

# Measurement of Strain using Strain Gauge with Digital Display

**Model : SE-1016**



**SINCOM SE-1016 Measurement of Strain Trainer** is a versatile and comprehensive trainer specifically designed for measuring strain using a strain gauge. With its advanced setup, this trainer offers an output voltage that accurately reflects the applied strain on the bridge network. It features a Digital LED Display for easy strain visualization, a mechanical strain arrangement with various weights for practical experimentation, and the added convenience of gain and calibration control. This trainer is an essential tool for anyone involved in strain measurement and calibration.

## Features

- ❖ Two Strain Gauge transducer
- ❖ Easy Gain and Calibration Control
- ❖ Digital LED Display
- ❖ Mechanical Strain arrangement
- ❖ Wide Strain measurement Range
- ❖ In-Built Fixed 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	: $230V \pm 10\%$ , 50Hz
▪ Fixed Regulated DC Power Supply	: $\pm 5V / 500mA$
▪ Transducer	: Two Strain Gauges
▪ Bridge	: Resistive Bridge



An ISO 9001:2015 Co.

▪ Instrumentation Amplifier	: Two OP-AMP based
▪ Strain Output	: In volts
▪ Strain Display	: Red Color 3 <sup>1/2</sup> Digit LED Display
▪ Maximum Strain	: 1 Kg
▪ Strain Setup	: Mechanical Strain arrangement with D Type connector
▪ Gain Control	: By Potentiometer
▪ Calibration Control	: By Potentiometer
▪ Assorted Weights	: 1 Kg
▪ Weight	: 5.0 kg (approx)
▪ Dimensions (mm)	: L 270 x W 390 x H 130
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-55 <sup>0</sup> C, 80% RH

### Learning Scope

- To study the operation of a strain gauge amplifier and strain gauge transducer.
- To Observe and note the output voltage  $V_o$  w.r.t. change in load on strain gauge.
- To control gain and calibrate the output voltage for the applied strain input.

### Other Instruments Required : Nil

**Accessories Included :** Mechanical Strain Gauge Arrangement, Assorted weights upto 1Kg ,Patch Cords, Detail Instruction Manual.