



## AT Series Load Cell Simulator



### Features:

- True Wheatstone bridge circuitry
- Independent model AT-350 for 350  $\Omega$
- Simulates quarter, half, and full-bridge
- 12 preset position range
- Full or Half bridge transducer range:  
 $\pm 0.25 \text{ mV/V}$  to  $\pm 7.5 \text{ mV/V}$
- Reversing switch for plus and minus calibration
- High precision resistors used throughout to ensure excellent stability
- Accuracy 0.05%

### Applications:

- Load Cell Signal Simulator
- Load Cell Instrument Calibrator
- Load Cell Signal Conditioning Calibrator
- Bridge Sensor Signal Simulator
- Bridge Sensor Indicator Calibrator
- Strain Indicator Calibrator
- Stress Indicator Calibrator
- Material elasticity Indicator Calibrator
- Micro-Resistance Indicator Calibrator
- Foil Strain Gage Signal Conditioning Calibrator
- Semiconductor Strain Gage Signal Conditioning Calibrator

### Description:

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

It simulates the actual behavior of mV/V calibrator based on the Wheatstone bridge principle that requires stable components.

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

- AT-350 for 350 Model
  - Model: AT-350 standard connector, D-sub 9 pin Female
  - Model: AT-350-C2 Optional connector, Bendix PT06A-12-10S Receptacle 10 pin
  - Model: AT-350-C3 Optional KYOWA connector, Tamjimi PRC03-21A10-7F Receptable 7pin
  - Model: AT-350-Cx Optional customer connector, part number supply by user, Connector Diameter < 37 mm
- Optional Connector Plug
  - Plug-AT-350-P Standard connector, D-sub 9 pin Male
  - Plug-AT-350-C2 Optional plug, Bendix PT06A-12-10P(SR) Plug 10 pin
  - Plug-AT-350-C3 Optional KYOWA plug, Tajimi PRC03-12A10-7M5 Plug 7pin
  - Plug-AT-350-Cx Optional customer plug, part number supply by user



## AT Series Load Cell Simulator

1-1

Special Purpose Instrument

### Specification:

- Accuracy
  - 0.05% of setting  $\pm$  0.0005 mV/V , maximum
- Repeatability
  - ( $\pm$  0.0005 mV/V ) , maximum
- Stability
  - ( 0.005% of setting  $\pm$  0.0005 mV/V ) / ° C , maximum
- Thermal EMF
  - 1.0  $\mu$  V/V of excitation, maximum
- Bridge Resistances
  - Model AT-350 for 350  $\Omega$
- Output Resistance
  - $\pm$  0.05% , maximum, from nominal at "0" mV/V  $\epsilon$
- Circuit
  - True -  $\Delta$  R in one adjacent arms , plus three fixed arms for bridge completion
- Range
  - Half and Full bridge: transducer  $\epsilon$   
 $0, \pm 0.25, \pm 0.50, \pm 0.75, \pm 1.00 \pm 1.50, \pm 2.00,$   
 $\pm 2.50, \pm 3.00, \pm 4.00, \pm 5.00, \pm 7.50$  mV/V
- Excitation
  - To Meet Accuracy and Repeatability Specifications
    - 350  $\Omega$  : up to 10 VDC
    - Maximum Permissible
    - 350  $\Omega$  : 17V AC or DC
- Output @ 0
  - 0.025 mV/V , maximum in full-bridge mode
- Environmen
  - Temperature
    - +10° C to +38° C ( +50° F to +100° F )
  - Humidity
    - Up to 70% RH, non-condensing
- Dimension
  - Aluminum case ( separable lid )
  - 202 x 87 x 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.

