



59-1297-0 2006.1

MANUFACTURER'S STATEMENT

Read this Operation Manual carefully before use, to ensure proper operation of this Optex sensor. Failure to read this Operation Manual may cause improper sensor operation and may result in serious injury or death. This product is a non-contact activating switch intended for mounting on the header of an automatic door. Do not use it for any other applications; otherwise proper operation and safety cannot be guaranteed.

Cautions:

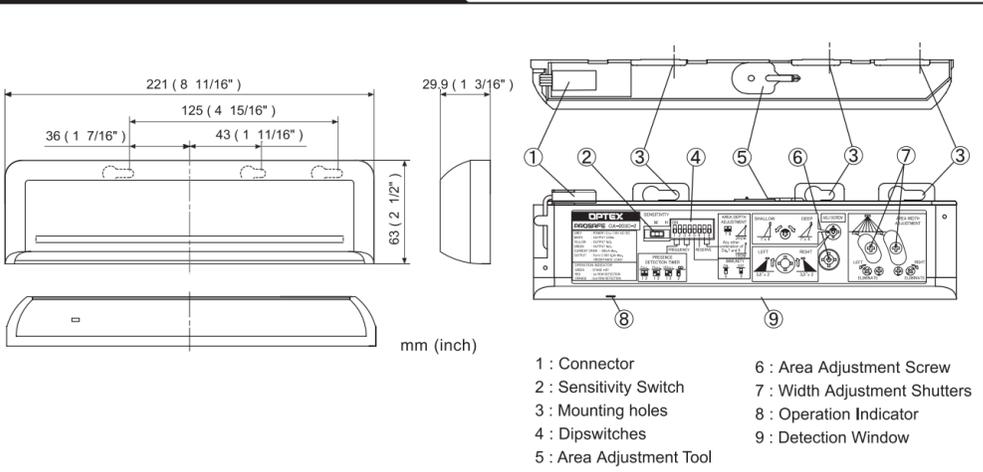
- Follow the instructions (especially **Note**) in this Operation Manual when installing and adjusting the sensor.
- When setting the sensor's area pattern, make sure there is no traffic around the installation site.
- Before turning the power on, check the wiring to prevent damage or malfunction of equipment that is connected to the sensor.
- Do not wash, disassemble, rebuild or repair the sensor by yourself; otherwise it may cause electric shock or breakdown of the sensor.
- Only use the sensor as specified in the supplied instructions.
- Be sure to install the sensor in accordance with the local laws and standards of your country.
- Before leaving the jobsite, be sure that this sensor is operating properly and instruct the building owner/operator on proper operation of the door and this sensor.

SPECIFICATIONS

Model	: OA-203-2C	Output	: "Form C" relay 50V 0.3A Max. (Resistance Load)
Cover color type	: Silver / Black	Relay Hold Time	: 0.5 sec.
Mounting Height	: 3.0m (9'10") Max.	Response Time	: < 0.3 sec.
Detection Area	: See "Detection Area"	Operating Temperature	: -20°C to +55°C (-4°F to +131°F)
Detection Method	: Active Infrared Reflection Method	Weight	: 200g (7.1oz)
Detection Angle	: ±4° adjustable by 1° every one click	Accessories	: 1 Cable 3m (9'10") 2 Mounting Screws 1 Operation Manual 1 Mounting Template 1 Area Adjustment Tool
Adjustments (Deep / Shallow)			
Detection Width	: ±7° adjustable by 3.5° every one click		
Adjustments (Right / Left)			
Power Supply	: 12 to 30V AC / DC		
Current Draw	: 160mA Max. (at 12V AC)		
Operation Indicator	: Green / Stand-by Red / Doorside area detect Orange / Activation Area Detection		

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

OUTER DIMENSIONS



INSTALLATION

- Affix the Mounting Template to the mounting surface.
- Drill two mounting holes (ø 3.4mm or 1/8").
- To carry through the wire to the header, drill a wiring hole (ø 8mm or 5/16").
- After drilling the holes, remove the Mounting Template.
Note
 Be sure that the mounting height is within the value of those in "SPECIFICATION."
- Remove the cover and attach the sensor with screws.
- Plug the Connector for the sensor to that for the cable.
- Supply power to the sensor. Adjust the detection area and set the various Switches. (See "ADJUSTMENT.")
Note
 Make sure that you connect the cable correctly to the Control Unit of the door before turning the power on.
- Put back the cover on the sensor.
 If wiring is to be exposed, break the Knockout.
Note
 Do not use the sensor without the cover. Install the sensor indoors or use the rain-cover (Optional), when using the Cable Knockout, otherwise it may cause electric shock or breakdown of sensor.

DETECTION AREA

Confirming the Detection Area
 Detection areas are shown in the figure below. Be sure to confirm all the detection areas.

A	2.00 (6.56)	2.20 (7.22)	2.50 (8.20)	2.70 (8.86)	3.00 (9.84)
B	0.14 (0.46)	0.16 (0.51)	0.18 (0.58)	0.19 (0.63)	0.21 (0.69)
C	1.18 (3.87)	1.30 (4.26)	1.48 (4.85)	1.59 (5.22)	1.77 (5.81)
D	0.16 (0.52)	0.18 (0.59)	0.20 (0.66)	0.22 (0.72)	0.25 (0.82)
E	2.10 (6.89)	2.30 (7.54)	2.60 (8.53)	2.80 (9.18)	3.10 (10.17)

m(ft)

ADJUSTMENT

- Adjustment of Area Width**
 The left and right areas can be eliminated. All areas can be moved by 7° to the right or left.

Area Eliminate			
Opens All Areas	Eliminate [A]	Eliminate [B]	Eliminate [A]&[B]

Areas When Changed 7° to Right | Standard Conditions | Areas When Changed 7° to Left
- Adjustment of Area Depth**
 The entire area can be moved by 4° to the inside or outside.

Area Eliminate			
2ROW	1ROW	1ROW	1ROW

Standard Conditions | Areas When Changed 4° to Outside (Deep) | Areas When Changed 4° to Door side (Shallow)
- Setting of Sensitivity Switch and Dipswitches**

Setting the Sensitivity
 Factory set : "M"
 1,2: Presence Detection Timer
 3,4: Frequency Switch (Interference Prevention)
 5,6: Immunity
 7,8: Area Depth Adjustment

Setting the Presence timer
 2sec. | 15sec. | 180sec. | ∞

Setting the Interference Preventive Function (Frequency Switch)
 4 kinds of interference preventive modes can be set by combining the mode setting switches 3 and 4.

Immunity
 normal | Immunity

Reserve
 Do not use.

CHECKING

Checking the Entry Motion
 Check the entry motions according to the following flow chart.

Entry motion (Image)	Outside the detection area	Entry into the approach area	Entry into the door side area	Outside the detection area
	Standby	Motion detection	Motion/presence detection	Standby
Power/Operating indicator	Green	Orange	Red	Green
Output contact	Yellow Green White		Yellow Green White	Yellow Green White

Note Sometimes detection can be difficult due to : environmental light, colors of the object , and floor material / color. This might influence the speed of detection.

Inform the following items to the building owner/operator

- When turning the power on, always walk-test the sensor pattern to ensure proper operation.
- Always keep the detection window clean. If dirty, wipe the window with a damp cloth. (Do not use any cleaner or solvent.)
- Do not wash the sensor with water.
- Do not disassemble, rebuild or repair the sensor yourself; otherwise electric shock may occur.
- Contact your installer or the sales engineer if you want to change the settings.
- Do not place an object that moves or emits light in the detection area. (Ex. Plant, illumination, etc.)
- Do not paint the Detection Window.

TROUBLESHOOTING

Trouble	Possible Cause	Solution
Does not operate	Power supply is not adequate. Connection Failure.	Adjust to stated voltage. Check the wiring and the connector.
Dose not operate consistently	Dirty detection window. Sensitivity is Low.	Wipe the detection window with a damp cloth. (Do not use any cleaner or solvent.) Set the Sensitivity Switch "H."
Operates by itself (Ghosting)	There is an object that moves or emits light in the detection area. (Ex. plant, illumination, etc.)	Remove the object.
	Vibration of the header.	Secure the header. Or set the Sensitivity Switch "L."
	Sensitivity is high.	Set the Sensitivity Switch "L."
	Waterdrops on detection window.	Install in a place keeping the waterdrops off. OR use a rain-cover (Optional).
	Detection area has interfered the area of another sensor.	Set the different frequency position each other.
	The detection 1st row spots are overlapping with the door / header.	Adjust the detection area to deep (outside).
Door stay open or closed	There is an reflected object in the detection area. Solar light reflects.	Remove the object.
	There was a puddle left by rain or snow. The floor has gotten wet.	This sensor is equipped with the anti-malfunction. However, pay attention when installing as malfunction may occur under the left conditions.
	The exhaust of the car and the fog penetrate into the detection area.	

Contact your installer or the sales engineer if:
 - you need to change the settings or replace the sensor.
 - the trouble still persists after checking and remedying as described above.