



OPTEX
Sensing Innovation

2013 PRODUCT CATALOG



OPTEX, INC. (USA)
Your Total Security and Solutions Provider

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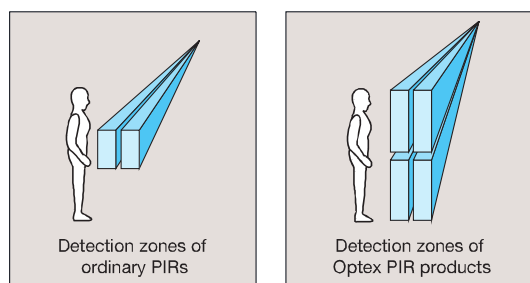


OPTEX

INDOOR PIR DETECTORS

INDOOR DETECTION WITHOUT FALSE AND MISSED ALARMS

Normally, a detector uses twin elements to create two detection zones. Optex detectors create an extremely high vertical zone density; two or three times the size of that in conventional PIRs. These taller zones capture the entire body mass of a person and enable detection of the smallest temperature contrast between them and the background.



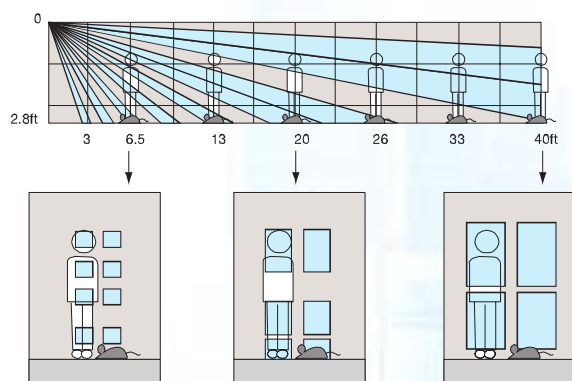
Quad Zone Logic

Optex utilizes "Quad Zone Logic" in order to achieve the highest resistance against false alarm sources like pet and small animals. Quad Zone Logic generates more detection zones thereby increasing the density of the coverage area. This greatly enhances the sensors ability to discriminate between people and small animals. For example, in the shorter distance, the highly dense, multiply segmented zone pattern requires 4 to 8 zones to be broken by human sized objects. At the furthest ranges, 2 or more zones captures the humans, while small animals may affect one or only part of one zone.

Multi-Focus Optics

If a person is hidden from the PIR detector, he or she is not detected. In ordinary residences and offices, there are desks, shelves and other furniture. When these objects hide a part of the body, it may make detection difficult.

Multi-focus optics provides taller detection areas, which can be raised 1.5 - 2.0 times than ordinary optics and improve the detection ability to eliminate most dead spots regardless of the presence of furniture or other obstacles.



40' x 40' Residential Indoor PIR with Pet Tolerance

RX-40PI

- Small Pet Tolerant • Patented quad zone logic
- Temperature compensation • Sealed optics

SPECIFICATIONS	RX-40PI
Coverage	40ft x 40ft (12m x 12m) 85° wide
Detection zones	78 zones
Power supply	9.5 - 16V DC
Current consumption	11mA (max.) at 12V DC
Alarm period	Approx. 2.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Tamper switch	N.C. Opens when cover is removed
Operating temperature	-4° F to 122° F (-20° C to +50° C)
Mounting height	1.5m - 2.4m
FL-60N (Optional lens)	60ft x 6ft long range



40' x 40' Residential / Commercial Indoor PIR

FX-40D

- Patented multi-focus optics • Double conductive shielding • Sealed optics • Temperature compensation

SPECIFICATIONS	FX-40
Coverage	40ft x 40ft (12m x 12m) 85° wide
Detection zones	72 zones
Power supply	9.5 - 16V DC
Current consumption	11mA (max.) at 12V DC
Alarm period	Approx. 2.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Tamper switch	N.C. Open when cover removed: 28V DC 0.1A max.
Operating temperature	-4 to +122° F (-20° C to +50° C)
Mounting height	5ft to 8ft (1.5m - 2.4m)
FL-60N (Optional lens)	60ft x 6ft (18m x 1.8m) long range



35' x 35' Residential Indoor PIR with tamper

EX-35T / EX-35R

- Wide-angle or long-range detection in multi-level or pet alley patterns • High detection sensitivity • Selectable pulse count (2 or 4)
- EX-35R: low current battery operated model

SPECIFICATIONS	EX-35T	EX-35R (Wireless Ready Version)
Coverage	W: 35ft X 35ft (11m x 11m) 85° wide L: 55ft x 5.5ft (17m x 1.7m) long range	
Detection zones	W: 64 zones (normal) / 28 zones (pet alley) L: 12 zones (normal) / 4 zones (pet alley)	
Power supply	9.5 - 14V DC	3 - 9V lithium battery
Operating voltage	—	2.3 - 10V DC
Current consumption	11mA (max.) at 12V DC	3.5mA (standby) 10mA (walktest, LED on)
Alarm period	Approx. 2.5 sec.	
Alarm output	N.C. 28V DC 0.2A max.	Form C-10V DC 0.01A (max.)
Tamper switch	N.C. Open w/cover removed: 28V DC 0.1A max.	
Operating temp	-4° F to 122° F	
Mounting Height	Normal: 4 - 8ft. / Pet alley: 2 - 4ft.	



40' x 40' Dual Technology Indoor PIR with Pet Tolerance

MX-40PI

- PIR and Microwave Technology • Patented quad zone logic • Pet Tolerant • Anti-crosstalk technology • Noise reduction circuit

SPECIFICATIONS	MX-40PI (DUAL TECHNOLOGY)
Coverage	40ft x 40ft (12m x 12m) 85° wide
Detection zones	78 zones (PIR)
Power supply	9.5 - 16V DC
Microwave frequency	2.45GHz (FCC, IC, ETS300-440 approval)
Current consumption	18mA (max.) at 12V DC
Alarm period	Approx. 2.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Tamper switch	N.C. Open when cover is removed: N.C., 28V DC 0.1A max.
Operating temp	-4° F to 122° F
Mounting Height	Normal: 4 - 8ft. / Pet alley: 2 - 4ft.



Request to Exit PIR

OP-08CBL / OP-08CW

Ceiling Mount • Environmental and Artificial Disturbance Immunity
• Flexible Detection Area Setting • 12 - 24 V AC/DC Universal
Power Input • "Form C" Output Relay (N/O or N/C) • Fail Safe or
Fail Secure Selectable • "CE" Marked

SPECIFICATIONS	OP-08CBL / OP-08CW
Mounting Height	max. 13'1" (4.0m)
Detection Area Adjustments	See chart
Detection Technique	Passive Infrared
Power Supply	12 - 24VAC/DC
Current Draw	50mA max.
Power/Operating Indicator	LED ON: Standby LED OFF: Detection
Output Contact	Form C Relay 50V, 0.3A (Res Load)
Relay Hold Time	Approx. 1.5s
Operating Temperature	-4°F - +131°F (-20°C - +55°)
Outer Dimensions	123 x 50 x 32mm (w x h x d)
Weight 3.2oz	3.2oz. (90g)
Available Colors	Black (OP-08CBL), White (OP-08CW)



25' - 40', 360° Residential / Comm. Indoor Ceiling Mount PIR

FX-360

• 360° detection • RFI protection • Temperature protection •
Noise reduction circuit • Selectable pulse count (2 or 4) • LED
remote control terminal

SPECIFICATIONS	FX-360 Ceiling Mount
Coverage	25ft - 40ft Diameter (8m - 12m)
Detection zones	62 zones
Sensitivity	35° F at 0.6m/sec. at 8ft mounting height
Detectable speed	0.3m - 1.5m/sec.
Power supply	9.5 - 18V DC
Current consumption	18mA (max.) at 12V DC
Alarm period	20 ± 0.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Tamper switch	N.C. Open when cover is removed: 30V DC 0.1A max.
Pulse count	20 ± 0.5 sec. 2 or 4
Warm-up period	Approx. 30 sec. (LED blinks)
LED indicator	LED blinks during warm-up period Alarm condition
Operating temperature	-4°F to 122°F (-20°C to +50°C)
RF interference	No Alarm 20V/m
Mounting height	8ft - 12ft (2.4m - 3.6m)

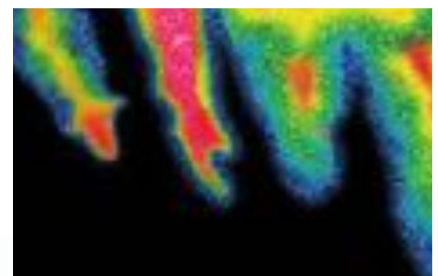
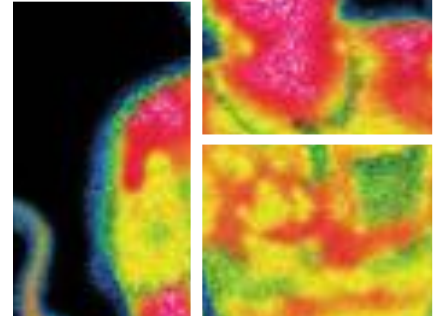
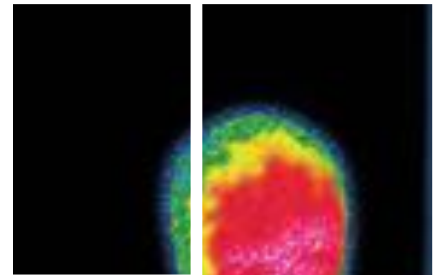
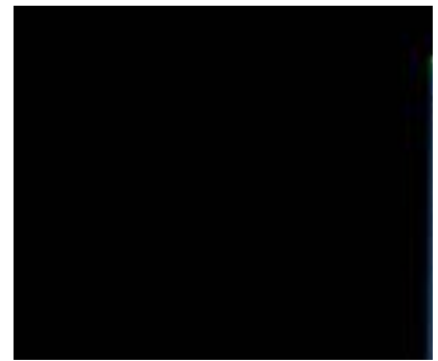


25' - 25', Residential Indoor Ceiling Mount PIR

KX-08

• Quad Zone Logic • Spherical Lens Inside for accurate
focal length for each detection zone • Selectable Pulse
Count : 2 or 4 • LED On/Off Switch • RFI Protection •
Temperature Compensation Logic

SPECIFICATIONS	KX-08 Ceiling Mount
Coverage	25ft x 25ft 85° Wide
Detection zones	78 Zones
Sensitivity	35°F at 2ft/sec. at 8ft mounting height
Detectable speed	1f - 5f/sec.
Power supply	6 - 18V DC
Current consumption	18mA (max.)
Alarm period	2.0 ± 0.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Pulse count	20 ± 5 sec. 2 or 4
Warm-up period	Approx. 30 sec.
LED indicator	Switchable On/Off
Operating temperature	-4°F to 122°F (-20°C to +50°C)
RF interference	No Alarm 20V/m
Mounting height	8ft (2.4m)



By utilizing our unique
detection logic and optical
technique, OPTEX provides
high performance against
false and missed alarms.



Application: Harsh Environment

"Both our main office and satellite warehouse were concerned about finding a solution to the security needs expressed by our corporate office. Fortunately the security provider recommended the Optex CX line of detectors as a stable solution to both harsh and high security conditions. We used the CX-502AM in the high security areas of the office for it's Anti-Masking capabilities, and the CX-702 to cover the aisles of our warehouse. The CX-702 has withstood the summer and winter temperatures as well as the dusty conditions without any issues."



70' x 70' or 150' x 8' Harsh Commercial / Warehouse Indoor PIR

CX-702, CX-702RS

- Patented multi-focus technology • Double conductive shielding
- Temperature compensation • Dual purpose optics: wide-angle or long-range
- 3-step lens angle adjustment • CX-702RS: low current battery operated model

SPECIFICATIONS	CX-702	CX-702RS (Wireless Ready Version)
Coverage	WIDE : 70ft x 70ft (21m x 21m) 85' wide LONG : 150ft x 8ft (45m x 2.4m)	
Detection zones	68 zones	
Power supply	9.5 - 16V DC	3 - 9V DC lithium battery
Current consumption	11mA (max.) at 12V DC	5µA (standby) 10mA (walktest, LED on)
Alarm period	Approx. 2.5 sec.	
Alarm output	NC 28VDC 0.2A max.	Form C 10V DC 0.01A max.
Alarm interval	—	Succeeding signals are not output even though detection occurs within 2 min. after the first alarm.
Tamper switch	N.C. Open when cover is removed. 28 VDC 0.1A max.	Form C 28V DC 0.1A max.
Pulse count	Approx. 20 sec. 2 or 4	
Operating temperature	-4°F to +122°F	14°F to +122°F
Mounting height	5ft - 12ft (1.5m - 3.6m)	
Long range pattern with dual purpose lens		
Coverage	150ft x 8ft long range (45m x 2.4m)	
Detection zones	22 zones	



50' X 50' High Security Indoor PIR w/Anti-Masking (AM Version)

CX-502, CX-502AM

- Patented multi anti-masking technology (CX-502AM) • Self checking function (CX-502AM) • Initial alarm memory (CX-502AM) • Patented quad zone logic
- Double conductive shielding • Advanced temperature compensation

SPECIFICATIONS	CX-502	CX-502AM (Anti-Masking Version)
Coverage	WIDE : 50ft x 50ft (15m x 15m) 85' wide LONG : 80ft x 6ft with optional CL-80N Lens	
Detection zones	82 zones, 22 zones with optional CL-80N Lens	
Power supply	9-18V DC	
Current consumption	12mA (max)	19mA (max)
Alarm period	2.0 ± 0.5 sec.	
Alarm output	N.C. 28V DC 0.2A max.	
Tamper switch	N.C. Open when cover is removed	
Selectable SP or STD	SP: for use in hostile areas	
Pulse count	STD: for normal applications	
Operating temperature	-4°F to 122°F (-20°C to +50°C)	
Mounting height	6ft to 10ft (1.8m - 3.0m)	



60', 360° Comm. Indoor Ceiling Mount PIR w/ Zoom feature

SX-360Z

- 360° detection • Highly dense coverage (276 zones) • Zoom function/ pattern adjustment • 8ft - 16ft mounting height • Temperature protection • Noise reduction circuit

SPECIFICATIONS	SX-360Z Ceiling Mount
Coverage	60ft diameter (18m) 360° zoom
Detection zones	276 zones
Power supply	6 - 18V DC
Current consumption	18mA (max.)
Alarm period	2.0 ± 0.5 sec.
Alarm output	N.C. 28V DC 0.2A max.
Tamper switch	N.C. Open when cover is removed: 30V DC 0.1A max.
Pulse count	20 ± 5 sec. 1, 2 or 4
Warm-up period	Approx. 20 sec. (LED blinks)
LED indicator	LED blinks during warm-up period Alarm condition
Operating temperature	-4°F to 122°F (-20°C to +50°C)
Mounting height	8ft to 16ft (2.4m - 5m)

OUTDOOR PIR DETECTORS

OUTDOOR DETECTION WITHOUT FALSE AND MISSED ALARMS

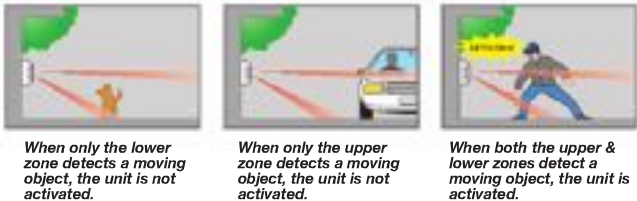
Double-layered Detection Patterns

OPTEX's outdoor PIR detectors (excluding the LX series) utilize the Multiple Detection Pattern technology, where two double-layered detection patterns (upper and lower) have to be activated to generate an alarm condition. This reduces false alarms, particularly those caused by temperature changes, light reflection and small animals.



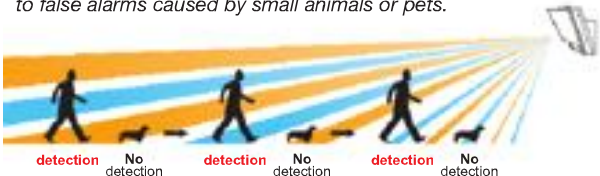
Size Judging function

The size judging function virtually eliminates false alarms due to small animals and other moving objects such as vehicles.



Intelligent 'AND' Logic

By utilizing originally developed pyro-elements, it creates a configuration area consisting of 94 high density detection zones. Also the AND detection pattern technology requires both detection areas have to be activated in order to generate an alarm condition making it more tolerant to false alarms caused by small animals or pets.



3' x 80' Outdoor Dual PIR
Immediate Perimeter / Boundary Protection

BX-80N

- Unique 3ft x 40ft pattern in each direction from sensor
- Form C alarm output / tamper output
- Limited detection range function
- Size judging function to avoid false alarms
- Variable detection range to 80ft (40ft on each side)

SPECIFICATIONS

BX-80N

SPECIFICATIONS	HX-40	HX-40AM	HX-40DAM
Detection method	Passive infrared		Passive infrared & Microwave
Anti-masking	-	Yes	Yes
PIR Coverage	12 m (40') 85° wide / 94 zones		
PIR distance limit	4.0 m, 5.5 m, 9.0 m (13'1", 18'1", 29'6")		
Power input	9.5 - 18 V DC		
Current draw	35 mA (max.) at 12 V DC	40 mA (max.) at 12 V DC	50 mA (max.) at 12 V DC
Alarm output	Form C 28 V DC 0.2 A (max.)		
Tamper output	N.C. 28 V DC, 0.1 A (max.) N.C. open when cover removed		
Trouble output	N.C. 28 V DC, 0.1 A (max.)		
Aux input	N.C. 28 V DC, 0.1 A (max.)		
Operating temperature	-4 to +140° F (-20 to 60° C)		
Weatherproof	IP55		
Mounting height	8'2" - 9'10" (2.5 - 3.0 m)		
Bracket adjust angle	Vertical: ±20° Horizontal: ±95°		
Accessories	Bracket, Hood, Area masking seal, Screw kit (3×10-2, 4×20-4)		





High Mount, Narrow Outdoor Dual PIR (Anti-Masking on NAM Model)

HX-80N / HX-80NAM

• Narrow curtain detection range • Mounting height 8.3ft - 10ft • Digital anti-masking function • Unique pyro-element • Intelligent AND logic • Summer night compensation logic • Advanced temperature compensation logic • Vegetation sway analysis logic • Easy short and long range masking with built in flaps and plates • 180° angle adjustable bracket

SPECIFICATIONS	HX-80N	HX-80NAM
Anti-masking	-	Yes
PIR Coverage	80' x 6'7" (24.0 m x 2.0 m) narrow / 20 zones	
Power input	9.5 - 18 V DC	
Current draw	35 mA (max.) at 12 V DC 40 mA (max.) at 12 V DC	
Alarm period	2.0 ± 1 sec.	
Alarm output	Form C 28 V DC 0.2 A (max.)	
Tamper output	N.C. 28 V DC, 0.1 A (max.)	N.C. open when cover removed.
Trouble output	-	N.C. 28 V DC, 0.1 A (max.)
Aux input	N.C. 28 V DC, 0.1 A (max.)	
Operating temperature	-4 to +140°F (-20 to +60°C)	
Weatherproof	IP55	
Mounting height	8.3 - 10ft (2.5 - 3.0 m)	
Bracket adjust angle	Vertical: ±20° Horizontal: ±95°	
Weight	25.4 oz. (720 g)	
Accessories	Bracket, Screw (4 x 20 mm) x 4	

16.4' or 6.5' Compact, Short Range Outdoor Dual PIR (Anti-Masking on AM)

FTN-ST/FTN-AM

• Digital Anti-masking (RAM only) • 16.4ft or 6.5ft narrow range • 190° horizontal flexibility • Pet immunity • Super Multi Dimension Analysis Logic • Double conductive shielding • Intelligent 'AND' logic

SPECIFICATIONS	FTN-ST	FTN-AM
Detection method	Passive infrared	
PIR coverage	16'5" x 3'3" (5x1m)	
Detection length limit	6'7" 16'5" (2 m, 5 m)	
Detectable speed	1' - 4'11"/s (0.3 - 1.5 m/s)	
Sensitivity	3.6F (at 2/s) (2.0C (at 0.6 m/s))	
Operation voltage	9.5 - 18 V DC	
Current draw	17mA(max.) (at 12 V DC)	20mA(max.) (at 12 V DC)
Alarm period	2.0 1.0sec.	
Warm-up period	Approx. 60 sec. (LED blinks)	
Alarm output	N.C./N.O. Selectable 28 V DC 0.1 A (max.)	
Trouble output	N.C. 28 V DC 0.1 A (max.), open = cover is removed.	
Operation temperature	-4 to +140°F (-20 to +60°C)	
Mounting height	2'7" - 3'11" (0.8 - 1.2 m)	
Weatherproof	IP55	



40' x 50' & 80' x 6' Special Application Outdoor PIR

LX-402 / LX-802N

• Use to trigger lighting or camera • Selectable detection patterns (Pet Alley or Multi-Level) • Area-masking strips (LX-402 only) • Sensitivity selection switch • Selectable pulse count (test or 2) • Day & night modes

SPECIFICATIONS	LX-402	LX-802N
Coverage	40ft x 50ft 120' wide	80ft x 6ft
Detection zones	Multi-level Pet alley	12 zones 4 zones
Sensitivity	Selectable 3 position (H / M / L)	
Detectable speed	1 - 3.3ft/sec (0.3m - 1.0m/sec.)	
Power supply	10.8 - 13.2 VDC	
Current consumption	25mA max.	
Alarm period	2 ± 1 sec. (delay timer)	
Alarm output	N.C. N.O. 28V DC 0.2A max.	
Tamper switch	N.C. opens when cover is removed	
Pulse count	2 (20 ± 5 sec.) or TEST (1 pulse)	
LED indicator	LED lights during detection	
Operating temperature	-4°F to 122°F (-20°C to +50°C)	
Mounting height	Multi-level Pet alley	8ft (2.5m max.) 4ft to 5ft (1.2m - 1.5m)
Weatherproof	IP54	



"A simple theft might generate a couple of hundred dollars in copper salvation, but the damage to our rooftop HVAC system to repair or replace may run in the ten of thousands of dollars. In addition, the down time can be extremely costly. Optex has addressed and met our need for a line of easy to install, wireless and wireless ready stable outdoor detectors that will deter and ultimately prevent copper theft and rooftop intrusion."



• Works with most manufacturer's wireless systems • Unique 3ft x 40ft pattern in each direction from sensor • Battery saving circuit • Form C alarm output and tamper output • Low current draw • Limited detection range function • Size judging function to avoid false alarms • Variable detection range to 80ft

SPECIFICATION	BX-80NR (Wireless Ready Version)
Coverage	3ft x 80ft (40ft on each side)
Detection zones	4 zones (2 zones on each side)
Sensitivity	2.0°C at 0.6m/sec.
Detectable speed	0.3m - 1.5m/s
Power supply	3 - 9VDC lithium or alkaline Battery
Current consumption	3mA(Walktest, LED on) 15µA(Standby)
Alarm period	2 ± 1 sec.
Alarm output	Form C-Solid state switch: 10V DC 0.01A
Battery saving time	Approx. 120 sec. or 5 sec.
Tamper switch	Form C activates when cover is removed
Warm-up period	Approx. 2 min.
Operating temperature	-4°F to 122°F (-20°C to +50°C)
RF interference	No Alarm 20V/m
Mounting height	2.6ft to 4ft (0.8m - 1.2m)
Weatherproof	IP55



- Works with most manufacturer's wireless systems • Dual PIR's for extremely stable outdoor detection • Battery saving circuit • Form C alarm output and tamper output • Low current draw • Limited detection range function • Size judging function
- Sensitivity selection switch • Temperature compensation

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40' x 50' Wireless-Ready, High Mount Anti-Masking PIR

HX-40RAM

• Works with most manufacturers wireless systems • Mounting 8.3ft - 10ft • Digital anti-masking function • Intelligent AND logic • Summer night compensation logic • Advanced temperature compensation logic • Vegetation sway analysis logic • Low current draw • Form C alarm output and tamper output • Selectable NC/NO trouble output • Battery saving timer function • 180° angle adjustable bracket / Hood

SPECIFICATION	HX-40RAM
PIR Coverage	40ft x 50ft (12 m) 85° wide / 94 zones
Power input	3 - 7.2VDC Lithium Battery
Current draw	30 µA (standby) / 4mA (max) at 3VDC
Alarm period	2.0 ±1 sec.
Alarm output	Form C - Solid State - 10VDC 0.01A max
Tamper output	Form C. 28V DC, 0.1A max.
Trouble output	N.C./N.O. Selectable - Solid State - 10VDC 0.01A
Operating temperature	-4 to +140F° (-20 to +60C°)
Weatherproof	IP55
Mounting height	8.3 - 10ft (2.5 - 3.0 m)
Bracket adjust angle	Vertical: ±20° Horizontal: ±95°
Weight	25.4 oz. (720 g)
Accessories	Bracket, Screw (4 x 20 mm) x 4



8' x 6' Wireless-Ready, High Mount Anti-Masking PIR

HX-80NRAM

• Works with most manufacturers wireless systems • Narrow curtain detection range • Mounting height 8.3ft - 10ft • Digital anti-masking function • Intelligent AND logic • Summer night compensation logic • Advanced temperature compensation logic • Vegetation sway analysis logic • Easy short and long range masking with built in flaps and plates • 180° angle adjustable bracket

SPECIFICATION	HX-80NRAM
PIR Coverage	80' x 6'7" (24.0 m x 2.0 m) narrow / 20 zones
Power input	3 - 7.2VDC Lithium Battery
Current draw	30 µA (standby) / 4mA (max) at 3VDC
Alarm period	2.0 ±1 sec.
Alarm output	Form C - Solid State - 10VDC 0.01A max
Tamper output	Form C. 28V DC, 0.1A max.
Trouble output	N.C./N.O. Selectable - Solid State - 10VDC 0.01A
Operating temperature	-4 to +140F° (-20 to +60C°)
Weatherproof	IP55
Mounting height	8.3 - 10ft (2.5 - 3.0 m)
Bracket adjust angle	Vertical: ±20° Horizontal: ±95°
Weight	25.4 oz. (720 g)
Accessories	Bracket, Screw (4 x 20 mm) x 4



4' or 6.5' Wireless-Ready, Compact Short Range Outdoor Dual PIR

FTN-R / FTN-RAM

• Works with most manufacturers wireless systems • Complete battery operation • Digital Anti-masking (RAM only) • 16.4ft or 6.5ft narrow range • 190° horizontal flexibility • Pet immunity • Super Multi Dimension Analysis Logic • Double conductive shielding • Intelligent 'AND' logic

SPECIFICATION	FTN-R	FTN-RAM (Anti-Masking)
Detection method	Passive infrared	
PIR coverage	16'5"x3'3" (5x1m)	
Detection length limit	6'7", 16'5" (2 m, 5 m)	
Detectable speed	1' - 4'11"s (0.3 - 1.5 m/s)	
Sensitivity	3.6F (at 2'/s) (2.0C (at 0.6 m/s))	
Operation voltage	2.5 - 10 V DC	
Power input	3 - 9 V DC (Lithium or Alkaline Battery)	
Current draw	9µA(at stand-by) / 3mA(max.) (at 3 V DC)	10µA(at stand-by) / 3mA(max.) (at 3 V DC)
Alarm period	2.0 1.0sec.	
Warm-up period	Approx. 120 sec. (LED blinks)	
Alarm output	N.C./N.O. Selectable-Solid State Switch 10 V DC 0.01 A(max.)	
Trouble output	N.C./N.O. Selectable-Solid State Switch 10 V DC 0.01 A(max.)	
Operation temperature	-4 - +140F (-20 - +60C)	
Mounting height	2'7" - 3'11" (0.8 - 1.2 m)	
Weatherproof	IP55	

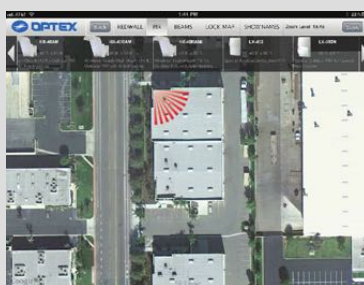


MyOptex: Project Layout App For iPad

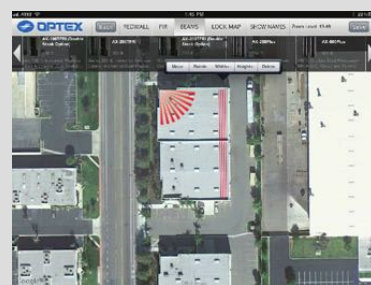
'MyOptex' allows Optex sales representatives, dealers and integrators to take their services outside of the office and onto the job site, drastically reducing the usual turnaround time for a custom layout. With a simple interactive menu that includes all of Optex's outdoor photo-beams and passive infrared detectors, users can drag and drop to-scale detection patterns onto a satellite image of the job site. The patterns can then be moved or rotated anywhere on the job site image, allowing Optex sales representatives, dealers or integrators to help an end user visualize exactly what on his property Optex sensors will be protecting. The resulting full layout and itemized product list / sample quote can be emailed directly from the iPad and ready for a dealer or integrator before walking back to the customer's office.



MyOptex incorporates a Google Satellite Image of the customers job site by either entering an address or utilizing the iPad's GPS.



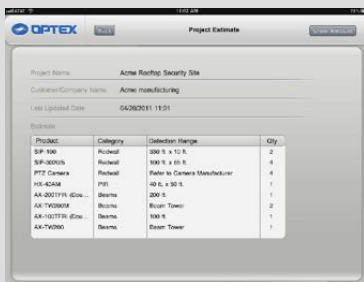
Access all of Optex's outdoor sensors with an easy to use scrolling menu bar. Choose from three scales based on the size of your job site.



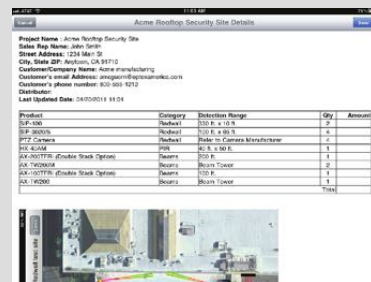
Easily move and rotate each to-scale detection pattern to show the area on the site that will be protected. The length of a photobeam can also be adjusted.



Build a complete to-scale layout of jobsite to show customer what assets will be protected. Toggle product names on and off for easy identification.



MyOptex keeps a running estimate that can be accessed at any time to identify what products are being used. User is able to turn "Amount" column on or off if Optex's suggested dealer cost is required.



Email customer and CC anyone directly from the iPad. Pre populated email includes customer and site information, estimate/product list and complete layout image of site.

Download the MyOptex App for free from iTunes or Apple App Store. For more information and to register for your username and password, email sales@optexamerica.com

PHOTOELECTRIC DETECTORS

PHOTOELECTRIC QUICK FEATURE GUIDE

Beam detection range shouldn't be the only feature you look at when selecting an Optex photobeam. Review the additional features below to find the right detector for your photobeam application.

'I want to stack my photobeams for added protection.'

Feature: Four Channel Selectable Beam Frequencies
Require extra protection at the perimeter? Choose a photobeam detector that has four channel selectable frequency and stack two of them in an AX-TN200 Beam Tower.

AX-100TF, AX-200TF, AX-350TF, AX-650TF, AX-100TFR, AX-200TFR, AX-100TFRi, AX-200TFRi, SL-350QFR, SL-350QFRI

'Getting power to the perimeter is too expensive'

Feature: Battery Operated Versions
To combat costly trenching and labor, or in situations where power is not available, choose one of Optex's wireless ready, battery operated models. Mount them in the AX-TW200 beam tower for a completely wireless and secure perimeter.

AX-100TFR, AX-200TFR, AX-100TFRi, AX-200TFRi, SL-350QFR, SL-350QFRI

'Fog, snow and heavy rain can be issue at my job site.'

Feature: D.Q. Output (Environmental Disqualification)
D.Q. output will send a trouble signal when the beam strength is below acceptable levels, for more than 20-40 seconds, due to fog, snow or heavy rain.

AX-100TF, AX-200TF, AX-350TF, AX-650TF, AX-100TFR, AX-200TFR, AX-100TFRi, AX-200TFRi, SL-350QFR, SL-350QFRI

'We occasionally have lightning storms in the area'

Feature: Lightning Induced Surge Protection
Our AX series can withstand a lightning surge up to 14kV without damage resulting in faulty operation (IEC801-5 lightning surge noise is the maximum level of our test).

All Optex AX and SL Series Models

'I'm worried about the constant changing weather conditions causing false alarms.'

Feature: A.G.C. Circuit (Automatic Gain Control)
The A.G.C. Circuit continually monitors for gradual changes in the signal's strength caused by changing weather conditions. It adjusts the sensitivity accordingly to maintain the proper signal level for the current environmental conditions.

All Optex AX and SL Series Models



BX-100PLUS

- Dual IR pulsed beam system • Internal sounder
- Easy alignment with visual and audible indicator
- Light Reduction Filter • 99% beam blocking stability
- N.O. and N.C. relay outputs • Slim design

SPECIFICATIONS	BX-100PLUS
Maximum detection range	100ft (30m)
Maximum arrival range	1000ft (300m)
Power supply	10.5 - 28V DC
Current consumption (T & R)	75mA (max.)
Relay output	2 relay outputs N.O. and N.C. 28V DC 0.2A (max.) each
Volume of audible alarm indicator	Approx. 70dB (at 1 meter distance)
Tamper switch	N.C. opens when cover is removed
Operating temperature	-31°F to 131°F (-35°C to +55°C)
Weatherproof	IP54



AX-70TN/130TN/200TN

- IP65 structure • Lightning and surge protection
- Anti-frost hood cover • 99% beam blocking stability
- A.G.C. circuit • Adjustable interruption time

SPECIFICATIONS	AX-70TN	AX-130TN	AX-200TN
Max. detection range	70ft (20m)	130ft (40m)	200ft (60m)
Max. arrival range	700ft (200m)	1300 (400m)	2000 (600m)
Power supply	10.5 - 28V DC		
Current consump.(T&R)	38mA (max.)	41mA (max.)	45mA (max.)
Alarm output	N.C. 28V DC 0.2A max.		
Tamper switch	N.C. opens when cover is removed at 28V DC, 0.2A max.		
Operating temp	-31°F to +140°F (-35°C to +60°C)		
Weatherproof	IP65		

Use the optional heating unit HU-3 in conditions of -25°C (-13°F) or below



AX-250PLUS/500PLUS

- Lightning and surge protection • Anti-frost design
- Easy installation and alignment • 99% beam blocking stability
- Sealed optics to prevent ingress of insects and dust
- A.G.C. circuit • Adjustable beam interruption time

SPECIFICATIONS	AX-250PLUS	AX-500PLUS
Maximum detection range	250ft (75m)	500ft (150m)
Maximum arrival range	2500ft (750m)	5000ft (1500m)
Power supply	10.5 - 30V DC	
Current consump. (T&R)	50mA (max.)	
Alarm output	Form C relay 28V DC 0.2A max.	
Tamper switch	N.C. opens w/ cover removed (Receiver)	
Operating temperature	-13°F to 131°F (-25°C to +55°C)	
Weatherproof	IP54	

Use the optional heating unit HU-1 in conditions of -25°C (-13°F) or below



AX-100TF/200TF AX-350TF/650TF

- Selectable 4 channel beam frequencies for stacking applications • 16 step LED indicator • Environmental disqualification circuit • Lightning and surge protection • Anti-frost design • 99% beam blocking stability
- A.G.C. circuit • Adjustable interruption time

SPECIFICATIONS	AX-100TF	AX-200TF	AX-350TF	AX-650TF
Maximum detection range	100ft (30m)	200ft (60m)	350ft (100m)	650ft (200m)
Maximum arrival range	1000ft (300m)	2000ft (600m)	3500ft (1000m)	6500ft (2000m)
Selectable beam frequencies	4 channel			
Power supply	10.5 - 28V DC		10.5 - 30V DC	
Current consumption (T&R)	44mA(max.) normal	48mA(max.) normal	60mA(max.) normal	62mA(max.) normal
Alarm output	Form C relay 28V DC 0.2A max.			
Tamper switch	N.C. opens when cover is removed			
Operating temperature	-31° to 140°F (-35°C to +60°C)			
Weatherproof	IP65		IP54	

Use the optional heating unit (HU-3 for 100TF and 200TF, HU-1 for 350TF and 650TF) in conditions of -25°C (-13°F) or below



Battery-Powered,
Wireless Photoelectric Detectors

X-100TFR X-200TFR

- Works with most manufacturer's wireless systems • Long battery life (Batteries Included) • Easy battery replacement • Triple tamper functions • Low battery output and LED indication • Intermittent output function • 99% Beam blocking stability • D.Q.circuit (environmental disqualification) • N.C./N.O. output selection switch • 4 selectable beam frequencies • A.G.C. circuit

SPECIFICATIONS		AX-100TFR	AX-200TFR
Range		100ft. (30m.)	200ft (60m)
Maximum arrival distance		870ft. (265m)	1,740ft.(530m)
Beam frequency selection		4 channel	
Power Source		3.6V 13.0Ah : LSH20 lithium batteries manufactured by SAFT (included) Transmitter : 2 units Receiver : 2 units	
Current draw		620µA T:300µA + R:320µA (at 77°F, 3.6VDC)	810µA T:490µA + R:320µA (at 77°F, 3.6VDC)
* Battery life	Transmitter	5 years	3 years
	Receiver		5 years
Output	Alarm output	Form C-Solid State Switch : 3.6 VDC, 0.01A	
	D.Q. output	Form A/B-Solid State Switch : 3.6 VDC, 0.01A	
	Low battery output	Form A/B-Solid State Switch : 3.6 VDC, 0.01A (Transmitter & Receiver)	
	Tamper output for Front cover	Form C : 3.6VDC, 0.01A activates when cover removed. (Receiver only)	
	Tamper output for Back box	Form C : 3.6VDC, 0.01A activates when either back box or chassis is removed from the installment	
Operating temperature		-4°F to +140°F (-20°C to +60°C)	
Weatherproof		IP55	



Smart Line™ series

Battery-Powered, Wireless Quad Beam Photoelectric Detector

SL-350 QFR

- Quad Beam Detection • Slim Design • Works with most manufacturers wireless systems • Form C (N.C./N.O.) output • Battery saving function • 99% Beam blocking stability • Intermittent output function • 4 selectable beam frequencies • Beam interruption adjustment function • D.Q.circuit (environmental disqualification) • Triple tamper function • High grade aspherical lens

SPECIFICATIONS		SL-350QFR
Maximum detection range		100 m/350 ft.
Maximum arrival distance		1000 m/3500 ft.
Selectable beam frequency		4 channels
Power source		Recommend: 3.6 V, 13.0Ah LSH20 lithium batteries manufactured by SAFT Operating range: 3.2 V - 4.0 V lithium batteries Transmitter: 2 or 4 units, Receiver: 2 or 4 units
Current draw		745µA Transmitter: 420 µA + Receiver: 325 µA (at 25°C, 3.6 VDC)
Battery life **		Transmitter: Approx. 4 years Receiver: Approx. 5 years
Output	Alarm output	From C-Solid State Switch: 3.6 VDC, 0.01 A
	Alarm period	2 sec (±1) (Nominal)
	D.Q. output	From C-Solid State Switch: 3.6 VDC, 0.01 A
	Low battery	(Receiver only)
	output	N.C. (mechanical switch): 3.6 VDC, 0.01 A (Transmitter and Receiver)
	Tamper output cover, back box, (main unit)	N.C. (contact output): 3.6 VDC, 0.01 A Opens when cover, main unit or back box is removed. (Receiver only)
Operating temperature		-4°F to 140°F (-20°C to +60°C)
International protection		IP65

*Battery life depends on environmental conditions and frequency of use

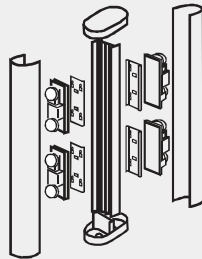


PHOTOELECTRIC BEAM TOWERS

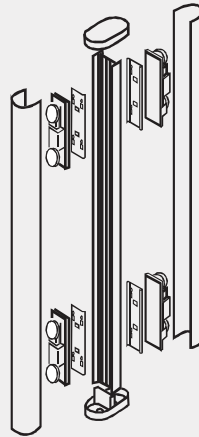
Create your own job specific Photobeam Tower from OPTEX. Start with either a double-sided, free standing tower or single sided, wall mount tower and then add any combination of Heater, Power Supply, Tamper, and Photobeam. Both Towers will even accommodate the AX-100TFR, AX-200TFR and SL-350QFR wireless beams to create a completely secure perimeter with no trenching or wiring. With a provided site plan, OPTEX can build and customize your towers to your application and have it shipped to the job site for easy and time saving installation.



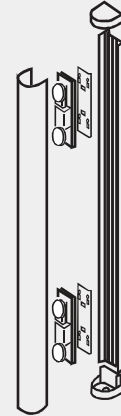
AX-TW100
3' 3" Double Sided, Free Standing Tower



AX-TW200
6' 6" Double Sided, Free Standing Tower
(Includes Thermostat, Tamper & TW-SAX)



AX-TW200M
6' 6" Single Sided, Wall Mount Tower
(Includes Thermostat, Tamper & TW-SAX)



SPECIFICATIONS	AX-TW100	AX-TW200	AX-TW200M
Beam Compatibility	All AX and SL Series Beams	All AX and SL Series Beams	All AX and SL Series Beams
H x W x D	39.6 in. x 5.12 in. x 9.3 in.	78.8 in. x 5.12 in. x 9.3 in.	78.8 in. x 5.12 in. x 5.9 in.
Installation Type	Double Sided - Floor, Wall Mount	Double Sided - Floor, Wall Mount	Single Sided - Floor, Wall Mount
Exterior Material	Vandal / UV Resistant Polycarbonate	Vandal / UV Resistant Polycarbonate	Vandal / UV Resistant Polycarbonate
Interior Material	Rust Free Oxidized Aluminium	Rust Free Oxidized Aluminium	Rust Free Oxidized Aluminium
Optional Accessories	AX-ASM Pre-Installation Tower Assembly ***Site Plan required***		
	AX-PT3104 Replacement lens for AX-TW200, AX-TW200M		
	AX-TWAA Anti-Climb Top Tamper for AX-TW200		
	AX-TWEB Concrete floor bracket for uneven and difficult grounds for AX-TW200		
	AX-TWH Heater 12VDC 250 mA Non-Polarity for the AX-TW200/M		
	AX-TWSAX Adjustable Beam Mounting Plate (Kit for 1Tx & 1Rx) TN/TFR, PLUS, when double stacking		
	AX-TWSM Wall Mount Bracket for AX-TW200 only		
	MP-4 Bracket to mount TFR wireless beams to tower (Set)		
	SMP-3 Power Supply and Transformer (12 - 24 VDC)		

**Optex photobeams not included*

Application: Perimeter Protection

"The facility is secured by 10 Optex beam towers with wireless photobeams that cover the entire perimeter.

We felt the wireless perimeter security solution was ideal because of the fast installation, significant reduction in labor costs and reliable products that ensure our facility is secure. It was important for us to mount the beams in towers to both improve the security and aesthetics of the installation. We are confident that this top-notch security solution is the best match for protecting our perimeter."





Mid Range Outdoor PIR for CCTV Activation

SIP-3020, SIP-4010, SIP-404

- Detection of ambient temperature and illuminance for automatic sensitivity management
- Advanced detection algorithm
- Anti-rotation
- Anti-masking
- Sensitivity selector for independent near / far area
- Detection logic selector
- Detection range selector

SPECIFICATIONS	SIP-3020	SIP-4010	SIP-404
Coverage	SIP-3020: 100 x 65 ft. (30 x 20 m) SIP-4010: 130 x 33 ft. (40 x 10 m) SIP-404: 130 x 13 ft. (40 x 4 m)		
Power input	11-16 VDC 22-26 VAC		
Current draw	35mA max. (12VDC) 70mA max. (24 VAC)		
Mounting height	7.6 to 13 ft. (2.3 to 4 m)		
Sensitivity selector	Far: SH/H/M/L Near: SH/H/M/L		
Range selector	Far: On/Off		
Detection logic selector	AND / OR		
Alarm output	N.O., N.C., 28 VDC 0.2A max.		
Alarm interval period	Off/15, 30, 60 sec.		
Trouble output	N.C., 28 VDC 0.2 A max.		
Tamper output	N.C., 28 VDC 0.1 A max.		
Alarm period	Approx. 2 sec.		
Operating temp.	-13° to +140°F, -40° to +140°F w/optional heating unit (-25° to +60°C, -40° to +60°C w/optional heating unit)		
IP rating	Main unit:IP65, Chassis:IP55		

Mid Range Outdoor PIR for CCTV Activation with Built-in 'Creep Zone' detector

SIP-3020/5, SIP-4010/5, SIP-404/5

10 x 16ft. (3x 5m) installed at 7.6ft. (2.3m) height
20 x 30ft. (6 x 9m) installed at 13ft. (4m) height
Detection angle adjustable horizontally

Mid Range Outdoor PIR with Camera

SIP-3020 CAM

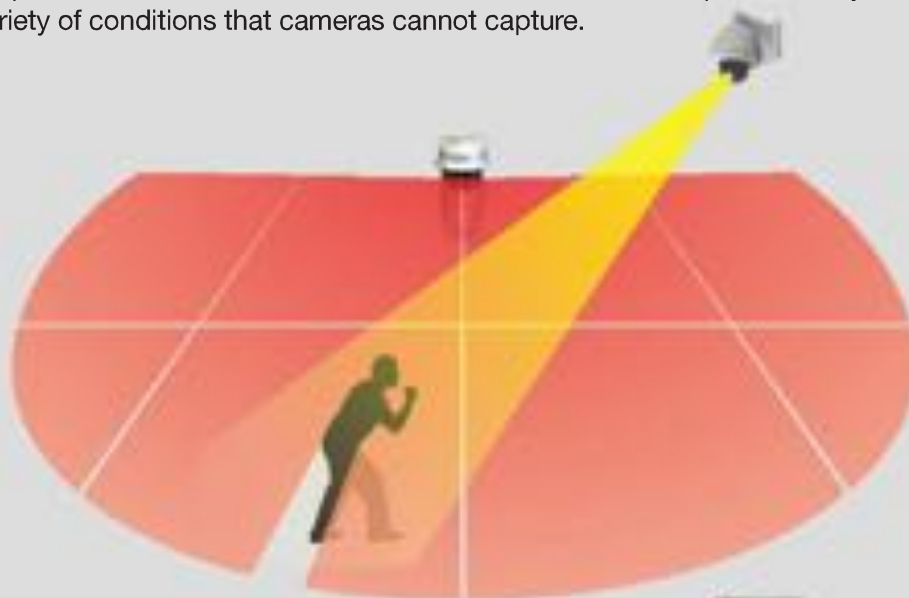
- Independent sensitivity selector for near/far areas
- Independent outputs N.C. & N.O.
- Day(color) / Night(B/W)
- 480 TV lines
- Varifocal lens 3-9mm

SPECIFICATIONS	SIP-3020CAM
Coverage	100 x 65 ft. (30 x 20 m)
Power input	12 VDC
Current draw	180mA (12 VDC)
Mounting height	7.6 to 13 ft. (2.3 to 4 m)
Sensitivity selector	Far: SH/H/M/L, Near: SH/H/M/L
Range selector	Far: On/Off
Alarm output	N.O., N.C. 28 VDC 0.2A max.
Alarm interval period	Off/15, 30, 60 sec.
Trouble output	N.C., 28 VDC 0.2 A max.
Tamper output	N.C., 28 VDC 0.1 A max.
Alarm period	Approx. 2 sec.
Image sensor	1/3" CCD (NTSC)
TV line	480TVL (at wide position)
Resolution	NTSC 768 H x 494 V
Lens	f= 3 to 9mm, varifocal,DC auto iris lens F1.2
Minimum illumination	Day (colour) : 0.5 lx (F1.2) Night (B/W) : 0.03 lx (F1.2)
Video output	1.0Vp-p/75 / BNC connector, NTSC
Operating temperature	-13° to +140° F, -40° to +140° F w/ optional heater (-25° to +60° C, -40° to +60° C w/ optional heater)
IP rating	Main unit:IP65 Chassis:IP55



REDSKAN CLASS 1 LASER DETECTOR

REDSKAN is Optex's award-winning analog or IP laser sensor that configures a 100ft. radius detection area. REDSCAN detects target objects by emitting laser beams at the target and measuring the time required for the emitted beams to be reflected and returned to the detector. It can identify the size, speed and distance of moving object and can function in effect like an invisible wall. Setting the detection area is simple; using the set-up software "REDSKAN Manager" on your PC allows you to either customize or automatically set your preferred detection area. Because the laser scan is very directional, customers are able to position the Redscan detector in a vertical or horizontal plane for object detection in a variety of conditions that cameras cannot capture.



REDSKAN RLS-3060 / RLS-3060SH

- 30m radius for 190 degrees range
- Vertical and horizontal mounting
- Unique detection algorithm
- Automatic area setting function
- 4 independently adjustable detection areas and 4 linked outputs for PTZ camera control (on analog connection and IP connection)
- Fog cancellation algorithm (patent listed)

RLS-3060SH Only • Scene selection (outdoor, indoor, indoor ceiling/wall protection and vehicle) • 8 independently adjustable detection area and Redwall event codes for network recorder and video management software (on analog connection and on IP connection) • Built-in heater

SPECIFICATIONS	RLS-3060SH
Detection method	Infrared Laser Scan
Laser protection class	Class 1
Coverage	Vertical area
	Approx. 200 ft at 10% reflectivity
Horizontal area	Approx. 100 ft., Arc:190° at 10% reflectivity
	0.25°
Detection resolution	0.25°
Communication port	Ethernet, RJ-45, 10BASE-T/100BASE-TX
Protocol	UDP, TCP/IP *Redwall Event Code
Power input	24 VDC 24 VAC
Current draw	400mA max. (24 VDC) 600mA max. (24 VAC)
Heater power input	24 VDC, 24 VAC
Heater current draw	400mA max. (24 V DC/AC)
Mounting height	Vertical area
	50ft. (recommendation)
Horizontal area	28in. (recommendation)
	28in. (recommendation)
Target object selector	S / M / L
Sensitivity selector	H / M / L
Camera control output	N.O. 28 VDC, 0.2 A x 4 outputs
Master alarm output	Form C, 28 VDC, 0.2 A max.
Trouble output	Form C, 28 VDC, 0.2 A max.
Tamper output	N.C. 28 VDC, 0.1 A max.
Environmental disqualification circuit	Form C, 28 VDC, 0.2 A max.
Alarm period	Approx. 2 sec., Off delay timer
Operating temperature	-4 to 140° F (-20 to 60 °C)
Operating temperature with heater	-40 to 140° F (-40 to 60 °C)
IP rating	IP66
Dimensions (H x W x D)	13.2 x 5.7 x 6.1 in.
Weight	88 oz.



[VERTICAL DETECTION ZONE]



[HORIZONTAL DETECTION ZONE]



Application: Virtual Wall

"We tied in the Redscan, PTZ camera and video management software to our system's existing IP infrastructure and created a virtual wall at a high security point at our perimeter. The integration of the Redscan and VMS is now able to detect any intruder and track them, allowing the onsite guard to monitor the situation from his office or take action if necessary. It's a great solution for any high security application."



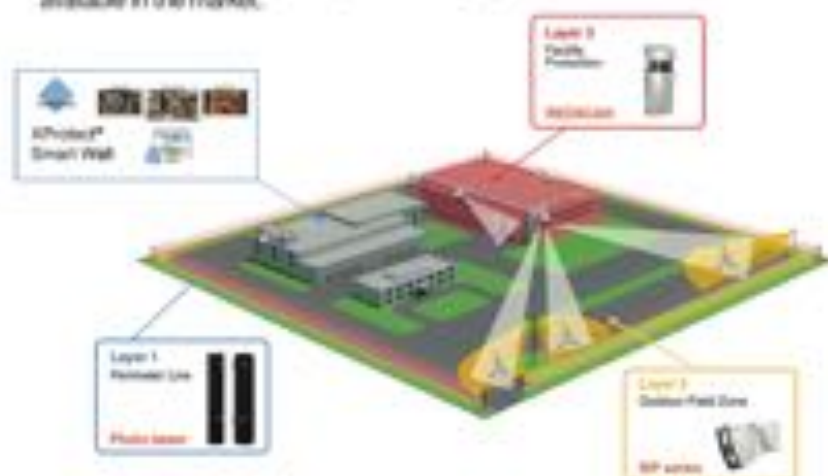


OPTEX IP DETECTORS

Sensing Solutions for IP CCTV Systems

Multi-Layered Protection System

Redwall IP detectors from OPTEX are advanced products specifically designed for professional video surveillance systems. Harnessing a variety of proven infrared and laser detection technology, Redwall IP detectors can offer a complete detection solution for various external perimeter security systems integrated with IP CCTV products. Redwall IP detectors can be connected by Power-Over-Ethernet and exchange alarm signal information via IP protocol. This PoE connection allows a powerful "Multilayered protection system" which is currently being integrated with major video management software available in the market.



System Diagram

Redwall IP detectors communicate with major video management software by Redwall Event Code protocol via Power-over-Ethernet. Alarm signal information generated by Redwall IP detectors can either be used to control IP cameras for automatic tracking of an intruder's movement, or for alarm management on video management software.



RLS-3060L RLS-3060SH



- 100ft. radius for 180 degree range
 - Vertical and horizontal mounting
 - Unique detection algorithm
 - Automatic area setting function
 - 4 independently adjustable detection areas and 4 linked outputs for PTZ camera control
 - Fog cancellation algorithm (patent listed)
 - Scene selection (outdoor and indoor)
 - IP66 housing
- RLS-3060SH**
- Same features as the RLS-3060L
 - Scene selection (outdoor, indoor, indoor ceiling/wall protection and vehicle)
 - 8 independently adjustable detection areas
 - Built-in heater

REDSCAN is Optex's award-winning area laser sensor that configures a 100ft. radius detection area. REDSCAN detects target objects by emitting laser beams at the target and measuring the time required for the emitted beams to be reflected and returned to the detector. It can identify the size, speed and distance of moving object and can function in effect like an invisible wall. Setting the detection area is simple; using the set-up software "REDSCAN Manager" on your PC allows you to either customize or automatically set your preferred detection area. Because the laser scan is very directional, customers are able to position the Redscan detector in a vertical or horizontal plane for object detection in a variety of conditions that cameras cannot capture.



RBM-60QN 200ft. Range RBM-100QN 350ft. Range

- Super viewfinder/tilt with 2X magnification
- Vandal interior cover
- IP65 water proof structure
- Quiet beam with spherical lenses

REDBEAM series is a photo beam detector that consists of a pair of transmitters and receiver units for line protection. The transmitter unit constantly emits photo beams to the receiver unit. REDBEAM series generates an alarm signal when an intruder breaks the perimeter line detection area between transmitter and receiver unit. It can also offer a line detection area similar to a trip wire for video analytics. OPTEX is one of the market leaders of photo beam detectors in the world, its proven technology and know-how offer various features that assist with reliable detection and minimize false alarms in harsh outdoor environments along with various ideas for easy set-up.

Optex Technology Advantage

Whatever the need and whatever the environment, the Redwall IP detectors from OPTEX provide:



**SIP-3020
SIP-4010
SIP-404**

- Volumetric detection area
- Intelligent PIR detection system
- Automatic sensitivity management to ambient temperature and light
- Advanced detection algorithm
- Three dual pyro-elements with patented Double Conductive Shielding
- Anti-vandalism functions including anti-masking and anti-rotation function with 3-axis accelerometer
- 7.6ft to 13ft mounting height
- Unique detection algorithm
- 4 independently adjustable detection areas



**SIP-3020/5
SIP-4010/5
SIP-404/5**

- Creep zone detection area to cover under the detector unit
- Same features as 3020, 4010, 404



**SIP-5030
SIP-100**

- Volumetric detection area
- 2 in one detectors with an independent creep zone sensor unit (SIP-5030)
- 3 independent alarm output ideal for PTZ camera control (SIP-100)
- Intelligent PIR detection system
- Automatic sensitivity mgmt to ambient temperature and light
- Advanced detection algorithm
- Double dualtone Quad pyro-elements with Double Conductive Shielding for main area
- Anti-vandalism functions: anti-masking and anti-rotation with 3-axis accelerometer
- 7.6ft to 13ft mounting height
- Independent sensitivity for creep/area and far detection zones



**SIP-3020WF
SIP-4010WF
SIP-404WF**

- Same features as 3020, 4010, 404
- Battery operated
- Compatible with most wireless transmitters



Increased Reliability of Detection



Reduction of false alarms caused by insects and spiders on a camera lens



Sharp detection in a dimly lit environment



False alarm reduction by sudden light beam change

Vertical Protection Where Cameras Cannot Work



Vertical wall protection with some angle to detect approaching vehicle



Narrow Space Detection for vehicle area



Vertical fence detection area for unseen ground

Detection and Verification in One / Integration With Major Video Management Software



One-to-one integration with Redwall IP ready Redwall detectors can be fully integrated

Redwall IP detectors can be integrated with several major video management software and network video recorder manufacturers, including advanced integration with Genetec and complete integration with the Milestone software platform. Redwall IP products offer better video verification and control of your perimeter in various conditions, improving efficiency and reducing false alarms. For the latest information about an integration with other manufacturers products, please visit www.optex-usa.com

Control IP Cameras Via Video Monitoring Software PIE-1 PoE IP Encoder



The Optex PoE IP encoder (PIE-1) offers extreme flexibility for any Optex sensor to be easily added to an VMS-powered security network. This unit has 2 RJ45 (one as the network input, one as a pass-through output) and enough wire-lead analog and power inputs to integrate with any Optex sensor. The PIE-1 fits in a standard double-gang box and acts as power-splitter and Redwall Event Command encoder to send the ASCT alarm commands back to the network.



Redwall Event Command
PIE-1 Encoder



Go to Panel 1



IP camera



x 70' or 150' x 8' Wireless, Battery-Powered detector with Inovonics
rsh Commercial / Warehouse Indoor PIR

CX-702RSi

- Includes Inovonics EchoStream EN1941 and battery pre-installed •
- Patented multi-focus technology • Double conductive shielding •
- Temperature compensation • Dual purpose optics: wide-angle or
- long-range • 3-step lens angle adjustment

SPECIFICATIONS ARE THE SAME AS THE CX-702RS

iSeries FREQUENTLY ASKED QUESTIONS

In residential, commercial and industrial settings, the iSeries from Optex offers the reliability and flexibility needed in ever-changing and unstable environments. The partnership of Optex and Inovonics is an ideal perimeter security and spot protection solution for all intrusion detection needs.

How long do the batteries last on average?

Depending on frequency of activation, the average lifespan is about five years. The iSeries PIR detectors use CR123 lithium batteries, while the TFRi Photobeams use two LSH20 D cell lithium batteries in the transmitter and two in the receiver.

Will I have to install the transmitter and batteries?

All of the iSeries detectors come with the Inovonics EN1941 transmitter and batteries already installed by our technicians. Because the EN1941 does not have a reset button, the iSeries detector will come without the power wire terminated. Powering up at the job site will allow for easy programming to the Inovonics receiver.

What Inovonics receivers are compatible with iSeries?

Depending on the number of points needed, the following receivers are compatible with the EN1941 wireless transmitter installed in all iSeries detectors:

EN4204R, EN4216MR, EN4232MR

What is the wireless transmission range?

The EN1941 has a transmission range of 1500 ft., line-of-sight. If additional transmission range is needed or structures impede the line-of-sight, Inovonics repeaters can be used.

What are some applications where wireless detection is used?

Our iSeries wireless detectors can be used in any situation where hardwired detectors are used. In addition, the iSeries can be used in applications where power is unavailable or where trenching and wiring is too costly. Electrical substations, car dealers, storage yards, rooftops, water treatment facilities and solar fields are all sites that have utilized iSeries wireless detectors.

*For any additional questions,
contact Optex technical support:
800.966.7839
fchavez@optexamerica.com*

*For Inovonics Technical Questions:
800.782.2709 (option 2)
support@inovonics.com*



1' or 6.5' Wireless, Battery-Powered detector with Inovonics
Impact, Short Range Outdoor Dual PIR

FTN-Ri / FTN-RAMi

- Includes Inovonics EchoStream EN1941 and battery pre-installed •
- Complete battery operation • Digital Anti-masking (RAM only) • 16.4ft or
- 6.5ft narrow range • 190° horizontal flexibility • Perfect pet immunity •
- Super Multi Dimension Analysis Logic • Double conductive shielding •
- Intelligent 'AND' logic

SPECIFICATIONS ARE THE SAME AS THE FTN-R AND FTN-RAM



80' Wireless, Battery-Powered detector with Inovonics
Mediate Perimeter / Boundary Protection Outdoor Dual PIR

BX-80NRi

- Includes Inovonics EchoStream EN1941 and battery pre-installed •
- Unique 3ft x 40ft pattern in each direction from sensor • Battery saving
- circuit • Form C alarm output and tamper output • Low current draw •
- Limited detection range function • Size judging function to avoid false
- alarms • Variable detection range to 24m (12m on each side)

SPECIFICATIONS ARE THE SAME AS THE BX-80NR



x 40' Wireless, Battery-Powered detector with Inovonics
Short Range / Spot Protection Outdoor Dual PIR

VX-402Ri

- Includes Inovonics EchoStream EN1941 and battery pre-installed • Dual
- PIR's for extremely stable outdoor detection • Battery saving circuit •
- Form C alarm output and tamper output • Low current draw • Limited
- detection range function • Size judging function • Sensitivity selection
- switch • Temperature compensation

SPECIFICATIONS ARE THE SAME AS THE VX-402R



NO WIRES. NO TRENCHING. NO HASSLES.



Greatly reduce install time and labor cost with the industry's number one choice for battery-powered protection. From rooftop HVAC protection to electrical substations, the iSeries line of detectors from OPTEX give you a battery-powered, wireless solution for all your security needs. Each iSeries detector includes an Inovonics ENT941 wireless transmitter pre-installed, allowing for a quick and inexpensive setup with no trenching or running wires. Batteries are also included, with an average lifespan of two to ten years depending on detector and frequency of use. From perimeter to interior, no one offers a more complete line of battery-powered security detectors and solutions than OPTEX.



100WFi / 130WFi / 135WFi Wireless, Battery-Powered w/Inovonics
Outdoor Mid to Long Range FR for CCTV activation

SIP-3020WFi / 4010WFi / 404WFi

- iSeries version includes Inovonics EchoStream ENT941 and battery pre-installed
- Low power consumption (3.8VDC Power Input, 40µA standby) 5mA max
- Independent N.C. and N.O. ALARM output
- Low battery signal
- Independent sensitivity selector for near/far areas

SPECIFICATIONS ARE THE SAME AS THE SIP-3020WF, 4010WF AND 404WF



100' and 200' Wireless, Battery-Powered detectors with Inovonics
Dual Photoelectric detector for Perimeter Protection

AX-100TFRi / 200TFRi

- Includes Inovonics ENT941 transmitters and batteries pre-installed
- Triple tamper functions
- Low battery output and LED indication
- Intermittent output function
- 99% Beam blocking stability
- O.C.circuit (environmental disqualification)
- N.C./N.O. output selection switch
- 4 selectable beam frequencies
- A.G.C. circuit

SPECIFICATIONS ARE THE SAME AS THE AX-100TFR AND AX-200TFR



350' Wireless, Battery-Powered detector with Inovonics
Quad Photoelectric detector for Perimeter Protection

Smart Line™ series SL-350QFRI

- Includes Inovonics ENT941 transmitters and batteries pre-installed
- Quad-Beam Detection
- Slim Design
- Form-C (N.C./N.O.) output
- Battery saving function
- 99% Beam blocking stability
- Intermittent output function
- 4 selectable beam frequencies
- Beam interruption adjustment function
- O.C.circuit (environmental disqualification)
- Triple tamper function
- High grade spherical lens

SPECIFICATIONS ARE THE SAME AS THE SL-350QFR





80' X 6' Wireless, Battery-Powered Detector With Inovonics
High Mount Outdoor Dual PIR w/Anti-Masking

HX-80N RAMi



- Includes Inovonics EchoStream EN1941 and batteries pre-installed
- Narrow curtain detection range
- Mounting height 8.3ft - 10ft
- Digital anti-masking function
- Unique pyro-element
- Intelligent AND logic
- Summer night compensation logic
- Advanced temperature compensation logic
- Vegetation sway analysis logic
- Patented double conductive shielding
- Easy short and long range masking with built in flaps and plates
- 180° angle adjustable bracket



40' X 50' Wireless, Battery-Powered Detector With Inovonics
High Mount Outdoor Dual PIR w/Anti-Masking

HX-40 RAMi



- Includes Inovonics EchoStream EN1941 and batteries pre-installed
- Mounting height 8.3ft - 10ft
- Digital anti-masking function
- Intelligent AND logic
- Summer night compensation logic
- Advanced temperature compensation logic
- Vegetation sway analysis logic
- Low current draw
- Form C alarm output and tamper output
- Selectable NC/NO trouble output
- Battery saving timer function
- 180° angle adjustable bracket / Hood

SPECIFICATIONS ARE THE SAME AS THE HX-80N RAM AND HX-40 RAM



Application: School Vandalism

"Our high school campus was being vandalized after school hours and on weekends. We had an onsite guard, but by the time he could get across campus the damage was done. Our security service recommended the wireless HX series of detectors because of their stability against false alarms and their high mounting height. The fact that we could have them mounted out of reach from high school kids was a definite plus. We are very happy with the reduction of vandalism on campus since the install."



DRIVEWAY AND ENTRY ANNOUNCER FOR ADVANCE NOTIFICATION

The RCTD-200U or "Wireless 2000" is a wireless annunciator system that not only alerts shop owners to customers entering their store, but also can provide homeowners driveway annunciation and perimeter awareness. The Wireless 2000 includes an outdoor rated PIR detector, as well as an R.F. receiver that can hold up to 9 detectors and chimes when the sensor detects motion.

WIRELESS 2000 Annunciator System

Whether for home or business, indoor or outdoor, the Wireless 2000 serves as a welcome chime or perimeter alert for your peace of mind.



The RCTD-200U chime box / receiver accepts up to 9 transmitters and identifies each group of tones with different chime tones.



The TD-200U sensor / transmitter mounts easily and has a selectable 60° beam pattern or 12° fan pattern.



The TD-100U can be used as a door/window transmitter or installed in the backdoor of any of Qulux's battery operated, wireless ready detectors.



The TD-100U Push button transmitter operates as doorbell, trigger for magnetic locks, garage door lights, etc.



Instantly see who's at your door from anywhere in your home or business.



SECURITY SHOULD BE MORE THAN JUST PROTECTION;

it should be peace of mind as well. The iVision achieves both by giving you the ability to not only know when somebody is outside your home, but to view and talk to them from the safety and comfort of any location in the house. The iVision package includes a convenient hand-held wireless receiver with LCD monitor and battery operated doorbell/camera unit with over 300ft. transmission range. In addition, the doorbell/camera unit can be hardwired into the existing doorbell power supply to activate the "browse" feature. This allows the user to activate the camera before the doorbell/camera unit is pressed.

iVISION

WIRELESS
TWO-WAY INTERCOM
SYSTEM WITH VIDEO

Protection for peace of mind.

Accessories Matrix

INDOOR PIR ACCESSORIES

CA-1W	Multi Angle Bracket for CX-702 Series, LX-Series
CA-2C	Multi Angle Ceiling Bracket for CX-702 Series, LX-Series
CL-80N	Long Range Len for the CX-502/502AM
CX-702CL	Cover & Lens for CX-702
EX-35TCL	Cover & Lens for EX-35T
FA-3	Wall Mount Bracket for FX-40, MX-40PI, RX-40PI
FL-60N	Long Range Lens 60' X 6' for the FX-40 and the RX-40PI

OUTDOOR PIR AND PHOTOBEM ACCESSORIES

AX-ASM	Pre-Installation Tower Assembly ***Site Plan required***
AX-PT3104	Replacement lens for AX-TW200, AX-TW200M
AX-TWAA	Tower Anti-Climb Top Tamper for AX-TW200
AX-TWEB	Tower Concrete floor bracket for uneven and difficult grounds for AX-TW200
AX-TWH	Tower Heater 12VDC 250 mA Non-Polarity for the AX-TW200/M
AX-TWSAX	Tower Adjustable Mounting Plate for Optex Beams (X2) TN/TFR, PLUS, when double stacking
AX-TWSM	Tower Wall Mount Bracket for AX-TW200 only
BC-1	Back Cover AX- 250/500PLUS & AX-350/650TF Series (Set)
BC-3	Back Cover AX-70/130/200TN & AX-100/200TF Series (Set)
HU-1	Heating Unit AX-250/500PLUS & AX-350/650TF Series (Set)
HU-2	Heating Unit AX-100/200PLUS (Set)
HU-3	Heating Unit AX-70/130/200TN & AX-100/200TF Series (Set)
MP-4	Bracket to mount TFR wireless beams to tower (Set)
SMP3	Tower Power Supply and Transformer (12 - 24 VDC)
SP-1	Spacers to Extend (2), for BX-100PLUS (2" from Mounting Surface) (Set)
WC-1	White Decorative Covers (2), Paintable for the BX-100PLUS (Set)

SIP AND REDSCAN ACCESSORIES

AVF-1	View Finder for the SIP Detector Series (Required Tool for Proper Installation of SIP Detectors)
AWT-3	SIP/LRP Series Walktester (Required Tool for Proper Installation of SIP Detectors) *NEW*
LRPGUARD	Protective Cage for all Redwall SIP/LRP Detectors
RLS-BRACKET	RLS-3060 Mounting Bracket for Weather Proof Double Gang Exterior Electrical Boxes
RLS-PB	Pole mount bracket for the RLS-3060 (Use with flexible conduit)
RLS-SB	Adjustable angle mounting bracket for the RLS-PB
SIP-HU	Heater unit for the SIP series (1 pc.) (Allows SIP to Operate to -40° F)
SIPMIDIHOOD	Sun and Snow Shield for SIP100/5030, and includes /5, Creep Zone Detectors
SIPMINIHOOD	Sun and Snow Shield for SIP 3020/4010/404, and includes /5, Creep Zone Detectors
SIP-PMBR	Pole Mount Bracket for SIP Series
SR-MPLT	SIP/LRP Adaptor Mounting Plate to Weather Proof Double Gang Box

About IP (International Protection/Ingress Protection) Code

Optex uses parts that meet various requirements of international standards in order to meet strict rules for putting safety markings on our products. These standards often require that devices meet or surpass certain ratings specified by IP (International Protection) Code.

IP tests have been done based on the Standard, IEC529 which is required for our all products. IP Codes are often required even for parts or partially assembled products.

The following is a brief explanation on the meaning of each number of the IP Code.

Arrangement of the IP code

IP65

Degrees of protection against dust

0	Non-protected
1	Protected against solid foreign objects of 50mm diameter and greater, such as a fist
2	Protected against solid foreign objects of 12.5mm diameter and greater, such as a finger
3	Protected against solid foreign objects of 2.5mm diameter and greater, such as a tool
4	Protected against solid foreign objects of 1.0mm diameter and greater, such as a wire
5	Dust-protected. Ingress of dust is not totally prevented but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or impair safety
6	Dust-tight. No ingress of dust

Degrees of protection against water

0	Non-protected
1	Protected against vertically falling water drops
2	Protected against vertically falling water drops when enclosure tilted up to 15°
3	Protected against spraying water at an angle up to 60°
4	Protected against splashing water from any direction
5	Protected against water jet from any direction
6	Protected against powerful water jets from any direction
7	Water-protected. Protected against the effect of temporary immersion in water
8	Waterproof. Protected against the effect of continuous immersion in water

OPTEX, Inc. Limited Warranty

This warranty applies only to Optex Inc. products purchased and used in North America. This particular warranty applies only to those products marked with the Optex or Redwall name.

What is covered?

Any defects in materials or workmanship.

For how long?

(Contact your local OPTEX sales representative to learn about our Dealer/Integrator training and extended warranties)

5 Years limited, with the exception of the following:

Redwall (LRP Series), Rednet, and LX Series - 1 year

BX-80N, VX Series, Wireless Series, SIP Series, HX series iVision and RLS – 2 years

Request-to-Exit Devices – 3 years

What will Optex do?

If your Optex product is determined to be a manufacturer's defect and returned within the warranty period, based on the lot number stamped on the unit, Optex we will replace it at no charge to you. Units shall be replaced with new or upgraded product, which will be warranted for full warranty period as indicated above.

Limitations:

Implied warranties, including those of fitness for a particular purpose and merchantability (an unwritten warranty that the product is fit for ordinary use), are

not pay for loss of time, inconvenience, loss of use of your Optex product, property damage caused by your Optex unit or its failure to work or any other incidental or consequential damages.

What we ask you to do when returning defective product:

To get a warranty replacement for your Optex product, you must first obtain a Manufacturers Return Authorization Number (MRA#). Call 800-966-7839 and request an MRA#. At this time you will be asked several questions which will determine the warranty status of the product. When you ship your Optex product to us for replacement, you must prepay all shipping costs. When sending back product, include your name, address, phone number and description of the operating problem.

Please be advised that Optex does not repair any sensors listed above. We do test the equipment and will determine if it works or not or if it is out of warranty. Optex will return the item packaged as we received it or if we find the equipment is defective and is under warranty, we will replace it with a new model or upgraded version. Out of warranty product that is received will be returned as is, or replaced with a new unit for the full new price. Optex will call to verify which option will work best for you. PLEASE make sure to check that the box and product lot #'s match, as we do sometimes get back old, out of warranty product in new boxes.

When replacing your warranty Optex product, we will ship it to your business in the United States at no charge to you.

What this warranty does not cover:

This warranty does not cover defects resulting from accidents, damage while in transit to our authorized distribution point, unauthorized repair, alterations, failure to follow instructions, misuse, use outside the North America, fire, flood and acts of God. Nor do we warrant our Optex products to be compatible with any particular security equipment. If your product is out of warranty or damaged beyond the coverage of this warranty, call us toll free at 800-966-7839 for advice, whether we will replace your Optex product. This warranty is the only one we give on your Optex product and it sets forth all our responsibilities regarding your Optex product. There are no expressed warranties

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