**Thin type universal isolate transducer**

**MODEL TH-2M, 5M**

### Features
- AC power supply 100 to 240V AC
- DIN rail mounting
- Input/Output/Power supply isolated
- Can change input and output by dip switch

### Ordering Code

**TH-M**

**Power specification**

- 100 to 240V AC
- 24V DC

Example: TH-5M

### Dimensions

**Front view**

**Side view**

115x0.5

### Connection Diagram

![Connection Diagram](image)

**Note:** When conducting wiring, be careful with its polarity.

**Note:** Please be careful of the kind of power supply.

### Block Diagram

![Block Diagram](image)

### Input Specification

<table>
<thead>
<tr>
<th>Input</th>
<th>Input resistance</th>
<th>Input allowable range</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5V DC</td>
<td>More than 1MΩ</td>
<td>50 to +150% F.S.</td>
</tr>
<tr>
<td>1 to 8V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 10V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 20V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 20mA DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 20mA DC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Output Specification

<table>
<thead>
<tr>
<th>Output</th>
<th>Load resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5V DC</td>
<td></td>
</tr>
<tr>
<td>1 to 5V DC</td>
<td></td>
</tr>
<tr>
<td>0 to 10V DC</td>
<td></td>
</tr>
<tr>
<td>2.5 to 5V DC</td>
<td></td>
</tr>
<tr>
<td>10 to 10V DC</td>
<td></td>
</tr>
<tr>
<td>0 to 4V DC</td>
<td></td>
</tr>
<tr>
<td>4 to 20mA DC</td>
<td></td>
</tr>
</tbody>
</table>

### General Specifications

Range setting before shipment: Input: 1 to 5V, Output: 4 to 20mA

Error caused by input range setting change: ±1% F.S

Base accuracy: ±1.0% F.S (at 25±2°C)

Load resistance variation: ±0.06% F.S

Power supply variation: ±0.06% F.S

Temperature characteristics: ±0.02% F.S/°C

Response time: Less than 50ms Typ (At AC power, 0 → 90%)

Response time: Less than 10ms Typ (At DC power, 0 → 90%)

Insulation resistance: More than 1MΩ at 25°C

Dielectric strength: Between the input and output/power supply

Power supply voltage: 100 to 240V AC ±10%

24V DC ±10%

Consuming current: Less than 30mA (at 100V AC)

Less than 60mA (at 24V DC)

Operating ambient temperature: -5 to 50°C

Operating ambient humidity: Less than 90%RH (No-condensing)

Storage temperature: Within -10 to 70°C

Storage humidity: Less than 60%RH (No-condensing)

Case material: Black PC 94V-2

Weight: Approx. 80g


Only in the case of lines < 30m.

1. Changing input range

0 to 5V
1 to 5V
0 to 10V
0 to 60mV
4 to 20mA
0 to 20mA

(Range setting before shipment)

2. Changing output range

0 to 5V
1 to 5V
0 to 10V
-2 to 2V
-2.5 to -2.5V
-5 to -5V
0 to -10V
0 to 4V
4 to 20mA

(Range setting before shipment)