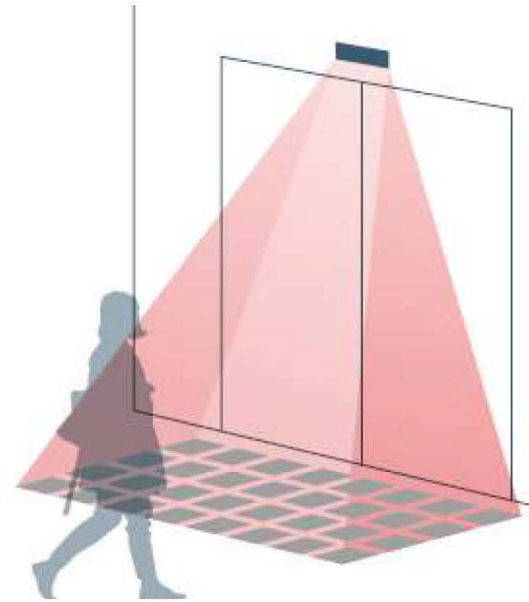


# OA-203 Active Infrared Door Sensor



The Optex OA-203C is the optimal choice for both safety and activation on all types of automatic doors.



## Presence Detection Function

Safety is assured by the two rows of presence detection closest to the door. The sensor detects a person or object and holds the door open as long as they are near the threshold area, even if they stop or pause.

## All conditions

Snow mode and variable sensitivity adjustments make this sensor suitable for every application and even weather conditions.

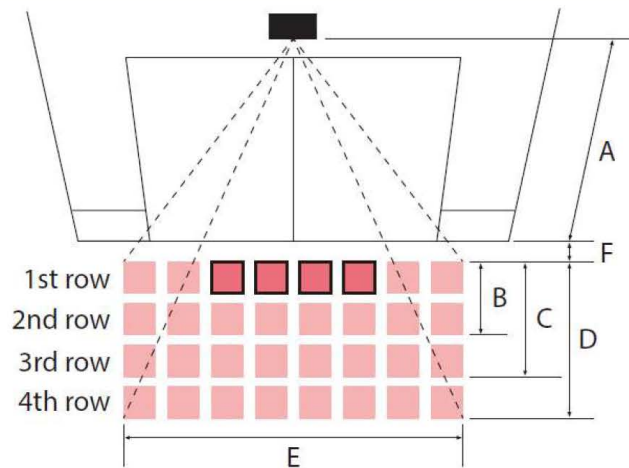
## Easy installation

The Optex OA-203C is simple to install. All the settings are mechanically adjustable with dip switch and levers.



# OA-203 Active Infrared Door Sensor

## Detection Area



m (feet, inch)

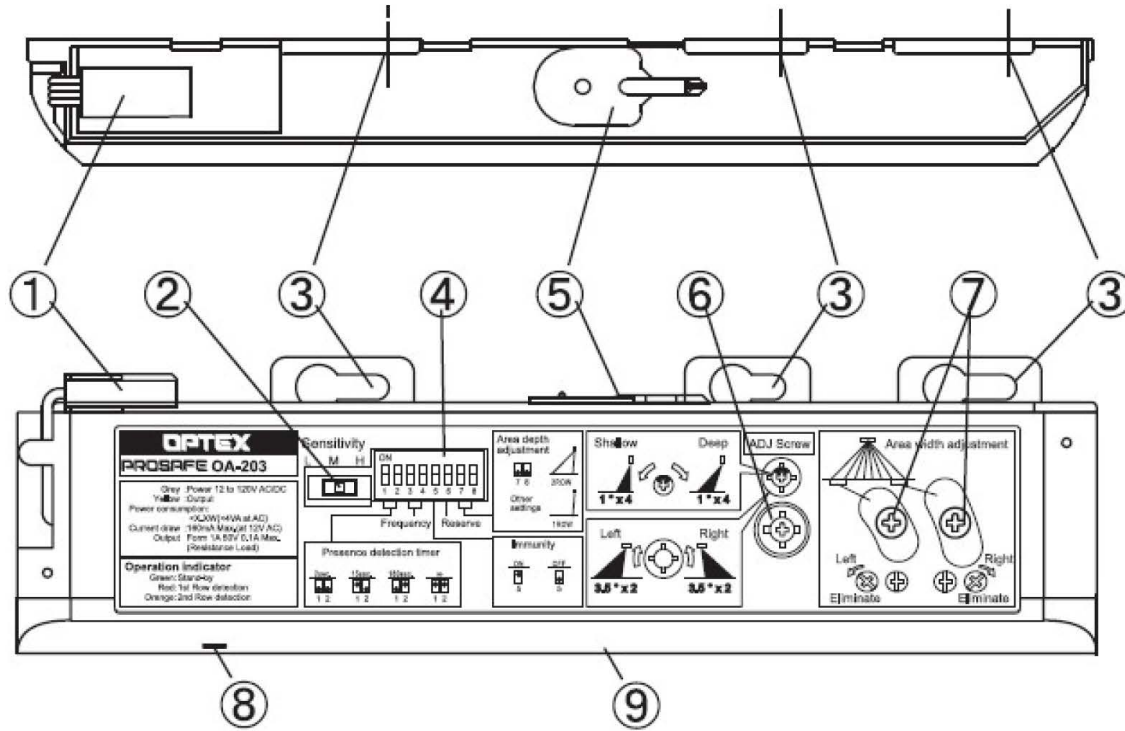
	2.00 (6' 6 3/4")	2.20 (7' 2 5/8")	2.50 (8' 2 7/16")	2.70 (8' 10 5/16")	3.00 (9' 10 1/8")
A	2.00 (6' 6 3/4")	2.20 (7' 2 5/8")	2.50 (8' 2 7/16")	2.70 (8' 10 5/16")	3.00 (9' 10 1/8")
B	0.28 (11")	0.31 (1' 3/16")	0.35 (1' 1 3/4")	0.38 (1' 2 15/16")	0.41 (1' 4 9/16")
C	0.68 (2' 2 3/4")	0.75 (2' 5 1/2")	0.85 (2' 9 9/16")	0.92 (3' 1/4")	1.02 (3' 4 3/16")
D	1.18 (3' 10 7/16")	1.30 (4' 3 3/16")	1.48 (4' 10 1/4")	1.59 (5' 2 5/8")	1.77 (5' 9 11/16")
E	2.10 (6' 10 11/16")	2.30 (7' 6 9/16")	2.60 (8' 6 3/8")	2.80 (9' 2 1/4")	3.10 (10' 2 1/16")
F	0.16 (6 5/16")	0.18 (7 1/16")	0.20 (7 7/8")	0.22 (8 11/16")	0.25 (9 13/16")

## Specifications

Model	OA-203C
Mounting height	3.0 m (9'10") max.
Detection area adjustments	Eliminate rows B, C, or D (dip switch setting) Depth 4° in or out, 1° per setting Width 7° left or right, 3.5° per setting Shutters eliminate left and right sides
Detection technique	Active infrared reflection
Power supply	12 to 30 V AC/DC
Power consumption	160 mA max. (at 12V AC)
Power/Operating indicator	Green: Standby Red: Presence detection Orange: Motion detection
Output contact	Form C relay 50 V, 0.3 A max. (resistance load)

Relay hold time	Approx. 0.5 s
Response time	<0.3 s
Operating temperature	-20 to +55°C (-4 to +131°F)
Outer dimensions	221 x 63 x 29.9 mm (w x h x d)
Weight	200 g
Accessories	3 m Connection cable with plug 2 Mounting screws 1 Mounting template 1 Area adjustment tool
Available colours	Black (OA-203CBL), silver (OA-203CS)

# OA-203 Active Infrared Door Sensor



1 : Connector

2 : Sensitivity switch

3 : Mounting holes

4 : Dipswitches

5 : Area adjusting tool

6 : Area adjustment screw

7 : Width adjustment shutters

8 : Operation indicator

9 : Detection window

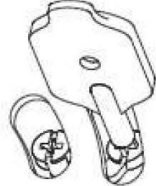


# OA-203 Active Infrared Door Sensor

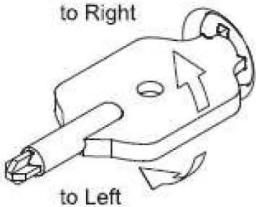
**1 Adjusting the Pattern Width**

Setting the width adjustment shutters

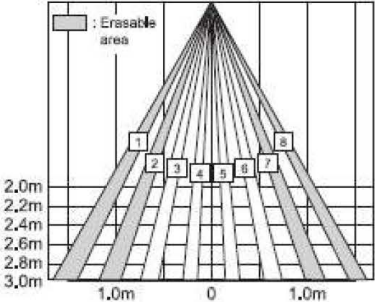
Opens All Areas	Eliminate 1 2	Eliminate 7 8	Eliminate 1 2 7 8



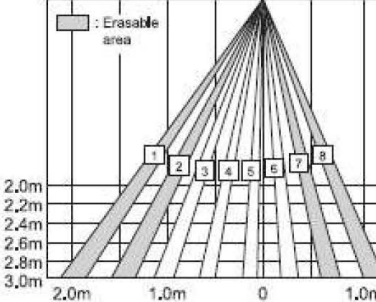
Adjusting the width angle left or right : between 0° to 7° (3.5° per click)



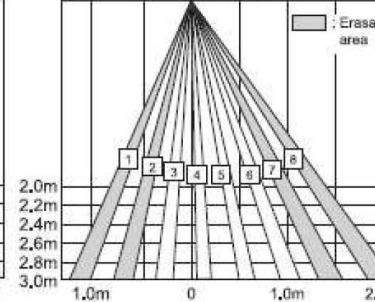
Patten when Standard



Pattern when changed 7° to left



Pattern when changed 7° to right



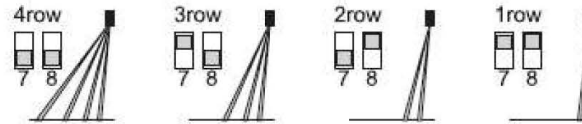
**NOTE** Setting the pattern for exact door opening may give a slow response to side approaching traffic.

# OA-203 Active Infrared Door Sensor

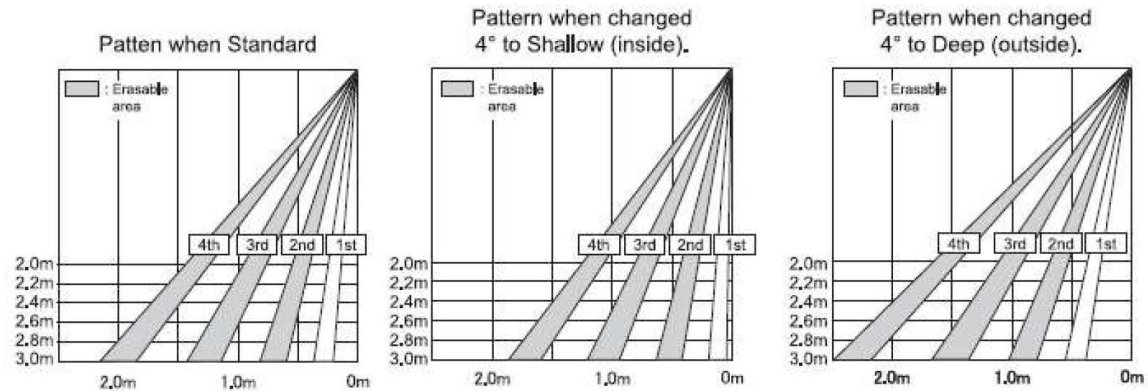
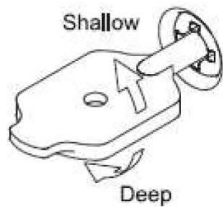
2

## Adjusting the pattern depth

Setting the row with the dipswitch 7 & 8.



Adjusting the depth angle between  $-4^{\circ}$  to  $4^{\circ}$  ( $1^{\circ}$  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.




# OA-203 Active Infrared Door Sensor

3

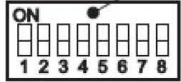
### Setting of sensitivity switch and dipperswitches

#### Setting the sensitivity

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







Sensitivity switch



Dipperswitches

#### Setting the frequency function ( Interference prevention )

Four different frequencies can be set by adjusting the dipswitch 3 and 4.





Position 1	Position 2	Position 3	Position 4
			
3 4	3 4	3 4	3 4

**NOTE** When using more than one sensor close to each other, it is possible that they interfere. When that happens, change the frequency.

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#### Setting the presence timer





1st row and 2nd row from door provide the presence detection.

2sec.	15sec.	180sec.	∞
			
1 2	1 2	1 2	1 2

- (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 seconds before entering the detection area to set the presence timer.

#### Setting the snow mode

Set the dipswitch 5 and 6 to snow mode , if the sensor is used in a region with snow or a lot of insects.

Normal	Immunity	Snow mode	Heavy Snow mode
			
5 6	5 6	5 6	5 6

# OA-203 Active Infrared Door Sensor

## TROUBLESHOOTING

Trouble	Possible Cause	Solution
Does not operate	Power supply is not adequate.	Adjust to stated voltage.
	Connection Failure.	Check the wiring and the connector.
Dose not operate consistently	Dirty detection window.	Wipe the detection window with a damp cloth. (Do not use any cleaner or solvent.)
	Sensitivity is Low.	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).
	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.	
Door stay open or closed	Presence timer is Infinity. There was an abrupt condition change in the detection area.	Turn the power off and on again.