SI4 Strain Indicator and Recorder

Features:

- Four Input Channels
- AC Power
- Auto Balance
- Analog output
- Excitation 2.5 VDC
- Auto Calibration
- Quarter, half and full bridge
- 120, 350, 1000 Ω dummy gages
- Three Grids 60° -Delta Strain Gage Rosettes Data Reduction
- Strain Gage Type Transducer
- Data Storage via USB Port
- Backlight LCD Display
- Communication Interface

Applications:

- Material Test
- Strain Indicator
- Stress Indicator
- Material elasticity Indicator
- Load Cell Indicator
- Force Indicator
- Torque Indicator
- Pressure Indicator
- Acceleration Indicator
- Micro-Resistance Indicator
- Semiconductor Strain Gage Indicator
- Strain/Stress Analysis
- Plane Shear Stress
- Strain Rosettes

Description:

As a strain gage indicator, SI4 has the excellent and stable performance in the strain measurement.

It supports the Strain Gage Rosettes Data Reduction including the Three Grids 60° -Delta Strain Gage Rosettes` operation.

It can process static measurements and storing data. These data can then be used in stress analysis and strain gage based on the transducers.

The liquid crystal display in SI4 is with the properties of high resolution, auto balance control and analog output with accurate / high sensitivity.

The bridge excitation is by means of the precisely regulated constant voltage.

Quarter	HB adj s:-s
HB opp s:-s	HB shear s:-s
HB adj s:vs	FB 4 active
FB shear	FB v opp
FB v adj	Undef FB
Undef HB/QB	

SI4 Strain Indicator and Recorder

Specification:

- Display
  - 128 × 64 Pixels LCD with backlight
- Input
  - 4 Channels
- Measurable Range
  - ± 10,000 με , at G. F. =2
- Transducer Range
  - 2.0~50 mV/V for full-scale indication
- Accuracy
  - ± 0.1% Reading ± 3 με for G. F. =2
- Auto Balance
  - Range : ± 16000 με
  - Resolution : 1 με
- Gage Factor
  - G. F. Range: 0.5~10
- Constant Voltage Excitation
  - 2.5 ± 0.1% VDC Ground balance driver, 30 mA. 50ppm
  - Noise : ≤ 2.5 μ Vp-p, 13.5 μ Vp-p/° C (0.00054)
- Amplifier
  - Temperature effect on zero: ± 1.0mV/° C RTI Max
  - Temperature effect on span: ± 0.002%/° C Max
  - Warm -up drift: Less than ± 3 counts at G. F. = 2 in ten minutes from turn-on
  - Random drift at constant ambient temperature: Less Than ± 3 με at G. F. = 2.0
  - Common-mode rejection: great than 90dB at 50~60 Hz
- Analog To Digital Conversion
  - Resolution 24 Bits
- Data Storage
  - USB -Disk
  - Recording: 1 ~ 999 Sec.
  - Auto / manual
- Strain Gage Rosettes Data Reduction
  - 45° / 60° - three grids auto operation
  - Strain p
  - Strain q
  - θ
- Analog Output:
  - Linear output : 0~5V Max
  - Any one duct of the four channels
- Shunt Calibration:
  Three internal shunt calibration resistors ± 0.1%.
  - 120 Ω Gages: 5,000 με
  - 350 Ω Gages: 5,000 με
  - 1,000 Ω Gages: 5,000 με
- Balance
  - Auto or Manual
- Input Circuit
  - Configuration 2 to 4 wires plus guard shield to accept quarter, half, full bridge strain gages or transducer
  - Internal half-bridge 120 Ω , 350 Ω ,1000 Ω completion gages
- Data Link
  - Serial Bus
- Power Requirement
  - Input: 110 or 220 VAC ± 10% by switch, 50 or 60 Hz, 1.5A
- Dimension & Weight
  - 7.9” × 3.7” × 10.6” (200 × 95 × 270 mm)
  - 6.6 Lb (3.0 Kg)
- Operational Environment
  - Operation temperature: -10° C ~ 60° C
  - Storage: -20° C ~ 70° C
  - Humidity: Below 95% RH, non-condensing