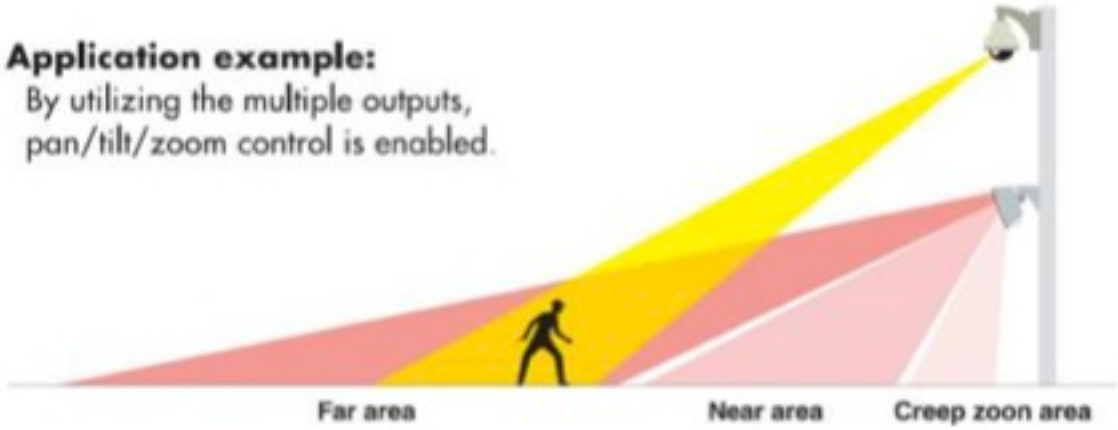
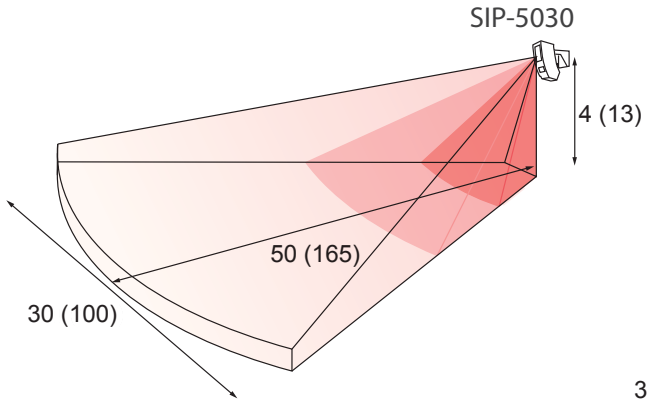
Case Studies

Redwall Synthesized Intelligent Infrared Sensors





Electric Substation

Optex protects large electric substations from copper theft

Client:
Large National Utility Company

Products:
Redwall SIP

Project:
Installation of wireless Redwall SIP sensors to provide public safety and prevent theft

The Site

Outdoor fenced perimeter protecting electric power lines and equipment.

The Challenge

As a continued effort to provide public safety and protection from theft, a large utility company has continuously been working to create reliable perimeter security at their mid-west electric sub-stations. They needed multiple levels of protection including distance, spot and boundary protection. Each level needed to activate a camera, trigger an alarm and notify authorities if an individual penetrated a sub-station.

The Results

Optex provided a reliable, effective layered protection system that would use high-mount, zone and spot/boundary detectors as trigger devices for the CCTV system. The team created a design that easily integrated Optex's Redwall SIP infrared sensors for distance and HX sensors for spot/boundary to CCTV cameras. Each sensor would trigger PTZ dome cameras that are fixed within the area of detection. The result will capture and record any intrusion within the sensor's zone. The intrusion is now tracked by customer's own Central Monitoring Station who alerts the authorities along with an end-user emergency contact. All Optex sensors allowed the system integrator to easily adjust and account for any physical obstacles within the protected perimeter view of the detector.

Car Dealership

Optex protects automotive inventory from theft using wireless sensors with remote video monitoring

Client:
Major car dealership in Florida

Products:
Redwall Wireless SIP

Project:
Installation of wireless Redwall SIP sensors to protect car inventory from theft

The Site

Car dealership lot features a partial fenced perimeter that protects inventory, parts and service area. These areas are the focus for most of the theft.

The Challenge

Leading automotive dealer in Florida was looking to improve their current alarm and security systems. They've been dealing with thieves that circumvent the current system to steal parts, tires and in some cases, complete cars.

The Results

ADT and Optex teamed up to provide a flexible, effective system of detection using wireless Redwall SIP sensors as a high-mount, zone detector trigger device for PTZ dome cameras. All Redwall sensors tied into a Inovonics wireless network connecting to a control panel triggering remote monitoring service. Installation cancelled unwanted obstacles in the perimeter including vegetation and external public walkway.

Solar Farm

Optex protects solar panel farms from unwanted intrusion

Client:
Solar Farm

Products:
Redwall SIP-100, SIP-404/5

Project:
Installation of SIP-100 to protect a number of solar farm with 1.5 miles of perimeter.

The Site

A number of solar farms on remote sites with perimeters of approximately 2.5km needed protection to prevent the solar panels from being stolen or damaged.

The Challenge

To provide perimeter protection using a curtain of detectors linked to remote video and alarm monitoring. The owner wanted an overall solution that was quick and easy to install, price competitive, and with easy and quick alignment with Area View Finder which is an optional detection area adjustment tool. The installer had used alternative PIR technologies in the past but switched to Redwall SIP due to the excellent capture performance of the SIP compared to alternative brands that produced too many false alarms and were difficult to align.

The Solution

25 Redwall SIP-100 units were specified per site to cover the perimeter using a networked CCTV system, with three alarm outputs per detector for precise camera identification. The SIP was chosen because of its unique features including area masking, built-in creep zone, detection range selector and unique Redwall PIR sensitivity algorithm. The Redwall 404/5 sensors are specifically designed for use in small to medium-sized external areas. Rugged and durable construction and reliable operation make them ideal for use as motion sensors in remotely monitored CCTV applications where Preset Dome cameras are to be used. The areas of coverage have been designed to match common fixed camera and lens combinations.

Mobile CCTV Tower

Optex unites with JCB Site Security to provide a reliable temporary security solution for external environments

Client:
JCB Site Security

Products:
Redwall SIP-100 and SIP-3020/5

Project:
Redwall PIR provides protection against theft of site materials reducing insurance costs

The Site

The JCB Site Security Mobile CCTV Tower is designed to deter and prevent crime at construction sites where manned guarding might typically be used to protect valuable machinery, and other such environments requiring temporary but reliable security 24/7.

The Challenge

Plant theft costs ran into the billions last year, in addition to the damage caused by vandalism. Replacing stolen or damaged machinery can further cost businesses as a result of down time. Optex and JCB Site Security teamed up to produce a reliable security solution that could be used to protect construction sites and other external locations, but more cost effectively than manned guarding. The solution also had to be mobile and not require any invasive ground works for installation, minimizing site disruption.

The Solution

The JCB Site Security Mobile CCTV Tower is a fully-integrated security system that combines Redwall detectors with an external CCTV infrared camera. The tower, which is BS8418:2010 accredited and comes with URN priority police response, has been so successful that some sites have recorded a 50% reduction in security costs compared to sites with manned guarding.The detectors alert a local (during the working day) or remote (at night) monitoring station in the event of an unwanted intrusion. The event can then be seen in real time as it happens, the images recorded, and an appropriate response determined.

Pool Protection

Optex protects community house from trespassing with wireless sensors

Client:
Riverdale Neighborhood House (RHN)

Products:
Redwall Wireless SIP

Project:
Installation of wireless Redwall SIP sensors to protect pool area from intrusion

The Site

Outdoor fenced perimeter of pool area with high trees that an intruder can climb over.

The Challenge

RHN was looking for a solution to protect their community pool from unsupervised use. The security needed to prevent property damage, theft, accidents and personal liability. Optex had to come up with a cost effective perimeter security system that would deter violators and alert authorities.

The Results

Optex provided a cost effective solution to secure the pool area. Redwall's wireless ready products, with built in Inovonics transmitters, were deployed around the perimeter. Two Redwall 3020WFi with a coverage range of 100' x 65', were installed to cover the shorter distances while two Redwall 404WFi with a range of 130' x 13', covered the longer distances. In addition, there was a need to secure the entryway into the pool. installed an Optex VX-402Ri wireless PIR motion sensor, with a built in Inovonics transmitter with a range of 40'x 40'. Each device transmitted signals to an Inovonics EN4216MR receiver connecting to a Honeywell Vista 21p Panel Kit with GSM. The sensors notify a central station that sends email and alerts the authorities to the RHN regarding the intrusion. Adjustments were required to ensure detection in areas that had foliage and other obstacles. The system integrator utilized the Redwall audible AWT-3 walk tester and AVF-1 area viewfinder to guarantee the perimeter was getting full coverage.