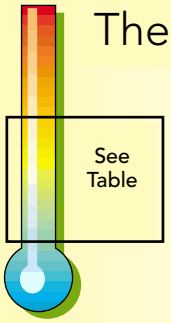
# 870 Isocal

## Thermocouple Simulator




A method of accurately calibrating any thermocouple temperature measurement or control system is available from Isothermal Technology Limited. Replacing the normal calibration "Trolley" containing Microvolt Generator Ice Point Reference Chamber and Digital Voltmeter by a pocket sized calibration unit complete with its own battery and cold junction compensation.

*To use the unit, simply follow the steps outlined below:*

1. Disconnect the normal Measurement Thermocouple
2. Substitute the Isocal unit
3. Select one of ten switch preset temperatures on the front of the Isocal
4. Check that the measurement or indicator system reads the preset temperature

The ability of the Isocal unit to simulate any preset temperature with and without cold junction compensation, enables the user to substitute the electrical equivalent of the thermocouple output to within a fraction of a degree and inject the signal into almost any kind of measuring system. Models are available for all common thermocouple material to IEC 584 tables and a variable output model is available with a 10 turn potentiometer instead of the preset switch.

### Key Features

- **10 position Thermocouple Simulator**
- **Simple to use**
- **Certified**
- **Built-in Cold Junction**



# 870 Isocal

## Thermocouple Simulator

| *Standard Combination Offered* | *Designation* | *Preset Values °C* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| Nickel Chromium vs. Nickel Aluminium* | K | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 1000 |
| Nickel Chromium vs. Copper Nickel* | E | -100 | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 |
| Iron vs. Copper Nickel* | J | 0 | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | 700 |
| Copper vs. Copper Nickel* | T | -50 | 0 | 20 | 37 | 60 | 100 | 121 | 150 | 200 | 300 |
| Platinum vs. Platinum 10% Rhodium | S | 0 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 |
| Platinum vs. Platinum 13% Rhodium | R | 0 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 |

** Conformance certificate available*

### Options

| | |
|---|---|
| UKAS Calibration | UKAS Calibration available to Order |

| | |
|---|---|
| **Model No.** | ISOCAL<br>Thermocouple Simulator |
| **Reference Temperature** | Effectively 0°C |
| **Accuracy** | Better than 0.05%<br>of full scale |
| **Stabilisation Time** | 5 minutes |
| **Long Term Stability** | Better than 0.05% |
| **Ambient Temperature** | 0°C to 55°C |
| **Temperature Stability** | ±0.01% per °C |
| **Power** | PP3 9V Battery<br>1 year intermittent operation<br>Consumption less than 5mA |
| **Overall dimensions** | Height 45mm<br>Width 90mm<br>Depth 160mm |
| **Weight** | 300g |
| **How to Order** | 870 Isocal<br>Please specify thermocouple type<br>(for example Isocal K)<br>Please state if<br>UKAS Certification is required |