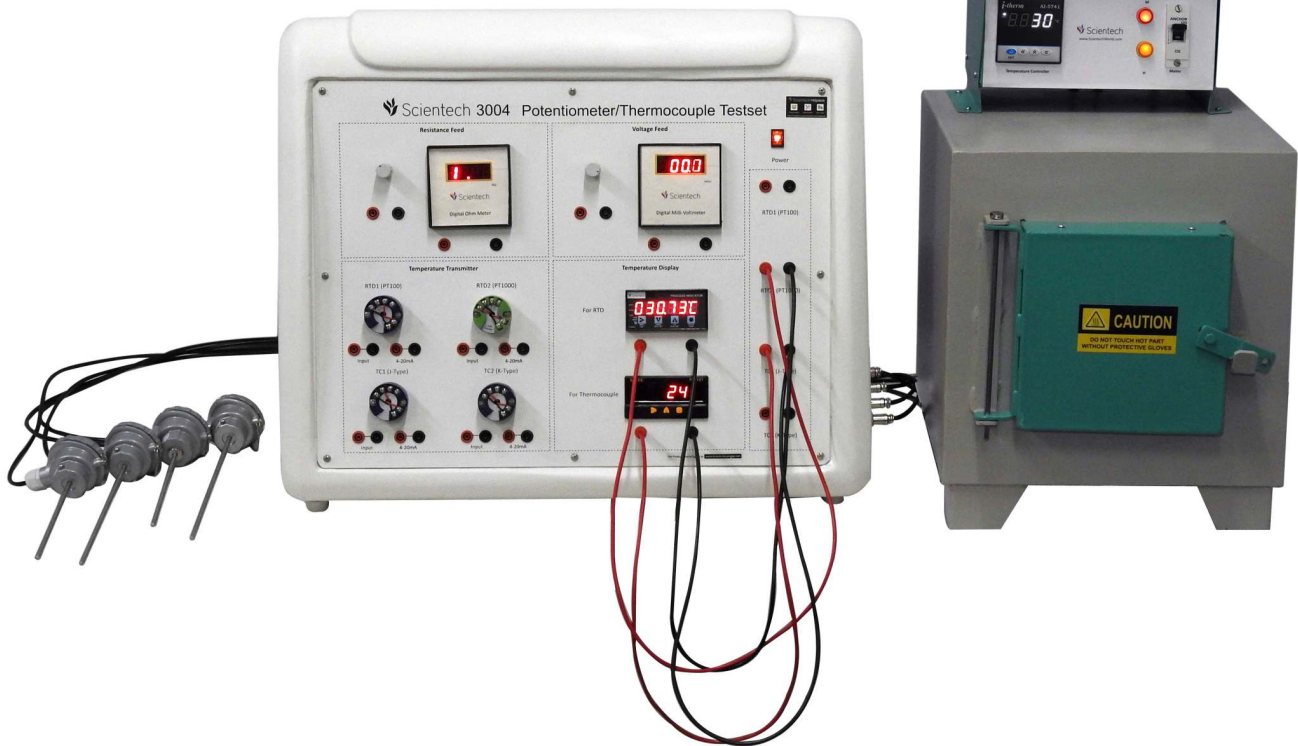


New



In this world driven by technology, instrumentation & control engineering drives industrial growth, whilst process control is a vital concept of it. The functionality and complexity of process control has increased. This system comprises of latest components, which reflect the latest technological innovations in this field. Sciencetech 3004 allow user and industry professionals to understand the concepts and working of temperature measuring instruments.

Sciencetech 3004 Potentiometer – Thermocouple Test Set is complete setup to study Temperature measurement , measuring instruments and their characteristics. Sciencetech 3004 also gives the exposure to Industrial components like Temperature Transmitter and sensors RTD (PT100), RTD (PT1000), K type Thermocouples, J type Thermocouples, temperature display, Precision Potentiometer for resistance feeding with digital display , mili Volt source for voltage feeding with display and muffle furnace.

Features

- Laboratory muffle furnace with temperature controller.
- On panel RTD (PT100) , RTD (PT1000), thermocouple (J type) , thermocouple (K type) transmitters and thier digital temperature display.
- Precision potentiometer for resistance feeding for RTD transmitter with digital display.
- Mili Volt source for voltage feeding for Thermocouple Transmitter with display.
- Industrial Temperature Sensors like RTD (PT100) , RTD (PT1000) , Thermocouple (J type) , Thermocouple (K type).
- Experiments configurable through patch board.
- User friendly, self explanatory system.
- Compact tabletop ergonomic design.
- Robust construction.
- Enhanced electrical safety considerations.

Scope of Learning

- Temperature measurement using RTD (PT100) , RTD (PT1000) , thermocouple (J type), thermocouple (K type).
- Characteristic of RTD (PT100) , RTD (PT1000) , thermocouple (J type) , thermocouple (K type).
- Characteristic of RTD (PT100) temperature transmitter , RTD (PT1000 temperature transmitter), thermocouple (J type) temperature transmitter, thermocouple (K type) temperature transmitter.

Technical Specifications

Resistance feed	:	1 no.
Variable resistance 10 turn	:	0 to 10K Ω
Resistance display	:	1 no.
Ohm meter	:	4 digit 7 segment digital display
Voltage feed	:	1 no.
Variable voltage source	:	0 to 32mV
mV display	:	1 no.
Milli-Voltmeter	:	4 digit 7 segment digital display
RTD temperature transmitter	:	1 no.
Input	:	PT100
Temperature range	:	0 to 600 $^{\circ}$ C
Output	:	4-20mA
Type	:	Head mounted
RTD temperature transmitter	:	1 no.
Input	:	PT1000
Temperature range	:	0 to 600 $^{\circ}$ C
Output	:	4-20mA
Type	:	Head mounted
Thermocouple temperature transmitter	:	1 no.
Input	:	K type
Temperature range	:	0 to 600 $^{\circ}$ C
Output	:	4-20mA
Type	:	Head mounted
Thermocouple temperature transmitter	:	1 no.
Input	:	J type
Temperature range	:	0 to 600 $^{\circ}$ C
Output	:	4-20mA
Type	:	Head mounted
Muffle Furnace with temperature controller	:	1 no.
Max. Temperature range	:	0 to 900 $^{\circ}$ C
Body	:	Mild steel

Temperature display (for RTD)	:	1 no
Display	:	5 ½ digit 7 segment display
Accuracy	:	± 0.1 % of FS
Input type	:	RTD (PT100 and PT1000 type)
Resolution	:	1 or 0.1 degree
Temperature unit	:	Degree C
Temperature display (for thermocouple)	:	1 no
Display	:	4 Digit, 7 segment digital display
Keys	:	3 for digital setting
Input type	:	Thermocouple (J and K type)
Resolution	:	1 or 0.1 degree
Temperature unit	:	Degree C
Thermocouple Sensors	:	1 no.
Type	:	K type
Wire	:	2 wire
Rod length	:	6"
Temperature range	:	-200 to 1250°C
Thermocouple Sensors	:	1 no.
Type	:	J type
Wire	:	2 wire
Rod Length	:	6"
Temperature range	:	-200 to 1200°C
RTD Sensor	:	1 no.
Type	:	RTD (PT100)
Wire	:	3 wire
Rod length	:	6"
Temperature range	:	-99 to 850°C
RTD Sensor	:	1 no.
Type	:	RTD (PT1000)
Wire	:	3 wire
Rod length	:	6"
Temperature range	:	-50 to +500 °C
Power Supply	:	230V AC, 50Hz