



## 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  $\mu\epsilon$
- 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

1-1

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 Ω
- **Excitation Voltage :** 2.5 VDC
- **Input Resistance**  
10 M Ω + 10 M Ω 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, × 1 and × 0.5.
- **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