

# TC-100

## THERMOCOUPLE CALIBRATOR

The TC-100 Thermocouple Calibrator provides high accuracy source and measurement of ten common thermocouples, as well as mV.



### KEY FEATURES

- High Accuracy,  $\pm 0.3^{\circ}\text{C}$  Type J T/C – All Errors Combined
- 10 Common T/C Types Plus mV
- Accepts Both T/C Mini-Plug and Bare T/C Wires
- Simple Decade Control of Output
- 3 Setpoints for Each T/C Type
- MIN/MAX Recall in Measure Mode

### SPECIFICATIONS

VOLTAGE	RANGE	RESOLUTION	ACCURACY	IMPEDANCE
OUTPUT	-10 to +75.000 mV	1 $\mu\text{V}$	$\pm 0.007\%$ of reading, $\pm 10\ \mu\text{V}$	$\leq 1\ \text{Ohm}$
INPUT	-10 to +75.000 mV	1 $\mu\text{V}$	$\pm 0.007\%$ of reading, $\pm 10\ \mu\text{V}$	$> 1\ \text{MegOhm}$
THERMOCOUPLE TYPES	RANGE	RESOLUTION	ACCURACY	
J	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.5^{\circ}\text{C}$ ; -210 $^{\circ}\text{C}$ to -100 $^{\circ}\text{C}$ $\pm 0.3^{\circ}\text{C}$ ; -100 $^{\circ}\text{C}$ to +1,200 $^{\circ}\text{C}$	
K	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.6^{\circ}\text{C}$ ; -200 $^{\circ}\text{C}$ to -100 $^{\circ}\text{C}$ $\pm 0.35^{\circ}\text{C}$ ; -100 $^{\circ}\text{C}$ to +1,000 $^{\circ}\text{C}$ $\pm 0.5^{\circ}\text{C}$ ; +1,000 $^{\circ}\text{C}$ to +1,372 $^{\circ}\text{C}$	
T	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.7^{\circ}\text{C}$ ; -200 $^{\circ}\text{C}$ to -150 $^{\circ}\text{C}$ $\pm 0.3^{\circ}\text{C}$ ; -150 $^{\circ}\text{C}$ to +400 $^{\circ}\text{C}$	
E	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.5^{\circ}\text{C}$ ; -200 $^{\circ}\text{C}$ to -100 $^{\circ}\text{C}$ $\pm 0.3^{\circ}\text{C}$ ; -100 $^{\circ}\text{C}$ to +1,000 $^{\circ}\text{C}$	
R	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 1.8^{\circ}\text{C}$ ; 0 $^{\circ}\text{C}$ to 250 $^{\circ}\text{C}$ $\pm 1.0^{\circ}\text{C}$ ; 250 $^{\circ}\text{C}$ to +1,767 $^{\circ}\text{C}$	
S	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 1.8^{\circ}\text{C}$ ; 0 $^{\circ}\text{C}$ to 250 $^{\circ}\text{C}$ $\pm 1.0^{\circ}\text{C}$ ; 250 $^{\circ}\text{C}$ to +1,767 $^{\circ}\text{C}$	
B	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 1.7^{\circ}\text{C}$ ; 600 $^{\circ}\text{C}$ to 1,000 $^{\circ}\text{C}$ $\pm 1.2^{\circ}\text{C}$ ; 1,000 $^{\circ}\text{C}$ to 1,820 $^{\circ}\text{C}$	
L	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.5^{\circ}\text{C}$ ; -200 $^{\circ}\text{C}$ to -100 $^{\circ}\text{C}$ $\pm 0.4^{\circ}\text{C}$ ; -100 $^{\circ}\text{C}$ to +900 $^{\circ}\text{C}$	
U	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.7^{\circ}\text{C}$ ; -200 $^{\circ}\text{C}$ to 0 $^{\circ}\text{C}$ $\pm 0.3^{\circ}\text{C}$ ; 0 $^{\circ}\text{C}$ to +600 $^{\circ}\text{C}$	
C	mV	Source: $\pm 0.1^{\circ}\text{C}$ or $^{\circ}\text{F}$ Measure: $\pm 0.01^{\circ}\text{C}$ or $^{\circ}\text{F}$	$\pm 0.4^{\circ}\text{C}$ ; 0 $^{\circ}\text{C}$ to 1,000 $^{\circ}\text{C}$ $\pm 0.7^{\circ}\text{C}$ ; 1,000 $^{\circ}\text{C}$ to +1,800 $^{\circ}\text{C}$ $\pm 1.2^{\circ}\text{C}$ ; +1,800 $^{\circ}\text{C}$ to +2,316 $^{\circ}\text{C}$	
CJC TEMPERATURE OFFSET	$\pm 0.05^{\circ}\text{C}/^{\circ}\text{C}$ outside of 23 $^{\circ}\text{C}$ $\pm 5^{\circ}\text{C}$			
WARM-UP TIME	1 minute to specification			
OPERATING TEMPERATURE	-10 to +55 $^{\circ}\text{C}$			
STORAGE TEMPERATURE	-20 to +70 $^{\circ}\text{C}$			
BATTERY	9 Volt alkaline; 006P/ IEC 6F22/NEDA1604. Optional NiCad. Optional AC adapter/charger			
DIMENSIONS	5.7 x 3.15 x 1.43 IN. (14.47 x 8.00 x 3.63 cm)			
WEIGHT	12 ounces (340 grams)			

### ORDERING INFORMATION

TC-100

Thermocouple calibrator

\$ 705