

## Standard Flat Sensors in Many Different Variations

- Only 6 mm thick yet provides a sensing distance of 3 mm (TL-W3MC1).
- Aluminum die-cast models also available.



**⚠** Be sure to read *Safety Precautions* on page 7.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.



## Ordering Information

**Sensors** [Refer to *Dimensions* on page 8.]

### DC 2-Wire Models

| Appearance | Sensing distance | Model             |                |
|------------|------------------|-------------------|----------------|
|            |                  | Operation mode    |                |
|            |                  | NO                | NC             |
| Unshielded | 5 mm             | TL-W5MD1 2M *1 *2 | TL-W5MD2 2M *2 |

### DC 3-Wire Models

| Appearance | Sensing distance | Output configuration | Model               |                   |
|------------|------------------|----------------------|---------------------|-------------------|
|            |                  |                      | Operation mode      |                   |
|            |                  |                      | NO                  | NC                |
| Unshielded | 1.5 mm           | NPN                  | TL-W1R5MC1 2M *1 *2 | ---               |
|            |                  | PNP                  | TL-W1R5MB1 2M       | ---               |
|            | 3 mm             | NPN                  | TL-W3MC1 2M *1 *2   | TL-W3MC2 2M *1 *2 |
|            |                  | PNP                  | TL-W3MB1 2M *2      | TL-W3MB2 2M *2    |
|            | 5 mm             | NPN                  | TL-W5MC1 2M *1 *2   | TL-W5MC2 2M       |
|            |                  | PNP                  | TL-W5MB1 2M         | TL-W5MB2 2M       |
| Shielded   | 20 mm            | NPN                  | TL-W20ME1 2M *1     | TL-W20ME2 2M *1   |
|            | 5 mm             | NPN                  | TL-W5E1 2M          | TL-W5E2 2M        |
|            |                  | PNP                  | TL-W5F1 2M          | TL-W5F2 2M        |

\*1. Models with a different frequency are also available to prevent mutual interference. The model numbers are TL-W□M□□5 (e.g., TL-W5MD15).

\*2. Models are also available with robotics (bend resistant) cables. Add “-R” to the model number. (e.g., TL-W5MC1-R 2M)

## Ratings and Specifications

### DC 2-Wire Models

| Item  | Model  | TL-W5MD□   |
|---|--|--|
| <b>Sensing distance</b>                                 | 5 mm ±10%  |  |
| <b>Set distance</b>                                     | 0 to 4 mm  |  |
| <b>Differential travel</b>                              | 10% max. of sensing distance   |  |
| <b>Detectable object</b>                                | Ferrous metal (The sensing distance decreases with non-ferrous metal. Refer to <i>Engineering Data</i> on page 5.) |  |
| <b>Standard sensing object</b>                          | Iron, 18 × 18 × 1 mm   |  |
| <b>Response frequency *1</b>                            | 500 Hz   |  |
| <b>Power supply voltage (operating voltage range)</b>   | 12 to 24 VDC (10 to 30 VDC), ripple (p-p): 10% max.  |  |
| <b>Leakage current</b>                                  | 0.8 mA max.  |  |
| <b>Control output</b>                                   | <b>Load current</b>  | 3 to 100 mA  |
|   | <b>Residual voltage</b>  | 3.3 V max. (under load current of 100 mA with cable length of 2 m) |
| <b>Indicators</b>                                       | D1 Models: Operation indicator (red), Setting indicator (green)<br>D2 Models: Operation indicator (red)            |  |
| <b>Operation mode (with sensing object approaching)</b> | D1 Models: NO Refer to the timing charts under <i>I/O Circuit Diagrams</i> on page 5 for details.<br>D2 Models: NC |  |
| <b>Protection circuits</b>                              | Load short-circuit protection, Surge suppressor  |  |
| <b>Ambient temperature range</b>                        | Operating/Storage: -25 to 70°C (with no icing or condensation) *2  |  |
| <b>Ambient humidity range</b>                           | Operating/Storage: 35% to 95% (with no condensation)   |  |
| <b>Temperature influence</b>                            | ±10% max. of sensing distance at 23°C in the temperature range of -25 to 70°C                                      |  |
| <b>Voltage influence</b>                                | ±2.5% max. of sensing distance at rated voltage in the rated voltage ±15% range                                    |  |
| <b>Insulation resistance</b>                            | 50 MΩ min. (at 500 VDC) between current-carrying parts and case  |  |
| <b>Dielectric strength</b>                              | 1,000 VAC for 1 min between current-carrying parts and case  |  |
| <b>Vibration resistance</b>                             | Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions                       |  |
| <b>Shock resistance</b>                                 | Destruction: 500 m/s <sup>2</sup> 3 times each in X, Y, and Z directions   |  |
| <b>Degree of protection</b>                             | IEC 60529 IP67, in-house standards: oil-resistant *2   |  |
| <b>Connection method</b>                                | Pre-wired Models (Standard cable length: 2 m)  |  |
| <b>Weight (packed state)</b>                            | Approx. 80 g   |  |
| <b>Materials</b>  | <b>Case</b>  |  |
|   | <b>Sensing surface</b>   | Heat-resistant ABS   |
| <b>Accessories</b>                                      | Instruction manual   |  |

\*1. The response frequency is an average value.

Measurement conditions are as follows: standard sensing object, a distance of twice the standard sensing object, and a set distance of half the sensing distance.

\*2. For environments that require oil resistance, the upper limit of the ambient operating temperature range is 40°C.

## DC 3-Wire Models

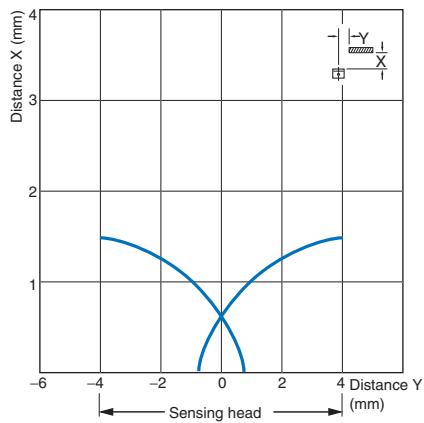
| Model   | TL-W1R5MC1   | TL-W3MC□   | TL-W5MC□  | TL-W5E1, TL-W5E2  | TL-W20ME1  |  |  |  |
|---|--|--|---|---|--|--|--|--|
| Item  | TL-W1R5MB1   | TL-W3MB□   | TL-W5MB□  | TL-W5F1, TL-W5F2  | TL-W20ME2  |  |  |  |
| <b>Sensing distance</b>                                 | 1.5 mm ±10%  | 3 mm ±10%  | 5 mm ±10%   |   |  |  |  |  |
| <b>Set distance</b>                                     | 0 to 1.2 mm  | 0 to 2.4 mm  | 0 to 4 mm   |   |  |  |  |  |
| <b>Differential travel</b>                              | 10% max. of sensing distance   |  |   | 1% to 15% of sensing distance   |  |  |  |  |
| <b>Detectable object</b>                                | Ferrous metal (The sensing distance decreases with non-ferrous metal. Refer to <i>Engineering Data</i> on page 5.) |  |   |   |  |  |  |  |
| <b>Standard sensing object</b>                          | Iron,<br>8 × 8 × 1 mm  | Iron,<br>12 × 12 × 1 mm  | Iron, 18 × 18 × 1 mm  |   |  |  |  |  |
| <b>Response frequency</b>                               | 1 kHz min.   | 600 Hz min.  | 500 Hz min.   | 300 Hz min.   | 40 Hz min.   |  |  |  |
| <b>Power supply voltage (operating voltage range)</b>   | 12 to 24 VDC (10 to 30 VDC), ripple (p-p): 10% max.  |  |   | 12 to 24 VDC (10 to 30 VDC), ripple (p-p): 20% max.                             | 12 to 24 VDC (10 to 30 VDC), ripple (p-p): 10% max.                          |  |  |  |
| <b>Current consumption</b>                              | 15 mA max. at 24 VDC (no-load)   |  | 10 mA max. at 24 VDC (no-load)  | 15 mA max. at 24 VDC (no-load)  | 8 mA at 12 VDC, 15 mA at 24 VDC  |  |  |  |
| <b>Control output</b>                                   | <b>Load current</b>  | TL-W5MC□:<br>NPN open collector<br>50 mA max. at 12 VDC<br>(30 VDC max.)<br>100 mA max. at 24 VDC<br>(30 VDC max.)<br>TL-W5MB□:<br>PNP open collector<br>50 mA max. at 12 VDC<br>(30 VDC max.)<br>100 mA max. at 24 VDC<br>(30 VDC max.) |   |   | 200 mA   |  |  |  |
|   |  | 100 mA max. at 12 VDC<br>200 mA max. at 24 VDC   |   |   |  |  |  |  |
|   | <b>Residual voltage</b>  | 1 V max. (under load current of 100 mA with cable length of 2 m)   |   |   | 2 V max. (under load current of 200 mA with cable length of 2 m)             |  |  |  |
| <b>Indicators</b>                                       |  | Detection indicator (red)  |   |   |  |  |  |  |
| <b>Operation mode (with sensing object approaching)</b> | NO   | B1/C1 Models: NO<br>B2/C2 Models: NC   | E1/F1 Models: NO<br>E2/F2 Models: NC  |   |  |  |  |  |
|   | Refer to the timing charts under <i>I/O Circuit Diagrams</i> on page 6 for details.                                |  |   |   |  |  |  |  |
| <b>Protection circuits</b>                              | Reverse polarity protection, Surge suppressor  |  |   |   |  |  |  |  |
| <b>Ambient temperature range</b>                        | Operating/Storage: -25 to 70°C (with no icing or condensation) *   |  |   |   |  |  |  |  |
| <b>Ambient humidity range</b>                           | Operating/Storage: 35% to 95% (with no condensation)   |  |   |   |  |  |  |  |
| <b>Temperature influence</b>                            | ±10% max. of sensing distance at 23°C in the temperature range of -25 to 70°C                                      |  |   |   |  |  |  |  |
| <b>Voltage influence</b>                                | ±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range                                    |  | ±2.5% max. of sensing distance at rated voltage in the rated voltage ±20% range | ±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range |  |  |  |  |
| <b>Insulation resistance</b>                            | 50 MΩ min. (at 500 VDC) between current-carrying parts and case  |  |   |   |  |  |  |  |
| <b>Dielectric strength</b>                              | 1,000 VAC, 50/60 Hz for 1 minute between current-carrying parts and case   |  |   |   |  |  |  |  |
| <b>Vibration resistance</b>                             | Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions                       |  |   |   |  |  |  |  |
| <b>Shock resistance</b>                                 | Destruction: 500 m/s <sup>2</sup> 3 times each in X, Y, and Z directions   |  |   |   | Destruction: 500 m/s <sup>2</sup><br>10 times each in X, Y, and Z directions |  |  |  |
| <b>Degree of protection</b>                             | IEC 60529 IP67, in-house standards: oil-resistant *  |  |   |   |  |  |  |  |
| <b>Connection method</b>                                | Pre-wired Models (Standard cable length: 2 m)  |  |   |   |  |  |  |  |
| <b>Weight (packed state)</b>                            | Approx. 70 g   |  | Approx. 80 g  | Approx. 100 g   | Approx. 210 g  |  |  |  |
| <b>Materials</b>  | <b>Case</b>  | Heat-resistant ABS   |   |   | Aluminum die-cast  |  |  |  |
|   | <b>Sensing surface</b>   | Heat-resistant ABS   |   |   | Heat-resistant ABS   |  |  |  |
| <b>Accessories</b>                                      | Mounting Bracket, Instruction manual   |  | Instruction manual  |   |  |  |  |  |

\* For environments that require oil resistance, the upper limit of the ambient operating temperature range is 40°C.

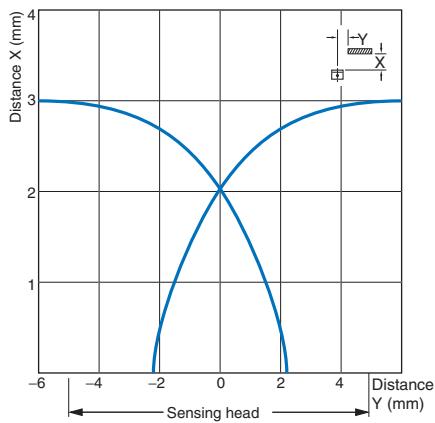
## Engineering Data (Reference Value)

### Sensing Area

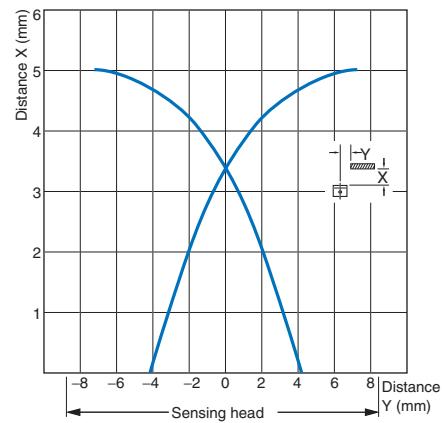
TL-W1R5M□1



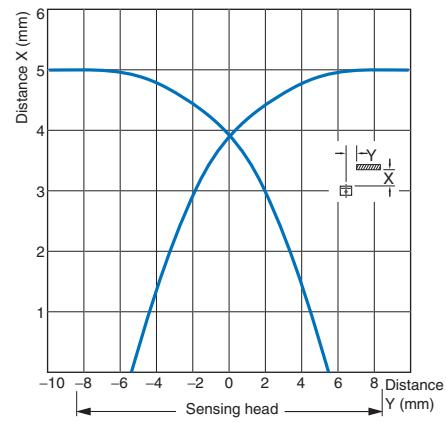
TL-W3M□1



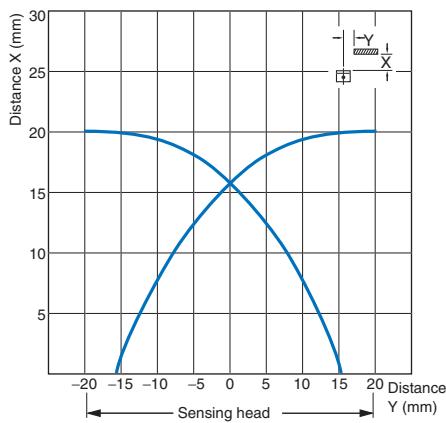
TL-W5M□1/-W5MD□



TL-W5E/-W5F

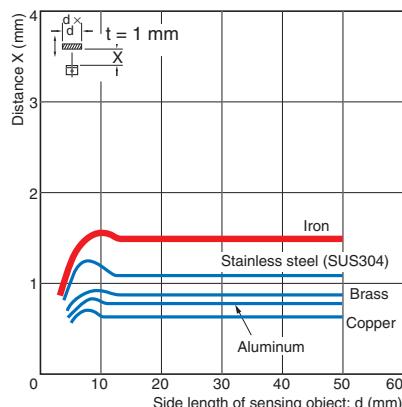


TL-W20□

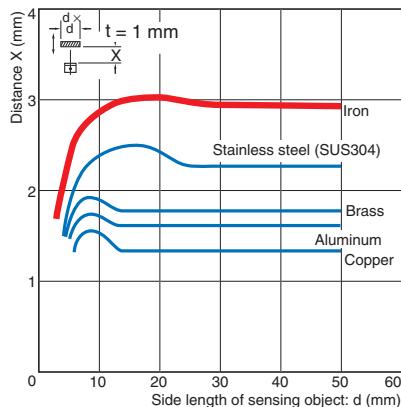


## Influence of Sensing Object Size and Material

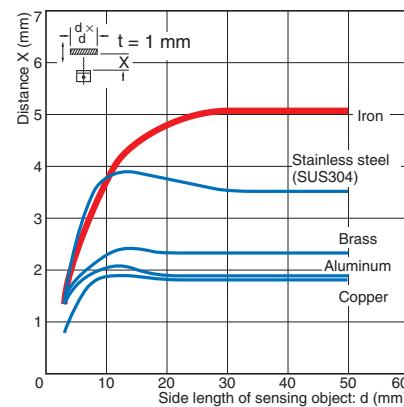
TL-W1R5M□1



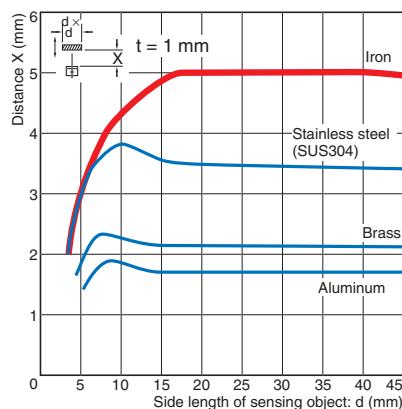
TL-W3M□1



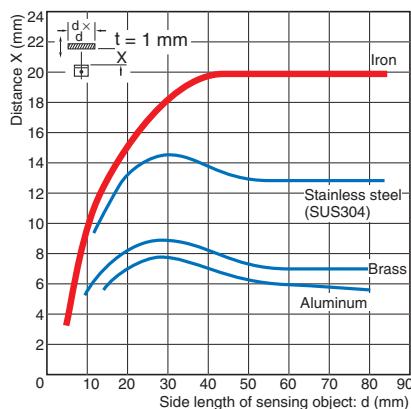
TL-W5M□1



TL-W5E□/-W5F□/-W5MD□



TL-W20□

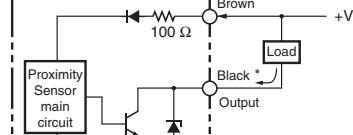
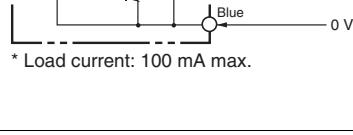
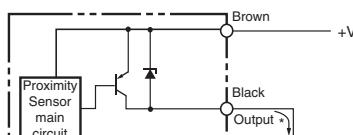
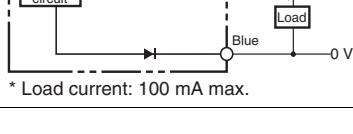
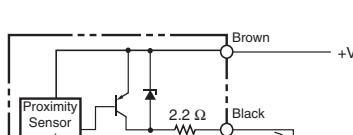
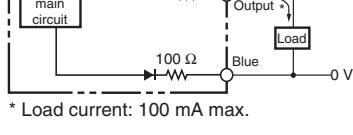
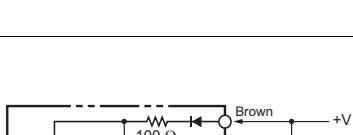
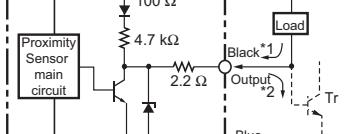
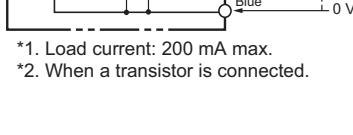


## I/O Circuit Diagrams

### DC 2-Wire Models

| Model     | Operation mode            | Timing chart  | Output circuit |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
|-----------|---------------------------|---|----------------|---------------------------|---------------------------|----------------|--------|-----|-----------|-----|----------|-----------|-----|-----|-----------|-----|----|-----------|-----------|-----|----|----|-----------|-----|-----|-----|--|
| TL-W5MD1  | NO                        | <p>Non-sensing area      Unstable sensing area      Set position      Stable sensing area</p> <table border="1"> <thead> <tr> <th>Time (%)</th> <th>Setting indicator (green)</th> <th>Operation indicator (red)</th> <th>Control output</th> </tr> </thead> <tbody> <tr> <td>0 - 80</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>80 - 100</td> <td>ON</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>100 - 120</td> <td>OFF</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>120 - 140</td> <td>ON</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>140 - 160</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> </tbody> </table> | Time (%)       | Setting indicator (green) | Operation indicator (red) | Control output | 0 - 80 | OFF | OFF       | OFF | 80 - 100 | ON        | OFF | ON  | 100 - 120 | OFF | ON | OFF       | 120 - 140 | ON  | ON | ON | 140 - 160 | OFF | OFF | OFF | <p>Note: The load can be connected to either the +V or 0 V side.</p> |
| Time (%)  | Setting indicator (green) | Operation indicator (red)   | Control output |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 0 - 80    | OFF                       | OFF   | OFF            |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 80 - 100  | ON                        | OFF   | ON             |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 100 - 120 | OFF                       | ON  | OFF            |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 120 - 140 | ON                        | ON  | ON             |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 140 - 160 | OFF                       | OFF   | OFF            |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| TL-W5MD2  | NC                        | <p>Non-sensing area      Sensing area      Proximity Sensor</p> <table border="1"> <thead> <tr> <th>Time (%)</th> <th>Operation indicator (red)</th> <th>Control output</th> </tr> </thead> <tbody> <tr> <td>0 - 100</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>100 - 120</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>120 - 140</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>140 - 160</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>160 - 180</td> <td>OFF</td> <td>OFF</td> </tr> </tbody> </table>   | Time (%)       | Operation indicator (red) | Control output            | 0 - 100        | OFF    | OFF | 100 - 120 | ON  | ON       | 120 - 140 | OFF | OFF | 140 - 160 | ON  | ON | 160 - 180 | OFF       | OFF |    |    |           |     |     |     |  |
| Time (%)  | Operation indicator (red) | Control output  |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 0 - 100   | OFF                       | OFF   |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 100 - 120 | ON                        | ON  |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 120 - 140 | OFF                       | OFF   |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 140 - 160 | ON                        | ON  |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |
| 160 - 180 | OFF                       | OFF   |                |                           |                           |                |        |     |           |     |          |           |     |     |           |     |    |           |           |     |    |    |           |     |     |     |  |

## DC 3-Wire Models

| Model                              | Operation mode | Output configuration | Timing chart  | Output circuit   |
|------------------------------------|----------------|----------------------|---|--|
| TL-W1R5MC1<br>TL-W3MC1<br>TL-W5MC1 | NO             | NPN                  | <p>Sensing object Present<br/>Not present</p> <p>Output transistor (load) ON<br/>OFF</p> <p>Detection indicator (red) ON<br/>OFF</p>  |  <p>* Load current: 100 mA max.</p>   |
| TL-W3MC2<br>TL-W5MC2               | NC             | NPN                  | <p>Sensing object Present<br/>Not present</p> <p>Output transistor (load) ON<br/>OFF</p> <p>Detection indicator (red) ON<br/>OFF</p>  |  <p>* Load current: 100 mA max.</p>   |
| TL-W1R5MB1                         | NO             | PNP                  | <p>Sensing object Present<br/>Not present</p> <p>Output transistor (load) (between blue and black leads) ON<br/>OFF</p> <p>Detection indicator (red) ON<br/>OFF</p>   |  <p>* Load current: 100 mA max.</p>   |
| TL-W3MB1                           | NO             | PNP                  | <p>Sensing object Present<br/>Not present</p> <p>Output transistor (load) (between blue and black leads) ON<br/>OFF</p> <p>Detection indicator (red) ON<br/>OFF</p>   |   |
| TL-W3MB2                           | NC             | PNP                  | <p>Sensing object Present<br/>Not present</p> <p>Output transistor (load) (between blue and black leads) ON<br/>OFF</p> <p>Detection indicator (red) ON<br/>OFF</p>   |  <p>* Load current: 100 mA max.</p>  |
| TL-W5E1<br>TL-W20ME1               | NO             | NPN                  | <p>Sensing object Present<br/>Not present</p> <p>Load (between brown and black leads) Operate<br/>Reset</p> <p>Output voltage (between black and blue leads) High<br/>Low</p> <p>Detection indicator (red) ON<br/>OFF</p> |   |
| TL-W5E2<br>TL-W20ME2               | NC             | NPN                  | <p>Sensing object Present<br/>Not present</p> <p>Load (between brown and black leads) Operate<br/>Reset</p> <p>Output voltage (between black and blue leads) High<br/>Low</p> <p>Detection indicator (red) ON<br/>OFF</p> |  <p>*1. Load current: 200 mA max.<br/>*2. When a transistor is connected.</p> |
| TL-W5F1                            | NO             | PNP                  | <p>Sensing object Present<br/>Not present</p> <p>Load (between blue and black leads) Operate<br/>Reset</p> <p>Output voltage (between blue and black leads) High<br/>Low</p> <p>Detection indicator (red) ON<br/>OFF</p>  |   |
| TL-W5F2                            | NC             | PNP                  | <p>Sensing object Present<br/>Not present</p> <p>Load (between blue and black leads) Operate<br/>Reset</p> <p>Output voltage (between blue and black leads) High<br/>Low</p> <p>Detection indicator (red) ON<br/>OFF</p>  |  <p>*1. Load current: 200 mA max.<br/>*2. When a transistor is connected.</p> |

## Safety Precautions

### Refer to Warranty and Limitations of Liability.

#### **WARNING**

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.



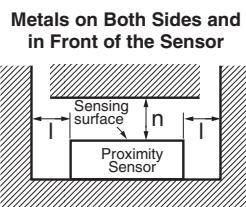
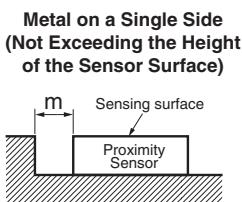
#### Precautions for Correct Use

Do not use this product under ambient conditions that exceed the ratings.

#### ● Design

##### Influence of Surrounding Metal

When mounting the Sensor within a metal panel, ensure that the clearances given in the following table are maintained. Failure to maintain these distances may cause deterioration in the performance of the Sensor.

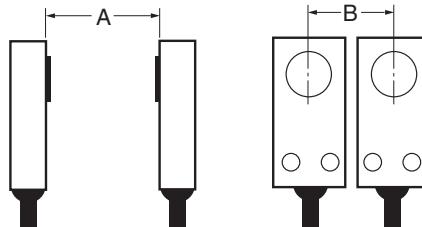


##### Influence of Surrounding Metal (Unit: mm)

| Model           | Distance | I  | m | n   |
|-----------------|----------|----|---|-----|
| TL-W1R5M□1      | 2        |    |   | 8   |
| TL-W3MC□/-W3MB□ | 3        |    | 0 | 12  |
| TL-W5MD□        |          | 5  |   | 20  |
| TL-W5MC□        |          |    |   |     |
| TL-W20ME□       | 25       | 16 |   | 100 |
| TL-W5E□/-W5F□   | 0        | 0  |   | 20  |

#### Mutual Interference

When installing Sensors face-to-face or side-by-side, ensure that the minimum distances given in the following table are maintained.



#### Mutual Interference (Unit: mm)

| Model           | Distance | A         | B         |
|-----------------|----------|-----------|-----------|
| TL-W1R5MC1      |          | 75 (50)   | 25 (8) *  |
| TL-W1R5MB1      |          | 75        | 25        |
| TL-W3MC□/-W3MB□ |          | 90 (60)   | 30 (10) * |
| TL-W5MD□        |          | 120 (80)  | 60 (30)   |
| TL-W5MC□        |          |           |           |
| TL-W20ME□       |          | 200 (100) | 200 (100) |
| TL-W5E□/-W5F□   |          | 50        | 35        |

Note: Values in parentheses apply to Sensors operating at different frequencies.

\* Mutual interference will not occur for close-proximity mounting if models with different frequencies are used together.

#### ● Mounting

- Use M3 flat-head screws to mount the TL-W1R5M□1 and TL-W3M□.
- Do not exceed the torque in the following table when tightening the resin cover screws.

| Model           | Torque   |
|-----------------|----------|
| TL-W1R5M□1      |          |
| TL-W3MC□/-W3MB□ | 0.98 N·m |
| TL-W5MD□        |          |
| TL-W20M□        | 1.5 N·m  |

#### ● Adjustment

##### Turning ON the Power

An error pulse will occur (approximately 1 ms) if adjustments are made when turning ON the power or making AND connections.

#### Applicable e-CON Connector Models and Manufacturers

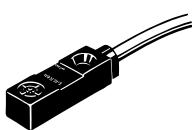
The companies and model number of e-CON connections that can be used with Sensor cables are listed in the following table. Confirm applicability when purchasing e-CON connectors for connection to Pre-wired Sensors.

| Model         | Applicable e-CON Connector     | Manufacturer |
|---------------|--------------------------------|--------------|
| TL-W1R5□/-W3□ | XN2A-1470 Cable Plug Connector | OMRON        |

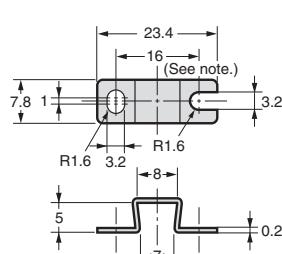
## Dimensions

(Unit: mm)

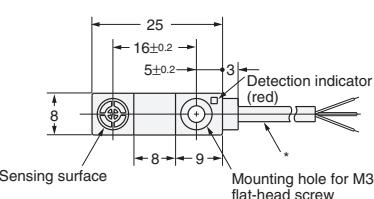
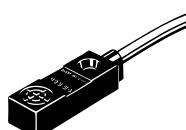
Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

TL-W1R5MB1  
TL-W1R5MC1

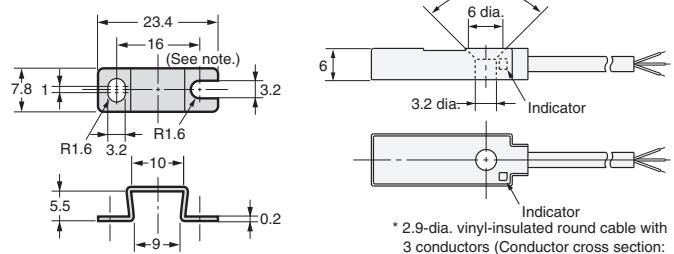
## Mounting Bracket (Attachment)



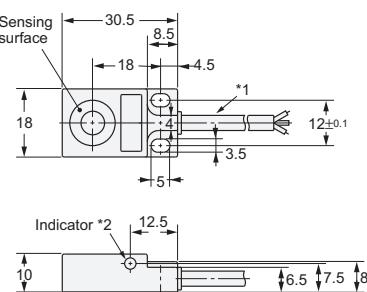
Note: Mounting hole dimension: 17 ± 0.20.  
Material: Stainless steel (SUS304)

TL-W3MB□  
TL-W3MC□

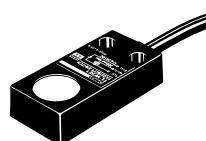
## Mounting Bracket (Attachment)



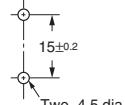
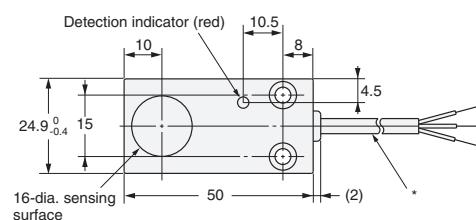
Note: Mounting hole dimension: 17 ± 0.20.  
Material: Stainless steel (SUS304)

TL-W5MB□  
TL-W5MC□  
TL-W5MD□

\*1. TL-W5MB□/TL-W5MC□  
4-dia. vinyl-insulated round cable with 3 conductors (Conductor cross section: 0.2 mm<sup>2</sup>, Insulator diameter: 1.2 mm), Standard length: 2 m  
TL-W5MD□  
4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm<sup>2</sup>, Insulation diameter: 1.3 mm), Standard length: 2 m  
\*2. B/C Models: Detection indicator (red)  
D Models: Operation indicator (red), Setting indicator (green)

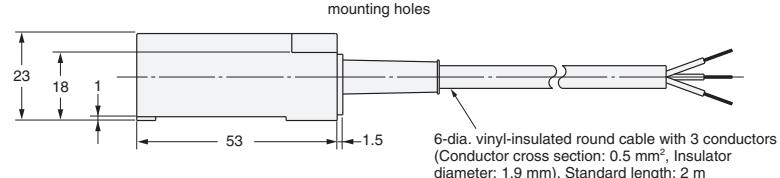
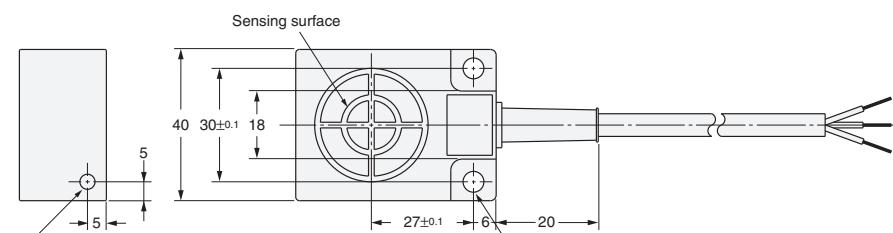
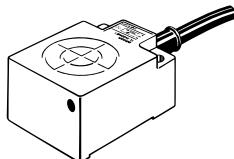
TL-W5E□  
TL-W5F□

## Mounting Hole Dimensions



\* 4-dia. vinyl-insulated round cable with 3 conductors (Conductor cross section: 0.2 mm<sup>2</sup>, Insulator diameter: 1.2 mm), Standard length: 2 m

## TL-W20ME□



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