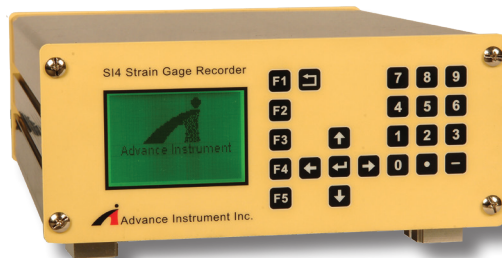




SI4 Strain Indicator and Recorder



Features:

- Four Input Channels
- AC Power
- Auto Balance
- Analog output
- Excitation 2.5 Vdc
- Auto Calibration
- 1/4, 1/2 and full bridge
- 120, 350, 1K Ω dummy gages
- Three Grids 60°-Delta Strain Gage Rosettes Data Reduction
- Strain Gage Type Transducer
- Data Storage
- Back Light LCD Display
- Communication Interface

Description:

The SI4 is a strain gage indicator, which offers excellent stable performance in the measurement of strain.

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

It can process static measurements and data storage, but also can use in stress analysis and strain gage based transducers.

The SI4 has a high resolution Liquid Crystal Display, auto balance control, accurate and high sensitivity analog output.

The bridge excitation supply is 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

1-2

Specification:

- Display
 - 128 × 64 pixels LCD with backlight
- Input
 - 4 Channels
- Strain Gage Range
 - $\pm 10,000 \mu\epsilon$, at G.F.=2
- Transducer Range
 - 2.0~50 mV/V for full-scale indication
- Accuracy
 - $\pm 0.1\%$ Reading $\pm 3 \mu\epsilon$ for G.F.=2
- Auto Balance
 - Range : $\pm 16000 \mu\epsilon$
 - Resolution : $1 \mu\epsilon$
- Gage Factory
 - G.F. Range 0.5~10
- Constance Voltage Excitation
 - $2.5 \pm 0.1\%$ Vdc Ground balance driver, 30 mA. 50ppm
 - Noise : $\leq 2.5 \mu Vp-p$, $13.5 \mu Vp-p/^{\circ}C$ (0.00054)
- Amplifier
 - Temperature effect on zero: $\pm 1.0 mV/^{\circ}C$ rti Max
 - Temperature effect on span: $\pm 0.002\%/^{\circ}C$ Max
 - Warm - up drift: less than ± 3 counts at G.F. = 2 from turn-on ten minutes
 - Random drift at constant ambient temperature: less Than $\pm 3 \mu\epsilon$ 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
 - \pm Full Range
 - Any one for four Channel
- Shunt Calibration:
 - Three internal shunt calibration resistors $\pm 0.1\%$.
 - 120 Ω Gages: 5000 $\mu\epsilon$
 - 350 Ω Gages: 5000 $\mu\epsilon$
 - 1000 Ω Gages: 5000 $\mu\epsilon$
- Balance
 - Auto or Manual
- Input Circuit
 - Configuration 2 to 4 wires plus grand-shield to accept 1/4, 1/2, Full bridge strain gages or transducer
 - Internal half bridge 120 Ω , 350 Ω , 1000 Ω completion gages
- Data Link
 - Serial Bus
- Power Requirement
 - 110~220 Vac $\pm 10\%$, 50 or 60 Hz
- Size
 - 200 × 95 × 270 mm
- Weight
 - 3.0 Kg
- Environmental
 - Temperature: operating $-10^{\circ}C \sim 60^{\circ}C$
 - Storage: $-20^{\circ}C \sim 70^{\circ}C$
 - Humidity: to 95%