### Safety Consideration

**Warning**

This indicates contents which can cause large accidents leading to loss of life or severe injury when the indication is disregarded and wrong handling is executed.

**Caution**

This indicates contents which can cause injury or material damage when the indication is disregarded and wrong handling is executed.

Explanation of the programs:

- This symbol indicates a general prohibition.
- This symbol indicates a compulsory item or an instruction.

#### Use environment and conditions

- Do not use in a combustible or explosive atmosphere.
- Otherwise personal injury or fire may be caused.
- Do not use this product for applications related to human safety.
- Use at an assumption where an accident or incorrect use will not immediately cause danger to humans.

#### Electrical specifications

<table>
<thead>
<tr>
<th>Type No.</th>
<th>TRD-N-18Z</th>
<th>TRD-N-37Z/18Z</th>
<th>TRD-N-1ZV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>AC 24V</td>
<td>AC 24V</td>
<td>DC 4.75 to 5V</td>
</tr>
<tr>
<td>Auxiliary topics</td>
<td>5% max</td>
<td>5% max</td>
<td>5% max</td>
</tr>
<tr>
<td>DC and 5% max</td>
<td>5% max</td>
<td>5% max</td>
<td>5% max</td>
</tr>
<tr>
<td>Input terminal</td>
<td>Single-channel output</td>
<td>Single-channel output</td>
<td>Single-channel output</td>
</tr>
<tr>
<td>Input terminal</td>
<td>1000 ohm</td>
<td>1000 ohm</td>
<td>1000 ohm</td>
</tr>
<tr>
<td>DC and 0.1% max</td>
<td>0.1% max</td>
<td>0.1% max</td>
<td>0.1% max</td>
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<tr>
<td>Output terminal</td>
<td>5 VDC max</td>
<td>5 VDC max</td>
<td>5 VDC max</td>
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<tr>
<td>Output terminal</td>
<td>0% to 100%</td>
<td>0% to 100%</td>
<td>0% to 100%</td>
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<td>Output terminal</td>
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<tr>
<td>Output terminal</td>
<td>100 ohm</td>
<td>100 ohm</td>
<td>100 ohm</td>
</tr>
<tr>
<td>Output terminal</td>
<td>0.5% max</td>
<td>0.5% max</td>
<td>0.5% max</td>
</tr>
</tbody>
</table>

#### Environmental requirements

- Ambient temperature: 0 to 50°C
- Humidity: 35 to 85% (non-condensing)
- Vibration resistance: 50G (180Hz for 10 minutes)
- Shock resistance: 50G (maximum 900 ms pulse, between 100 and 550 Hz)
- Protection grade: IP67 (Dust proof, spray proof)

#### Cautions for use

- Do not wire the cable in parallel with other power lines and do not share a duct with other cables.
- Use capacitors or surge absorption elements to remove the sparks caused by relays and switches in the control panel as far as possible.
- Be sure to wire the lines properly, as wrong wiring can damage the internal circuitry.
- Large pulsing may be caused at the time of power ON and power OFF. After power ON, wait for at least 0.5 sec before use.
- Do not disassemble the product. Do not expose the product for a long time to water, even if it is a dust- and water-resistant type. Wipe off any water getting onto the product.

#### Mounting options

- Mounting plate: JU-100
- Mounting bolt: MG-10 (6 bolts)
- Mounting fitting: JT-035

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**Note:** The values in brackets are for the dust-resistant, pictorial type.