CALTool 25
Thermocouple Calibrator

The BETA CALTool 25 Thermocouple Calibrator provides high accuracy source and measurement of ten common thermocouples, as well as mV. The CALTool 25's accuracy of ±0.3°C for Type J T/Cs includes all errors, at resolutions of ±0.01°C or °F in measure mode and ±0.1°C or °F in source mode. Features including MIN/MAX recall in measure mode, three setpoints per thermocouple range, a large knob for decade control of the output in source mode, and the ability to accept bare T/C wires in addition to mini-plug inputs, makes the CALTool 25 an accurate, easy-to-use instrument for all your thermocouple calibration needs.

Features:

- High accuracy – ±0.3°C
  (Type J T/C – all errors combined)
- Ten (10) common T/C types plus mV
- Accepts both T/C mini-plug and bare T/C wires
- Simple decade control of output
- Three (3) setpoints for each T/C type
- MIN/MAX recall in measure mode
- Input protection to 240 VAC
- Supplied in full rubber boot

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Specifications (1 year at 23°C ±5°C; % of reading unless otherwise noted)

Output Voltage

Range	-10 to +75.000 mV
Resolution	1 µV
Accuracy	±0.007 % of reading, ±10 µV
Output Impedance	≤1 Ohm

Input Voltage

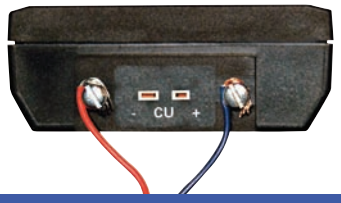
Range	-10 to +75.000 mV
Resolution	1 µV
Accuracy	±0.007 % of reading, ±10 µV
Input Impedance	> 1 MegOhm

Thermocouple Source/Measure

Types	J, K, T, E, R, S, B, L, U, C
Range	mV
Resolution	
Source	±0.1°C or °F
Measure	±0.01°C or °F
Accuracy	
J	±0.5 °C; -210 °C to -100 °C
	±0.3 °C; -100 °C to +1,200 °C
K	±0.6 °C; -200 °C to -100 °C
	±0.35 °C; -100 °C to +1,000 °C
	±0.5 °C; +1,000 °C to +1,372 °C
T	±0.7 °C; -200 °C to -150 °C
	±0.3 °C; -150 °C to +400 °C
E	±0.5 °C; -200 °C to -100 °C
	±0.3 °C; -100 °C to +1,000 °C
R	±1.8 °C; 0 °C to 250 °C
	±1.0 °C; 250 °C to +1,767 °C
S	±1.8 °C; 0 °C to 250 °C
	±1.0 °C; 250 °C to +1,767 °C
B	±1.7 °C; 600 °C to 1,000 °C
	±1.2 °C; 1,000 °C to 1,820 °C
L	±0.5 °C; -200 °C to -100 °C
	±0.4 °C; -100 °C to +900 °C
U	±0.7 °C; -200 °C to 0 °C
	±0.3 °C; 0 °C to +600 °C
C	±0.4 °C; 0 to °C 1,000 °C
	±0.7 °C; 1,000 °C to +1,800 °C
	±1.2 °C; +1,800 °C to +2,316 °C

CJC Temperature Offset	±0.05 °C/°C outside of 23±5 °C
Warm-up Time	1 minute to specification
Environmental	
Operating	-10 °C to +55 °C
Storage	-20 °C to +70 °C
Power Requirements	
Battery	9 Volt alkaline; 006P/ IEC 6F22/ NEDA1604 Optional NiCad Optional AC adapter/charger
Mechanical	
Dimensions	5.7" H x 3.15" W x 1.43" D (144.7 x 80.0 x 36.3 cm)
Weight	12 ounces (340 grams)
Optional Accessories	Carrying Case, Model LCA-05A

Notes:
1. *Temperature standard ITS-90.*



The CALTool 25 accepts both mini-plug **AND** bare thermocouple wires!

Temperature Probes & Kit

A variety of temperature probe configurations are available for use with BETA Thermocouple Calibrators. All are Type-K, and feature ±2.2 °C/±0.75% or ±3.9 °F/±0.75% accuracy.

TP Kit includes probes:
TP-K01 through TP-K06

TP-K01 — Bead Probe
-50 °C to 200 °C; -58 °F to +392 °F

TP-K02 — Immersion Probe
-50 °C to 700 °C; -58 °F to +1,292 °F

TP-K03 — Surface Probe
-50 °C to 400 °C; -58 °F to +752 °F

TP-K04 — Piercing Probe
-50 °C to 600 °C; -58 °F to +1,122 °F

TP-K05 — Surface Probe
-50 °C to 400 °C; -58 °F to +752 °F

TP-K06 — Air & Gas Probe
-50 °C to 800 °C; -58 °F to +1,504 °F

Need a high performance loop calibrator?

Consider the CALTool 20. With accuracy of ±0.015% of reading and 0.001 mA resolution, the BETA CALTool 20 furnishes significantly extended performance over any competitive calibrator. A % Error function elimnates manual error calculations. The CALTool 20 simulates, powers and measures two-wire transmitters, and can remotely calibrate 4-20 mA devices.