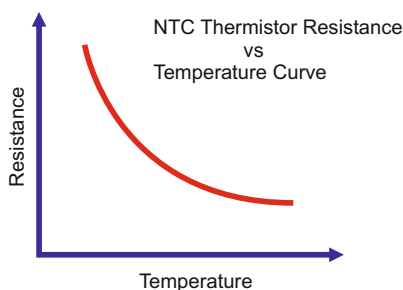


**Mine Temperature Transducer Trainer (MI-IN04)** is an extremely useful laboratory kit which provides facilities for hands on experience to various experiments in the field of instrumentation trainers and provides all necessary inputs and connections for students to study the behavior of transducers and their techniques. A transducer is an electronic device that converts energy from one form to another. This is a stand alone unit where student can learn different type of temperature transducers like NTC Thermistor, Platinum RTD, Type K Thermocouple, LM35IC Temperature Sensor.

### Features

- User friendly front panel.
- On-board Heater element.
- On-board 4 different Temperature Sensors.
- Designed by consider safety standards.
- On-board protective shield is provided to prevent hazard.
- Symbols and Diagrams are printed on glass epoxy PCB.
- All important test points are brought out with 2mm banana sockets to observe signal.
- Attractive ABS plastic cabinet.

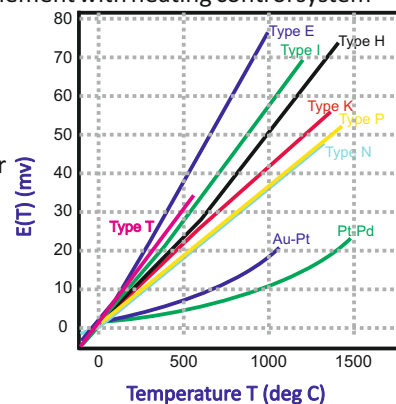


### Learning's

- Study of various functional blocks.
- Study of LM35 IC temperature sensor.
- To study the characteristics of NTC Thermistor.
- To study the characteristics of PT100 RTD.
- To study the characteristics of Type J/K Thermocouple.
- To study Wheatstone bridge using NTC Thermistor.
- To study of Open loop System using J/K Thermocouple and bargraph indication.
- To study of Open loop System using LM35 and bargraph indication.
- To study of Open loop System using RTD PT100 and bargraph indication.
- To study of Open loop System using Thermistor and bargraph indication.
- Study of close loop temperature control operation using J/k thermocouple.
- Study of close loop temperature control operation using LM35.
- Study of close loop temperature control operation using RTD PT100.
- Study of close loop temperature control operation using NTC thermistor.

### Technical Specifications

On-board Fixed DC Power Supply	:	+5VDC@200mA    +12V@200mA.
Heating Element	:	On board resistive heating element with heating control system
4 nos Transducer	:	NTC Thermistor Platinum RTD Type J/K Thermocouple LM35IC Temperature Sensor
Signal Conditioning Circuitry	:	Instrumentation Amplifier X200 Amplifier DC Amplifier Low Pass Filter Comparator
Output Circuits	:	Relay    Buzzer    Bargraph Wheatstone Bridge    Electronic switch
On Board Potentiometer Bank	:	
Output Display	:	3 and ½ Digits Digital Panel Meter calibrated in °C.
<b>Electrical/Mechanical Specifications:</b>		
Power ON switches with indicator and fuse for protection.		
Line Input Voltage	:	230V AC, ± 10%, 50Hz,
Dimension	:	340 (L) x 250 (W) x 62 (H). (Approx)
Weight	:	2.5Kg. (Approx)
Accessories	:	Power cable-1No. Patch code-15Nos. User manual-1No. J/K Type Thermocouple-1No. RTD (PT-100) Sensor -1No. Digital Multimeter (Optional).



## Mine Instruments Pvt. Ltd. An ISO 9001:2015 Certified Company

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