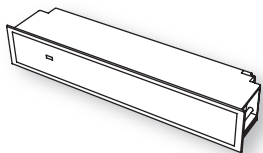




MIRAGE



ENGLISH

5911754 JUL 2021

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.

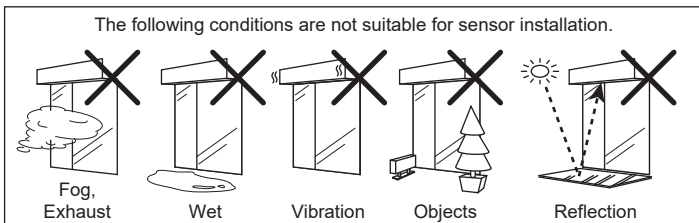
WARNING Failure to follow the instructions that accompany this indication and improper handling may result in serious injury or death.

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 ceiling 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	: MIRAGE	Output	: Form C relay 50 V 0.3 A Max.
Cover color	: Black		(Resistance load)
Mounting height	: 3.0 m (9'10") Max.	Output hold time	: Approx. 500 ms
Detection area	: See Detection area	Response time	: < 300 ms
Detection method	: Active infrared reflection	Operating temperature	: -20 °C to +55 °C (-4 °F to +131 °F)
Depth angle adjustment	: ±4° (1 clicks with 1° every click-Left/Right)	Weight	: 260 g (9.2 oz)
Power supply	: 12 to 30 VAC/DC	Accessories	: 1 Cable 3 m (9'10")
Current draw	: 200 mA Max. (At 12 VAC)		1 Operation manual
Operation indicator	: See Operation indicator table		1 Area adjustment tool
			1 Adjustment frame

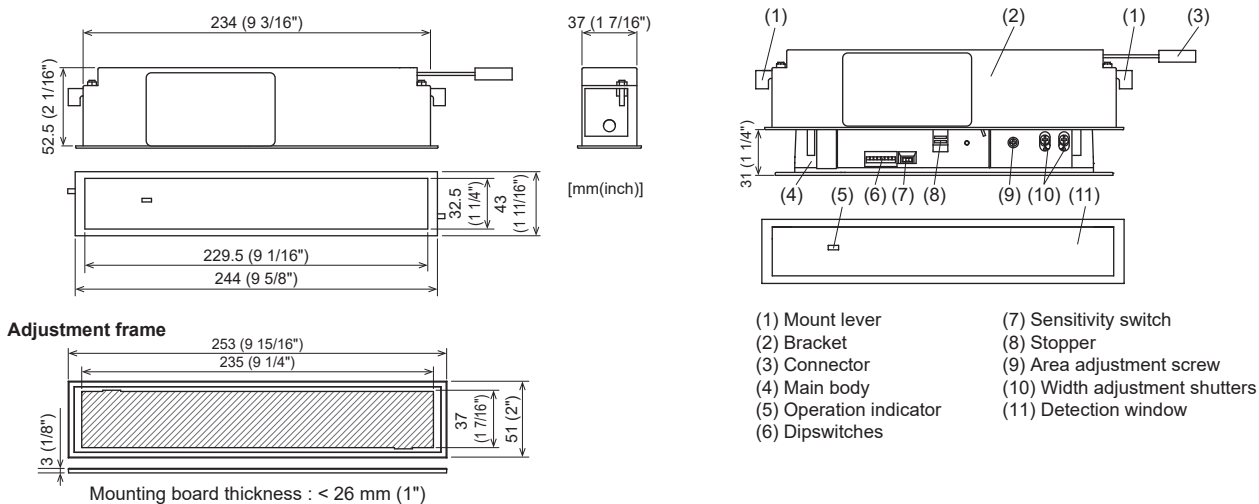
Operation indicator table

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

NOTE

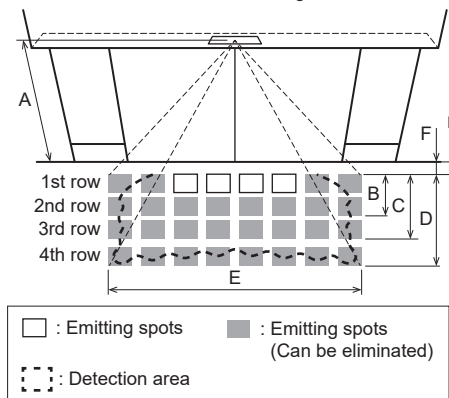
The specifications herein are subject to change without prior notice due to improvements.

Outer dimensions and part names



Detection area

Detection areas are shown in the figure below.



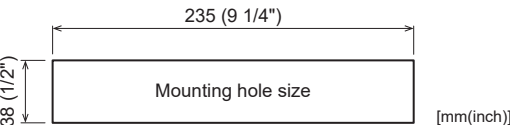
After adjustment, turn the power OFF and ON again, be sure to walk-test all of detection areas.

* 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	0.42 (1'5")	0.47 (1'7")	0.53 (1'9")	0.57 (1'11")	0.64 (2'2")
C	0.85 (2'10")	0.94 (3'2")	1.07 (3'7")	1.15 (3'10")	1.28 (4'3")
D	1.50 (4'12")	1.65 (5'5")	1.88 (6'3")	2.03 (6'8")	2.25 (7'5")
E	2.07 (6'10")	2.28 (7'6")	2.59 (8'6")	2.80 (9'3")	3.11 (10'3")
F	0.21 (8")	0.23 (9")	0.26 (10")	0.28 (11")	0.31 (1')

Installation

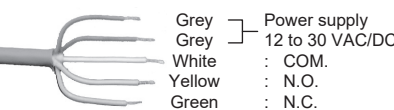
- Drill the mounting hole either under the header or ceiling.



NOTE

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

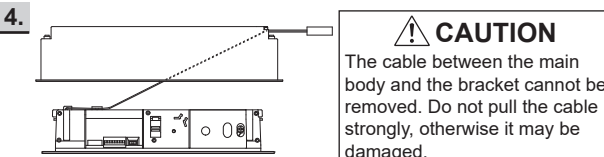
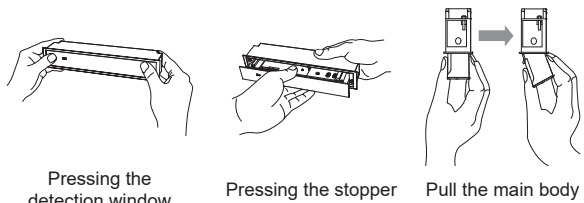
- Wired the cable to the door controller.



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.

- By pressing the detection window as shown, the main body appears. Then remove the main body from the bracket by pressing the stopper. (**Outer dimensions and part names 8**)

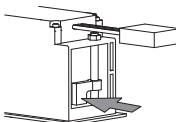


CAUTION
The cable between the main body and the bracket cannot be removed. Do not pull the cable strongly, otherwise it may be damaged.

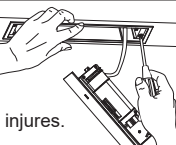
- Plug the connector for the sensor to that for the cable.



- Fold the mounting levers inside. Point the arrow sign inside of the bracket to the doo-side, then insert the bracket into the mounting hole.



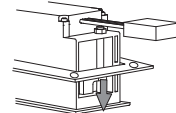
- Fix the bracket in the mounting hole with the screws on both sides.



NOTE

Be sure to fix firmly, otherwise the sensor may fall off resulting in injuries.

- When the mounting holes are exposed, use the adjustment frame.



- Place the main body on the bracket referring to the **Adjustments**. Supply power to the sensor. Adjust the detection area and set the various switches.

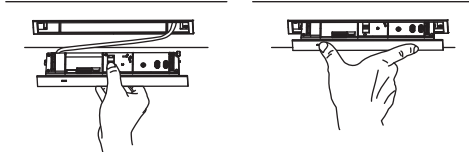
WARNING Danger of electric shock

Make sure that you connect the cable correctly to the control unit of the door before turning the power ON.

Adjustments

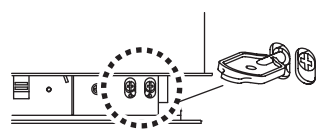
1. Fixing and removing the main body

Place the main body in the bracket, paying attention to direction of the sensor. Main body can be fixed in the bracket when pushing the detection window fully. Main body (Setting part) appears when pushing the detection window again. After adjustment, check the operation when the main body is placed in the bracket.



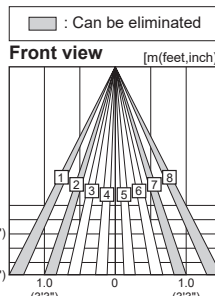
2. Area width adjustment

Setting the width adjustment shutters.



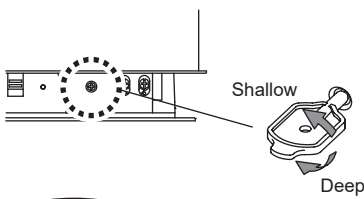
NOTE

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



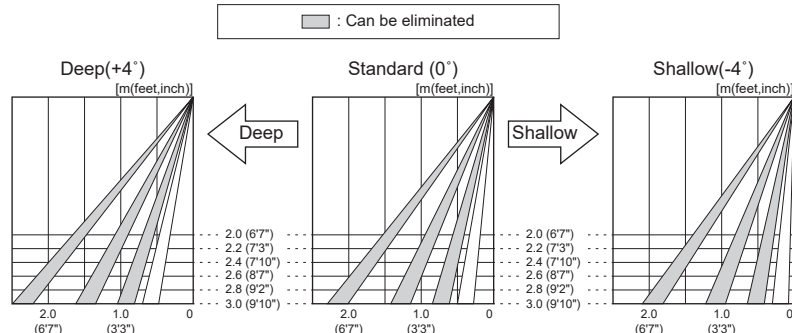
3. Area depth angle adjustment

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



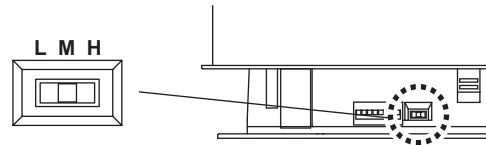
NOTE

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



4. Setting the sensitivity

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



Factory default setting : M

5. Dipswitch settings

☐ Factory default settings

Dip switch No.	Function	Setting				Comment
1	Presence timer	2 s 1 2	15 s 1 2	180 s 1 2	∞ 1 2	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						
3	Frequency	Setting1 3 4	Setting2 3 4	Setting3 3 4	Setting4 3 4	When using more than one sensor close to each other, set the frequency different for each sensor.
4						
5	Snow mode	Normal 5 6	Immunity 5 6	Snow mode 5 6	Heavy snow mode 5 6	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						
7	Area depth adjustment	4 rows 7 8	3 rows 7 8	2 rows 7 8	1 row 7 8	Set the depth rows with this switches.
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	None	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.
	Sensitivity is too low.	Set the sensitivity switch to "H".
	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).
	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.)
Door remains open.	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

Tel : +1(800)877 6656
www.ot-inc.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