

Temperature Calibration Services



- ✓ All NIST Traceable
- ✓ All Meet or Exceed ISO10012-1, ANSI/NCSL Z540-1-1994 Standards
- ✓ Fast, Precise Quality Service
- ✓ Individual Probe Calibration
- ✓ Instrument Calibration
- ✓ System Calibration (Probe Connected to Instrument)
- ✓ Five Levels of Calibration Service
- ✓ Mobile Calibration Service Available



OMEGA uses the different standards over varied temperature ranges to provide the highest quality and reliability on all of its calibration certificates. The standards for temperature calibrations are listed in the table below. The standard used depends on the probe being calibrated. OMEGA maintains all of these standards in-house to provide you with the quickest, most convenient and highest quality calibration available anywhere. Some of the standards we use for calibrations performed at our facilities are also available for purchase from OMEGA, for those wishing to do their own in-house calibrations. See Section K.

Probe furnaces are utilized in OMEGA's calibration laboratory along with NIST traceable precision instrumentation to perform accurate temperature calibrations.



OMEGA's new benchtop hot point® dry block probe calibrator model CL900A (\$3295) shown being utilized to calibrate a handheld general purpose thermocouple probe and meter. See Section K for calibrators.



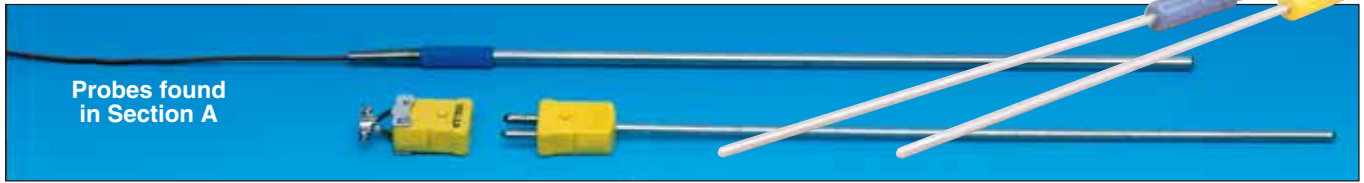
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Calibration Standards Utilized	Block Calibrator	Liquid Bath	Furnace
Temperature Range*	100 to 500°C 212 to 930°F	-25 to 100°C -13 to 212°F	500 to 1000°C 930 to 1832°F
Min. Probe Length	178 mm (7")	76 mm (3")	457 mm (18")
Max. Probe Diameter	6.35 mm (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)	±0.12% rdg.

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

1-800-622-2378®
1-800-622-BEST

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 for a particular calibration. Be aware that there may be inherent limitations in a particular instrument that can limit the temperature range over which it can be calibrated.



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	Ice Point	Boiling Point	Tin Melting	Zinc Melting
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	\$95	\$75 setup + \$25 per point	\$15
RTD Probes	0	N/A	\$95	\$75 setup + \$35 per point	N/A
System Calibration (probe and meter)*					
T/C & Instrument	N/A	N/A	\$125	\$150 setup + \$25 per point	N/A
RTD or TH & Instrument	N/A	N/A	\$125	\$150 setup + \$35 per point	N/A

† Probe must meet requirements based on calibration standards utilized as 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 OMEGA offers, the pricing and calibration data points shown above are only an example and do not apply to every probe or system calibration. Contact OMEGA's Customer Service prior to 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 returning previously purchased equipment for calibration, \$95 (probe only), \$125 (probe with instrument).