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Product Name :	**Product Code :**
Strain Bridge	NLAB-TECHNICALAB30022

Description :

Strain Bridge

Technical Specification :

Strain Bridge has high-contrast digital display gives a direct reading in micro-strains, for half or full bridge operation of the six channels. Measurements with a quarter bridge configuration can be made by adding a resistor. The gauge factor can be adjusted between 1 and 5. Each channel can be balanced separately by means of multiturn potentiometers.

An analogue output for each channel permits the display of the signals using an oscilloscope or a plotter, and also data acquisition.

With the bridge energisation of 2.5 V, strain gauges of 120 W minimum can be used. These can be in Constantan, Isoelastic Karma or Platinum – Tungsten alloys.

The 20 000 point digital display allows measurements in the range ± 20 000 mm/m, whatever the gauge alloy.

Technical specifications

Number of channels: 6.

Operating range: ± 20 000 µm/m.

Resolution: ± 1 µm/m.

Bridge energisation: 2.5 V – Stability: 10-4.

Gauge configuration: Full or half bridge with gauges of 120 to 5000 WQuarter bridge with additional resistor.

Input impedance: 1010 W.

Balance: using multi-turn potentiometers ± 2000 µW/W.

Gauge factor read directly on display adjustable from 1 to 5 by multi-turn locking potentimeters.resolution: 0.001.

Amplifier: precision 1 %.

linearity: ± 0.002 %drift: 0.25µV/°C noise: less than 13µV per Hzcommon mode rejection:< 100 dB.

Analogue outputs: independant output for the 6 channels, using Cannon 9 pin connectors max. output voltage: 10 V band pass: 0 – 10 kHz.

2 V for 20000 µW/W.

Minimal load: 22000 W.

Gauge connections: 15 pin Cannon connectors way rapid connector.

Option :

Data acquisition and processing with an IBM-PC or compatible micro-computer, the system can configure and read the six channels simultaneously. It comprises three elements:

Software package

Allows for each series of measurements :

Test identification.

Strain bridge initialisation.

Channel selection, gain, configuration (full or half-bridge), gauge factor, graph configuration, sampling rate, total number of acquisitions.

Visualisation.

Safeguard.

Print-out.

Saving test to file.

Card-bridge connecting cable.

Analogue / Digital acquisition card.

Features :

Reads 16 single analogue inputs or 8 differential analogue inputs.

12 bit digital conversion, or a resolution of 4096 points full scale.

Accepts maximum voltages of 0 to 10 volts in unipolar mode and ± 5 volts in bi-polar mode.

Fixed frequency acquisition, through built-in time

Naugralabequipments

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