

# Microprocessor Calibrator Thermometer

**Source and Measure 8 thermocouple type devices**  
*One model for multiple thermocouple types (J, K, T, E, C, R, S and N) with precision output displayed as mV or °C/°F*

**Alava Ingenieros**  
GRUPO ALAVA

Edificio Antalla, Albasanz 16, 28037 Madrid  
+34 91 567 97 00 | alavaingenieros.com | alava@alava-ing.es  
Madrid | Barcelona | Zaragoza | Lisboa | Lima | Quito | Texas

## Features:

- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Basic accuracy of  $\pm 0.15\%$  of reading over wide ranges
- $0.1^\circ/1^\circ$  resolution for J, K, T and E Types;  $1^\circ$  for C, R, S and N Types
- Five stored calibration values for fast calibrations
- Displays output in terms of millivolts or temperature based on thermocouple tables
- 4 digit LCD display is easy to read with thermocouple type indication
- Unique handheld Oyster case design features large digital display built into "flip-up" cover automatically shuts off when closed
- Portable and rugged industrial design for field, plant or benchtop use
- Operates on alkaline batteries, rechargeable batteries or AC adaptor
- Standard Thermometer Calibration cables (terminated with subminiature connectors on either side) comes standard with the meter. Optional Process Calibration Cable is terminated with spade lug for process applications



Complete with Type K Thermocouple calibration cable, Copper calibration cable, 9V NiCad rechargeable battery, neckstrap, Universal AC adaptor/charger with AU/EU/UK/US plugs, and carrying case

| Specifications             | Ranges for Calibrate and Measure modes   |                 | Accuracy                |
|----------------------------|--|-----------------|-------------------------|
| Type J                     | -58 to 1830°F                            | (-50 to 1000°C) | 0.15% rdg $\pm 1^\circ$ |
| Type K                     | -58 to 2498°F                            | (-50 to 1370°C) | 0.15% rdg $\pm 1^\circ$ |
| Type T                     | -184 to 752°F                            | (-120 to 400°C) | 0.15% rdg $\pm 1^\circ$ |
| Type E                     | -58 to 1382°F                            | (-50 to 750°C)  | 0.15% rdg $\pm 1^\circ$ |
| Type C                     | 32 to 3272°F                             | (0 to 1800°C)   | 0.15% rdg $\pm 1^\circ$ |
| Type R                     | 32 to 3182°F                             | (0 to 1750°C)   | 0.15% rdg $\pm 1^\circ$ |
| Type S                     | 32 to 3182°F                             | (0 to 1750°C)   | 0.15% rdg $\pm 1^\circ$ |
| Type N                     | -58 to 2372°F                            | (-50 to 1300°C) | 0.15% rdg $\pm 1^\circ$ |
| Voltage                    | -5.00mV to +55.00mV                      | 10 $\mu$ V      | 10 $\mu$ V $\pm 1$ d    |
| Resolution                 | 0.1° (up to 999.9) or 1° (over 999.9°)   |                 |                         |
| Cold Junction Compensation | 0.03°C/°C (0.02°F/°F)                    |                 |                         |
| Input Impedance            | 10 Mohm                                  |                 |                         |
| Sampling Time              | 4 times/second                           |                 |                         |
| Dims/Weight                | 3.8 x 4.2 x 1.8" (96 x 108 x 45mm)/ 17oz |                 |                         |

## Ordering Information:

433201 .....Microprocessor Calibrator Thermometer (115V AC Adaptor)  
433201-NIST .....433201 with Calibration Traceable to NIST Certificate



## PRC20 Thermocouple Calibrator



**Source and measure 8 thermocouple type devices (J, K, T, E, C, R, S and N) with one meter that provides precision output displayed as °C/°F or mV.**

**Applications include:**

- Lab and Field Calibration and Verification Operations of Sensors, Thermocouple Probes, Controllers, Panel meters & Testing tools.
- Engineering Research and Design
- Manufacturing and Test Engineering
- HVAC
- Temperature Control Process Troubleshooting



### Features

- Palm-sized double molded housing and large dot-matrix digital backlit LCD with thermocouple type indication
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Standard mini-thermocouple input
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle

| Specifications     | Range   |                 | Basic Accuracy |
|--------------------|---|-----------------|----------------|
| Thermocouple       |   |                 |                |
| Type J             | -58 to 1832°F   | (-50 to 1000°C) | 0.05% rdg ±1°  |
| Type K             | -58 to 2498°F   | (-50 to 1370°C) | 0.05% rdg ±1°  |
| Type T             | -184 to 752°F   | (-120 to 400°C) | 0.05% rdg ±1°  |
| Type E             | -58 to 1382°F   | (-50 to 750°C)  | 0.05% rdg ±1°  |
| Type C             | 32 to 3182°F  | (0 to 1750°C)   | 0.05% rdg ±1°  |
| Type R/S           | 32 to 3182°F  | (0 to 1750°C)   | 0.05% rdg ±1°  |
| Type N             | -58 to 2372°F   | (-50 to 1300°C) | 0.05% rdg ±1°  |
| Voltage            | -10.00mV to +60.00mV  | 10µV            | 10µV ±1d       |
| Resolution         | 0.1° (up to 999.9) or 1° (over 999.9) for J, K, T, E ; 1° for R, N; 0.5° for C, S |                 |                |
| Input Impedance    | 10 MΩ   |                 |                |
| Sampling Time      | 4 times/second  |                 |                |
| Meter Dims (LxWxH) | 6.3" x 3.2" x 1.7" (159 x 80 x 44mm)  |                 |                |
| Meter Wt           | 8oz (225g) - not including battery weight   |                 |                |

### Ordering

PRC20 ..... Thermocouple Calibrator

PRC20-NIST ... PRC20 with Certificate of Calibration Traceable to NIST



Complete with Thermocouple calibration cable with subminiature connectors, standard calibration cable with subminiature connectors, 100V-240V AC Universal Adaptor with 4 plugs, 6 x 1.5V AA batteries, and hard carrying case

