

Microwave Door Sensor

OM-105C/106C



Quality Convenience Reliable Immunity
Technology flexible motion detection
Large pattern DESIGN EASY ADJUSTMENT

The Optex OM-105C and OM-106C microwave sensors are especially designed to increase the comfort on opening all types of automatic doors. The Optex microwaves provide fast detection for all automatic door installations and particularly for applications with high-speed entries. Due to the industrial design and easy installation these sensors will fit on every header or ceiling in any application you can imagine.

Detection area

The Optex microwave range offers a narrow or wide detection area that makes it suitable for all types of installations. The narrow setting is easy to set by just clicking the narrow lens on to the radar module. By turning it up and down the microwave can be adjusted quick and simple for many different applications. No external set-up device is needed.

Swing door activation

When installed above the pivot the Optex OM-106C will ignore the door movement of a swing door. Therefore it is ideal to install as swing door activation sensor.

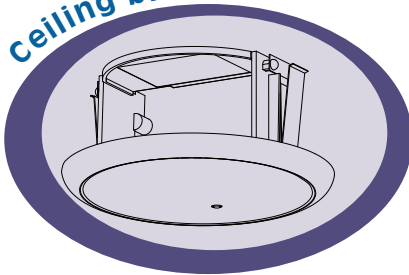
Auto-Caution mode

The Auto-Caution mode guarantees more reliability to prevent the door from closing, even if a person is wavering in the detection area. The sensor will immediately change from uni directional to multi directional for safety purposes. This function is only available on the OM-106C.

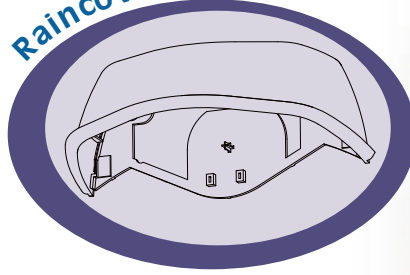
Uni directional setting

The OM-106C is equipped with a dipswitch for uni directional or bi directional mode. By selecting the uni directional mode the sensor will only detect traffic approaching the door, allowing the door to close more quickly for departing traffic. Fast closing of doors offers a large benefit for the end user, because the doors will stay open for a limited time and therefore they will contribute to saving energy.

Ceiling bracket



Raincover

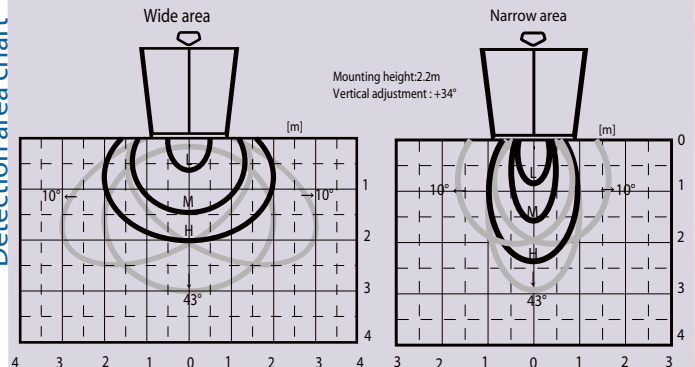


Microwave Door Sensor

Specifications

Model	OM-105C / OM-106C
Cover color	Silver / black
Mounting height	2.0 m - 3.5 m
Detection method	Microwave doppler effect
Power frequency	24.125GHz
Power density	<20dBm
Detection area	See detection area
Vertical adjustment	+10° to +70° (header mount) +20° to +80° (ceiling mount)
Horizontal adjustment	30° to left or right
Power supply	12 to 24V AC (±10%) 12 to 30VDC (±10%)
Power consumption	<1.5W (<2V A at AC)
Minimum speed	5cm/sec.
Operating indicator	Green / Standby Red / Detection Green blinking / Set-up
Output	Form C relay 50V 0.3 Max. (resistance load)
Output hold time	0.5 sec. / 2.0 sec.
Response time	<0.3 sec.
Operating humidity	<80%
Operating temperature	-20°C to +55°C
IP rate	IP54
Outer dimensions	131 x 61 x 55 mm (w x h x d)
Weight	140 g
Accessories	1 Cable 3m 1 Operation manual 2 Mounting screws 1 Mounting template 1 Narrow lens
Optional accessories	Ceiling bracket / Raincover

Detection area chart



Sensitivity potentiometer	Wide area		Narrow area	
	Width	Depth	Width	Depth
High	4.0m	2.0m	2.0m	2.3m
Mid	2.6m	1.5m	1.0m	1.6m
Low	2.0m	0.6m	0.6m	0.8m

The actual detection area may differ according to the size/material/entry speed of the object and the installation environment.

OPTEX CO.,LTD.

5-8-12 ogoto Otsu, 520-0101 Japan
TEL : +81-77-579-8700 FAX : +81-77-579-7030
WEBSITE : www.optex.co.jp/as/eng/

Wireless/Touch-free Door Switch



Wireless
Easy Installation
Infrared Technology

Touch Free
Reliable
Healthy
No Damage from Gurneys
Germ Free
Quality
Flexible RF Range

The Optex Air-Wave Touch-Free Door Switch provides reliable activation of Low Energy and Knowing-Act Doors without the need for direct contact by the user. Eliminate one of the main cross-contamination points near automatic doors, the push switch. At the same time, reduce installation cost and time by going wireless. Proprietary RF frequency and 2-year battery life make the Air-Wave the first choice for professional door distributors.

Touch Free

Eliminate one of the only cross contamination points on a low energy or knowing act door by installing the Optex Air-Wave Touchless Switch.

All Conditions

The Optex Air-Wave system can be used both indoors and outdoors.

Long Battery Life

Thanks to our advanced Infrared Technology, we are able to provide a 2 year battery life (250 activations per day average).

The Air-Wave Kit includes 2 Air-Wave TX, 1 Air-Wave RX, and 2 Hand stickers.

Foot stickers are also available as an option.



Durability

Mounting the sensor at ceiling height eliminates the chance of damage due to accidental impact of gurneys, carts or intentional vandalism.

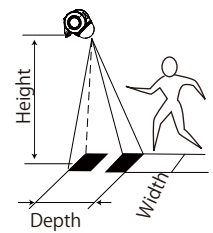
Wireless

Reliable wireless technology reduces the cost and hassle of installing hardwired switches.

The Air-Wave TX detection area pattern is as illustrated when installed on the wall.

Area Pattern =Recommended mounting height

Height	Area - Width x Depth
7' (2.1m)	8" (0.20m) x 12" (0.30m)
8' (2.4m)	9" (0.23m) x 14" (0.35m)
9' (2.7m)	10" (0.26m) x 16" (0.39m)
10' (3m)	11" (0.29m) x 17" (0.44m)



Air-Wave Door Switch

Specifications

Model	Air-Wave TX
Description	Indoor/Outdoor Sensor Transmitter
Detection method	Passive Infrared
Detection Area	10ft (3m) max.
Status Indicator	Red LED
Power Source	9V Alkaline Battery
Battery Life	Approx. 2 years [250 times per day at 70° F(20° C)]
Frequency	418MHz
Operating temperature	15° F ~ 120° F (-10° C ~ +50° C)
Installation Location	Outdoor/Indoor
Weight	6.3 oz (160g)
Accessories	Mounting Screw x 2; Touchless sticker for hand; Plastic Anchor x 2; Plastic Shim x 2

Specifications may change without notice

Model	Air-Wave RX
Description	Wireless Receiver with Relay Output
Power Source	12~24V AC/DC
	Standby: 30mA
	Operating: 80mA
Relay Output	Form "C" MAX 1A/50VAC - 24VDC
Output Timer	Selectable: 1/5/30/60sec
Status Indicator	Power Indicator: Green; Zone Indicator: Red x 3
Frequency	418 MHz
Operating Temperature	15° F ~ 104° F (-10° C ~ +40° C)
Installation Location	Indoor
Weight	4.2 oz (120g)
Accessories	Mounting Screw x 1

Specifications may change without notice

Detection Area Pattern

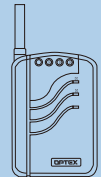
Wireless Transmission Range

Dimensions

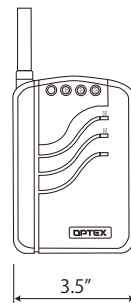


Sensor unit
Air-Wave TX

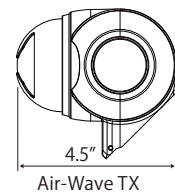
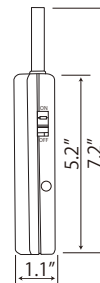
1000 ft (Open field, line of sight)
150 ft (Stucco/Plaster construction)
100 ft (Concrete construction)



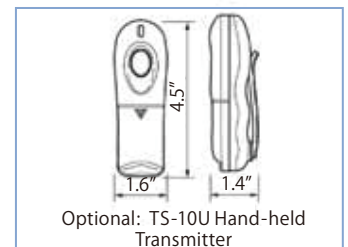
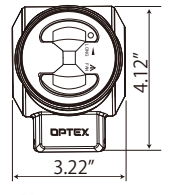
Wireless Receiver
Air-Wave RX



Air-Wave RX



Air-Wave TX



Optional: TS-10U Hand-held Transmitter

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5-8-12 ogoto Otsu, 520-0101 Japan
TEL : +81-77-579-8700 FAX : +81-77-579-7030
WEBSITE : www.optex.co.jp/as/eng/

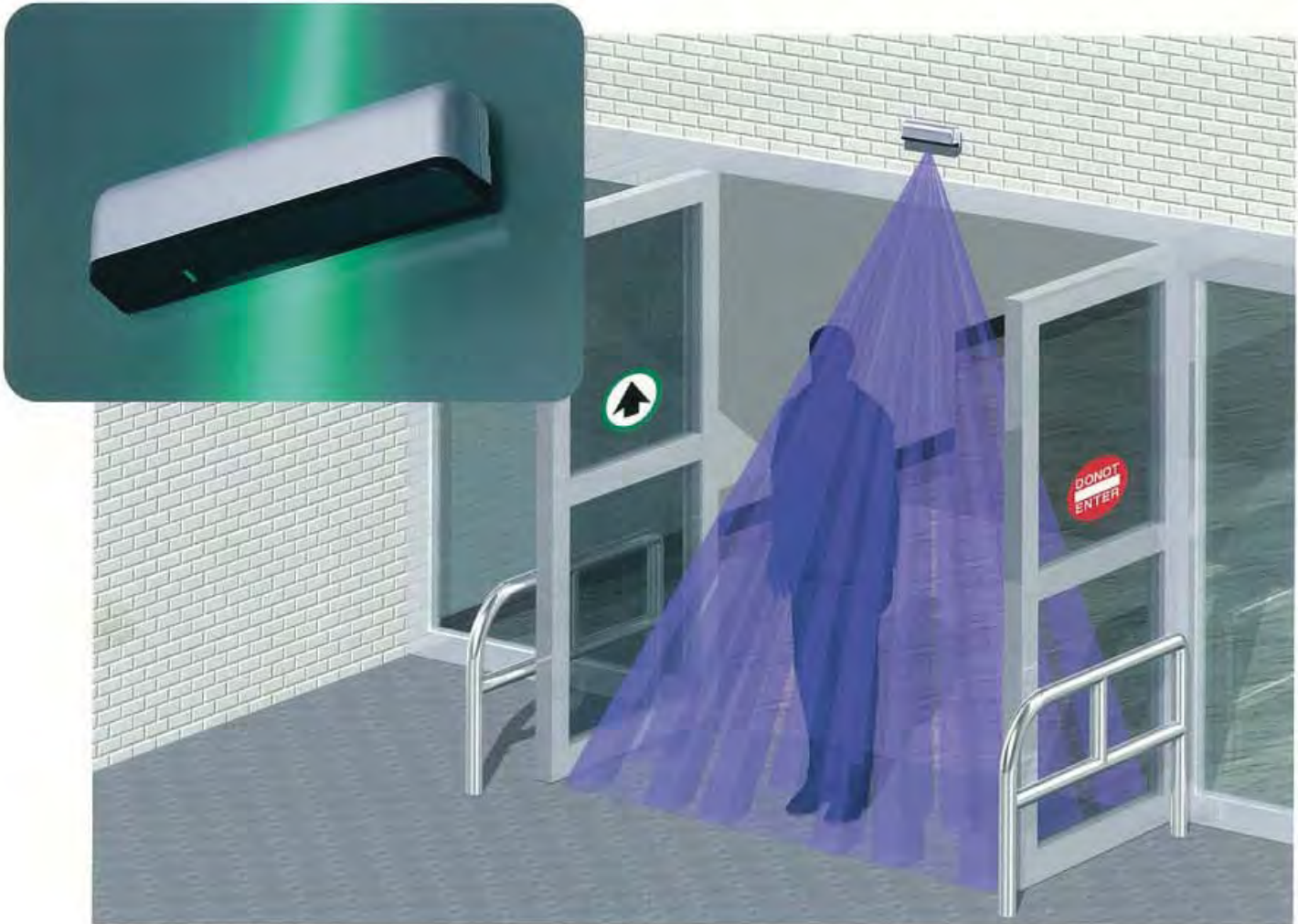


Assures Superior Reliability & Safety

PRO SWING

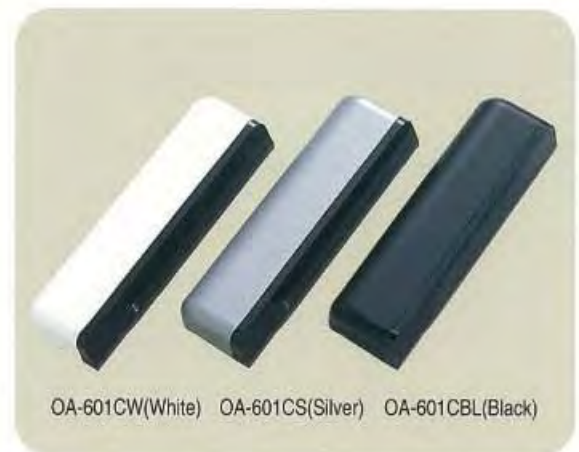
OA-601C

Active Infrared Presence Sensor



PROSWING OA-601C was developed to assure the presence of a safety signal at the door control in the event a person or an object is within the swing-zone of an automatic swinging door.

PROSWING OA-601C is ideally suited for any brand of automatic swinging door. The area presence pattern can be precisely adjusted for any size (single or pair of doors) by installing one of 4 prism lens sets (included). **PROSWING OA-601C** utilizes the same advanced active infrared technology found in our **PROSAFE** products. **PROSWING** combines high reliability and safety with superior presence detection technology.



OA-601CW(White) OA-601CS(Silver) OA-601CBL(Black)

FEATURES

■ Prism Lenses

OPTEX provides 4 unique pair of prism lenses to conform the presence pattern to a precise fit for any size door (single or pair). Eliminates guesswork of adjusting and tweaking sensitivity to fit the area.

The presence detection pattern which is adjusted by prism lenses meets ANSI 156.10 standards.

■ Lockout Relay Operation

The PROSWING OA-601C operates in conjunction with a lockout relay and an infrared beam to complete the safety system (lockout relay is active during closing cycle only).

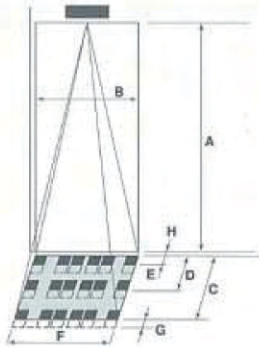
■ Presence Detection Area = Safety

PROSWING OA-601C's detection area consists of an 18-zone presence detector. Capable of sensing moving or stationary targets, the presence detection feature assures a safety signal is present at the door control should a person or an object be within the swing-zone. The presence detection timer can be preset to 2, 60 or 180 seconds of duration.

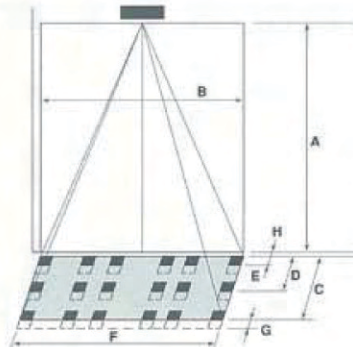
■ **Attractive Housing Design** ; is available in three color choices (black, silver or white).

AREA CHART

■ Single Door



■ Pair of Door

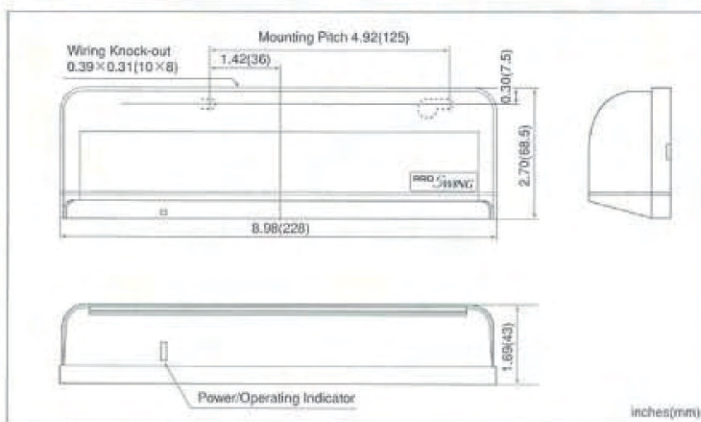


		ft(mm)			
A	Mounting Height	7.2(2190)		7.5(2290)	
	Correct Prism	▲	♥	▲	♥
B	Door Width	42 inch	36 inch	42 inch	36 inch
C	Area Depth	3.94(1200)		4.1(1250)	
D	Area Depth	1.97(600)		2.03(620)	
E	Area Depth	0.23(70)		0.24(73)	
F	Area Width	3.22(980)	2.72(830)	3.35(1020)	2.85(870)
G	Adjustable Range	0.72(220)		0.75(230)	
H	Distance from Mounting Surface	0.30(90)		0.31(93)	

		ft(mm)			
A	Mounting Height	7.2(2190)		7.5(2290)	
	Correct Prism	●	■	●	■
B	Door Width	42 inch pair	36 inch pair	42 inch pair	36 inch pair
C	Area Depth	3.94(1200)		4.1(1250)	
D	Area Depth	1.97(600)		2.03(620)	
E	Area Depth	0.23(70)		0.24(73)	
F	Area Width	6.36(1940)	5.38(1640)	6.53(1990)	5.54(1690)
G	Adjustable Range	0.72(220)		0.75(230)	
H	Distance from Mounting Surface	0.30(90)		0.31(93)	

※ Recommend to mount the unit at 7.2 feet height to meet ANSI 156.10 standards.

OUTER DIMENSIONS



SPECIFICATIONS

Model	OA-601CS / OA-601CBL / OA-601CW
Mounting Height	8.86ft (2.70 m) Max.
Detection Area	See the chart
Detection Method	Near Infrared Reflection Method
Power Input	12 ~ 24V AC/DC
Current Draw	120mA Max. (at 12V DC)
Power/Operation Indicator	LED ON when stand by LED OFF when detecting
Output Contact	Form C Relay 50V 0.3A (Resistance Load)
Output Hold	0.5 sec. Delay
Operation Temperature	-20°C ~ +55°C (-4°F ~ +131°F)
Weight	260g (9.2oz)
Accessories	2m Wire with Plug, 2 Mounting Screws, Mounting Template, 4 Pair Prism Lenses.

※ Specifications subject to change without prior notice.

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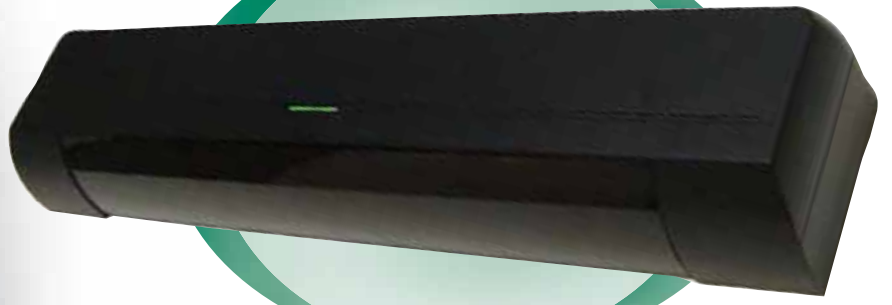
5-8-12 ogoto Otsu, 520-0101 Japan

TEL : +81 (0)77-579-8700 FAX : +81 (0)77-579-7030

WEBSITE : www.optex.co.jp

Swing Door Presence Sensor

PRO SWING PREMIER



OA-603BL

RELIABLE
Premier Safety
Active Infrared Presence detection Sensor
PRECISE DETECTION

Quality
Easily controlled
Premier Style
ALL OF THE TIME!

The Optex ProSwing Premier is designed to detect moving or stationary people in the swingpath of the door. The Optex ProSwing Premier provides Premier Safety and Premier Style all of the time!



Safety

The presence detection feature assures a safety signal is present at the door control in the event a person or an object is within the swing-path of an automatic swinging door. The presence detection timer can be preset to 15, 30, 60 or 120 seconds of duration.

Design

The modern style of the Pro-Swing Premier will blend beautifully for use in any setting.

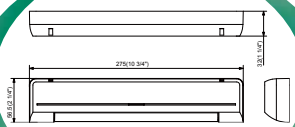
All Conditions

Variable sensitivity adjustments make this sensor suitable for every application including extreme weather conditions.

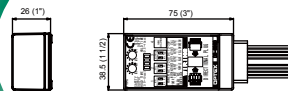
Advantages

- "Patented push and go / touch stop feature" for double swing doors! Push and go feature provides 4 full memory patterns to accommodate all door opening and closing combinations. An average sensor only provides 2 memory patterns and may require frequent "re-learning" of the sensor if push and go or touch stop features are used.
- Detection pattern looks through the threshold and both the threshold pattern and the swing pattern are independently adjustable giving you the maximum look back capability!
- Automatic and manual lock out features available on OC903 controller (provided).

Sensor Dimensions



Controller Dimensions

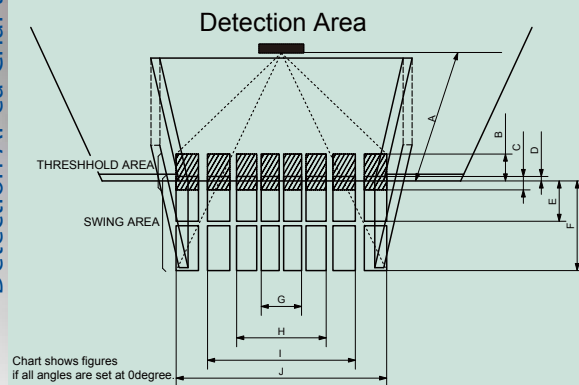


Swing Door Presence Sensor Specifications

Pro-Swing Premier Sensor	Model	OA-603
	Mounting Height	2.0m (6') to 2.5m (8'2")
	Detection Area	Refer to Detection Area Chart
	Detection Method	Active Infrared Reflection (Presence Detection Type)
	Detection Angle	Threshold Area $\pm 5^\circ$
	Adjustments	Swing Area $\pm 5^\circ$
	Operation Indicator	Green: Stand-by Blinking Red: Threshold Area Detection Active Red: Swing Area Detection Active Blinking Yellow: Teaching
	Current Draw	120mA Max
	Response Time	< 0.3 second
	Operating Temperature	-20° C to +55° C (-4° F to +131° F)

Pro-Swing Premier Controller	Model	OC-903C
	Power Supply	12 - 24V AC, 12 - 30V DC
	Current Draw	250mA max.
	Output Contact	Form A Relay 50V, 0.3A Form C Relay 50V, 0.3A
	Relay Hold Time	0.5 to 10s
	Response Time	< 0.3s
	Lockout Timer	0 - 24sec
	Power/Operation Indicator	Green: Standby Red: Door Opening Orange: Lockout
	Operating Temperature	-20 - +55C degrees (-4F - 131F degrees)
	Weight	50g (1.8 oz.)

Detection Area Chart



	mm (ft.)	mm (ft.)	mm (ft.)
A	2000 (6'7")	2200 (6'11")	2500 (8'2")
B	364 (1'2")	400 (1'4")	455 (1'6")
C	182 (7")	200 (8")	227 (9")
D	23 (.875")	25 (1")	28 (1.12")
E	664 (2'2")	730 (2'5")	830 (2'9")
F	1391 (4'7")	1530 (5'1")	1739 (5'9")
G	682 (2'3")	750 (2'6")	852 (2'10")
H	1318 (4'4")	1450 (4'9")	1648 (5'5")
I	2045 (6'9")	2250 (7'5")	2557 (8'5")
J	2864 (9'5")	3150 (10'4")	3580 (11'9")



OA-603BL



OC-903C

OPTEX CO.,LTD.

5-8-12 ogoto Otsu, 520-0101 Japan
 TEL : +81-77-579-8700 FAX : +81-77-579-7030
 WEBSITE : www.optex.co.jp/as/eng/

Swing Door Door-Mount Sensor

PRO SWING ELITE

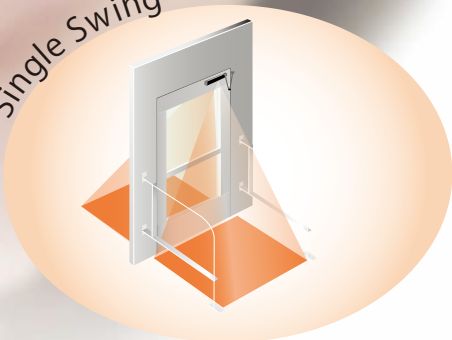


Elite Safety Door-Mounted Easy Installation
Maintenance Free Infrared Presence Detection
Wide Area No Header Mount Needed Always On

The Optex Pro-Swing Elite is designed to detect moving or stationary people in the swing path of the door. The Optex Pro-Swing Elite stays active even when the door is in motion, providing safety all of the time!

Applications

Single Swing



Dual Egress (Hospitals)



Simultaneous Pair



Advantages

- Full-time Presence Detection - The advantage of the door-mounted Pro-Swing Elite is that the presence detection stays on even when the door is in motion. The Pro-Swing Elite can detect a person or object at any point in the doors' swing path, providing complete safety and convenience for swinging doors.
- Large and adjustable Detection Area ensures safety - The Pro-Swing Elite has a large detection area which can detect beyond the normal area around the moving part of the door. The sensor creates a layer of awareness around the door to ensure safety.
- No-Overhead Safety Sensor Required - since the Pro-Swing Elite provides a full detection pattern that covers the entire swing of the doors in full open and full close position, there is no need for an overhead safety sensor.
- Knowing Act Doors - This system satisfies the requirement for secondary activation sensor. No additional activation sensor required.

Safety

The presence detection feature assures a safety signal is present at the door control in the event a person or an object is within the swing-path of an automatic swinging door. When a person or object is detected, the sensor will slow, stop or reverse the door depending upon the situation.

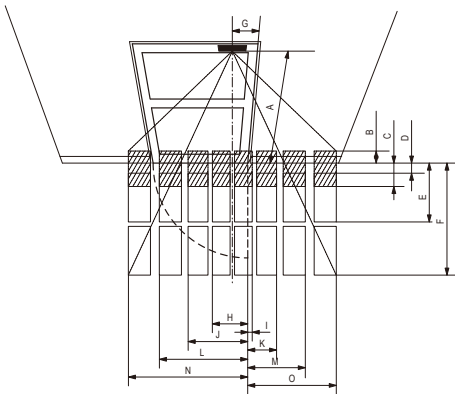
Design

The modern style of the Pro-Swing Elite will blend beautifully for use in any setting.

All Conditions

Variable sensitivity adjustments make this sensor suitable for every application including extreme weather conditions.

Sensing Area



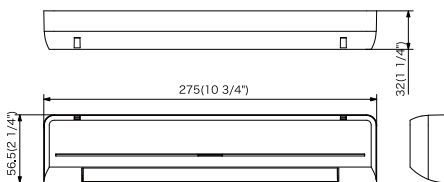
This illustration depicts the area created by the infrared technology. Actual detection may vary depending upon environmental conditions.

Sensing area chart

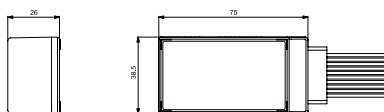
A	2000 (6'7")	2300 (7'6")
B	186 (7")	214 (8")
C	360 (1'2")	414 (1'4")
D	152 (6")	175 (7")
E	840 (2'9")	966 (3'2")
F	1650 (5'5")	1898 (6'2")
G	252 (10")	
H	593 (1'11")	645 (2'1")
I	89 (3")	141 (6")
J	911 (3')	1010 (3'4")
K	407 (1'4")	506 (1'8")
L	1275 (4'2")	1428 (4'8")
M	770 (2'6")	924 (3')
N	1684 (5'6")	1900 (6'3")
O	1180 (3'10")	1395 (4'7")

Outer Dimensions

OA-603



OC-904C



Swing Door Elite System Specifications

Pro-Swing Elite Sensor

Model	OA-603
Cover Color	Black, Silver
Mounting Height	2.0m (6'7") to 2.5m (8'2")
Detection Area	See chart
Detection Method	Active Infrared Reflection (Presence Detection Type)
Detection Angle	Threshold Area ± 5 (Inside & Outside); Swing Area ± 5 (Inside & Outside)
Adjustments	Green: Standby Blinking Red: Threshold Area Detection Active Red: Swing Area Detection Active Blinking Yellow: Learning
Operation Indicator	
Current Draw	120mA Max
Response Time	<0.3 seconds
Operating Temp.	-20°C to +55°C (-4°F to +131°F)
Weight	230g (8.2oz.)

Pro-Swing Elite Controller

Model	OC-904C
Power Supply	12-24V AC, 12-30V DC
Current Draw	500mA max.*
Output	
- Activate Output:	Form A Relay 50V, 0.1A (Resistance Load)
- Safety Output:	Form C Relay 50V, 0.1A (Resistance Load)
- Stall Output:	Form C Relay 50V, 0.1A (Resistance Load)
Relay Hold Time (Safety Output Only)	0.5 to 10s
Response Time	<0.3 seconds
Operation Indicator	Green: Standby Red: Door Opening Orange: Lockout
Operating Temp.	-20°C - +55°C (-4°F to +131°F)
Weight	50g (1.8oz.)

* When a unit of the OA-603 and OC-904C used.

OPTEX CO.,LTD.

5-8-12 Ogoto Otsu, 520-0101 Japan
 TEL : +81-77-579-8700 FAX : +81-77-579-7030
 WEBSITE : www.optex.co.jp/as/eng/

Swing door
Safety sensor

OA-Edge series



Safety *Reliable* *Design* **Triangulation**
Active infrared
Plug and play modular flexible **UNIVERSAL**
Easy installation **QUALITY**

The Optex OA-Edge series are developed to increase the safety level on automatic swing door. The OA-Edge series are based on the Optex Active infrared triangulations technology. Due to the modular design you can upgrade the safety level of the sensor by adding additional modules. The OA-Edge T is in compliance with the latest European and local regulations as DIN 18650 and tested and approved by the German test organization TÜV.



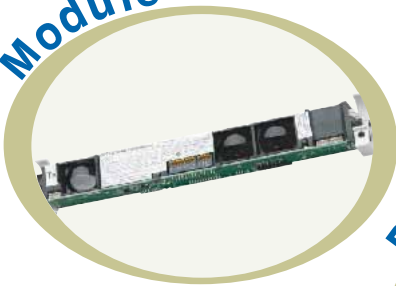
Easy installation

The sensor is easy to install by simply clicking the master and slave modules into the profile, the master and slave modules are connected by a communication cable with connector. Alternative power supply connector on the master module makes installation more flexible and quicker.

Design

The Optex OA-Edge series has a very slim design in order to fit on many different types of swing doors. The sensor is available in a silver or black profile completed with a black lens.

Module



Power



Safety

The wide detection area of each module secures a high level of safety around the door and will prevent the door leaf from hitting an object or person near the door. The Optex OA-Edge T is tested and approved by the German test organization TÜV and in compliance with the German DIN 18650.

Module

The sensor can be assembled using master and slave modules according to the required safety level and the width of the swing door. For a standard configuration of 2 sensors installed on door with a width of 900 cm only one master module is required, a maximum of 3 slave modules can be connected to this master module.

Quick adjustment

Adjustments to the sensor are done by the use of dipswitches and a levelling screw. When the sensor is set up an easy push on the function switch will start the initialization and learning cycle. After installation, sensor status can be easily checked by the visible LED.

Specifications OA-Edge

Model	OA-Edge
Profile colour	Silver / black
Mounting height	1.5 (4'11") to 3.0 m (9'10")
Detection method	Triangulation
Min. configuration	1 master module + 1 LED module
Max. configuration	4 sensor modules + 2 LED modules
Depth angle adjustment	0° - +25°
Power supply	12 - 24 VAC ±10% (50 /60 Hz) 12 - 30 VDC ±10%
Power consumption	<1.3W (<2VA at AC) at min. configuration <3.5W (<4.5V A at AC) at max. configuration
Test input	Opto coupler 10 - 30 VDC Current / 6mA max.
Safety / Test output 1	Form C relay
Safety / Test output 2	Voltage / 42 VDC Current / 0.3mA max.(resistance load)
Output hold time	Approx. 0.5 sec.
Response time	<75m sec.
Operating temperature	-20°C - +55°C (-4°F - +131°F)
Operating humidity	80%
IP rate	IP54
Dimensions	various x 44 x 51 mm (w x h x d)
Accessories	1 Operation manual, 4 mounting screws, 1 power supply cable 3m 1 communication cable, 1 door transferloop, 1 wiring cover

Specifications OA-Edge T

Model	OA-Edge T
Profile colour	Silver / black
Mounting height	1.5 (4'11") to 3.0 m (9'10")
Detection method	Triangulation
Min. configuration	1 master module + 1 LED module
Max. configuration	4 sensor modules + 2 LED modules
Depth angle adjustment	0° - +25°
Power supply	12 - 24 VAC ±10% (50 /60 Hz) 12 - 30 VDC ±10%
Power consumption	<1.3W (<2VA at AC) at min. configuration <3.5W (<4.5V A at AC) at max. configuration
Test input	Opto coupler 10 - 30 VDC Current / 6mA max.
Safety / Test output 1	Form C relay
Safety / Test output 2	Voltage / 42 VDC Current / 0.3mA max.(resistance load)
Output hold time	Approx. 0.5 sec.
Response time	<75m sec.
Operating temperature	-20°C - +55°C (-4°F - +131°F)
Operating humidity	80%
IP rate	IP54
Noise level	<70dBA
Category	2 (EN ISO13849-1 : 2008)
Performance level	d (EN ISO13849-1 : 2008)
Dimensions	various x 44 x 51 mm (w x h x d)
Accessories	1 Operation manual, 4 mounting screws, 1 power supply cable 3m 1 communication cable, 1 door transferloop, 1 wiring cover

OPTEX CO.,LTD.

5-8-12 ogoto Otsu, 520-0101 Japan
 TEL : +81-77-579-8700 FAX : +81-77-579-7030
 WEBSITE : www.optex.co.jp/as/eng/