plugs and spade lugs and operator's manual.