Optical and Temperature Transducer Trainers

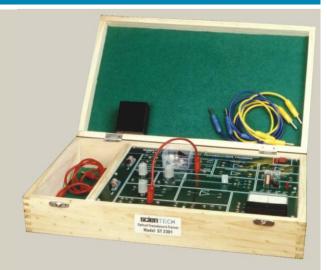


- **■** Self contained trainers
- **Each with 4 different Transducers**
- Study of Transducer controlled switching /alarm systems
- On board signal conditioning circuitry
- Built-in DC power supply
- Functional blocks indicated on-board Mimics
- Fully documented Student Workbook and Operating Manual with each trainer
- **■** Compact size

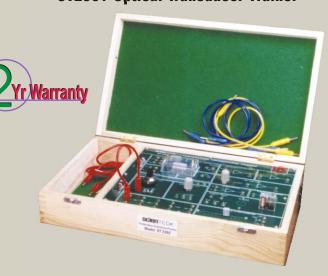
Optical and Temperature transducers play a very important role in today's industrial and domestic applications. Scientech Optical and Temperature Transducers Trainers are unique in design because each covers study of 4 different types Transducers. Experiments covering fundamental characteristics of transducers and study of transducer controlled switching / alarm systems can be performed with these trainers

The following topics are also covered in the manuals of each Trainer.

- Introduction
- Theory
- Types & selection of Transducers
- Applications of Transducers
- Glossary of terms



ST2301 Optical Transducer Trainer



ST2302 Temperature Transducer Trainer

... the best learning tools!

TRANSDUCER TRAINERS

Optical Transducer Trainer ST2301

Transducers 4Nos.

> a) Photoconductive Cell b) Photovoltaic Cell c) Phototransistor d) PIN Photodiode

Light Source : Filament Lamp

Signal Conditioning: 1) Power Amplifier **Circuitry**

2) Current Amplifier 3) DC Amplifier 4) Comparator 5) Electronic Switch

6) Buffer

Input Circuits Rotary and Slide

Potentiometers

Output Circuits 1) Moving Coil Meter

2) Relay 3) LED

Interconnections: 4mm banana sockets

Power Supply 230V±10%, 50Hz

Dimensions W419,H90,D255

Weight 3 Kgs. (approx.)

Accessories Line cord, Manuals, Set of patch cords.

Experiments that can be performed

1. Characteristics of Filament Lamp.

Characteristics of Photovoltaic Cell.

Characteristics of Photoconductive Cell.

Characteristics of Phototransistor.

5. Characteristics of PIN Photodiode.

6. Light Controlled Switching System

... and many more

Temperature Transducer Trainer ST2302

Transducers 4Nos.:

> a) N.T.C.Thermistor b) Platinum R.T.D.

c) Type K Thermocouple d) IC Temperature Sensor

Heating Element Wirewound resistance

Circuitry

Signal Conditioning: 1) Instrumentation Amplifier

2) X100 Amplifier 3) DC Amplifier 4) Comparator

5) Electronic Switch

Input Circuits Rotary & Slide

Potentiometers

Output Circuits 1) Relay

2) Buzzer

Interconnections 4mm banana sockets

Power Supply $230V \pm 10\%, 50Hz$

Dimensions W419,H90,D255

Weight 3 Kgs. (approx.)

Accessories : Line cord. Manuals.

Set of patch cords.

Experiments that can be performed

- 1. Characterstics of IC temperature Sensor
- 2. Characterstics of NTC Thermistor
- 3. Characterstics of NTC Bridge Circuit
- 4. Characterstics of Platinum RTD
- 5. Characterstics of K type Thermocouple
- 6. Temperature Controlled Alarm System

.. and many more



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