

Characteristics of Thermocouple

Model : SE-1002



SINCOM SE-1002 Characteristics of Thermocouple is a all-inclusive trainer designed for studying the characteristics of Thermocouple. It includes on-board Digital DC voltmeter and Digital temperature indicator. Additionally, it features an electrical heating system for practical experimentation. This comprehensive trainer provides a complete learning experience for understanding the behaviour and properties of Thermocouple.

Features

- ❖ CRAL type Thermocouple
- ❖ Wide Temperature Range
- ❖ $3^{1/2}$ Digit LED Digital DC Volt Indicator
- ❖ Digital Temperature Indicator
- ❖ External Electrical Heating System
- ❖ Current controlling resistor in series
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ Presents a multi-color Circuit Diagram printed on the front panel of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Interconnections by 2mm high quality banana sockets and pins.

Technical Specifications

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|-----------------------------------|--|
| ▪ AC Mains Power Supply | : 230V \pm 10%, 50Hz |
| ▪ Fixed Regulated DC Power Supply | : +5V /500mA |
| ▪ Temperature Sensor | : Thermocouple CRAL K type |
| ▪ Heating Source | : Electrical Heating system |
| ▪ Temperature Range | : Upto 100° C |
| ▪ Current Controlling Resistor | : MFR 100 Ω , \pm 5% in series |
| ▪ Total Digital Meters | : 02 (1 Voltmeter and 1 Temperature Indicator) |
| ▪ Digital Voltmeter | : DC 0-2V, Red Color $3^{1/2}$ Digit LED Display |



An ISO 9001:2015 Co.

- Digital Temperature Indicator : 3^{1/2} Digit LED Temperature Display upto 100°C with sensor
- Weight : 3.0 kg (approx)
- Dimensions (mm) : L 220 x W 270 x H 110
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-100°C, 80% RH

Learning Scope

- To study Construction of Thermocouple.
- To study thermocouple as an active transducer.
- To study Temperature Vs Voltage across Thermocouple characteristics.
- To Observe and note the change in Voltage (V) of RTD w.r.t. change in Temperature.

Other Instruments Required : Digital Multimeter

Accessories Included : Electrical Heating System, Digital Temperature Indicator with sensor, Thermocouple, Set of Patch Cords, Detail Instruction Manual