



## ALW-220 Portable Strain Indicator



### Features:

- One input channel
- Direct reading Analog Meter display
- Resolution  $\pm 1\%$
- BNC Analog Output 2 Vdc, Nonlinearity 0.05%
- Full bridge circuits
- Quarter Bridge circuits Input Range 500~4000  $\mu$
- Full bridge circuits Input Range 0.25~2mv/V
- 0.2% Accuracy (0.25, 0.5, 1 mv/V) Internal Calibration
- Highly reliable TAJIMI circular connector
- 4 AA Battery Power for 80 hrs
- Battery Indicator 0~100%
- Low Battery LED
- Rugged, portable and lightweight
- Line-voltage power

### 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:

ALW-220 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.





## ALW-220 Portable Strain Indicator

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Strain Gage Indicator

### Specification:

#### • Hardware Specifications

All specifications nominal or typical at +23° C unless otherwise noted

##### Inputs

Highly reliable TAJIMI circular socket accept independent bridge inputs (PRC03-23A10-7F Bulkhead Mount Receptacle 7pin). Mating Plug is include ( PRC03-32A10-7F5 Jack 7pin). Accommodates 10-36 AWG ( 3.0 to 0.127 mm dia. ) wire.

Number of Measuring Channels: 1 Channel

##### Transducer in Use

Applicable sensor Strain Gage Transducer  
Applicable bridge resistance: 60 to 1000

Excitation Voltage : 2.5 VDC

##### Input Resistance

10 M + 10 M or more

##### Span Adjustment

Settable to F. S. when entering the following by span adjustment.

- ×2 range: 0.25 to 0.5 mV/V  
(500 ×10<sup>-6</sup> to 1000 ×10<sup>-6</sup> strain)
- ×1 range: 0.5 to 1.0 mV/V  
(1000 ×10<sup>-6</sup> to 2000 ×10<sup>-6</sup> strain)
- ×0.5 range: 1.0 to 2.0 mV/V  
(2000 ×10<sup>-6</sup> to 4000 ×10<sup>-6</sup> strain)

##### Zero Adjustment Range

±2.0 mV/V ( ±4000 ×10<sup>-6</sup> strain) or more

##### Output Voltage

Within 2 V ±1% when indication is maximum.  
Frequency response: 0 to 1K Hz (Within -3 dB)

##### Direct Reading Scale

Full scale 0-100 equally divided into 100  
(4000 ×10<sup>-6</sup> strain)

##### Nonlinearity

Metter indication: Within ±1%  
Output voltage: Within ±0.1%

##### Standard Equivalent Strain (CAL)

Generates strain of 0.25 / 0.5 / 1.0 mV/V  
(500/1000/2000 ×10<sup>-6</sup> strain) ±0.2% by pressing CAL pushbutton switch

##### Setting Sensitivity

Indicator pointer deflection doubles  
by switching SENS switches x2, x1 and x0.5.

##### Operating Temperature Range

-10 to +50 °C

##### Gage Factor

2.00 fixed.

##### Zero Point Stability

Within ±0.03% F. S./ °C  
Within ±0.5% F. S./H  
Within ±0.1% F. S./Power voltage 6 to 9 V

##### Sensitivity Stability

Within ±0.03%/ °C  
Within ±0.2%/H  
Within ±0.1% /Power voltage 6 to 9 V

##### Power Supply

6 to 9 VDC  
(Within operation current 40 mA: When 12 VDC is applied)  
▪ Continuous operation of approximately 80 hours for 8 months is available with size AA alkaline batteries.  
▪ Installed with DC connector

##### Dimension & Weight

- Max 215(W) × 185(H) × 185 (D) mm
- Max 3.1 kg (With no dry batteries mounted)

##### Operational Environment

- Operating temperature: -10° C ~ 60° C
- Storage temperature: -20° C ~ 70° C
- Humidity: Below 95% RH, non-condensing
- DC TO 120 kHz