



SR1 Strain Gage Indicator



Features:

- One input channel
- Direct reading LCD display
- ± 0.3 micro-strain resolution at Gage Factor equal 2
- 1/4 , 1/2 and full bridge circuits
- Built-in bridge completion
- 120 Ω , 350 Ω dummy gages
- Automatic zero-balancing and calibration
- Intuitive, menu-driven operations
- EIA-RS-232C data link
- Operation from keypad
- Portable, lightweight and rugged line-voltage power

Applications:

Description:

The SR1 Strain gage Indicator is a low price, high accuracy and multi-function instrument.

It is a Strain gage Indicator and is a Strain gage transducer indicator.

Being Strain gage Indicator supports 10 kinds bridge type and dummy, Strain gage Transducer Indicator has 18 bits A/D convert to measure.



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Strain Indicators-Static Strain Indicator

Specification:

- **Hardware Specifications**
All specifications nominal or typical at +23°C unless noted
 - **Inputs**
Eccentric-lever-release terminal blocks accept up to independent bridge inputs Accommodates 16-28 AWG (1.3 to 0.35 mm dia.)
 - **Bridge Configurations**
1/4, 1/2, and full-bridge circuits
Internal bridge completion provided for 120Ω 350Ω and 1/4 bridges, 60Ω to 2KΩ half or full bridge
- **Display**
Full dot-matrix structure with 2 row × 8 Chars dots
FSTN positive, gray transfective LCD with backlight.
Display update is twice/second
- **Data Conversion**
High-resolution sigma-delta converter. 60Hz or 50Hz noise rejection. User selectable
- **Basic Range**
± 31,000μϵ (± 0.3μϵ 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 9.900
- **Balance**
Single key operation to initiate automatic software balance
- **Bridge Excitation**
2.5Vdc ±0.01%
- **Communication Interface**
EIA-RS-232C Serial Bus with type D connector.
Used for transferring stored data and firmware.
- **Calibration**
Shunt calibration across each dummy resistor to simulate 5000μϵ (± 0.1%). Remote calibration supported via accessible switch contacts at input terminal block
- **Power Requirement**
110 or 220 Vac ± 10% by switch, 50 or 60 Hz, 0.5A
- **Operational Environment**
 - **Temperature:** operating -10°C ~ 60°C
 - **Storage:** -20°C ~ 70°C
 - **Humidity:** to 95%, non-condensing
- **Firmware Features**
 - **Display Update Rate**
 - 2 readings per second
 - **Scaling**
Automatic scaling for micro-strain, based upon gage factor, with nonlinearity correction based upon bridge type. Automatic calculation of mV/V. Linear scaling for other engineering units
 - **Units**
μϵ, mV/V, psi, ksi, GPa, MPa, Pa, g, lbf,lb, Kg, in, mm, mil, rpm, m, s, A, N, V, Ohms, hp, deg, rad, oz, mV, m/s², ton
 - **Bridge Types**
 - ◆ 1/4 bridge
 - ◆ 1/2 bridge, adjacent arms, equal and opposite strains
 - ◆ 1/2 bridge opposite arms equal strains
 - ◆ Shear bridge, 2 active arms
 - ◆ Poisson 1/2 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 1/2 bridge ; 1/4 bridge
 - **Bridge Balance**
 - Automatic
 - Manual offset adjust
 - Disabled
 - **Model and Option**
 - SR1H: 1ppm Bridge
 - SR1L: 5ppm Bridge
- **Dimension & Weight**
 - 1.2 Kg
 - 160 × 160 × 60 mm