

# Universal isolate transducer

## MODEL TW-4M-1-N, TW-4M-4-N



### Input Specification

Input	Input resistance	Input allowable range
0 to 5 VDC	More than 1 MΩ	-50 to +150% F.S
0 to 10 VDC		
0 to 60 mVDC		
1 to 5 VDC		
-5 to 5 VDC		
-10 to 10 VDC	250 Ω	
0 to 20 mADC		
4 to 20 mADC		

### Output Specification

Output	Load resistance
0 to 5 VDC	More than 2 KΩ
1 to 5 VDC	
-5 to 5 VDC	
0 to 10 VDC	More than 4 KΩ
-10 to 10 VDC	
0 to 20 mADC	Less than 550 Ω
4 to 20 mADC	

### General Specifications

- Range settings before shipment:  
Input; 1 to 5 VDC, output; 4 to 20 mADC  
Accuracy of range settings before shipment:  
Within ±0.25% F.S
- Error caused by input range setting change: Within ±1% F.S  
Range setting for -5 to 5VDC, -10 to 10VDC: ±2% F.S.  
Error caused by output range setting change: Within ±1% F.S  
Range setting for -5 to 5VDC, -10 to 10VDC: ±2% F.S.
- Temperature characteristic: ±0.02% F.S/°C
- Response time: Less than 1ms, 50ms or 500ms  
(Time required for arriving at 90% of rated output)
- Insulation resistance: Between input and output or power supply,  
More than 100 MΩ (At 500 VDC)
- Dielectric strength: Between input and output or power supply,  
For 1 min. (At 2000 VAC)
- Power supply voltage: 100 to 240 VAC ±10% or 24 VDC ±10%  
Consuming current:  
Less than 50mA (At 100 VAC)  
Less than 80mA (At 24 VDC)
- Operating ambient temperature: -5 to +50°C
- Operating humidity: Less than 90% RH (No dew-condensing)
- Storage temperature: -10 to +70°C
- Storage humidity: Less than 60% RH (No dew-condensing)
- Case material: Black PBT 94-V0
- Weight: Approx. 130g

### About solderless terminal to connect with the screw type terminal block

- Screw size: M3.5×7L
- Recommendation solderless terminal: Ring tongue (R type) M3.5  
Spade tongue (A type) M3.5  
Applicable Wire AWG# 22 to 14
- Quality of material: Screw Iron, nickel plating  
Connection board  
Yellow copper, tin plating

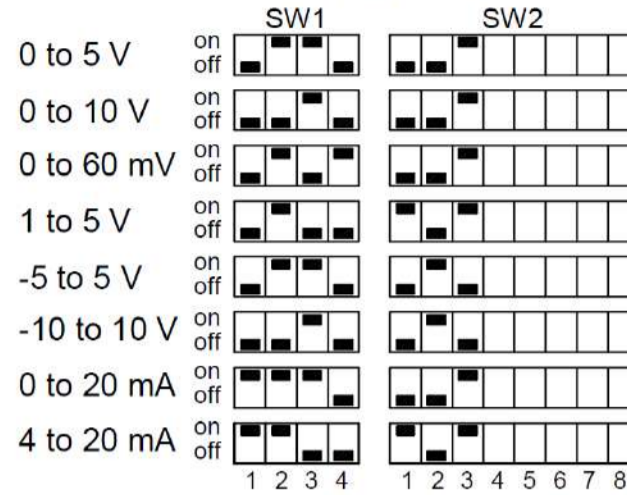
### Setting or changing input/output range

⚠ Always set or change the input/output range with the power turned off.

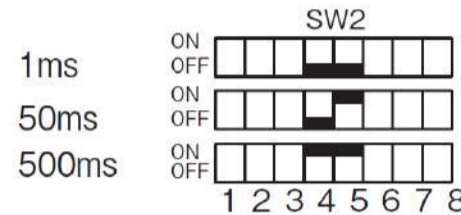
The input/output range can be set or changed by dip switches SW1 and SW2, SW3 on top of the transducer. After finishing the setting, stick the attached seal to the window for dip switch operation. Prior to factory shipment, the input is set 1 to 5 V and the output, 4 to 20 mA.



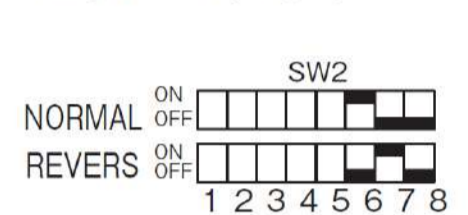
#### 1. Setting or changing input range



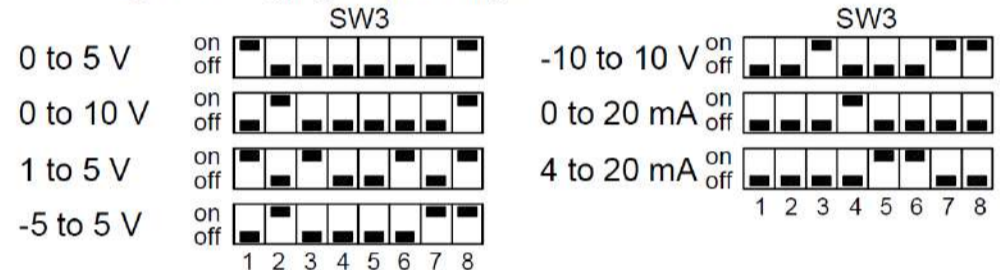
#### 2. Response time



#### 3. Setting Revers (Output)



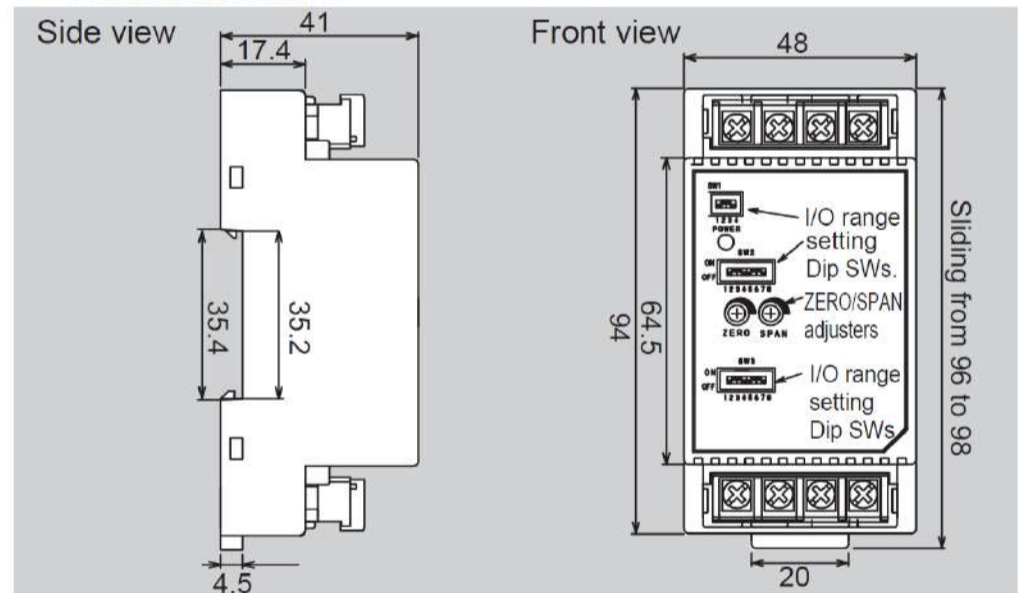
#### 4. Setting or changing output range



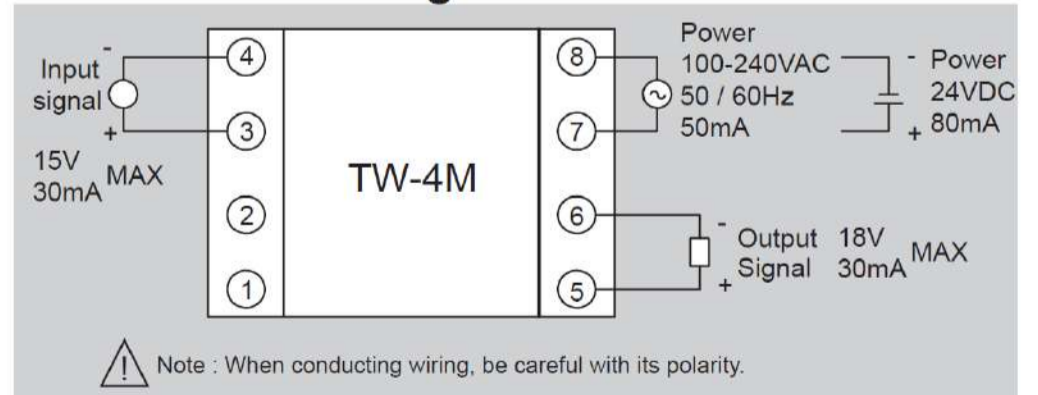
### Ordering Code

TW-4M-□-N  
Code to specify power [1. 100 to 240 VAC ±10%  
4. 24 VDC ±10%

### Dimensions



### Connection Diagram



### Block Diagram

