SR12 Twelve Channel Strain Gage Indicator

Features:

- 12 input channels
- Direct reading LCD display
- ± 1 micro-strain resolution at Gage Factor equal to 2
- Quarter, half and full bridge circuits
- Built-in bridge completion
- 120 Ω , 350 Ω dummy gages
- Automatic zero-balancing and calibration
- Highly reliable gold plate binding post terminal
- Friendly intuitive, menu-driven operations
- EIA-RS-232C datum link
- Keypad operable
- Rugged, portable and lightweight
- Line-voltage power

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

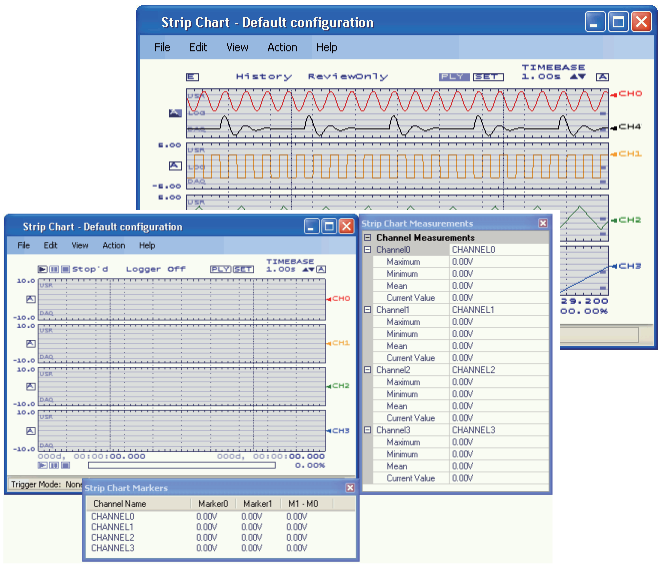
Description:

SR12 Twelve Channel Strain Gage Indicator is an economical instrument with high accuracy and multiple functions.

It is a Strain Gage Indicator and also function as a Strain Gage Transducer Indicator.

As a Strain Gage Indicator, it can support 10 types of bridges and dummies. While if it is used as a Strain Gage Transducer Indicator, there are 24 bits A/D converts to make the measurement.

- Bridge Types
  - Quarter-bridge
  - Half-bridge, adjacent arms, equal and opposite strains
  - Half-bridge opposite arms equal strains
  - Shear bridge, 2 active arms
  - Poisson half-bridge
  - Full-bridge 4 fully active arms
  - Shear bridge, 4 active arms
  - Full-bridge, Poisson gages in opposite arms
  - Full-bridge, Poisson gages in adjacent arms
  - Undefined full-bridge
  - Undefined half-bridge; quarter-bridge
- Bridge Balance
  - Automatic



SR12 Twelve Channel Strain Gage Indicator

Specification:

- Hardware Specifications
  All specifications nominal or typical at +23° C unless other noted

- Inputs
  - 12 Channels
  - Highly reliable gold plated binding post terminal accept independent bridge inputs.
  - Accommodates 10-36 AWG (3.0 to 0.127 mm dia.) wire.

- Bridge Configurations
  - Quarter-, half-, and full-bridge circuits
  - Internal bridge completion provided for 120 Ω and 350 Ω on quarter-bridges, 60 Ω to 2 k Ω half- or full-bridge

- Display
  Full dot-matrix structure with 4 Row × 40 Chars dots FSTN positive, gray translucence LCD with backlight.

- Data Conversion
  24 Bits High-resolution sigma-delta converter. 60 Hz and 50 Hz noise rejection.

- Measurable Range
  ± 31,000 με (± 1 με resolution)
  at Gage Factor = 2.000

- Accuracy
  ± 0.1% of reading ± 3 counts.
  (Normal mode operation at Gage Factor = 2.000)

- Gage Factor Settings
  Range 0.500 to 10.000

- mV/V Settings
  Range 0.500 to 10.000

- Balance
  Single key operation to initiate automatic software balance
- Bridge Excitation
  2.5 VDC ± 1mv%

- Communication Interface
  EIA-RS-232C Serial Bus with type D connector.
  Used for transferring data and firmware.
  Data rate 0.5 Hz

- Calibration
  - Shunt calibration across each dummy resistor to simulate 5,000 με (± 0.1%).
  - Remote calibration supported via accessible switch contacts at input female D-sub.
- Power Requirement
  110 or 220 VAC ± 10% by switch, 50 or 60 Hz, 3 A
- Dimension & Weight
  - 9.9" × 7.1" × 4.0" (250 mm X 180 mm X 100 mm)
  - 6.8 Lb (3 Kg)

- Operational Environment
  - Operating temperature: -10° C ~ 60° C
  - Storage temperature: -20° C ~ 70° C
  - Humidity: Below 95% RH, non-condensing
- Firmware Features
  - Scaling
    Automatic scaling for micro-strain, based upon gage factor. Automatic calculation of mV/V.
    Linear scaling for other engineering units
    • Units
    Strain, Stress, Weight, Force, Pressure, Torque, Length, Acceleration, Angle, Temperature, Resistance

- Model Option:
  SR12A Twelve Channel Strain Gage Indicator
  - Accuracy
    +/-0.25% of reading +/-6 counts.
  - Communication Interface
    USB Serial Bus with type D connector. Used for transferring data and firmware.
    22 Bits High-resolution sigma-delta converter.
    Data rate up to 20 Hz

*Note: All other specifications are the same as SR12.

- Model Option:
  SR12-PCBA Twelve Channel Strain Gage Indicator
  - Accuracy
    +/-0.25% of reading +/-6 counts.
  - Communication Interface
    USB Serial Bus with type D connector. Used for transferring data and firmware.
    16-bit SAR ADC, one per channel, simultaneous sample of all channels.
    Sample rate up to 5kHz / channel,
    Application for PCB assemble inspection base on IPC JEDEC-9704

*Note: All other specifications are the same as SR12.