OPTEX
Sensing Innovation

# SECURITY
## PRODUCT CATALOG

Jan.2024

www.optex.co.jp/e

SECURITY

# Creating a safe and comfortable world with sensing technology.

## Sensing Innovation.

In recent years, violent attacks of terrorism and crime, information leakage by internal stakeholders, etc. have become a social problem, and the security measures of facilities are very important themes.

OPTEX proposes to construct an optimum security system for every field by combining our intrusion detectors and access control systems.

We are aiming to provide safe, secure and comfortable living with high precision and reliable sensing technology recognized in the world.

# Application examples

Perimeter protection × Laser scan / Photoelectric detectors

### Intrusion detection for solar power plant

Power cables of solar power plants are tend to be stolen by metal thefts and perimeter protections are very effective.

Perimeter protection × Laser scan / Outdoor PIR detectors

### Intrusion detection for power plant / substation

Optex's detectors are suitable for power plant / substation requiring high security level.

Automatic tracking × Laser scan / Outdoor PIR detectors

### PTZ camera control

Detectors can output detection signals to a control panel and which helps to move control PTZ cameras' preset position.

Wall protection × Laser scan detectors

### Art protection

Form of detection area by laser scan detectors can be easily changed by your PC with dedicated software.

Access control × Anti-tailgating

### Anti-tailgating for data center

The access control system which prevents unauthorized persons tailgating at gates and doors makes security level higher at data center.

Access control × Reverse detection

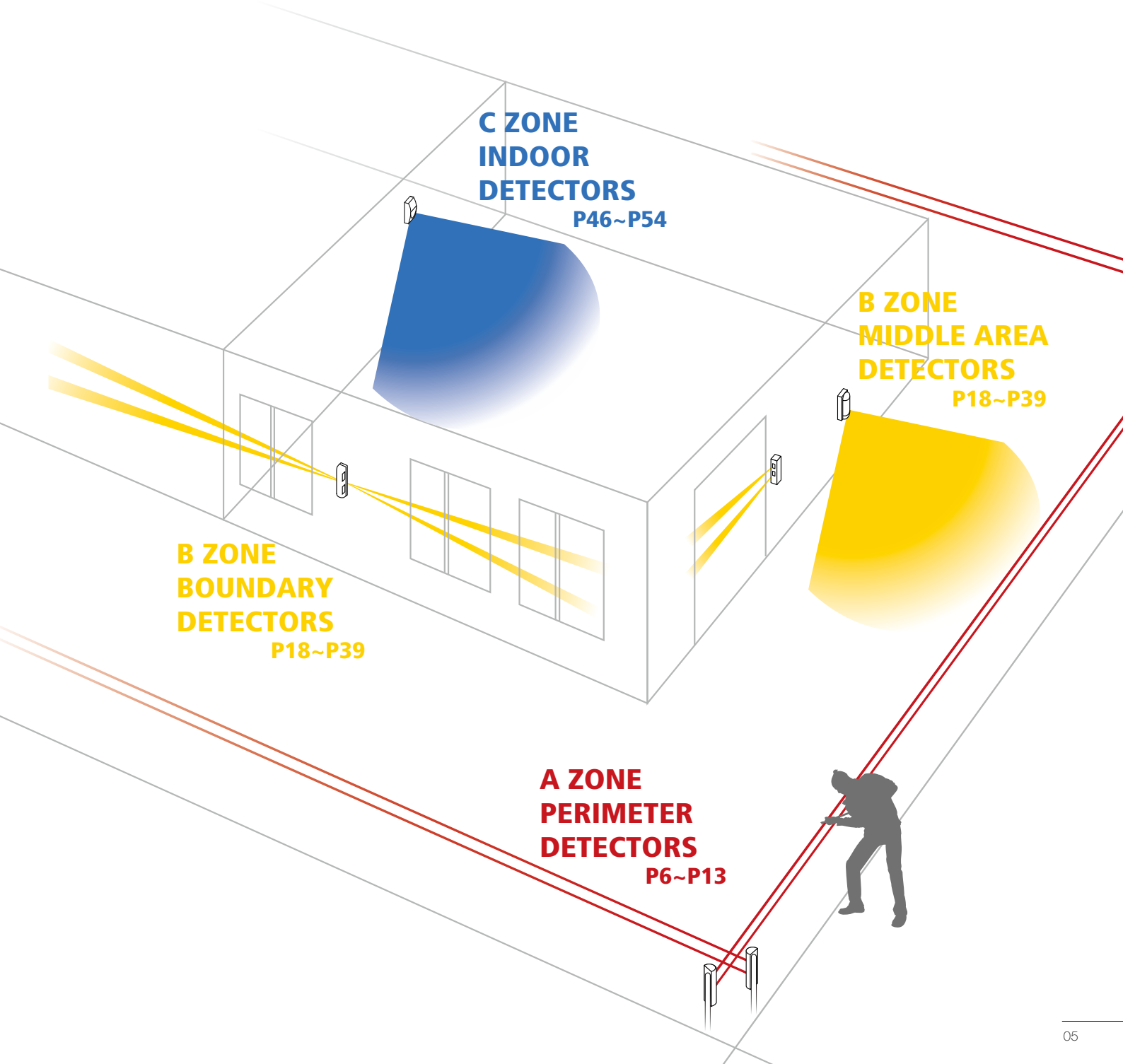
### Reverse detection for airport

Pedestrians who walk backward at one-way area in airport can be detected.

# CONCEPT FOR LEVEL SURVEILLANCE [KEY POINT TO ACHIEVE ADVANCED SECURITY]

When a general-purpose mechanical security system is installed, detectors are located inside a building and a monitoring station is notified if an intruder is detected within.

In order to increase the effectiveness of such a security system,
Optex recommends not only securing the inside of the building but also adding surveillance to the perimeter area and boundary of the property.
Optex has developed a system of enhanced outdoor surveillance that is capable of forestalling unauthorized entry into a building.
By integrating outdoor and indoor surveillance, this system creates a defense line incorporating three warning levels targeting the perimeter of the property, the boundary of the building, and the indoor area.
As a result, we can greatly strengthen and improve crime prevention.



# SL-200QDM/350QDM/650QDM

A-ZONE

## ADVANCED LONG RANGE PHOTOELECTRIC DETECTOR

Smart Line™ series

SL-200QDM/350QDM/650QDM series is the most advanced long range photoelectric detector. In addition to quad beam and double modulation, our unique technology automatic transmit power control decreases falese and missed alarms. LED Indicator and sound assist and upper/lower beam selection button lighten your workload while achieving perfect alignment.

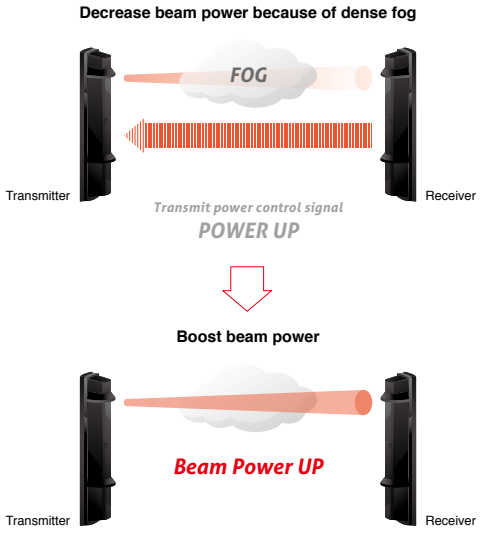
- SL-200QDM – detection range 60m
- SL-350QDM – detection range 100m
- SL-650QDM – detection range 200m

## FEATURES

- High power quad beam
- Double modulation
- A.T.P.C.-Automatic transmit power control
- I.A.S.C.- Integrated alignment status communication
- Upper/lower beam selection button
- Beam power control selector
- LED indicator and sound assist
- Sniper viewfinder with 2X magnification lens
- International protection IP65

## A.T.P.C.-AUTOMATIC TRANSMIT POWER CONTROL

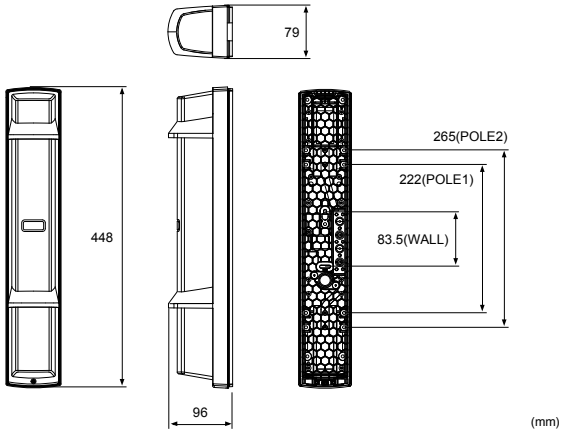
Automatically controls, adjusts and optimizes the power of the beam and maintains optimal performance. It decreases false and missed alarms caused by fog, frost, cross talk, signal saturation.




## OPTIONS

- ABC-4 : Anti Bird Cap
- BC-4 : Back Cover
- PSC-4 : Pole Side Cover
- BAU-4 : Beam Alignment Unit
- HU-3 : Heating Unit
- CBR-4 : Conduit Bracket

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | | | SL-200QDM | SL-350QDM | SL-650QDM |
|---|---|---|---|---|---|
| Maximum detection range | | | 60m | 100m | 200m |
| Maximum arrival distance | | | 600m | 1000m | 2000m |
| Detection method | | | Quad infrared beam interruption detection | | |
| Selectable beam frequency | | | 4 channels | | |
| Interruption period | | | Variable between 50/100/250/500 ms (4 steps) | | |
| Power source | | | Normal: 10.5 to 30 VDC | | |
| Current draw (MAX) | Normal | 10.5 - 30 VDC | 26 mA (T:11 mA, R:15 mA) | | 30 mA (T:15 mA ,R:15 mA) |
| | Optical alignment | 10.5 - 30 VDC | 36 mA (T:16 mA, R:20 mA) | | 43 mA (T:20 mA ,R:23 mA) |
| Output | Alarm output | | Form C relay: 30 VDC, 0.2 A | | |
| | Alarm period | | 2 sec (±1) (Nominal) | | |
| | D.Q. output | | Form C relay: 30 VDC, 0.2 A (D.Q. and Low battery can be switched.) | | |
| | Low battery output | | | | |
| | Tamper output | | N.C. (contact output): 30 VDC, 0.1 A Opens when the cover removed. | | |
| Operating temperature | | | -35 to +60°C | | |
| Operating humidity | | | 95% (max.) | | |
| Alignment angle | | | ±90° Horizontal, ±10° Vertical | | |
| Dimension(H x W x D) | | | 448mm x 79mm x 96mm | | |
| Weight | | | 2500 g (Total weight of the transmitter + receiver, excluding accessories) | | |
| International protection | | | IP65 | | |

Specifications and design are subject to change without prior notice.

# SL-200QDP/350QDP/650QDP

A-ZONE

STANDARD LONG RANGE PHOTOELECTRIC DETECTOR

Smart Line™ series

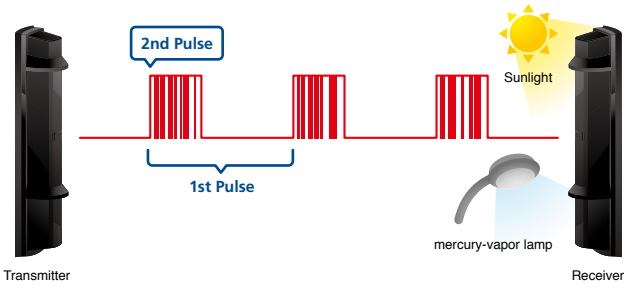
SL-200QDP/350QDP/650QDP series is standard long range photoelectric detector. In additon to basic feature such as quad beam /double modulation, sunshine protection technology and beam power control selector decreases falese and missed alarms. LED Indicator and sound assist(receiver only) and upper/lower beam selection button lighten your workload while achieving perfect alignment.

- SL-200QDP – detection range 60m
- SL-350QDP – detection range 100m
- SL-650QDP – detection range 200m

## FEATURES

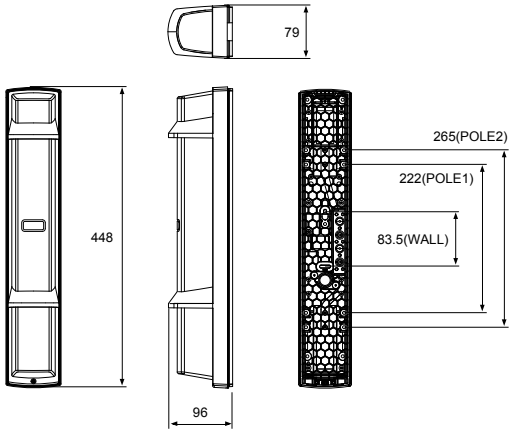
- High power quad beam
- Double modulation
- Upper/lower beam selection button
- Beam power control selector
- LED indicator and sound assist (receiver only)
- Sniper viewfinder with 2X magnification lens
- International protection IP65

## Double Modulation Beam




The SL-QDM and SL-QDP offer double modulation beams that differ in pulse patterns. This can enhance signal discrimination against potential noise interference such as sunlight or other external light sources, resulting in a reduction of missed alarms.
Together with OPTEX triple layered sunshine protection technology, it ensures high reliability under the severe outdoor security environment.

## DIMENSIONS




(mm)

## OPTIONS

- ABC-4 : Anti Bird Cap
- BC-4 : Back Cover
- PSC-4 : Pole Side Cover
- BAU-4 : Beam Alignment Unit
- HU-3 : Heating Unit
- CBR-4 : Conduit Bracket

## SPECIFICATIONS

| Model | | | SL-200QDP | SL-350QDP | SL-650QDP |
|---|---|---|---|---|---|
| Maximum detection range | | | 60m | 100m | 200m |
| Maximum arrival distance | | | 600m | 1000m | 2000m |
| Detection method | | | Quad infrared beam interruption detection | | |
| Selectable beam frequency | | | 4 channels | | |
| Interruption period | | | Variable between 50/100/250/500 ms (4 steps) | | |
| Power source | | | 10.5 to 30 VDC | | |
| Current draw (MAX) | Normal | 10.5 - 30 VDC | 17 mA (T:6 mA, R:11 mA) | | 22 mA (T:11 mA, R:11 mA) |
| | Optical alignment | 10.5 - 30 VDC | 21 mA (T:7 mA, R:14 mA) | | 24 mA (T:10 mA, R:14 mA) |
| Output | Alarm output | | Form C relay: 30 VDC, 0.2 A | | |
| | Alarm period | | 2 sec (±1) (Nominal) | | |
| | D.Q. output | | Form C relay: 30 VDC, 0.2 A | | |
| | Tamper output | | N.C. (contact output): 30 VDC, 0.1 A Opens when the cover removed. | | |
| Operating temperature | | | -35 to +60℃ | | |
| Operating humidity | | | 95% (max.) | | |
| Alignment angle | | | ±90° Horizontal, ±10° Vertical | | |
| Dimension(H x W x D) | | | 448mm x 79mm x 96mm | | |
| Weight | | | 2400 g (Total weight of the transmitter + receiver, excluding accessories) | | |
| International protection | | | IP65 | | |

Specifications and design are subject to change without prior notice.

# SL-200QN/350QN/650QN

A-ZONE

## BASIC LONG RANGE PHOTOELECTRIC DETECTOR

Smart Line™ series

SL-200QN/350QN/650QN series is basic long range photoelectric detector. It has IP65 sturucture and quad beam. Sniper viewfinder and beam alignment unit: BAU-4(option) helps you achieve perfect alignment.

- SL-200QN – detection range 60m
- SL-350QN – detection range 100m
- SL-650QN – detection range 200m

## FEATURES

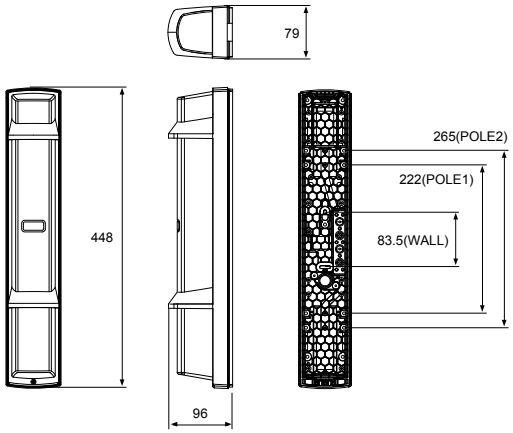
- High power quad beam
- Smart design - slim body
  - vivid interior color
- Sniper viewfinder with 2X magnification lens
- International protection IP65

## QUAD BEAM & UNITED APPEARANCE

By employing quad beam, it dramatically reduces false alarm caused by birds and falling leaves. Moreover, it is also important that the housing design of both long and short beams are united. 60m (200ft.) range models, SL-200QN/SL-200QDP/SL-200QDM with a wide beam pitch is now available.

**Conventional short beam** **Smartline series**

## DIMENSIONS




(mm)

## OPTIONS

- ABC-4 : Anti Bird Cap
- BC-4 : Back Cover
- PSC-4 : Pole Side Cover
- BAU-4 : Beam Alignment Unit
- HU-3 : Heating Unit
- CBR-4 : Conduit Bracket

## SPECIFICATIONS

| Model | | SL-200QN | SL-350QN | SL-650QN |
|---|---|---|---|---|
| Maximum detection range | | 60m | 100m | 200m |
| Maximum arrival distance | | 600m | 1000m | 2000m |
| Detection method | | Quad infrared beam interruption detection | | |
| Interruption time | | Variable between 50/100/250/500 ms (4 steps) | | |
| Power source | | 10.5 to 30 VDC | | |
| Current draw | | 38mA (Transmitter:8mA Receiver:30mA) | 39mA (Transmitter:9mA Receiver:30mA) | 40mA (Transmitter:10mA Receiver:30mA) |
| Output | Alarm output | Form C relay : 30 VDC, 0.2 A | | |
| | Alarm period | 2sec (±1) (Nominal) | | |
| | Tamper output | N.C. (contact output) : 30 VDC, 0.1A Opens when cover removed. | | |
| Operating temperature | | -25 to +60°C | | |
| Operating humidity | | 95% (max.) | | |
| Alignment angle | | ±90° Horizontal, ±10° Vertical | | |
| Dimension(H x W x D) | | 448mm x 79mm x 96mm | | |
| Weight | | 2400g (Total weight of Transmitter + Receiver, excluding accessories) | | |
| International protection | | IP65 | | |

Specifications and design are subject to change without prior notice.

# SL-100TNR/200TNR

A-ZONE

SHORT RANGE BATTERY OPERATED PHOTOELECTRIC DETECTOR

Smart Line™ series



WIRELESS

- SL-100TNR – detection range 30m
- SL-200TNR – detection range 60m

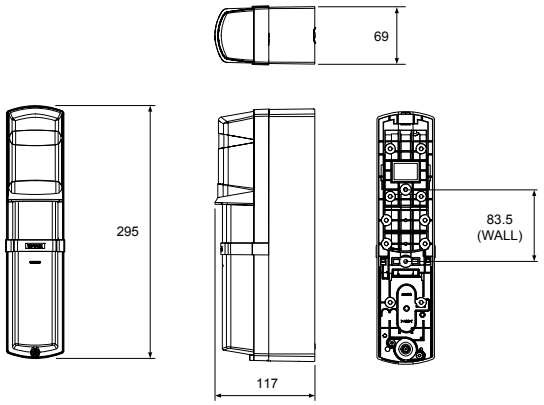
## FEATURES

- Universal powered operation
  D size lithium battery x 4pcs
  CR123A lithium battery x 16 pcs (OPTION CRH-5)
- 12-24VDC hardwired operation of the detector.
  (OPTION PCU-5)
- Versatile alarm signal operation
- IR signal technology transmits the low battery status to the receiver.
- Simplified battery replacement
- Easy to access the battery holder and change batteries.

## OPTIONS

- BCU-5 : Battery common Unit
- CRH-5 : CR123 Battery Holder
- PCU-5 : Power Convert Unit

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | | SL-100TNR | SL-200TNR |
|---|---|---|---|
| Maximum detection range | | 30 m | 60 m |
| Maximum arrival distance | | 265 m | 530 m |
| Detection method | | Twin infrared beam interruption detection | |
| Interruption time | | Variable between 50/100/250/500 ms (4 steps) | |
| Power source | | 3.6 to 3.9 VDC D size lithium batteries (SB-D02HP manufactured by VITZROCELL)<br>3.0 VDC CR123A lithium batteries | Each Transmitter and Receiver: 2 units<br>Each Transmitter and Receiver: 8 units (OPTION CRH-5: 2unit) |
| Current draw (stand by/ at 25°C) | 3.9 VDC | Total: Approx. 500 µA<br>Transmitter: Approx. 200 µA<br>Receiver: Approx. 300 µA | Total: Approx. 600 µA<br>Transmitter: Approx. 300 µA<br>Receiver: Approx. 300 µA |
| | 3.0 VDC | Total: Approx. 600 µA<br>Transmitter: Approx. 200 µA<br>Receiver: Approx. 400 µA | Total: Approx. 700 µA<br>Transmitter: Approx. 300 µA<br>Receiver: Approx. 400 µA |
| Battery life** | SB-D02HP by VITZROCELL | Transmitter: Approx. 6 years<br>Receiver: Approx. 5 years | Transmitter: Approx. 5 years<br>Receiver: Approx. 5 years |
| | CRH-5 (CR123A by Panasonic) | Transmitter: Approx. 1.5 years<br>Receiver: Approx. 1 year | Transmitter: Approx. 1 year<br>Receiver: Approx. 1 year |
| Output | Alarm output | Form C-Solid State Switch: 3.6 VDC, 0.01 A | |
| | Alarm period | 2 s (±1) | |
| | Low battery output | N.C. (Solid State Switch): 3.6 VDC, 0.01 A | |
| | Cover tamper output (Receiver) | N.C. (Solid State Switch): 3.6 VDC, 0.01 A<br>Opens when the battery cover removed. | |
| Indicator LED | Alarm/ Level indicator (Receiver) | ON:Beam not received<br>Blinking:Beam not received sufficiently<br>OFF:Beam received | |
| | Power/ Low battery indicator (Transmitter and Receiver) | ON:Power ON<br>Blinking:Voltage reduction<br>OFF:Power OFF | |
| Operating temperature | | -20°C to +60°C | |
| Operating humidity | | 95 % (max.) | |
| Alignment angle | | ±90° Horizontal, ±5° Vertical | |
| Dimension | | H x W x D mm : 295 x 69 x 117 | |
| Weight | | 1200 g (Total weight of Transmitter + Receiver, excluding accessories) | |
| International protection | | IP65 | |

Specifications and design are subject to change without prior notice.
* The value is based on the condition that it is used within the ambient temperature range of 20 to 25°C.
** Using batteries other than those recommended may shorten the battery life.

# SL-350QFR/350QNR

A-ZONE

BATTERY OPERATED PHOTOELECTRIC DETECTOR

Smart Line™ series

WIRELESS

Optex offers a less expensive and more efficient solution with SL-350QFR/SL-350QNR.
Typical perimeter systems require expensive trenching or much time for installation.
Expensive wire conduit runs and concrete works are unnecessary, allowing installers to save time and money.

- SL-350QFR – 4ch. beam frequencies selectable model
- SL-350QNR – standard model

## FEATURES

- Long distance 100m
- Long battery life 4 to 8 years
- Wireless ready
- Sniper viewfinder with 2X magnification lens
- International protection IP65
- Spacious back box

## WIRELESS-READY

The SL-350QFR and SL-350QNR, our wireless ready, battery operated photoelectric detectors are designed to work with most manufacturer`s wireless transmitters, and the back box has enough space to accomodate them. They are easy deployable and adaptable to any control systems currently installed.


## LONG BATTERY LIFE

Approx. 4 years Max. 8 years

Low current consumption
Transmitter 420µA (0.42mA)
Receiver 325µA(0.325mA)

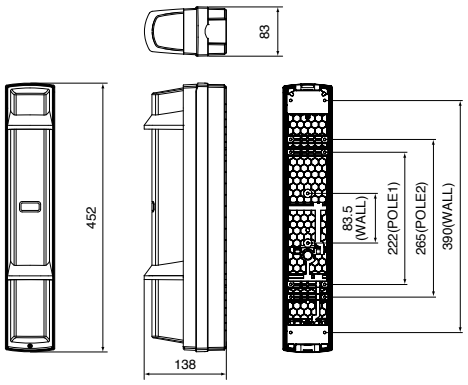
When using LSH20 (3,6V,13Ah) batteries manufactured by SAFT.

| | Transmitter | Receiver |
|---|---|---|
| 4 pcs | Approx. 8 years | Approx. 10 years |
| 2 pcs | Approx. 4 years | Approx. 5 years |

## OPTIONS

- ABC-4 : Anti Bird Cap
- BC-4 : Back Cover
- PSC-4 : Pole Side Cover
- BAU-4 : Beam Alignment Unit
- EC-4 : Extension Cable with Connector
- BCU-5 : Battery Common Unit

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | | SL-350QFR | SL-350QNR |
|---|---|---|---|
| Maximum detection range | | 100m | |
| Maximum arrival distance | | 1000m | |
| Detection method | | Quad infrared beam interruption detection | |
| Selectable beam frequency | | 4 channels | – |
| Interruption period | | Variable between 50/100/250/500 ms (4 steps) | |
| Power source | | Recommend: 3.6 V, 13.0Ah<br>LSH20 lithium batteries manufactured by SAFT<br>Operating range: 3.2 V to 4.0 V lithium batteries<br>Transmitter: 2 or 4 units, Receiver: 2 or 4 units | |
| Current draw | | 745µA Transmitter: 420µA + Receiver: 325µA (at 25°C, 3.6 VDC) | |
| Battery life ** | | Transmitter: Approx. 4 years Receiver: Approx. 5 years | |
| Output | Alarm output | Form C-Solid State Switch: 3.6 VDC, 0.01 A | |
| | Alarm period | 2 sec (±1) (Nominal) | |
| | D.Q output | Form C-Solid State Switch: 3.6 VDC, 0.01 A (Receiver only) | |
| | Low battery output | N.C. (solid state switch): 3.6 VDC, 0.01 A | |
| | Tamper output (cover, back box, main unit) | N.C. (mechanical switch): 3.6 VDC, 0.01 A<br>opens when cover, main unit or back box is removed. | |
| Indicator | Alarm (Receiver) | Alarm: ON<br>Light receiving: OFF | |
| | Level (Receiver) | Not Light receiving: OFF<br>Light receiving: Flickering or OFF | |
| | Power (Transmitter) | Power ON: ON<br>Power OFF: OFF | |
| | Low battery | Voltage reduction: Flickering | |
| Operating temperature | | -20 to +60°C | |
| Environmental humidity | | 95 % (max.) | |
| Alignment angle | | ±90° Horizontal, ±10° Vertical | |
| Dimensions (H x W x D) | | 452mm x 83mm x 138mm | |
| Weight | | 3300 g (Total weight of Transmitter + Receiver, excluding accessories) | |
| International protection | | IP65 | |

Specifications and design are subject to change without prior notice.
* The value is based on the condition that it is used within the ambient temperature range of 20 to 25°C. (LSH-20 x2 pcs)
** Using batteries other than those recommended may shorten the battery life.
Batteries and wireless transmitters are not included in these products.

# AX-100TFR/200TFR

A-ZONE

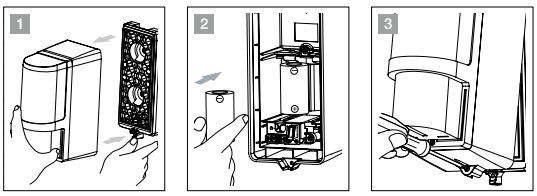
## BATTERY OPERATED PHOTOELECTRIC DETECTOR

WIRELESS

The AX-100/200TFR series are "REVOLUTION" in the perimeter security industry, offering significant cost saving alternatives to traditional hardwired system.

- AX-100TFR – detection range 30m
- AX-200TFR – detection range 60m

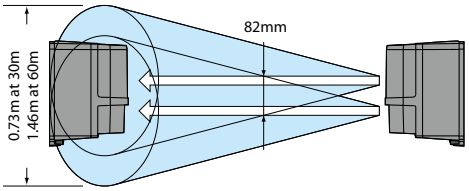
Easy battery replacement



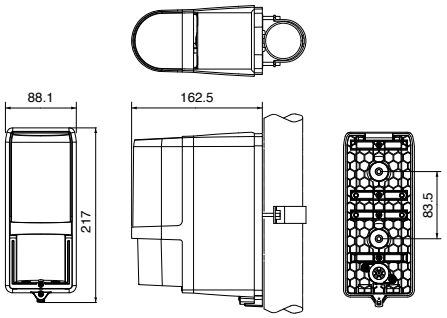

## FEATURES

- Long battery life AX-100TFR: approx. 5 years
  AX-200TFR: approx. 3 years(transmitter)
  approx. 5 years(receiver)
- Easy battery replacement
- Triple tamper functions
- Low battery output and LED indication
- Intermittent output function
- Compatible with numerous wireless transmitters
- Battery saving timer function for wireless transmitters

## RANGES




## DIMENSIONS




(mm)

## OPTIONS

- MP-4 : Main unit mounting bracket set (for tower mounting)
- BCU-5 : Battery Common Unit

## SPECIFICATIONS

| | | | | | | |
|---|---|---|---|---|---|---|
| Model | | AX-100TFR | AX-200TFR | | | |
| Maximum detection range | | 30m | 60m | | | |
| Maximum arrival distance | | 265m | 530m | | | |
| Detection method | | Infrared beam interruption detection | | | | |
| Selectable beam frequency | | 4 channels | | | | |
| Interruption period | | Variable between 50, 100, 250, 500msec (4 steps) | | | | |
| Power source | | 3.6V 13.0Ah : LSH20 lithium batteries manufactured by SAFT (not included) Transmitter : 2 units Receiver : 2 units | | | | |
| Current draw | | 620μA T:300μA + R:320μA (at 25˚C ,3.6 VDC) | 810μA T:490μA + R:320μA (at 25˚C ,3.6 VDC) | | | |
| Battery life | | 5 years | Transmitter | 3 years | Receiver | 5 years |
| Output | Alarm output | Form C-Solid State Switch : 3.6 VDC, 0.01A | | | | |
| | Alarm period | 2 sec (±1) nominal | | | | |
| | 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 covor | Form C: 3.6 VDC, 0.01 A<br>activates when cover removed. (Receiver only) | | | | |
| | Tamper output for Back box | Form C: 3.6 VDC, 0.01 A<br>activates when either back box or chassis is removed from the installment. | | | | |
| Indicator | Alarm (Receiver) | (1) Light on - IR Beam not received. (2) Flickering Light - IR Beams not received sufficiently.<br>(3) Light off - IR Beams received. | | | | |
| | Powor (Transmitter) | Power ON : ON,<br>Power OFF : OFF | | | | |
| | Low battery | Voltage Reduction : flicker | | | | |
| Operating temperature | | -20 to +60˚C | | | | |
| Environmental humidity | | 95%(Max.) | | | | |
| Alignment angle | | ± 90˚ Horizontal, ± 5˚ Vertical | | | | |
| Mounting | | Indoor/Outdoor, Wall/Pole/Tower mounting (Optional main unit mounting brackets are required, when the units mount in the tower.) | | | | |
| Weight | | 1600 g (Total weight of transmitter + receiver, excluding accessories) | | | | |
| International protection | | IP55 | | | | |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# AX-100TF/200TF

A-ZONE

## SELECTABLE BEAM FREQUENCY SHORT RANGE PHOTOELECTRIC DETECTOR

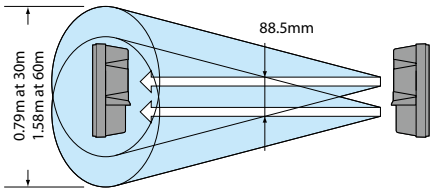

The AX-100/200TF series of short range photoelectric detectors are compact in design with selectable beam frequencies.
Also the AX-100TF/200TF series carries the IP65 high durable structure which prevents water, dust or bugs from getting into the unit.

- AX-100TF – detection range 30m
- AX-200TF – detection range 60m

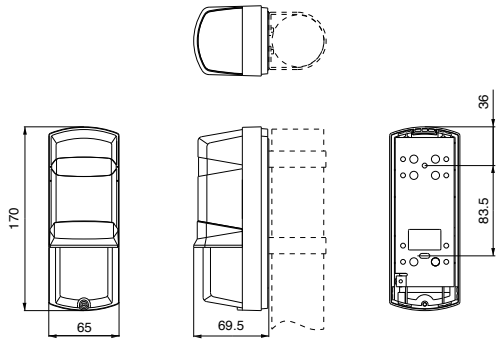
## FEATURES

- Selectable 4 channels beam frequency
- 4 step alarm indicator LED
- Environmental disqualification circuit
- International protection IP65
- Lightning and surge protection
- Anti-frost hood cover
- 99% beam blocking stability
- A.G.C. (Automatic Gain Control) circuit
- Adjustable beam interruption time

## RANGES




## DIMENSIONS




(mm)

## OPTIONS

- HU-3 : Heating Unit
  24V DC/AC, 420mA max.
- BC-3 : Back Cover
- PSC-3 : Pole Side Cover
  Cover for installing 2 units to 1 pole

## SPECIFICATIONS

| Model | AX-100TF | AX-200TF |
|---|---|---|
| Maximum detection range | 30m | 60m |
| Maximum arrival distance | 300m | 600m |
| Selectable beam frequency | 4 channels | |
| Interruption period | Selectable between 50, 100, 250, and 500 msec. | |
| Power supply | 10.5 to 28 VDC | |
| Current consumption (transmitter + receiver) | 44mA (max.) | 48mA (max.) |
| Alarm period | 2 sec. (±1) nominal | |
| Alarm output | N.C./N.O. 28 VDC 0.2A max. | |
| Tamper switch | N.C. opens when cover is removed at 28 VDC, 0.1A max. | |
| Operating temperature | -35 to +60˚C<br>Use the optional heating unit (HU-3) under the environment of -25˚C or less minus. | |
| Environmental humidity | 95% max. | |
| Alignment angle | ±90˚ Horizontal, ±5˚ Vertical | |
| Mounting | Wall and pole mounting | |
| Weight (transmitter+receiver) | 700 g | |
| Dimensions (H x W x D) | 170 mm x 65 mm x 69.5 mm | |
| International protection | IP65 | |

Specifications and design are subject to change without prior notice.

# AX-70TN/130TN/200TN

A-ZONE

## SHORT RANGE PHOTOELECTRIC DETECTOR

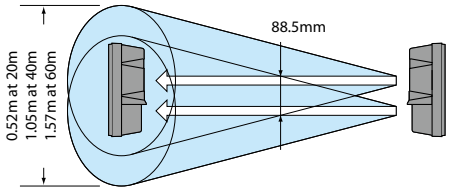

The AX-70/130/200TN series of short range photoelectric detectors are compact in design with IP65 high durable structure.

- AX-70TN – detection range 20m
- AX-130TN – detection range 40m
- AX-200TN – detection range 60m

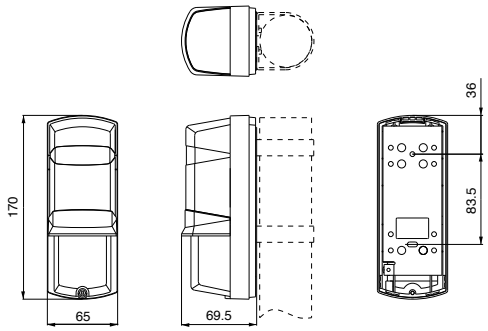
## FEATURES

- International protection IP65
- Lightning and surge protection
- Anti-frost hood cover
- 99% beam blocking stability
- A.G.C. (Automatic Gain Control) circuit
- Adjustable interruption time

## RANGES




## DIMENSIONS




(mm)

## OPTIONS

- HU-3 : Heating Unit
  24V DC/AC, 420mA max.
- BC-3 : Back Cover
- PSC-3 : Pole Side Cover
  Cover for installing 2 units to 1 pole

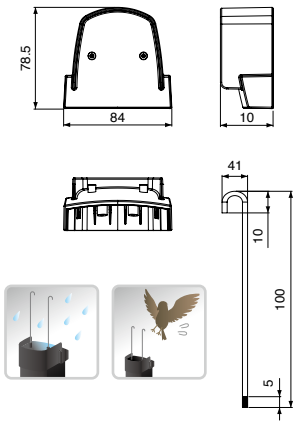
## SPECIFICATIONS

| Model | AX-70TN | AX-130TN | AX-200TN |
|---|---|---|---|
| Maximum detection range | 20m | 40m | 60m |
| Maximum arrival distance | 200m | 400m | 600m |
| Interruption period | Selectable between 50, 100, 250, and 500 msec. | | |
| Power supply | 10.5 to 28 VDC | | |
| Current consumption (transmitter + receiver) | 38mA (max.) | 41mA (max.) | 45mA (max.) |
| Alarm period | 2 sec. (±1) nominal | | |
| Alarm output | N.C. 28 VDC 0.2A max. | | |
| Tamper switch | N.C. opens when cover is removed at 28 VDC, 0.1A max. | | |
| Operating temperature | -35 to +60˚C<br>Use the optional heating unit (HU-3) under the environment of -25˚C or less minus. | | |
| Environmental humidity | 95% max. | | |
| Alignment angle | ±90˚ Horizontal, ±5˚ Vertical | | |
| Mounting | Wall and pole mounting | | |
| Weight (transmitter+receiver) | 650 g | | |
| Dimensions (H x W x D) | 170 mm x 65 mm x 69.5 mm | | |
| International protection | IP65 | | |

Specifications and design are subject to change without prior notice.

# OPTIONS

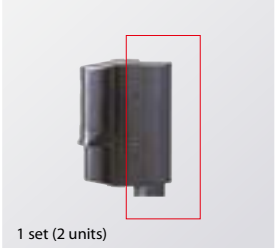
## ABC-4

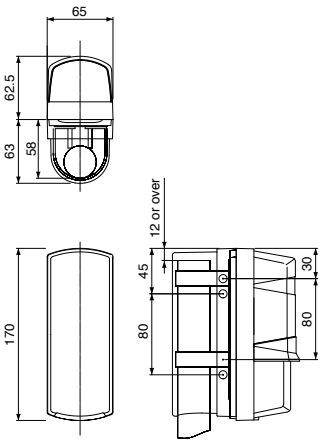




Anti Bird Cap
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN
- SL-350QFR/SL-350QNR

(mm)

## BC-3

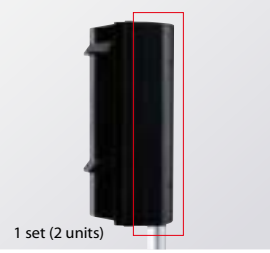


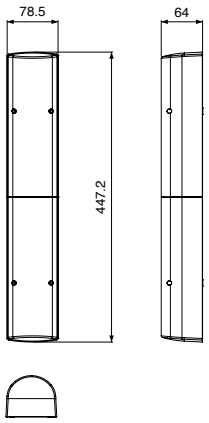




Back Cover
for
- AX-100TF/200TF
- AX-70TN/130TN/200TN

(mm)

## BC-4

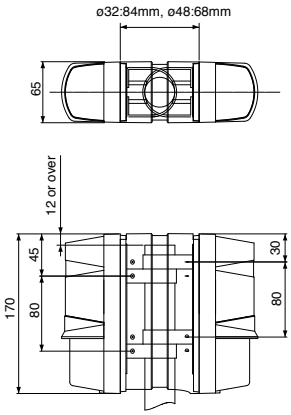



Back cover
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN
- SL-350QFR/350QNR

(mm)

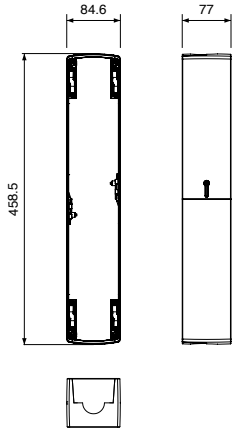
## PSC-3


Pole Side Cover
for
- AX-100TF/200TF
- AX-70TN/130TN/200TN

(mm)

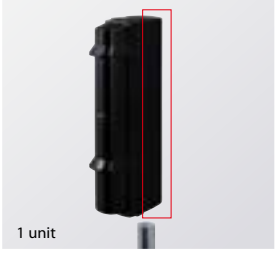
## PSC-4


Pole Side Cover
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN
- SL-350QFR/350QNR

(mm)

## CBR-4

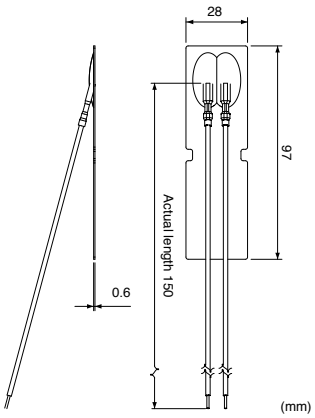




Conduit Bracket
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN

(mm)

## HU-3

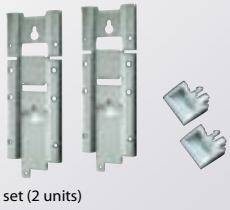



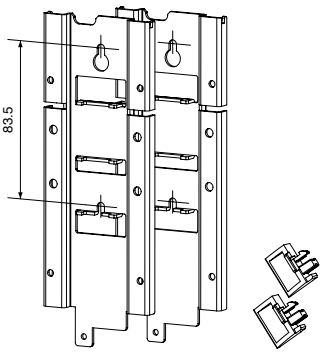

Heating Unit
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN
- AX-100TF/200TF
- AX-70TN/130TN/200TN

*2sets (4 units) are used for SL series.

| | |
|---|---|
| Power input | 24VAC/DC |
| Current draw | 420mA(max.) (Per 1 unit) |
| Thermo switch | 60°C (140°F) |

## MP-4

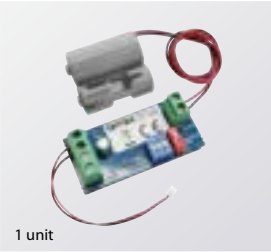



Main Unit Mounting Bracket Set (for Tower Mounting)
for
- AX-100TFR/200TFR

(mm)

## BCU-5

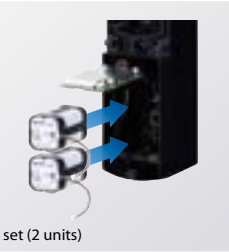



Share power source and low battery signals
between the main unit and the wireless transmitter.
for
- SL-100TNR/200TNR
- AX-100TFR/200TFR
- SL-350QFR/350QNR

| | | |
|---|---|---|
| Input voltage | 3.2 - 4.0 VDC | |
| Current draw | Approx. 5 µA at 3.6 VDC (no load) | |
| Output voltage | Normal | Approx. 2.3 - 3.6 VDC |
| | Low battery | Approx. 2.0 - 2.6 VDC |
| Output current | 100 mA (max.) | |
| Operating temperature | -20°C - +60°C (-40°F - +140°F) | |
| Operating humidity | 95% (max.) | |

Package contents
- 1 X PC board
- 2 X Dummy battery
- 3 X Power cable

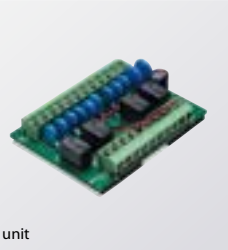
## CRH-5




Battery holder when using CR123A as a power source.
CR123A: Transmitter x 8pcs ,
Reciever x 8pcs
Battery life : Approx. 1year

Only for SL-100TNR/200TNR

## PCU-5



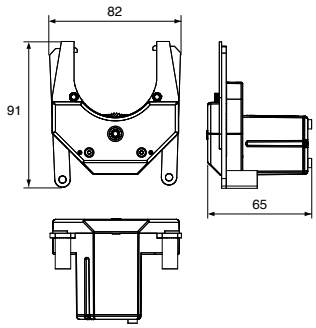

Voltage converter unit used to enable wired operation of the detector.

| | |
|---|---|
| Power input | 10.5 - 30 VDC |
| Current draw | 80 mA (max.) |
| Output voltage | Approx. 3.9 VDC |
| Output current | 10 mA (max.) |
| Alarm output | Form C relay : 30 VDC, 0.2 A |
| D.Q. output | Unused (Form C relay : 30 VDC, 0.2 A) |
| Low battery output | N.C. relay : 30 VDC, 0.2 A |
| Tamper output | N.C. relay : 30 VDC, 0.2 A |
| Operating temperature | -20°C - +60°C (-4°F - +140°F) |
| Operating humidity | 95% (max.) |

## BAU-4 (Sales ends when all the stock is sold out)


Aligns optical axis automatically.
(SL-QDP/QN/QFR/QNR: applicable to receiver only)

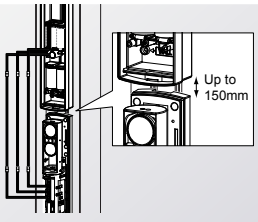
Motor Head




Beam Alignment Unit
for
- SL-200QDM/350QDM/650QDM
- SL-200QDP/350QDP/650QDP
- SL-200QN/350QN/650QN
- SL-350QFR/350QNR

Controller
Dimensions (HxWxD): 180mm x 120mm x 45mm

## EC-4




Extension Cable with Connector
for
- SL-350QFR/SL-350QNR

(mm)

# PRODUCT SPECIFICATIONS



| | SL-200QDM | SL-350QDM | SL-650QDM | SL-200QDP | SL-350QDP | SL-650QDP |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | P06 | P06 | P06 | P07 | P07 | P07 |
| Detection method | Infrared beam interrruption detection | | | | | |
| Maximum detection range | 60m | 100m | 200m | 60m | 100m | 200m |
| Maximum arrival range | 600m | 1000m | 2000m | 600m | 1000m | 2000m |
| Number of beams | Quad | Quad | Quad | Quad | Quad | Quad |
| Beam characteristics | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared |
| Double Modulation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Beam blocking ratio | 99% | 99% | 99% | 99% | 99% | 99% |
| 4 Ch. Selectable beam frequency | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Interruption period | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. |
| Mounting | Wall / Pole/Tower | Wall / Pole/Tower | Wall / Pole/Tower | Wall / Pole/Tower | Wall / Pole/Tower | Wall / Pole/Tower |
| Alignment angle | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal |
| | +/- 10˚ Vertical | +/- 10˚ Vertical | +/- 10˚ Vertical | +/- 10˚ Vertical | +/- 10˚ Vertical | +/- 10˚ Vertical |
| LED Indicator | ✓ 16 steps & Sound assist | ✓ 16 steps & Sound assist | ✓ 16 steps & Sound assist | ✓ 16 steps & Sound assist | ✓ 16 steps & Sound assist | ✓ 16 steps & Sound assist |
| Monitor jack for alignment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Beam alignment method | Sniper viewfinder™ | | | | | |
| Lightning protection | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Environmental disqualification output | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Integrated alignment status communication (I.A.S.C.) | ✓ | ✓ | ✓ | — | — | — |
| Power supply | Normal: 10.5 - 30 VDC | Normal: 10.5 - 30 VDC | Normal: 10.5 - 30 VDC | 10.5 - 30 VDC | 10.5 - 30 VDC | 10.5 - 30 VDC |
| Current consumption | 40 mA max. | 40 mA max. | 43mA max. | 24 mA max. | 24 mA max. | 33 mA max. |
| Alarm output | FormC | FormC | FormC | FormC | FormC | FormC |
| Tamper | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Alarm memory | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Anti-frost design | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Optional heating unit | HU-3 | HU-3 | HU-3 | HU-3 | HU-3 | HU-3 |
| International protection | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 |
| Operating temperature | -35 to +60˚C | -35 to +60˚C | -35 to +60˚C | -35 to +60˚C | -35 to +60˚C | -35 to +60˚C |
| Operating humidity | 95% max | 95% max | 95% max | 95% max | 95% max | 95% max |
| Dimensions (H x W x D mm) | 448 x 79 x 96 | 448 x 79 x 96 | 448 x 79 x 96 | 448 x 79 x 96 | 448 x 79 x 96 | 448 x 79 x 96 |

| SL-200QN/350QN/ 650QN | SL-100TNR/200TNR | SL-350QFR/QNR | AX-100TFR/200TFR | AX-100TF/AX-200TF | AX-70TN/130TN/200TN | BX-100PLUS |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| P08 | P09 | P10 | P11 | P12 | P13 | P39 |
| Infrared beam interrruption detection | | | | | | |
| 60m/100m/200m | 30m/60m | 100m | 30m/60m | 20m/40m/60m | 20m/40m/60m | 30m |
| 600m/1000m/2000m | 256m/530m | 1000m | 265m/530m | 200m/400m/600m | 200m/400m/600m | 300m |
| Quad | Twin | Quad | Twin | Twin | Twin | Twin |
| Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared | Pulsed infrared |
| — | — | — | — | — | — | — |
| 99% | 99% | 99% | 99% | 99% | 99% | 99% |
| — | — | ✓ (SL-350QFR) | ✓ | ✓ | — | — |
| 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50,100,250,500msec. | 50msec |
| Wall / Pole/Tower | Wall/Pole | Wall / Pole/Tower | Wall / Pole/Tower | Wall / Pole | Wall / Pole | Wall |
| +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 90˚ Horizontal | +/- 92˚ Horizontal |
| +/- 10˚ Vertical | +/- 5˚ Vertical | +/- 10˚ Vertical | +/- 5˚ Vertical | +/- 5˚ Vertical | +/- 5˚ Vertical | |
| — | ✓ | ✓4steps | ✓4steps | ✓4steps | — | — |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | — |
| Sniper viewfinder™ | | | View finder | View finder | View finder | Audible indicator |
| ✓ | — | — | — | ✓ over 14kV | ✓ over 14kV | ✓ over 6kv |
| — | ✓ | ✓ | ✓ | ✓ | — | — |
| — | — | — | — | — | — | — |
| 10.5 - 30 VDC | 3.6 to 3.9V DC D size (SB-D02HP) / 3.0V DC CR123A (option CRH-5) Lithium batteries | 3.6V 13.0Ah LSH20 Lithium batteries | 3.6V 13.0Ah LSH20 Lithium batteries | 10.5 -28 VDC | 10 - 28 VDC | 10.5 -28 VDC |
| 38mA max/39mA max/ 40mA max | Max. 600µA/Max. 700µA | 745µA max | 620µA max/810µA max | 44 mA max. /48mA max. | 35mA max | 75mA max |
| FormC | FormC-solid state switch | FormC | FormC | N.C. | N.C. | 2 outs N.O./N.C. |
| ✓ | N.C.-solid state switch (receiver) | ✓ | ✓ | ✓ | ✓ | ✓ |
| — | — | — | — | ✓ | — | — |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | — |
| HU-3 | — | — | — | HU-3 | HU-3 | — |
| IP65 | IP65 | IP65 | IP55 | IP65 | IP65 | IP54 |
| -25 to +60˚C | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C | -35 to +65˚C | -35 to +65˚C | -35 to +55˚C |
| 95% max | 95% max | 95% max | 95% max | 95% max | 95% max | 95% max |
| 448 x 79 x 96 | 295 x 69 x 117 | 452 x 83 x 138 | 217 x 88.1 x 162.5 | 170 x 65 x 69.5 | 170 x 65 x 69.5 | 230.5x 51.5x 61 |

# WXS-AM/DAM

B-ZONE

## 180 DEGREE PANORAMIC OUTDOOR PIR DETECTOR

Part of the Shield family, the WXS series is OPTEX's latest 180° outdoor intrusion detection sensors with flexible range detection and settings, as well as a selectable low (0.8 - 1.2m) or high mount (2m) option and self-learning IR digital anti-masking.

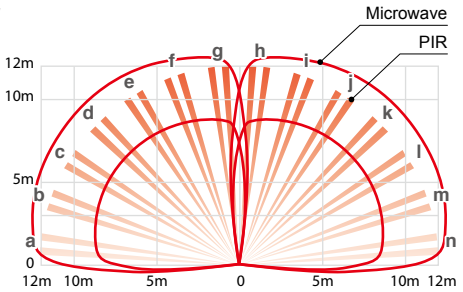
- WXS-AM – active IR anti-masking model
- WXS-DAM – dual technology model with active IR anti-masking

## FEATURES

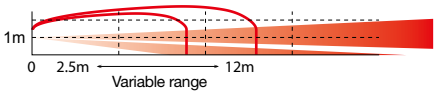
- Selectable mounting height
- 4PIR + 2MW technology (WXS-DAM only)
- Stability against light disturbance (WXS-DAM only)
- Individual detection area size (WXS-DAM only)
- Panoramic triple layer detection (WXS-DAM only)
- Individual sensitivity setting
- Individual alarm outputs
- Self-learning IR digital anti-masking function
- Blue Touch
- Day /night mode
- Area masking shutter
- Area masking plate
- SMDA (Super Multidimensional Analysis) logic
- Cover / Back tamper

## COVERAGE

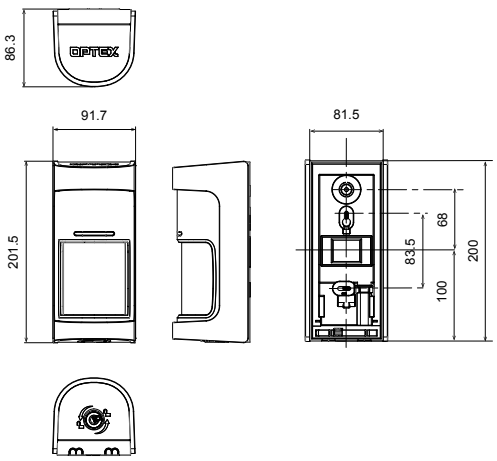
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | WXS-AM | WXS-DAM |
|---|---|---|
| Detection method | Passive infrared | Passive infrared & Microwave |
| PIR coverage | Hight mount： 9.0 m (30') 180°wide<br>Low mount： 12.0 m (40') 180°wide | |
| PIR distance limit | Hight mount： 9.0 m (fixed)<br>Low mount： 2.5 to 12.0 m (Stepless adjustment) | |
| 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 – 18 VDC | |
| Current draw | 23 mA max. at 12 VDC | 24 mA max. at 12 VDC |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | Alarm output (Right)<br>28 VDC 0.1 A max.<br>[Individual : Right or General], [N.O. or N.C.] are selectable<br>Alarm output (Left)<br>28 VDC 0.1 A max.<br>[Individual : Left or General], [N.O. or N.C.] are selectable | |
| Trouble output | N.C. 28 VDC 0.1 A max. | |
| Tamper output | N.C. 28 VDC 0.1 A max. Open when either the cover, main or base unit is removed | |
| LED indicator | Red<br>1. Warm-up 2. Alarm 3. Masking detection 4. "High mount" setting<br>(When the tamper switch is activated, LED blinks if it is "High mount" setting.)<br>Yellow | |
| | - | 1. Warm-up 2. MW detection |
| Operating temperature | -30℃ to +60℃(-22°F to +140°F) | 20°C to +45℃(-4°F to +113°F) |
| Environment humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor, Indoor) | |
| Mounting height | Hight 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) |
| Accessories | [1] Area masking plate x 5 [2] Mounting screw (4 x 20 mm) x 2<br>[3] Lock screw x 1 | |

Specifications and designs are subject to change without prior notice.

## OPTIONS

- PEU-B/C/D/E/F/G/H/I/J/K : Selectable plug-in end of line unit
- PMP-01 : Pole mount plate
- BH-01 : Battery holder
- WXI-BB : Back box
- MKP-01 : Area masking plate

# WXS-RAM/RDAM

B-ZONE

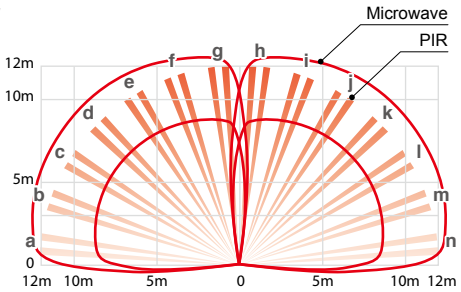
## BATTERY OPERATED 180 DEGREE PANORAMIC OUTDOOR PIR DETECTOR

The WX Shield "R" models are battery operated products. Sharing the same design and performance with WXS-AM/DAM, "R" models have the most up-to-date outdoor protection capabilities.

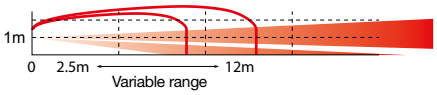
- WXS-RAM – battery operated model
- WXS-RDAM – battery operated dual technology model with active IR anti-masking

## COVERAGE

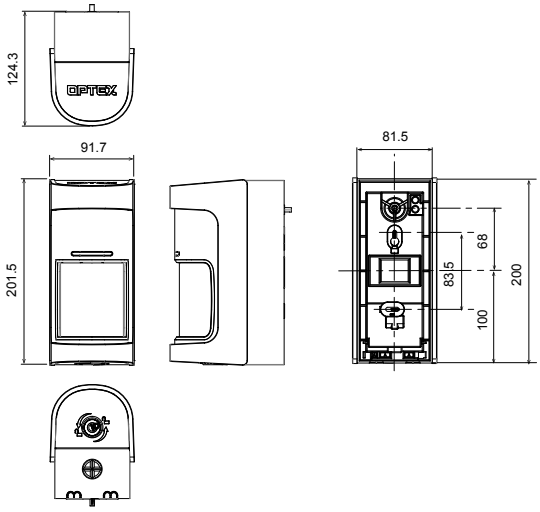
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## FEATURES

- Selectable mounting height
- 4PIR + 2MW technology (WXS-RDAM only)
- Stability against light disturbance (WXS-RDAM only)
- Individual detection area size (WXS-RDAM only)
- Panoramic triple layer detection (WXS-RDAM only)
- Individual sensitivity setting
- Individual alarm outputs
- Self-learning IR digital anti-masking function
- Blue Touch
- Day /night mode
- Area masking shutter
- Area masking plate
- SMDA (Super Multidimensional Analysis) logic
- Cover / Back tamper

## SPECIFICATIONS

| Model | WXS-RAM | WXS-RDAM |
|---|---|---|
| Detection method | Passive infrared | Passive infrared & Microwave |
| PIR coverage | Hight mount： 9.0 m (30') 180°wide<br>Low mount： 12.0 m (40') 180°wide | |
| PIR distance limit | Hight mount： 9.0 m (fixed)<br>Low mount： 2.5 to 12.0 m (Stepless adjustment) | |
| 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 | 3 to 3.6 VDC lithium batteries | |
| Current draw | 19 µA stand-by 4 mA max. at 3 VDC | 24 µA stand-by 6 mA max. at 3 VDC |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | Alarm output (Right)<br>Solid State switch, 10 VDC 0.01 A max.<br>[Individual : Right or General], [N.O. or N.C.] are selectable<br>Alarm output (Left)<br>Solid State switch, 10 VDC 0.01 A max.<br>[Individual : Left or General], [N.O. or N.C.] are selectable | |
| Trouble output | Solid State switch, 10 VDC 0.01 A max.<br>[N.O. or N.C.] are selectable (with tamper) | |
| Tamper output | Tamper output is shared with trouble output. | |
| LED indicator | Red<br>1. Warm-up 2. Alarm 3. Masking detection 4. "High mount" setting<br>(When the tamper switch is activated, LED blinks if it is "High mount" setting.)<br>Yellow | |
| | - | 1. Warm-up 2. MW detection |
| Operating temperature | -30℃ to +60℃(-22°F to +140°F) | 20°C to +45℃(-4°F to +113°F) |
| Environment humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor, Indoor) | |
| Mounting height | Hight mount：2.0 m (6' 7") Low mount： 0.8 to 1.2 m (2' 7" to 4') | |
| Weight | 730 g (25.8 oz.) | 770 g (27.2 oz.) |
| Accessories | [1] Connector for POWER and ALARM (R) [2] Connector for ALARM (L)<br>[3] Connector for TROUBLE [4] Velcro tape [5] Area masking plate x 5<br>[6] Mounting screw (4 x 20 mm) x 2 [7] Lock screw x 1 | |

Specifications and designs are subject to change without prior notice.

## OPTIONS

- PMP-01 : Pole mount plate
- BH-01 : Battery holder
- WXI-BB : Back box
- MKP-01 : Area masking plate

# WXI-ST/AM

B-ZONE

## 180 DEGREE PANORAMIC OUTDOOR DETECTOR

With its comprehensive 180° field of view and capabilities to tailor its setting to meet the environment around your premise, the WX Infinity series will provide an effective solution for new and existing security systems.

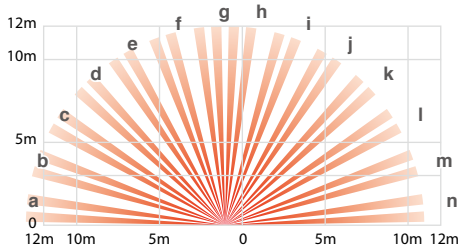
- WXI-ST – standard model
- WXI-AM – active IR anti-masking model

## FEATURES

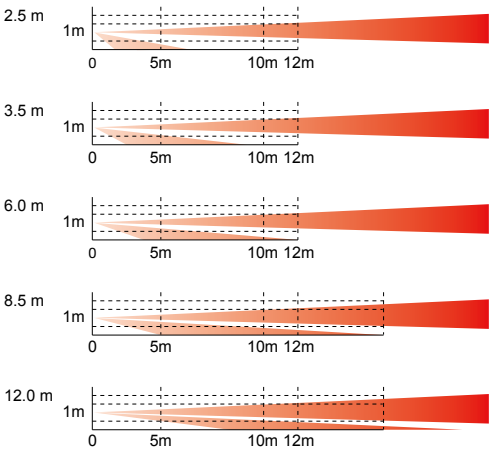
- Individual alarm outputs
- Individual sensitivity setting
- Individual detection area size
- Area masking shutter
- Area masking plate
- Self-learning IR digital anti-masking function
- SMDA (Super Multidimensional Analysis) logic
- Double conductive shielding
- Intelligent AND detection logic
- Active IR digital anti-masking (WXI-AM)
- Cover / Back tamper

## COVERAGE

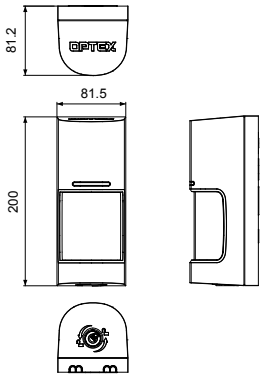
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | WXI-ST | WXI-AM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 180° wide | |
| PIR distance limit | 2.5 to 12 m (Stepless adjustment) | |
| 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 VDC | |
| Current draw | 21 mA max. at 12 VDC | 23 mA max. at 12 VDC |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | 60 sec. or less (LED blinks) | |
| Alarm output | 28 VDC 0.1 A max.<br>[Individual;Right/Left or General], [N.O. or N.C.] are selectable | |
| Trouble output | - | N.C. 28 VDC 0.1 A max. |
| Tamper output | N.C. 28 VDC 0.1 A max.<br>Open when either the cover, main or base unit is removed | |
| LED indicator | Red LED ; 1. Warm-up<br>2. Alarm | Red LED ; 1. Warm-up<br>2. Alarm 3. Masking detection |
| Operating temperature | -30 °C to +60 °C (-22°F to +140°F) | |
| Environment humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor, Indoor) | |
| Mounting height | 0.8 to 1.2 m (2'7" to 4') | |
| Weight | 420 g | 440 g |
| Accessories | Mounting screw (4 x 20 mm) x 2, lock screw x 1 | |

Specifications and designs are subject to change without prior notice.

## OPTIONS

- PEU-B/C/D/E/F/G/H/I/J/K : Selectable plug-in end of line unit
- PMP-01 : Pole mount plate
- MKP-01 : Area masking plate
- WXI-BB : Back box

# WXI-R/RAM

B-ZONE

## BATTERY OPERATED 180 DEGREE PANORAMIC OUTDOOR DETECTOR


The WX Infinity "R" models are battery operated products. Sharing the same design and performance with WXI-ST/AM, "R" models have the most up-to-date outdoor protection capabilities.

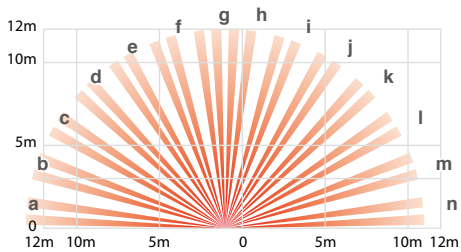
- WXI-R – battery operated model
- WXI-RAM – with active IR anti-masking

## FEATURES

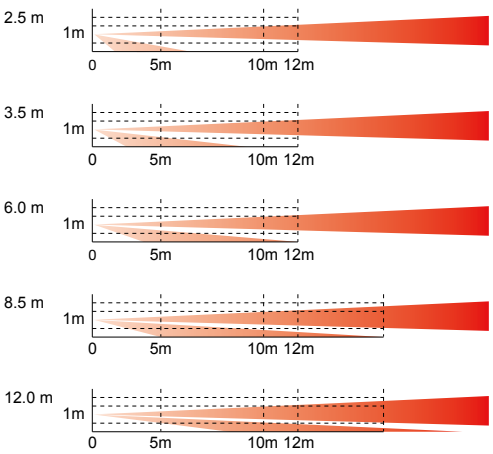
- Long battery life
- Individual alarm outputs
- Individual sensitivity setting
- Individual detection area size
- Area masking shutter
- Area masking plate
- Self-learning IR digital anti-masking function
- SMDA (Super Multidimensional Analysis) logic
- Double conductive shielding
- Intelligent AND detection logic
- Active IR digital anti-masking (WXI-RAM)
- Cover / Back tamper

## COVERAGE

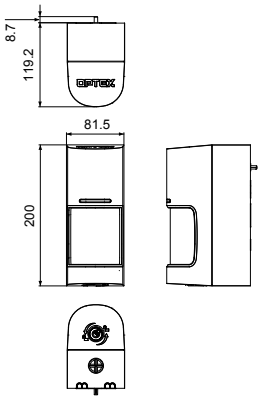
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | WXI-R | WXI-RAM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 180° wide | |
| PIR distance limit | 2.5 to 12 m (Stepless adjustment) | |
| 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 | 3 to 3.6 V DC lithium batteries | |
| Current draw | 15 µA stand-by 4 mA max. at 3 V DC except walk test | 16 µA stand-by 4 mA max. at 3 V DC except walk test |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | 60 sec. or less (LED blinks) | |
| Alarm output | Solidstate switch, 10 V DC 0.01 A max. [Individual;Right/Left or General], [N.O. or N.C.] are selectable | |
| Trouble output | Solidstate switch, 10 V DC 0.01 A max. [N.O. or N.C.] is selectable | |
| Tamper output | Tamper output is shared with trouble output. | |
| LED indicator | Red LED ; 1. Warm-up 2. Alarm | Red LED ; 1. Warm-up 2. Alarm 3. Masking detection |
| Operating temperature | -30 °C to +60 °C (-22°F to +140°F) except batteries | |
| Environment humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor, Indoor) | |
| Mounting height | 0.8 to 1.2 m (2'7" to 4') | |
| Weight | 600 g | |
| Accessories | Connector for POWER and ALARM (R), Connector for ALARM (L) Connector for TROUBLE, Velcro tape Mounting screw (4 x 20 mm) x 2, Lock screw x 1 | |

Specifications and design are subject to change without prior notice.

## OPTIONS

- PMP-01 : Pole mount plate
- BH-01 : Battery holder
- WXI-BB : Back box
- MKP-01 : Area masking plate

# VXS-AM/DAM

B-ZONE

## WIDE ANGLE OUTDOOR PIR DETECTOR

The VX Shield is a series of outdoor sensors providing 12 m by 90 degree detection coverage. Anti-masking and dual technology models are available in a lineup.

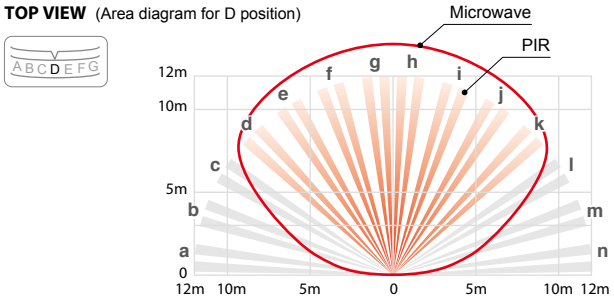
- VXS-AM – active IR anti-masking model
- VXS-DAM – dual technology model with active IR anti-masking

## FEATURES

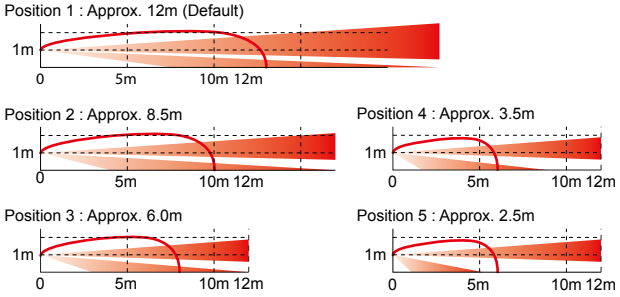
- Active IR anti-masking
- SMDA (Super Multidimensional Analysis) logic
- Easy masking for over spill prevention
- Double conductive shielding
- Back tamper
- Automatic walk test mode

## COVERAGE

**TOP VIEW** (Area diagram for D position)




**SIDE VIEW** (Detection Distance by Positions)




## OPTIONS

- PEU-B/C/D/E/F/G/H/I/J/K : Selectable plug-in end of line unit
- VXS face cover (White / Silver / Black)
- VXS option cover unit (Black / white)

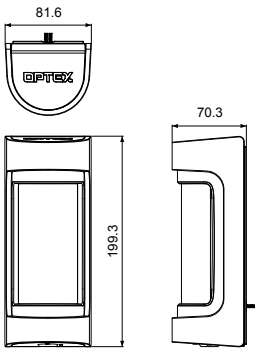
## COLOR


Black cover / Black body


White cover / white body


Silver cover / Black body

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | VXS-AM | VXS-DAM |
|---|---|---|
| Detection method | Passive infrared | Passive infrared & Microwave |
| PIR coverage | 12 m (40 ft) 90° wide / 16 zones | |
| PIR distance limit | 2.5 to 12 m (5 levels) | |
| Detectable speed | 0.3 to 2.0 m / s (1.0 to 5.0 ft. / s) | |
| Sensitivity | 2.0 °C ( 3.6 °F) at 0.6 m / s | |
| Power input | 9.5 to 18 V DC | |
| Current draw | 24 mA max. at 12 VDC | 35 mA max. at 12 VDC |
| Alarm period | 2.0 ± 0.1 sec. | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | N.C. / N.O. Selectable 28 VDC 0.1 A max. | |
| Trouble output | N.C. 28 VDC 0.1 A max. | |
| Tamper output | N.C. 28 VDC 0.1 A max, open when cover removed | |
| LED indicator | Red LED ; 1. Warm-up 2. Alarm 3. Masking detection (DIP switch ON or Walk test) | Red LED ; 1. Warm-up 2. Alarm 3. Masking detection Yellow LED ; 1. Warm-up 2. MW detection (DIP switch ON or Walk test) |
| Operating temperature | -20°C to +60°C (-4°F to +140°F) | -20°C to +45°C (-4°F to +113°F) |
| Environment humidity | 95 % max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor,Indoor) | |
| Mounting height | 0.8 to 1.2 m (2.7 to 4.0 ft.) | |
| Weight | 400 g (14.1 oz.) | 450 g (15.9 oz.) |
| Accessories | Screw (4 x 20 mm) x 2, Wiring sponge x 3, Masking seal x 3 | |

Specifications and designs are subject to change without prior notice.

# VXS-RAM/RDAM

B-ZONE

## BATTERY OPERATED WIDE ANGLE OUTDOOR PIR DETECTOR


The VX Shield "R" models are battery operated products. Sharing the same design and performance with VXS-AM/DAM, "R" models have the most up-to-date outdoor protection capabilities.

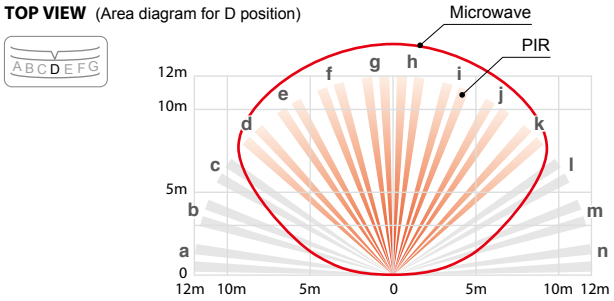
- VXS-RAM – battery operated model with active IR anti-masking
- VXS-RDAM – battery operated dual technology model with active IR anti-masking

## FEATURES

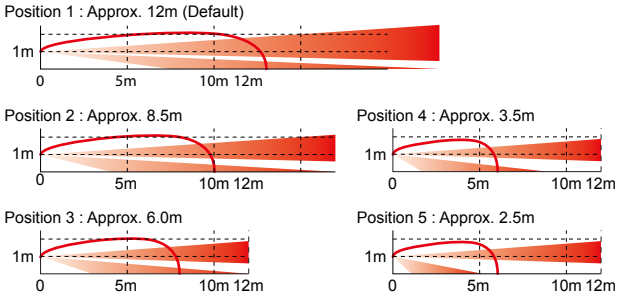
- Long battery life
- Active IR anti-masking
- SMDA (Super Multidimensional Analysis) logic
- Easy masking for over spill prevention
- Double conductive shielding
- Back tamper
- Automatic walk test mode

## COVERAGE

**TOP VIEW** (Area diagram for D position)



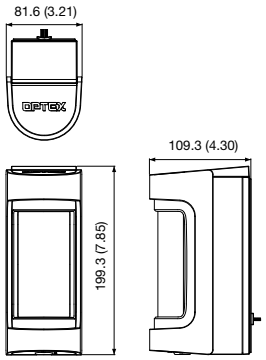

**SIDE VIEW** (Detection Distance by Positions)




## OPTIONS

- VXS face cover (White / Silver / Black)
- VXS option cover unit (Black / white)
- VXS battery box (Black/White)
- RBB-01 : Battery box

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | VXS-RAM | VXS-RDAM |
|---|---|---|
| Detection method | Passive infrared | Passive infrared & Microwave |
| PIR coverage | 12 m (40 ft) 90° wide / 16 zones | |
| PIR distance limit | 2.5 to 12 m (5 levels) | |
| Detectable speed | 0.3 to 2.0 m / s (1.0 to 5.0 ft. / s) | |
| Sensitivity | 2.0 °C ( 3.6 °F) at 0.6 m / s | |
| Power input | 3 to 9 V DC Lithium or Alkaline Battery | |
| Current draw | 10 µ A standby / 4 mA max. at 3 V DC | 18 µ A standby / 8 mA max. at 3 V DC |
| Alarm period | 2.0 ± 0.1 sec. | |
| Warm-up period | Approx. 60 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. | |
| LED indicator | Red LED ; 1. Warm-up 2. Alarm 3. Masking detection (DIP switch ON or Walk test) | Red LED ; 1. Warm-up 2. Alarm 3. Masking detection Yellow LED ; 1. Warm-up 2. MW detection (DIP switch ON or Walk test) |
| Operating temperature | -20°C to +60°C (-4°F to +140°F) | -20°C to +45°C(-4°F to +113°F) |
| Environment humidity | 95 % max. | |
| International protection | IP55 | |
| Mounting | Wall, Pole (Outdoor,Indoor) | |
| Mounting height | 0.8 to 1.2 m (2.7 to 4.0 ft.) | |
| Weight | 500 g (17.6 oz.) | 550 g (19.4 oz.) |
| Accessories | Connector for POWER and ALARM,Connector for TROUBLE, Screw (4 x 20 mm) x 2, Masking seal x 3 | |

Specifications and designs are subject to change without prior notice.

# VXI-ST/AM/DAM

B-ZONE

## OUTDOOR PIR DETECTOR

The VX Infinity series provide reliable intrusion detection in severe outdoor environment. Built with a top industry detection algorithm, its performance always remain optimal despite changes of day/night and seasonal environment. Newly added features and mechanism made VX Infinity more versatile and invulnerable in outdoor security system. Anti-masking and dual technology models are available in a lineup.

- VXI-ST – standard model
- VXI-AM – active IR anti-masking model
- VXI-DAM – dual technology model with active IR anti-masking
  - VXI-DAM-X5 : 10.525 GHz
  - VXI-DAM-X8 : 10.587 GHz

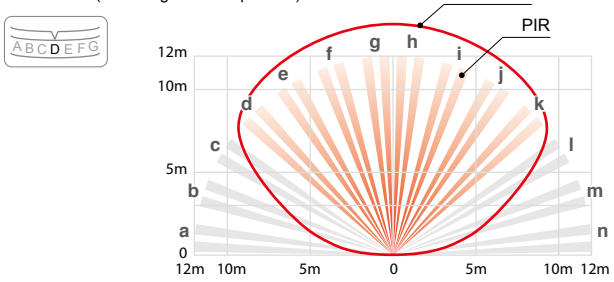
## FEATURES

- 12 m by 90 degree flexible detection pattern adjustable to 5 ranges
- SMDA (Super Multidimensional Analysis) logic
- Easy masking for over spill prevention
- Double conductive shielding
- Conduit/TX-battery case
- Active IR digital anti-masking (VXI-AM, VXI-DAM)
- Tough mod™ dual technology based on OPTEX gold-plated microwave module (VXI-DAM)

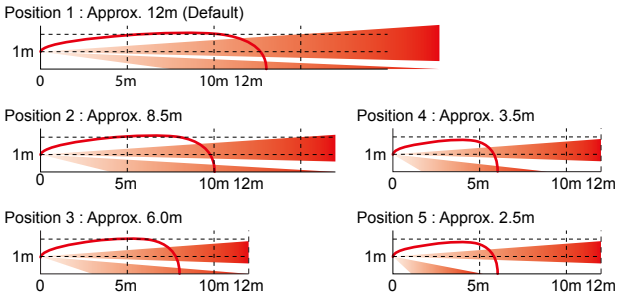
## COVERAGE

The actual detection distance is dependent on the thermal conditions within the given environment.

**TOP VIEW** (Area diagram for D position)



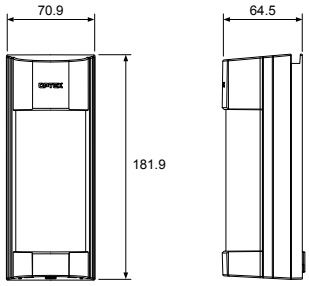

**SIDE VIEW** (Detection Distance by Positions)




## OPTIONS

- PEU-B/C/D/E/F/G/H/I/J/K : Selectable plug-in end of line unit
- VXI-T-Bracket
- WRS-02 : Wall tamper

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | VXI-ST | VXI-AM | VXI-DAM |
|---|---|---|---|
| Detection method | Passive infrared | | Passive infrared & Microwave |
| PIR coverage | 12.0 m 90° wide / 16 zones | | |
| PIR distance limit | 12 to 2.5 m (5 levels) | | |
| Detectable speed | 0.3 to 1.5 m/s | | |
| Sensitivity | 2.0°C (3.6°F) at 0.6 m/s | | |
| Power input | 9.5 to 18 VDC | | |
| Current draw | 20 mA (max) at 12 VDC | 24 mA (max) at 12 VDC | 35 mA (max) at 12 VDC |
| Alarm period | 2.0 ±1 sec. | | |
| Warm-up period | Approx. 60 sec. (LED blinks) | | |
| Alarm output | N.C. / N.O. Selectable 28 VDC 0.1 A (max) | | |
| Trouble output | - | N.C. 28 VDC 0.1 A (max) | |
| Tamper output | N.C. 28 VDC 0.1 A (max) open when cover removed. | | |
| LED indicator | Red: Warm-up, alarm, masking detection (VXI-AM only) | | Red: Warm-up, alarm, masking detection. Yellow: Warm-up, MW detect. |
| RF interference | No alarm 10 V/m | | |
| Operating temperature | -30 to +60°C | | -20 to +45°C |
| Environment humidity | 95% max. | | |
| International protection | IP55 | | |
| Mounting | Wall, Pole | | |
| Mounting height | 0.8 to 1.2 m | | |
| Weight | 500 g | | 600 g |
| Accessories | Screw (4×20 mm) ×2 , Wiring sponge ×3 , Masking seal ×3 | | |

Specifications and design are subject to change without prior notice.

# VXI-R/-RAM/-RDAM

B-ZONE

## BATTERY OPERATED OUTDOOR PIR DETECTOR


The VX Infinity "R" models are battery operated products. Sharing the same design and performance with VXI-ST, AM, DAM, "R" models have the most up-to-date outdoor protection capabilities. Utilizing transmitters from various major brands, "R"models enable easy wireless integration of outdoor protection into new and pre-existing security system. Anti-masking and dual technology models are available in a lineup.

- VXI-R – battery operated model
- VXI-RAM – battery operated model with active IR anti-masking
- VXI-RDAM – battery operated dual technology model with active IR anti-masking
  - VXI-RDAM-X5 : 10.525 GHz
  - VXI-RDAM-X8 : 10.587 GHz

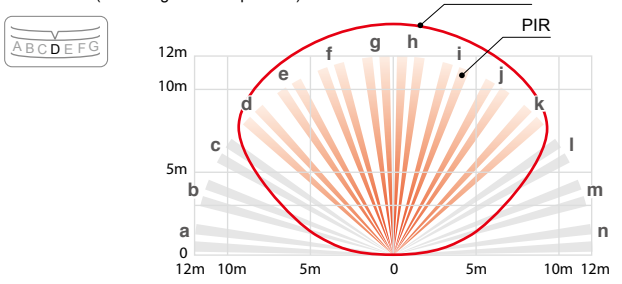
## FEATURES

- 12 m by 90 degree flexible detection pattern adjustable to 5 ranges
- SMDA (Super Multidimensional Analysis) logic
- Easy masking for over spill prevention
- Double conductive shielding
- Conduit/TX-battery case for both wired and wireless-ready models
- Active IR digital anti-masking(VXI-RAM, VXI-RDAM)
- Tough mod™ dual technology based on OPTEX gold-plated microwave module (VXI-RDAM)

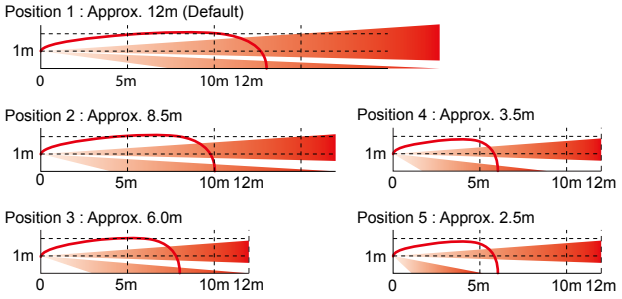
## COVERAGE

The actual detection distance is dependent on the thermal conditions within the given environment.

**TOP VIEW** (Area diagram for D position)



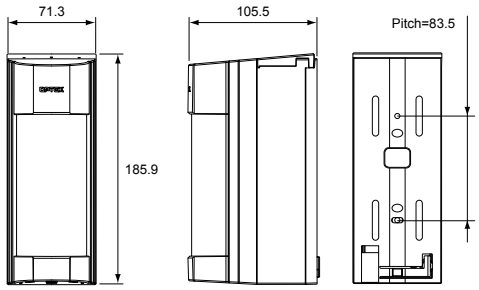

**SIDE VIEW** (Detection Distance by Positions)




## OPTIONS

- VXI-T-Bracket
- WRS-04 : Wall tamper
- RBB-01 : Battery box

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | VXI-R | VXI-RAM | VXI-RDAM |
|---|---|---|---|
| Detection method | Passive infrared | | Passive infrared & Microwave |
| PIR coverage | 12.0 m wide / 16 zones | | |
| PIR distance limit | 12 to 2.5 m (5 levels) | | |
| Detectable speed | 0.3 to 1.5 m/s | | |
| Sensitivity | 2.0°C at 0.6 m/s | | |
| Power input | 3 to 9 VDC(Lithium or Alkaline Battery) | | |
| Current draw | 9μA (standby) / 4 mA (max) at 3 VDC | 10μA (standby) / 4 mA (max) at 3 VDC | 18μA (standby) / 8 mA (max) at 3 VDC |
| Alarm period | 2.0 ±1 sec. | | |
| Warm-up period | Approx. 60 sec. (LED blinks) | | |
| Alarm output | N.C. / N.O. Selectable-Solid State Switch 10 VDC 0.01 A (max) | | |
| Trouble output | N.C. / N.O. Selectable-Solid State Switch 10 VDC 0.01 A (max) | | |
| LED indicator | Disable: During normal operation. Enable: During WALK TEST or LED SW on. Red: Warm-up, alarm, masking detection (VXI-RAM only) | | Disable: During normal operation. Enable: During WALK TEST or LED SW on. Red: Warm-up, alarm, masking detection. Yellow: Warm-up, MW detect. |
| RF interference | No alarm 10 V/m | | |
| Operating temperature | -20 to +60°C | | -20 to +45°C |
| Environment humidity | 95% max. | | |
| International protection | IP55 | | |
| Mounting | Wall, Pole | | |
| Mounting height | 0.8 to 1.2 m | | |
| Weight | 500 g | | 600 g |
| Accessories | Connector for POWER and ALARM, Connector for TROUBLE, Screw (4×20mm) ×2, Masking seal ×3 | | |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# BXS-ST/AM

B-ZONE

## BOUNDARY OUTDOOR PIR DETECTOR

The BX SHIELD is a series of either side detectors providing 12 m side by side (total 24 m / 80 ft) coverage. Anti-masking model is also available in a lineup.

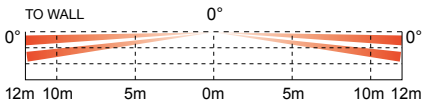
- BXS-ST – standard model
- BXS-AM – active IR anti-masking model

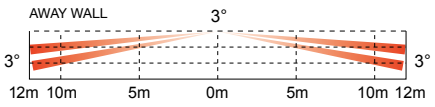
## FEATURES

- 4 PIR technology24m (80 ft.) 12 m (40 ft.) on each
- side adjustable to 5 ranges (2.5m, 3.5m, 6.0m, 8.5m, 12.0m)
- Individual detection area and sensitivity setting
- Extreme high detection mode
- SMDA (Super Multidimensional Analysis) logic for advanced temperature compensationIndividual signal outputs (right / left)
- Double conductive shielding against bright light disturbance
- Back tamper
- Automatic walk test mode

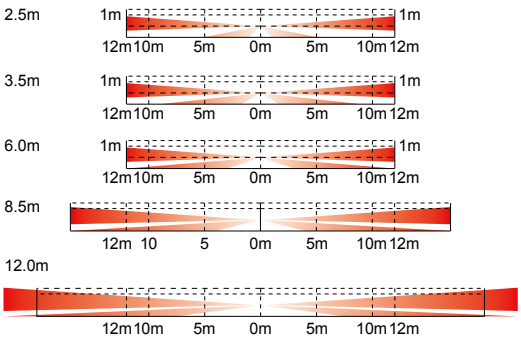
## COVERAGE

**Top view**

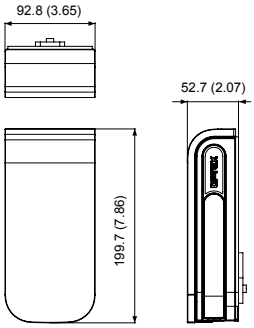



**Side view**




## DIMENSIONS




(mm)

## OPTIONS

- PEU-B/C/D/E/F/G/H/I/J/K : Selectable plug-in end of line unit
- BXS face cover (White / Silver / Black)
- BXS back box (Black / white)
- BXS back box cap (Black / white)
- PMP-01 : Pole mount plate

## COLLAR

Black cover / Black body

White cover / black body

Silver cover / black body



White cover / white body

## SPECIFICATIONS

| Model | BXS-ST | BXS-AM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 24 m (80') ; 12 m (40') on each side, 4 zones ; 2 zones on each side, 180°narrow | |
| PIR distance limit | list the possible range 2.5, 3.5, 6, 8.5, 12 m | |
| Detectable speed | 0.3 to 2.0 m/s (1' to 6'7"/s) | |
| Sensitivity | Normal ; 2.0°C (3.6°F) at 0.6 m/s<br>Extreme high : 1.0°C （1.8°F） at 0.6 m/s<br>selectable for each side individually | |
| Power input | 9.5 to 18 V DC | |
| Current draw | 31 mA max.at 12 V DC | 34 mA max.at 12 V DC |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | 60 sec. or less (LED blinks) | |
| Alarm output | 28 V DC 0.1 A max.<br>[Individual;Right or General], [N.O. or N.C.] are selectable | |
| Trouble output | - | N.C. 28 V DC 0.1 A max. |
| Tamper output | N.C. 28 V DC 0.1 A max.<br>open when face cover, main unit or base unit is removed | |
| LED indicator | Red LED ; 1. Warm-up<br>2. Alarm<br>(DIP switch ON or Walk test) | Red LED ; 1. Warm-up<br>2. Alarm , 3. Masking detection<br>(DIP switch ON or Walk test) |
| Operating temperature | -30°C to + 60°C (-22°F to +140°F) | |
| Environment humidity | 95% max. | |
| International protection | IP 55 | |
| Mounting | Wall, pole (outdoor,indoor) | |
| Mounting height | 0.8 to 1.2 m (2'7" to 4') | |
| Weight | 430 g (15.2 oz.) | |
| Accessories | Screw (4 x 20 mm) x 2 | |

Specifications and designs are subject to change without prior notice.

# BXS-R/RAM

B-ZONE

## BATTERY OPERATED BOUNDARY OUTDOOR PIR DETECTOR

The BX Shield "R" models are battery operated products. Sharing the same design and performance with BXS-ST/AM, "R" models have the most up-to-date outdoor protection capabilities.

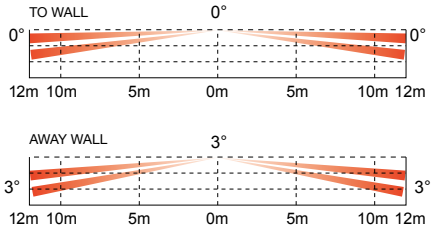
- BXS-R – battery operated model
- BXS-RAM – with active IR anti-masking

## FEATURES

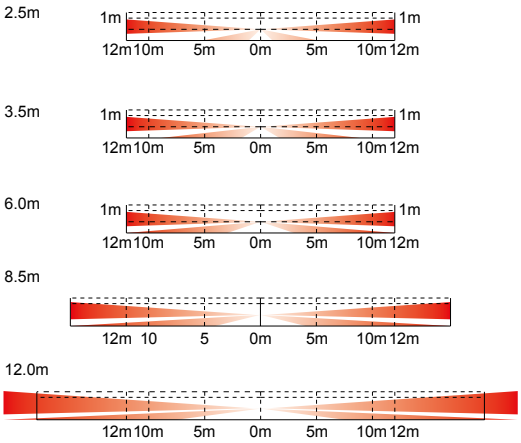
- Long battery life
- 4 PIR technology24m (80 ft.) 12 m (40 ft.) on each side adjustable to 5 ranges (2.5m, 3.5m, 6.0m, 8.5m, 12.0m)
- Individual detection area and sensitivity setting
- Extreme high detection mode
- SMDA (Super Multidimensional Analysis) logic for advanced temperature compensation Individual signal outputs (right / left)
- Double conductive shielding against bright light disturbance
- Back tamper
- Automatic walk test mode

## COVERAGE

**Top view**



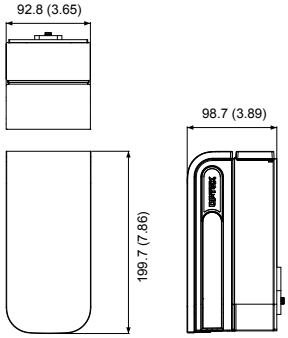

**Side view**




## OPTIONS

- BXS face cover (White / Silver / Black)
- BXS back box (Black / white)
- BXS back box cap (Black / white)
- PMP-01 : Pole mount plate
- RBB-01 : Battery box
- BH-01 : Battery holder

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | BXS-R | BXS-RAM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 24 m (80') ; 12 m (40') on each side, 4 zones ; 2 zones on each side, 180°narrow | |
| PIR distance limit | 2.5 to 12 m (5 levels) | |
| Detectable speed | 0.3 to 2.0 m/s (1' to 6'7"/s) | |
| Sensitivity | Normal ; 2.0°C (3.6°F) at 0.6 m/s<br>Extreme high : 1.0°C (1.8°F) at 0.6 m/s<br>selectable for each side individually | |
| Power input | 3 to 9 V DC Lithium or Alkaline batteries | |
| Current draw | 15 µA stand-by / 8 mA max. at 3 V DC | 16 µA stand-by / 8 mA max. at 3 V DC |
| Alarm period | 2.0 ±1 sec. | |
| Warm-up period | 60 sec. or less (LED blinks) | |
| Alarm output | Solidstate switch, 10 V DC 0.01 A max.<br>[Individual;Right or General], [N.O. or N.C.] are selectable | |
| Trouble output | Solidstate switch, 10 V DC 0.01 A max. [N.O. or N.C.] is selectable | |
| Tamper output | Tamper output is shared with trouble output. | |
| LED indicator | Red LED ; 1. Warm-up<br>2. Alarm<br>(DIP switch ON or Walk test) | Red LED ; 1. Warm-up<br>2. Alarm , 3. Masking detection<br>(DIP switch ON or Walk test) |
| Operating temperature | -30°C to + 60°C (-22°F to +140°F) | |
| Environment humidity | 95% max | |
| International protection | IP 55 | |
| Mounting | Wall, pole (outdoor,indoor) | |
| Mounting height | 0.8 to 1.2 m (2'7" to 4') | |
| Weight | 550 g (19.4 oz.) | |
| Accessories | [1] Connector for POWER and ALARM (R), [2] Connector for ALARM (L), [3] Connector for TROUBLE, [4] Velcro tape, [5] Screw (4x20 mm) x 2 | |

Specifications and designs are subject to change without prior notice.

# BX-80N

B-ZONE

## OUTDOOR PIR DETECTOR FOR BUILDING PERIMETER

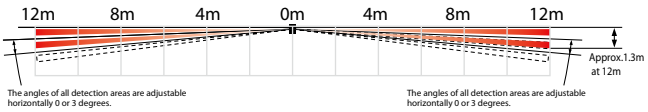
The BX-80N is stylishly designed to blend in with any architecture and is simple to install and set up.

## FEATURES

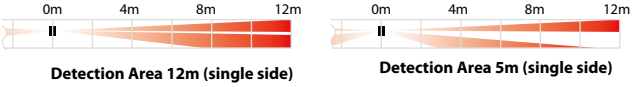
- Double conductive shielding
- Advanced temperature compensation
- Limited detection range function
- Size judging function to avoid false alarms
- Variable detection range up to 24m (12m on each side)
  Audible alarm function
- Attractive, slender design

## COVERAGE

**TOP VIEW**



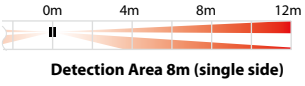

**SIDE VIEW**



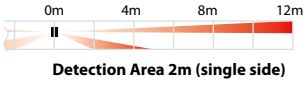

**Detection Area 12m (single side)**




**Detection Area 5m (single side)**

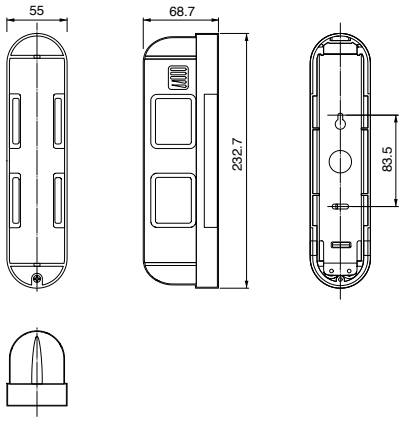



**Detection Area 8m (single side)**




**Detection Area 2m (single side)**

## DIMENSIONS




(mm)

## SPECIFICATIONS

| | |
|---|---|
| Model | BX-80N |
| PIR coverage | 24m (12m on each side) |
| Detection zones | 4 zones (2 zones on each side) |
| Sensitivity | 1.6˚C at 0.6m/s |
| Detectable speed | 0.3 to 2.0m/s |
| Power supply | 10 to 28 VDC |
| Current consumption | 38mA (max.) |
| Alarm period | 2 ± 1 sec. |
| Alarm output | 2 relay outputs N.O. and N.C. 28 VDC 0.2A (max.) each |
| Tamper switch | N.C. opens when cover is removed |
| Warm-up period | Approx. 45 sec. (LED blinks) |
| Volume of audible alarm | Approx. 70dB (at 1 meter distance) |
| LED indicator | LED is blinking during warm-up period |
| | Alarm condition |
| Operating temperature | -20 to +50˚C |
| Environmental humidity | 95% max. |
| RF interference | No Alarm 20V/m |
| Mounting height | 0.8 to 1.2 m |
| Mounting | Wall |
| Weight | 400 g |
| Dimensions (H x W x D) | 232.7 mm x 55 mm x 68.7 mm |
| International protection | IP55 |

Specifications and design are subject to change without prior notice.

## OPTIONS

- MG-1 : Vandal and tamper resistant metal guard
- SP-2 : Spacer unit
- BA-1W : Multi angle wall mount bracket

# BX-80NR

B-ZONE

## BATTERY OPERATED OUTDOOR PIR DETECTOR FOR BUILDING PERIMETER

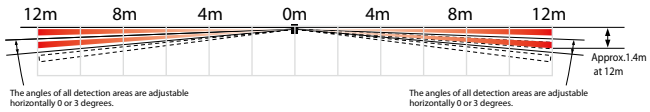

The BX-80NR is quick and easy to install.
This unit requires no complicated wiring as it is a battery operated PIR detector.
Not only does one save on installation time and cost, but an added benefit of the unit is its slick design that blends in with any architecture.

## FEATURES

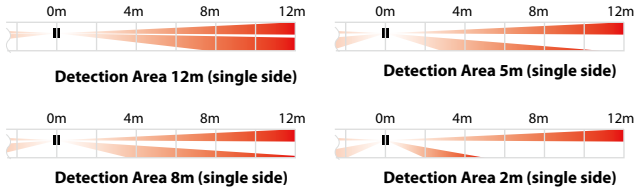
- Battery saving circuit
- Form C alarm output and tamper output
- Low current draw
- Double conductive shielding
- Advanced temperature compensation
- Limited detection range function
- Size judging function to avoid false alarms
- Variable detection range up to 24m (12m on each side)
- Compatible with numerous wireless transmitters

## COVERAGE

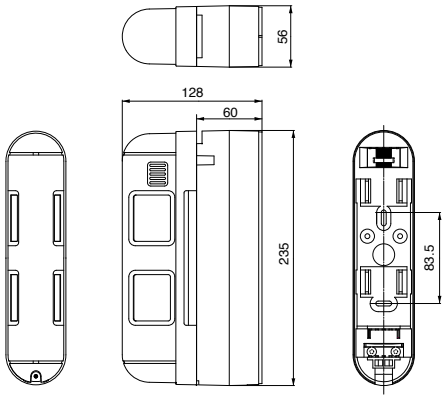
**TOP VIEW**




**SIDE VIEW**

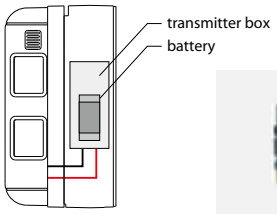



## DIMENSIONS




(mm)

## Back box for wireless transmitters and batteries




Batteries are not included with this unit.

## OPTIONS

• BA-1W : Multi angle wall mount bracket

## SPECIFICATIONS

| | |
|---|---|
| Model | BX-80NR |
| PIR coverage | 24m (12m on each side) |
| Detection zones | 4 zones (2 zones on each side) |
| Sensitivity | 2.0˚C at 0.6m/s |
| Detectable speed | 0.3 to 1.5m/s |
| Power supply | 3 - 9 VDC lithium or alkaline Battery |
| Current consumption | 3mA(Walktest, LED on)<br>15uA(Standby) |
| Alarm period | 2 ± 1 sec. |
| Alarm output | Form C-Solid state switch: 10 VDC 0.01A |
| Battery saving time | Approx. 120 sec. or 5 sec. |
| Tamper swith | Form C activates when cover is removed |
| Warm-up period | Approx. 2 min. |
| LED indicator | Disable during normal operation<br>Enable during walktest or LED switch on |
| Operating temperature | -20 to +50˚C |
| Environmental humidity | 95% max. |
| RF interference | No Alarm 20V/m |
| Mounting height | 0.8 to 1.2 m |
| Mounting | Wall |
| Weight | 520 g |
| Dimesions (H x W x D) | 235 mm x 56 mm x 128 mm |
| International protection | IP55 |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# FTN-ST/AM

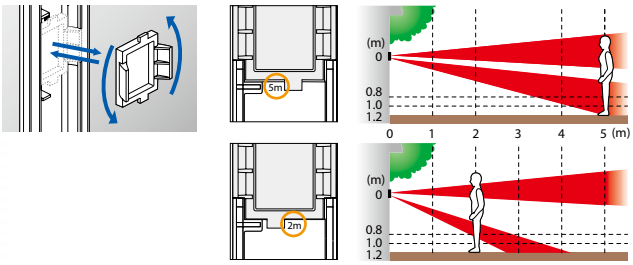
B-ZONE

## COMPACT OUTDOOR PIR DETECTOR

FTN series offers the perfect solution
for those outdoor areas where environmental
disturbances and small animals may cause false alarms.

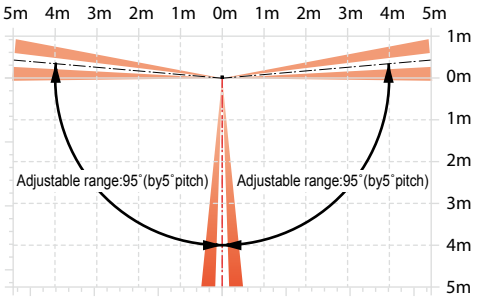
- FTN-ST – standard model
- FTN-AM – active IR anti-masking model

5m/2m switchable lens

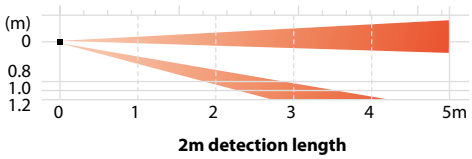



## COVERAGE

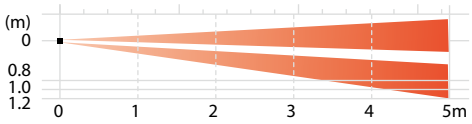
**TOP VIEW**




**SIDE VIEW**




**2m detection length**




**5m detection length**

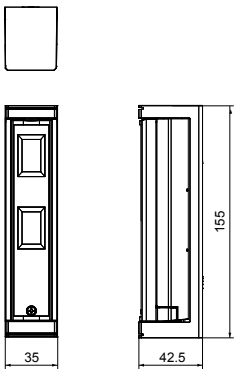
## OPTIONS

- WRS-02 : Wall tamper

## FEATURES

- Built in bracket (190˚ horizontal)
- 5m/2m switchable lens
- SMDA (Super Multidimensional Analysis) logic
- Intelligent AND detection logic
- Active IR digital anti-masking (FTN-AM)
- Wall tamper (options)

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | FTN-ST | FTN-AM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 5 x 1m | |
| Detection length limit | 2 m, 5 m | |
| Detectable speed | 0.3 to 1.5 m/s | |
| Sensitivity | 2.0˚C (at 0.6 m/s) | |
| Operation voltage | 9.5 to 18 VDC | |
| Current draw | 17mA(max.) (at 12 VDC) | 20mA(max.) (at 12 VDC) |
| Alarm period | 2.0 ± 1.0sec. | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | N.C./N.O. Selectable 28 VDC 0.1 A (max.) | |
| Trouble output | N.C. 28 VDC 0.1 A (max.), opens when the cover is removed. | |
| LED indicator | Light/Blink: Warm-up, alarm, masking detection (FTN-AM only) | |
| Operation temperature | -20 to +60˚C | |
| Environmental humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall (Outdoor, Indoor) | |
| Mounting height | 0.8 to 1.2 m | |
| Weight | 100 g | |
| Accessories | screw (3 x 20 mm) x 2 | |

Specifications and design are subject to change without prior notice.

# FTN-R/RAM/R-PT/RAM-PT

B-ZONE

## BATTERY OPERATED COMPACT OUTDOOR PIR DETECTOR


FTN-R/RAM are battery operated outdoor PIR detector and therefore requires no complicated wiring.
It saves installation time and cost.

- FTN-R – battery operated model
- FTN-RAM – battery operated model with active IR anti-masking function

Multi fixing separate box



Stacking method

Side-by-side method



Top-to-bottom method

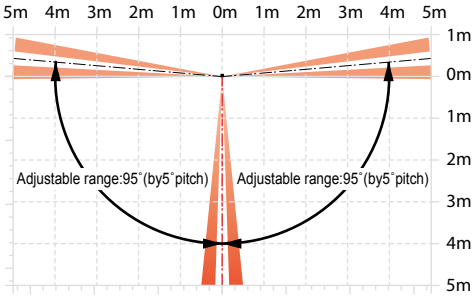
FTN-R-PT/RAM-PT

## FEATURES

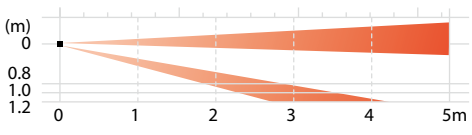
- Long battery life
- Built in bracket (190˚ horizontal)
- Active IR digital anti-masking (FTN-RAM)
- Wall tamper (options)

## COVERAGE

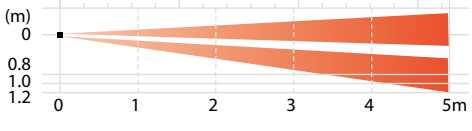
**TOP VIEW**




**SIDE VIEW**




2m detection length

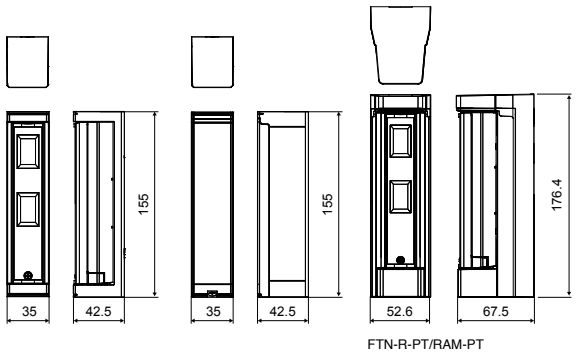



5m detection length

## OPTIONS

- WRS-03 : Wall tamper

## DIMENSIONS




FTN-R-PT/RAM-PT

(mm)

## SPECIFICATIONS

| Model | FTN-R | FTN-RAM |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 5 x 1m | |
| Detection length limit | 2 m, 5 m | |
| Detectable speed | 0.3 to 1.5 m/s | |
| Sensitivity | 2.0˚C (at 0.6 m/s) | |
| Operation voltage | 2.5 to 10 VDC | |
| Power input | 3 - 9 VDC (Lithium or Alkaline Battery) | |
| Current draw | 9μA(at stand-by) / 3mA(max.)(at 3 VDC) | 10μA(at stand-by) / 3mA(max.)(at 3 VDC) |
| 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 VDC 0.01 A(max.) | |
| Trouble output | N.C./N.O. Selectable-Solid State Switch 10 VDC 0.01 A(max.) | |
| LED indicator | Enable: During DIP switch 1 (WALK TEST MODE) or DIP switch 4 (LED) ON<br>Disable: During normal operation<br>Light/Blink: Warm-up, alarm, masking detection (FTN-RAM only) | |
| Operation temperature | -20 to +60˚C | |
| Environmental humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall (Outdoor, Indoor) | |
| Mounting height | 0.8 to 1.2 m | |
| Weight | 190 g (FTN-R-PT 180g) | 190 g (FTN-RAM-PT 180g) |
| Accessories | Connector for POWER and ALARM,<br>connector for TROUBLE, plate nut x 2,<br>screw (M3 x 10 mm) x 2, screw (3 x 20 mm) x 4, sponge for transmitter | |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# HX-80N/NAM

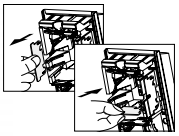
B-ZONE

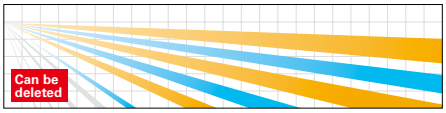
## 24M LONG AND NARROW RANGE HIGH MOUNT OUTDOOR PIR DETECTOR

HX-80N`s coverage can be adjusted by mean of built-in flaps and plates.

Flaps for long distance limit


Plates for short range masking



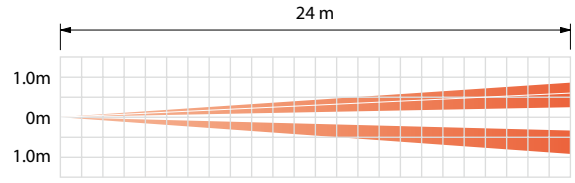



## FEATURES

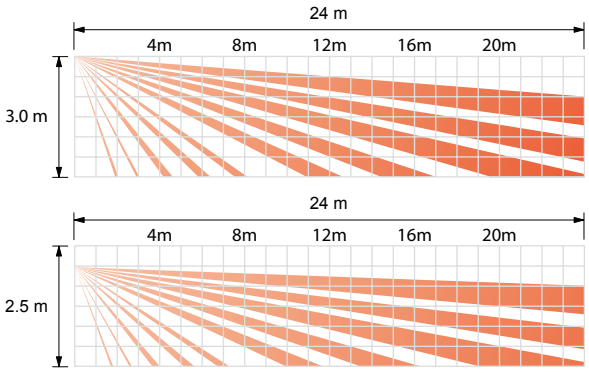
- Mounting height 2.5-3.0m
- Intelligent AND detection logic
- Double conductive shielding
- Advanced temperature compensation logic
- Summer night compensation logic
- Vegetation sway analysis logic
- Active IR digital anti-masking (HX-80NAM)

## COVERAGE

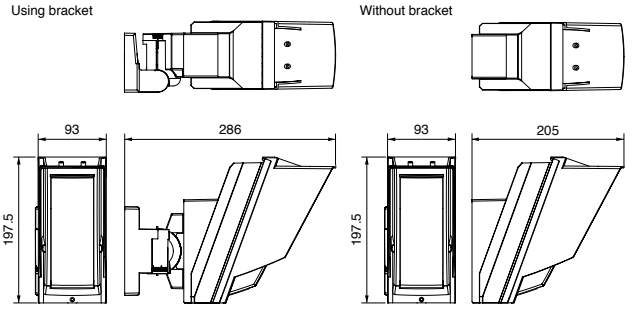
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | HX-80N | HX-80NAM |
|---|---|---|
| Detection method | Passive infrared | |
| Anti-masking | - | Active IR |
| PIR coverage | 24.0 m x 2.0 m narrow / 20 zones | |
| PIR distance limit | 6.5 m, 10.0 m, 13.0 m, 18.0 m | |
| Detectable speed | 0.3 to 1.5 m/s | |
| Sensitivity | 2.0˚C at 0.6 m/s | |
| Power input | 9.5 to 18 VDC | |
| Current draw | 35 mA (max.) at 12 VDC | 40 mA (max.) at 12 VDC |
| Alarm period | 2.0 ± 1 sec. | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | Form C 28 VDC 0.2 A (max.) | |
| Tamper output | N.C. 28 VDC, 0.1 A (max.) N.C. opens when cover removed. | |
| Trouble output | - | N.C. 28 VDC, 0.1 A (max.) |
| Aux input | N.C. 28 VDC, 0.1 A (max.) | |
| LED indicator | Red: Warm-up, Alarm | Red: Warm-up, Alarm, Trouble |
| RF interference | No alarm 10 V/m | |
| Operating temperature | -20 to +60˚C | |
| Environmental humidity | 95% max. | |
| International protection | IP55 | |
| Mounting | Wall | |
| Mounting height | 2.5 to 3.0 m | |
| Bracket adjust angle | Vertical: ± 20˚ Horizontal: ± 95˚ | |
| Weight | 720 g | |
| Accessories | Bracket, Screw (4 x 20 mm) x 4 | |

Specifications and designs are subject to change without prior notice.

# HX-80NRAM

B-ZONE

## BATTERY OPERATED 24M LONG AND NARROW RANGE HIGH MOUNT OUTDOOR PIR DETECTOR

WIRELESS

The HX-80NRAM, a battery operated outdoor PIR detector allows for long distance outdoor installation, providing while exceptional detection capabilities.

Battery box for numerous battery types

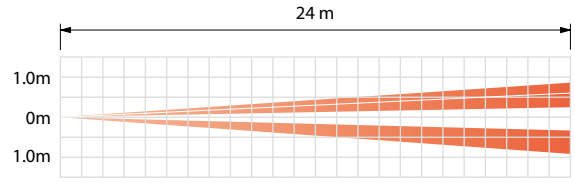

*3.6 VDC 1/2 AA battery in series.

## FEATURES

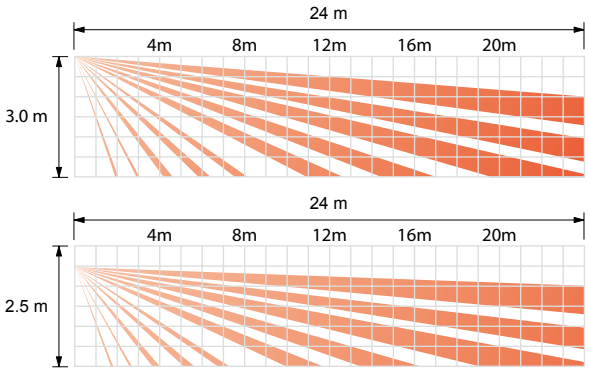
- Long battery life
- Active IR digital anti-masking
- Mounting height 2.5-3.0m
- Intelligent AND detection logic
- Double conductive shielding
- Advanced temperature compensation logic
- Summer night compensation logic
- Vegetation sway analysis logic

## COVERAGE

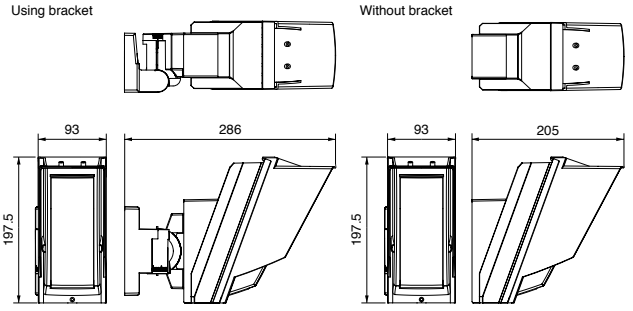
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| | |
|---|---|
| Model | HX-80NRAM |
| Detection method | Passive infrared |
| Anti-masking | Active IR |
| PIR coverage | 24.0 m x 2.0 m narrow / 20 zones |
| PIR distance limit | 6.5 m, 10.0 m, 13.0 m, 18.0 m |
| Detectable speed | 0.3 to 1.5 m/s |
| Sensitivity | 2.0˚C at 0.6 m/s |
| Power input | 3 - 7.2 VDC Lithium Battery (CR123A x 3, CR2 x 3, 1/2AA x 3, 1/2AA x 6) |
| Operating voltage | 2.5 to 9 VDC |
| Current draw | 30μA (standby) / 4 mA (max.) at 3 VDC |
| Alarm period | 2.0 ± 1 sec. |
| Warm-up period | Approx. 90 sec. (LED blinks) |
| Alarm output | Form C -Solid State Switch- 10 VDC 0.01 A max. |
| Trouble output | N.C./N.O. Selectable -Solid State Switch- 10 VDC 0.01 A max. |
| Tamper output | Form C. 28 VDC, 0.1 A max. activates when cover removed. |
| LED indicator | Disable: During normal operation.<br>Enable: During WALK TEST or LED SW on.<br>Red: Warm-up, Alarm, Trouble, Low battery |
| RF interference | No alarm 10 V/m |
| Operating temperature | -20 to +60˚C |
| Environmental humidity | 95% max. |
| International protection | IP55 |
| Mounting | Wall |
| Mounting height | 2.5 to 3.0 m |
| Bracket adjust angle | Vertical: ±20˚ Horizontal: ±95˚ |
| Weight | 780 g |
| Accessories | Bracket, Screw (4 x 20 mm) x 4, Velcro tape x 2,<br>Alarm cable, Battery lead x 2, Dummy battery kit |

Specifications and designs are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# HX-40/AM/DAM

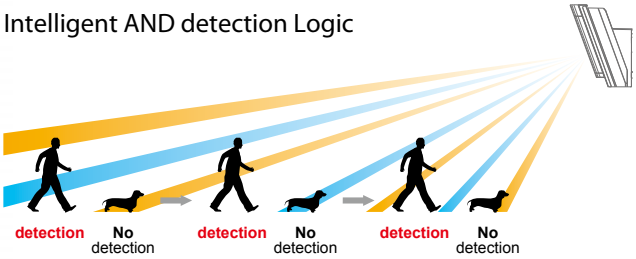
B-ZONE

## HIGH MOUNT OUTDOOR PIR DETECTOR

HX-40 series offers high detection performance against missed alarms in a hostile environment.

- HX-40 : standard model
- HX-40AM : active IR anti-masking model
- HX-40DAM : dual technology model with active IR anti-masking
  - HX-40DAM-X5 : 10.525 GHz
  - HX-40DAM-X8 : 10.587 GHz

Intelligent AND detection Logic

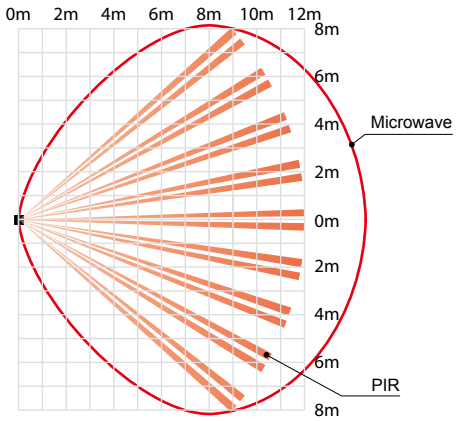



## FEATURES

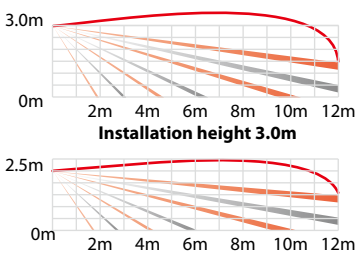
- Active IR digital anti-masking (HX-40AM/DAM only)
- Microwave Intelligent quantification logic (HX-40DAM only)
- Microwave range selector (HX-40DAM only
- Mounting height 2.5-3m
- Intelligent AND detection logic
- Dual signal processing circuit
- Vegetation sway analysis logic
- Double conductive shielding
- Ideal detection area setting

## COVERAGE

**TOP VIEW**

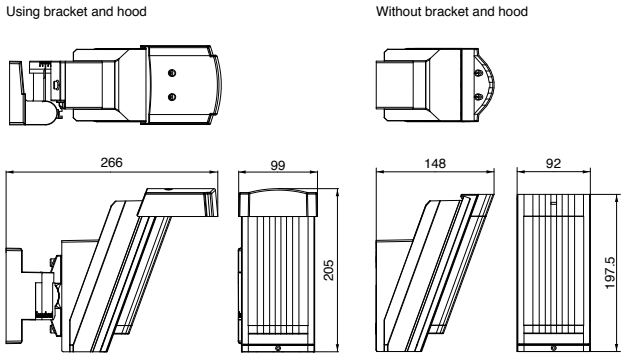



**SIDE VIEW**




Microwave ranges are for HX-40DAM.

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | HX-40 | HX-40 AM | HX-40 DAM |
|---|---|---|---|
| Detection method | Passive infrared | | Passive infrared & Microwave |
| Anti-masking | - | Active IR | |
| PIR coverage | 12 m 85˚ wide / 94 zones | | |
| PIR distance limit | 4 m, 5.5 m, 9 m | | |
| Detectable speed | 0.3 to 1.5 m/s | | |
| Sensitivity | 2.0˚C at 0.6 m/s | | |
| Power input | 9.5 to 18 VDC | | |
| Current draw | 35 mA (max) at 12 VDC | 40 mA (max) at 12 VDC | 50 mA (max.)at 12 VDC |
| Alarm period | 2.0 ± 1 sec | | |
| Warm-up period | Approx. 60 sec(LED blinks) | | |
| Alarm output | Form C 28 VDC 0.2A max | | |
| Tamper output | N.C. 28 VDC, 0.1A max. N.C. opens when cover is removed. | | |
| Trouble output | N.C. 28 VDC, 0.1A max | | |
| Aux input | - | N.C. 28 VDC, 0.1A max | |
| LED indicator | Red:Warm-up, Alarm | | Red:Warm-up, Alarm, Trouble<br>Green:Warm-up, PIR detect, Trouble<br>Yellow:Warm-up, MW detect |
| RF interference | No alarm 10 V/m | | |
| Operating temperature | -20 to +60˚C | | |
| Environmental humidity | 95% max | | |
| International protection | IP55 | | |
| Mounting | Wall | | |
| Mounting height | 2.5 to 3.0 m | | |
| Bracket adjust angle | Vertical: ±20˚ Horizontal: ± 95˚ | | |
| Weight | 600 g | | 700 g |
| Accessories | Bracket, Hood, Area masking seal, Screw kit (3 x 10-2, 4 x 20-4) | | |

Specifications and design are subject to change without prior notice.

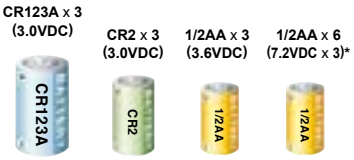
# HX-40RAM

B-ZONE

## BATTERY OPERATED HIGH MOUNT OUTDOOR PIR DETECTOR WITH ANTI-MASKING FUNCTION

The HX-40RAM, a battery operated outdoor PIR detector allows for economical and effortless outdoor installation,
providing while exceptional detection capabilities.

Battery box for
numerous battery types



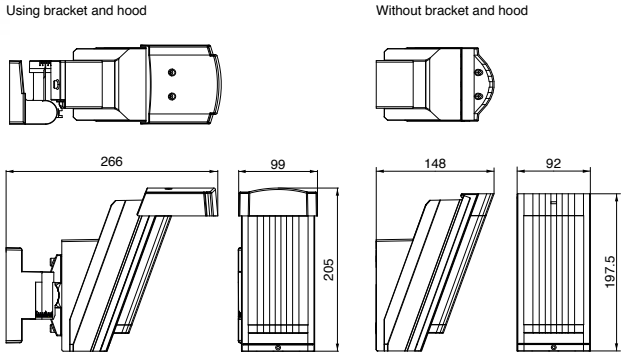

*3.6 VDC 1/2 AA battery in series.

WIRELESS

## FEATURES

- Long battery life
- Form C alarm output and tamper output
- Battery saving timer function
- Active IR digital anti-masking
- Mounting height 2.5-3m
- Intelligent AND detection logic
- Dual signal processing circuit
- Vegetation sway analysis logic
- Double conductive shielding
- Ideal detection area setting

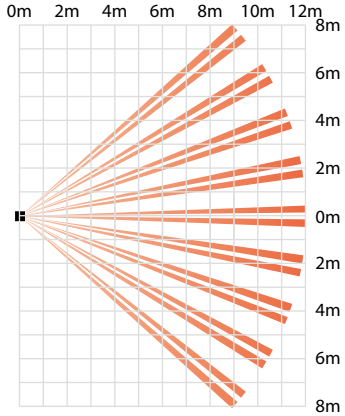
## DIMENSIONS



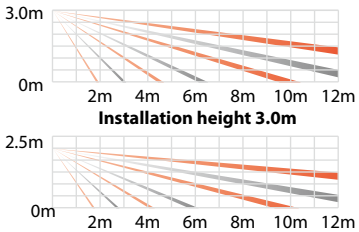

(mm)

## COVERAGE

**TOP VIEW**




**SIDE VIEW**




## SPECIFICATIONS

| | |
|---|---|
| Model | HX-40 RAM |
| Detection method | Passive infrared |
| Anti-masking | Active IR |
| PIR coverage | 12 m 85˚ wide / 94 zones |
| Distance limit | 4 m, 5.5 m, 9 m |
| Detectable speed<br>Sensitivity | 0.3 to 1.5 m/s<br>2.0˚C at 0.6 m/s |
| Power input | 3 to 7.2 VDC Lithium Battery<br>(CR123A x 3, CR2 x 3, 1/2AA x 3, 1-2AA x 6) |
| Operating Voltage | 2.5 to 9 VDC |
| Current draw | 30 µA (standby) / 4mA (max) at 3 VDC |
| Alarm period | 2.0 ± 1 sec |
| Warm-up period | Approx. 90 sec(LED blinks) |
| Alarm output | Form C - Solid State Switch - 10 VDC 0.01A max. |
| Trouble output | N.C./N.O. Selectable - Solid State Switch - 10 VDC 0.01A |
| Tamper output | Form C. 28 VDC, 0.1A max. changes when cover is removed |
| Aux input | – |
| LED indicator | Disable : During normal operation.<br>Enable : During WALK TEST or LED SW on.<br>Red : Warm-up, Alarm, Trouble, Low battery |
| RF Interference | No alarm 10 V/m |
| Operating temperature | -20 to +60˚C |
| Environmental humidity | 95% max |
| International protection | IP55 |
| Mounting | Wall |
| Mounting height | 2.5 to 3.0 m |
| Bracket adjust angle | Vertical: ± 20˚ Horizontal: ± 95˚ |
| Weight | 600 g |
| Accessories | Bracket, Hood, Area masking seal, Screw kit (3 x 10-2, 4 x 20-4)<br>Velcro tape x 2, Alarm cable,<br>Battery lead x 2, Dummy battery kit |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# QXI-ST/DT

B-ZONE

## WIDE ANGLE OUTDOOR PIR DETECTOR

The QXI series is a family of outdoor detectors providing 120 degree wide and 12 m (40 ft.) detection area.
With its sleek and compact housing, the QX Infinity series fits any residential and commercial buildings without ruining its appearance.

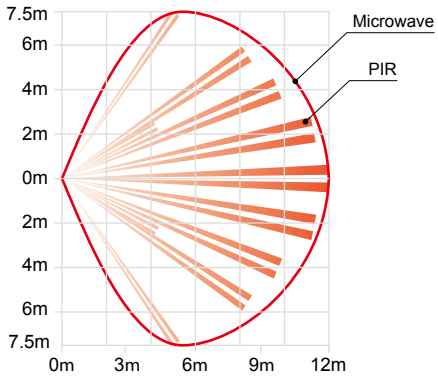
- QXI-ST - standard model
- QXI-DT - dual technology model

## FEATURES

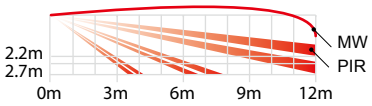
- Sleek & Compact design
- Selectable Mounting Height & Pattern
- Anti-blocking Function (QXI-DT only)
- Easy Open and Close Front Cover
- Double Conductive Shielding
- SMDA (Super Multi Dimension Analysis) logic
- Operating Temperature:
  QXI-ST/R:-40 to +60°C (-40 to +140°F) /
  QXI-DT/RDT:-40 to +45°C (-40°F to +113°F)
- UV Resistant ASA body
- Automatic Walk Test Mode
- Tough MOD : super tough microwave module (QXI-DT only)
- Cover / Back tamper

## COVERAGE

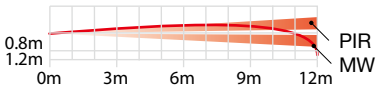
**TOP VIEW**




**SIDE VIEW (Multi Level)**



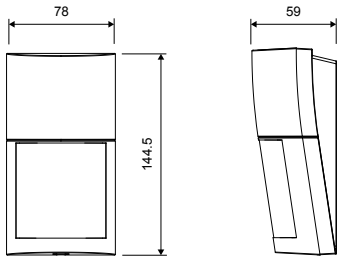

**SIDE VIEW (Pet Alley)**




## OPTIONS

- CA-2C(W) : Multi angle celing mount bracket
- CA-1W(W) : Multi angle wall mount bracket

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | QXI-ST | QXI-DT |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage | 12.0 m (40') 120°wide | |
| Detectable speed | 0.3 to 2.0 m/s (1' to 6'7"/s) | |
| Sensitivity | 2.0℃ ( 3.6°F) at 0.6 m/s | |
| Power input | 9.5 to 16 VDC | |
| Current draw | 20 mA max. at 12 VDC | 30 mA max. at 12 VDC |
| Alarm period | 2.0 ± 0.5 sec. (delay timer) | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | N.C/N.O. switchable, 28 VDC 0.1 A max. | |
| Trouble output | - | N.C. 28 V DC 0.1 A max. |
| Tamper output | N.C. 28 VDC 0.1 A max. Open when the cover is opened | |
| LED indicator | [1] Warm-up<br>[2] Alarm<br>[3] Walk test end | [1] Warm-up [2] Alarm<br>[3] Walk test end<br>[4] Blocking detection |
| Operating temperature | -40℃ to +60℃(-40°F to +140°F) | -40℃ to +45℃(-40°F to +113°F) |
| Environment humidity | 95% max. | |
| International protection | IP54 | |
| Mounting | Wall, Ceiling (Outdoor, Indoor) | |
| Mounting height | Multi level : 2.2 to 2.7 m (7' 3" to 8'11") /<br>Pet alley : 0.8 to 1.2 m (2' 7" to 4' ) | |
| Weight | 180 g (6.35 oz) | 195 g (6.88 oz) |
| Accessories | [1] Mounting screw (4 x 12 mm) x 2<br>[2] Lock screw (3 x 12 mm) x 1 [3] Area masking strips | |

Specifications and design are subject to change without prior notice.

# QXI-R/RDT

B-ZONE

## BATTERY OPERATED WIDE ANGLE OUTDOOR PIR DETECTOR

WIRELESS

The QX Infinity "R" models are battery operated products. Sharing the same design and performance with QXI-ST/DT, "R" models have the most up-to-date outdoor protection capabilities.

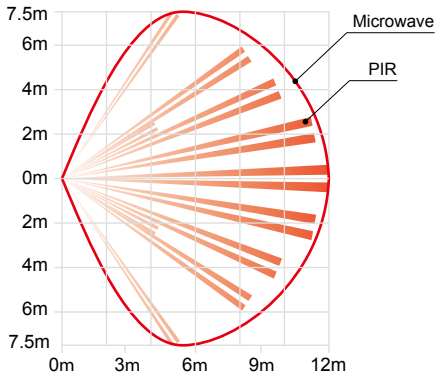
- QXI-R – battery operated model
- QXI-RDT – battery operated dual technology model

## FEATURES

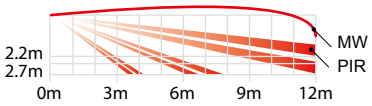
- Sleek & Compact design
- Selectable Mounting Height & Pattern
- Anti-blocking Function
- Easy Open and Close Front Cover
- Double Conductive Shielding
- SMDA (Super Multi Dimension Analysis) logic
- Operating Temperature: QXI-ST/R:-40 to +60°C (-40 to +140°F) / QXI-DT/RDT:-40 to +45°C (-40°F to +113°F)
- UV Resistant ASA body
- Automatic Walk Test Mode
- Battery Common Use
- Tough MOD : super tough microwave module (QXI-RDT only)
- Cover / Back tamper

## COVERAGE

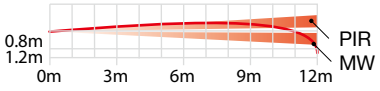
**TOP VIEW**




**SIDE VIEW (Multi Level)**



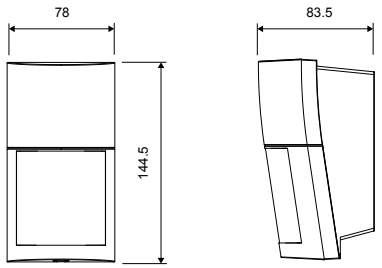

**SIDE VIEW (Pet Alley)**




## OPTIONS

- CA-2C(W) : Multi angle celing mount bracket
- CA-1W(W) : Multi angle wall mount bracket

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | QXI-R | QXI-RDT |
|---|---|---|
| Detection method | Passive infrared & Microwave | |
| PIR coverage | 12.0 m (40') 120°wide | |
| Detectable speed | 0.3 to 2.0 m/s (1' to 6'7"/s) | |
| Sensitivity | 2.0℃ ( 3.6°F) at 0.6 m/s | |
| Power input | CR123A (3 V DC) *Not included | |
| Current draw | 9 μA stand-by 11 mA max. at 3 V DC | 16μA stand-by 11 mA max. at 3 V DC |
| Alarm period | 2.0 ± 0.5 sec. (delay timer) | |
| Warm-up period | Approx. 60 sec. (LED blinks) | |
| Alarm output | N.C/N.O. switchable solidstate switch, 3 V DC 0.01 A max. | |
| Trouble output (with tamper) | N.C/N.O. switchable solidstate switch, 3 V DC 0.01 A max. (with tamper) | |
| LED indicator | [1] Warm-up<br>[2] Alarm<br>[3] Walk test end | |
| Operating temperature | -40℃ to +60℃(-40°F to +140°F) | -40℃ to +45℃(-40°F to +113°F) |
| Environment humidity | 95% max. | |
| International protection | IP54 | |
| Mounting | Wall, Ceiling (Outdoor, Indoor) | |
| Mounting height | Multi level： 2.2 to 2.7 m (7' 3" to 8'11") /<br>Pet alley： 0.8 to 1.2 m (2' 7" to 4' ) | |
| Weight | 215 g (7.58 oz) | 230 g (8.11 oz) |
| Accessories | [1] Dummy battery and connector for ALARM<br>[2] Connector for TROUBLE<br>[3] Mounting screw (4 x 12 mm) x 3<br>[4] Lock screw (3 x 12 mm) x 1<br>[5] Area masking strips | |

Specifications and design are subject to change without prior notice.

# LX-402/802N

B-ZONE

## OUTDOOR PIR DETECTOR

The LX series is robust, weatherproof and specifically designed for short-range outdoor applications with wide angle and long range options.

- LX-402 – 120˚ wide angle model
- LX-802N – long and narrow range model

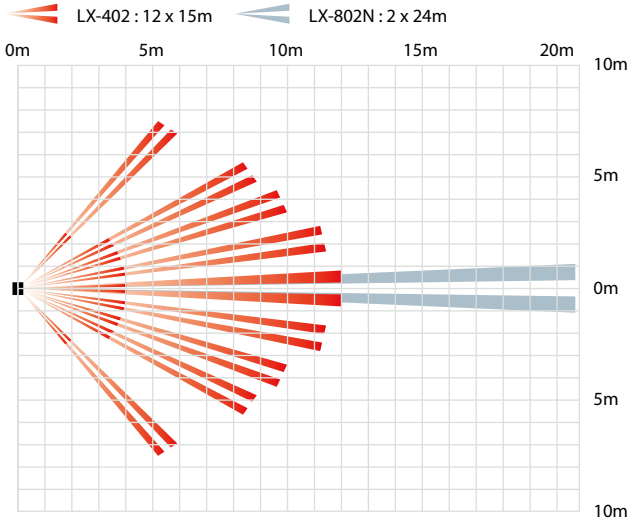
LX-802N

## FEATURES

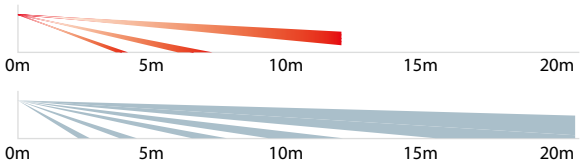
- Double conductive shielding
- Selectable detection patterns (pet alley or multi-level)
- Area-masking strips (LX-402)
- Sensitivity selection switch (high, mid and low)
- Selectable pulse count (test or 2)
- Day & night modes

## COVERAGE

**TOP VIEW**



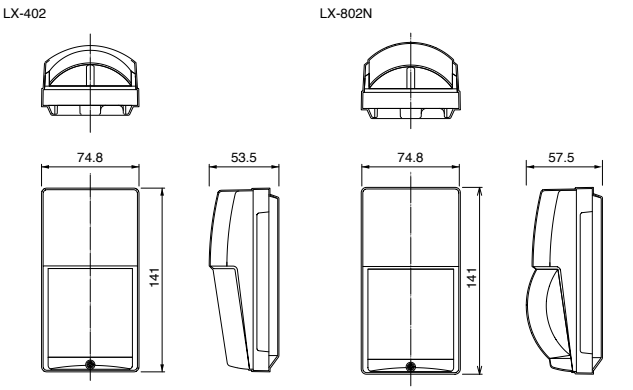

**SIDE VIEW**




## OPTIONS

- CA-2C : Multi-angle ceiling mounting bracket
- CA-1W : Multi-angle wall mounting bracket

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | | LX-402 | LX-802N |
|---|---|---|---|
| PIR coverage | | 12m x 15m 120˚ wide | 24m x 2m long range |
| Detection zones | Multi-level area | 40 zones | 12 zones |
| | Pet alley area | 18 zones | 4 zones |
| Sensitivity | | Selectable 3 position (High / Middle / Low) | |
| Detectable speed | | 0.3 to 1.0m/sec. | |
| Power supply | | 10.8 to 13.2 VDC | |
| Current consumption | | 25mA max. | |
| Alarm period | | 2 ± 1 sec. (delay timer) | |
| Alarm output | | N.C. N.O. 28 VDC 0.2A max. | |
| Tamper swith | | N.C. opens when cover is removed | |
| Pulse count | | 2 (20 ± 5 sec.) or TEST (1 pulse) | |
| Warm-up period | | Approx. 60 sec. | |
| LED indicator | | LED lights during detection | |
| Operating temperature | | -20 to +50˚C | |
| Environmental humidity | | 95% max. | |
| Mounting height | Multi-level area | 2.5 m max. | |
| | Pet alley area | 1.2 to 1.5 m | |
| Mounting | | Wall | |
| Weight | | 170 g | 190 g |
| Dimensions (H x W x D) | | 141 mm x 74.8 mm x 53.5 mm | 141 mm x 74.8 mm x 57.5 mm |
| International protection | | IP54 | |

Specifications and design are subject to change without prior notice.

# BX-100PLUS

B-ZONE

## PHOTOELECTRIC DETECTOR FOR BUILDING PERIMETER

The BX-100PLUS consists of a pair of small, discreet dual infrared beams designed to protect the immediate perimeter of a building.

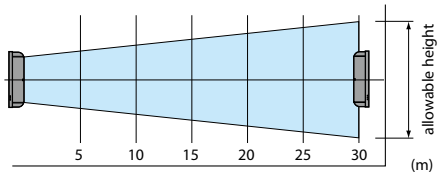
White decorative cover
WC-1(Option)

## FEATURES

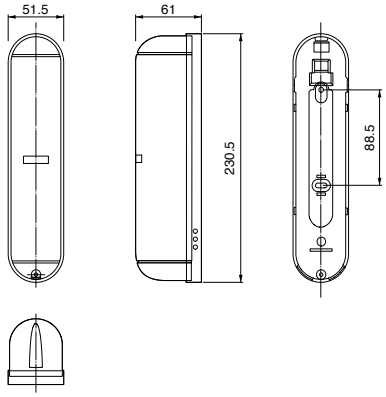
- Dual IR pulsed beam system
- Internal sounder
- Easy alignment with visual and audible indicator
- Light reduction filter
- 99% beam blocking stability
- N.O. and N.C. relay outputs
- Active infrared technology
- Slim design

## RANGES

| detection range | 5 | 10 | 15 | 20 | 25 | 30 | m |
|---|---|---|---|---|---|---|---|
| allowable height | 30 | 40 | 50 | 50 | 50 | 50 | cm |




## DIMENSIONS




(mm)

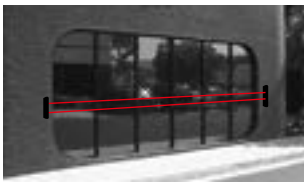
## OPTIONS

- SP-1 : Spacer unit
- MG-1 : Vandal and tamper resistant metal guard
- WC-1 : White decorative cover

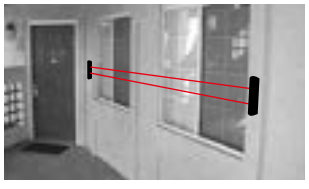
## APPLICATIONS

Retail

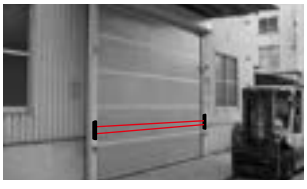
Business



Residential



Industrial



## SPECIFICATIONS

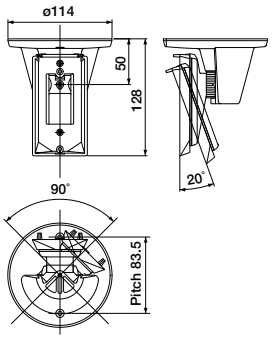
| Model | BX-100PLUS |
|---|---|
| Maximum detection range | 30m |
| Maximum arrival distance | 300m |
| Interruption period | 50 msec. |
| Power supply | 10.5 to 28 VDC |
| Current consumption (transmitter + receiver) | 55mA (stand by) / 75mA (max.) |
| Alarm period | 2 ± 1 sec. (delay) |
| Relay output | 2 relay outputs N.O. and N.C. 28 VDC 0.2A (max.) each |
| Beeping period | 15 ± 1 sec. (delay) |
| Volume of audible alarm indicator | Approx. 70dB (at 1 meter distance) |
| Tamper switch | N.C. opens when cover is removed |
| Operating temperature | -35 to +55˚C |
| Environmental humidity | 95% max. |
| Alignment angle | ± 92˚ Horizontal |
| Mounting | Wall |
| Weight (transmitter+receiver) | 400 g |
| Dimensions (H x W x D) | 230.5 mm x 51.5 mm x 61 mm |
| International protection | IP54 |

Specifications and design are subject to change without prior notice.

# OPTIONS

## CA-2C

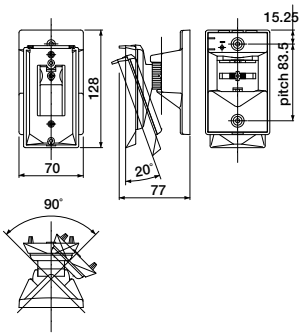
Multi Angle Ceiling Mount Bracket
for
• LX-402/802N
• QXI-ST/DT/R/RDT




(mm)

## CA-1W

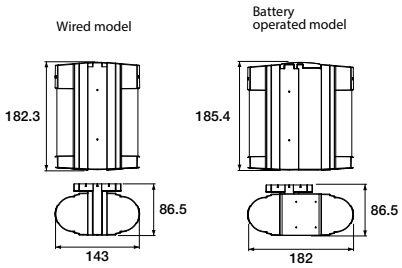
Multi Angle Wall Mount Bracket
for
• LX-402/802N
• QXI-ST/DT/R/RDT




(mm)

## VXI-T-BRACKET

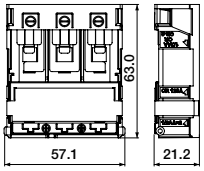
T-bracket
for
• VXI-ST/AM
• VXI-R/RAM




(mm)

## RBB-01

Battery Box
for
• VXI-R/RAM/RDAM
• BXS-R/RAM




(mm)

## WRS-02

Wall Tamper
for
• FTN-ST/AM
• VXI-ST/AM/DAM

## WRS-03

Wall Tamper
for
• FTN-R/RAM/R-PT/RAM-PT

## WRS-04

Wall Tamper
for
• VXI-R/RAM/RDAM

## PMP-01

Pole mount plate
for
• WXI-ST/AM
• WXI-R/RAM
• BXS-ST/AM
• BXS-R/RAM

## BH-01

Battery holder
for
• WXI-R/RAM
• VXI-RAM/RDAM
• BXS-R/RAM

## WXI-BB

Back box
for
• WXI-ST/AM
•WXI-R/RAM

## MKP-01



Area masking plate
for
• WXI-ST/AM
•WXI-R/RAM

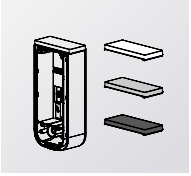
## BXS Face cover

White / Silver / Black
for
• BXS-ST/AM
• BXS-R/RAM

## BXS Back box

White / Black
for
• BXS-ST/AM
• BXS-R/RAM

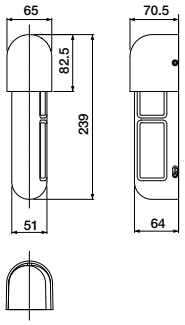
## BXS Back box Cap



White / Silver / Black
for
• BXS-ST/AM
• BXS-R/RAM

## WC-1

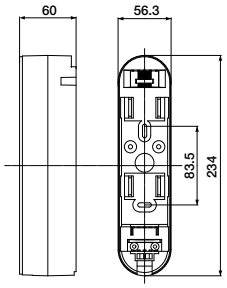
White Decorative Cover
for
• BX-100PLUS




(mm)

## SP-2

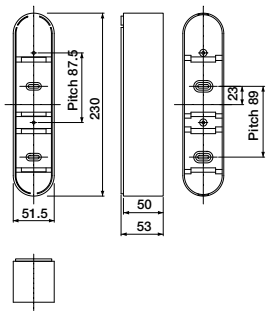
Spacer Unit
for
• BX-80N




(mm)

## SP-1

Spacer Unit
for
• BX-100PLUS

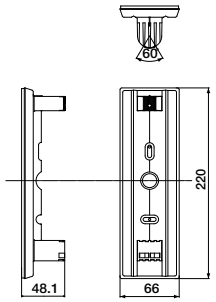



(mm)

## BA-1W

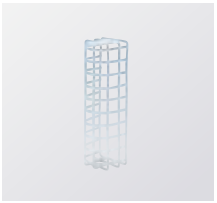
Multi Angle Wall Mount
Bracket
for
• BX-80N*
• BX-80NR

*SP-2 spacer is required when BA-1W is used

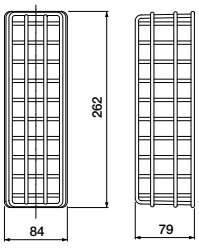



(mm)

## MG-1



Vandal and Tamper Resistant
Metal Guard
for
• BX-80N
• BX-100PLUS




(mm)

## PEU-B/C/D/E/F/G/H/I/J/K

Selectable Plug-in End of
Line Unit
for
• WXI-ST/AM
• VXS-AM/DAM
• VXI-ST/AM/DAM
• BXS-ST/AM
• WXS-AM/DAM/RAM/RDAM

| Item | Trouble | Alarm | Tamper | Panels |
|---|---|---|---|---|
| PEU-B | 6.8K | 4.7K | 4.7K | Old GE/Aritech |
| PEU-C | 12.0K | 1.0K | 1.0K | Honeywell Galaxy (U.K.) |
| PEU-D | 3.0K | 1.0K | 1.0K | Honeywell Galaxy (Benelux) |
| PEU-E | 15.0K | 1.1K | 1.1K | Satel |
| PEU-F | 5.6K | 5.6K | 5.6K | DSC, Ksenia |
| PEU-G | 8.2K | 8.2K | 8.2K | Guardall |
| PEU-H | 2.2K | 4.7K | 2.2K | Old Texecom, Cooper, Scantronics etc. |
| PEU-I | 1.0K | 3.3K | 3.3K | New Texecom, NetworX, Inim |
| PEU-J | 12.0K | 6.8K | 4.7K | Risco ProSYS |
| PEU-K | 2.2K | 1.0K | 1.0K | Siemens SPC |

No warranty is given as to the fitness of this option with noted avobe manufacture`s product.
Please check on specifications of a control panel before you buy this option.
Some models do not have a trouble output.

# PRODUCT SPECIFICATIONS



| | WXS-AM/DAM | WXS-RAM/RDAM | WXI-ST | WXI-AM |
|---|---|---|---|---|
| |  |  |  |  |
| | P18 | P19 | P20 | P20 |
| Detection method | WXS-AM : PIR<br>WXS-DAM : PIR & MW | WXS-RAM : PIR<br>WXS-RDAM : PIR & MW | PIR | PIR |
| Anti-Masking | ✓ | ✓ | — | ✓ |
| Coverage | 180° wide | 180° wide | 180° wide | 180° wide |
| Detection zones | Horizontal 14 pairs, vertical 2 layers | Horizontal 14 pairs, vertical 2 layers | Horizontal 14 pairs, vertical 2 layers | Horizontal 14 pairs, vertical 2 layers |
| Mounting height | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m |
| Double-layerd detection patterns | ✓ | ✓ | ✓ | ✓ |
| Intelligent AND detection logic | ✓ | ✓ | ✓ | ✓ |
| Pet immunity | ✓ | ✓ | ✓ | ✓ |
| SMDA logic | ✓ | ✓ | ✓ | ✓ |
| Immunity switch | — | — | — | — |
| Area masking method | Shutter / Plate | Shutter / Plate | Shutter / Plate | Shutter / Plate |
| Double conductive shielding | ✓ | ✓ | ✓ | ✓ |
| Sensitivity adjustment | H / M / L | H / M / L | H / M / L | H / M / L |
| Advanced temperature compensation logic | ✓ | ✓ | ✓ | ✓ |
| Pulse Count | 1 / 2 | 1 / 2 | 1 / 2 | 1 / 2 |
| Power supply | 9.5 - 18 VDC | 9.5 - 18 VDC | 9.5 - 18 VDC | 9.5 - 18 VDC |
| Current consumption | 23 mA max. at 12 VDC<br>24 mA max. at 12 VDC | 19 µA stand-by 4 mA max. at 3 VDC<br>24 µA stand-by 6 mA max. at 3 VDC | 21 mA max. at 12 VDC | 23 mA max. at 12 VDC |
| Alarm output | 28 VDC 0.1 A max.<br>[Individual;Right/Left or General],<br>[N.O. or N.C.] are selectable | 10 VDC 0.01 A max.<br>[Individual;Right/Left or General],<br>[N.O. or N.C.] are selectable | 28 VDC 0.1 A max.<br>[Individual;Right/Left or General],<br>[N.O. or N.C.] are selectable | 28 VDC 0.1 A max.<br>[Individual;Right/Left or General],<br>[N.O. or N.C.] are selectable |
| Alarm indication LED | ✓ | ✓ | ✓ | ✓ |
| Tamper output | N.C. | N.C. | N.C. | N.C. |
| Day/night mode | — | — | — | — |
| International protection | IP55 | IP55 | IP55 | IP55 |
| Operating temperature | -30 to +60˚C / -20 to +45˚C | -30 to +60˚C / -20 to +45˚C | -30 to +60˚C | -30 to +60˚C |
| Environmental humidity | 95% max. | 95% max. | 95% max. | 95% max. |
| Dimensions (H x W x D mm) | 201.5 x 91.7 x 86.3 | 201.5 x 91.7 x 86.3 | 200 x 81.5 x 81.2 | 200 x 81.5 x 81.2 |

| | VXS-RAM | VXS-RDAM | VXI-ST | VXI-AM |
|---|---|---|---|---|
| |  |  |  |  |
| | P23 | P23 | P24 | P24 |
| Detection method | PIR | PIR & MW | PIR | PIR |
| Anti-Masking | ✓ | ✓ | — | ✓ |
| Coverage | 12m 90˚ wide | 12m 90˚ wide | 12m 90˚ wide | 12m 90˚ wide |
| Detection zones | Horizontal 8pairs,<br>vertical 2 layers | Horizontal 8pairs,<br>vertical 2 layers | Horizontal 8 pairs, vertical 2 layers | Horizontal 8 pairs, vertical 2 layers |
| Mounting height | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m |
| Double-layerd detection patterns | ✓ | ✓ | ✓ | ✓ |
| Intelligent AND detection logic | ✓ | ✓ | ✓ | ✓ |
| Pet immunity | ✓ | ✓ | ✓ | ✓ |
| SMDA logic | ✓ | ✓ | ✓ | ✓ |
| Immunity switch | — | — | — | — |
| Area masking method | Seal | Seal | Seal | Seal |
| Double conductive shielding | ✓ | ✓ | ✓ | ✓ |
| Sensitivity adjustment | H / M / L | H / M / L | H / M / L | H / M / L |
| Advanced temperature compensation logic | ✓ | ✓ | ✓ | ✓ |
| Pulse Count | 2 | 2 | 2 | 2 |
| Power supply | 3 to 9 V DC Lithium or<br>Alkaline Battery | 3 to 9 V DC Lithium or<br>Alkaline Battery | 9.5 - 18 VDC | 9.5 - 18 VDC |
| Current consumption | 10 µ A standby /<br>4 mA max. at 3 V DC | 18 µ A standby /<br>8 mA max. at 3 V DC | 20mA (max.) | 20mA (max.) |
| Alarm output | N.C. / N.O. Selectable-Solid<br>State Switch<br>10 V DC 0.01 A max. | N.C. / N.O. Selectable-Solid<br>State Switch<br>10 V DC 0.01 A max. | Selectable N.C./N.O.<br>28 VDC 0.1A (max) | Selectable N.C./N.O.<br>28 VDC 0.1A (max) |
| Alarm indication LED | ✓ | ✓ | ✓ | ✓ |
| Tamper output | N.C. | N.C. | N.C. | N.C. |
| Day/night mode | — | — | — | — |
| International protection | IP55 | IP55 | IP55 | IP55 |
| Operating temperature | -20 to +60˚C | -20 to +45˚C | -30 to +60˚C | -30 to +60˚C |
| Environmental humidity | 95% max. | 95% max. | 95% max. | 95% max. |
| Dimensions (H x W x D mm) | 199.3 x 81.6 x 109.3 | 199.3 x 81.6 x 109.3 | 181.9 x 70.9 x 64.5 | 181.9 x 70.9 x 64.5 |

| WXI-R | WXI-RAM | VXS-AM | VXS-DAM |
|---|---|---|---|
|  |  |  |  |
| P21 | P21 | P22 | P22 |
| PIR | PIR | PIR | PIR & MW |
| — | ✓ | ✓ | ✓ |
| 180° wide | 180° wide | 12m 90˚ wide | 12m 90˚ wide |
| Horizontal 14 pairs, vertical 2 layers | Horizontal 14 pairs, vertical 2 layers | Horizontal 8pairs, vertical 2 layers | Horizontal 8pairs, vertical 2 layers |
| 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| — | — | — | — |
| Shutter / Plate | Shutter / Plate | Seal | Seal |
| ✓ | ✓ | ✓ | ✓ |
| H / M / L | H / M / L | H / M / L | H / M / L |
| ✓ | ✓ | ✓ | ✓ |
| 1 / 2 | 1 / 2 | 2 | 2 |
| 3 to 3.6 V DC lithium batteries | 3 to 3.6 V DC lithium batteries | 9.5 - 18 VDC | 9.5 - 18 VDC |
| 15 µA stand-by 4 mA max. at 3 V DC except walk test | 16 µA stand-by 4 max. at 3 V DC except walk test | 24 mA max. at 12 VDC | 35 mA max. at 12 VDC |
| Solidstate switch, 10 V DC 0.01 A max. [Individual;Right/Left or General], [N.O. or N.C.] are selectable | Solidstate switch, 10 V DC 0.01 A max. [Individual;Right/Left or General], [N.O. or N.C.] are selectable | N.C. / N.O. Selectable 28 VDC 0.1 A max. | N.C. / N.O. Selectable 28 VDC 0.1 A max. |
| ✓ | ✓ | ✓ | ✓ |
| N.C. | N.C. | N.C. | N.C. |
| — | — | — | — |
| IP55 | IP55 | IP55 | IP55 |
| -30 to +60˚C | -30 to +60˚C | -20 to +60˚C | -20 to +45˚C |
| 95% max. | 95% max. | 95% max. | 95% max. |
| 200 x 81.5 x 119.2 | 200 x 81.5 x 119.2 | 199.3 x 81.6 x 70.3 | 199.3 x 81.6 x 70.3 |

| VXI-DAM | VXI-R | VXI-RAM | VXI-RDAM |
|---|---|---|---|
|  |  |  |  |
| P24 | P25 | P25 | P25 |
| PIR & MW | PIR | PIR | PIR & MW |
| ✓ | — | ✓ | ✓ |
| 12m 90˚ wide | 12m 90˚ wide | 12m 90˚ wide | 12m 90˚ wide |
| Horizontal 8 pairs, vertical 2 layers | Horizontal 8 pairs, vertical 2 layers | Horizontal 8 pairs, vertical 2 layers | Horizontal 8 pairs, vertical 2 layers |
| 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ |
| STD/Immunity (microwave) | — | — | STD/Immunity (microwave) |
| Seal | Seal | Seal | Seal |
| ✓ | ✓ | ✓ | ✓ |
| H / M / L | H / M / L | H / M / L | H / M / L |
| ✓ | ✓ | ✓ | ✓ |
| 2 | 2 | 2 | 2 |
| 9.5 - 18 VDC | 3 - 9 VDC (Lithium or Alkaline battery) | 3 - 9 VDC (Lithium or Alkaline battery) | 3 - 9 VDC (Lithium or Alkaline battery) |
| 20mA (max.) | 9µA (at stand-by) 4mA (max.) | 9µA (at stand-by) 4mA (max.) | 18µA (at stand-by) 8mA (max.) |
| Selectable N.C./N.O. 28 VDC 0.1A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) |
| ✓ | ✓ | ✓ | ✓ |
| N.C. | N.C. | N.C. | N.C. |
| — | — | — | — |
| IP55 | IP55 | IP55 | IP55 |
| -30 to +60˚C | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C |
| 95% max. | 95% max. | 95% max. | 95% max. |
| 181.9 x 70.9 x 64.5 | 185.9 x 71.3 x 105.5 | 185.9 x 71.3 x 105.5 | 185.9 x 71.3 x 105.5 |

# PRODUCT SPECIFICATIONS



| | BXS-ST | BXS-AM | BXS-R | BXS-RAM |
|---|---|---|---|---|
| |  |  |  |  |
| | P26 | P26 | P27 | P27 |
| Detection method | PIR | PIR | PIR | PIR |
| Anti-Masking | — | ✓ | — | ✓ |
| Coverage | 24m ; 12m 180° narrow | 24m ; 12m 180° narrow | 24m ; 12m 180° narrow | 24m ; 12m 180° narrow |
| Detection zones | 4 zones ; 2 zones on each side | 4 zones ; 2 zones on each side | 4 zones ; 2 zones on each side | 4 zones ; 2 zones on each side |
| Mounting height | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m |
| Double-layerd detection patterns | ✓ | ✓ | ✓ | ✓ |
| Intelligent AND detection logic | ✓ | ✓ | ✓ | ✓ |
| Pet immunity | ✓ | ✓ | ✓ | ✓ |
| SMDA logic | ✓ | ✓ | ✓ | ✓ |
| Immunity switch | — | — | — | — |
| Area masking method | — | — | — | — |
| Double conductive shielding | ✓ | ✓ | ✓ | ✓ |
| Sensitivity adjustment | H / M / L | H / M / L | H / M / L | H / M / L |
| Advanced temperature compensation logic | ✓ | ✓ | ✓ | ✓ |
| Pulse Count | 1 / 2 | 1 / 2 | 1 / 2 | 1 / 2 |
| Power supply | 9.5 - 18 VDC | 9.5 - 18 VDC | 3 to 9 V DC Lithium or Alkaline batteries | 3 to 9 V DC Lithium or Alkaline batteries |
| Current consumption | 31mA (max.) | 31mA (max.) | 15 µA stand-by / 8 mA max. at 3 V DC | 15 µA stand-by / 8 mA max. at 3 V DC |
| Alarm output | 28 V DC 0.1 A max. [Individual;Right or General], [N.O. or N.C.] are selectable | 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 | Solidstate switch, 10 V DC 0.01 A max. [Individual;Right or General], [N.O. or N.C.] are selectable |
| Alarm indication LED | ✓ | ✓ | ✓ | ✓ |
| Tamper output | N.C. 28 V DC 0.1 A max. open when face cover, main unit or base unit is removed | N.C. 28 V DC 0.1 A max. open when face cover, main unit or base unit is removed | Tamper output is shared with trouble output. | Tamper output is shared with trouble output. |
| Day/night mode | — | — | — | — |
| International protection | IP55 | IP55 | IP55 | IP55 |
| Operating temperature | -30 to +60˚C | -30 to +60˚C | -30 to +60˚C | -30 to +60˚C |
| Environmental humidity | 95% max. | 95% max. | 95% max. | 95% max. |
| Dimensions (H x W x D mm) | 199.7 x 92.8 x 52.7 | 199.7 x 92.8 x 52.7 | 199.7 x 92.8 x 98.7 | 199.7 x 92.8 x 98.7 |

| | HX-80NRAM | HX-40 | HX-40AM | HX-40DAM |
|---|---|---|---|---|
| |  |  |  |  |
| | P33 | P34 | P34 | P34 |
| Detection method | PIR | PIR | PIR | PIR |
| Anti-Masking | ✓ | — | ✓ | ✓ |
| Coverage | 24 x 2m narrow | 12m 85˚ wide | 12m 85˚ wide | 12m 85˚ wide |
| Detection zones | 20 | 94 | 94 | 94 |
| Mounting height | 2.5 - 3.0m | 2.5 - 3.0m | 2.5 - 3.0m | 2.5 - 3.0m |
| Double-layerd detection patterns | — | — | — | — |
| Intelligent AND detection logic | ✓ | ✓ | ✓ | ✓ |
| Pet immunity | ✓ | ✓ | ✓ | ✓ |
| SMDA logic | — | — | — | — |
| Immunity switch | STD/Immunity | STD/Immunity | STD/Immunity | STD/Immunity |
| Area masking method | Plate and Flap | Seal | Seal | Seal |
| Double conductive shielding | ✓ | ✓ | ✓ | ✓ |
| Sensitivity adjustment | H / M / L | H / M / L | H / M / L | H / M / L |
| Advanced temperature compensation logic | ✓ | ✓ | ✓ | ✓ |
| Pulse Count | 2 | 2 | 2 | 2 |
| Power supply | 3-7 VDC (Lithium battery) | 9.5 - 18 VDC | 9.5 - 18 VDC | 9.5 - 18 VDC (Lithium battery) |
| Current consumption | 30µA (at stand-by) 4mA (max.) | 35mA max. | 40mA max. | 50mA max. at12 VDC |
| Alarm output | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) | Form C 28 VDC 0.2A max. | Form C 28 VDC 0.2A max. | Form C 28 VDC 0.2A max. |
| Alarm indication LED | ✓ | ✓ | ✓ | ✓ |
| Tamper output | Form C | N.C. | N.C. | N.C. |
| Day/night mode | — | — | — | — |
| International protection | IP55 | IP55 | IP55 | IP55 |
| Operating temperature | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C |
| Environmental humidity | 95% max. | 95% max. | 95% max. | 95% max. |
| Dimensions (H x W x D mm) | 197.5 x 93 x 286 | 205 x 99 x 266 | 205 x 99 x 266 | 205 x 99 x 266 |

| BX-80N | BX-80NR | FTN-ST/AM | FTN-R/RAM/R-PT/RAM-PT | HX-80N | HX-80NAM |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| P28 | P29 | P30 | P31 | P32 | P32 |
| PIR | PIR | PIR | PIR | PIR | PIR |
| — | — | FTN-AM : ✓ | FTN-RAM : ✓ FTN-RAM-PT : ✓ | — | ✓ |
| 24m Narrow (12m on each side) | 24m Narrow (12m on each side) | 5 x 1m | 5 x 1m | 24 x 2m narrow | 24 x 2m narrow |
| 4 zones (2 on each side) | 4 zones (2 on each side) | 2 | 2 | 20 | 20 |
| 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 0.8 - 1.2m | 2.5 - 3.0m | 2.5 - 3.0m |
| ✓ | ✓ | — | — | — | — |
| — | — | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| — | — | ✓ | ✓ | — | — |
| — | — | — | — | STD/Immunity | STD/Immunity |
| — | — | — | — | Plate and Flap | Plate and Flap |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| H / M / L | H / M / L | STD/LOW | STD/LOW | H / M / L | H / M / L |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 10 - 28 VDC | 3 - 9 VDC (Lithium or Alkaline battery) | 9.5 - 18 VDC | 3 - 9 VDC | 3 - 9 VDC | 3 - 9 VDC |
| 38mA max. | 3mA max. (walktest, LED on) 15µA (standby) | FTN-ST : 17 mA max. FTN-AM : 20mA max. | 10µA (at stand-by) 3mA (max.) | 35mA max. | 35mA max. |
| 2 Outs : N.O./ N.C. 28 VDC 0.2A max. | Form C solid state switch 10 VDC 0.01A max. | Selectable N.C./N.O. 28 VDC 0.1A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) | Selectable-Solid N.C./N.O. State Switch 10 VDC 0.01A (max) |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| N.C. | Form C | N.C. | N.C. | N.C. | N.C. |
| — | — | — | — | — | — |
| IP55 | IP55 | IP55 | IP55 | IP55 | IP55 |
| -20 to +50˚C | -20 to +50˚C | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C | -20 to +60˚C |
| 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. |
| 232.7 x 55 x 68.7 | 235 x 56 x 128 | 155 x 35 x 42.5 | 155 x 70 x 425.5 | 197.5 x 93 x 286 | 197.5 x 93 x 286 |

| HX-40RAM | QXI-ST/DT | QXI-R/RDT | LX-402 | LX-802N |
|---|---|---|---|---|
|  |  |  |  |  |
| P35 | P36 | P37 | P38 | P38 |
| PIR | QXI-ST : PIR QXI- DT : PIR & MW | QXI-R : PIR QXI- RDT : PIR & MW | PIR | PIR |
| ✓ | — | — | — | — |
| 12m 85˚ wide | 12m 120˚ wide | 12m 120˚ wide | 12 x 15m | 24 x 2m |
| 94 | Multi level: 40 zones Pet alley: 18 zones | Multi level: 40 zones Pet alley: 18 zones | Multi-Level : 40 Pet Alley : 18 | Multi-Level : 12 Pet Alley : 4 |
| 2.5 - 3.0m | 2.2 - 2.7m | 2.2 - 2.7m | Multi-Level:2.5m max Pet Alley : 1.2-1.5m | Multi-Level:2.5m max Pet Alley : 1.2-1.5m |
| — | — | — | — | — |
| ✓ | ✓ | ✓ | — | — |
| ✓ | ✓ | ✓ | Pet alley | Pet alley |
| — | — | — | — | — |
| STD/Immunity | STD/Immunity | STD/Immunity | — | — |
| Seal | Seal | Seal | Seal | — |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| H / M / L | H / M / L | H / M / L | H / M / L | H / M / L |
| ✓ | ✓ | ✓ | — | — |
| 2 | 2 | 2 | TEST (1) / 2 | TEST (1) / 2 |
| 3 - 7.2 VDC | 9.5 - 16VDC | CR123A (3 V DC) | 10.8 - 13.2 VDC | 10.8 - 13.2 VDC |
| Lithium batteries 4mA (max.) 30µA (stand by) | 20 mA max. at 12 VDC 30 mA max. at 12 VDC | 9 µA stand-by 11 mA max. at 3 V DC 16µA stand-by 11 mA max. at 3 V DC | 25mA max. | 25mA max. |
| Form C solid state switch 10 VDC 0.01A max. | Form C 28 VDC 0.1A max. | Form C 3 VDC 0.01A max. | Form C 28 VDC 0.2A max. | Form C 28 VDC 0.2A max. |
| ✓ | ✓ | ✓ | ✓ | ✓ |
| Form C | N.C. | N.C. | N.C. | N.C. |
| — | — | — | ✓ | ✓ |
| IP55 | IP54 | IP54 | IP54 | IP54 |
| -20 to +60˚C | -40 to +60˚C / -40 to +45˚C | -40 to +60˚C / -40 to +45˚C | -20 to +50˚C | -20 to +50˚C |
| 95% max. | 95% max. | 95% max. | 95% max. | 95% max. |
| 205 x 99 x 266 | 144.5 x 78 x 59 | 144.5 x 78 x 83.5 | 141 x 74.8 x 53.5 | 141 x 74.8 x 57.5 |

# FLX-A-AM/DAM

C-ZONE

## INDOOR PIR / COMBINATION DETECTOR

FlipX is the indoor motion detector not only with a lot of highly evaluated features for existing indoor motion detectors but also with know-how obtained from our experiences of outdoor motion detector development.

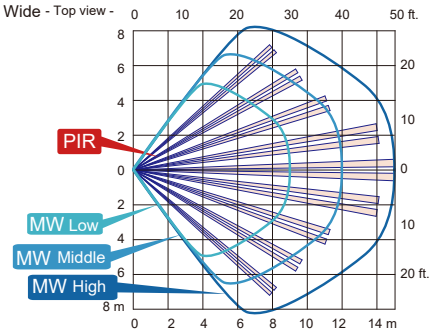
Advanced model
- 15 m (50 ft.) 85 degree Wide
- 24 m (80 ft.) Narrow
- Anti-Masking

## FEATURES

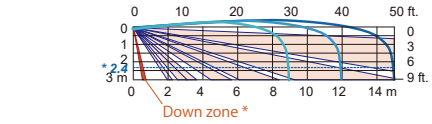
- Flip Lens
- Easily Viewable LED Color
- Human-Catch Element
- Refined Spherical Lens
- 180 Degree Cover Lock
- SMDA Logic
- Removable Terminal Block
- Double Protection Anti-Masking
- Down Zone Switch
- EOL Resistor Socket
- Super High Sensitivity

## COVERAGES

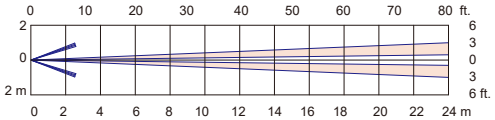
Wide - Top view -



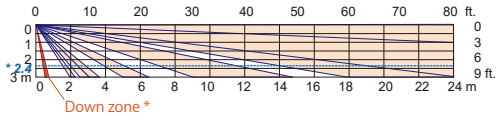

Wide - Side view -




Narrow - Top view -




Narrow - Side view -

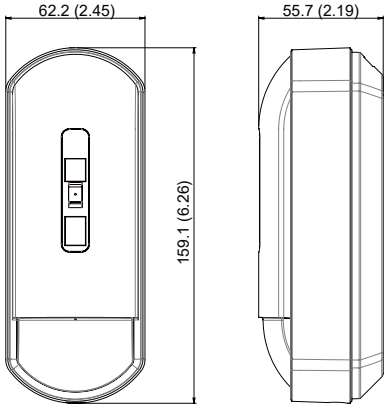



NOTE
- The * 2.4 dotted line indicates the recommended mounting height.
- When "Narrow" is selected in the lens setting, MW detection will be stopped.
- Down zone * can be deleted by switch setting.
- Narrow area setting of FLX-A-DAM is not certified to NF&A2P.

## OPTIONS

• CW-G3 : Wall Tamper / Wall or Ceiling mount selectable

## DIMENSIONS




Unit: mm (inch)

## SPECIFICATIONS

| Part name | | FLX-A-AM | FLX-A-DAM |
|---|---|---|---|
| Mounting height | | 2.0 to 3.0 m (6'7" to 9'8") | |
| Coverage | | Wide： 15 m (50 ft.) 85°<br>Narrow： 24 m (80 ft.) 5°<br>( No MW detection at "Narrow" setting ) | |
| Alarm period | | 2.0 ± 0.5 s | |
| Warm-up period | | Approx. 60 s (LED blinks) | |
| LED indicator | | Multiple: Warm-up / Green:Alarm and Masking detection<br>Yellow: Self test error / Red:Low voltage | |
| Power input | | 9.5 to 16 V DC | |
| Current draw | | 12 mA (normal)<br>16 mA (max.) at 12 V DC | 16 mA (normal)<br>21 mA (max.) at 12 V DC |
| Relay output | Trouble | N.C. 24 V DC 0.1 A max. (Resistive load) | |
| | Alarm | N.C. 24 V DC 0.1 A max. (Resistive load) | |
| | Tamper | N.C. 24 V DC 0.1 A max. (Resistive load) (Open when the cover is removed) | |
| Remote LED | | ✓ | |
| Operation temperature | | −20℃ to +50℃(−4°F to +122°F) | −20℃ to +45℃(−4°F to +113°F) |
| Temperature compensation | | Digital (SMDA) | |
| Relative humidity | | 95% RH max. | |
| Dimension | | H: 159.1 mm x W: 62.2 mm x D: 55.7 mm(H: 5.09" x W: 2.42" x D: 2.00") | |
| Weight | | 180 g (6.35 oz) | 200 g (7.05 oz) |

- 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.
- Advanced models (FLX-A-AM and FLX-A-DAM) are certified to NF&A2P when operation temperatures are -10℃ to +55℃(14°F to +131°F).

# FLX-P-ST/DT

C-ZONE

## INDOOR PIR / COMBINATION DETECTOR

FlipX is the indoor motion detector
not only with a lot of highly evaluated features for existing indoor motion detectors but also with know-how obtained from our experiences of outdoor motion detector development.

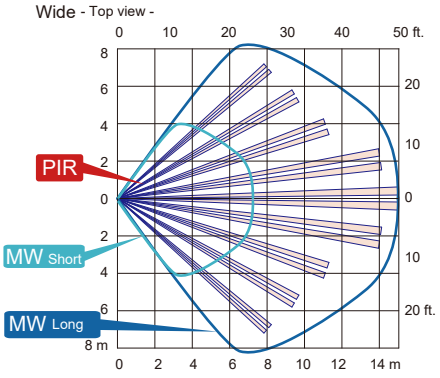
Professional Model
- 15 m (50 ft.) 85 degree Wide
- 24m (80 ft.) Narrow

## FEATURES

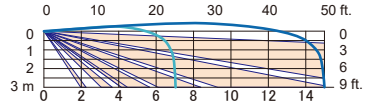
- Flip Lens
- Easily Viewable LED Color
- Human-Catch Element
- Refined Spherical Lens
- 180 Degree Cover Lock
- SMDA Logic
- PEU Socket

## COVERAGES

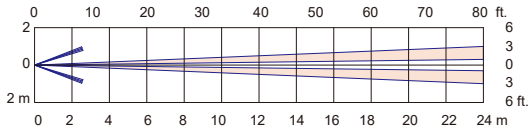
Wide - Top view -



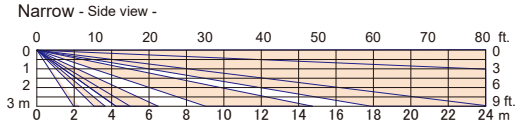

Wide - Side view -




Narrow - Top view -




Narrow - Side view -

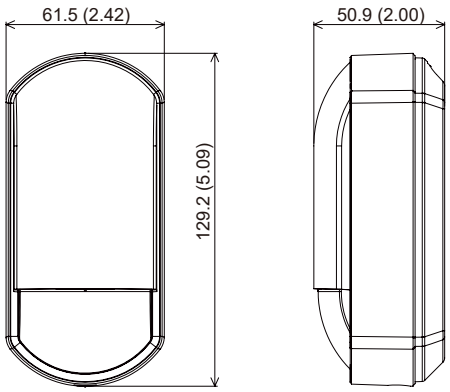



NOTE
- When "Narrow" is selected at the jumper pin, MW detection will be stopped.
- Narrow area settings are not certified to the following standards. EN 50131-2-2 (FLX-P-ST)/EN 50131-2-4 (FLX-P-DT), INCERT and SBSC.

## OPTIONS

• CW-G2: Wall or Ceiling mount selectable

## DIMENSIONS




Unit: mm (inch)

## SPECIFICATIONS

| Part name | | FLX-P-ST | FLX-P-DT |
|---|---|---|---|
| Mounting height | | 2.0 to 3.0 m (6'7" to 9'8") | |
| Coverage | | Wide： 15 m (50') 85°<br>Narrow： 24 m (80') 5°<br>(MW will be stopped in "Narrow" setting) | |
| Alarm period | | 2.0 ± 0.5 s | |
| Warm-up period | | Approx. 60 s (LED blinks) | |
| LED indicator | | Green: [1] Warm-up [2] Alarm | |
| Power input | | 9.5 to 16 V DC | |
| Current draw | | 8 mA (normal)<br>11 mA (max.) at 12 V DC | 11 mA (normal)<br>14 mA (max.) at 12 V DC |
| Relay output | Trouble | — | |
| | Alarm | N.C. 24 V DC 0.1 A max. (Resistive load) | |
| | Tamper | N.C. 24 V DC 0.1 A max. (Resistive load) (Open when the cover is removed) | |
| Remote LED | | ✓ | |
| Operation temperature | | −20℃ to +50℃(−4°F to +122°F) | −20℃ to +45℃(−4°F to +113°F) |
| Temperature compensation | | Digital (SMDA) | |
| Relative humidity | | 95% RH max. | |
| Dimension | | H: 129.2 x W: 61.5 x D: 50.9 mm (H: 5.09" x W: 2.42" x D: 2.00") | |
| Weight | | 95 g (3.35 oz) | 110 g (3.88 oz) |

・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.

# FLX-S-ST/DT

C-ZONE

## INDOOR PIR / COMBINATION DETECTOR

FlipX is the indoor motion detector
not only with a lot of highly evaluated features for existing indoor motion detectors but also with know-how obtained from our experiences of outdoor motion detector development.

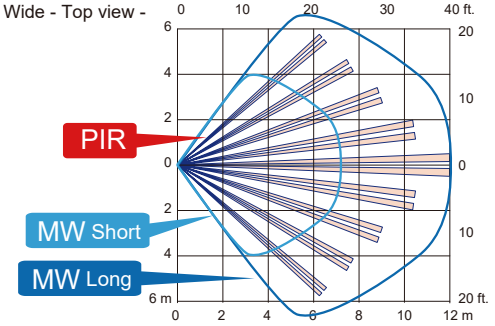
Standard Model
-12 m (40 ft.) 85 degree Wide
-18 m (60 ft.) Narrow

## FEATURES

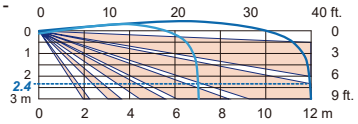
- Flip Lens
- Easily Viewable LED Color
- Human-Catch Element
- Refined Spherical Lens
- 180 Degree Cover Lock
- SMDA Logic
- Pet Tolerance

## COVERAGES

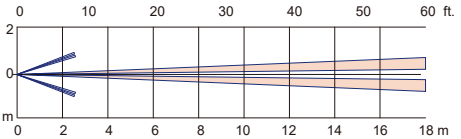
Wide - Top view -



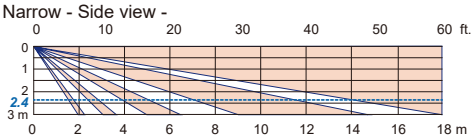

Wide - Side view -




Narrow - Top view -

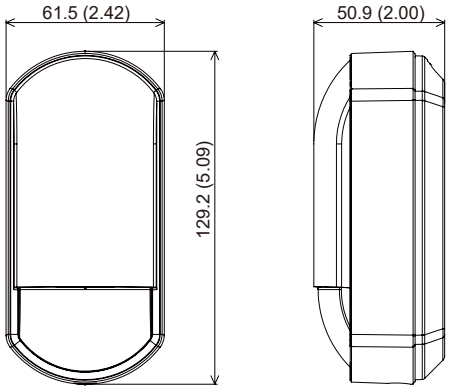



Narrow - Side view -




NOTE
- The dotted line indicates the recommended mounting height.
- When "Narrow" is selected at the jumper pin, MW be stopped.
- Narrow area settings are not certified to the following standards. EN 50131-2-2:2017(FLX-S-ST)/EN 50131-2-4:2020, INCERT and SBSC.

## DIMENSIONS




Unit: mm (inch)

## SPECIFICATIONS

| Part name | | FLX-S-ST | FLX-S-DT |
|---|---|---|---|
| Mounting height | | 2.0 to 3.0 m (6'7" to 9'8") | |
| Coverage | | Wide： 12 m (40') 85°<br>Narrow： 18 m (60') 5°<br>(MW will be stopped in "Narrow" setting) | |
| Alarm period | | 2.0 ± 0.5 s | |
| Warm-up period | | Approx. 60 s (LED blinks) | |
| LED indicator | | Green: [1] Warm-up [2] Alarm | |
| Power input | | 9.5 to 16 V DC | |
| Current draw | | 8 mA (normal)<br>11 mA (max.) at 12 V DC | 11 mA (normal)<br>14 mA (max.) at 12 V DC |
| Relay output | Trouble | — | |
| | Alarm | N.C. 24 V DC 0.1 A max. (Resistive load) | |
| | Tamper | N.C. 24 V DC 0.1 A max. (Resistive load) (Open when the cover is removed) | |
| Remote LED | | — | ✓ |
| Operation temperature | | −20℃ to +50℃(−4°F to +122°F) | −20℃ to +45℃(−4°F to +113°F) |
| Temperature compensation | | Digital (SMDA) | |
| Relative humidity | | 95% RH max. | |
| Dimension | | H: 129.2 x W: 61.5 x D: 50.9 mm (H: 5.09" x W: 2.42" x D: 2.00") | |
| Weight | | 90 g (3.17 oz) | 105 g (3.7 oz) |

・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.

## OPTIONS

• CW-G2: Wall or Ceiling mount selectable

# CX-702/702MKII

C-ZONE

## LONG RANGE PIR DETECTOR

The CX-702 series is designed to give extremely stable long-range detection performance in a variety of internal commercial and industrial applications.

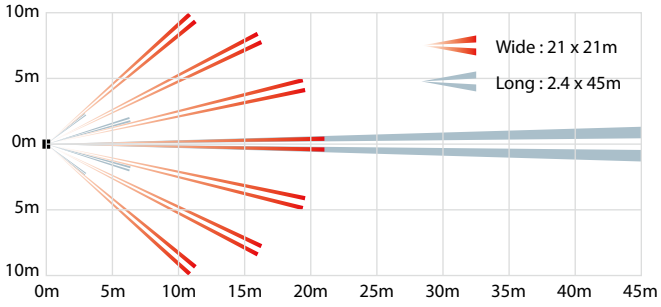
- CX-702 – standard model
- CX-702MKII – double detection zones model

## FEATURES

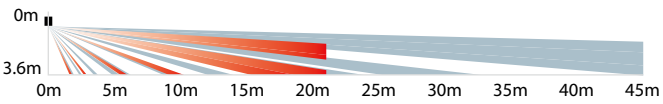
- Multi-focus technology
- Double conductive shielding
- Temperature compensation
- Sealed optics
- Spherical lens design
- Dual purpose optics: wide-angle or long-range
- 3-step lens angle adjustment

## COVERAGES

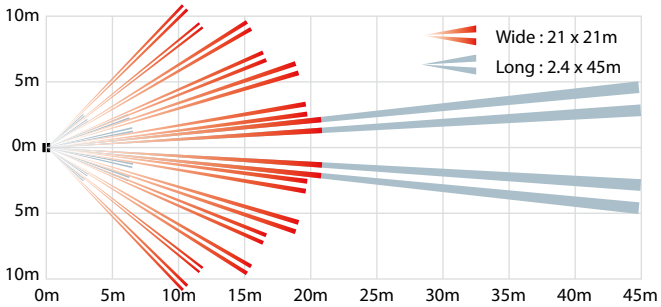
**TOP VIEW** CX-702



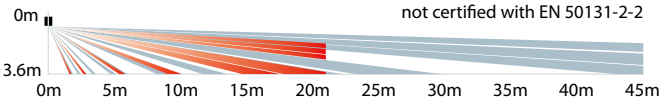

**SIDE VIEW** CX-702




**TOP VIEW** CX-702MKII



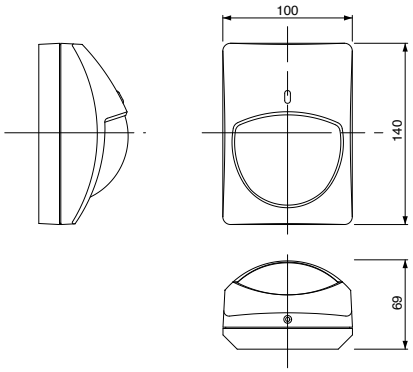

**SIDE VIEW** CX-702MKII




## OPTIONS

- CA-1W : Multi-angle wall mounting bracket
- CA-2C : Multi-angle ceiling mounting bracket

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | CX-702 | CX-702MKII |
|---|---|---|
| PIR coverage | Wide : 21m x 21m 85˚ 68 zones | |
| | Long : 2.4m x 45m 22 zones | |
| Detection zones | Wide : 68 zones, Long : 22 zones | Wide : 136 zones, Long : 44 zones |
| Sensitivity | 1.6˚C at 0.6m/sec. at 2.4m mounting height | |
| Detectable speed | 0.3 to 1.5m/sec. | |
| Power supply | 9.5 to 16 VDC | |
| Current consumption | 11mA (max.) at 12 VDC | |
| Alarm period | Approx. 2.5 sec. | |
| Alarm output | N.C. 28 VDC 0.2A max. | |
| Alarm interval | — | |
| Tamper switch | N.C, opens when cover is removed. 28 VDC 0.1A max. | |
| Pulse count | Approx. 20 sec. 2 or 4 | |
| Warm-up period | Approx. 60 sec. | |
| LED indicator | Alarm condition | |
| Operating temperature | -20 to +50˚C | |
| Environmental humidity | 95% max. | |
| RF interference | No Alarm 30V/m | |
| Mounting height | 1.5 to 3.6 m | |
| Weight | 200 g | |
| Dimensions (H x W x D) | 140 mm x 100 mm x 69 mm | |

Specifications and design are subject to change without prior notice.

# CX-702RS

C-ZONE

## BATTERY OPERATED LONG RANGE PIR DETECTOR


The CX-702 series is designed to give extremely stable long-range detection performance in a variety of internal commercial and industrial applications.

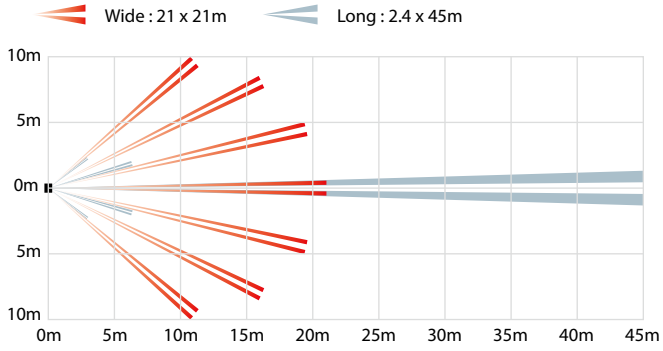
• CX-702RS – low current battery operated model

## FEATURES

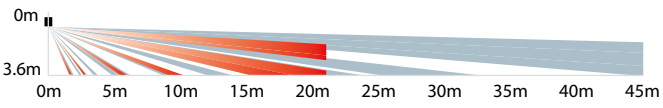
- Multi-focus technology
- Double conductive shielding
- Temperature compensation
- Sealed optics
- Spherical lens design
- Dual purpose optics: wide-angle or long-range
- 3-step lens angle adjustment

## COVERAGES

**TOP VIEW**



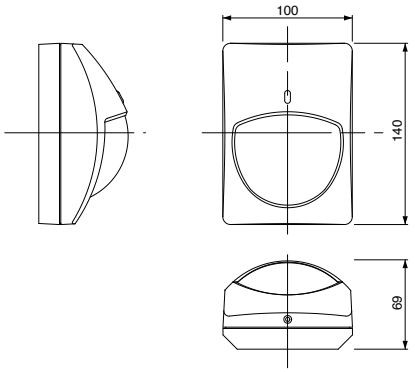

**SIDE VIEW**




## OPTIONS

• CA-1W : Multi-angle wall mounting bracket
• CA-2C : Multi-angle ceiling mounting bracket
• BA-70 : Back box for wireless transmitter

## DIMENSIONS




(mm)

## SPECIFICATIONS

| | |
|---|---|
| Model | CX-702RS |
| PIR coverage | Wide : 21m x 21m 85˚ 68 zones |
| | Long : 2.4m x 45m 22 zones |
| Detection zones | Wide : 68 zones, Long : 22 zones |
| Sensitivity | 1.6˚C at 0.6m/sec. at 2.4m mounting height |
| Detectable speed | 0.3 to 1.5m/sec. |
| Power supply | 3 to 9 VDC alkaline batttery or lithium battery |
| Current consumption | 5μA (standby)<br>10mA (walktest, LED on) |
| Alarm period | Approx. 2.5 sec. |
| Alarm output | Form C 10 VDC 0.01A max. |
| Alarm interval | Succeeding signals are not output even though detection occurs within 2 min. after the first alarm. |
| Tamper switch | Form C 28 VDC 0.1A max. |
| Pulse count | Approx. 20 sec. 2 or 4 |
| Warm-up period | Approx. 90 sec. |
| LED indicator | Alarm condition |
| Operating temperature | -10 to +50˚C |
| Environmental humidity | 95% max. |
| RF interference | No Alarm 20V/m |
| Mounting height | 1.5 to 3.6 m |
| Weight | 200 g |
| Dimensions (H x W x D) | 140 mm x 100 mm x 69 mm |

Specifications and design are subject to change without prior notice.
Batteries and wireless transmitters are not included in these products.

# SX-360Z

C-ZONE

## 360˚ CEILING-MOUNT PIR DETECTOR WITH 276 HIGH DENSITY DETECTION ZONES

N.B. For ceiling mounting only

The SX-360 series ceiling-mount detector, with its unique zoom function and highly dense, triple-element detection pattern, provides unsurpassed detection performance at any ceiling height up to 5 meters.

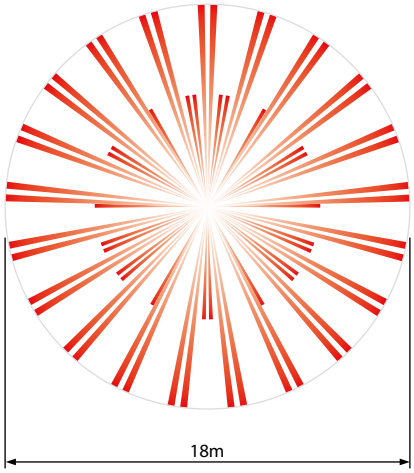
- SX-360Z – standard model with double conductive shielding

## FEATURES

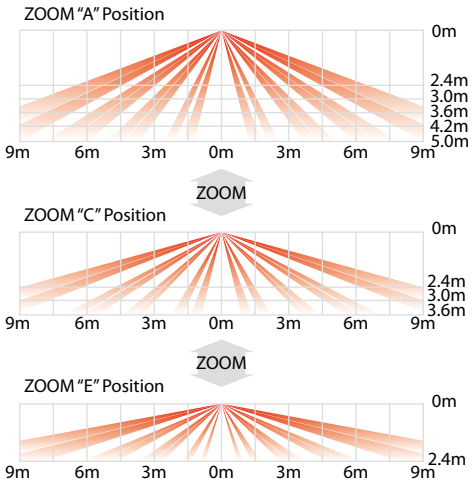
- Double conductive shielding
- Multi-focus optics
- Highly dense coverage (276 zones)
- Zoom function/ pattern adjustment
- Temperature protection
- Noise reduction circuit
- LED remote control terminal

## COVERAGE

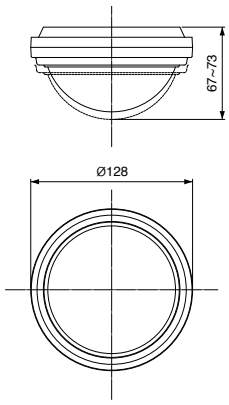
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| | |
|---|---|
| Model | SX-360Z |
| PIR coverage | ø18m 360˚ zoom |
| Detection zones | 276 zones |
| Sensitivity | 1.6˚C at 0.6m/sec. at 2.4m mounting height |
| Detectable speed | 0.3 to 1.8m/sec. |
| Power supply | 6 to 18 VDC |
| Current consumption | 18mA (max.) |
| Alarm period | 2.0 ± 0.5 sec. |
| Alarm output | N.C. 28 VDC 0.2A max. |
| Tamper switch | N.C, opens when cover is removed: 30 VDC 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<br>Alarm condition |
| Operating temperature | -20 to +50˚C |
| Environmental humidity | 95% max. |
| RF interference | No Alarm 30V/m |
| Mounting height | 2.4 to 5.0m |
| Weight | 224 g |
| Dimensions (H x W x D) | ø128mm x 67 - 73mm |

Specifications and design are subject to change without prior notice.

# FX-360

C-ZONE

## 360˚ CEILING-MOUNT PIR DETECTOR

N.B. For ceiling mounting only

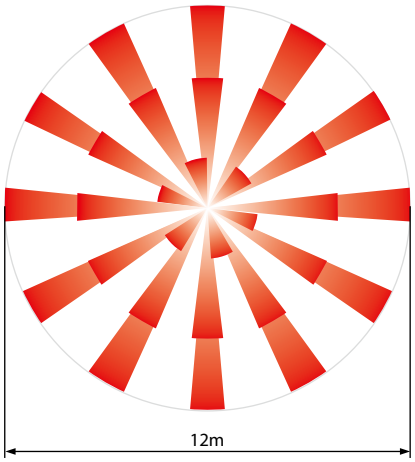
The FX-360 ceiling-mount detector with its unique, highly durable spherical lens offers unparalleled 360˚ detection performance.

## FEATURES

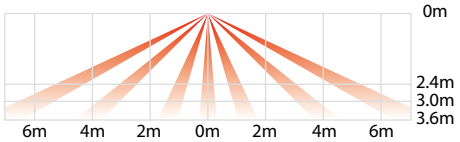
- Spherical Lens design
- RFI protection
- Temperature protection
- Noise reduction circuit
- Selectable pulse count (2 or 4)
- LED remote control terminal

## COVERAGE

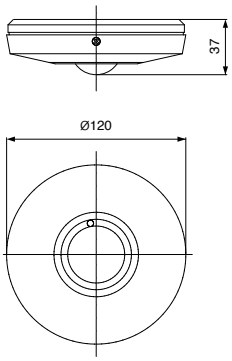
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| | |
|---|---|
| Model | FX-360 |
| Detection method | Passive Infrared |
| Detection zones | 62 zones |
| Mounting location | Celling |
| Coverage / Mounting height | ø8 to ø12 m at 2.4 to 3.6 m |
| LED indicator | LED is blinking during warm-up period. Alarm indicator optional |
| Alarm period | 2.0 ±0.5 sec. |
| Alarm output | N.C., 28 VDC 0.2 A (max.) |
| Tamper switch | N.C., Opens when cover removed. |
| Tamper output | 30 V DC 0.1 A (max.) |
| Pulse Count | 2.0 ±5 sec. 2 or 4 |
| Warm up period | Approx. 30 sec. (LED blinks.) |
| Power input | 9.5 to 18 VDC |
| Current draw | 17 mA/(normal), 18 mA/(max.) |
| Weight | 140 g (4.9 oz) |
| Operating temperature | –20°C to +50°C (–4°F to +122°F) |
| Environment humidity | 95% (max.) |
| RF interference | No Alarm 20 V/m |

Specifications and design are subject to change without prior notice.

# AP-360B/360BR

C-ZONE

## INDOOR RECESSED MOUNT PIR DETECTOR

Battery Operated Models are available at limited regions

The AP-360B is a series of recessed mount indoor PIR detectors. AP-360B provides a 360-degree volumetric detection area. The detector can offer low profile installation for various application scenes.

360-degree PIR
- AP-360B(C) Wired Model
- AP-360BR(C) Battery Operated Model

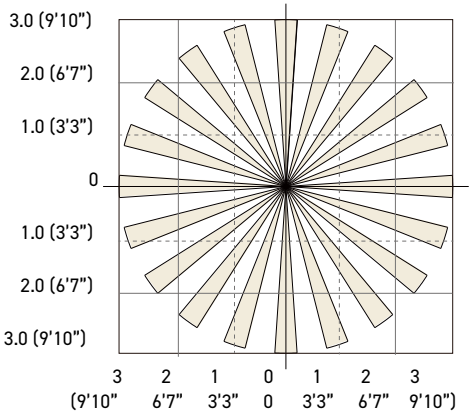
## FEATURES

- Compact and Discreet design
- Detection Sensitivity : High, Medium, Low
- Tamper function
- Light Control Option (AP-360B only)
- Battery Saving Timer (Battery Operated Models only)

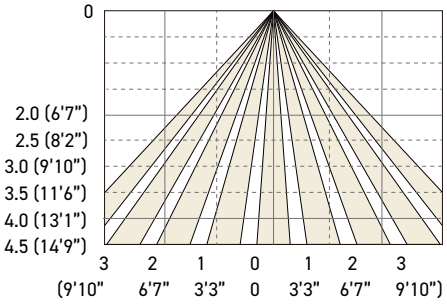
## COVERAGES

[Ceiling Mount]

Top view

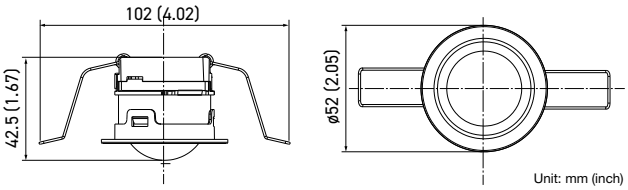



Side view




## DIMENSIONS

Without switch box mount




Unit: mm (inch)

## SPECIFICATIONS

| Model | AP-360B(C) | AP-360BR(C) |
|---|---|---|
| Detection method | Passive infrared | |
| Detection area | ø6 m (ø20') at mounting height: 4.5 m (14'9" ft.) | |
| Mounting height | 2.5 to 4.5 m (8'2" ft. to 14'9" ft.) | |
| Mounting type | Recessed ceiling mount/86-type box mount | |
| Sensitivity | 2.0℃ at 0.6 m/s (3.6°F at 2'/s) | |
| Detection speed | 0.3 to 3.0 m/s (1'/s to 9'10"/s) | |
| LED indicator | Warm-up upon power on: blinking<br>Stand-by: off<br>Alarm: solid on | Warm-up upon power on: blinking<br>Stand-by: off<br>Walk test: solid on<br>Alarm: off |
| Alarm cycle | 2 s to 120 s (variable) | Approx. 2 s |
| Illuminance | 20 to 320 lux (variable/not detected) | — |
| Battery saving timer | — | 120 s/ 5 s selectable |
| Alarm output | N.O./N.C., 28 V DC 200 mA max. | N.O./N.C., 3.6 V DC 10 mA max. |
| Tamper switch | N.C. 28 V DC 100 mA max.<br>The contact opens once the casing is detached. | |
| Warm-up time | Approx. 60 s | |
| Power supply | 9.5 to 16 V DC | 2.7 to 3.6 V DC (CR123A battery) |
| Current | 12 V DC<br>Stand-by: 11mA, Max.: 13 mA | 3 V DC<br>Stand-by: 10μA, Max.: 4 mA |
| PIR sensitivity | H/ M/ L | |
| Weight | 50 g (1.76 oz) | |
| Operation temperature | −20 to +50℃ (−4°F to +122°F) | |
| Operation humidity | < 95% | |
| Location | Indoors | |
| Dimensions | ø52 x 42.5 mm (ø2.05 in. x 1.67 in.): without switch box mount<br>86 x 86 x 42.5 mm (3.39 x 3.39 x 1.67 in.): with 86-type box mount | |

- 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.

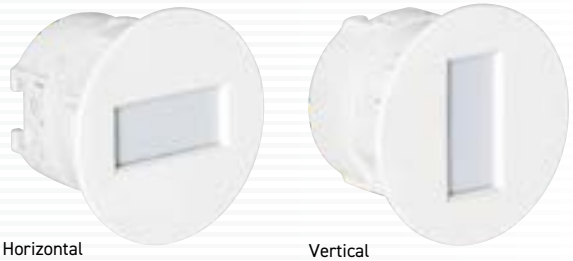
# AP-20NB/20NBR

C-ZONE

## INDOOR RECESSED MOUNT PIR DETECTOR

[Ceiling Mount]

[Wall Mount]



Horizontal Vertical

Battery Operated Models are available at limited regions

The AP-20NB is a series of recessed mount indoor PIR detectors. AP-20NB provides a 20 ft. (6m) curtain area. The detector can offer low profile installation for various application scenes.

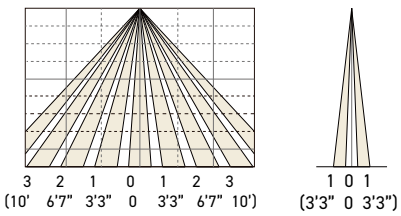
Curtain PIR
- AP-20NB(C) Wired Model
- AP-20NBR(C) Battery Operated Model

## FEATURES

- Compact and Discreet design
- Detection Sensitivity : High, Medium, Low
- Tamper function
- Battery Saving Timer (Battery Operated Models only)

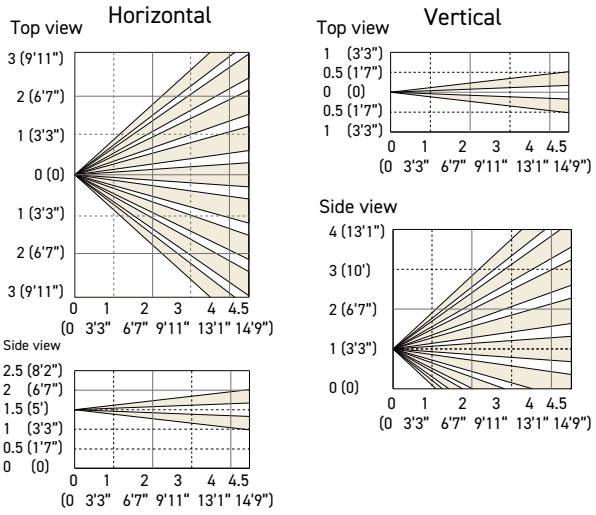
## COVERAGES

### [Ceiling Mount]



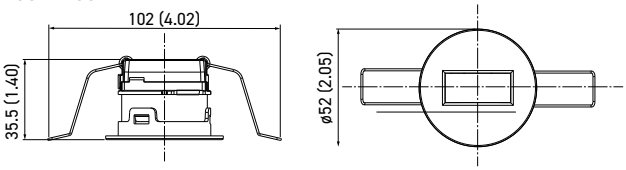

- Wall mount : Lower than 1.5 m (4.9 ft ) height (AP-20NB/20NBR only)
- Ceiling mount : 2.5 to 4.5 m (8.2 to 14.8 ft ) height

### [Wall Mount]




## DIMENSIONS

Without switch box mount




Unit: mm (inch)

## SPECIFICATIONS

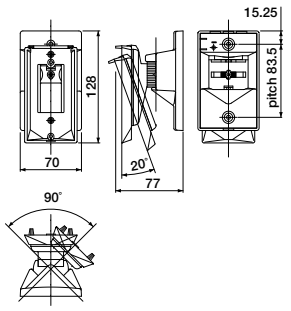
| Model | AP-20NB(C) | AP-20NBR(C) |
|---|---|---|
| Detection method | Passive infrared | |
| Detection area | < Ceiling mount > 6.0 m x 1.0 m (20' x 3'3")at 4.5 m (14'9") height<br>< Wall mount > 6.0 m x 4.5 m (20' x 14'9") at 1.5 m (4'11") height | |
| Mounting height | 2.5 m to 4.5 m (8'2" to 14'9") | 1.5 m (4'11"): Horizontal<br>1.0 m (3'3"): Vertical |
| Mounting type | Recessed ceiling mount/ Wall mount/ 86-type box mount | |
| Sensitivity | 2.0℃ at 0.6 m/s (3.6°F at 2'/s) | |
| Detection speed | 0.3 to 3.0 m/s (1'/s to 9'10"/s) | |
| LED indicator | Warm-up upon power on: blinking<br>Stand-by: off<br>Alarm: solid on | Warm-up upon power on: blinking<br>Stand-by: off<br>Walk test: solid on<br>Alarm: off |
| Alarm cycle | Approx. 2 s | |
| Illuminance | — | |
| Battery saving timer | — | 120 s/ 5 s selectable |
| Alarm output | N.O./N.C., 28 V DC 200 mA max. | N.O./N.C., 3.6 V DC 10 mA max. |
| Tamper switch | N.C. 28 V DC 100 mA max.<br>The contact opens once the casing is detached. | |
| Warm-up time | Approx. 60 s | |
| Power supply | 9.5 to 16 V DC | 2.7 to 3.6 V DC (CR123A battery) |
| Current | 12 V DC<br>Stand-by: 11mA, Max.: 13 mA | 3 V DC<br>Stand-by: 10μA, Max.: 4 mA |
| PIR sensitivity | H/ M/ L | |
| Weight | 50 g (1.76 oz) | |
| Operation temperature | −20 to +50℃ (−4°F to +122°F) | |
| Operation humidity | < 95% | |
| Location | Indoors | |
| Dimensions | ø52 x 35.5 mm (ø2.05 in. x 1.40 in.): without switch box mount<br>86 x 86 x 36.5 mm (3.39 x 3.39 x 1.44 in.): with 86-type box mount | |

- 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.

# OPTIONS

## CA-1W

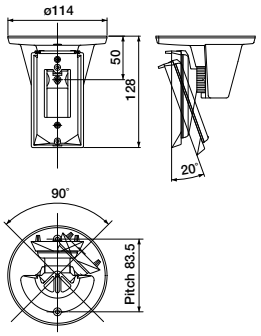
Multi Angle Wall Mount
Bracket
for
• CX-702/702RS/702MKII




(mm)

## CA-2C

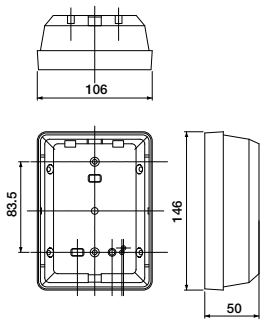
Multi Angle Ceiling Mount
Bracket
for
• CX-702/702RS/702MKII




(mm)

## BA-70

Transmitter Backbox
for
• CX-702RS




(mm)

## CW-G2

Compliant to EN-Grade II
Wall or Ceiling mount selectable
Horizontally +/-45
Vertically -5 to 20° downward
for
• FLX-P
• FLX-S

## CW-G3

Compliant to EN-Grade III
Wall Tamper
as same as CW-G2
for
• FLX-A

## PEU-B/C/D/E/F/G/H/I/J/K

Selectable plug-in
end of line unit for
• CDX-DAM/AM/NAM
• FMX-ST/DST
• FMX-DT

| Item | Trouble | Alarm | Tamper | Panels |
|---|---|---|---|---|
| PEU-B | 6.8K | 4.7K | 4.7K | Old GE/Aritech |
| PEU-C | 12.0K | 1.0K | 1.0K | Honeywell Galaxy (U.K.) |
| PEU-D | 3.0K | 1.0K | 1.0K | Honeywell Galaxy (Benelux) |
| PEU-E | 15.0K | 1.1K | 1.1K | Satel |
| PEU-F | 5.6K | 5.6K | 5.6K | DSC, Ksenia |
| PEU-G | 8.2K | 8.2K | 8.2K | Guardall |
| PEU-H | 2.2K | 4.7K | 2.2K | Old Texecom, Cooper, Scantronics etc. |
| PEU-I | 1.0K | 3.3K | 3.3K | New Texecom, NetworX, Inim |
| PEU-J | 12.0K | 6.8K | 4.7K | Risco ProSYS |
| PEU-K | 2.2K | 1.0K | 1.0K | Siemens SPC |

No warranty is given as to the fitness of this option with noted avobe manufacture`s product.
Please check on specifications of a control panel before you buy this option.
Some models do not have a trouble output.

# PRODUCT SPECIFICATIONS



| | FLX-A-AM | FLX-A-DAM | FLX-P-ST | FLX-P-DT | FLX-S-ST | FLX-S-DT | CX-702 |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| | P46 | P46 | P47 | P47 | P48 | P48 | P49 |
| Detection method | PIR | PIR & MW | PIR | PIR & MW | PIR | PIR & MW | PIR |
| Coverage | 15 x 15 m | 15 x 15 m | 15 x 15 m | 15 x 15 m | 12 x 12 m | 12 x 12 m | 21 x 21m |
| Dual purpose lens / long range | 24 x 2.4 m | 24 x 2.4 m | 24 x 2.4 m | 24 x 2.4 m | 18 x 2.4 m | 18 x 2.4 m | 45 x 2.4m |
| Mounting height | 2.0 to 3.0 m | 2.0 to 3.0 m | 2.0 to 3.0 m | 2.0 to 3.0 m | 2.0 to 3.0 m | 2.0 to 3.0 m | 1.5 to 3.6m |
| Wall mount bracket | CW-G3 | CW-G3 | CW-G2 | CW-G2 | CW-G2 | CW-G2 | CA-1W |
| Ceiling mount bracket | CW-G3 | CW-G3 | CW-G2 | CW-G2 | CW-G2 | CW-G2 | CA-2C |
| Zoom function | — | — | — | — | — | — | — |
| PIR sensitivity adjustment | SH / H / M / L | SH / H / M / L | H / M / L | H / M / L | H / M / L | H / M / L | — |
| MW sensitivity adjustment | — | H / M / L | — | Long/Short | — | Long/Short | — |
| Distance selector switch | Down Zone/Off | Down Zone/Off | — | — | — | — | — |
| Double conductive shielding | ✓ | ✓ | ✓ | ✓ | — | — | ✓ |
| Temperature compensation circuit | Digital (SMDA) | Digital (SMDA) | Digital (SMDA) | Digital (SMDA) | Digital (SMDA) | Digital (SMDA) | ✓ |
| Power supply | 9.5 to 16 VDC | 9.5 to 16 VDC | 9.5 to 16 VDC | 9.5 to 16 VDC | 9.5 to 16 VDC | 9.5 to 16 VDC | 9.5 to 16 VDC |
| Current consumption | 12 mA (normal)<br>16 mA (max.) at 12 VDC | 16 mA (normal)<br>21 mA (max.) at 12 VDC | 8 mA (normal)<br>11 mA (max.) at 12 VDC | 11 mA (normal)<br>14 mA (max.) at 12 VDC | 8 mA (normal)<br>11 mA (max.) at 12 VDC | 11 mA (normal)<br>14 mA (max.) at 12 VDC | 11 mA (max.)<br>at 12 VDC |
| Alarm output | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 28 VDC 0.1 A max. |
| Anti-masking function | ✓ | ✓ | — | — | — | — | — |
| Self test | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | — |
| Trouble output | N.C. 24 V DC 0.1 A max. (Resistive load) | N.C. 24 V DC 0.1 A max. (Resistive load) | — | — | — | — | — |
| Tamper | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Remote LED control | ✓ | ✓ | ✓ | ✓ | — | ✓ | — |
| Operating Temperature | -20˚C to +50˚C | -20˚C to +45˚C | -20˚C to +50˚C | -20˚C to +45˚C | -20˚C to +50˚C | -20˚C to +45˚C | -20 to +50˚C |
| Environmental humidity | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. |
| Dimensions (H x W x D mm) | 159.1 x 62.2 x 55.7 | 159.1 x 62.2 x 55.7 | 129.2 x 61.5 x 50.9 | 129.2 x 61.5 x 50.9 | 129.2 x 61.5 x 50.9 | 129.2 x 61.5 x 50.9 | 140 x 100 x 69 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| For residential | | | | | ✓ | ✓ | |
| For light commercial | | | | | ✓ | ✓ | |
| For commercial | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| For industrial | ✓ | ✓ | | | | | ✓ |
| For wiress security system | | | | | | | |

| | CX-702MKII | CX-702RS | SX-360Z | FX-360 | AP-360B(C) | AP-360BR(C) | AP-20NB(C) | AP-20NBR(C) |
|---|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |  |
| | P49 | P50 | P51 | P52 | P53 | P53 | P54 | P54 |
| | PIR | PIR | PIR | PIR | PIR | PIR | PIR | PIR |
| | 21 x 21m | 21 x 21m | Ø18m 360˚ | Ø8m - 12m 360˚ | φ6 m 360° | φ6 m 360° | <Ceiling mount><br>6 x 1 m<br><Wall mount><br>6 x 4.5 m | <Ceiling mount><br>6 x 1 m<br><Wall mount><br>6 x 4.5 m |
| | 45 x 10m | 45 x 2.4 | — | — | — | — | — | — |
| | 1.5 to 3.6m | 1.5 to 3.6m | 2.4 to 5.0m | 2.4 to 3.6m | 2.5 to 4.5 m | 2.5 to 4.5 m | <Ceiling mount><br>2.5 to 4.5 m<br><Wall mount><br>Lower than 1.5 m | <Ceiling mount><br>2.5 to 4.5 m<br><Wall mount><br>1.5 m : Horizontal<br>1.0 m : Vertical |
| | CA-1W | CA-1W | — | — | — | — | — | — |
| | CA-2C | CA-2C | — | — | — | — | — | — |
| | — | — | ✓ | — | — | — | — | — |
| | — | — | H / M / L | — | H / M / L | H / M / L | H / M / L | H / M / L |
| | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — |
| | ✓ | ✓ | ✓ | — | — | — | — | — |
| | ✓ | ✓ | — | — | — | — | — | — |
| | 9.5 to 16 VDC | 3 to 9V alkaline or lithium battery | 6 to 18 VDC | 9.5 to 18 VDC | 9.5 to 16 V DC | 2.7 to 3.6 V DC (CR123A battery) | 9.5 to 16 V DC | 2.7 to 3.6 V DC (CR123A battery) |
| | 11 mA (max.) at 12 VDC | 5 µA (standby)<br>10 mA<br>(walktest, LED on) | 18mA max. | 18mA max. | 12 V DC<br>Stand-by: 11mA,<br>Max.: 13 mA | 3 V DC<br>Stand-by: 10µA,<br>Max.: 4 mA | 12 V DC<br>Stand-by: 11mA,<br>Max.: 13 mA | 3 V DC<br>Stand-by: 10µA,<br>Max.: 4 mA |
| | N.C. 28 VDC<br>0.1 A max. | Form C 28 VDC<br>0.1 A max. | N.C.<br>28 VDC 0.2A max. | N.C.<br>28 VDC 0.2A max. | N.O./N.C., 28 V DC<br>200 mA max. | N.O./N.C., 3.6 V DC<br>10 mA max. | N.O./N.C., 28 V DC<br>200 mA max. | N.O./N.C., 3.6 V DC<br>10 mA max. |
| | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — |
| | — | — | — | — | — | — | — | — |
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | — | — | ✓ | — | — | — | — | — |
| | -20 to +50˚C | -10 to +50˚C | -20 to +50˚C | -20 to +50˚C | -20 to +50˚C | -20 to +50˚C | -20 to +50˚C | -20 to +50˚C |
| | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. | 95% max. |
| | 140 x 100 x 69 | 140 x 100 x 69 | Ø128 X 67-73 | Ø128 X 37 | < without switch box mount ><br>ø52 x 42.5 mm<br>< with 86-type box mount ><br>86 x 86 x 42.5 mm | < without switch box mount ><br>ø52 x 42.5 mm<br>< with 86-type box mount ><br>86 x 86 x 42.5 mm | < without switch box mount ><br>ø52 x 35.5 mm<br>< with 86-type box mount ><br>86 x 86 x 36.5 mm | < without switch box mount ><br>ø52 x 35.5 mm<br>< with 86-type box mount ><br>86 x 86 x 36.5 mm |
| | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| | ✓ | ✓ | ✓ | | | | | |
| | | ✓ | | | | ✓ | | ✓ |

# SIP-3020/4010/404

## SYNTHESIZED INTELLIGENT PIR

The SIP-3020, SIP-4010, and SIP-404 detectors in the REDWALL-V Series are designed for use in small and mid-sized outdoor areas. They have an intelligent detection system that uses data on the ambient environment, such as temperature and illuminance conditions, to automatically adjust the sensitivity.

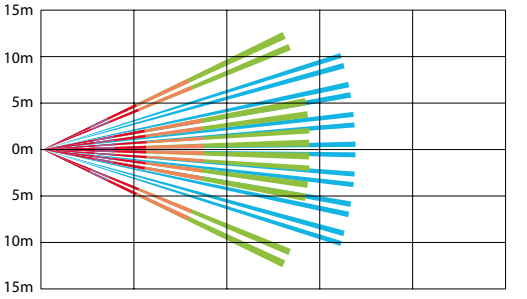
## FEATURES

- Intelligent PIR Detection System
  - Detection of ambient temperature and illuminance for automatic sensitivity management
  - Advanced detection algorithm
  - Three dual pyro-elements with Double Conductive Shielding
- Anti-vandalism functions
  - Anti-rotation function with 3-axis accelerometer
  - Anti-masking function with photo-beam
  - Reinforced polycarbonate housing
  - Max. 4m (13ft.) installation height
- Independent sensitivity selector for near/far areas
- Detection logic selector
- Detection range selector
- Independent N.C. and N.O. outputs
- Adjustable alarm interval time

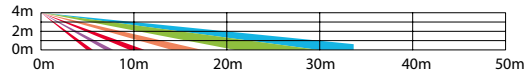
## COVERAGE

**SIP-3020**

**TOP VIEW**

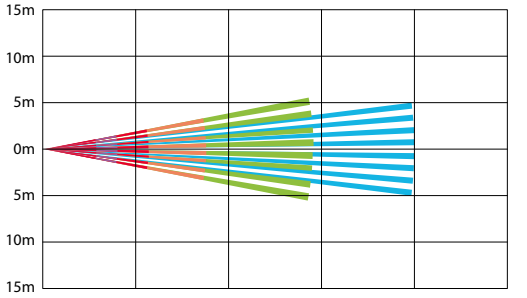



**SIDE VIEW**

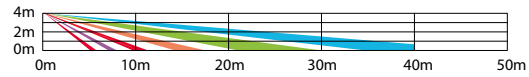



**SIP-4010**

**TOP VIEW**

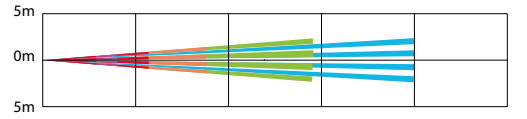



**SIDE VIEW**

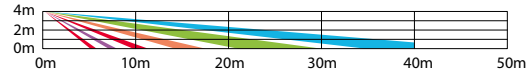



**SIP-404**

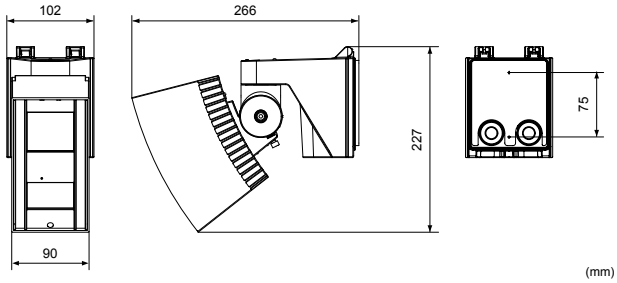
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | SIP-3020 | SIP-4010 | SIP-404 |
|---|---|---|---|
| Detection method | Passive infrared | | |
| PIR coverage (main area) | 30 x 20 m | 40 x 10 m | 40 x 4 m |
| PIR coverage (creep zone) | - | - | - |
| Sensitivity selector | Far: SH/H/M/L Near: SH/H/M/L | | |
| Range selector | Far: On/Off | | |
| Detection logic selector | AND / OR | | |
| Alarm interval period | Off/15, 30, 60 sec. | | |
| Power input | 11-26VDC 22-26VAC, 22-26VDC/AC with optional heating unit | | |
| Current draw | 40mA max. (12VDC) 75mA max. (24VAC), 415mA max. (24VAC) with optional heating unit | | |
| Alarm period | Off/15, 30, 60 sec. | | |
| Warm-up period | Approx. 60 sec. | | |
| Alarm output | N.O., N.C., 28 VDC 0.2A max. | | |
| Trouble output | N.C., 28 VDC 0.2 A max. | | |
| Tamper output | N.C., 28 VDC 0.1 A max. | | |
| Operating temperature | -25 to +60°C, -40 to +60°C with optional heating unit (-13 to +140°F, -40 to +140°F with optional heating unit) | | |
| International protection | Main unit : IP65 Chassis : IP55 | | |
| Mounting height | 2.3 to 4 m (7.6 to 13 ft.) | | |
| Weight | 1.2 kg (42 oz) | | |

Specifications and design are subject to change without prior notice.

## OPTIONS

- AWT-3 : Area walk tester
- AVF-1 : Area view finder
- SIP-HU : Heating unit
- SIP-AT : SIP adjustment tools (AWT-3 + AVF-1)
- SIP-MINIHOOD : Sun/Snow shield

# SIP-3020WF/4010WF/404WF

## LOW CURRENT SYNTHESIZED INTELLIGENT PIR

The SIP-3020WF, SIP-4010WF and SIP-404WF are designed for use where a reliable low current detector is required.

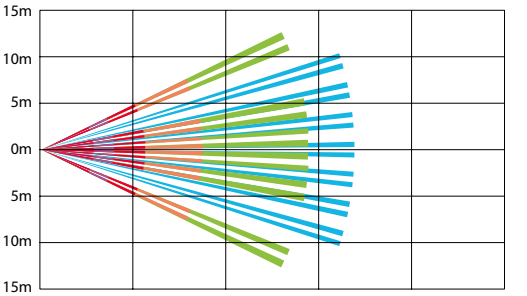
## FEATURES

- Low power consumption (3-9VDC, 40 A(standby) 5mA max.)
- Low battery signal
- Intelligent PIR Detection System
  - Detection of ambient temperature and illuminance for automatic sensitivity management
  - Advanced detection algorithm
  - Three dual pyro-elements with Double Conductive Shielding
- Anti-vandalism functions
  - Anti-rotation function with accelerometer
  - Anti-masking function with photo-beam
  - Reinforced polycarbonate housing
  - Max.4m (13 ft.) installation height
- Independent sensitivity selector for near/far areas
- Detection logic selector
- Detection range selector
- Independent N.C. and N.O. ALARM output
- Adjustable alarm interval time

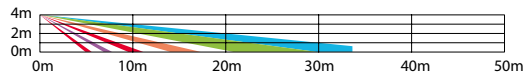
## COVERAGE

**SIP-3020**

**TOP VIEW**

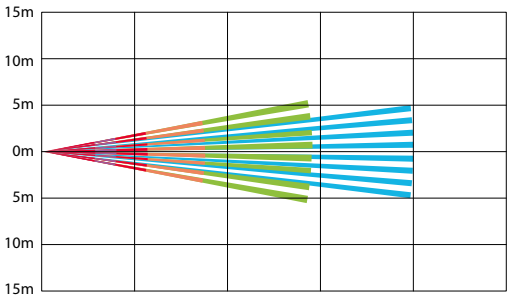



**SIDE VIEW**

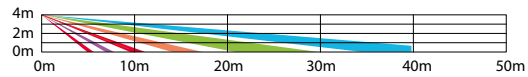



**SIP-4010**

**TOP VIEW**

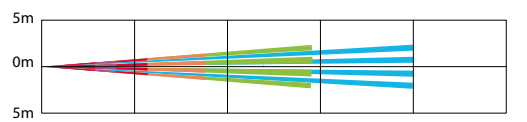



**SIDE VIEW**

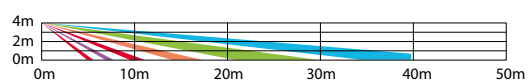



**SIP-404**

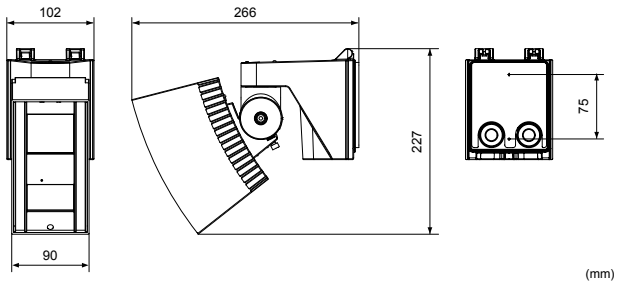
**TOP VIEW**




**SIDE VIEW**




## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | SIP-3020WF | SIP-4010WF | SIP-404WF |
|---|---|---|---|
| Detection method | Passive infrared | | |
| PIR coverage (main area) | 30 x 20 m | 40 x 10 m | 40 x 4 m |
| PIR coverage (creep zone) | - | - | - |
| Sensitivity selector | Far: SH/H/M/L Near: SH/H/M/L | | |
| Range selector | Far: On/Off | | |
| Detection logic selector | AND / OR | | |
| Alarm interval period | Off/5, 60, 150 sec. | | |
| Power input | 3 to 9VDC Alkaline or lithium battery | | |
| Current draw | 40μA(Standby) 5mA max. (Operating LED ON) | | |
| Alarm period | N.C. 10VDC, 0.01A max. N.O. 10VDC, 0.01A max. | | |
| Warm-up period | Approx. 120 sec. | | |
| Alarm output | Approx. 2 sec. | | |
| Trouble output | N.C. 10VDC, 0.01A max. | | |
| Tamper output | N.C. 10VDC, 0.01A max. | | |
| Operating temperature | -25 to +60°C (-13°to +140°F ) | | |
| International protection | Main unit : IP65 Chassis : IP55 | | |
| Mounting height | 2.3 to 4 m (7.6 to 13 ft.) | | |
| Weight | 1.2 kg (42 oz) | | |

Specifications and design are subject to change without prior notice.

## OPTIONS

- AWT-3 : Area walk tester
- AVF-1 : Area view finder
- SIP-HU : Heating unit
- SIP-AT : SIP adjustment tools (AWT-3 + AVF-1)
- SIP-MINIHOOD : Sun/Snow shield

# SIP-3020/5 SIP-4010/5 SIP-404/5

## SYNTHESIZED INTELLIGENT PIR WITH CREEP ZONE

The SIP-3020/5, SIP-4010/5 and SIP-404/5 are designed for detection applications outdoors to trigger video transmission systems and PTZ camera control.

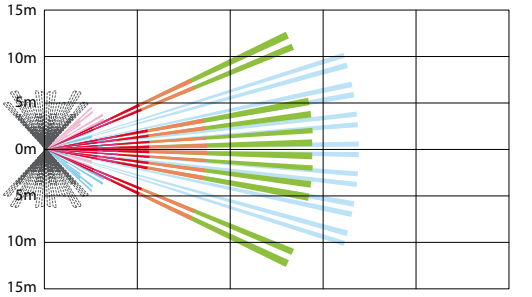
## FEATURES

- Intelligent PIR Detection System
  - Detection of ambient temperature and illuminance for automatic sensitivity management
  - Advanced detection algorithm
  - Three dual pyro-elements with Double Conductive Shielding for main area
- Built-in creep zone detector (Double dual pyro-elements)
- Anti-vandalism functions
  - Anti-rotation function with 3-axis accelerometer
  - Anti-masking function with photo-beam
  - Reinforced polycarbonate housing
  - Max. 4m (13ft.) installation height
- Independent sensitivity selector for creep/near/far areas
- Detection logic selector
- Detection range selector
- Independent N.C. and N.O. outputs
- Adjustable alarm interval time

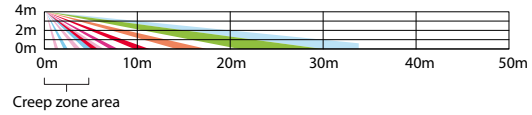
## COVERAGE

**SIP-3020/5**

**TOP VIEW**

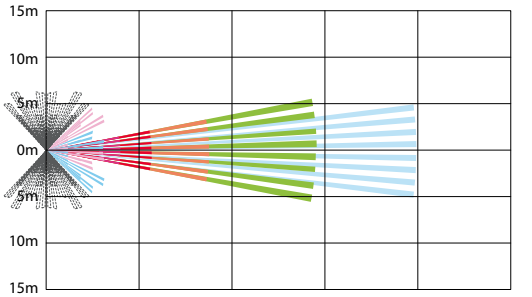



**SIDE VIEW**

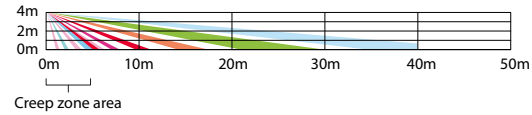



**SIP-4010/5**

**TOP VIEW**

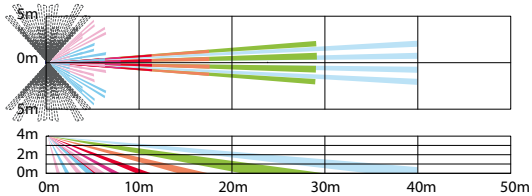



**SIDE VIEW**

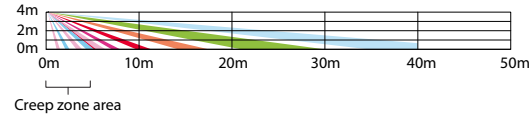



**SIP-404/5**

**TOP VIEW**

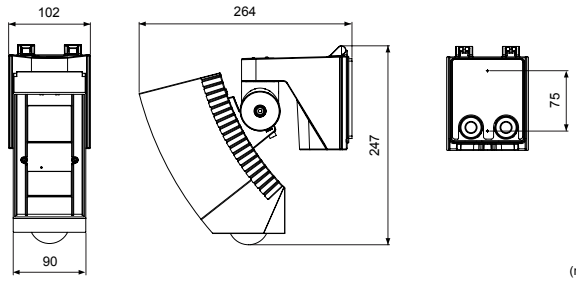



**SIDE VIEW**




The detection angle of the creep zone can be adjusted ±135° horizontally as shown in gray.

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | SIP-3020/5 | SIP-4010/5 | SIP-404/5 |
|---|---|---|---|
| Detection method | Passive infrared | | |
| PIR coverage (main area) | 30 x 20 m | 40 x 10 m | 40 x 4 m |
| PIR coverage (creep zone) | 3x 5m (10 x 16 ft.) installed at 2.3m (7.6 ft.) height, 6 x 9m (20 x 30 ft.) installed at 4m (13 ft.) height | | |
| Sensitivity selector | Far: SH/H/M/L Near: SH/H/M/L Creep zone: SH/H/M/L | | |
| Range selector | Far area: On/Off | | |
| Detection logic selector | AND / OR | | |
| Alarm interval period | Off/15, 30, 60 sec. | | |
| Power input | 11-26VDC 22-26VAC, 22-26VAC with optional heating unit | | |
| Current draw | 45mA max. (12VDC) 85mA max. (24VAC), 425mA max. (24VAC) with optional heating unit | | |
| Alarm period | Approx. 2 sec. | | |
| Warm-up period | Approx. 60 sec. | | |
| Alarm output | (main area)N.O., N.C. 28VDC 0.2A max. (creep zone)N.O., N.C. 28VDC 0.2A max. | | |
| Trouble output | N.C., 28 VDC 0.2 A max. | | |
| Tamper output | N.C., 28 VDC 0.1 A max. | | |
| Operating temperature | -25 to +60°C, -40 to +60°C with optional heating unit (-13 to +140°F, -40 to +140°F with optional heating unit) | | |
| International protection | Main unit : IP65 Chassis : IP55 | | |
| Mounting height | 2.3 to 4 m (7.6 to 13 ft.) | | |
| Weight | 1.4 kg (48 oz) | | |

Specifications and design are subject to change without prior notice.

## OPTIONS

- AWT-3 : Area walk tester
- AVF-1 : Area view finder
- SIP-HU : Heating unit
- SIP-AT : SIP adjustment tools (AWT-3 + AVF-1)
- SIP-MINIHOOD : Sun/Snow shield

# SIP-5030/100

## SYNTHESIZED INTELLIGENT PIR WITH CREEP ZONE

The SIP-5030 offers wide angle-detection for large areas outside. It has an intelligent detection system that uses data from the ambient environment, such as temperature and illuminance conditions, to automatically adjust the sensitivity.

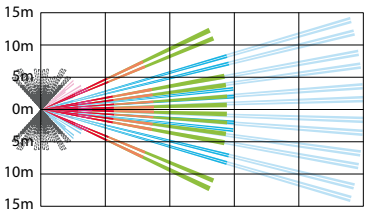
## FEATURES

- Intelligent PIR detection system
  - Detection of ambient temperature and illuminance for automatic sensitivity management
  - Advanced detection algorithm
  - Double Dual/One Quad pryo-elements with Double Conductive Shielding for main area SIP-5030
  - Double Quad pyro-elements with Double Conductive Shielding for main area SIP-100
- Built-in creep zone detector (Double dual pyro-elements)
- Anti-vandalism functions
  - Anti-rotation function with 3-axis accelerometer
  - Anti-masking function with photo-beam
  - Reinforced polycarbonate housing
  - Max. 4m (13ft.) installation height
- Independent sensitivity selector for creep/near/far areas
- Independent N.C. and N.O. output for main area SIP-5030
- 2 x N.C. and N.O. independent output for main areas (Near and Far areas) SIP-100
- Adjustable alarm interval time

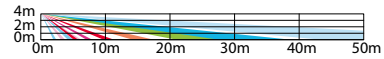
## COVERAGE

**SIP-5030**

**TOP VIEW**

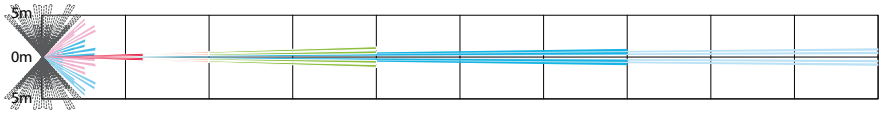



**SIDE VIEW**

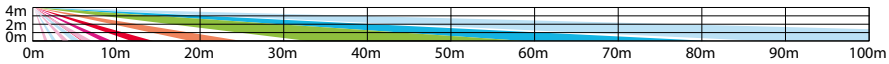



**SIP-100**

**TOP VIEW**

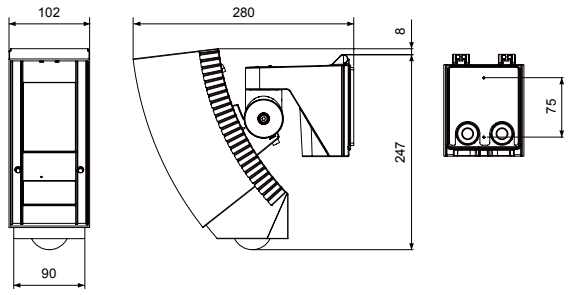



**SIDE VIEW**




The detection angle of the creep zone can be adjusted ±135° horizontally as shown in gray.

## DIMENSIONS




(mm)

## OPTIONS

- AWT-3 : Area walk tester
- AVF-1 : Area view finder
- SIP-HU : Heating unit
- SIP-AT : SIP adjustment tools (AWT-3 + AVF-1)
- SIP-MIDIHOOD : Sun/Snow shield

## SPECIFICATIONS

| Model | SIP-5030 | SIP-100 |
|---|---|---|
| Detection method | Passive infrared | |
| PIR coverage (main area) | 50 x 30 m | 100 x 3 m |
| PIR coverage (creep zone) | 3x 5m (10 x 16 ft.) installed at 2.3m (7.6 ft.) height, 6 x 9m (20 x 30 ft.) installed at 4m (13 ft.) height | |
| Sensitivity selector | Far: SH/H/M/L Near: SH/H/M/L Creep zone: SH/H/M/L | |
| Range selector | - | |
| Detection logic selector | AND / OR | |
| Alarm interval period | Off/15, 30, 60 sec. | |
| Power input | 11-26VDC 22-26 VAC, 22-26VDC/AC with optional heating unit | |
| Current draw | 45mA max. (12VDC) 85mA max. (24VAC), 425mA max. (24VAC) with optional heating unit | 50mA max. (12VDC) 90mA max. (24VAC), 430mA max. (24VAC) with optional heating unit |
| Alarm period | Approx. 2 sec. | |
| Warm-up period | Approx. 60 sec. | |
| Alarm output | (main area)N.O., N.C. 28VDC 0.2A max. (creep zone)N.O., N.C. 28VDC 0.2A max. | (main area)Far area:N.O., N.C. 28VDC 0.2A max. Near area:N.O., N.C. 28VDC 0.2A max (creep zone)N.O., N.C. 28VDC 0.2A max. |
| Trouble output | N.C., 28 VDC 0.2 A max. | |
| Tamper output | N.C., 28 VDC 0.1 A max. | |
| Operating temperature | -25 to +60°C, -40 to +60°C with optional heating unit (-13 to +140°F, -40 to +140°F with optional heating unit) | |
| International protection | Main unit : IP65 Chassis : IP55 | |
| Mounting height | 2.3 to 4 m (7.6 to 13 ft.) | |
| Weight | 1.6kg (56 oz) | |

Specifications and design are subject to change without prior notice.

# RLS-50100V/3060V

## OUTDOOR 2D LIDAR SENSOR

REDSCAN®


Advanced LiDAR sensor series
Long-range,intelligent,secure and customisable security outdoor and indoor laser sensors.

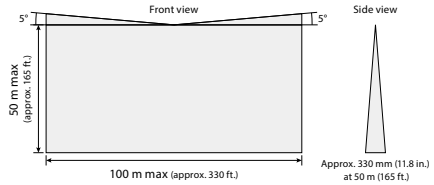
Available Models
- RLS-50100V 50 x 100 m (approx. 165 x 330 ft.)
- RLS-3060V 30 x 60 m (approx. 100 x 200 ft.)

## FEATURES

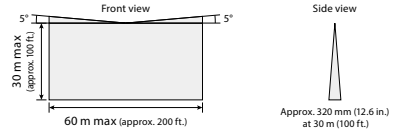
- Full IP/PoE integration ready.
- Various security and product standard compliant.
- Vertical and Horizontal detection modes
- Built-in angle adjustment function
- Assistance Camera (2 MP, 170 degrees)
- Dynamic Event Filtering
- Event log function
- ONVIF profile S compliant
- Integration to external devices and applications with REDWALL Event Code
- Supporting network protocols： UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1X / REC (REDWALL Event Code)

## COVERAGE

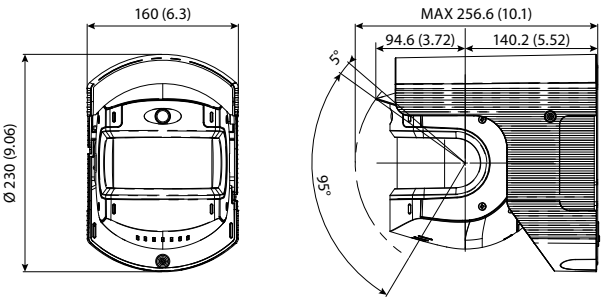
**RLS-50100V**




**RLS-3060V**




## DIMENSIONS




Unit:mm

## OPTIONS

- LAC-1 : Laser Area Checker
- RLS-LWV : Replacement Window
- RLS-LWVH : Replacement Window with heater unit

## SPECIFICATIONS

| Model | RLS-50100V | RLS-3060V |
|---|---|---|
| Installation location | Indoor / Outdoor | |
| Detection method | Infrared Laser Scan | |
| Laser protection class | Class 1 | |
| Power input | 19.2-30 VDC, PoE+ (IEEE 802.3at compliant) | |
| Current draw | 500 mA max. (24 VDC), 12 W max. (PoE+)<br>with heater option: 1.25 A max. (24 VDC), 25.5 W max. (PoE+) | |
| Mounting method | Ceiling mount, Wall mount, Pole mount | |
| Detection area | 50 x 100 m, 190 degree (approx. 165 x 330 ft.) | 30 x 60 m, 190 degree (approx. 100 x 200 ft.) |
| Detection range | Radius 1 to 50 m (approx. 3.3 to 165 ft.) at 10% reflectivity | Radius 1 to 30 m (approx. 3.3 to 100 ft.) at 10% reflectivity |
| Detection resolution / Response time | 0.125 degrees / within 100 msec. to 15 min. | 0.25 degrees / within 100 msec. to 15 min. |
| Mounting height (Vertical mode) | Indoor: 2 m (approx. 6.7 ft.) or higher/Outdoor: 4 m (approx. 13 ft.) or higher (Recommended) | |
| Communication port | Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) | |
| Protocol | UDP/TCP/HTTP/HTTPS/IPV4/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IPV6/IEEE802.1X | |
| Output | 6 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable | |
| Input | 1 Non-voltage contact input | |
| Alarm period | Approx. 2 second delay timer | |
| Operating temperature | −20°C to 60°C ( −4°F to 140° F ), −40 °C to 60°C (−40°F to 140°F) with RLS-LWVH | |
| Dimensions (H×W×D) , Weight | 230 × 160 × 256.6 mm max. (9.1 x 6.3 x 10.1 inch), 2.6 kg (92 oz.) | |
| IP rating | IP66 | |
| Image sensor | Full HD, 1080P (Web User Interface), 720P/360P (RTSP), H：170°, V：85°, Minimum approx.1 lux., Removable infrared-cut filter (Auto / Night / Day)(selectable), H.264, JPEG, 1 to 30 fps (selectable) | |

＊ The specifications refer to the Firmware ver. 2.0.0 or later.
＊ This product is equipped with the function to produce and record moving and/or still image which includes the information such as face of an individual that could identify the individual. Producing and recording with this product may be regulated by country-specific laws to protect personal information. Prior to the installation of this product, the compliance to local laws and regulations needs to be confirmed by the user of this product for the lawful installation and use of this product, and signage and notification when using this product.

# RLS-2020V/A

## OUTDOOR/INDOOR 2D LIDAR SENSOR

REDSCAN®

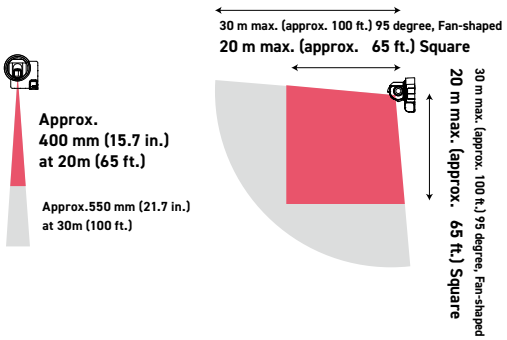
Advanced 2D LiDAR sensor for outdoor and indoor intrusion detection. Customizable zones and detection logic fully integrated with various VMS platforms.

Available Models
- RLS-2020V 20 x 20 m (approx. 65 x 65 ft.) detection with FHD camera
- RLS-2020A 20 x 20 m (approx. 65 x 65 ft.) detection

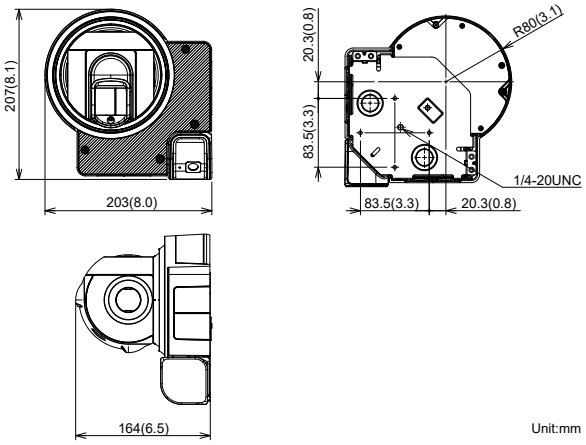
## FEATURES

- 20m x 20m (65ft. x 65ft.), 95 degree detection area
- Vertical and Horizontal detection modes
- Built-in FHD Camera and IR LED
- Map Screen Display
- Dynamic Event Filtering
- Automatic IR Adjustment
- Event log function
- ONVIF profile S compliant
- Supporting network protocols： UDP/ TCP/ HTTP/HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/WS-Discovery/ ONVIF/ IEEE802.1X/ REC (REDWALL Event Code)

## COVERAGE




## DIMENSIONS




Unit:mm

## OPTIONS

- LAC-1 : Laser Area Checker
- RLS-PB2 : Pole mount Bracket
- RLS-LW : Laser window for replacement

## SPECIFICATIONS

| Model | RLS-2020V | RLS-2020A |
|---|---|---|
| Installation location | Indoor/Outdoor | |
| Detection method | TOF | |
| Laser protection class | Class 1 | |
| Power input | 19.2-30 VDC, PoE+ (IEEE 802.3at compliant) | 19.2-30 VDC, PoE (IEEE 802.3af compliant) |
| Current draw | 580 mA max. (24 VDC), 14 W max. (PoE+) | 500 mA max. (24 VDC), 12 W max. (PoE) |
| Mounting method | Ceiling mount, Wall mount, Pole mount | |
| Detection area | 20 x 20m, 95 degree (approx. 65 x 65 ft.) | |
| Detection range | Radius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivity | |
| Detection resolution/Response time | 0.125 degrees / within 50 msec. to 15 min. / 0.25 degrees / within 75 msec. to 15 min. | |
| Mounting height (Vertical mode) | Indoor: 2 m (approx. 6.7 ft.) or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended) | |
| Communication interface | 2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485 | |
| Protocol | UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1X | |
| Output | 6 outputs, 28 VDC 0.2 A max. N.O./N.C.(selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable) | |
| Input | 2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable) | |
| Alarm period | Approx. 2 second delay timer | |
| Operating temperature | −40°C to 60°C ( −40°F to 140°F) | |
| IP rating | IP66 | |
| Dimensions ( H x W x D ) | 207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch) | |
| Weight | 1.6 kg (3.5 lbs.) | 1.3 kg (2.9 lbs.) |
| Image sensor | 1/2.8" CMOS | — |
| Image resolution | 1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display) | — |
| Viewing angle | H:130° V:65° | — |
| Minimum illumination | Approx. 1 lux. Less than the above, IR LEDs turn on. | — |
| Day and night | Automatically removable infrared-cut filter. Auto/Day/Night mode selectable | — |
| Image compression | H.264, JPEG | — |
| Frame rate | 1 to 10 FPS (selectable) | — |

＊ Specifications and design are subject to change without prior notice.
＊ RLS-2020V is equipped with the function to produce and record moving and/or still image which includes the information such as face of an individual that could identify the individual. Producing and recording with this product may be regulated by country-specific laws to protect personal information. Prior to the installation of this product, the compliance to local laws and regulations needs to be confirmed by the user of this product for the lawful installation and use of this product, and signage and notification when using this product.

# RLS-3060L/SH

## LASER SCAN DETECTOR

REDSCAN®

The RLS-3060 series is a laser scan detector that identifies a moving object's size, speed and distance from the detector. It processes that information with a unique algorithm, resulting in a highly reliable detection system with minimal false alarms.

## FEATURES

- 30m radius for 190 degrees range
- Vertical and horizontal mounting
- Unique detection algorithm
- Automatic area setting function
- 4 independently adjustable detection areas and 4 dry contact outputs for PTZ control or
- 8 independently adjustable detection areas and REDWALL Event Code for Network
- Integration to external devices and applications with REDWALL Event Code
- Changeable Dry-contact Alarm Output type N.O. to N.C.
- Fog cancellation algorithm (Patent listed)

## COVERAGE

Image of horizontal detection area

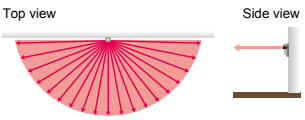
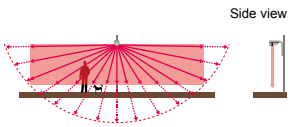
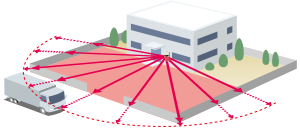



Image of horizontal detection area




Vertical detection area example

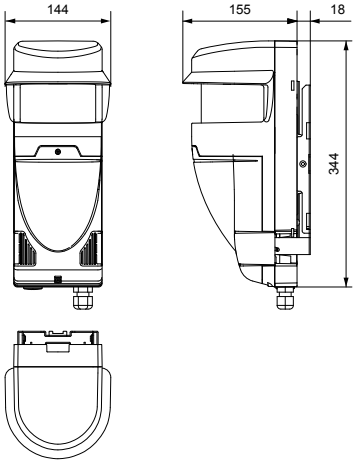
Horizontal detection area example



## OPTIONS

- RLS-PB : Pole mount bracket
- RLS-SB : Adjustable angle mounting bracket
- LAC-1 : Laser Area Checker

## DIMENSIONS




Unit:mm

## SPECIFICATIONS

| Model | | RLS-3060L | RLS-3060SH |
|---|---|---|---|
| Detection method | | Infrared Laser Scan | |
| Laser protection class | | Class 1 | |
| Coverage | Vertical area | Max. 60 m (Approx. 200 ft.) at 10% reflectivity | Max. 60 m (Approx. 200 ft.) at 10% reflectivity / Detection range expansion enable max. 100 m (Approx. 330 ft.). |
| | Horizontal area | Radius:30m (Approx. 100 ft.), Arc:190° at 10% reflectivity | Radius:30 m (Approx. 100 ft.), Arc:190° at 10% reflectivity / Detection range expansion enable radius:50 m (Approx. 165 ft.), Arc:190°. |
| 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. (24VDC) 600mA max. (24VAC) | |
| Heater power input | | - | 24 VDC, 24 VAC |
| Heater current draw | | - | 400mA max. (24 V DC/AC) |
| Mounting height | Vertical area | 15m (50ft.) max. | |
| | Horizontal area | 0.7m (28in.) (recommended) | |
| Target object selector | | S / M / L | |
| Sensitivity selector | | H / M / L | |
| Camera control output | | N.O. 28 VDC, 0.2 A x 4 outputs / Can be changeable to N.C. with RSM ver.8. | |
| 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 | | -20 to 60 °C (-4 to 140 °F) | |
| Operating temperature with heater | | | -40 to 60 °C (-40 to 140° F) |
| IP rating | | IP66 | |
| Dimensions (H x W x D) | | 334 x 144 x 155 mm (13.2 x 5.7 x 6.1 in.) | |
| Weight | | 2.4kg (85 oz.) | |

Specifications and design are subject to change without prior notice.

# RLS-2020I/S

LASER SCAN DETECTOR

REDSCAN mini™

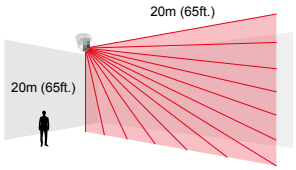
The RLS-2020 series is a compact and highly customizable laser scan detector that helps protect in an unobstructed way, houses, buildings, flat roofs, controlled areas and assets by creating an invisible laser wall or plane and detecting any intrusion breaching it.

## FEATURES

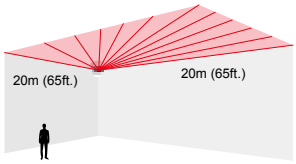
- 20m x 20m (65ft. x 65ft.), 95 degree detection area
- Vertical and Horizontal detection modes
- Multi-angle Adjustment Shell Structure (M.A.S.S.)
- Unique detection algorithm
- Automatic area setting function
- Advanced area setting
- 4 adjustable detection areas on IP connection
- Total 3 outputs can be assigned for analog connection
- Integration to external devices and applications with REDWALL Event Code.
- Supporting multiple network protocols, e. g. TCP/IP, UDP/IP, DHCP, DNS, HTTP, HTTPS, FTP, SNMPv1/v2c/v3, ICMP, ARP.

## COVERAGE

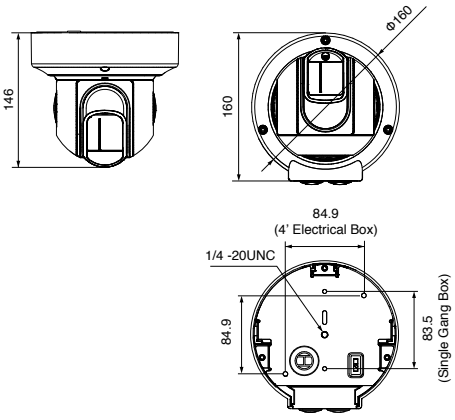
Vertical




Horizontal




## DIMENSIONS




Unit:mm

## OPTIONS

- RLS-AT : RLS area Adjustment Tool Kit
- LAC-1 : Laser Area Checker
- RLS-PB : Pole mount Bracket
- RLS-RB : Recess mount bracket
- RLS-LW : Laser Window

## SPECIFICATIONS

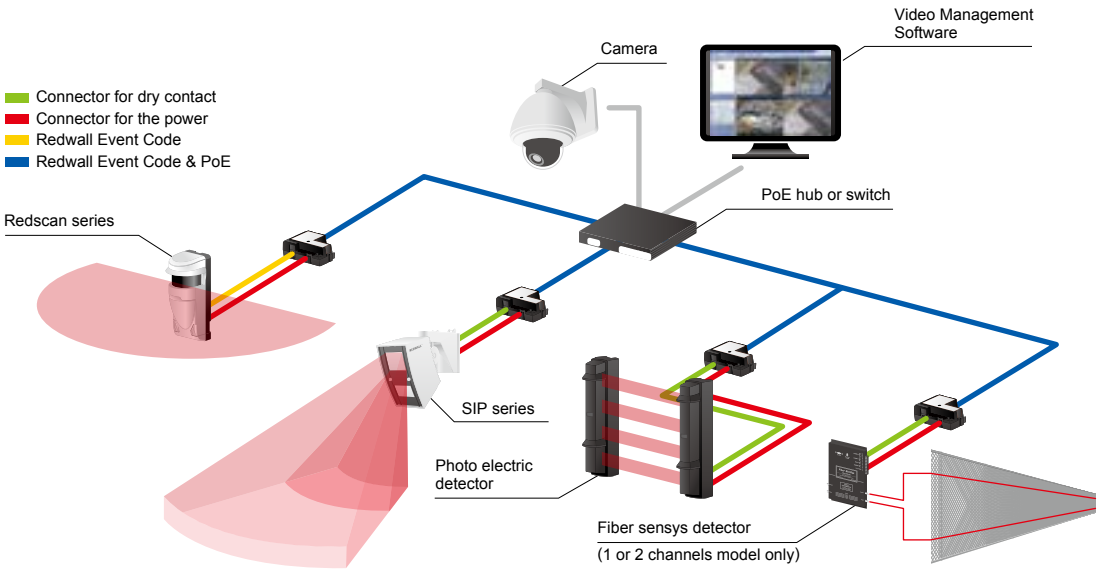
| Model | RLS-2020I | RLS-2020S |
|---|---|---|
| Installation location | Indoor | Indoor/Outdoor |
| Detection metod | Infrared Laser Scan | |
| Laser protection class | Class 1 | |
| Power input | 10.5 to 30 VDC, PoE (IEEE802.3 af/at compliant) | |
| Current draw | 500 mA max. (12 VDC), 250 mA max. (24 VDC), 6W max. (PoE) | |
| Mounting method | Ceiling mount, Wall mount, Tripod mount, Pole mount (Option), Recess mount (Option) | |
| Detection area | 20 x 20 m, (approx. 65 x 65 ft.), 95 degrees | |
| Detection range | Radius 1 to 21m (approx. 3.3 to 68 ft.) at 10% reflectivity | |
| Detection resolution/Response time | 0.25 degrees / within 75 ms to 15 minute | 0.25 degree / within 75msec to 15 minutes (for indoor mode and outdoor mode)<br>0.25 degree / within 25msec (for indoor throw-in mode),<br>0.125 degree / within 100msec to 15 minutes (for Indoor high resolution mode) |
| Mounting height(Vertical mode) | 2 m (6.7 ft.) or higher | Indoor: 2 m (6.7 ft.) or higher<br>Outdoor: 4 m (13 ft.) or higher (Recommended) |
| Communication port | Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) | |
| Network protocol | TCP/IP, UDP/IP, DHCP, DNS, HTTP, HTTPS, FTP, SNMPv1/v2c/v3, ICMP, ARP | |
| Output | 3 outputs, 28 VDC 0.2 A max. N.O./N.C. Selectable<br>(3 from Master alarm, Zone outputs, Trouble, Tamper) | 3 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable<br>(3 from Master alarm, Zone outputs, Trouble, Tamper, D.Q.) |
| Input | - | 1 Non-voltage contact input |
| Alarm period | Approx. 2 sec delay timer | |
| Operating temperature | -40 to 50 C degrees (-40 to 122 F degrees) | -40 to 60 C degrees (-40 to 140 F degrees) |
| IP rating | IP66 | |
| Dimensions (HxWxD) | 146 x 160 x 160 mm (5.8 x 6.3 x 6.3 inch) | |
| Weight | 1.0 kg (2.2 lb) | |

Specifications and design are subject to change without prior notice.

# PIE-1

## PoE IP ENCODER

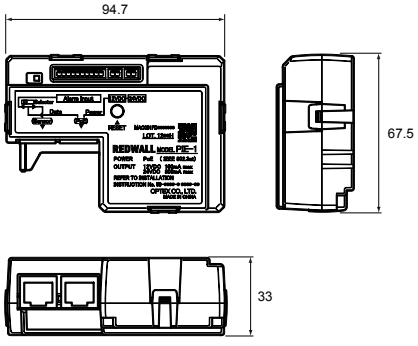

PIE-1 is an encoder that converts analog relay outputs to original ASCII code (Redwall Event Code) for Redwall and Fiber SenSys detectors. Detectors can be connected to Video Management Software platforms with PIE-1 and control IP cameras.
PIE-1 is generating Redwall Event Code using the analog alarm inputs from the Redwall and Fiber SenSys detectors. Video Management Software receives the event code and sends a command to reposition to a pre-set and/or start recording with a camera.
PIE-1 is compatible with Power over Ethernet (PoE). IEEE802.3 af/at making it possible to supply power using a PoE hub or switch.
Only one LAN cable is needed to connect PIE-1 to a PoE hub or switch reducing your installation time and cost.




## FEATURES

- Change Analog to IP
- PIE-1 changes analog relay output signals (N.C.) to original ASCII code.
- Compatible with Power over Ethernet
- PIE-1 can supply power to detector using a PoE hub or switch.

## DIMENSIONS




(mm)

## SPECIFICATIONS

| Model | PIE-1 |
|---|---|
| Power supply | PoE (IEEE802.3af/at compliant) |
| Power output | 24 VDC 800 mA max, 12 VDC 50 mA max |
| Signal input | 5 input for dry contacts (N.C. only) |
| Place of use | Outdoor (Inside of the waterproof case) |
| Alarm output | Redwall Event Code (UDP / TCP) |
| Operating temperature | -40 to +60 (-40 to +140 ) |
| Operating humidity | 95%RH. max |
| Operation LED (Normal) | Green light is ON when the power is supplied by PoE |
| Operation LED (When communicating) | Yellow light blinks during communication |
| Switch | Ethernet converter / LAN through |
| Function setting | Use web browser |
| Dimension | 67.5 mm x 94.7 mm x 33 mm (3.66" x 3.73" x 1.30") |
| Weight | 270 g (8.8 oz: including all parts) Main unit: 90 g (3.2 oz) |
| Supported protocols | IPv4, ARP, UDP, TCP, ICMP, HTTP |
| Accessories | Power output cable x2, Alarm input cable x3, Installation instruction, Mounting plate for a Double Gang Box, Gasket sheet for Gang Box, Mounting Screws x6 |

Specifications and design are subject to change without prior notice.

# OPTIONS

## REDWALL

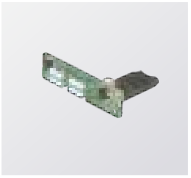
### AWT-3

Area walk tester
for SIP series

### AVF-1

Area view finder
for SIP series

### SIP-HU



Heating unit
for SIP series

### SIP-AT

SIP adjustment tools
(AWT-3 + AVF-1)
for SIP series

### SIP-MINIHOOD

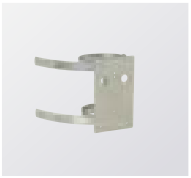
Sun/Snow shield
for SIP-3020/4010/404

### SIP-MIDIHOOD

Sun/Snow shield
for SIP-5030/100

## REDSCAN

### RLS-PB



Pole mount bracket
for all SIP series and
all RLS series

### RLS-SB

Adjustable angle
mounting bracket
for RLS-3060 series

### RLS-LW

Laser Window
for RLS-2020 series

### LAC-1

Laser Area Checker
for RLS-2020/3060

### RLS-RB

Recess mount bracket
for RLS-2020

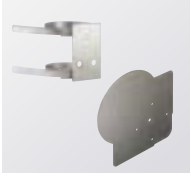
### RLS-LWV

Replacement Window
for RLS-3060V
RLS-50100V

### RLS-LWVH

Replacement Window
with heater unit
for RLS-3060V
RLS-50100V

### RLS-PB2



Pole mount Bracket

# PRODUCT SPECIFICATIONS



| | SIP-3020 | SIP-4010 | SIP-404 | SIP-3020WF | SIP-4010WF | SIP-404WF | SIP-3020/5 | SIP-4010/5 | SIP-404/5 |
|---|---|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |  |  |
| | P58 | P58 | P58 | P59 | P59 | P59 | P60 | P60 | P60 |
| Detection method | Passive infrared | | | Passive infrared | | | Passive infrared | | |
| PIR coverage (main area) | 30 x 20 m | 40 x 10 m | 40 x 4 m | 30 x 20 m | 40 x 10 m | 40 x 4 m | 30 x 20 m | 40 x 10 m | 40 x 4 m |
| PIR coverage (creep zone) | — | — | — | — | — | — | 3x 5m (10 x 16 ft.) installed at 2.3m (7.6 ft.) height, 6 x 9m (20 x 30 ft.) installed at 4m (13 ft.) height | | |
| Sensitivity selector | Far: SH/H/M/L Near: SH/H/M/L | | | Far: SH/H/M/L Near: SH/H/M/L | | Far: SH/H/M/L Near: SH/H/M/L | Far: SH/H/M/L Near: SH/H/M/L Creep zone: SH/H/M/L | | |
| Range selector | Far: On/Off | | | Far: On/Off | | Far: On/Off | Far area: On/Off | | |
| Detection logic selector | AND / OR | | | AND / OR | | AND / OR | AND / OR | | |
| Alarm interval period | Off/15, 30, 60 sec. | | | Off/5, 60, 150 sec. | | Off/5, 60, 150 sec. | Off/15, 30, 60 sec. | | |
| Power input | 11-26VDC 22-26VAC, 22-26VDC/AC with optional heating unit | | | 3 to 9VDC Alkaline or lithium battery | | 3 to 9VDC Alkaline or lithium battery | 11-26VDC 22-26VAC, 22-26VAC with optional heating unit | | |
| Current draw | 40mA max. (12VDC) 75mA max. (24VAC), 415mA max. (24VAC) with optional heating unit | | | 40µA(Standby) 5mA max. (Operating LED ON) N.C. 10VDC, 0.01A max. N.O. 10VDC, 0.01A max. | | 40µA(Standby) 5mA max. (Operating LED ON) N.C. 10VDC, 0.01A max. N.O. 10VDC, 0.01A max. | 45mA max. (12VDC) 85mA max. (24VAC), 425mA max. (24VAC) with optional heating unit | | |
| Alarm period | Off/15, 30, 60 sec. | | | Approx. 2 sec. | | Approx. 2 sec. | Approx. 2 sec. | | |
| Warm-up period | Approx. 60 sec. | | | Approx. 120 sec. | | Approx. 120 sec. | Approx. 60 sec. | | |
| Alarm output | N.O., N.C., 28 VDC 0.2A max. | | | | | | (main area)N.O., N.C. 28VDC 0.2A max. (creep zone)N.O., N.C. 28VDC 0.2A max. | | |
| Trouble output | N.C., 28 VDC 0.2 A max. | | | N.C. 10VDC, 0.01A max. | | N.C. 10VDC, 0.01A max. | N.C., 28 VDC 0.2 A max. | | |
| Tamper output | N.C., 28 VDC 0.1 A max. | | | N.C. 10VDC, 0.01A max. | | N.C. 10VDC, 0.01A max. | N.C., 28 VDC 0.1 A max. | | |
| Operating temperature | -25 to +60°C, -40 to +60°C with optional heating unit (-13 to +140°F, -40 to +140°F with optional heating unit) | | | -25 to +60°C (-13°to +140°F ) | | -25 to +60°C (-13°to +140°F ) | -25 to +60°C, -40 to +60°C with optional heating unit (-13 to +140°F, -40 to +140°F with optional heating unit) | | |
| International protection | Main unit : IP65 Chassis : IP55 | | | Main unit : IP65 Chassis : IP55 | | Main unit : IP65 Chassis : IP55 | Main unit : IP65 Chassis : IP55 | | |
| Mounting height | 2.3 to 4 m (7.6 to 13 ft.) | | | 2.3 to 4 m (7.6 to 13 ft.) | | 2.3 to 4 m (7.6 to 13 ft.) | 2.3 to 4 m (7.6 to 13 ft.) | | |
| Weight | 1.2 kg (42 oz) | | | 1.2 kg (42 oz) | | 1.2 kg (42 oz) | 1.4 kg (48 oz) | | |

| | RLS-2020V | RLS-2020A |
|---|---|---|
| |  |  |
| | P63 | P63 |
| Installation location | Indoor/Outdoor | |
| Detection method | TOF | |
| Laser protection class | Class 1 | |
| Power input | 19.2-30 VDC, PoE+ (IEEE 802.3at compliant) | 19.2-30 VDC, PoE (IEEE 802.3af compliant) |
| Current draw | 580 mA max. (24 VDC), 14 W max. (PoE+) | 500 mA max. (24 VDC), 12 W max. (PoE) |
| Mounting method | Ceiling mount, Wall mount, Pole mount | |
| Detection area | 20 x 20m, 95 degree (approx. 65 x 65 ft.) | |
| Detection range | Radius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivity | |
| Detection resolution /Response time | 0.125 degrees / within 50 msec. to 15 min. / 0.25 degrees / within 75 msec. to 15 min. | |
| Mounting height (Vertical mode) | Indoor: 2 m (approx. 6.7 ft.) or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended) | |
| Communication interface | 2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485 | |
| Protocol | UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1X | |
| Output | 6 outputs, 28 VDC 0.2 A max. N.O./N.C.(selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable) | |
| Input | 2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable) | |
| Alarm period | Approx. 2 second delay timer | |
| Operating temperature | −40°C to 60°C ( −40°F to 140°F) | |
| IP rating | IP66 | |
| Dimensions (HxWxD) | 207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)) | |
| Weight | 1.6 kg (3.5 lbs.) | 1.3 kg (2.9 lbs.) |
| Image sensor | 1/2.8" CMOS | — |
| Image resolution | 1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display) | — |
| Viewing angle | H:130° V:65° | — |
| Minimum illumination | Approx. 1 lux. Less than the above, IR LEDs turn on. | — |
| Day and night | Automatically removable infrared-cut filter. Auto/Day/Night mode selectable | — |
| Image compression | H.264, JPEG | — |
| Frame rate | 1 to 10 FPS (selectable) | — |

| | | RLS-3060L | RLS-3060SH |
|---|---|---|---|
| | |  |  |
| | | P64 | P64 |
| Detection method | | Infrared Laser Scan | |
| Laser protection class | | Class 1 | |
| Coverage | Vertical area | Max. 60 m (Approx. 200 ft.) at 10% reflectivity | Max. 60 m (Approx. 200 ft.) at 10% reflectivity / Detection range expansion enable max. 100 m (Approx. 330 ft.). |
| | Horizontal area | Radius:30m (Approx. 100 ft.), Arc:190° at 10% reflectivity | Radius:30 m (Approx. 100 ft.), Arc:190° at 10% reflectivity / Detection range expansion enable radius:50 m (Approx. 165 ft.), Arc:190°. |
| 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. (24VDC) | 600mA max. (24VAC) |
| Heater power input | | | 24 VDC, 24 VAC |
| Heater current draw | | | 400mA max. (24 V DC/AC) |
| Mounting height | Vertical area | 15m (50ft.) max. | |
| | Horizontal area | 0.7m (28in.) (recommended) | |
| Target object selector | | S / M / L | |
| Sensitivity selector Camera control output | | H / M / L N.O. 28 VDC, 0.2 A x 4 outputs / Can be changeable to N.C. with RSM ver.8. | |
| 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 | | -20 to 60 °C (-4 to 140 °F) | |
| Operating temperature with heater | | | -40 to 60 °C (-40 to 140° F) |
| IP rating | | IP66 | |
| Dimensions (H x W x D) | | 334 x 144 x 155 mm (13.2 x 5.7 x 6.1 in.) | |
| Weight | | 2.4kg (85 oz.) | |

# PRODUCT SPECIFICATIONS

| SIP-5030 | SIP-100 |
|---|---|
|  |  |
| P61 | P61 |
| Passive infrared | |
| 50 x 30 m | 100 x 3 m |
| 3x 5m (10 x 16 ft.) installed at 2.3m (7.6 ft.) height,<br>6 x 9m (20 x 30 ft.) installed at 4m (13 ft.) height | |
| Far: SH/H/M/L<br>Near: SH/H/M/L Creep zone: SH/H/M/L | |
| — | |
| AND / OR | |
| Off/15, 30, 60 sec. | |
| 11-26VDC 22-26 VAC, 22-26VDC/AC<br>with optional heating unit | |
| 45mA max. (12VDC)<br>85mA max. (24VAC),<br>425mA max. (24VAC)<br>with optional heating unit | 50mA max. (12VDC)<br>90mA max. (24VAC),<br>430mA max. (24VAC)<br>with optional heating unit |
| Approx. 2 sec. | |
| Approx. 60 sec. | |
| (main area)<br>N.O., N.C. 28VDC 0.2A max.<br>(creep zone)<br>N.O., N.C. 28VDC 0.2A max. | (main area)<br>Far area:<br>N.O., N.C. 28VDC 0.2A max.<br>Near area:<br>N.O., N.C. 28VDC 0.2A max<br>(creep zone)<br>N.O., N.C. 28VDC 0.2A max. |
| N.C., 28 VDC 0.2 A max. | |
| N.C., 28 VDC 0.1 A max. | |
| -25 to +60°C, -40 to +60°C with optional heating unit<br>(-13 to +140°F, -40 to +140°F with optional heating unit) | |
| Main unit : IP65 Chassis : IP55 | |
| 2.3 to 4 m (7.6 to 13 ft.) | |
| 1.6kg (56 oz) | |

| | RLS-50100V | RLS-3060V |
|---|---|---|
| |  |  |
| | P62 | P62 |
| Installation location | ndoor / Outdoor | |
| Detection method | Infrared Laser Scan | |
| Laser protection class | Class 1 | |
| Power input | 19.2-30 VDC, PoE+ (IEEE 802.3at compliant) | |
| Current draw | 500 mA max. (24 VDC), 12 W max. (PoE+)<br>with heater option: 1.25 A max. (24 VDC),<br>25.5 W max. (PoE+) | |
| Mounting method | Ceiling mount, Wall mount, Pole mount | |
| Detection area | 50 x 100 m, 190 degree<br>(approx. 165 x 330 ft.) | 30 x 60 m, 190 degree<br>(approx. 100 x 200 ft.) |
| Detection range | Radius 1 to 50 m<br>(approx. 3.3 to 165 ft.)<br>at 10% reflectivity | Radius 1 to 30 m<br>(approx. 3.3 to 100 ft.)<br>at 10% reflectivity |
| Detection resolution<br>/ Response time | 0.125 degrees /<br>within 100 msec.<br>to 15 min. | 0.25 degrees /<br>within 100 msec.<br>to 15 min. |
| Mounting height<br>(Vertical mode) | Indoor: 2 m (approx. 6.7 ft.) or higher/<br>Outdoor: 4 m (approx. 13 ft.)<br>or higher (Recommended) | |
| Communication port | Ethernet RJ-45 10BASE-T/100BASE-TX<br>(Auto negotiation) | |
| Protocol | UDP/TCP/HTTP/HTTPS/IPV4/DNS/DHCP/SNMPv1-v3/<br>NTP/WS-Discovery/ONVIF/IPV6/IEEE802.1X | |
| Output | 6 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable | |
| Input | 1 Non-voltage contact input | |
| Alarm period | Approx. 2 second delay timer | |
| Operating<br>temperature | −40°C to 60°C ( −40°F to 140°F)<br>with RLS-LWVH: −20 °C to 60°C (−140°F to 140°F) | |
| Dimensions (H×W×D) ,<br>Weight | 230 × 160 × 256.6 mm max.<br>(9.1 x 6.3 x 10.1 inch), 2.6 kg (92 oz.) | |
| IP rating | IP66 | |

| | RLS-2020I | RLS-2020S |
|---|---|---|
| |  |  |
| | P65 | P65 |
| Installation location | Indoor | Indoor/Outdoor |
| Detection metod | Infrared Laser Scan | |
| Laser protection class | Class 1 | |
| Power input | 10.5 to 30 VDC, PoE (IEEE802.3 af/at compliant) | |
| Current draw | 500 mA max. (12 VDC), 250 mA max. (24 VDC), 6W max. (PoE) | |
| Mounting method | Ceiling mount, Wall mount, Tripod mount,<br>Pole mount (Option),Recess mount (Option) | |
| Detection area | 20 x 20 m, (approx. 65 x 65 ft.), 95 degrees | |
| Detection range | Radius 1 to 21m (approx. 3.3 to 68 ft.) at 10% reflectivity | |
| Detection resolution/<br>Response time | 0.25 degrees /<br>within 75 ms to 15 minute | 0.25 degree / within 75msec to<br>15 minutes (for indoor mode<br>and outdoor mode)<br>0.25 degree / within 25msec<br>(for indoor throw-in mode),<br>0.125 degree / within 100msec to<br>15 minutes (for Indoor high<br>resolution mode) |
| Mounting height<br>(Vertical mode) | 2 m (6.7 ft.) or higher | Indoor: 2 m (6.7 ft.) or higher<br>Outdoor: 4 m (13 ft.) or higher<br>(Recommended) |
| Communication port | Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) | |
| Network protocol | TCP/IP, UDP/IP, DHCP, DNS, HTTP, HTTPS, FTP, SNMPv1/v2c/v3, ICMP, ARP | |
| Output | 3 outputs, 28 VDC<br>0.2 A max. N.O./N.C. Selectable<br>(3 from Master alarm,<br>Zone outputs, Trouble, Tamper) | 3 outputs, 28 VDC<br>0.2A max. N.O./N.C. Selectable<br>(3 from Master alarm,<br>Zone outputs, Trouble, Tamper, D.Q.) |
| Input | - | 1 Non-voltage contact input |
| Alarm period | Approx. 2 sec delay timer | |
| Operating temperature | -40 to 50 C degrees<br>(-40 to 122 F degrees) | -40 to 60 C degrees<br>(-40 to 140 F degrees) |
| IP rating | IP66 | |
| Dimensions (HxWxD) | 146 x 160 x 160 mm (5.8 x 6.3 x 6.3 inch) | |
| Weight | 1.0 kg (2.2 lb) | |

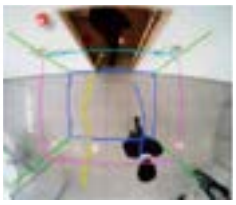
| | PIE-1 |
|---|---|
| |  |
| | P66 |
| Power supply | PoE (IEEE802.3af/at compliant) |
| Power output | 24 VDC 800 mA max,<br>12 VDC 50 mA max |
| Signal input | 5 input for dry contacts (N.C. only) |
| Alarm output | Redwall Event Code (UDP / TCP) |
| Operating temperature | -40 to +60℃ (-40 to +140 ˚F) |
| Operating humidity | 95%RH. max |
| Operation LED (Normal) | Green light is ON when the power<br>is supplied by PoE |
| Operation LED<br>(When communicating) | Yellow light blinks during<br>communication |
| Switch | Ethernet converter / LAN through |
| Function setting | Use web browser |
| Dimension | 67.5 mm x 94.7 mm x 33 mm<br>(3.66" x 3.73" x 1.30") |
| Weight | 270 g (8.8 oz: including all parts)<br>Main unit: 90 g (3.2 oz) |
| Supported protocols | IPv4, ARP, UDP, TCP, ICMP, HTTP |
| Accessories | Power output cable x2, Alarm input<br>cable x3, Installation instruction,<br>Mounting plate for a Double Gang Box,<br>Gasket sheet for Gang Box, Mounting<br>Screws x6 |

# OV-102S(E) [Detection unit] / OV-102CB(E) [Control box]

ANTI-TAILGATING SYSTEM

ACCURANCE OV-102

Unique algorithm for anti-tailgating detection
[Vector focal method]
The Accurance OV-102 grasps and tracks a shape of human sterically by a unique image sensing technology. The system can recognize complicated movement and the number of people at high rate and accuracy.



## FEATURES

**— Door cancel function**
Ignore door movement on installation side of detection unit.

**— Workability**
Install on existing door

**— Detection area adjustability**
Detection area can be adjusted after installation of detection unit.

**— Sensitivity adjustability**
Sensitivity can be adjusted after installation

## SPECIFICATIONS

| Items | Specifications | | Remarks |
|---|---|---|---|
| Detection Method | Vector Focusing Method | | |
| Detection Accuracy | > 95% (by own criteria) | | |
| Supply Voltage | Power over Ethernet IEEE 802.3 af | | |
| Warm-up time | Approx. 45 sec. | | |
| Power Consumption | Control box | 10 W max. | |
| | Detection unit | 10 W max. | |
| Indicator | Control box | Green | Power, Authorization, Normal entry (lit) |
| | | Red | Tailgating (lit) / Multiple detections (blinking) |
| | | Green / Red | Warm-up (lit) / Trouble (blinking)<br>Communication trouble (alternative blinking) |
| | Detection unit | Green | Power (lit) / Normal entry (blinking) |
| | | Red | Tailgating (lit) / Multiple detections (blinking) |
| | | Orange | Warm-up (lit) / Trouble (blinking) |
| | | Green / Red | Communication trouble (alternative blinking) |
| Dimensions | Control box | 265 × 135 × 31 mm | (W × H × D) |
| | Detection unit | 193 × 85 × 34 mm | (W × H × D) |
| Weight | Control box | 800 g | |
| | Detection unit | 220 g | |
| Operating Temperature | 0 to 50°C | | |
| Operating Humidity only under no condensation | < 80% RH | | only under no condensation |
| Operating Illuminance only the outline of an object is shown | 100 to 20,000 lux *1 | | only the outline of an object is shown |
| Applicable Door Type | Manual Swing Door/Automatic Slide Door | | |
| Installation location | Control box | Wall / stationary | Indoor |
| | Detection unit | Ceiling | Indoor |
| Mounting Height | Detection unit | 2.5 to 4.0 m *2 | It may be limited by environmental conditions. |
| LAN wiring | CAT5e or larger | | 100 m max. in length |
| Ethernet | 100Base-T(X) | | Protocol : TCP/UDP(IPv4), ARP, ICMP or HTTP |
| Input terminal *3 | Authorization | N.O./N.C. no voltage Wiegand | 26/37bit |
| | Door open | N.O./N.C. no voltage | Use supplied magnet switch when disable to get |
| | Door locked | | |
| | Disable output *4 | | le Tailgating①,② and Multiple detections |
| | Output reset | | Stop the output of Tailgating ① and ② |
| Output terminal *3 | Tailgating① | MOS FET relay<br>N.O./N.C. no voltage<br>30 V DC 0.2 A or less<br>(Resistibility load) | Variable timer 0.2 to infinity |
| | Tailgating② | | |
| | Normal entry | | Pulse output for every entry |
| | Number of pass | | One shot/Timer switching |
| | Unlock command | | Pulse output for authorization |
| | Authorization number | | Pulse output for authorization |
| | Multiple detections | | Continuous output during multiple detections *5 |
| | Error | | Output when disable to detect |

*1 OV-102 always requires 100 lux or more.
*2 Maximum width of door opening is 2 m when mounting at 2.5 m high.
*3 Input/output relays can be selected N.O./N.C. by the dipswitch.
*4 "Disable output" is recommended to use for an entrance with carriage or luggage. They may make a false detection.
*5 Multiple detections must be ON by the dipswitch settings.
Specifications and design are subject to change without prior notice.

# A3001S [Detection unit] / A3001CB [Control box]

ANTI-TAILGATING SYSTEM

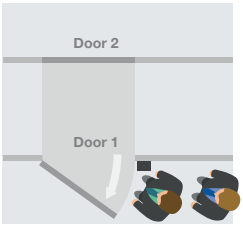
ACCURANCE-3D

Accurance 3D is Anti-Tailgate & Anti-Piggyback sensor system that utilizes Time-of-Flight technology for high security two-door interlocks. It adds a layer of security to the access control system by ensuring single occupancy inside the interlock.

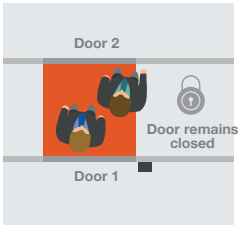
## FEATURES

- Analyses the X, Y, Z coordinates for all encountered objects in the detection area
- Topographic 3D data guarantees high accuracy rates
- Multiple or suspicious occupancies will not be granted access.
- Does not rely on any heat or light source
- Not affected by reflection or glare
- One control box can manage up to two sensors
- Can be integrated to an access control system via relay outputs
- Can be used in both directions — one way (entry only) & two way (entry & exit)

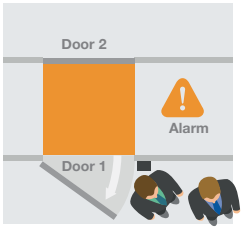
## Piggybacking and tailgating detection with Accurance 3D: sequence of events explained



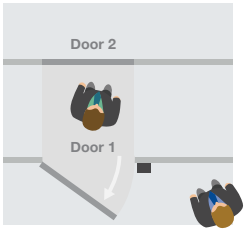

Authorised user presents his/her card and door 1 opens A second individual follows the first one without swiping his/her card



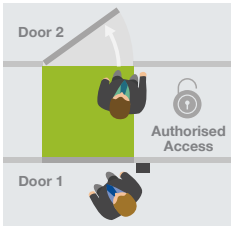

Door 1 shuts and Accurance 3D starts analysing the area inside the interlock More than one person is detected and access is denied




Door 1 re-opens for the occupants to leave the interlock The interlock is empty, the system can reset




Authorised user presents his/her card and door 1 opens.




Accurance 3D detects a single occupant in the interlock Access is granted and door 2 opens

## SPECIFICATIONS

| | |
|---|---|
| Power input | 24VDC - Supplied from control box |
| Current draw | 840 mA max. (24 VDC) |
| Operating temperature | -10°C to +50°C |
| Operating humidity | 0% to 80% - No condensation |
| Installation location | Indoor |
| Applicable door | Outward opening interlock door |
| Detection method | Time of Flight |
| Light source | IR LED |
| Image pixels | 176(H) 132(V) |
| Angle of view | Horizontal: Approx. 70°, Vertical: Approx. 55° |
| Mounting height | 7.55 to 9.51ft (2.3 to 2.9m) |
| Maximum detection height of person | 6.73ft (2.05m) - Depends on installation height & location |
| LAN | Ethernet (100BASE-TX) RJ-45 |
| Indicators | Power: green. Output: green, red, blue |
| Dimensions | 6.3 x 2.83 x 1.97in (160 x 72 x 50mm) H x W x D - Excluding cables |
| Weight | 1.32lb (600g) - Excluding cables |

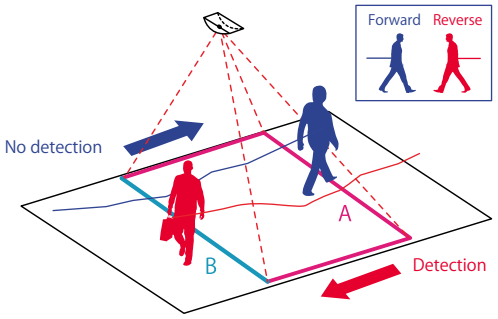
Specifications and design are subject to change without prior notice.

# R1002S(E) [Detection unit] / R1002CB(E) [Control box]

## REVERSE DETECTION SYSTEM

ACCURANCE R1002

Reverse Detection System R1002 with an unique detection algorithm [ Vector Focal Method ] is designed to detect backward movement of human(s) in a specific area.The system are suitable for applications to catch a suspicious individual such as airports for an efficient facility management or security.




## FEATURES

### Accurate detection

An unique detection method [Vector Focal Method] grasps and tracks a shape of human sterically.

### Reverse detection

Grasp all human movements and detect only backward movement

### System corporation

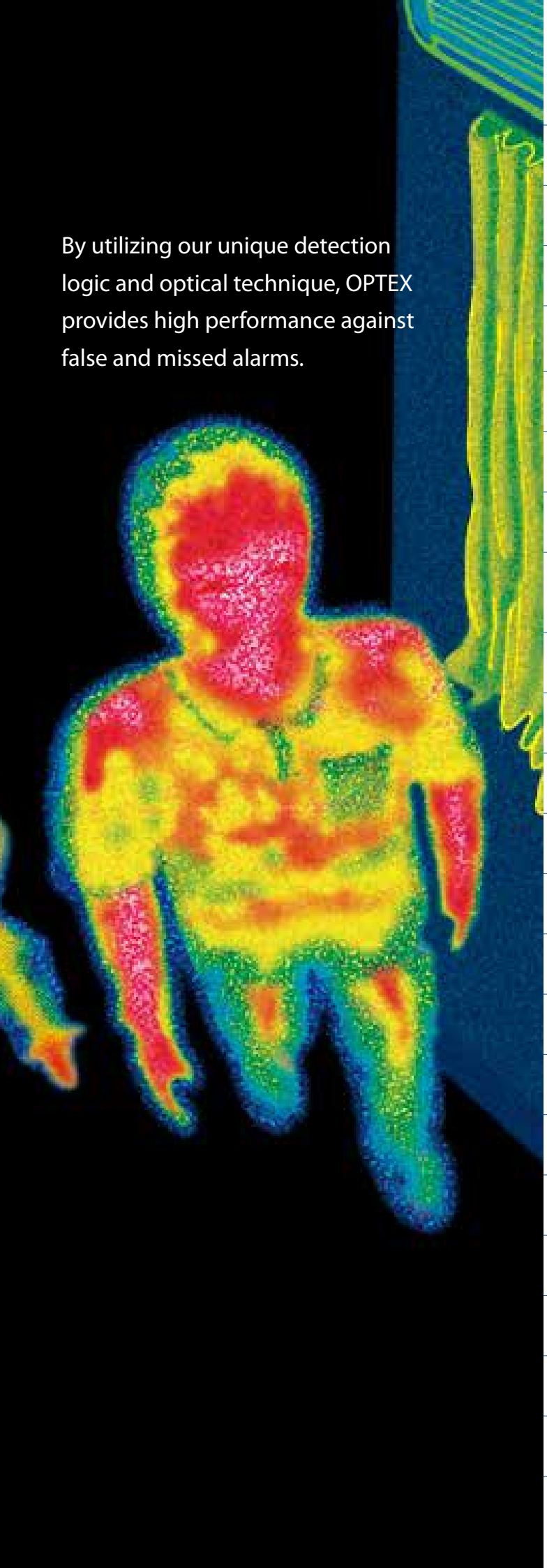
Enable to be connected with an upper layer system by using no-voltage output from the control box.

## SPECIFICATIONS

| Items | Specifications | | Remarks |
|---|---|---|---|
| Detection Method | Vector Focusing Method | | |
| Detection Accuracy | > 95% (by own criteria) | | |
| Supply Voltage | Power over Ethernet IEEE 802.3 af | | |
| Warm-up time | Approx. 45 sec. | | |
| Power Consumption | Control box | 10 W max. | |
| | Detection unit | 10 W max. | |
| Indicator | Control box | Green | Power (lit) |
| | | Red | Reverse detection (lit) |
| | | Green / Red | Warm-up (lit) / Trouble (blinking)<br>Communication trouble (alternative blinking) |
| | Detection unit | Green | Power (lit) |
| | | Red | Reverse detection (lit) |
| | | Orange | Warm-up (lit) / Trouble (blinking) |
| | | Green / Red | Communication trouble (alternative blinking) |
| Dimensions | Control box | 265 × 135 × 31 mm | (W × H × D) |
| | Detection unit | 193 × 85 × 34 mm | (W × H × D) |
| Weight | Control box | 800 g | |
| | Detection unit | 220 g | |
| Operating Temperature | 0 to 50°C | | |
| Operating Humidity only under no condensation | < 80% RH | | only under no condensation |
| Operating Illuminance only the outline of an object is shown | 100 to 20,000 lux *1 | | only the outline of an object is shown |
| Installation location | Control box | Wall / stationary | Indoor |
| | Detection unit | Ceiling | Indoor |
| Mounting Height | Detection unit | 2.5 to 4.0 m | It may be limited by environmental conditions. |
| LAN wiring | CAT5e or larger | | 100 m max. in length |
| Ethernet | 100Base-T(X) | | Protocol : TCP/UDP(IPv4), ARP, ICMP or HTTP |
| Input terminal *2 | Disable output Disable reverse detection [1] and [2] | | |
| | Output reset Stop the outputs of reverse detection [1] and [2] | | |
| Output terminal *2 | Reverse detection [1] | MOS FET relay<br>N.O./N.C. no voltage<br>30 V DC 0.2 A or less<br>(Resistibility load) | Variable timer 0.2 to infinity |
| | Reverse detection [2] | | |
| | Unit [1] detects Pulse output for reverse detection by unit [1] | | Pulse output for the number of reverse detection by unit [1] |
| | Unit [2] detects Pulse output for reverse detection by unit [2] | | Pulse output for the number of reverse detection by unit [2] |
| | Unit [3] detects Pulse output for reverse detection by unit [3] | | Pulse output for the number of reverse detection by unit [3] |
| | Number of reverse detections | | Pulse output for the number of reverse detection |
| | Error | | Output when disable to detect |

*1 R1002 always requires 100 lux or more.
*2 Input/output relays can be selected N.O./N.C. by the dipswitch.
Specifications and design are subject to change without prior notice.

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



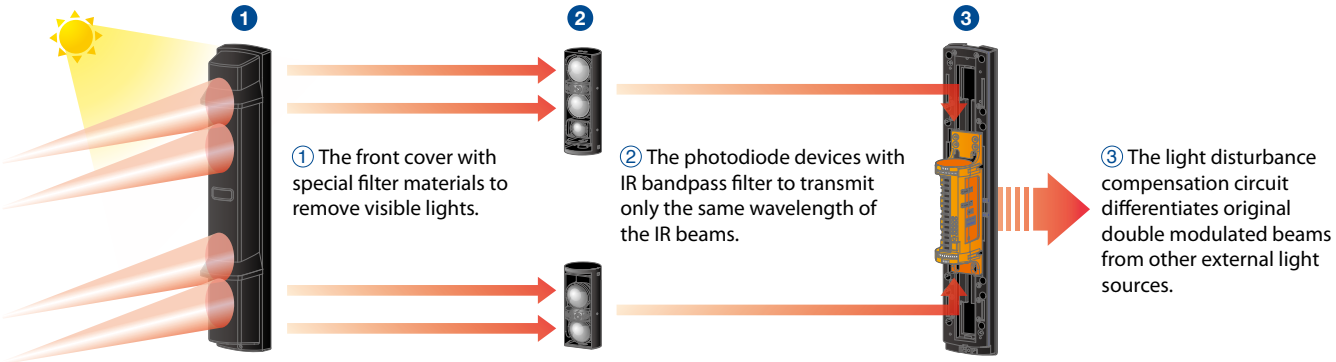
# Sunshine Protection Technology & Double Modulation Beam

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP |
|---|---|

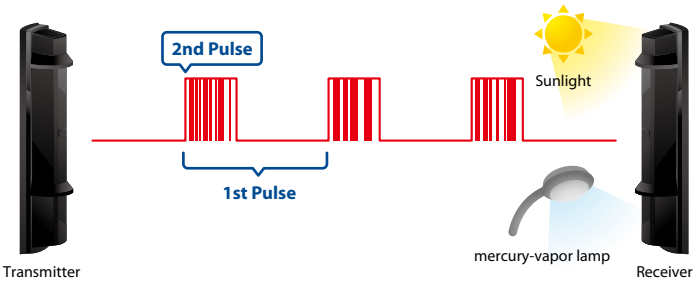
## Sunshine Protection Technology

The sunshine protection technology has a triple layer construction to give better performance against external light sources (e.g. the sun, mercury-vapor lamps, and fluorescent lights).




## Double Modulation Beam

The SL-QDM and SL-QDP offer double modulation beams that differ in pulse patterns. This can enhance signal discrimination against potential noise interference such as sunlight or other external light sources, resulting in a reduction of missed alarms.
Together with OPTEX triple layered sunshine protection technology, it ensures high reliability under the severe outdoor security environment.

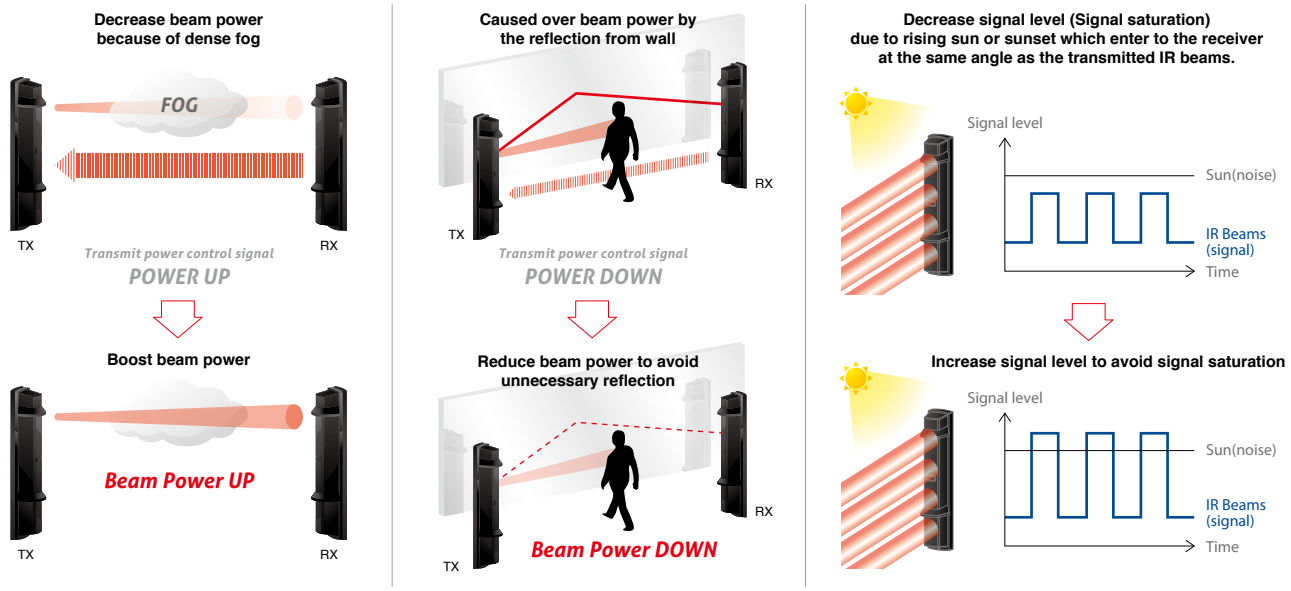



# Automatic Transmit Power Control

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM |
|---|---|

Automatically controls, adjusts and optimizes the power of the beam and maintains optimal performance.
It decreases false and missed alarms caused by fog, frost, cross talk, signal saturation.



## Quad Beam & United Appearance

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, SL-350QFR/350QNR |
|---|---|

By employing quad beam, it dramatically reduces false alarm caused by birds and falling leaves. Moreover, it is also important that the housing design of both long and short beams are united. 60m (200ft.) range models, SL-200QN/SL-200QDP/SL-200QDM with a wide beam pitch is now available.

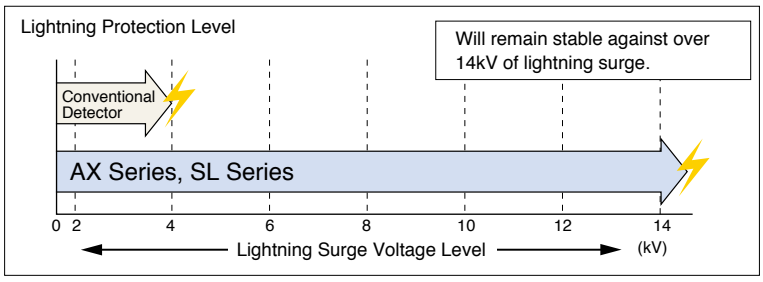
**Conventional short beam** **Smartline series**

## Lightning & Surge Protection

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, AX-70TN/130TN/200TN, AX-100TF/200TF |
|---|---|

Lightning surges are a constant source of problems for electronic equipment that is used outdoors.
There are two types of lightning surge: 1) direct strike and 2) induced surge.
In a direct lightning strike, the amount of energy dissipated is so great that there is currently no means of protecting electrical equipment from damage. A lightning induced surge may be caused by the movement of charged clouds or a nearby lightning strike. Either of these causes can induced surge voltages in electrical wiring. It is possible to provide some degree of protection against lightning induced surges by installing surge absorbers at appropriate locations as shown in the diagram.
Our Smartline series and 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).



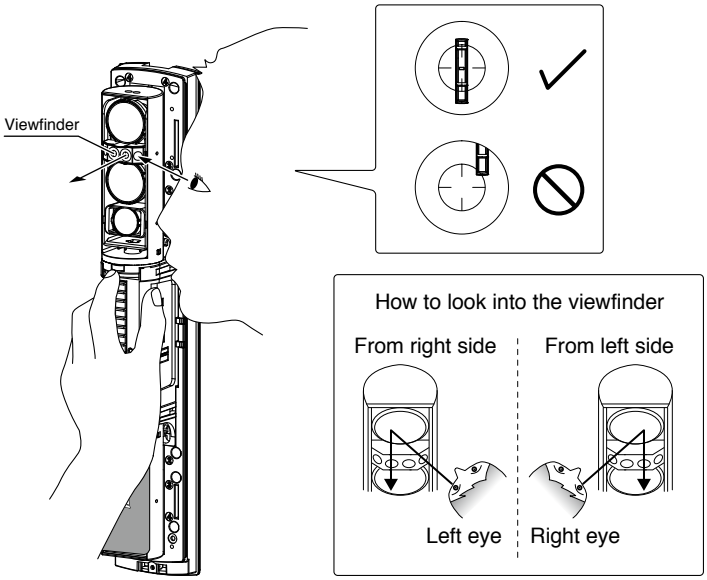
## Sniper Viewfinder

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, SL-350QFR/350QNR |
|---|---|

### X2 MAGNIFICATION LENS

The new telescope lens has a high level of visibility for optical alignment work. Even over long distances, a perfect installation and stable performance can be achieved in a short period.





Conventional model

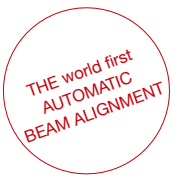

X2 magnification lens

## Beam Alignment Unit : BAU-4 (Option)

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, SL-350QFR/350QNR |
|---|---|

The BAU-4 beam alignment unit automatically and accurately adjust the optical axis. This allows peak performance and gives one technician the ability to install the 200 m (650 ft.) Smartline detector by himself.





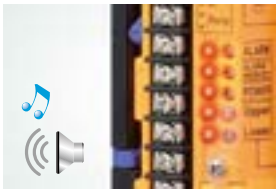

## LED Indicator and Sound Assist

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP |
|---|---|

The alignment level indicators have 5 LEDs, each LED represents the level of alignment, ranging from poor to excellent. The optical alignment level can also be checked by sound.


TRANSMITTER


RECEIVER

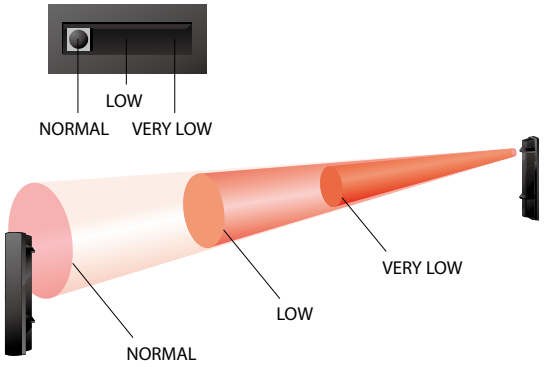
# Beam Power Control Selector

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP |
|---|---|

The beam power control selector allows you to manually adjust beam power from NORMAL to LOW or VERY LOW. This function is effective for the following purposes:

- For countermeasure against crosstalk due to reflection of wall or floor by reducing beam power.
- For countermeasure against interference due to unstable S/N (signal / noise) ratio when using multiple photo beams for long distance or beam stacking applications.
- To reduce beam power when using the detector for a distance shorter than the rated distance.
- To search the peak value when making optical alignment to support perfect alignment.




# Maximum Arrival Distance, Maximum Detection Range & Sensitivity Tolerance

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, SL-350QFR/350QNR, AX-100TFR/200TFR, AX-100TF/200TF, AX-70TN/130TN/200TN, BX-100PLUS |
|---|---|

## Maximum Arrival Distance & Maximum Detection range

Maximum arrival distance means theoretical distance which the beam arrives without counting external factor as a product specification. Maximum detection range is rating distance of detection range in use.

## Sensitivity Tolerance

Sensitivity tolerance can be calculated from maximum arrival distance and detection range. Distance tolerance is a distance allowance value against the reduction of the beam by external factor.

Distance tolerance = (Maximum arrival distance/ Detection range)
Sensitivity tolerance = $(\text{Distance tolerance})^2$

e.g.) In case of using SL-350QFR at the distance of 100m
( Maximum arrival distance: 1000m )
Distance Tolerance =10 times
Sensitivity Tolerance = 100 times

A certain amount of sensitivity tolerance is required for the stable operations of outdoor photoelectric detectors without false alarms, because the beam power is reduced under severe outdoor environments, e.g. dense fog, rain, snow or dust storms. The following figure is the general indications. All Optex outdoor photoelectric detectors have sensitivity tolerance of 100 times at a rating distance.


Dense fog


Rain


Snow

### General recommended indication

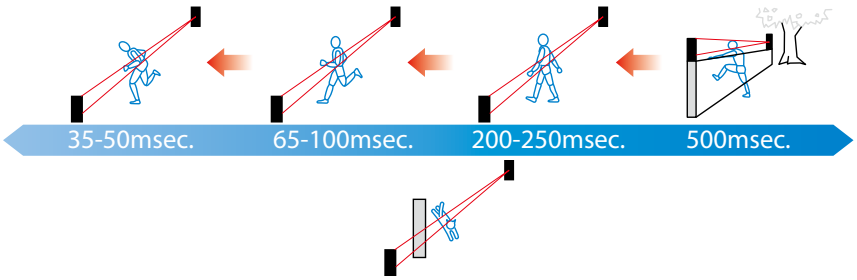
| Type of photoelectric detector | Sensitivity tolerance |
|---|---|
| Indoor photoelectric detector | 4 to 25 times |
| Outdoor photoelectric detector (up to 50 m) | 25 to 100 times |
| Outdoor photoelectric detector (upward of 50 m) | More than 100 times |

## Adjustable Beam Interruption Time

A-ZONE

| Appropriate models | SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-200QN/350QN/650QN, SL-350QFR/350QNR, AX-100TFR/200TFR, AX-100TFR/200TFR, AX-70TN/130TN/200TN, AX-100TF/200TF |
|---|---|

By using the beam interruption time potentiometer, it is possible to increase the time the beam must be broken in order to generate an alarm. This will reduce the chance of false alarms being caused by falling leaves, blowing debris or animal or bird movement within the protected area. Refer to the diagram before making any adjustments. If you make the beam Interruption time too long, quickly moving intruders may be able to pass through the beams undetected. After performing this adjustment be certain to do a walk-thru test and confirm that the detector will provide a satisfactory level of protection.




## Against Environmental Changes

A-ZONE

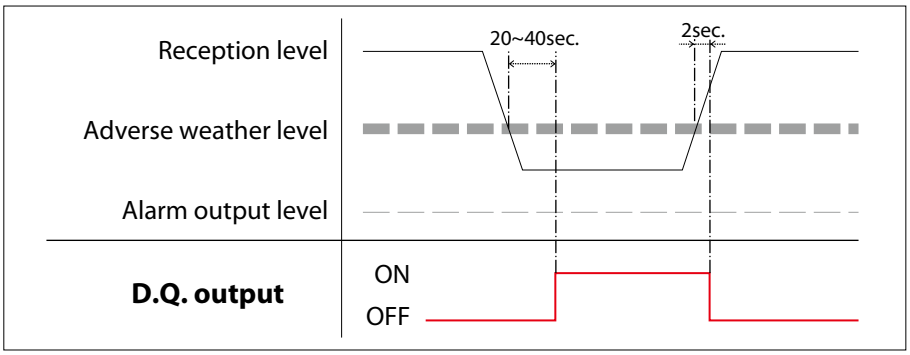
| Appropriate models | **[A.G.C.Circuit]** AX-100TFR/200TFR, AX-70TN/130TN/200TN, AX-100TF/200TF, BX-100PLUS<br>**[D.Q.Output]** SL-200QDM/350QDM/650QDM, SL-200QDP/350QDP/650QDP, SL-350QFR/350QNR, AX-100TFR/200TFR, AX-100TF/200TF |
|---|---|

### A.G.C. (Automatic Gain Control) circuit

The A.G.C. circuit continually monitors for gradual changes in the signal's strength caused by changing weather conditions. It gains the sensitivity accordingly to maintain weather conditions.

### 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 rain, snow, or heavy rain.



# Battery Operated Technology

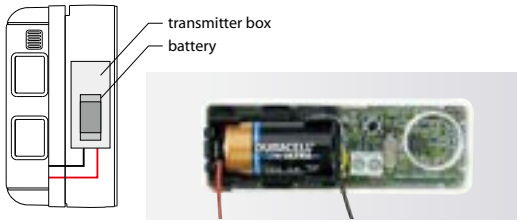
A-ZONE B-ZONE

| Appropriate models | SL-100TNR/200TNR, SL-350QFR/350QNR, FTN-R/RAM, AX-100TFR/AX-200TFR, HX-80NRAM, HX-40RAM, VXI-R/RAM/RDAM, BX-80NR |
|---|---|

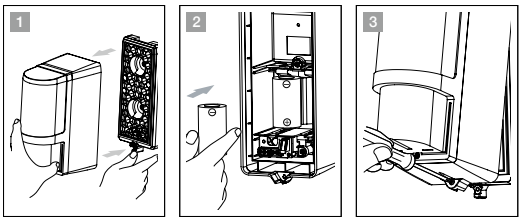
## Back box for wireless transmitters and batteries

**Appropriate models** | SL-350QFR/350QNR, FTN-R/RAM, AX-100TFR/AX-200TFR, HX-80NRAM, HX-40RAM, VXI-R/RAM/RDAM, BX-80NR

Back box can conceal wireless transmitter. Especially, AX-100/200TFR allows you to easily replace the batteries without opening the front cover. Not necessary to do the optical alignment.



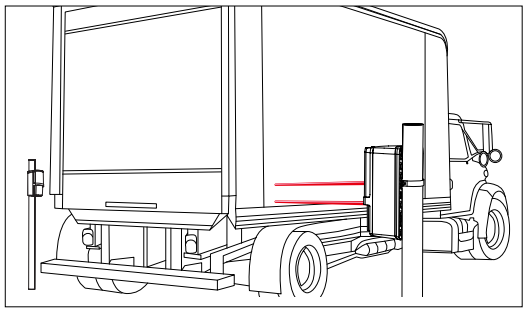

Batteries are not included with this unit.




## Intermittent output function

**Appropriate models** | SL-100TNR/200TNR, SL-350QFR/350QNR, AX-100TFR/200TFR

Alarm signals are sent periodically to avoid missed alarm while the beam is broken. Its function is effective for wireless systems which do not recognize "Restore" status.



## Battery saving timer function

**Appropriate models** | SL-100TNR/200TNR, SL-350QFR/350QNR, AX-100TFR/200TFR, HX-40RAM, VXI-R/RAM/RDAM, HX-80NRAM, BX-80NR

Alarm output activation are limited by a timer to 5 to 120 seconds. Even if there are continuous alarm events, the alarm output operates only once in the timer period. It prolongs the battery life of a wireless transmitter

## Low Battery Output and LED

**Appropriate models** | SL-100TNR/200TNR, SL-350QFR/350QNR, AX-100/200TFR, HX-40RAM, HX-80NRAM

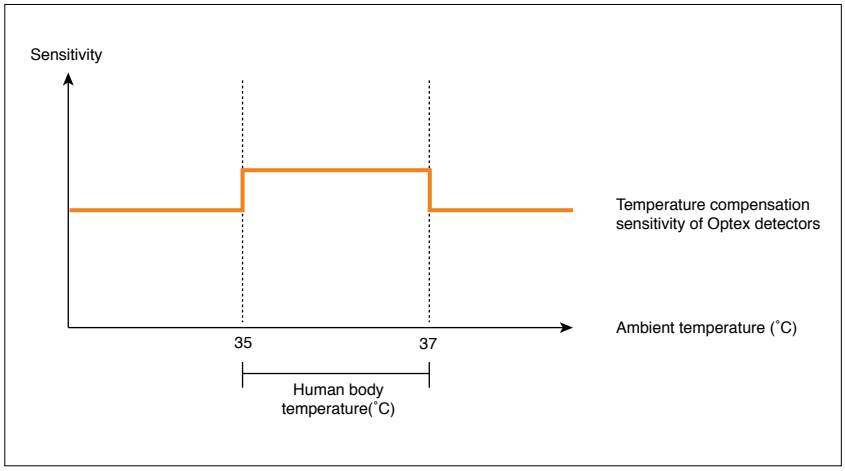
When the battery capacity becomes low, the unit automatically outputs fixed time transmission to call attention. When low battery signal is output, Anti-masking function will be canceled in order to extend the battery life.
When low battery signals is output, replace all the batteries with new ones.

## Advanced Temperature Compensation

B-ZONE

| Appropriate models | HX-80N/80NAM/80NRAM, HX-40/40AM/40DAM/40RAM, BX-80N/80NR, VXI-ST/AM/DAM/R/RAM/RDAM |
|---|---|

At a higher ambient temperature, the temperature difference between the background and a human body will be reduced. In this case the PIR could fail to readily detect a human body. With conventional temperature compensation functions, the sensitivity of detector must be set higher at 35˚C than the sensitivity at 25˚C (normal temperature) in order for the detector to offer a stable performance. However, with this setting, the sensitivity of the detector is excessively high at 40˚C or over, which could lead to various problems. To overcome this drawback, Optex's advanced temperature compensation function allows the detector's sensitivity to automatically drop at 40˚C or higher so that the detector can perform more reliably within a wider ambient temperature range.



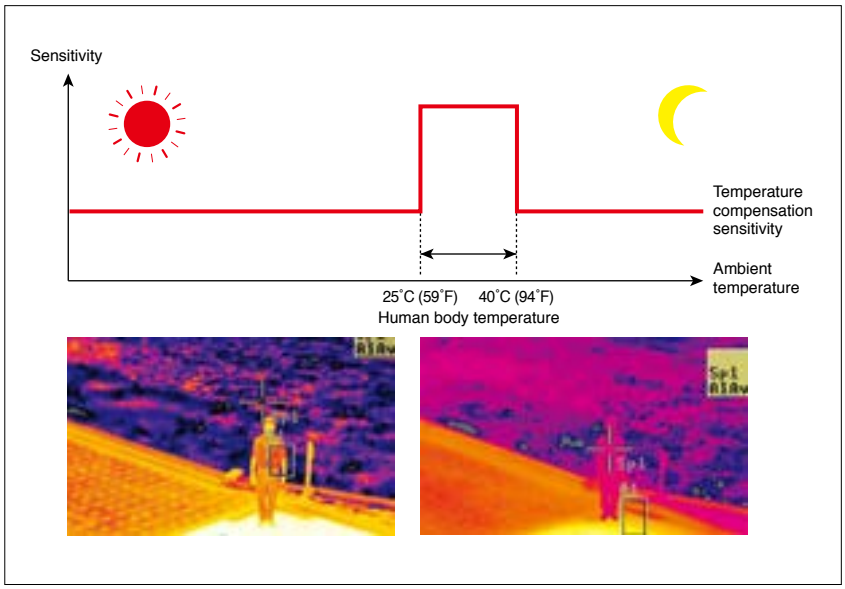

## Summer Night Compensation Logic

B-ZONE

| Appropriate models | HX-80N/80NAM/80NRAM, HX-40/40AM/40DAM/40RAM |
|---|---|

During summer evenings and nights, areas which are in shade can create an environment where the difference between human body and the surrounding ambient temperature can be at its lowest point. This logic addresses this issue by measuring the luminance levels and the changes in the environment.

The integration of temperature and additional luminance analysis provides the product the ability to more accurately assess true environmental conditions and sharpens the sensitivity as the environmental conditions require. This combination greatly reduces the potential for missed alarms, while maintaining stability.

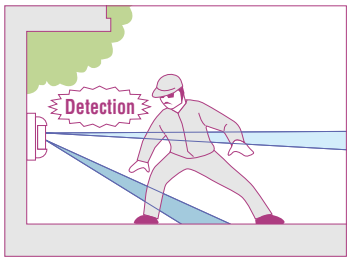


## Double-Layered Detection Patterns

B-ZONE

| Appropriate models | FTN-ST/AM/R/RAM, BX-80N/80NR, VXI-ST/AM/DAM/R/RAM/RDAM, WXS-AM/DAM/RAM/RDAM, WXI-ST/AM/R |
|---|---|

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

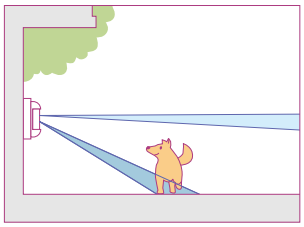



Multiple Detection Pattern of VXI-ST/AM/DAM/R/RAM/RDAM

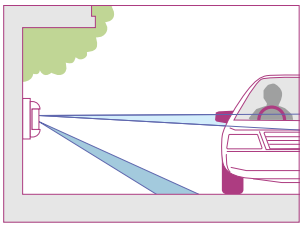
Multiple Detection Pattern of BX-80N/80NR

### Size Judging function

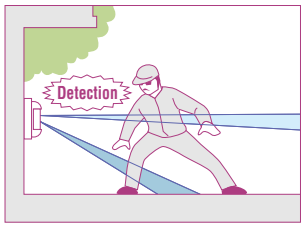
The size judging function virtually eliminates false alarms due to small animals and other moving objects like car.



When only the lower zone detects a moving object, the unit is not activated.



When only the upper zone detects a moving object, the unit is not activated.



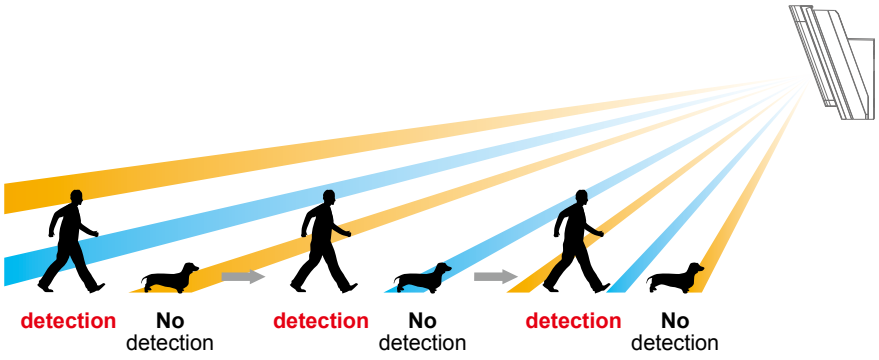

When both the upper & lower zones detect a moving object, the unit is activated.

## Intelligent AND detection Logic

B-ZONE

| Appropriate models | HX-80N/80NAM/80NRAM, HX-40/40AM/40RAM/40DAM |
|---|---|

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.



# Digital Quad Zone Logic & Multi-Focus Optics

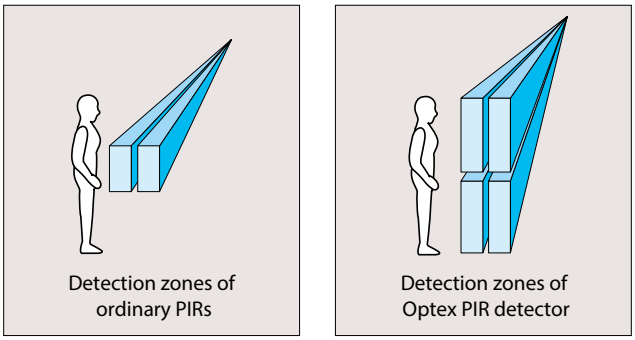
C-ZONE

| Appropriate models | [Multi-Focus Optics] CX-702/702RS, SX-360Z |
|---|---|

OPTEX has 2 different detection logics, digital quad zone logic and multi-focus optics. Each logic creates high vertical density detection zones by original optical technology to prevent false alarms.

## High Vertical Density Detection Zones of Quad Zone Logic and Multi-Focus Optics

Normally, a detector uses twin elements create two detection zones but Optex's 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.

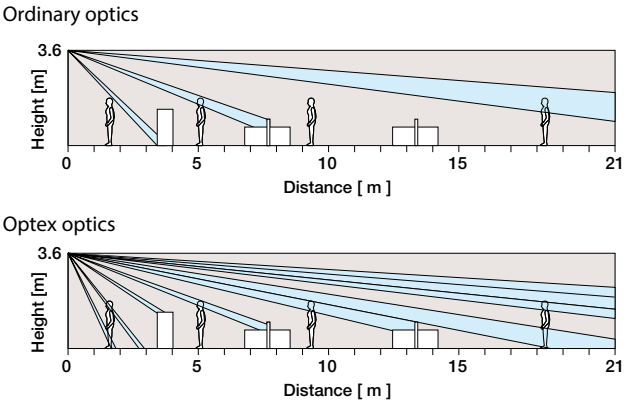



## Detection Logics

### Multi-Focus Optics

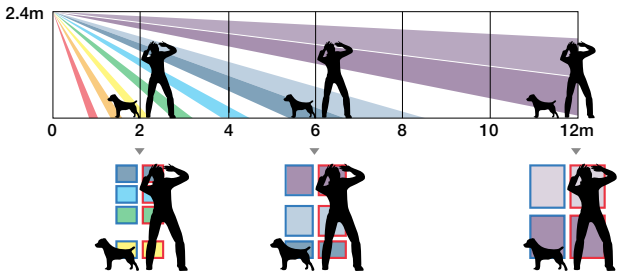
If a person is hidden from the PIR detector, he or she is not detected. In ordinary residences and offices, there are desks, shelves and other furniture. When these objects hide a part of the body, it may make detection difficult.

Multi-focus optics provides taller detection areas, which can be raised 1.5 to 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.




### Digital Quad Zone Logic

OPTEX's indoor detectors have from 78 to 82 zones to cover the hole detection area. At any spot within the detection area more than 4(quad) zones are utilized to verify if it should generate alarm or not. Also the CORE platform enables the quad zone logic to evolve to the next step. Providing digital quantification of infrared energy. digital quad zone logic enhanced accuracy in both human detectability and pet immunity.



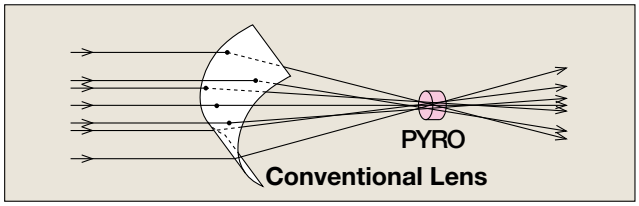
# Spherical Fresnel Lens Design

C-ZONE

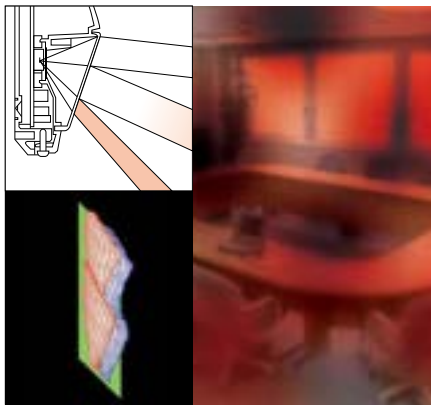
| Appropriate models | FLX-S-ST/DT,FLX-P-ST/DT,FLX-A-AM/DAM, CX-702/702RS, SX-360Z |
|---|---|

Spherical lens provides a precise focal length to each of the multiple lens segments (uniform distance between each lens segment and the pyroelectric elements). This enables each lens segment to face precisely towards its detection area, and creates detection zones without distortion, achieving a new level in lens design precision.

Conventional flat lens

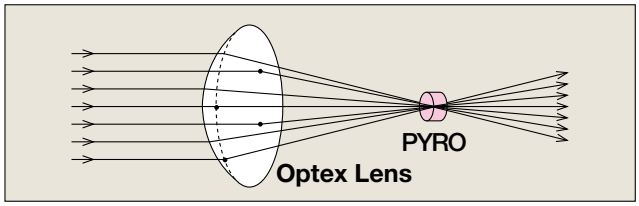



Conventional flat lenses inevitably create sensitivity distortion problems when they are bent to fit a curved housing. Optex's spherically designed lens will obtain sharp detection because no bending is required.

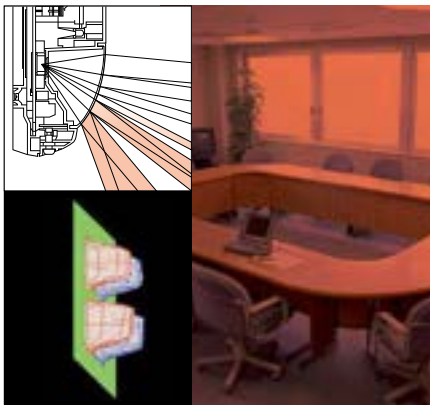


Each focused image (detection zone) has poorly defined borders (=Inaccurate sensitivity) and does not produce sufficient contrast against the background (=low detection performance). Because the IR energy is poorly focused, objects entering these low contrast border areas produce weak, poorly defined electrical signals within the detector.

Optex spherical lens




The spherical fresnel lens differs from the conventional flat fresnel lens in that the distance between the lens and the pyro-electric elements is the same across the entire lens (the focal length is always the same). It therefore collects infrared rays more efficiently.



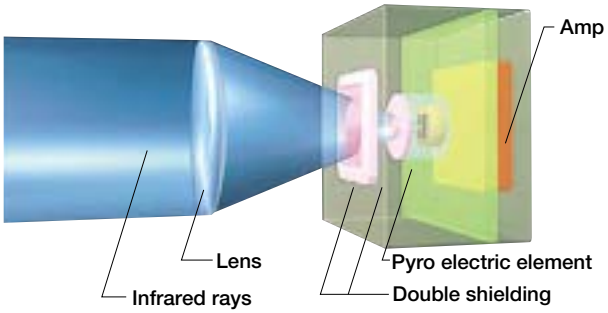
Each focused image (detection zone) has sharply defined edges (=accurate sensitivity) and it produces the maximum signal contrast against the background area (=high detection performance). This sharp focus provides the maximum signal power to the detector, compared to a weak, sluggish signal created by a poorly focused zone.

## Double Conductive Shielding

B-ZONE C-ZONE

| Appropriate models | VXS-AM/DAM/RAM/RDAM, VXI-ST/AM/DAM, VXI-R/RAM/RDAM, HX-80N/NAM/NRAM, HX-40/AM/RAM/DAM, BXS-ST/AM/R/RAM, BX-80N/NR, LX-402/802N, WXS-AM/DAM/RAM/RDAM, WXI-ST/AM/R, FLX-P-ST/DT,FLX-A-AM/DAM, CX-702/702RS, SX-360Z |
|---|---|

By using our double conductive shielding, the visible light disturbance and RFI can be blocked.




### Visible Light Protection

Visible light disturbance protection will prevent a false alarm when a 60W halogen lamp is turned on close to the detector. No false alarm is triggered even when a car flashes its headlights at the detector at a distance of 30cm (If a car passes through the detector range, of course, the exhaust heat of the car will trigger the alarm).
Also no false alarm will be triggered by sunlight up to an illumination of 100,000 lux. False alarms are most likely caused when early morning or evening sunlight pours into the room, and enters the field of view of the PIR either directly or by reflection. In such a case, however, the illumination reaches only about 50,000 lux. This prevents false alarm, due to double conductive shielding.

### RFI Protection

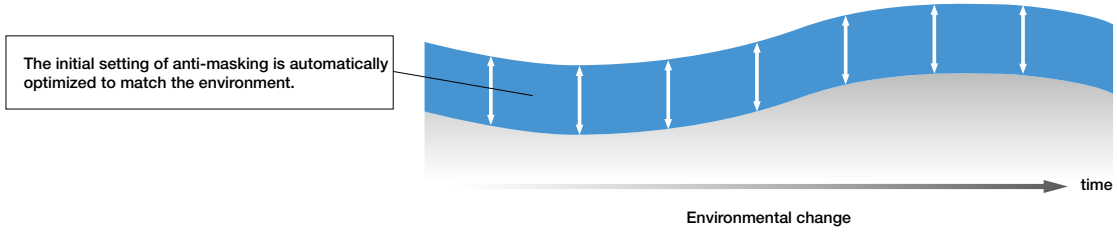
RFI protection has been improved to 20V/m and 30V/m or more by utilizing the double conductive shielding.
A field strength of 20V/m means that even if a 10W transmitter is placed within 1 meter of the detector and interference is produced, it will not cause false alarm. With a field strength of 30V/m, a 10W transmitter can be placed within 30-35cm of the detector and not cause a false alarm.

## Digital Anti-Masking Technology

B-ZONE C-ZONE

| Appropriate models | HX-40AM/40RAM/40DAM, HX-80AM/80NAM/80NRAM, VXI-AM/DAM/RAM/RDAM, WXS-AM/DAM/RAM/RDAM, WXI-ST/AM/R, FLX-A-AM/DAM |
|---|---|

Digital processing circuit guarantees reliability in a practical way by adapting to any changes detected in the environment.



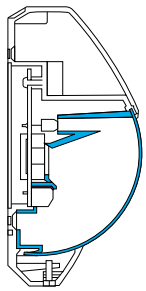
## Sealed Optics

C-ZONE

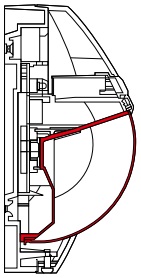
| Appropriate models | **[Sealed Optics]** CX-702/702RS<br>**[Advanced Sealed Optics]** FLX-S-ST/DT,FLX-P-ST/DT,FLX-A-AM/DAM |
|---|---|

The pyroelectric element's field of view is fully enclosed by the sealed optics mechanism of the lens, cover and the sealed optics foam. This mechanism prevents insects from crossing in front of the pyroelectric element. The sealed optics also protect against draft through wiring holes. Easy knockouts reduce extra space between holes and cables, further enhancing the sealing of the entire housing.

**Sealed Optics**



Conventional Structure



OPTEX Sealed Optics Structure

**Advanced Sealed Optics**

Anti-insect design

Pick-proof design

## Microwave Area Shaping Technology

C-ZONE

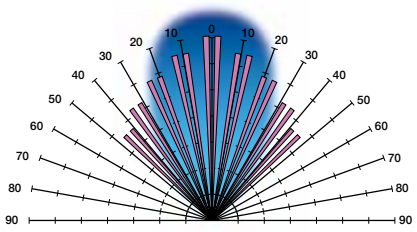
| Appropriate models | FLX-S-DT,FLX-P-DT,FLX-A-DAM |
|---|---|

When microwave and PIR detection are used together, the detection areas of each must be the same in order to make accurate detection. But traditionally this can be a problem because….

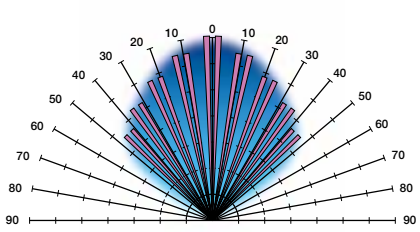
- Firstly, microwaves are not always limited by objects such as wall, windows and partitions, whereas PIR detection is.
- Secondly, the distances at which microwaves can detect movement tend to be far greater than those required by internal intruder detection applications.

Microwave area shaping technology overcomes these problems by matching the microwave detection area to that of the PIR and by limiting it to the room being covered. Long or short distance can be set roughly, by selecting the range using the switch and more precise adjustment is obtained. By doing this, false alarms from beyond the required coverage area or outside the room in question are avoided.

Since the detection area has uniform sensitivity, which minimizes false activation's caused by spot movement in the detection area e.g. small animals.




Detection area shape of PIR
and microwave are not the same




Ideal detection area of
Optex combination detector

# IP (International Protection) Code

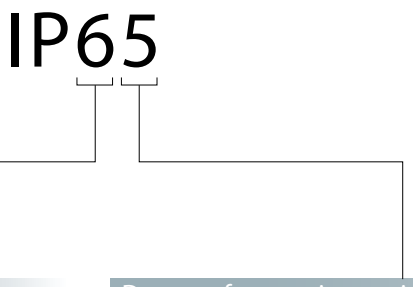
A-ZONE B-ZONE

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.

Following is a brief explanation on the meaning of each number of the IP code.

## Arrangement of the IP code




### Degree of protection against solid object

| | |
|---|---|
| 0 | Non-protected |
| 1 | Solid object such as human fist (diameter of 50mm or more) shall not penetrate into product. |
| 2 | Solid object such as human fingers (diameter of 12.5mm) shall not penetrate into product. |
| 3 | Solid object such as tool (diameter of more than 2.5mm) shall not penetrate into product. |
| 4 | Solid object such as wire (diameter of more than 1.0mm) shall not penetrate into product. |
| 5 | Ingress of dust shall not deteriorate performance and safety of product. |
| 6 | Dust-tight, No ingress of dust |

### Degree of protection against water

| | |
|---|---|
| 0 | Non-protected |
| 1 | Vertically falling water drops shall have no harmful effect on installed product. |
| 2 | Vertically dripping water on installed product that is tilted up to an angle of 15°shall have no harmful effect. |
| 3 | Sprayed water to installed product at any angle up to 60°from the vertical shall have no harmful effect. |
| 4 | Water splashing against the enclosure from any direction shall have no harmful effect. |
| 5 | Water protected by a nozzle against enclosure from any direction shall have no harmful effect. |
| 6 | Water protected in powerful jets against enclosure from any direction shall have no harmful effect. |
| 7 | Water protected. Protected against the effect of temporary immersion in water. |
| 8 | Waterproof. Protected against the effect of continuous immersion in water. |

# OPTEX Company Introduction

The Japanese manufacturer Optex was founded in 1979 and is now becoming a world-leading company in the area of security detectors with its unique infrared detection technology.
In addition to providing highly reliable detectors developed with our unique technology, Optex also upholds environmental policies that strive to make eco-friendly products through the entire process from design and development. In 1997, Optex was certified for complying with ISO 14001 international environmental management standards amid the growing interest in environmental protection on the global level.
Product procurement in over 80 countries worldwide led Optex to implement strategies for achieving global standards for quality at an early stage. The company has also received certifcation for ISO 9001 and ISO27001.
As a pioneer in infrared technology, Optex will continue to meet the needs of customers worldwide by further striving to advance quality control with precision and efficiency along with building systems for global-standard quality.

## CONCEPT FOR LEVEL SURVEILLANCE



## A-ZONE | PERIMETER OUTDOOR DETECTORS



## B-ZONE | MIDDLE AREA DETECTORS



## C-ZONE | INDOOR DETECTORS



## REDWALL/REDSCAN



## ACCESS CONTROL



## TECHNICAL INFORMATION

# Optex aims to usher in a brighter future with a focus on safety, security, and comfort through the use of sensing technology.

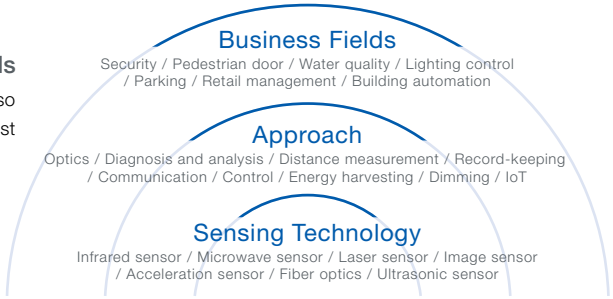
## OPTEX Overview

As of January 1, 2020

| | |
|---|---|
| Company Name | OPTEX CO., LTD. |
| Official website | www/optex/co.jp/e |
| Address [Headquarters] | 5-8-12, Ogoto Otsu, Shiga, 520-0101 Japan |
| Representative | President / CEO Toru Kamimura |
| Capital | 350 million yen |
| Description of business | Development, manufacture, and sales of various sensors, and development of new business areas including IoT |
| Parent Company | OPTEX GROUP CO., LTD. |

## Proprietary Technologies for a Wide Range of Business Fields

Using not only various reliable sensing and communication technologies but also solution-based proprietary ideas, Optex helps customers realize the best solutions to improve business activities.




## OPTEX Sensing Technologies

### Reliable Sensing Technology

Even in environments with numerous factors—including sunlight, small animals, and radio waves—that may interfere with sensor-based detection, Optex utilizes proprietary sensing algorithms to ensure reliable, stable detection.

### Application-Based Sensor Equipment Development

Optex introduces sensors capable of accurate detection by incorporating not only knowledge of various sensor features found throughout the globe but also a comprehensive understanding of factors such as detection targets, installation environments, and applications.

### Smart Data

Optex sensors work as a type of edge computing device that transmits only the necessary data (smart data), which is created by filtering out unnecessary data from large amounts of sensor data to ensure only the essential data is transmitted.

## Global Expansion

Taking advantage of a global network that includes more than 20 bases,
Optex provides products and services in 80 countries and regions around the world.


## Global Niche Market Leader

Optex is dedicated to meeting the needs of niche markets for special-application sensors and currently boasts the leading share of the global niche market.

- Global Market Share 40% — Intrusion detector for outdoor
- Global Market Share 50% — CCTV lighting
- Global Market Share 30% — Automatic door business
- Japan Share 55% — Automatic door business
- Japan Share 70% — People counting system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www.optexamerica.com

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