MANUFACTURER'S STATEMENT

Read this operation manual carefully before use to ensure proper operation of the sensor. Failure to read this operation manual may cause improper sensor operation and may result in serious injury or death of persons. The meanings of the symbols are as follows. Please study the following first and then read the contents of this operation manual.

NOTE

- Special attention is required to caution the improper operation causing injury of person or damage to objects.
- It is required to check the operation manual if this symbol is shown on the product.
- Disregard of caution may cause the improper operation causing death or serious injury of persons.

1. This sensor is a non-contact switch intended for header mount or wall mount of an automatic door. Do not use for any other applications. This sensor cannot be used for industrial doors or shutters, when used, proper operation and safety cannot be guaranteed.
2. When setting the sensor's detection area, make sure there is no traffic around the installation site.
3. Before turning the power ON, check the wiring to prevent damage or malfunction of equipments that are connected to the sensor.
4. Only use the sensor as specified in the operation manual provided.
5. Be sure to install the sensor in accordance with the local laws and standards of the country in which the sensor is installed.
6. Before leaving the job site make sure that the sensor is operating properly and instruct the building owner/operator on proper operation of the door and the sensor.
7. The sensor settings can only be changed by an installer or service engineer. When changed, the changed settings and dates shall be registered in the maintenance logbook accompanying the door.

NOTE

- Moving objects, objects reflecting light, or objects in or near the detection area.
- Solid objects or a heating radiator in the detection area.

WARNING

- Do not wash, disassemble, rebuild or repair the sensor, otherwise it may cause electric shock or breakdown of equipments.

SPECSIFICATIONS

Model: OA-PRESENCE T
Cover color: Black / Silver
Mounting height: 2 to 3.5m (6’7” to 9’10”)
Detection area: See ADJUSTMENTS
Detection method: Active Infrared Reflection
Depth angle adjustment: -5 to 5°
Power supply (×): 12 to 24VAC (±10%)
Power consumption (×): < 2W (< 3VA at AC)
Operation LED: On/Off
Safety / Test output: Opto-coupler (NPN)
Voltage / 5 to 50VDC
Current: 10mA Max.
Dark current: 600nA Max.
Accessories: 1 Operation manual
Door controller: 1 Mounting template
Dimensions: 1 Cable 3m (10’)

OUTER DIMENSIONS AND PART NAMES

MODEL: OA-PRESENCE T

<table>
<thead>
<tr>
<th>Category</th>
<th>Performance level 2 (EN ISO 13849-1:2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>5 to 50VDC</td>
</tr>
<tr>
<td>Current</td>
<td>10mA Max.</td>
</tr>
<tr>
<td>Dark current</td>
<td>600nA Max.</td>
</tr>
</tbody>
</table>

ADJUSTMENTS

3 Dipswitch settings.

- 1: Connector
- 2: Mounting holes
- 3: Setting cover screw
- 4: Setting cover screw
- 5: Operation LED
- 6: Detection window
- 7: Dipswitches
- 8: Depth angle adjustment screw
- 9: Depth angle indicator
- 10: Function key

INSTALLATION

The following conditions are not suitable for the sensor installation.

- Fog or exhaust emission around the door.
- Wet floor.
- Wet, proper header or mounting surface.
- Moving objects or a heating radiator in the detection area.
- Highly reflecting floor or highly reflecting object near the door.

NOTE

- Do not use the sensor without the cover.
- When using the cable knockout, install the sensor indoors or use the rain-cover (separately available) otherwise electric shock or breakdown of the sensor may occur.

WARNING

Before starting the procedure, ensure that the power is turned OFF. When passing the cable through the hole, do not bear the shield, otherwise it may cause electric shock or breakdown of the sensor.

NOTE

- To enable the presence detection, do not enter the detection area for 10 seconds after supplying the power.
- Do not touch the dipswitches before turning the power ON, otherwise an error occurs.
- When changing the settings of dipswitches, check ADJUSTMENTS 1 Dipswitch settings.

WARNING

- Before starting the procedure, ensure that the power is turned OFF. When passing the cable through the hole, do not bear the shield, otherwise it may cause electric shock or breakdown of the sensor.

NOTE

- Make sure to connect the cable correctly to the door controller before turning the power ON.
- To enable the presence detection, do not enter the detection area for 10 seconds after supplying the power.
- Do not touch the dipswitches before turning the power ON, otherwise an error occurs.
- When changing the settings of dipswitches, check ADJUSTMENTS 1 Dipswitch settings.

WARNING

Before starting the procedure, ensure that the power is turned OFF. When passing the cable through the hole, do not bear the shield, otherwise it may cause electric shock or breakdown of the sensor.

NOTE

- Place the housing cover if wiring is to be exposed, break the knockout.
- To remove the housing cover of the sensor installed on the header, place a screw driver in the two notches on the upper part of the sensor.
**ADJUSTMENTS**

1. Detection area according to the test conditions required by EN 16005.

- The actual detection area may become smaller depending on the ambient light, the color / material of the object or the floor as well as the entry speed of the object.
- The sensor may not be activated when the entering speed of an object or a person is slower than 50mm / sec. or faster than 1,500mm / sec.

**Area depth angle adjustment**

- The detection area can be adjusted up to 9° away from the door (Deep) or 5° towards the door (Shallow). Adjust the required detection area by turning the depth adjustment screw with a screw driver. Check the detection area position with Red LED of the Operation LED using a tool such as a reflecting mirror.
- Make sure the detection area does not overlap with the door / header, otherwise ghosting / signal saturation may occur.
- Do not place any highly reflecting objects in the detection area, otherwise signal saturation may occur.

**REFERENCE**

Area depth adjustment with IR FINDER (Separately available)

1. Turn the depth adjustment screw to the right (Deep) to place the detection area most away from the door.
2. Set IR FINDER sensitivity to “E” (High) and place it on the floor as shown below.
3. Turn the depth adjustment screw to the left (Shallow) until the emitting area is placed at the position where IR FINDER is in the low detection status (Slow Red blinking).

**3. Dipswitch settings**

Follow these steps to change the settings of dipswitches.

- Change the function key from “Operation Mode” to “Setting Mode”.
- Change the function key back to “Operation Mode”.
- When the above procedures (1-3) are not followed, an error (Red & Green blinking) occurs.
- Make sure to use the sensor only in “Operation Mode”.

**NOTE**

3. Turn the depth adjustment screw to the left (Shallow) until the emitting area is placed at the position where IR FINDER is in the low detection status (Slow Red blinking).

**3-1. Setting the sensitivity**

Normally set to “Middle”. “Low” decreases the sensitivity and “High” / “S-High” increases the sensitivity. Refer to the chart below for the suitable sensitivity to each installation environment.

- Mounting height ( mm / ft [inch] )
  - 2,000 (6' 6")
  - 2,200 (7' 2")
  - 2,500 (8' 2")
  - 3,000 (10' 0")

For example:

- Low reflection: Middle
- High reflection: High

**NOTE**

Special attention is required when the sensor is used over the elderly or children. Please adjust the sensitivity and presence detection timer according to your risk assessment.

**3-2. Setting the presence detection timer**

The presence detection timer can be selected from 3 settings. To comply with EN 16005, the required adjustment applying the EN 16005 test conditions are recommended.

- Setting the timer can be selected from 4 settings. To comply with the sensitivity.
- Refer to the chart below for the suitable sensitivity to each installation environment.

**NOTE**

3. Turn the depth adjustment screw to the left (Shallow) until the emitting area is placed at the position where IR FINDER is in the low detection status (Slow Red blinking).

**3-3. Setting the test input**

Set dipswitch 10 according to the test input from the door controller.

- < Test input and Safety / Test output timing chart >

**CHECKING**

Check the operation according to the chart below.

**COMPILLED STANDARDS**

- EN 16005:2012
- EN 13279:2012
- EMC Directive 2004/108/EC
- EN ISO 13849-1:2008
- EN ISO 13489-2:2008

**INFORM BUILDING OWNER / OPERATOR OF THE FOLLOWING ITEMS**

- 1. Always keep the detection window clean. If dirty, wipe the window lightly with a damp cloth.
- 2. Do not wash the sensor with water.
- 3. Do not disassemble, rebuild or repair the sensor yourself, otherwise electrical shock may occur.
- 4. When an operation LED blinks green, contact your installer or service engineer.
- 5. Always contact your installer or service engineer when changing the settings.
- 6. Do not paint the detection window.

**WARNING**

- 1. When turning the power ON, always walk test the detection area to ensure proper operation.
- 2. Do not place any objects that move or emit light in the detection area. (e.g. Plant, illumination, etc.)

**TROUBLESHOOTING**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Operation</th>
<th>LED</th>
<th>Possible cause</th>
<th>Possible countermeasures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door does not open when a person enters the detection area.</td>
<td>Off</td>
<td>On</td>
<td>Low sensitivity.</td>
<td>Check the wires and connector.</td>
</tr>
<tr>
<td>Door remains open</td>
<td>Off</td>
<td>Off</td>
<td>Sensitivity is too low.</td>
<td>Set the sensitivity higher(*)</td>
</tr>
</tbody>
</table>

**NOTE**

Before changing these settings, set the function key to the “Setting Mode”. When finished, set back to the “Operation mode”.

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