SR1 Strain Gage Indicator

Features:

- One input channel
- Direct reading LCD display
- ± 0.3 micro-strain resolution at Gage Factor = 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
- 16-Bits analog output
- Friendly intuitive, menu-driven operations
- EIA-RS-232C datum link
- Keypad operable
- Rugged, portable and lightweight
- Line-voltage power

Applications:

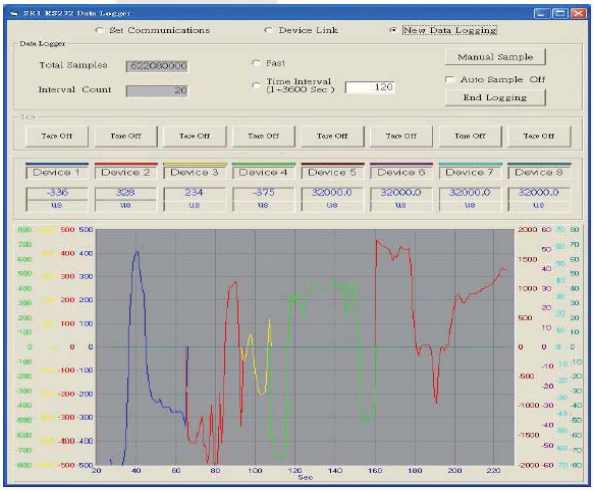
- Material Test
- Strain Indicator
- Stress Indicator
- Material Elasticity Indicator
- Load Cell Indicator
- Force Indicator
- Torque Indicator
- Pressure Indicator
- Acceleration Indicator
- Micro-Resistance Indicator
- Semiconductor Strain Gage Indicator
- Strain/Stress Analysis

Description:

SR1 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 used as a Strain Gage Transducer Indicator, there are 24 bits A/D converts to make the measurement.



SR1 Data Logger RS-232

- Works up to 8 units SR1
- EIA-RS-232C datum link
- Real Time Chart
- Save Data File to Excel *.csv format
- Free

SR1 Strain Gage Indicator

Specification:

- Hardware Specifications
  All specifications nominal or typical at +23° C unless otherwise noted
  - Inputs
    Highly reliable gold plated binding post terminal accept independent bridge inputs.
    Accommodates 10-36 AWG (3.0 to 0.127 mm dia.) wire.
    D-Sub 9 pin terminal accept independent bridge or transducer inputs.
  - 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 2 Row × 8 Chars dots
  FSTN positive, gray translucence LCD with backlight.
  Display update is twice/second

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

- Measurable Range
  ± 31,000 με (± 0.3 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%

- Analog Output
  16-Bits DAC, Output 2.5 VDC ± 2V, Data rate 4.5 / 8.2 / 10 Hz

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

- Calibration
  Shunt calibration across each dummy resistor to simulate 5000 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, 0.5A

- Dimension & Weight
  - 6.3" × 6.3" × 2.4" (160 mm X 160 mm X 60 mm)
  - 2.6 Lb (1.2 Kg)

- Operational Environment
  - Operating temperature: -10° C ~ 60° C
  - Storage temperature: -20° C ~ 70° C
  - Humidity: Below 95% RH, non-condensing

- Firmware Features
  - Display Update Rate
    - 2 readings per second
  - Scaling
    Automatic scaling for micro-strain, based upon gage factor, with non-linearity correction based upon bridge type. Automatic calculation of mV/V.
    Linear scaling for other engineering units
    - Units
      Strain, Stress, Weight, Force, Pressure, Torque, Length, Accelerator, Angle, Temperature, Resistance
  - 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
    - Manual offset adjustment
    - Disabled