

Description:

TT-1000 Trainer introduces students to Temperature transducers, signal conditioning circuits and display devices through a wide range of practical activities. The study module includes transducers and instrumentation trainer and a curriculum manual Detailed experiment manual is supplied with the trainer.

Sensors:

- IC Temperature Sensor
- NTC Thermistor
- PTC Thermistor
- Type 'K' Thermocoupler
- Reference Sensor

Heating Element:

- Wirewound Resistance 47ohm, 7W

Input Circuit:

- Wire wound potentiometer
- Wheatstone Bridge

Signal Conditioning Circuitry:

- Differential Amplifier
- x 100 Amplifier
- Instrumentation Amplifier x 50 Gain
- DC Amplifier, $\pm 2.5V$ offset, x 50 Gain
- Comparator
- Electronic Switch
- Relay

Output Circuit:

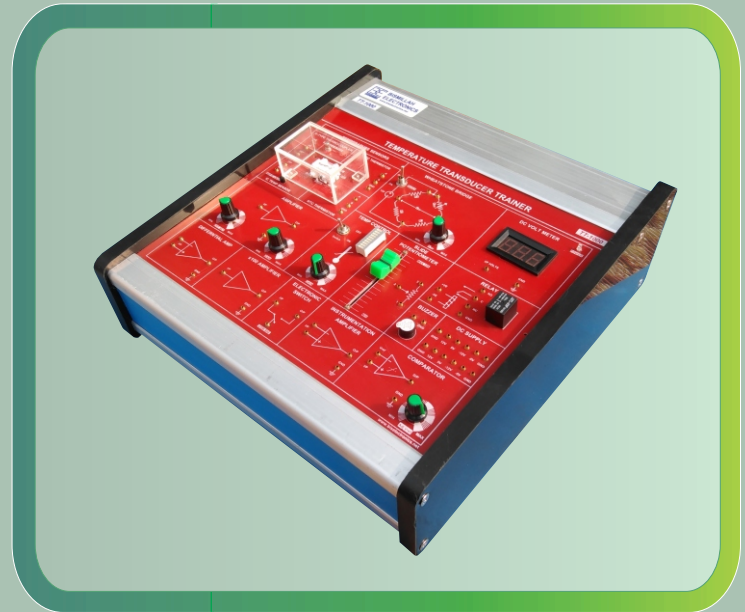
- Digital Voltmeter with $3\frac{1}{2}$ digit LED Display
- Buzzer
- LED Bar Graph

Power Supply:

- DC Supply: $\pm 12V$, $\pm 5V$
- Variable DC Supply: 1V to 10V.
- 230 V $\pm 10\%$, 50 Hz

Accessories:

Power Cord, User Manual, 2mm banana Patch Cords.



Features:

- A self contained Trainer
- Transducers installed on-board
- Control Circuits Installed
- Functional Blocks indicated on
- Protection Circuits Installed
- Built in DC Power Supply
- Devices Installed

Experiments:

- Introduction to Transducers and instrumentation
- Characterizations of IC Temperature Sensor
- Characterizations of NTC Thermistor
- Characterizations of PTC Thermistor
- Characterizations of K-Type Thermocoupler
- Wheatstone Bridge Measurement
- Temperature controlled alarm system

Dimensions: 13.5 x 14 x 6 in

Weight: 3.5Kg

