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Product Name :

Mini Strain Gauge

Product Code :

SLE/EAM/17



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Description :

Mini Strain Gauge (Product Code: SLE/EAM/17) is a 120 ohm metal foil resistive strain gauge bonded to a flexible plastic strip, designed to show students how bending a material changes the resistance of a gauge attached to it. Travel limiters protect the strip whichever way it is bent, anda step gauge lets it be flexed in repeatable 5 mm increments. A compact teaching item forphysics and engineering lab equipment collections, it is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, India.

Specifications

Parameter	Detail
Sensor type	Metal foil resistive strain gauge
Mounting	Bonded to a flexible plastic strip
Gauge resistance	120 ohms
Resistance change	About 1 ohm at maximum flex
Bending	Either direction, with travel limiters to prevent damage
Step gauge	Provided, for bending the strip in 5 mm increments
Connections	4 mm sockets
For real measurements	Use as part of a bridge network with suitable amplification

Typical Use

A good starting point is to connect a sensitive resistance meter across the sockets and flex the strip one step at a time with the step gauge: the reading creeps up when the foil is stretched and falls when it is compressed. The change, only about one ohm across the full travel, makes the central teaching point for itself – the effect is real but tiny, which is exactly why industrial strain gauges are never read directly.

The next stage is a Wheatstone bridge experiment. With the gauge forming one arm and the bridge balanced at zero flex, each 5 mm step produces a small out-of-balance voltage that an amplifier can raise to a measurable level, mirroring how load cells, electronic scales and structural sensors work. Because the travel limiters stop the strip before it is over-bent, groups can repeat the sequence many times without harming the bonded foil.

Manufacturer

Jain Scientific Equipments Private Limited (CIN U29309HR2020PTC087597) is the incorporated company that trades as ScienceLab; its apparatus is produced at the company's licensed factory in the HSIIDC Industrial Area, Saha, Ambala, Haryana (Factory Licence AMB-ONLINE-CHD-J-414). The company profile gives an overview of its work.

Related Electricity and Magnetism Equipment

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