



# OA-AXIS T



## COMPLIED STANDARDS AND EXTRACT FROM EC DECLARATION OF CONFORMITY

EN 16005:2012/AC:2015 Chapter 4.6.8 and Annex C  
 EN 61496-3:2001 clause 4. 3. 5 and 5. 4. 7. 3  
 DIN 18650-1:2010 Chapter 5.7.4 ESPE  
 Machinery Directive 2006/42/EC

EN ISO 13849-1:2015  
 EN ISO 13849-2:2012  
 EN 61000-6-2:2005/AC:2005  
 EN 61000-6-3:2007 +A1:2011/AC:2012

EN 12978:2003 +A1:2009  
 EMC Directive 2014/30/EU

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For technical document, see European Subsidiary

5921883 JUL 2017 NM-0035-5 Original instructions

### MANUFACTURER'S STATEMENT

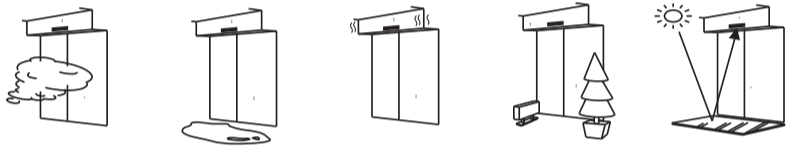
Read this operation manual carefully before use to ensure proper operation of this product. Failure to read this operation manual may cause improper operation and may result in serious injury or death of a person. The meanings of the symbols are as follows.

	<b>WARNING</b>	Disregard of warning may cause the improper operation causing death or serious injury of a person.
	<b>CAUTION</b>	Disregard of caution may cause the improper operation causing injury of a person or damage to objects.
	<b>NOTE</b>	Special attention is required to the section of this symbol.
		It is required to check the operation manual if this symbol is shown on the product.

- NOTE**
- This product is a non-contact switch intended for header mount or wall mount for use on an automatic sliding door. Do not use for any other applications.
  - When setting the sensor's detection area, make sure that there is no traffic around the installation site.
  - Before turning the power ON, check the wiring to prevent damage or malfunction of equipment connected to the product.
  - Only use the product as specified in the operation manual provided.
  - Be sure to install and adjust the sensor in accordance with the local laws and standards of the country in which the product is installed.
  - Before leaving the installation site make sure that the product is operating properly and instruct the building owner/operator on proper operation of the door and the product.
  - The product settings can only be changed by an installer or service engineer. When changed, the changed settings and the date shall be registered in the maintenance logbook accompanying the door.

	<b>WARNING</b>	Do not wash, disassemble, rebuild or repair the sensor, otherwise it may cause electric shock or breakdown of the equipment.
<b>Danger of electric shock.</b>		

- NOTE**
- The following conditions are not suitable for sensor installation.
- Fog or exhaust emission around the door.
  - Wet floor.
  - Vibrating header or mounting surface.
  - Moving objects or objects that emit light near the detection area.
  - Highly reflecting floor or highly reflecting objects around the door.



### SPECIFICATIONS

Model	: OA-AXIS T	Activation output	: When 3rd, 4th or 5th row detects.
Cover color	: Silver / Black		Form A relay
Mounting height	: 2.0 (6'7") to 3.0m (9'10")		50V 0.3A Max. (Resistance load)
Detection area	: See <b>DETECTION AREA</b>	Operating temperature	: -20 to +55°C (-4 to 131°F)
Detection method	: Active infrared reflection (*1)	Operating humidity	: < 80%
Depth angle adjustment	: 1st to 3rd rows / -6 to +6° 4th and 5th rows / +26 to +44°	Noise level	: < 70dBA
Power supply (*2)	: 12 to 24VAC ±10% (50 / 60Hz) 12 to 30VDC ±10%	Output hold time	: < 0.5sec.
Power consumption	: < 2.5W (< 4VA at AC)	Response time	: < 0.3sec.
Operation indicator	: See chart below	IP rate	: IP54
Safety input	: Opto coupler Voltage / 5 to 30VDC Current / 6mA Max. (30VDC)	Category	: 2 (EN ISO 13849-1:2015)
Safety output	: When 1st or 2nd row detects. Opto coupler (NPN) Voltage / 5 to 50VDC Current / 100mA Max. Dark current / 600nA Max. (Resistance load)	Performance level	: d (EN ISO 13849-1:2015)
		ESPE	: Type2
		Weight	: 320g (11.2oz)
		Accessories	: 1 Operation manual 2 Mounting screws 1 Mounting template 1 Area adjustment tool 1 Cable 3m (9'10") (8 × 0.22mm <sup>2</sup> AWG24) (*3)

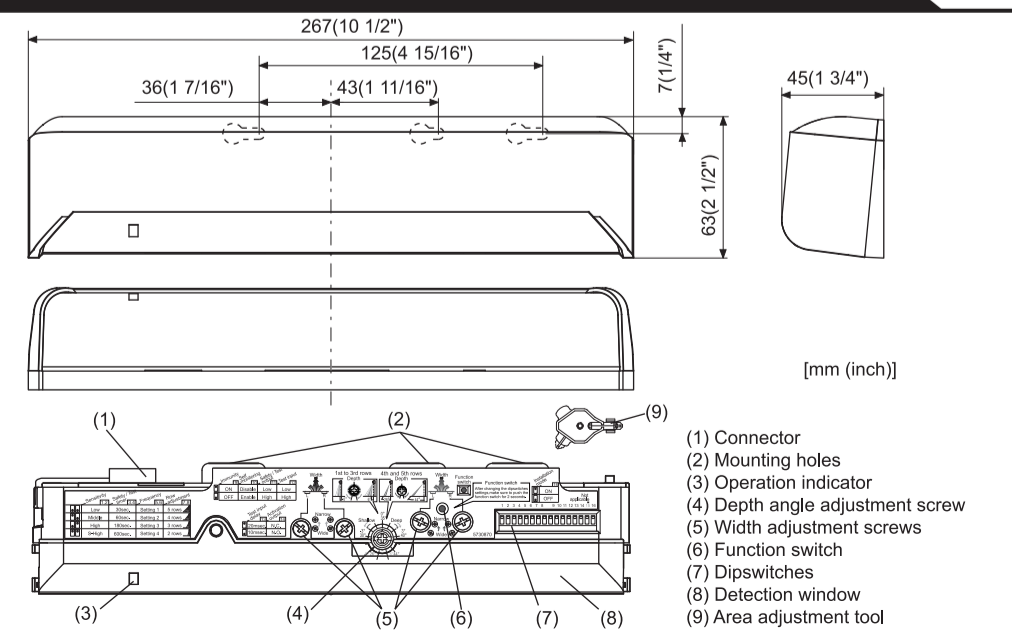
\*1 : The 1st and 2nd rows have presence detection function.  
 \*2 : When using this sensor, the sensor has to be connected to a door system which has the SELV circuit.  
 \*3 : Overcurrent protection with less than 2A.

#### Operation indicator

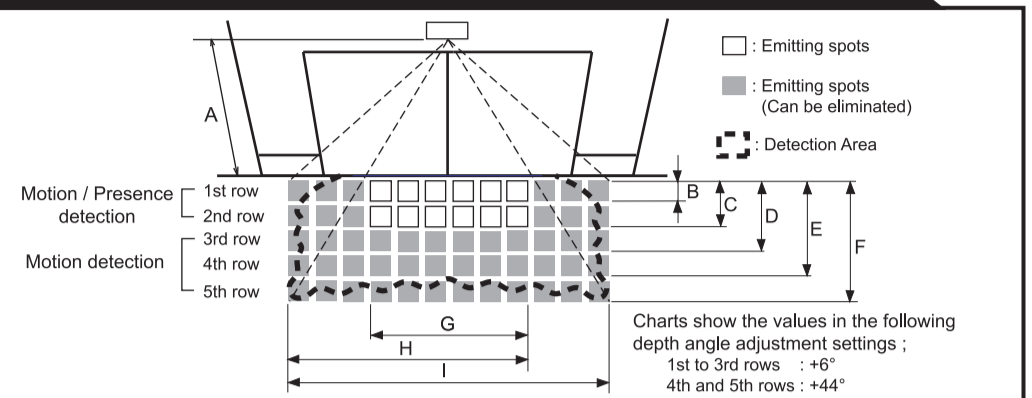
Status	Operation indicator color	Indicator Pattern
Stand-by (Installation mode)	Yellow	Steady Yellow
Stand-by (Operation mode)	Green	Steady Green
1st row detection	Blinking Red	Blinking Red
2nd row detection	Red	Steady Red
3rd, 4th or 5th row detection	Orange	Steady Orange
Setting error	Red & Green Blinking	Blinking Red & Green
Signal saturation	Slow Green Blinking	Slow Blinking Green
Sensor failure	Fast Green Blinking	Fast Blinking Green

**NOTE** The specifications herein are subject to change without prior notice due to improvements.

### OUTER DIMENSIONS AND PART NAMES



### DETECTION AREA



	[m(feet,inch)]				
A	2.00 (6'7")	2.20 (7'3")	2.50 (8'2")	2.70 (8'10")	3.00 (9'10")
B	0.13 (5")	0.14 (6")	0.16 (6")	0.18 (7")	0.20 (8")
C	0.38 (1'3")	0.42 (1'5")	0.48 (1'7")	0.52 (1'8")	0.58 (1'11")
D	0.74 (2'5")	0.82 (2'8")	0.93 (3'1")	1.00 (3'3")	1.10 (3'7")
E	1.23 (4')	1.35 (4'5")	1.54 (5'1")	1.66 (5'5")	1.85 (6'1")
F	1.74 (5'9")	1.90 (6'3")	2.17 (7'1")	2.34 (7'8")	2.60 (8'6")
G	1.06 (3'6")	1.33 (4'4")	1.51 (4'11")	1.63 (5'4")	1.81 (5'11")
H	1.86 (6'1")	2.05 (6'9")	2.32 (7'7")	2.51 (8'3")	2.79 (9'2")
I	2.52 (8'3")	2.78 (9'1")	3.15 (10'4")	3.40 (11'2")	3.79 (12'5")
X	0.19 (7")	0.21 (8")	0.24 (9")	0.26 (10")	0.28 (11")

X is the distance between the 1st row and the mounting surface.

#### Detection area

To comply with EN 16005, make sure that the detection area is within the values in the chart below.

	2.00 (6'7")	2.20 (7'3")
A	0.23 (9")	0.24 (9")
C	1.02 (3'4")	1.10 (3'7")
G	2.41 (7'11")	2.54 (8'4")
I (*)		

Test conditions required by EN 16005  
 Floor : Grey paper  
 Detection object : EN 16005 CA reference body  
 Sensitivity : Middle  
 Speed of detection object : 50mm / sec.

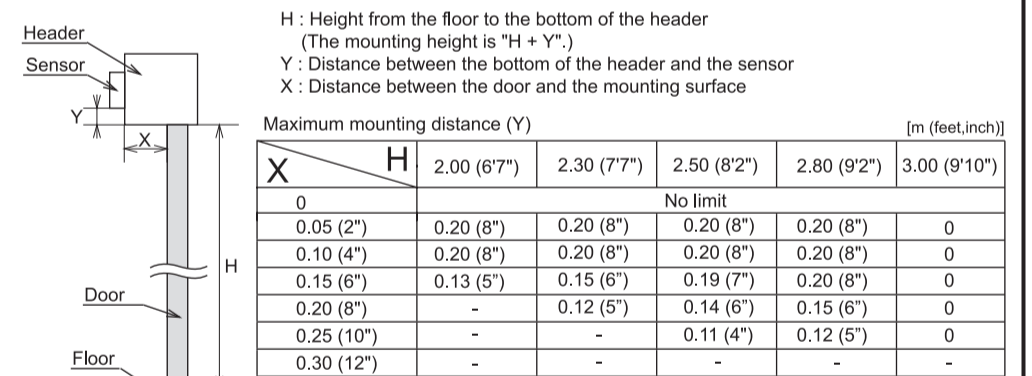
The values above are those of the **Detection area** when tested referring to the test conditions of EN 16005. (The emitting area is as shown in **Emitting area** above.)

\*: When installed at higher than 2.20m(7'3"), EN 16005 requirements are fulfilled only within the area width "I" of 2.54m(8'4").

**NOTE** 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 the object or a person is slower than 50mm / sec. or faster than 1500mm / sec.

### INSTALLATION

- Affix the mounting template at the desired mounting position. (When setting the detection area close to the door, mount the sensor according to the chart below.)
- Drill two mounting holes of ø3.4mm (ø1/8").
- To pass the cable through the header, drill a wiring hole of ø8mm (ø5/16").
- Remove the mounting template.
- Remove the housing cover. Fix the sensor to the mounting surface with the two mounting screws.

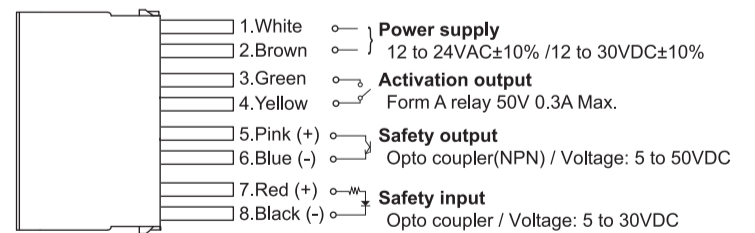


**NOTE** Make sure not to mount the sensor lower than the bottom of header.

	<b>CAUTION</b>	Make sure to affix the mounting template as described in the above chart, otherwise it can be dangerous since there may be no detection area around the threshold. Install the sensor as low as possible on the header.
<b>Risk of getting caught.</b>		

### 2

To the connector of the sensor



	<b>WARNING</b>	Before starting the procedure, make sure that the power is turned OFF. When passing the cable through the hole, do not tear the shield. otherwise it may cause electric shock or breakdown of the sensor.
<b>Danger of electric shock.</b>		

### 3

- Plug the connector of the sensor.
- Supply power to the sensor. Adjust the detection area and set the dipswitches. (See **ADJUSTMENTS**)

**NOTE** Make sure to connect the cable correctly to the door controller before turning the power ON. When turning the power ON or after adjusting the settings, do not enter the detection area for more than 10 seconds in order to enable the presence detection. Do not touch the dipswitches before turning the power ON, otherwise an error occurs. After changing the dipswitch and/or potentiometer settings, make sure to push the function switch for 2 seconds.

### 4

- Place the housing cover. If wiring is to be exposed, break the knockout.

	<b>WARNING</b>	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.
<b>Danger of electric shock.</b>		

