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Product Name:

Electrical Resistance Strain Gauge Apparatus

Product Code: LBNY-0005-17600020



Description:

A cantilever has a single gauge bonded onto its surface, and an identical gauge is fixed to an unstressed piece of the same material for temperature compensation. The two gauges form part of a wheatstone bridge which has a balancing potentiometer, and whose meter is calibrated directly in microstrains. The Electrical Resistance Strain Gauge Apparatus has been designed to illustrate the basic features of electrical resistance strain gauges and their application in measuring bending and torsion. A detailed label on the unit shows the wheatstone bridge arrangement and how the specimen strain gauges connect into the circuit. The cantilever is loaded by the load hanger and calibrated weights hung from its free end. A torsion bar is also supplied having two gauges bonded orthogonally at 45°.

Experimental Capabilities:

To show the application of Electrical Resistance Strain Gauge Apparatus in the measurement of stress due to bending and torsion

Visibly shows location of Electrical Resistance Strain Gauge Apparatus within wheatstone bridge arrangement and the position and use of balancing potentiometers

To demonstrate the use of wheatstone bridge arrangements in measuring change of resistance Dummy, temperature compensation gauges

Wiring of Electrical Resistance Strain Gauge Apparatus

With optional extras to show other methods of temperature compensation in conjunction with tension and compression specimens.

Technical Specification:

A cantilever has a Electrical Resistance Strain Gauge Apparatus bonded onto its surface, and an identical gauge

is fixed to an unstressed piece of the same material for temperature compensation. The apparatus has been designed to illustrate the basic features of electrical resistance Electrical Resistance Strain Gauge Apparatus and their application in measuring bending and torsion.



Laboratory Instrument India