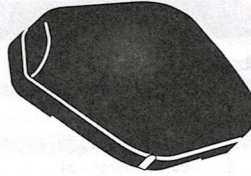




OM-105C / 106C



ENGLISH



5916154 OCT 2019

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** Disregard of the warning symbol can cause improper operation which may cause death or serious injury.
- CAUTION** Disregard of the caution symbol can cause improper operation which may cause injury of a person or damage the object.
- NOTE** Special attention is required to the section of this symbol.

- NOTE**
 1. This sensor is a non-contact switch intended for header mount/ceiling mount of an automatic door. Do not use for any other applications.
 2. When setting the sensor's detection area, make sure there is no traffic around the installation site.
 3. Before turning the power on, check the wiring to prevent damage or malfunction of equipments that are connected to the sensor.
 4. Only use the sensor as specified in the operation manual provided.
 5. Be sure to install the sensor in accordance with the local laws and standards of the country in which the sensor is installed.
 6. Before leaving the job site make sure that the sensor is operating properly and instruct the building owner/operator on proper operation of the door and the sensor.
 7. The sensor setting can only be changed by an installer or service engineer. When changed, register the changed setting and dates 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.

NOTE The following conditions are not suitable for the sensor installation.

- Vibrating header or mounting surface.
- Waterdrops or snow on the sensor.
- Moving objects, steel plate, emergency lights or illumination in the detection area or in vicinity.

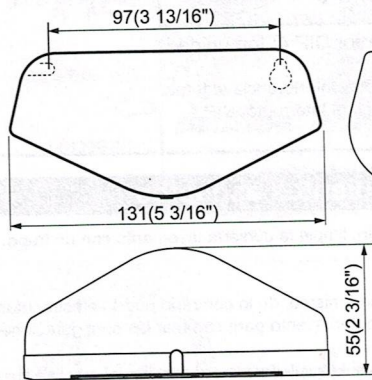
Specifications

Model	: OM-105C / 106C	Output	: Form C relay 50 V 0.3 A Max.(Resistance load)
Cover color	: Silver / Black	Output hold time	: 0.5 s/2.0 s
Mounting height	: 2.0 (6'7") to 3.5 m (11'5")	Response time	: < 0.3 s
Detection method	: Microwave doppler effect	Operating humidity	: < 80 %
Transmitter frequency	: 24.125 GHz	Operating temperature	: -20°C to +55°C (-4°F to 131°F)
Transmitter radiated power	: < 20 dBm	IP rate	: IP54
Detection area	: See Detection area	Weight	: 140 g (4.9 oz)
Vertical adjustment	: +10° to +70° (Header mount) +20° to +80° (Ceiling mount)	Accessories	: 1 Cable 3 m (9'10") 1 Operation manual 2 Mounting screws 1 Mounting template 1 Narrow lens*
Horizontal adjustment	: 30° to left or right		
Power supply	: 12 to 24 VAC(±10 %) 12 to 30 VDC(±10 %)		
Power consumption	: < 1.5 W(< 2 VA at AC)		
Minimum speed	: 5 cm(1 15/16")/s		
Operation indicator	: Green / Stand-by Red / Detection Green blinking / Set-up		

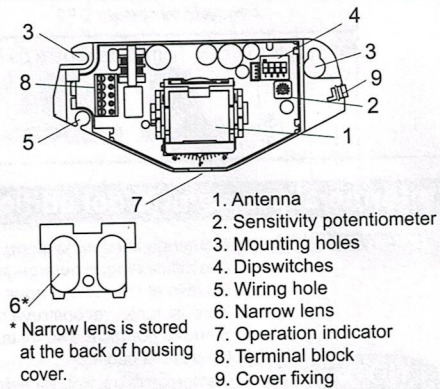
NOTE The specifications herein are subject to change without prior notice due to improvements.

* At the back of housing cover

Outer dimensions and part names

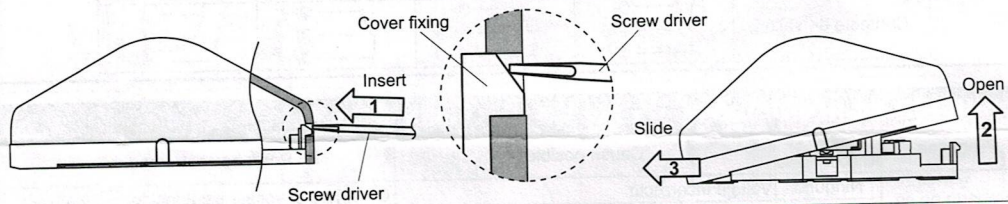


[mm(inch)]

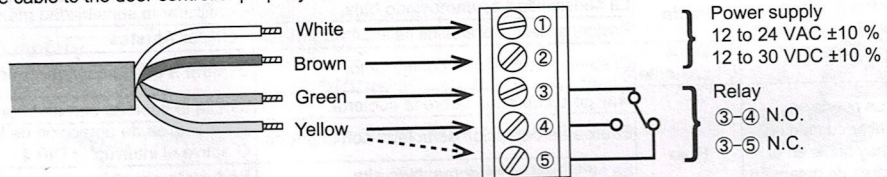


Installation

1. Place the mounting template at the desired mounting position.
2. Drill 2 mounting holes of $\varnothing 3.4$ mm ($\varnothing 1/8$ ").
3. To pass the cable through to the header, drill a wiring hole of $\varnothing 8$ mm ($\varnothing 5/16$ ").
4. Remove the mounting template.
5. Remove the housing cover with screw driver as shown below.
Attach the sensor to the mounting surface with 2 mounting screws.



2. Wire the cable to the door controller properly as shown below.



⚠ 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.

3. Plug the connector of the sensor.
2. Supply power to the sensor and the sensor will automatically start the set-up mode with blinking Green.
3. 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.
The sensor does not detect objects for 10 s after supplying power.

4. Hook the housing cover on the left side of main body to place the housing cover.
If wiring is to be exposed, break the knockout.

⚠ WARNING Danger of electric shock

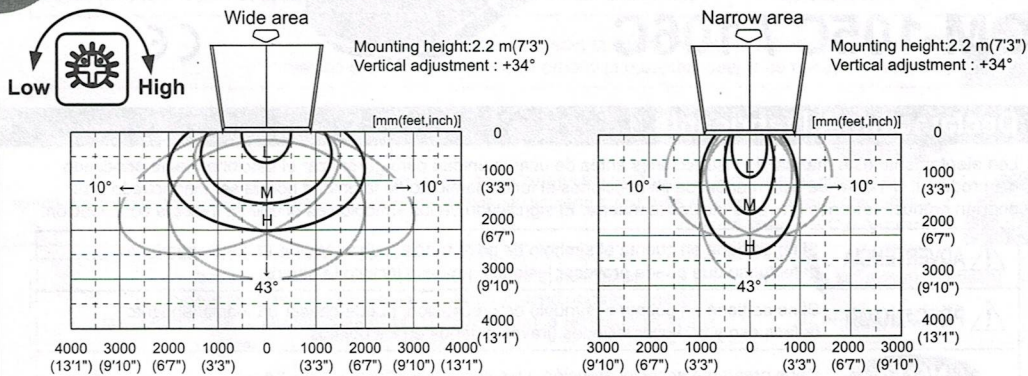
Do not use the sensor without the housing cover. When using the cable knockout, install the sensor indoors or use the rain-cover (Separately available) otherwise electric shock or breakdown of the sensor may occur.

Adjustments

1

Detection area

Adjust the detection area with Sensitivity potentiometer.



NOTE

When the sensor is mounted at higher than 3.0 m, set the Sensitivity to "H"(High).

2

Detection area angle adjustment

	Adjustment	Scale	Angle
Vertical adjustment		3° X 20 steps 	Header Ceiling +80° +20° +70° +10° Side view
Horizontal adjustment		5° X 12 steps 	+30° +30° Front view



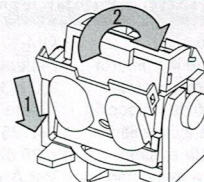
CAUTION

Do not touch electric part of the sensor to avoid possible breakdown of the sensor.

3

Narrow area

To obtain Narrow area, place Narrow lens attached at the back of housing cover.
To place Narrow lens, follow step1&2 as shown on the right.



4

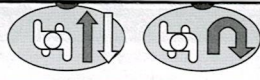
Dipswitches settings

Set Dipswitch1&2 to enable the direction recognition. (OM-106C only.)

	Bi-direction(Bi) Door Detection area		Uni-direction(Uni)	 : Detection : Non-Detection
	Bi-direction When Dipswitch1 is set to OFF.		Uni-direction with Auto-caution mode*(ACM)	

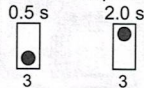
*Auto-caution mode (A person wavering in the detection area to

Bi-direction mode is effective, regardless of Dipswitch2 setting.

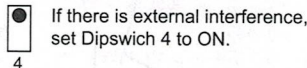


be detected.)

Dipswitch 3 : Output hold time



Dipswitch 4 : Immunity



Inform building owner/operator of the following items

- WARNING**
1. Always keep the housing cover clean. If dirty, wipe the housing cover lightly with a cloth. (Do not use any cleaner or solvent.)
 2. Do not wash the sensor with water.
 3. Do not disassemble, rebuild or repair the sensor yourself, otherwise electric shock may occur.
 4. Always contact your installer or service engineer when changing the settings.
 5. Do not paint the housing cover.
- NOTE**
1. When turning the power ON, always walk-test the detection area to ensure proper operation.
 2. Do not place any objects that move or emit light in the detection area. (e.g. Plant, illumination, etc.)

Checking

Check the operation according to the chart below.

Sensor status	Power OFF	Set-up (Approx. 10 s)	Stand-by	Detection
Operation indicator	OFF	Green blinking	Green	Red
Output contact				

Troubleshooting

Problem	Operation indicator	Possible cause	Possible countermeasures
Door does not open when a person enters the detection area.	None	Wrong power supply voltage.	Set to the stated voltage.
	Unstable	Wrong wiring or connection failure.	Check the wiring and Terminal block.
	Green	Sensitivity is too low.	Set the sensitivity higher.
	Green blinking	Wrong detection area positioning.	Check Adjustments .
Door opens when no one is in the detection area. (Ghosting)	Red	Water drops on the housing cover.	Wipe the housing cover with a cloth.
		The detection area is overlapping with the door.	Adjust the detection area away from the door. Or set Dipswitch4 to ON.
		Sensitivity is too high.	Set the sensitivity lower.
		Raining or snowing.	Set Dipswitch1 to ON.(OM-106C only) Or Dipswitch4 to ON.
Door remains open	Green	Wrong wiring or connection failure.	Check the wiring and Terminal block.

Hereby, OPTEX declares that the radio equipment type OM-105C/106C series are in compliance with RED 2014/53/EU. The full text of the EU DoC is available at the following internet address; www.optex.net

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