Op-Amp as Non Inverting Amplifier with Thermistor Feedback

Model : SE-1013

SINCOM SE-1013 Op-Amp as Non Inverting Amplifier with Thermistor Feedback is a simply designed trainer for studying the operation of a OP-AMP IC 741 as Non-Inverting amplifier with NTC Thermistor at feedback to observe the effect of temperature on amplifier for the applied DC/AF inputs.

Features

- Op-AMP as Temperature Sensing
- Components Bank
- Wide Temperature Range
- External Electrical Heating System
- In-Built Fixed and variable 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
Fixed Regulated DC Power Supply	: ±12V /500mA
Variable DC Power Supply	: Variable 0 to ± 12V
OP-AMP	: OP-AMP IC 741
Temperature Sensor	: NTC Thermistor
Components Bank	: Resistors R_1 and R_F
Input	: DC and AF Input upto 10KHz
Heating Source	: Electrical Heating system
Temperature Range	: Upto 100^{o} C
Maximum Output Voltage	: 12V
Weight	: 3.0 kg (approx)
Dimensions (mm)	: L 220 x W 270 x H 110
Interconnections	: 2mm Banana sockets
Operating Temperature	: 0-100^{0}C, 80% RH

Learning Scope

- To study IC 741 as Non-Inverting Amplifier.
- To Observe the effect on O/P by changing R1 &RF.
- To study “Why this amplifier is called an non-inverting amplifier”.
- Observe the effect of NTC Thermistor as a feedback resistor RF on the Op-amp O/P.

Other Instruments Required : Digital Multimeter, CRO 20MHz, Signal/Function Generator 1MHz.

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

Subject to Change