

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

▪ 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 100Ω, \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