PIR with Spot & Area Detection

OPT-VX1-ST

Outdoor Ready IP55

Proudly Supplied by

Arrowhead Alarm Products Ltd.

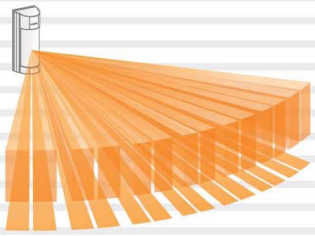
Sensing Innovation

Re-defining the Standard: VX-Infinity has 8 models to choose from, including the battery-powered RDAM, with innovative low current microwave technology.

DUAL PIR DETECTOR

VXI-ST (Wired model)
VXI-R (Battery operated model)

Building upon features inherited from the VX-402 series, VX Infinity presents infinite possibility with the power of detection designs. VXI-ST/R demonstrates long & stable performance in outdoor environments.



DUAL PIR DETECTOR with ANTI-MASKING

VXI-AM (Wired model)
VXI-RAM (Battery operated model)
VXI-RAMi (iSeries Inovonics powered, battery operated model)

Active IR anti-masking provides a higher level of security by detecting objects or other materials/substances on the lens surface.

DUAL PIR and MICROWAVE DETECTOR with ANTI-MASKING

VXI-DAM (Wired model)
VXI-RDAM (Battery operated model)
VXI-RDAMi (iSeries Inovonics powered, battery operated model)

Integrated algorithm of both the PIR and Microwave provide the ultimate stability in detection and performance. In a location where there is strong sunlight interference or facing direct headlights from automobile traffic, DAM/RDAM offers an even higher false alarm immunity.

Common Features

- Sensitivity Adjustment Switch
- Walk Test Mode LED
- Double Conductive Shielding
- Cover Tamper
- Quick install
- Area masking templates

VX-Infinity Application Areas

Flexible and Reliable

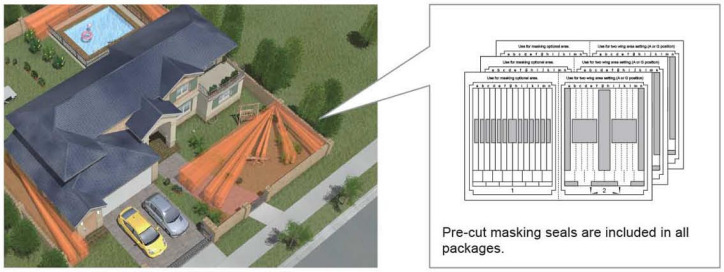
Whether it's used for detection at the perimeter, the area in between the perimeter and the structure, or the immediate perimeter/boundary directly on a structure (walls and rooftops), the VX Infinity Series is manufactured to excel in its performance.

Flexible Detection Patterns

Optional 180 degree arrangement.

To cover a wider field, optional T-Bracket enables two VXI detectors join to form a single detection zone.

5 types of pre-cut masking seals included for area configurations



Optimal detection pattern can be configured by a quick application of the desired masking seal onto the VXI lens.

Expanded Features in a Slimmer, Smaller Form

VXI reduced its profile size and increased its aesthetic appeal from the highly popular vx-402 series, to be adapted at various installation sites.

Wireless Ready Version with Empty Back Box or iSeries Version with Inovonics EN1941

A wireless transmitter of your choice can be accommodated in VXI-R/RAM/RDAM models. In addition, iSeries versions of the RAM(i) and RDAM(i) come with an Inovonics EN1941 transmitter installed. These models consume minimum electrical current* from a battery.

*As low as 9 micro amperage at a standby.

Wireless Trigger Life Time* Reference		
VXI	R, RAM RAMi	RDAM RDAMi
CR123 (3VDC 1300mAh)	Approx 6 years	Approx 4 years

*WTLT is an approximation based on hypothetical condition operated with settings; LED(OFF), AM(ON), Battery Saving Timer(120sec)

Versatile Mounting Plate

VXI installation has become easier and more versatile with a new mounting plate. Secure the plate on a wall and mount VXI.
Alternatively, use a metal band with less than 25mm (1inch) width and mount the VXI onto any diameter of poles. Optional wall tamper modules are applicable to either type of installations.

EOL Module Socket

Optional EOL(End of line) resistor modules are available for larger volume.

Infinity Housing

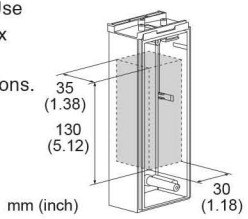
IP55 Protection
UV Resistant ASA Body

IP55

Anti UV Protection

Multipurpose Spacious Back Box

All models of VXI include a back box in their packages. The back box is designed to accommodate various wireless transmitters or can be used as a conduit or a spacer between a wall and the detector. Use of the back box is optional for wired installations.



Tough Mod 2™ (for DAM and RDAM models)

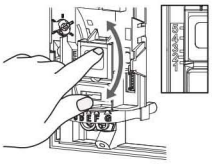
	VX Infinity series	Conventional
Images		
PCB board Material	Ceramic	Glass epoxy
Antenna Material	Gold-plated	Tin-plated

OPTEX Tough Mod™ Technology enables long term sustainability of Dual-detection technology. The Gold-plated Tough Mod increases the durability of the detector to withstand hot and humid climates.
For battery operated models, OPTEX developed the Tough Mod 2, which extends the capability of the wireless Dual-detection units.

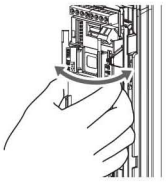
Tough Mod.2™

Flexible Detection Area Setting

5 Levels of Detection Distance Adjustment



8 Horizontal Area Positions



Digitally Enhanced Reliability

Digital Double Layer Detection

Both an upper and a lower detection areas must simultaneously be crossed to generate an alarm.
The detections are independently analyzed so that a misleading coincidence of events can be filtered out. This technology virtually eliminates detections of smaller animals on the premises.

Alarm when both upper and lower detection areas are triggered.

No alarm when only the lower detection area is triggered.

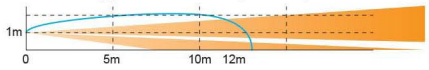
SMDA logic (Super Multidimensional Analysis)

All VXI models are equipped with a digitally enhanced signal recognition logic called SMDA. SMDA improves immunity against various noise factors such as climate changes and vegetation sways. The VXI expands applicable detection fields and reliability beyond previous versions of outdoor detectors.

DETECTION AREA

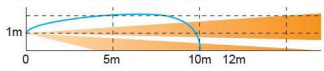
SIDE VIEW (Detection Distance by Positions)

Position 1 : Approx. 12m/40ft (Default)

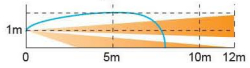


The actual detection distance is dependent on the thermal conditions within the given environment.

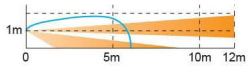
Position 2 : Approx. 8.5m/27.9ft



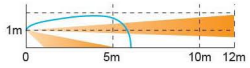
Position 3 : Approx. 6.0m/19.7ft



Position 4 : Approx. 3.5m/11.5ft

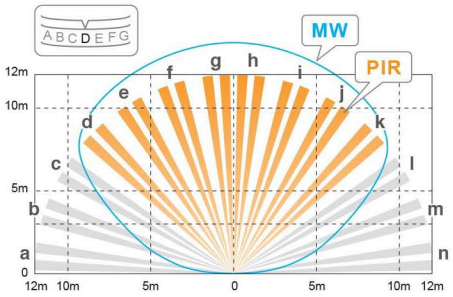


Position 5 : Approx. 2.5m/8.2ft



TOP VIEW

(Area diagram for D position)



SPECIFICATIONS

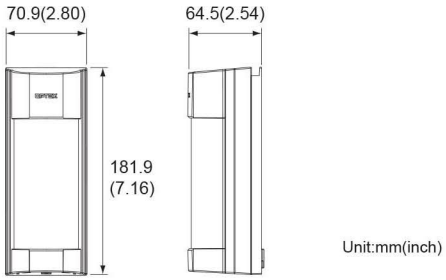
Model	VXI-ST	VXI-AM	VXI-DAM
Detection method	Passive infrared		Passive infrared & Microwave
PIR coverage	40 ft (12.0 m) 90° wide / 16 zones		
PIR distance limit	5 Levels: 40 ft. - 8.2 ft. (12 - 2.5 m)		
Detectable speed	1 - 5 ft/s (0.3 – 1.5 m/s)		
Sensitivity	3.6°F (2.0°C) at 2 ft/s (0.6 m/s)		
Power input	9.5 – 18 V DC		
Current draw	20 mA (max) at 12 V DC	24 mA (max) at 12 V DC	35 mA (max) at 12 V DC
Alarm period	2.0 ±1 sec.		
Warm-up period	Approx. 60 sec. (LED blinks)		
Alarm output	N.C. / N.O. Selectable 28 V DC 0.1 A (max)		
Trouble output	-	N.C. 28 V DC 0.1 A (max)	
Tamper output	N.C. 28 V DC 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	-22 to +140°F (-30 to +60°C)		-4 to +113°F (-20 to +45°C)
Environment humidity	95% max.		
International protection	IP55		
Mounting	Wall, Pole (Outdoor, Indoor)		
Mounting height	2.64 ft to 3.94 ft (0.8 to 1.2 m)		
Weight	17.7 oz. (500 g)		21.2 oz. (600 g)
Accessories	Screw (4×20 mm) ×2 , Wiring sponge ×3 , Masking seal ×3		

Model	VXI-R	VXI-RAM / VXI-RAMi	VXI-RDAM / VXI-RDAMi
Detection method	Passive infrared		Passive infrared & Microwave
PIR coverage	40 ft (12.0 m) wide / 16 zones		
PIR distance limit	5 Levels: 40 ft. - 8.2 ft. (12 - 2.5 m)		
Detectable speed	1 - 5 ft/s (0.3 – 1.5 m/s)		
Sensitivity	3.6°F (2.0°C) at 2 ft/s (0.6 m/s)		
Power input	3 – 9 V DC (Lithium or Alkaline Battery - Included on iSeries versions only)		
Current draw	9μA (standby) / 4 mA (max) at 3 V DC	10μA (standby) / 4 mA (max) at 3 V DC	18μA (standby) / 8 mA (max) at 3 V DC
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 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	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	-4 to +140°F (-20 to +60°C)		-4 to +113°F (-20 to +45°C)
Environment humidity	95% max.		
International protection	IP55		
Mounting	Wall, Pole (Outdoor, Indoor)		
Mounting height	2.64 ft – 3.94 ft (0.8 – 1.2 m)		
Weight	17.7 oz.(500 g)		21.2 oz. (600 g)
Accessories	Connector for POWER and ALARM, Connector for TROUBLE, Screw (4×20mm) ×2, Masking seal ×3		

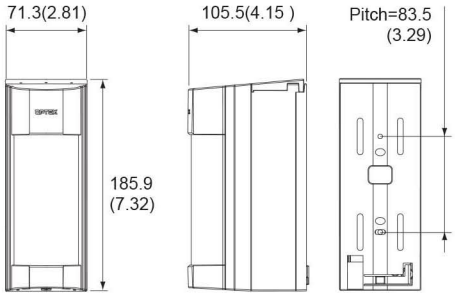
* Specifications and design are subject to change without prior notice.
** R & TTE certified : -20 to +45°C (-4 to +113°F)

DIMENSIONS

Without a back box (VXI-ST / AM / DAM)

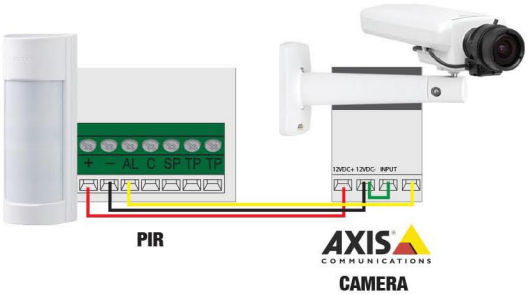


With a back box (VXI-R / RAM / RDAM)



AXIS I/O DIRECT CONNECT

Use any Axis network camera with an I/O port to directly power the VXI-ST, VXI-AM or VXI-DAM (or any OPTEX PIR under 50 mA) to increase detection and minimize false alarms from video motion.



OPTIONS for the iSeries RAMi/DRAMi

inovonics Universal Receivers

16 zone multi-condition receiver with relay outputs for iSeries detectors

EN-4232MR

32 zone multi-condition receiver with relay outputs for iSeries detectors

OPTIONS

VXI-T

*VXI-DAM and VXI-RDAM can not be used due to microwave interference.

Wall Tamper (WRS-04)

for R, RAM, RDAM models