

180 degree PANORAMIC OUTDOOR DETECTOR

WX SHIELD series



Flexible panoramic detection for harsh environment

The OPTEX WX Shield Series (WXS) provides a very reliable and flexible 180° approach detection to protect residential and commercial premises. It offers a low and high mount option as well a dual-technology models which provide extra stability in strong light environment.

WIRED MODELS

WXS-AM: 12m (40ft), 180° with anti-masking

WXS-DAM: added dual-technology (PIR + Microwave)

BATTERY-OPERATED MODELS

WXS-RAM: wireless 12m(40ft), 180° with anti-masking

WXS-RDAM: added dual-technology (PIR + Microwave)





SHIELD: the new shape of security

Integrating the 180° PIR and Microwave Technologies in the SHIELD CONCEPT DESIGN



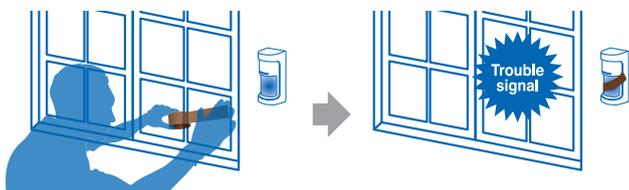
Reliable

Individual sensitivity setting

Detection sensitivity can be individually set to High, Medium and Low for the left and right detection areas, using the corresponding switches.

Self-learning IR digital anti-masking function

WXS series detects covering objects on lens surface by utilising an internal active infrared system. Both emitting and receiving level of IR LED are optimised in real time to adapt to environmental conditions. This enables stable monitoring of the status of lens surface.

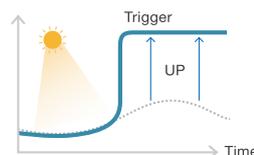


Individual alarm outputs

The WXS sensors feature two completely independent 90 degrees detection areas (left and right) triggering independent alarm outputs, which can be utilised in PTZ activation for example.

Sunlight disqualification

The trigger level for the anti-masking is automatically adjusted when sunlight is too strong.

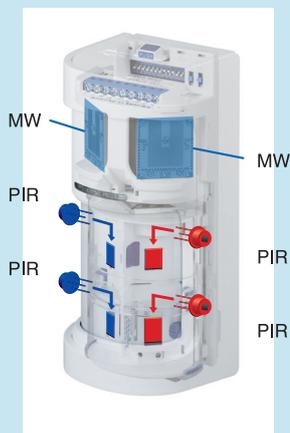


Raindrop and insect resistance

The WXS series is resistant to raindrops, insect and spiders.



Enhanced Reliability with combined PIR and microwave technology



4PIR + 2MW technology

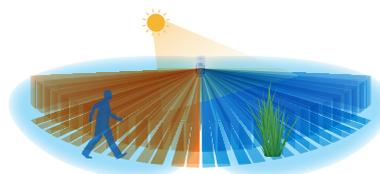
(WXS-DAM and WXS-RDAM only)

The PIR and microwave detection range, the sensitivity and alarm output can all be set independently for the left and right detection areas. This provides more flexibility and greater reliability against nuisance alarms.

Stability against light disturbance

(WXS-DAM and WXS-RDAM only)

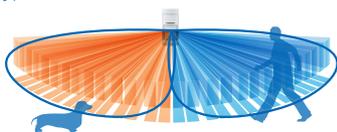
The WXS series' integrated PIR and Microwave algorithm provides the ultimate stability in detection performance. Ideal for applications where strong sunlight hits the land or car headlights shine directly into the sensor.



Panoramic triple layer detection

(WXS-DAM and WXS-RDAM only)

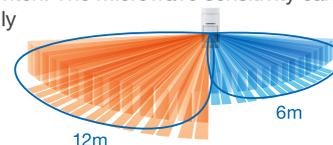
WXS series triggers an alarm only when the three layers of detection - the upper and lower passive infrared sensors and the microwave sensor, detect motion.



Individual detection area size

(WXS-DAM and WXS-RDAM only)

In the low mount application, the left and right PIR detection distance can be easily adjusted between 2.5m (8ft) and 12m (40ft) by sliding the switch. The Microwave sensitivity can be set also set individually using the DIP switch.



Other common features for all models

- Double conductive shielding
- Sensitivity adjustment switch
- SMDA logic (Super Multidimensional Analysis)



Web-based manual for wired models

<http://navi.optex.net/manual/50276>



Web-based manual for battery operated models

<http://navi.optex.net/manual/50278>



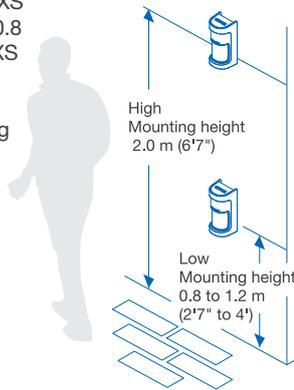
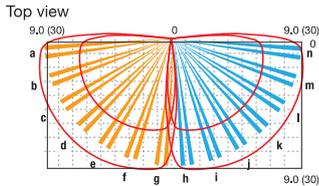


Convenient

Selectable mounting height

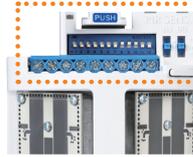
In a low mount configuration, the WXS series should be installed between 0.8 and 1.2m (2'7" and 4') high. The WXS can also be installed as high mount sensor, at 2.0m (6'7") high, this can be effective in avoiding vandalism or masking of lens.

In this case, PIR detection distance is fixed as max 9m (30ft).



Blue Touch™

All accessible parts are coloured in blue, making installation a more friendly procedure.



All the components needed for the sensor's adjustment and settings are in blue.

Easy to adjust the detection area



Day /night mode

Night mode is selectable if alarm outputs are required only when ambient light levels are low. For example, it can be used for lighting control.

Screw free design

You can open/close the front cover and remove/insert the main unit without any screws. It contributes to reduction of installation time.



Easy opening



Remove main unit



Insert main unit



Auto lock



Automatic walk test begins when you close the front cover and ends after 3 minutes.

Easy and flexible detection area settings

Area masking shutter

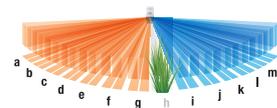
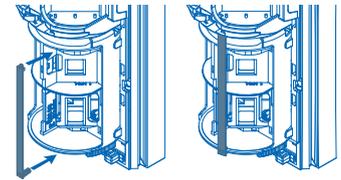
By rotating the sliding masking shutter, the size of detection areas can be changed.



Picture showing the masking shutter positioned on "d" for the left detection area and k for the right area. The areas a-d and k-n are masked.

Area masking plate

Unwanted detection areas can be masked using the area masking plates, which are included.



When a MKP-01 is set on position h, detection area h is masked.



Secure

A sense of security, designed for you

EOL module socket

(WXS-AM, DAM only)

Optional EOL (end of line) resistor modules are available.

Wide LED window

Wide and bright LED for recognition from distance

Cover tamper

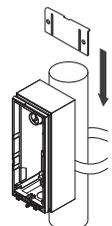
A tamper output is generated when front cover is open.



Pole mount

(option PMP-01)

An optional pole mount plate is suitable for a metal band up to 23 mm (1 inch) in width



Back tamper

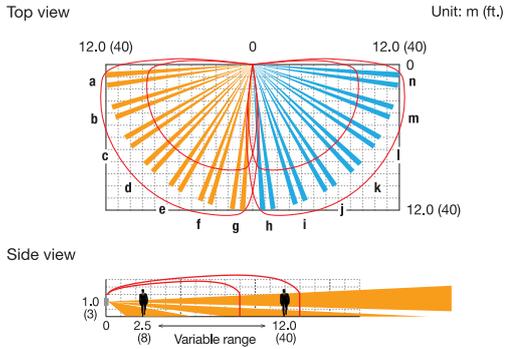
A tamper output is generated when unit is removed from the wall.

Level indicator

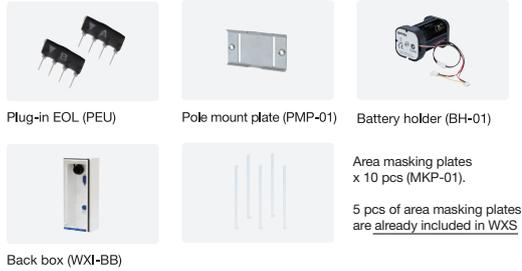
WXS series features a level indicator to ease the installation process.



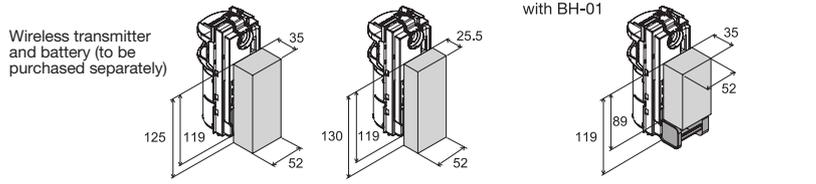
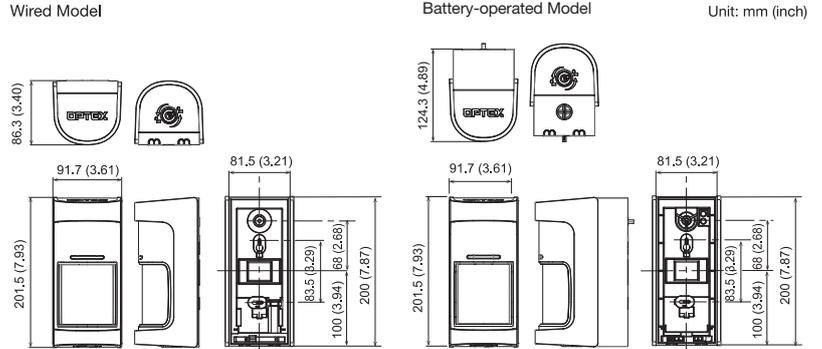
Coverage (Low mount)



Options



Dimensions



Unit: years (approx.)

Model	WXS-RAM		WXS-RDAM		
	Interval (sec.)	120	5	120	5
Battery type	CR123A (3 V DC, 1300 mAh)	5	3.5	3.5	1
	CR2 (3 V DC, 750 mAh)	3	2	2	0.5
	1/2AA (3.6 V DC, 1000 mAh)	4	2.5	2.5	0.8

Specifications

Model	WXS-AM	WXS-DAM	WXS-RAM	WXS-RDAM
Detection method	Passive infrared	Passive infrared & Microwave	Passive infrared	Passive infrared & Microwave
PIR coverage	High mount: 9.0 m (30') 180° wide Low mount: 12.0 m (40') 180° wide			
PIR zones	High mount: Horizontal 14 pairs, vertical 4 layers Low mount: Horizontal 14 pairs, vertical 2 layers			
PIR distance limit	High mount: 9.0 m (fixed) Low mount: 2.5 to 12.0 m adjustable			
Detectable speed	0.3 to 2.0 m/s (1' to 6'7"/s)			
Sensitivity	2.0°C (3.6°F) at 0.6 m/s Selectable for each side individually			
Power input	9.5 to 18 V DC		3.0 to 3.6 V DC lithium battery	
Current draw (except walk test)	23 mA max. at 12 V DC	24 mA max. at 12 V DC	19 µA stand-by 4 mA max. at 3 V DC	24 µA stand-by 6 mA max. at 3 V DC
Alarm period	2.0 ± 1.0 sec.			
Warm-up period	60 sec. or less (LED blinks)			
Alarm (R) output	28 V DC 0.1 A max. [Individual; Right or General], [N.O. or N.C.] are selectable		Solidstate switch, 10 V DC 0.01 A max. [Individual; Right or General], [N.O. or N.C.] are selectable	
Alarm (L) output	28 V DC 0.1 A max. [Individual; Left or General], [N.O. or N.C.] are selectable		Solidstate switch, 10 V DC 0.01 A max. [Individual; Left or General], [N.O. or N.C.] are selectable	
Trouble output	N.C. 28 V DC 0.1 A max.		Tamper and trouble shared output "TR"	
Tamper output	N.C. 28 V DC 0.1 A max. Open when either the cover, main or base unit is removed			
LED indicator	Red	1. Warm-up 2. Alarm 3. Masking detection 4. "High mount" setting (When the tamper switch is activated, LED blinks if it is "High mount" setting.)		1. Warm-up 2. Alarm 3. Masking detection 4. "High mount" setting (When the tamper switch is activated, LED blinks if it is "High mount" setting.)
	Yellow	-	1. Warm-up 2. MW detection	1. Warm-up 2. MW detection
Operation temperature (except batteries)	-30°C to +60°C (-22°F to +140°F)	-20°C to +45°C (-4°F to +113°F)	-30°C to +60°C (-22°F to +140°F)	-20°C to +45°C (-4°F to +113°F)
Environment humidity	95% max.			
Internation protection	IP 55			
Mounting	Wall, Pole (Outdoor, Indoor)			
Mounting height	High mount: 2.0 m (6' 7") Low mount: 0.8 to 1.2 m (2' 7" to 4')			
Weight	585 g (20.7 oz)	625 g (22.1 oz)	730 g (25.8 oz.)	770 g (27.2 oz.)
Accessories	[1] Area masking plate x 5 [2] Mounting screw (4 x 20 mm) x 2 [3] Lock screw x 1		[1] Connector for POWER and ALARM (R) [2] Connector for ALARM (L) [3] Connector for TROUBLE [4] Velcro tape [5] Area masking plate x 5 [6] Mounting screw (4 x 20 mm) x 2 [7] Lock screw x 1	

- Specifications and designs are subject to change without prior notice.
- These units are designed to detect an intruder and activate an alarm control panel.
- Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.



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