

BEFORE USE

Thank you for choosing us. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact our sales office or representatives.

■ PACKAGE INCLUDES:

- Signal conditioner(1)
- Mounting screw (M3.5 × 10).....(2)

■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

POINTS OF CAUTION

■ POWER INPUT RATING & OPERATIONAL RANGE

- Locate the power input rating marked on the product and confirm its operational range as indicated below:
24V DC rating: 24V ±10%, approx. 120mA

■ GENERAL PRECAUTIONS

- Before you remove the unit or mount it, turn off the power supply and input signal for safety.

■ ENVIRONMENT

- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -5 to +55°C (23 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

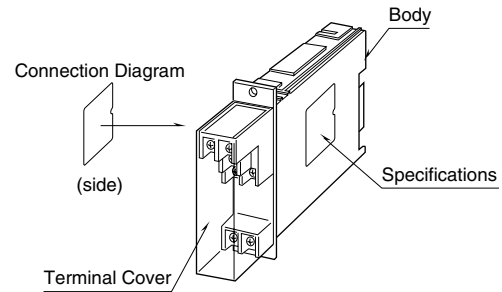
■ WIRING

- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.
- Be sure to put the terminal cover on while the power is supplied.

■ AND

- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

COMPONENT IDENTIFICATION



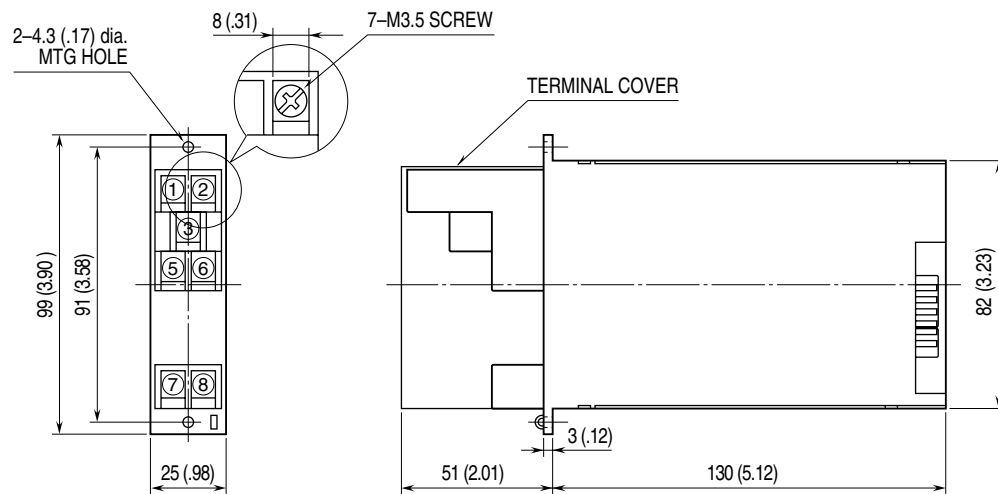
INSTALLATION

Use Standard Rack (model: 10BXx).

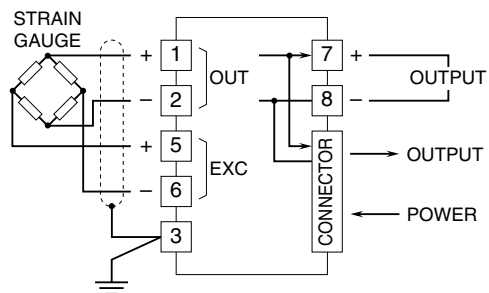
TERMINAL CONNECTIONS

Connect the unit as in the diagram below or refer to the connection diagram on the side of the unit.

EXTERNAL DIMENSIONS unit: mm (inch)



CONNECTION DIAGRAM



WIRING INSTRUCTIONS

■ SCREW TERMINAL

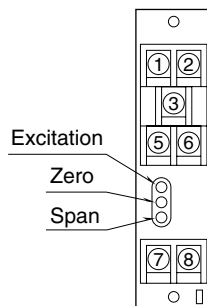
Torque: 0.8 N·m

CHECKING

- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Power input voltage: Check voltage supplied to the rack (model: 10BXx). For the DC power source, be sure that the ripple level is within 10% p-p.
- 3) Strain gauge: Check the bridge resistance. The maximum current supplied to the strain gauge is 35mA.
- 4) Input: When applying maximum load, check voltage across the terminal 1 (+) – 2 (–) equals $\text{Exc.} \times \text{Strain Gauge Sensitivity}$.
- 5) Output: Check that the load resistance meets the described specifications.

ADJUSTMENT PROCEDURE

■ FRONT PANEL CONFIGURATION



■ EXCITATION ADJUSTMENT

The excitation voltage is calibrated at the factory, therefore will not usually require adjustment, except when used in combination with a strain gauge of sensitivity other than described on the specifications.

In that case, adjust to the value calculated by the following equation:

$$\text{Excitation [V]} = \frac{5 \text{ [V]} \times a \text{ [mV/V]}}{b \text{ [mV/V]}}$$

where a: Factory set sensitivity value marked on the product

b: User's sensitivity value

Adjustable range is within 2V to 10V with bridge resistance of 350Ω. When the calculated value exceeds 10V, adjust it to 10V.

■ ZERO (TARE) ADJUSTMENT

Adjustable from 0 to 80% of the input span (strain gauge rating). With no load applied, turn the Zero Adjustment until the output shows 0%.

■ SPAN (SENSITIVITY) ADJUSTMENT

Adjustable from 20 to 100% of the input span (strain gauge rating). With the full-scale load, turn the Span Adjustment until the output shows 100%.

MAINTENANCE

Regular calibration procedure is explained below:

■ CALIBRATION

Warm up the unit for at least 10 minutes. Apply 0%, 25%, 50%, 75% and 100% input signal. Check that the output signal for the respective input signal remains within accuracy described in the data sheet. When the output is out of tolerance, recalibrate the unit according to the "ADJUSTMENT PROCEDURE" explained earlier.

LIGHTNING SURGE PROTECTION

We offer a series of lightning surge protector for protection against induced lightning surges. Please contact us to choose appropriate models.