P1000 Handy Strain Gage Indicator

Features:

- Strain gage or SG base transducer indicator
- ± 1 micro-strain resolution at Gage Factor = 2
- Quarter, half and full bridge circuitry
- Built-in bridge completion 120 Ω , 350 Ω dummy gages
- Automatic zero-balancing and calibration
- Actual load calibration or sensitivity registration calibration capability
- Gage resistance measuring for Quarter bridges connection
- Lead wire line resistance measuring for 3-wire Quarter bridges
- Enable reading in over 70 engineering unit
- Friendly intuitive, menu-driven operations
- Keypad operable
- Rugged, handy and lightweight
- Operates on 2 pieces of AA size dry cell or AC power adaptor
- Option 16-Bits analog output
- Option EIA-RS-232C or datum link

Applications:

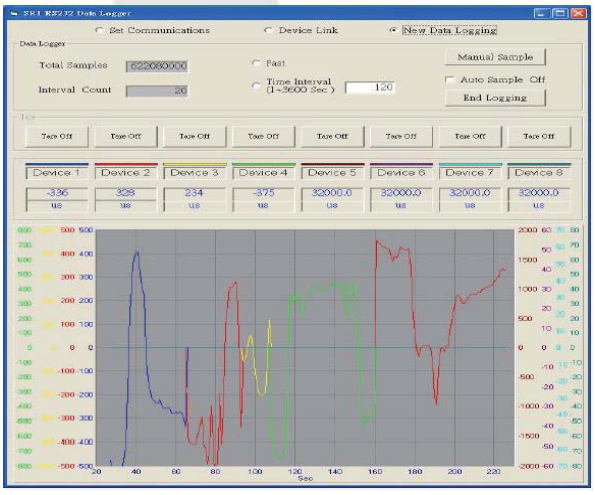
- Material Test
- Strain Indicator
- Stress Indicator
- Material Elasticity Indicator
- Load Cell Indicator
- Force Indicator
- Torque Indicator
- Pressure Indicator
- Acceleration Indicator
- Micro-Resistance Indicator
- Semiconductor Strain Gage Indicator
- Strain/Stress Analysis

Description:

P1000 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.



P1000 Data Logger RS-232

- Connect to maximum 8 units P1000.
- EIA-RS-232C datum link.
- Real Time Chart.
- Save Data File to Excel *.csv format.
- Free operating software.

P1000 Handy Strain Gage Indicator

Specification:

- Hardware Specifications
  All specifications nominal or typical at +23° C unless otherwise noted
  - Inputs
    Highly reliable terminal accept independent bridge inputs.
    Accommodates 16-30 AWG (1.5 to 0.14 mm diameter) wire.
    (Option) 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 on half- or full-bridge

- Display
  Full dot-matrix structure with 2 Row X 8 characters dots FSTN positive, gray translucence LCD with backlight.
  Display update is once per second.

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

- Measurable Range
  ± 20,000 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 8.000

- mV/V Settings : Range 0.500 to 10.000

- Balance
  Single key operation to initiate automatic software balance

- Bridge Excitation : 1.25VDC ± 0.04%.

- Option Analog Output
  16-Bits DAC, Output 1.25 VDC ± 1.25V, Data rate 1 / 4.5 / 10 Hz.

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

- 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.
  Gage resistance measuring for Quarter bridges connection
  Lead wire line resistance measuring for 3-wire Quarter bridges

- Power Requirement
  AA size dry cell × 2 or Optional AC-Power Adaptor (PN: P1000-ADP).

- Dimension & Weight
  - 6.3" X 3.4" X 1.2" (160 mm X 85 mm X 30 mm)
  - 0.65 Lb (280g) without batteries.

- Operational Environment
  - Operating temperature:-10° C ~ 50° C.
  - Storage temperature: -15° C ~ 55° C.
  - Humidity: Below 95% RH, non-condensing

- Firmware Features
  - Display Update Rate: 1 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