

The OMEGA CL20 series calibrator/ thermometers simulate, measure and record RTD, ohm, thermocouple and thermistor signals—all in one meter. They outperform the competition in the lab and on the factory floor with 0.3°C (0.5°F) accuracy and in ambient temperatures from 18 to 28°C (64 to 82°F).

This powerful handheld meter allows the user to calibrate in the field as well as in the lab and offers many additional functions that translate into cost effectiveness, increased productivity and long-lasting versatility and reliability.

The 5-digit LCD display indicates all active functions and allows users to have 0.1° resolution in both Celsius and Fahrenheit. This convenient display takes the guesswork out of which sensor has been selected, displaying °C or °F and operating mode.

Programming a CL20 series calibrator is a snap. The keypad allows direct entry of calibrator setpoints. Setpoints can also be entered from an outside source by inputting temperatures or voltages through the thermometer mode. There are no reprogramming hassles. The program won't be lost when the meter is shut off. All values are retained and can be retrieved for fast repeat use.

These calibrators feature 10 memory locations that can instantly recall any programmed value, and the step function lets the user run through the test points at the push of a button. This efficient feature saves time by allowing the user to simply enter the output value and calibrate.

The ramp function of Models CL25 and CL27 makes calibrating switch and alarm setpoints quick and easy. By entering the upper limit, lower limit and step size, the meter automatically ramps between the limits. There is also a manual ramp function.

No matter what thermocouple type is used, one of these meters can handle it. Features to choose from include 100 ohm and 1000 ohm RTD and 2252 ohm thermistor capabilities.



Need to comply with ISO-9000 reporting specifications? These meters can help! All conform to the temperature/voltage tables of the National Institute of Standards and Technology (N.I.S.T.). OMEGA provides a free NIST Traceable Certificate of Calibration for your records. Since ISO-9000 requires that calibration be done at the equipment site, these meters are a perfect choice. With 0.3°C (0.5F°) accuracy in an ambient temperature range of 18 to 28°C (64 to 82°F), you're not confined to the lab. Take it everywhere. The ABS plastic case protects it from dust and dirt.

Specifications

Display: 5-digit LCD custom indicators for calibration type, units hold, recall, store, operating mode, bal, loaded memory locations (up to 10)
Keypad: Momentary switches with tactile feedback, select power, thermocouple type, units, resolution, hold, store/recall, stop/clear, operating mode
Configuration Retention: selected operating mode, thermocouple type, units, resolution and memory contents retained on power off
Diagnostics: low battery, open input, invalid keypad entry, out of range, internal hardware fault
Accuracy: see ordering matrix for details
Ambient Temperature:

CL20 Series Temperature Measurement and Calibration Range

Input Type	Range		Resolution
K	200 to 1371°C	-328 to 2502°F	0.1°
J	-210 to 760°C	-346 to 1400°F	0.1°
T	-200 to 399°C	-328 to 752°F	0.1°
E	-230 to 999°C	-382 to 1832°F	0.1°
N	200 to 1299°C	-328 to 2372°F	0.1°
B	499 to 1815°C	932 to 3308°F	0.1°
R	0 to 1768°C	32 to 3214°F	0.1°
S	0 to 1768°C	32 to 3214°F	0.1°
G	299 to 2315°C	572 to 4201°F	0.1°
C	0 to 2315°C	32 to 4201°F	0.1°
D	0 to 2315°C	32 to 4201°F	0.1°
RTD	-200 to 849°C	-328 to 1562°F	0.1°
Series 400 Thermistor 2252Ohm	-40 to 150°C	-40 to 302°F	0.1°

CL26 and CL27 Resistance Measurement and Calibration Outputs

Ohms Range	Resolution	Models
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0 to 50°C (32 to 122°F),
0 to 90% RH

Reading Rate: 1 per second

Input Current: 50 nA typical (meter mode)

Output Load: 100 ohms, min. (calibrator mode)

Max. Common Mode Voltage: 42 V peak to earth ground

Power: 9 Vdc battery, alkaline, included

Battery Life: 16 hrs alkaline

Dimensions: 178 H x 74 W x 28 mm D (7.0 x 2.9 x 1.1")

Weight: 340 g (12 oz)

0-100Ω	0.01Ω	CL26 & CL27
0-1000Ω	0.1Ω	CL27
0-100,000Ω	1.0Ω	CL26

Model Number	Features						
	TC Types	Platinum RTDs	Thermistor	Resistance 0 to:	Resistance Resolution	Accuracy Calibrator & Thermometer	Ramp Feature
CL23A	K, J, T	---	---	---	---	±0.3°C from -46 to 677°C 0.04% over 677°C ±0.5°C under -46°C	No
CL24	K, J, T, E	---	---	---	---	0.04% over 677°C ±0.5°C under -46°C	No
CL25	K,J,T,E,N,R,S,B,G,C,D	---	---	---	---	±0.3°C full scale K,J,T,E,N 0.8°C full scale B,R,S,G,C,D	Yes
CL26	K, J, T, E	100Ω	400 Series 2252Ω	100 kΩ 100Ω	1Ω 0.01Ω	±0.3°C from -46 to 677°C 0.04% over 677°C ±0.5°C under -46°C Ωs: 0.04% of range ±0.3°C RTD &	No

						thermistor	
CL27	K,J,T,E,N,R,S,B,G,C,D	100Ω 1000Ω	---	1kΩ 100Ω	0.1Ω 0.01Ω	±0.3°C full scale K,J,T,E,N 0.8°C full scale B,R,S,G,C,D Ωs: 0.02% of range 0.1°C full scale RTD	Yes