AE Series Strain Indicator Calibrator

Features:

- True Wheatstone bridge circuitry
- Simulates quarter, half, and full bridge both AE-120 for 120Ω, AE-350 for 350Ω
- 12 position preset range
- Quarter bridge strain range direct reading: -100 to -100 000 με.
- Half and Full bridge strain range direct reading: ±100 to ±100 000 με.
- Transducer range: ± 0.5 mV/V to ± 50 mV/V
- Reversing switch for plus and minus calibration
- High precision resistors used throughout to ensure excellent stability
- Accuracy 0.3 percent

Applications:

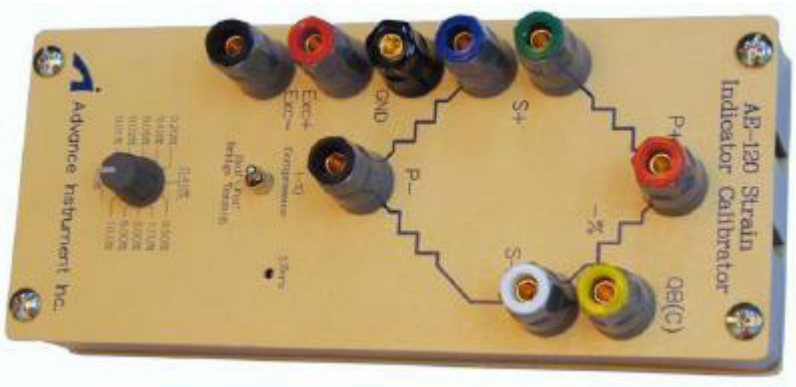
- Strain Indicator Calibrator
- Stress Indicator Calibrator
- Material elasticity Indicator Calibrator
- Load Cell Indicator Calibrator
- micro-Resistance Indicator Calibrator
- Load Cell signal conditioning Calibrator
- Foil Strain Gage signal conditioning Calibrator
- Semiconductor Strain Gage signal conditioning Calibrator

Description:

The Model AE calibrator is a Wheatstone bridge and generates a true change of resistance in one arms of the bridge.

It simulates the actual behavior of a strain gage in negative strain calibrator based on the Wheatstone bridge principle requires stable components.

Multiple ultra-stable and hi-stable precision resistors are used in the Model AE calibrator to provide the stability, repeatability and accuracy required in a laboratory strain gages instrument.



AE Series Strain Indicator Calibrator

Specification:

- Accuracy
  - 0.3% of setting ± 3 με (0.0015 mV/V), maximum
- Repeatability
  - ± 3 με (0.0015 mV/V), maximum
- Stability
  - (0.3% of setting ± 3 με) /°C, maximum
- Thermal EMF
  - 1.0 μV/V of excitation, maximum
- Bridge Resistances
  - Model AE-120 for 120Ω
  - Model AE-350 for 350Ω
- Output Resistance
  - ± 0.05%, maximum, from nominal at “0” με
    -20.0% at -100000 με (Quarter Bridge)
- Circuit
  - True -ΔR in one adjacent arms , plus three fixed arms for bridge completion
- Simulation
  - Quarter bridge, one active arm
  - Half bridge, one active arm
  - Full bridge, one active arm
- Range
  - One Active Arms 0 to -100000 με
  - Quarter bridge:
    0, -100, -200, -500, -1000, -2000, -4,000, -5,000, -10,000, -20,000, -50,000, -100,000 με
    @ G. F. = 2.000
  - Half and Full bridge:
    0, ±100, ±200, ±500, ±1000, ±2000, ±4,000, ±5,000, ±10,000, ±20,000, ±50,000, ±100,000 με
    @ G. F. = 2.000
  - Half and Full bridge: transducer
    0 to ±50 mV/V
- Excitation
  - To Meet Accuracy and Repeatability Specifications
    - 120Ω: up to 7 VDC
    - 350Ω: up to 10 VDC
  - Maximum Permissible
    - 120Ω: 10V AC or DC
    - 350Ω: 17V AC or DC
- Output @ 0
  - 50 με (0.025 mV/V), maximum in full-bridge mode
- Environment
  - Temperature
    - +50°F to +100°F (+10°C to +38°C)
  - Humidity
    - Up to 70% RH, non-condensing
- Dimension
  - Aluminum case (separable lid)
  - 202 × 87 × 60 mm (8 L x 3.5 W x 2.4 H in)
- Weight
  - < 1.3 kg (< 2.9 LB)
  - All specifications are nominal or typical at +23°C unless noted.
- Model Options
  - AE-120 for 120Ω
  - AE-350 for 350Ω