

Precision loop calibrator Model CEP1500

WIKA data sheet CT81.05 12/2022

Applications

- Loop Check and calibration
- Calibration of Transmitters and Transducers
- Switch Test and calibration
- Drift test of Transmitters and Transducers

Special features

- Easy to read Color Graphical TFT LCD display
- Rechargeable lithium ion battery with enhanced power control for prolonged battery life
- Simultaneously Measure and Source: mA, mV and V with dual readings on display of CEP1500
- 24 VDC Loop power Supply to power transmitters and loops
- 2W simulate and Read/ Power mode for in-situ Loop checking and calibration
- Step/ Ramp functions with Auto/ Man selection
- Switch test with condition (open/closed) indicator
- Universal Serial Bus (USB) communication port for charging, data retrieve and firmware upgrade
- Data Logging to measure long time drift
- Other Features: Max/Min/Average, filter settings, tare facility, adjustable backlight, alarm annunciation (on display and buzzer), automatic Display off

Description

General

The Precision Loop Calibrator CEP1500 provides significantly extended performance when compared to any competitive calibrator. With an accuracy of 0.015 % of reading, with 0.001 mA resolution. 2W simulate and Read/ Power are unique features for Loop testing and calibration

Intuitive handling

A handful of clearly marked keys provide access to the full functionality of the unit. It has been designed to give maximum Battery life on full charge, the backlight is adjustable for power saving and the display can be programmed to automatically switch off when not in use



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Powerful features

The CEP1500 provides innovative, powerful features to make your calibration job easier. To enable remote calibration of devices and processes, the CEP1500 features Automatic Step/ Ramp output with Auto/ Man selection, data logging, Max/ Min/ Average values, scaling to Engineering units and filter settings enhances the use of CEP1500 and makes it multifunctional & additional Automatic Switch test feature.

CEP 1500 has simultaneous Source and Sense capability with independent parameter and range selection for source and sense, also the source and sense circuits are isolated from each other

Specifications

Model CEP1500			
Measurement Range			
Parameter	Range	Resolution	Accuracy
mV	0-250.00 mV	0.01 mV	±0.015% of reading ± 2 counts
V	0-30.000 VDC	0.001 V	±0.015% of reading ± 2 counts
mA	0-24.000 mA	0.001 mA	±0.015% of reading ± 2 counts

Source Range			
Parameter	Range	Resolution	Accuracy
mV	0-250.00 mV	0.01 mV	±0.015% of reading ± 2 counts
V	0-12.000 VDC	0.001 V	±0.015% of reading ± 2 counts
mA	0-24.000 mA	0.001 mA	±0.015% of reading ± 2 counts

General Specification	
Display Mode	Measure + Source, Measure Only, Source Only, Switch Test + Source
Max. input voltage	30 V DC
Temperature Coefficient	30 ppm
Input Impedance Measure	V, mV >1M Ω mA =10 Ω
Response Time	Input <100ms Output <100ms
Load Impedance	>10K Ω For Mv/V <750 for Ω mA
Display Unit Rate	10 reading/sec
Isolation	500 VDC Between Measure & source
Data Logging	Logged data is stored in a user defined file in internal memory
Communication Interface	USB 2.0

Display and Keys	
Display	2.4" TFT LCD, 262K Color, Graphical, 42.72 mm x 60.26 mm, 240x320 pixels, White LED Backlight
Keys	6 Membrane Keys

Special Features	
Loop Power Output	24V DC, +10% (24mA maximum)
HART mA Loop Resistor	250 Ω + 20%
Special Function	Step/Ramp Functions:Automatic/Manual, \sqrt{x} , x^2 :for measure & source
Switch Test	Potential free contacts Trigger level : 24V, 24mA (2V) Voltage level detection Trigger level : 0 to 30V in 1V steps Input impedance : >1 M Ω

Specifications

Power Supply	
Battery Type	Rechargeable Li-ion battery pack, 2300mAh 3.7V
Charging Time	<5 hours max
Charger Supply	100-240 VAC, 50/60 Hz; Output 5V DC@1A
Battery Life on full charge	>18 hours max for mA, mV, V measurement with minimum backlight brightness. > 8 hours max for 12mA generation with minimum backlight brightness
Battery Status Indication	Battery symbol displayed with % power remaining

Physical	
Dimensions (in mm)	161.7(L) x 82.1 (W) x 39.5 (H)
Housing Material	ABS Plastic
Electrical Terminals	Four nos., 2mm Safety sockets
Weight	<300 grams
Protection	IP20

Environmental	
Operating Temperature	0 to 55 °C
Operating Temperature while charging batteries	0 to 55 °C
Storage temperature	-20 °C to 60 °C
Relative Humidity	30% to 90% non-condensing
Warm-up Time	15 Minutes

Scope of delivery

- Calibration Certificate CEP1500
- User Guide
- 2 sets of 2mm to 2mm banana cable
- 2 sets of 2mm Crocodile cable
- 2 sets of connecting Plug 4mm to 2mm
- USB 1 Male to USB mini B Male cable for PC communication and charging
- 5 VDC Charging Adapter
- Carrying Bag

Options

- ISO 17025 Accredited Calibration Certificate (NABL)
- Data logging software



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