

### Models Available

**TH-5M** Slim Analogue Signal Conditioner  
24Vdc Auxiliary Powered

**TW-4M-1-N** Analogue Signal Conditioner  
100-240Vac Powered

### Product Features

- Convert and isolate process signals
- User selectable input and output
- Linearity 0.1% full scale
- Adjustable 'span' and 'zero'
- DIN rail mounting enclosure
- 1.5kV rms 50Hz 1 minute isolation between input / output / auxiliary
- Screw type terminals
- Fingerproof terminal cover included

## Analogue Signal Conditioners

Analogue signal conditioners isolate and convert DC voltage or current signals. The signal conditioner converts the DC voltage or DC mA signal to either a DC mA or DC voltage output which is directly proportional to the input signal value.

The user can select the input range and output range through the DIP switches on the front of the isolator. These signal conditioners offer isolation between the DC input signal and the DC output which can be used to prevent earth loops.

The 1.5kV isolated output signals can then be fed to analogue meters, digital meters or PLCs.

## For converting and isolating DC process signals

### Specification

#### Linearity:

- < 0.1% full scale

#### Accuracy:

- < 1% full scale after switches adjusted

#### Temperature Variation:

- 0.02% full scale / °C

#### Response Time:

- TH-5M < 50ms for 0-90% of input value
- TW-4M-1-N < 1ms, 50ms or 500ms

#### Insulation Resistance:

- > 100Mohm between input / output / auxiliary

#### Isolation:

- 1.5kV rms 50Hz for 1 minute between input / output / auxiliary

#### Power Supply:

- TH-5M 24Vdc  $\pm 10\%$
- TW-4M-1-N 100-240Vac  $\pm 10\%$

#### Power Consumption:

- < 60mA at 24Vdc
- < 50mA at 100-240Vac

#### Operating Temperature:

- -5°C to 50°C

#### Operating Humidity:

- < 90% non-condensing

#### Mounting:

- 35mm DIN rail (DIN-EN 50022)

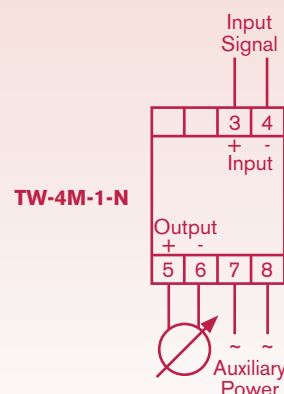
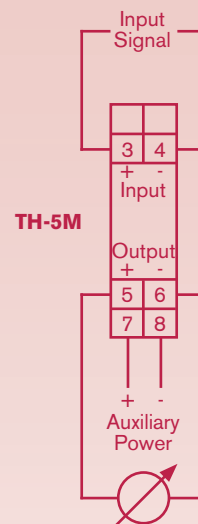
#### Weight:

- TH-5M 80g, TW-4M-1-N 130g

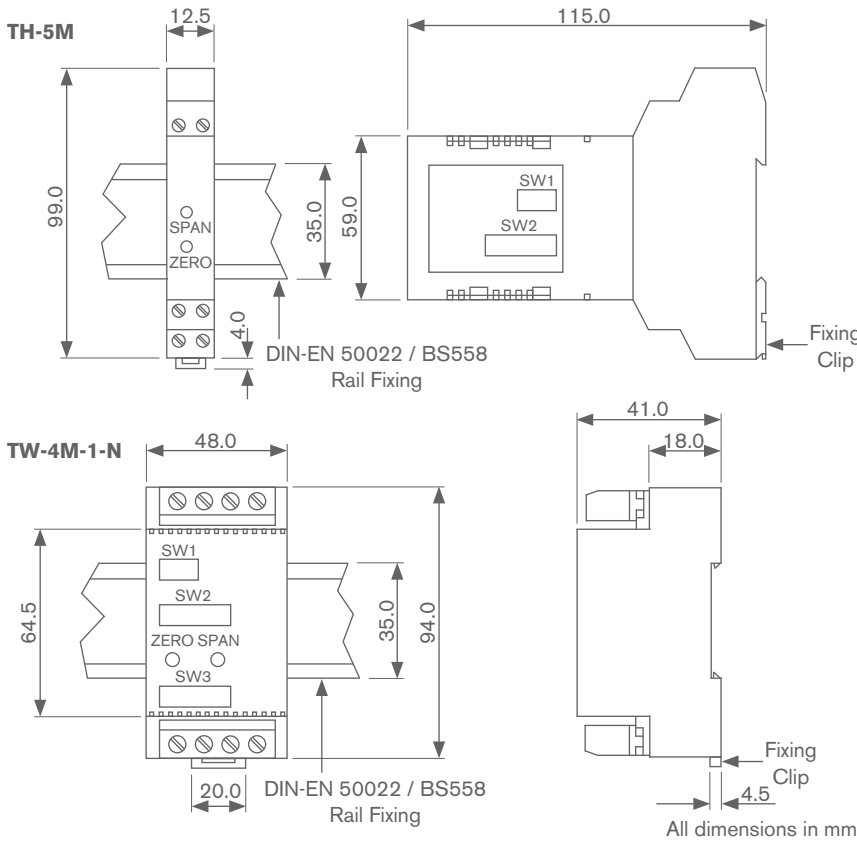
#### Markings:

- CE marked

### Connections



**Dimensions**



**Ordering information**

| Code      | Description                              |
|-----------|--|
| TH-5M     | Slim Analogue Signal Conditioner - 24Vdc |
| TW-4M-1-N | Analogue Signal Conditioner - 100-240Vac |

**Example** TH-5M

**Note:** Calibration can be factory set at a specific input and output if required (specify when ordering).

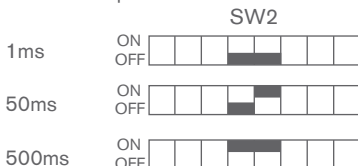
**Resistance Values**

| Input  | Input Resistance |
|--|------------------|
| 0-5Vdc<br>1-5Vdc<br>0-10Vdc<br>0-60mV<br>±5Vdc<br>±10Vdc | More than 1Mohm  |
| 4-20mA<br>0-20mA   | 250 ohms         |

\* Only on TH-5M \*\* Only on TW-4M-1-N

| Output   | Allowable Load Resistance |
|--|---------------------------|
| 0 to 5Vdc<br>1 to 5Vdc<br>-2 to +2Vdc *<br>-2.5 to +2.5Vdc *<br>-5 to +5Vdc<br>0 to 4Vdc * | More than 2kohm           |
| 0 to 10Vdc<br>-10 to +10Vdc  | More than 4kohm           |
| 4 to 20mA<br>0 to 20mA **  | Less than 550 ohms        |

**TW-4M Response Time**



**TW-4M Reverse Setting**



**Range Settings**

