WARNING

To prevent electric shock or instrument failure, always turn off the power before mounting or removing the instrument.

1. MOUNTING

1.1 Mounting Cautions

1. Mount the instrument to be used under the following environmental conditions.

- (IEC61010-1) OVERVOLTAGE CATEGORY II, POLLUTION DEGREE 2
- The instrument is intended to be used in an enclosed instrumentation panel. All precautions described in this manual should be taken to avoid damage to the instrument display, do not rub with an abrasive material or push with a hard object.

1.2 Dimensions

- Insert the instrument through the panel cutout. For proper operation of this instrument, provide adequate ventilation for heat dispersion. Do not connect wires to unsuitable terminals as this will interfere with proper operation of the instrument.

2. Wiring

- This instrument is designed for installation in an enclosed instrumentation panel. All high-voltage line, load lines, and power lines of other electric equipment. To avoid damage to instrument display, do not rub with an abrasive material or push with a hard object.

3.3 Communication

- For thermocouple input, use the appropriate compensation wire. For RTD input, use low resistance lead wire with no difference in resistance between the three lead wires. Use the solderless terminal appropriate to the screw size. Specified solderless terminals: Manufactured by J.S.T MFG CO., LTD. 

3. Procedures of Mounting and Removing

- This instrument is not furnished with a power supply switch or fuse. Therefore, if a fuse is not provided, the noise filter output wiring as this will reduce the effectiveness of the noise filter.

1. Mounting procedures

- For proper operation of the instrument, provide adequate ventilation for heat dispersion. Do not connect wires to unsuitable terminals as this will interfere with proper operation of the instrument.

2.2 Terminal Configuration

- If the LED drive power supply (12 V DC) is specified, ALMS cannot be used.
- If the sensor power supply (24V DC) is specified, ALMS to ALM5 cannot be used.
### Wiring example

**Example 1:** When LED drive power supply (optional) was specified

- **Digital Input (D1, D2) [Optional]**
  - Number of input:
    - 2 points (DI1) 4: 4 points (DI1 to DI4)
    - 2 points (DI2) 5: 5 points (DI1 to DI5)
  - Input method:
    - Dry contact input
    - Rated voltage: 24 V AC
    - Rated current: 50 mA or less
  - Contact resistance:
    - 250 Ω or less (1 A, 3 V DC for Ultra low power)
    - 100 Ohms or more (10 mA, 24 V DC)
  - Mechanical life:
    - 20 million times or more (Switching 300 times/min)

**Output**: Alarm output (ALM1 to ALM6)

- **Alarm output (ALM1 to ALM6) [Optional]**
  - Number of output: 6 points
  - When LED drive power supply (12 V DC) was specified, the number of alarm output points becomes 5 maximum. When power supply power (24 V DC) was specified, the number of output points becomes 2 maximum.
  - Contact type:
    - N: None
    - 3: 3 points (ALM1 to ALM3)
    - 6: 6 points (ALM1 to ALM6)
  - Contact rating (Ratings):
    - 250 V AC 1 A, 38 V DC 1 A
    - Rated current: 0.4 A or more (12 V DC)
    - Rated current: 0.2 A or less (24 V DC)
  - Voltage at open:
    - Approx. 5 V DC
  - Capture judgment time: 10 ms
  - Function:
    - Hold (D1), Interlock release (D2)

### Output

**Alarm output (ALM1 to ALM6) [Optional]**

- **Output current**:
  - 24 mA or less

### Performance (at the ambient temperature 23 ± 2 °C)

**Accuracy**

- **Input type**
  - RTD: Nickel, Platinum, Copper
  - Voltage/Current input: Less than 500 Ω
- **Input span**
  - RTD input:  ±1.5 °C (range of 0 to 50 °C)
  - Voltage input: ±1 °C (or less) of input span
- **Temperature range**
  - RTD input: ±1 °C (or less)
  - Voltage input: ±0.2 °C of input span

### Functions

**Peak height hold function**

- Peak hold function is used to store the highest (peak) and lowest (valley) and minimum (bottom) Measured values (PV).

**Alarm Function**

- **Alarm level**
  - N: None
  - 3: 3 points (ALM1 to ALM3)
  - 6: 6 points (ALM1 to ALM6)
- **Alarm setting range**
  - H: Process high (Display: about 100%)
  - L: Process low (Display: about 0%)
- **Alarm output**
  - 1 point (ALM1) 4: 4 points (ALM1 to ALM4)
  - 2 points (ALM2) 5: 5 points (ALM1 to ALM5)
  - 3 digital input (D1, D2)

### Digital Input (D1, D2)

- **Input correction**: PV bias
  - N: None
  - 3: 3 points (ALM1 to ALM3)
  - 6: 6 points (ALM1 to ALM6)
  - Level shift (shift = 0.00 to 25.0% of input span)

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### 3. PARTS DESCRIPTION

- **Input**
  - **Measuring value (PV)** display:
    - Displays Measuring value (PV) or various parameters' symbols.
  - **Alarm output switch**:
    - ALM1 to ALM6: 1 point to output
  - **Digital input**: CAN/Device communication
  - **Sensor power supply 24 V [Optional]**
  - **Output voltage**: 24 V DC
  - **Output current**: 20 mA or less
  - **Maximum load resistance**: 1 kΩ or more

### 4. SPECIFICATIONS

- **Input measured PV**
  - **Number of input**: 1 point
  - **Input type and range**: Refer to [Range code table](#)
  - **Display range limits**: RTD input: ±1 °C (or less) of input span

- **Power supply**
  - **Voltage input**: 200.0 to 400.0 V AC
  - **Current input**: 10.00 to 100.00 A

- **Alarm output (ALM1 to ALM6)**
  - **Voltage output**: 10.00 to 200.00 V DC
  - **Current output**: 4 to 20 mA DC

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**Range code table**

**Thermocouple (TC) input, RTD input**

<table>
<thead>
<tr>
<th>Range</th>
<th>Temperature</th>
<th>Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>J</strong></td>
<td>0.1 °C</td>
<td>±0.2 °C</td>
<td>±0.1 °C</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>0.1 °C</td>
<td>±0.2 °C</td>
<td>±0.1 °C</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>0.1 °C</td>
<td>±0.1 °C</td>
<td>±0.1 °C</td>
</tr>
</tbody>
</table>

### Standard

- **Safety standards**: UL, IEC, EN (European standards)
- **CE marking**: LVD, EMC, Ecodesign, RoHS, ErP
- **Panel meter**: NEC4, NEK250, IP66 (EC0520) [Front panel]

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**5. MODEL CODE**

**Suffix code**

- AGS00 - 0: 1 point (ALM1 to ALM6)
- 1: 1 point (ALM1 to ALM6)
- 2: 2 points (ALM1, ALM2)
- 3: 3 points (ALM1 to ALM3)
- 4: 4 points (ALM1 to ALM4)
- 5: 5 points (ALM1 to ALM5)
- 6: 6 points (ALM1 to ALM6)
- (8), (9) indicates a specification code to be optional specified. If this section is blank, this means that this specification is not specified.