Temperature ON/OFF Controller using Thermocouple

Model : SE-1043

SINCOM SE-1043 Temperature ON/OFF Controller using Thermocouple is an exceptional user-friendly trainer designed for studying temperature measurement and ON/OFF control of heating loads. It utilizes Thermocouple technology to ensure precise temperature readings and control. With its microcontroller-based system, this comprehensive trainer offers accurate temperature measurement and control capabilities. The LED seven segment display provides clear temperature readings, while users can fluently set the temperature cut-off and control the electrical heater load.

Features

- Accurate Temperature measurement and ON/OFF control action
- CRAL Thermocouple as a Temperature Sensor
- Microcontroller based system
- Wide Temperature Range
- $3^{1/2}$ Digit LED Temperature Display
- Easy setting of Temperature Cut-Off by Push Switches.
- Heater Load control
- 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 ±10%, 50Hz
DC Power Supply	: Regulated ±12V /500mA ,+5V /500mA
Temperature Sensor	: CRAL K type Thermocouple
Controller	: Micro controller based

- Heater Load Control By : Relay Driver
- Temperature Setting By : 03 Push Switches
- Temperature Display : Red Color, $3^{1/2}$ Digit , LED Display
- Temperature Measuring Range : Upto 100^{o} C
- Temperature ON/OFF Setting Range : Upto 100^{o} C
- Heating Source : Electrical water Heating system
- Weight : 3.0 kg (approx)
- Dimensions (mm) : L 270 x W 390 x H 130
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-100^{0}C, 80% RH

Learning Scope

- To study Temperature measurement using Thermocouple.
- To observe and note the variation in temperature displayed w.r.t. change in Temperature.
- To Study ON/OFF Temperature Controller action.
- To observe & Note temperature shown by the temperature sensor and it's ON & OFF controlling of Heater Load w.r.t. Pre-decided Temperature.

Other Instruments Required : Digital Multimeter

Accessories Included : Electrical Heating System, Set of Patch Cords, Detail Instruction Manual.

Subject to Change