

RTD Simulators

CL510A Series



- ✓ Source One or Multiple RTD Curves
- ✓ High Accuracy
- ✓ Easy-to-Read Backlit Display
- ✓ Calibrate Directly in Temperature (°C or °F)
- ✓ Compatible with All RTD Process Instruments

The CL510A Series can check and calibrate all your RTD instruments. Take it into the shop, plant or field without worry. It's 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, with the CL510A you can calibrate directly in temperature (°C and °F). Choose between a single RTD type model, CL510A-1 (Pt100, 0.00385), or a CL510A-10 for multiple RTD types.

The CL510A-10 works with a wide variety of RTD curves including Platinum 100 (alpha = 3850, 3902, 3916, 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". Connect directly to RTD inputs of smart transmitters, PLCs, controllers and multichannel recorders and verify their displays.

Specifications

Unless otherwise indicated, all specifications are rated from a nominal 23°C (73°F), 70% RH

Accuracy: $\pm(0.015\% \text{ of Rdg} + 0.05 \Omega)$

Temperature Drift: $\pm 0.05 \Omega/^\circ\text{C}$

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

Relative Humidity Range, 10% \leq RH:
 $\leq 90\%$: 0 to 35°C (32 to 95°F), non-condensing
 $\leq 70\%$: 35 to 60°C (95 to 140°F), non-condensing

Size: 126 L x 69 W x 45 mm H (4.96 x 2.73 x 1.79")

Weight: 0.24 kg (8.4 oz) (including batteries)

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

Battery Life: 50 hr

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

Protection Against Misconnection: Over-voltage protection to 60 Vdc (rated for 30 sec)

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

Source

Accuracy: From 1 to 10.2 mA
External Excitation Current: $\pm(0.015\% \text{ of rdg} + 0.05 \Omega)$

Below 1 mA of External Excitation Current: $\pm(0.015\% \text{ of rdg} + 0.01 \text{ mV/mA excitation current} + 0.05 \Omega)$

Resistance Ranges: 0.00 to 410.00, 410.1 to 4001.0 Ω

Allowable Excitation Current Range, Steady or Pulsed/ Intermittent:

- <410 Ω: 10.2 mA max
- 410 to 001 Ω: 1 mA max

Pulsed Excitation Current Compatibility: DC to 0.01 second pulse width



CL510A-10.

To Order	
Model No.	Description
CL510A-1	RTD simulator, 1 Type (Pt100, 0.00385)
CL510A-10	RTD simulator, 10 Types
020-0209	Rubber boot
SC-HH500	Soft carrying case

Comes complete with 4 "AA" alkaline batteries, NIST certificate of calibration (no points), RTD wire kit with 2 red and 2 black leads with retractable shield banana plugs and spade lugs, and operator's manual.