

Temperature Calibration Services



- ✓ NIST Traceable
- ✓ Always Meet or Exceed ISO10012-1, ANSI/NCSL Z540-1-1994 Standards
- ✓ Fast Yet Precise
- ✓ 5 Levels of Superior-Quality Calibration
- ✓ OMEGA Will Calibrate an Instrument or an Entire System (Probe Connected to Instrument)



For each of the calibration certificates OMEGA issues, we use different standards over varied temperature ranges to attain the highest quality and reliability. The standards we use for temperature calibrations are listed in the table below; the standards that we select for a customer depend on the probe being calibrated. OMEGA meticulously maintains its in-house standards so that our customers get the quickest, most convenient, and highest-quality calibrations available. For those customers wishing to do their own calibrations, some of our standards are available for purchase. Visit omega.com/omegacal to learn more.

Probe furnaces in OMEGA's calibration laboratory are used along with NIST-traceable precision instrumentation to perform temperature calibrations renowned for their accuracy.



OMEGA's benchtop hot point® dry block probe calibrator model CL900A (\$3295) can be used to calibrate a handheld general purpose thermocouple probe and meter.



Visit omega.com/temp-cal for details on our complete line of calibration instruments.

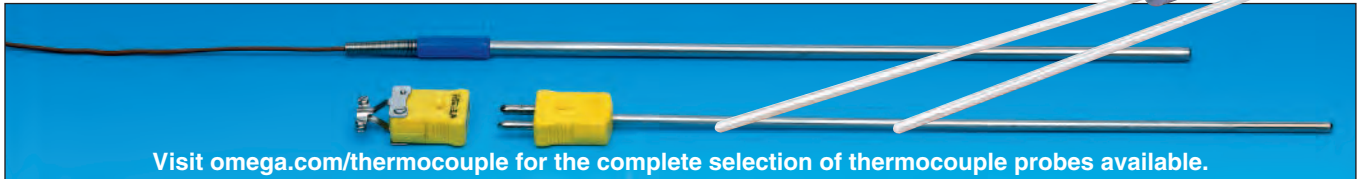
For Calibration Services Call:

1-800-622-2378®
1-800-622-BEST

Calibration Standards Used	Block Calibrator	Liquid Bath		Furnace
		Low Range	High Range	
Temperature Range*	100 to 500°C 212 to 930°F	-30 to 200°C -22 to 392°F	200 to 500°C 392 to 930°F	500 to 1300°C 930 to 2372°F
Min Probe Length	178 mm (7")	76 mm (3")	305 mm (12")	457 mm (18")
Max Probe Diameter	6.35 mm (0.25")	6.35 mm (0.25")	6.35 mm (0.25")	6.35 mm (0.25")
Accuracy	±0.4°C (0.72°F)	±0.2°C (0.36°F)	±0.2°C (0.36°F)	±0.12% rdg

* Note: Range may be limited based on probe type or diameter.

OMEGA can calibrate a probe by itself, an instrument by itself, or a probe connected to an instrument (system calibration). The pricing and temperature ranges listed below apply to most types of equipment; however, our product offering is so broad that you need to check with us for current pricing on a particular calibration. Be aware that there may be inherent limitations in a particular instrument that can restrict the temperature range over which it can be calibrated.



Visit omega.com/thermocouple for the complete selection of thermocouple probes available.

Probe Type	System CAL Probe + Meter	Probe Only	Probe Length Min	Standard Calibration Points for CAL-3											
				Probe Diameter, mm (in)											
				0.81 (0.032)		1.02 (0.040)		1.57 (0.062)		3.18 (0.125)		4.76 (0.188)		6.35 (0.250)	
				°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
K	Yes	Yes	178 mm (7")	100	212	100	212	100	212	100	212	100	212	100	212
				200	392	200	392	200	392	200	392	200	392	200	392
				400	752	400	752	400	752	400	752	400	752	400	752
J	Yes	Yes	178 mm (7")	100	212	100	212	100	212	100	212	100	212	100	212
				150	302	150	302	200	392	200	392	200	392	200	392
				200	392	200	392	300	572	400	752	400	752	400	752
T	Yes	Yes	178 mm (7")	100	212	100	212	100	212	100	212	100	212	100	212
				150	302	150	302	150	302	200	392	200	392	200	392
				200	392	200	392	200	392	300	572	300	572	300	572
E	Yes	Yes	178 mm (7")	100	212	100	212	100	212	100	212	100	212	100	212
				150	302	150	302	200	392	200	392	200	392	200	392
				200	392	200	392	400	752	400	752	400	752	400	752
N	Yes	Yes	178 mm (7")	100	212	100	212	100	212	100	212	100	212	100	212
				200	392	200	392	200	392	200	392	200	392	200	392
				400	752	400	752	400	752	400	752	400	752	400	752
RTD	Yes	Yes	178 mm (7")	—	—	—	—	100	212	100	212	100	212	100	212
								200	392	200	392	200	392	200	392
								400	752	400	752	400	752	400	752
Thermistor with Meter	Yes	No	76.2 mm (3")	—	—	—	—	0	32	0	32	0	32	0	32
								50	122	50	122	50	122	50	122
								90	194	90	194	90	194	90	194

Note: CAL-3 and CAL-4 also available on thermocouple wire.
Upper temperature value may be limited by wire insulation.
Note: CAL-3 calibration data is given in °C and °F.

CAL-5 Standard Calibration Points

Thermocouple Calibration	Liquid Nitrogen -198°C (-320°F)	Ice Point 0°C (32°F)	Boiling Point 100°C (212°F)	Tin Melting 232°C (449°F)	Zinc Melting 420°C (787°F)
T	-198°C (-320°F)	0°C (32°F)	100°C (212°F)	232°C (449°F)	—
J K E N	—	0°C (32°F)	100°C (212°F)	232°C (449°F)	420°C (787°F)

Max Calibration Temperature Limits for CAL-4

Probe Type	¼" Dia. Probe 18 AWG Wire	⅜" Dia. Probe 20 AWG Wire	½" Dia. Probe 24 AWG Wire	⅝" Dia. Probe 30 AWG Wire
J	482°C (900°F)	482°C (900°F)	371°C (700°F)	315°C (600°F)
K	982°C (1800°F)	982°C (1800°F)	871°C (1600°F)	760°C (1400°F)
T	287°C (550°F)	260°C (500°F)	204°C (400°F)	148°C (300°F)
E	537°C (1000°F)	537°C (1000°F)	426°C (800°F)	371°C (700°F)

To Order (Specify Calibration Level)

Model No.	CAL-1	CAL-2	CAL-3	CAL-4	CAL-5
Probe Calibrations[†]					
T/C Probes	\$0	N/A	\$110	\$85 setup + \$35 per point	\$15
RTD Probes	0	N/A	110	\$85 setup + \$45 per point	N/A
System Calibration (probe and meter)[*]					
T/C and Instrument	N/A	N/A	\$135	\$150 setup + \$35 per point	N/A
RTD or TH and Instrument	N/A	N/A	135	\$150 setup + \$45 per point	N/A

[†] Probe must meet requirements of calibration standards shown in table on previous page.

^{*} Prices are for new instruments and subject to change without notice. For recalibration, call Customer Service for price. Charges vary depending on the instrument being calibrated.

Note: Because of the large selection of temperature probes, thermocouple wire and instrumentation that OMEGA[®] offers, the pricing and calibration data points shown above are examples only and do not apply to every probe or system calibration. Contact OMEGA Customer Service for advice before returning any instrument for calibration service.

Ordering Example: CAL-3 (designate this calibration level when NIST traceability is required on the thermocouple probe or probe/instrument system you are purchasing new or when you are returning previously purchased equipment for calibration), \$110 (probe only); \$135 (probe with instrument).