

## Sophisticated intrusion detection

SmarterBeam wireless motion detectors are designed for outdoor use and aid intrusion detection where it should start – at the perimeter. Two models offer reliable passive infrared technology, and each is configured to deliver sensing capabilities for a unique coverage area.



### Benefits

#### More secure

- › Detects intruders crawling, walking, or running at speeds from .7 to 16 ft/s
- › Gap-free coverage
- › 13-foot mounting height minimizes risk of vandalism
- › Secondary PIR sensor protects creep zone and an area about 3-feet in diameter around detector
- › Advanced tamper protection sends alarm if detector is moved or opened and during attempts to remove it from the mounting surface
- › Blocking detector field of view with sprayed paint, a box or other materials sends alarm

#### Easy to install and own

- › No trenching or cable runs are required
- › Remote access through RS485 data bus simplifies configuration and alarm management
- › Set-up and alignment are easy compared to other systems

#### Cost-effective

- › Flexible, included bracket is ready to install on wall or pole
- › Reliability from precision engineering and secondary sensor reduces units needed for area to be secured
- › Low power consumption allows for solar applications

### Operation

SmarterBeam detects intrusions using passive infrared (PIR) technology and telescope-like precision mirror glass optics. SmarterBeam detectors react to the slightest infrared radiation (temperature) change between a moving object and a stationary background. When an intruder moves into the field of view (detection zone), the variation is sensed and an alarm is triggered.

SmarterBeam detectors are engineered to provide unparalleled reliability and accuracy in the harshest environments. The detectors are single-ended, non-emitting devices – easy to install and undiscoverable by electronic means.

### Wireless and Self-Powered

Rapid, infrastructure free deployment for remote areas.

- › Built-in Inovonics RF transmitter module, 900 MHz
- › Inovonics receiver EN4232MR or EN4216MR sold separately
- › Self-configuring commercial mesh network
- › Extend network to hundreds of devices at a location with Inovonics EN5000 intelligent repeaters
- › Powered by standard D cell batteries (included)

### Technology

- › Double optical filtering restricts infrared radiation to 8-14 micrometer band, the atmospheric window where snow, rain, humidity, and fog least affect its transmission
- › The latest digital signal processing, adaptive threshold decoding (ATD), and signal shape analysis reduce the nuisance/alarm ratio to the lowest levels found in the industry
- › Automatic temperature compensation ensures consistent sensitivity across the entire operating temperature range
- › Advanced anti-vandal protection – SmarterBeam sends a tamper alarm when the detector's housing or mounting bracket is opened, when the horizontal, vertical or pitch alignment is altered, and if there are slow horizontal movements (measured by integrated digital compass).

### Models

SmarterBeam is available in two models featuring distinct coverage patterns.

- › **LRW:** Three-zone, continuous, "narrow-curtain" detection area with a range of 500' (150 m), a unique alarm for each zone
- › **WAW:** 100'-wide (30 m), "fan-out" detection area with a range of 90' (27 m)

Wired SmarterBeam models are covered on other datasheet.

Outdoor security

## SmarterBeam™ Wireless

Outdoor models

SmarterBeam SmarterFence

### Accessories

The following accessories are available for both models:

#### Data bus:

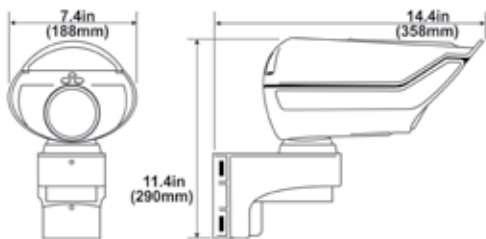
- › USB interface
- › A USB virtual COMM port interface
- › Interface connects via a dedicated socket located inside the detector on the circuit board
- › No external power supply required

#### Software:

- › Designed to assist during the commissioning phase
- › Windows-based SmarterBeam software application
- › Easy-to-use Scope View allows real-time signal strength for accurate data analysis and characterization
- › Users can optimize performance, adjust sensitivity, observe signal strength, configure programmable alarms, and create alarm log files with event time-stamps for all detectors sharing an RS485 data bus

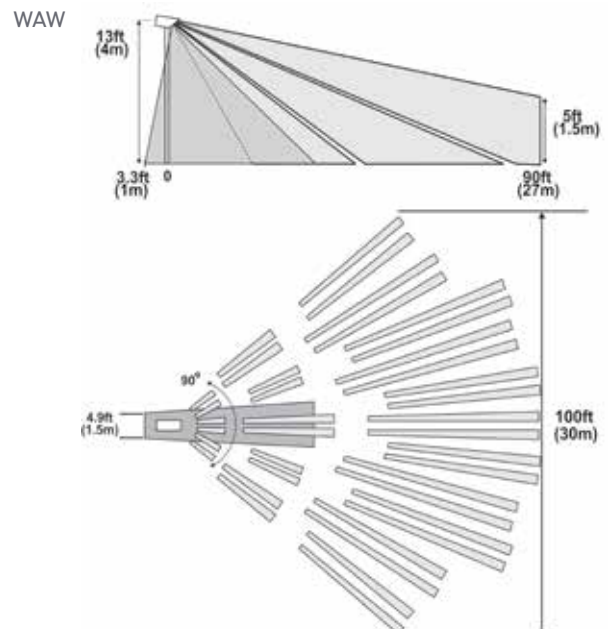
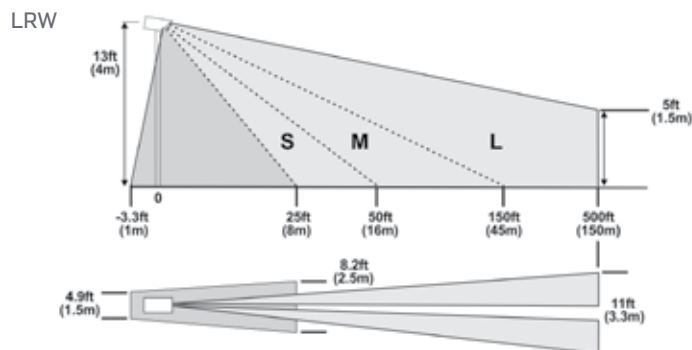
### Dimensions

(Front view, side view)



### Coverage patterns

(Side view, top view)



### Technical specifications

#### Nominal optical range

- › LRW: 11' (3.3 m)
- › WAW: 100' (30 m)

#### Secondary beam normal range

- › LR: 11' (3.3 m)
- › WA: 100' (30 m)

#### Secondary beam nominal range

- › -3' to 26' (-1 m to 8 m)

#### Materials

- › Case material: heavy duty plastic
- › Color: white

#### Mounting bracket

- › Included, wall- or pole-mount, with tamper protection

#### Optics

- › Sensor: pyroelectric differential triple channel (single channel for WA)
- › Spectral response: 8 to 14 $\mu$ , double filtered
- › Optics: precision mirror glass
- › Window: HPDE filter

- › Detection speed: 0.7 to 16 ft/s (0.2 to 5 m/s)

- › Zone sensitivity adjustment through software:  
LRW: 50% - 150%  
WAW: 20% - 140%

#### Electrical

- › Supply voltage: 4 D cell batteries, included, estimated 2-year life
- › Solar option: pre-wired to accept solar panel (screw terminal on PCB)
- › Alarm relay output: 2 alarm outputs
- › Turn-on time: typical 60 seconds from power on

#### Wireless

- › RF module: Inovonics EN1941 built-in
- › Operating frequency: 900 MHz
- › Technology: unique, frequency-hopping, spread-spectrum

#### Dimensions

- › Height: 11.4" (290 mm)
- › Length: 14.4" (358 mm)
- › Width: 7.4" (188 mm)
- › Weight: 2.1 lbs (980 g) including cable managed bracket
- › Cable diameter: 0.16" to 0.27" (4 to 7 mm)
- › Cable termination: screw terminals 0.34 mm<sup>2</sup> to 1.5 mm<sup>2</sup> (AWG 28-16)
- › Mounting Height: 8' to 13' (2.5 to 4 m)

#### Environmental

- › Operating temperature: -40° to 140°F (-40° to 60°C)
- › Humidity: 95% RH max
- › Sealing: IP 65 dust and water jet proof

Due to continuous improvements, specifications are subject to change without prior notice.