

Product Name :
Strain Gauge Transducers**Product Code :**
MSR0001**Description :**

Strain Gauge Transducers

Technical Specification :

- 1). Piezo resistive transducer for strain measurement.
- 2). Micrometer 0-20mm (Accuracy 0.01mm) for strain generation.
- 3). Strain gauges mounted on cantilever in half and full Wheatstone bridge and instrumentation amplifier with Zero and span adjustment for calibration
- 4). Experiments on Gauge factor determination, Strain indicator, Displacement measurement using Strain gauges.

Displacement Sensing Transducers

- 1). Micrometer 0-20mm (Accuracy 0.01mm)
- 2). Precision phase sensitive rectifier
- 3). Measurement frequency of 1 KHz sine.
- 4). Zero & span adjustment for calibration of following transducers

i) Resistive linear transducer 0-20mm ii) Capacitive linear transducer 0-20 mm iii) Capacitive angular transducer 0-90degree iv) Inductive linear transducer 0-20mm v) LVDT transducer 0-20mm or (-10 to +10mm)

Speed Sensing Transducers

- 1). 12V DC motor with speed varying from 0-4000rpm and rotating slotted wheel having 8 slots,
- 2). Individual signal conditioning circuit with programmable threshold comparator.
- 3). F to V Converter with span and zero amplifier.
- 4). Speed transducers:

- i) Magnetic pickup
- ii) Photo reflective
- iii) Photo interruptive
- iv) Inductive pickup with envelop detector.
- v) Stroboscope
- vi) Hall sensor

Sound Sensing Transducers

- 1). 40KHz gated oscillator to generate Ultrasonic sound waves.
- 2). V to I function block to convert voltage O/P into 4 to 20m A current loop
- 3). Sound Sensors:
 - i) Ultrasonic Distance Measurement.
 - ii) Dynamic microphone as Sound/ Audio sensor

Temperature Sensing Transducers

- 1). Instrumentation Amplifier to amplify thermocouple signals
- 2). Built in heat bath/mini oven driven by Power Amplifier of sufficient wattage.
- 3). Temp. Selection upto 95 degree C in 5 ranges with ON/OFF closed loop control.

We are well-known manufacturers, OEM suppliers of Strain Gauge Transducers for Measurement And Instruments Lab. Contact us for high quality Strain Gauge Transducers for Measurement And Instruments Lab for schools lab, college lab, universities, research labs, various teaching and workshop training laboratories and industries in India.

Temp. sensors:

- i) Thermocouple J with room temp. calibration pot.
- ii) Thermocouple K with room temp. calibration pot.
- iii) Thermistor (100K).
- iv) PT100,
- v) IC sensor (AD 590) vi) Bimetallic switch

Vibration Sensor And Air Flow Sensor Experiment Panel

1). Vibration sensor

- i) Operation Range: Audio frequency (2KHz-8KHz),
- ii) Power amplifier: 1 W capacity as a vibration generator ,
- iii) Piezo electric sensor
- iv) Determination of acceleration (velocity, displacement components).

2). Air flow sensor:

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- i) Preheated thermister =100 ohm,
 - ii) DC fan (12V,1 1/2") to generate variable airflow in a mini wind tunnel with manual outlet ontrol,
 - iii) Bridge amplifier to O/P 0=2V at various temperatures (Fan speed)
 - iv) Determination of aceleration (velocity, displacement components)

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