

**Manufacturer's statement**

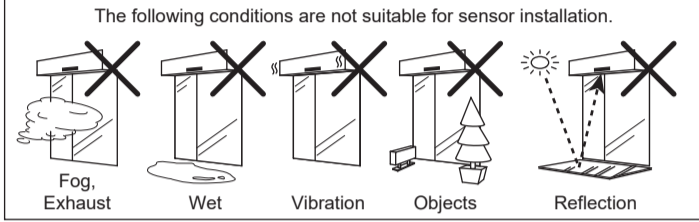
Read this operation manual carefully before use to ensure proper operation of this product. Failure to read this operation manual may cause improper operation and may result in serious injury or death of a person. The meanings of the symbols are as follows.

**WARNING** Failure to follow the instructions that accompany this indication and improper handling may result in serious injury or death.

**CAUTION** Failure to follow the instructions that accompany this indication and improper handling may result in injury and/or damage to property.

**NOTE** Pay special attention to sections with this symbol.

- 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.



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

**Specifications**

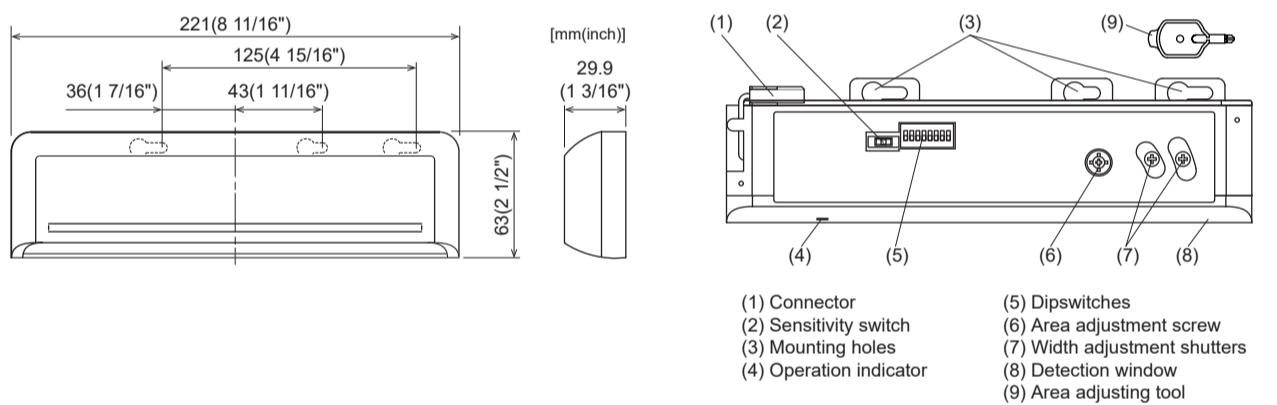
Model	: OA-203C	Output	: Form C relay 50 V 0.3 A Max. (Resistance load)
Cover color	: Silver/Black/White	Output hold time	: Approx. 500 ms
Mounting height	: 3.0 m (9'10") Max.	Response time	: < 300 ms
Detection area	: See <b>Detection area</b>	Operating temperature	: -20 °C to +55 °C (-4 °F to +131 °F)
Detection method	: Active infrared reflection	Weight	: 200 g (9.2 oz)
Depth angle adjustment	: ±4° (1 clicks with 1° every click-Left/Right)	Accessories	: 1 Cable 3 m (9'10") 2 Mounting screws
Width angle adjustment	: ±7° (2 clicks with 3.5° every click-Left/Right)		
Power supply	: 12 to 30 VAC/DC		
Current draw	: 160 mA Max. (At 12 VAC)		
Operation indicator	: See <b>Operation indicator table</b>		

**Operation indicator table**

Status	Operation indicator color
Stand-by	Green
1st row detection	Red
2nd to 4th row detection	Orange

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

**Outer dimensions and part names**



**Detection area**

Detection areas are shown in the figure below.

After adjustment, turn the power OFF and ON again, be sure to walk-test all of detection areas.

\* The values of the chart below is of the emitting spots, but not of the detection area. The actual detection area may become smaller depending on the ambient light and the color/material of object and the floor as well as the entry speed of object.

	[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	0.28 (1'1")	0.31 (1')	0.35 (1'2")	0.38 (1'3")	0.41 (1'4")
C	0.68 (2'3")	0.75 (2'6")	0.85 (2'9")	0.92 (3')	1.02 (3'4")
D	1.18 (3'10")	1.30 (4'3")	1.48 (4'10")	1.59 (5'3")	1.77 (5'10")
E	2.10 (6'11")	2.30 (7'7")	2.60 (8'6")	2.80 (9'3")	3.10 (10'2")
F	0.16 (6")	0.18 (7")	0.20 (8")	0.22 (9")	0.25 (10")

**Installation**

**1. Mounting**

- Place the mounting template at the desired mounting position.
- Drill two mounting holes of ø3.4 mm (ø1/8").
- To pass the cable through the header, drill a wiring hole of ø8 mm (ø5/16").
- Remove the mounting template.
- Remove the housing cover.

Fix the sensor to the mounting surface with the two mounting screws.

**NOTE** Be sure that the mounting position is within the value of those in **Specifications**.

**2. Wiring**

- Wire the cable to the door controller.

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

b. Plug the connector for the sensor to that for the cable.

**3. Turn ON the power**

- Plug the connector.
- Supply power to the sensor. Adjust the detection area and set the dipswitches. (See **Adjustments 4. Dipswitch settings**)

**WARNING** **Danger of electric shock**  
 Make sure that you connect the cable correctly to the control unit of the door before turning the power ON.

**4. Mounting the housing cover**

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

**WARNING** **Danger of electric shock**  
 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.

**Adjustments**

**1. Area width adjustment**

Adjust the detection area width with the width adjustment shutters.

**NOTE** 1|2 cannot be eliminated separately, neither can 7|8.

**2. Area angle adjustment**

**a. Area width angle adjustment**

The angle of the detection area can both be moved 7° either left or right in 2 steps.

**b. Area depth angle adjustment**

Adjusting the depth angle between -4° to 4°. (1° per click)

**NOTE** Set the pattern for actual traffic. It may cause slow activation for the traffic from the front, when the row is eliminated.

**3. Setting the sensitivity**

Normally set to "M". "H" increases the sensitivity and "L" lowers the sensitivity.

**Factory default setting : M**

**4. Dipswitch settings**

Dip switch No.	Function	Setting				Comment
1	Presence timer	2 s	15 s	180 s	∞	The 1st and 2nd rows have the presence detection function. (1) Select the presence detection time. (2) Turn the power OFF and ON again. Otherwise it may leave door open for the duration of the presence time set. (3) After making sure that the door closes, wait for 10 s before entering the detection area to set the presence timer.
2		1 2	1 2	1 2	1 2	
3	Frequency	Setting1	Setting2	Setting3	Setting4	When using more than one sensor close to each other, set the frequency different for each sensor.
4		3 4	3 4	3 4	3 4	
5	Snow mode	Normal	Immunity	Snow mode	Heavy snow mode	Set this switch to "Snow mode" or "Heavy snow mode" if the sensor is used in a region with snow or a lot of insects. Or set this switch to "Immunity" when the sensor operates by itself. (Ghosting)
6		5 6	5 6	5 6	5 6	
7	Area depth adjustment	4 rows	3 rows	2 rows	1 row	Set the depth rows with this switches.
8		7 8	7 8	7 8	7 8	

**Checking**

Check the operation in the operation mode according to the chart below.

Entry	Power OFF	Outside of detection area	Entry into 3rd or 4th row	Entry into 2nd row	Entry into 1st row	Outside of detection area
Status	-	Stand-by	Motion detection active	Motion/presence detection active	Motion/presence detection active	Stand-by
Operation indicator	None	Green	Orange	Orange	Red	Green
Output	Yellow Green White	Yellow Green White	Yellow Green White	Yellow Green White	Yellow Green White	Yellow Green White

**NOTE** The door may open once after the power is switched ON.

**Inform building owner/operator of the following items**

**WARNING**

- Always keep the detection window clean. If dirty, wipe the window with a damp cloth. Do not use any cleaner/solvent.
- Do not wash the sensor with water.
- Do not disassemble, rebuild or repair the sensor yourself, otherwise an electric shock may occur.
- Always contact your installer or service engineer when changing the settings.
- Do not paint the detection window.

**NOTE**

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

**Troubleshooting**

Door operation	Possible cause	Possible countermeasures
Door does not open when a person enters the detection area.	Wrong power supply voltage.	Set to the stated voltage.
	Wrong wiring or connection failure.	Check the wires and connector.
	Short presence timer.	Set the presence timer longer.
Door opens when no one is in the detection area. (Ghosting)	Dirty detection window.	Wipe the detection window with a damp cloth. Do not use any cleaner or solvent.
	Objects that move or emit light in the detection area.	Remove the objects.
	Vibration of the header.	Secure the header. Or set the sensitivity switch to "L".
	Sensitivity is too high.	Set the sensitivity switch to "L".
Door remains open.	Waterdrops on the detection window.	Use the rain-cover. (Separately available) Or wipe the detection window with a damp cloth. Do not use any cleaner or solvent. Or install in a place keeping the waterdrops off.
	Detection area is interfered the area of another sensor.	Set the different frequency position each other.
	The detection area overlaps with the door/header.	Adjust the detection area to "Deep" (Outside).
Door remains open.	Sudden change in the detection area.	Check the dipswitch 5,6. If the problem still persists, hard-reset the sensor. (Turn the power OFF and ON again.)
	Dirty detection window.	Wipe the detection window with a damp cloth. Do not use any cleaner or solvent.
	Sensitivity is too low.	Set the sensitivity switch to "H".
	Presence timer is set to infinity. Or sudden change in the detection area.	Check the dipswitch 1,2. If the problem still persists, hard-reset the sensor. (Turn the power OFF and ON again.)

**Manufacturer**  
**OPTEX CO., LTD.**  
 5-8-12 Ogoto Otsu 520-0101, Japan  
 Tel : +81(0)77 579 8700  
 www.optex.net

**EMEA Subsidiary**  
**OPTEX Technologies B.V.**  
 Henricuskade 17, 2497 NB The Hague,  
 The Netherlands  
 Tel : +31(0)70 419 41 00  
 www.optex-europe.com

**North and South America Subsidiary**  
**OPTEX INCORPORATED**  
 18730 S. Wilmington Avenue, Suite 100  
 Rancho Dominguez CA 90220 U.S.A.  
 Tel : +1(800)877 6656  
 www.optexamerica.com

**Legal representative (UK only)**  
**OPTEX (EUROPE) LTD.**  
 Unit 13 Cordwallis Park Clivemont Road  
 SL6 7BU Maidenhead, Berkshire United Kingdom  
 Tel : +44 (0)1628 631 000  
 www.optex-europe.com

