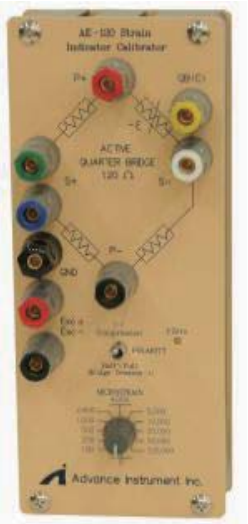
AE Series Strain Indicator Calibrator



Features:

- True Wheatstone bridge circuitry
- Independent model AE-120, AE-120E for 120 Ω
- Independent model AE-350, AE-350E for 350 Ω
- AE-120, AE-350 Accuracy 0.1 percent
- AE-120E, AE-350E Accuracy up to 0.05 percent
- Simulates quarter, half, and full-bridge
- 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 of full-bridge
- High precision resistors used throughout to ensure excellent stability

Applications:

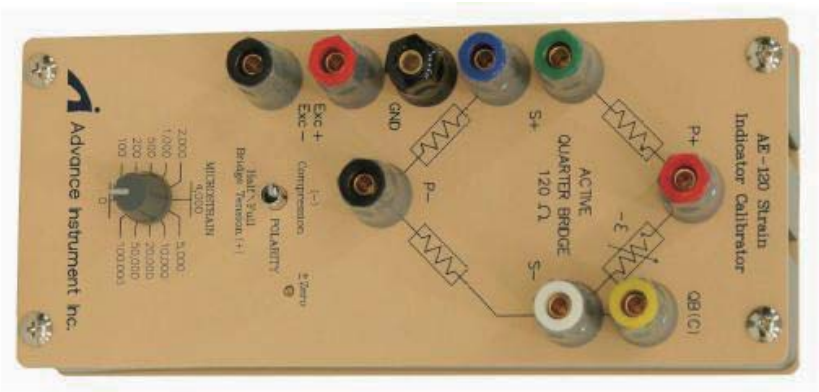
- Strain Indicator Calibrator
- Stress Indicator Calibrator
- Material elasticity Indicator Calibrator
- Load Cell Indicator Calibrator
- Micro-Resistance Indicator Calibrator
- Load Cell Signal Conditioning Calibrator
- Foil Strain Gage Signal Conditioning Calibrator
- Semiconductor Strain Gage Signal 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 : AE-120, AE-350
  - 0.1% of setting ± 1 με (0.0005 mV/V), maximum
- Accuracy : AE-120E, AE-350E
  - 0.05% of setting ± 0.5 με (0.00025 mV/V), maximum
- Repeatability
  - ± 1 με (0.0005 mV/V), maximum
- Stability
  - (0.1% of setting ± 1 με) /° C, maximum
- Thermal EMF
  - 1.0 μ V/V of excitation, maximum
- Bridge Resistances
  - Model AE-120, AE-120E for 120 Ω
  - Model AE-350, AE-350E for 350 Ω
- Output Resistance
  - ± 0.05%, maximum, from nominal at “0” με
    -20.0% at -100000 με (Quarter Bridge)
- Circuit
  - True - Δ R 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
    - 120 Ω : up to 7 VDC
    - 350 Ω : up to 10 VDC
  - Maximum Permissible
    - 120 Ω : 10V AC or DC
    - 350 Ω : 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 120 Ω , Acceracy 0.1%
  - AE-120E for 120 Ω , Acceracy 0.05%
  - AE-350 for 350 Ω , Acceracy 0.1%
  - AE-350E for 350 Ω , Acceracy 0.05%