SENSTAR® MultiSensor™

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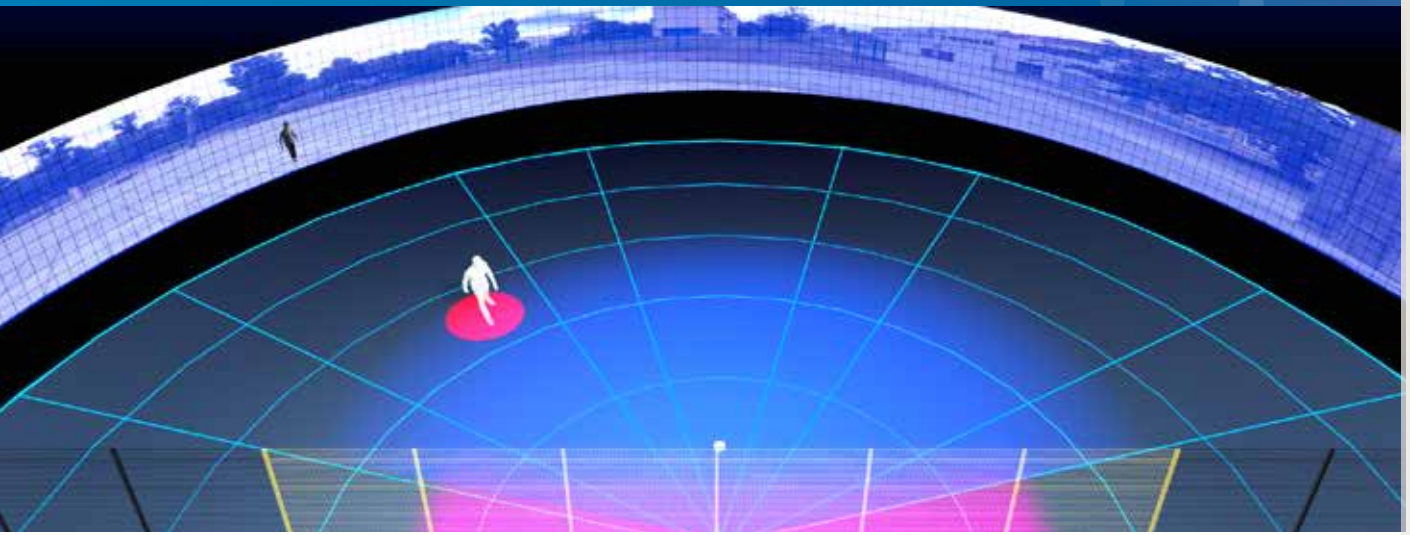


AI-Powered Multi-Sensing Detection System

Senstar MultiSensor™ is a compact, AI-powered system that leverages the power of sensor fusion to intelligently detect and characterize intrusions while virtually eliminating nuisance alarms.

Detecting intruders at the perimeter, before they can enter buildings or sensitive areas, is a critical part of any security plan. However, conventional sensor technologies focus on detecting specific physical phenomena, and by themselves do not take into account the full context in which an event is occurring. This can lead to false positives (nuisance alarms) or worse, missed detections.

Senstar MultiSensor takes a new approach to threat detection. Its embedded Sensor Fusion Engine synthesizes data from multiple sensing technologies (short-range radar, PIR, accelerometer, high frequency vibration, and video) to understand the full context of when an event occurs, resulting in the highest probability of detection while virtually eliminating nuisance alarms.

This context-based approach assists security personnel with improved situational awareness by providing real-time location tracking, presence detection, and ground-level images of the event.

Features and Benefits

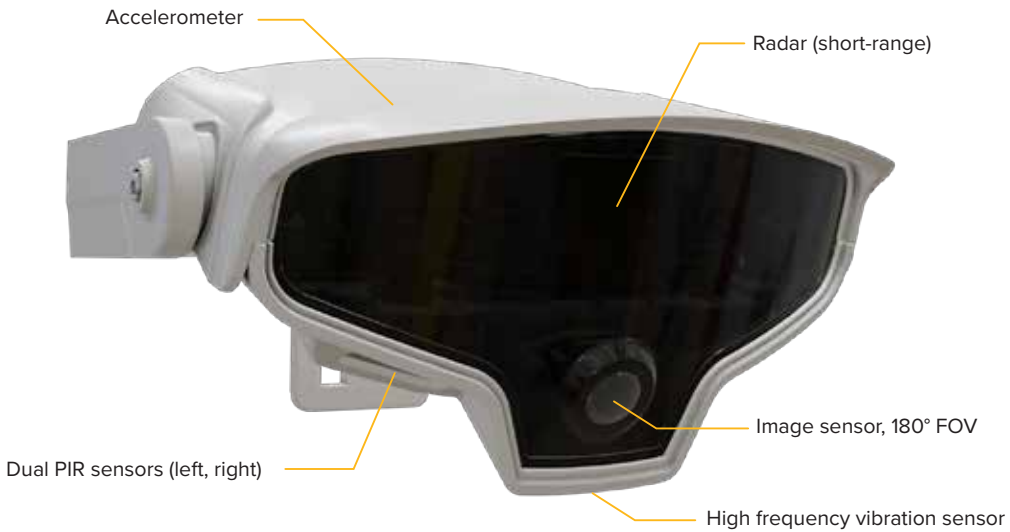
- Detect a range of intrusion threats by using its embedded Sensor Fusion Engine to synthesize data from multiple sources:
  - Short-range radar: Localized, volumetric radar coverage captures intruder distance, direction, and size
  - Image sensor: Track human threats via embedded video analytic and generate 180 degree images at the intrusion location
  - Dual PIR: Left/right passive infrared sensors ensure detection of intruders in close proximity to the perimeter
  - Accelerometer: Detects physical interactions with the fence or mounting surface
  - High frequency sensor: Provides additional data about perimeter activity
- AI-enabled algorithms provide a Probability of Detection (Pd) far exceeding that of traditional sensors while eliminating virtually all nuisance alarms (NAR), regardless of weather conditions
- Detection area can be configured with alarm and pre-alarm regions
- Easily installed on virtually any hard surface, including fences, walls, posts, and gates
- Designed and tested for harsh environments
- Interfaces with most alarm panels and security/video management systems (SMS/VMS)
- Seamless integration with other Senstar perimeter intrusion detection sensors and the Senstar Symphony Common Operating platform

UNMATCHED PERFORMANCE VIA AI-POWERED SENSOR FUSION ENGINE

To maximize the strengths of its individual sensors, Senstar MultiSensor contains an AI-powered Sensor Fusion Engine. The engine intelligently performs a threat analysis based on the data obtained from each sensor, taking into account intrusion training data, pattern analysis, relevance, history, and background noise.

The result is a system that can reliably detect intrusions under difficult conditions and against skilled adversaries, including low light, high winds, rain, snow, fog and stealth attacks.

A high Probability of Detection (Pd) is only one consideration when measuring sensor performance. The Nuisance Alarm Rate (NAR) is another. A high NAR can lead to complacency or system mistrust, degrading the security readiness of a facility. Senstar MultiSensor is designed to virtually eliminate nuisance alarms while maintaining the highest Pd.



NETWORKING AND INTEGRATION

Senstar MultiSensor connects to the security network over Ethernet and can use the same network as other Senstar devices, including FlexZone®, OmniTrax®, FiberPatrol®, Senstar LM100™, UltraLink™, and UltraWave™.

Senstar's Network Manager™ software conveys alarm and status information to a Senstar or third-party security/video management system (SMS/VMS).

For information about integrating Senstar sensors within a security network, see the *Senstar Sensor Integration datasheet*.

EASY TO INSTALL AND MAINTAIN

Senstar MultiSensor is easy to install and requires virtually no maintenance. Its mounting bracket supports a range of installation options, including fence fabric, fence posts, walls, light/camera posts, and tower structures.

Senstar MultiSensor uses Ethernet for communications and power. A low-voltage device, power is provided via PoE networked connection.

Senstar MultiSensor is installed tilting downwards at a 20° angle, 2.4 to 3.7 m (8 to 12 ft) above the ground.

Enhanced Situational Awareness in Senstar Symphony™

When deployed at a site managed by the Senstar Symphony Common Operating Platform, Senstar MultiSensor becomes a powerful tool for enhancing a security operator's situational awareness. From within Senstar Symphony, operators can:

- View alarm location on site maps
- View on-map thumbnails of the most-recent captured image
- View live and recorded video captured by the Senstar MultiSensor's 180° image sensor
- View live and recorded video from linked cameras
- View real-time device status
- Mask or unmask the device as required

In addition, sensor data from Senstar MultiSensor can flag the presence of activity in Symphony's video timelines. Video segments flagged as containing relevant activity can be used to auto-generate summary videos as well as to quickly view or export video captured before and after an alarm event.

AUTOMATE ON-SITE SECURITY RESPONSE

By virtually eliminating nuisance alarms, Senstar MultiSensor is an ideal device for intelligently automating on-site security. Senstar MultiSensor provides a higher level of system co*nfidence than other security devices, ena*bling site owners to deploy automated deterrent mechanisms without the fear of creating additional operational burdens or nuisances.

Using the reliable information synthesized by its embedded Sensor Fusion Engine, Senstar MultiSensor device can be used to trigger Senstar Symphony events. For example:

- Enable/disable additional security lighting
- Playback automated messages over loudspeakers
- Send email or SMS alert messages with linked images
- Generate alarms on mobile devices

MOBILE APP SUPPORT

Senstar MultiSensor is fully supported in the Senstar Symphony Mobile app, available for iOS and Android devices.

From the mobile app, users can:

- View live and recorded video from multiple sites, including streams from Senstar MultiSensor devices
- View alarms
- Control on-site I/O devices, including Senstar MultiSensor output

Senstar MultiSensor, connected to the Senstar Symphony Common Operating Platform, empowers users with real-time, critical information, including intrusion data and image capture.

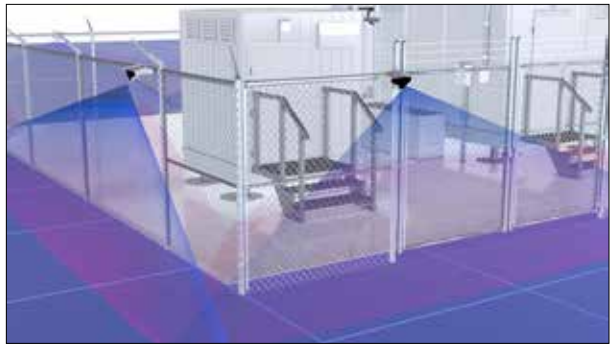
An example installation in which Senstar MultiSensor monitors a public entrance.

Applications

With its compact design and multi-sensing capabilities, Senstar MultiSensor can detect activity in a wide variety of applications, trigger cameras to document the event, and generate images of the covered area for improved situational awareness.

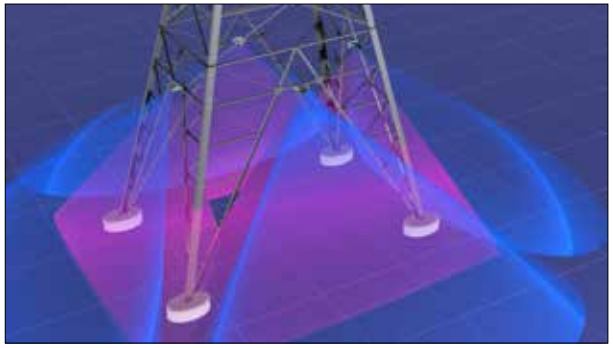
FENCE SENSOR

When mounted to a fence (either a post or the fabric itself), Senstar MultiSensor detects the approach of a potential threat as well as any attempt to cut, climb, or lift the fence fabric.



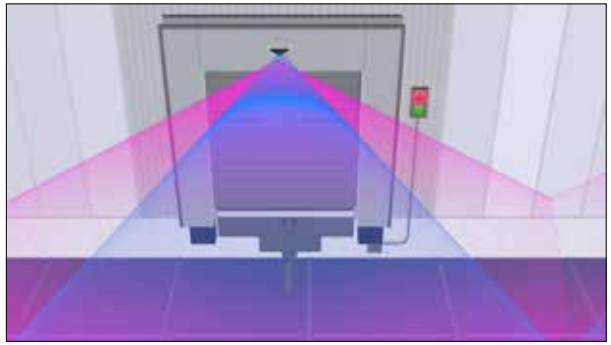
TOWER CLIMB DETECTION

When mounted on tower structures such as cellular masts or electrical towers, Senstar MultiSensor can detect activity at the base of the tower as well as attempts to climb the structure itself.



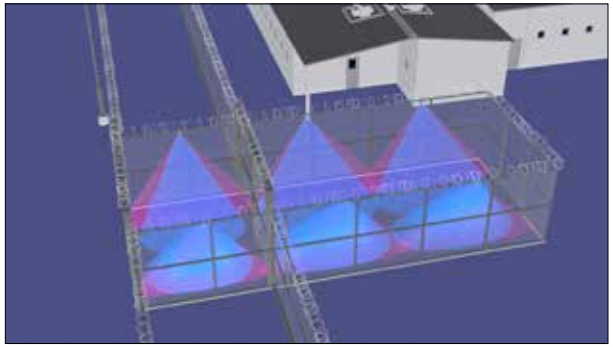
DOORS AND LOADING DOCKS

Installed above doors or loading docks, Senstar MultiSensor can detect the arrival and departure of vehicles and people, as well as the opening and closing of the doors themselves.



SALLY PORTS

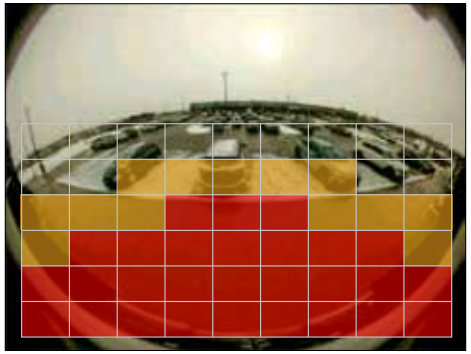
The combination of volumetric and fence-climb detection makes Senstar MultiSensor an ideal solution for sally ports. Any activity within the area is detected, reported, and documented



Configuration

Senstar MultiSensor is configured over the network in the Universal Configuration Module (UCM) software. UCM communicates with Senstar devices via the Network Manager gateway software, and enables installers to visually view the detection performance and calibrate the system as required.

The UCM includes easy-to-use application presets, such as barrier/non-barrier mode, as well as a point-and-click interface for selecting pre-alarm and alarm regions.



Visually configure pre-alarm and alarm regions, to better differentiate between active and potential threats.

Technical Specifications

PERFORMANCE

- AI-powered Sensor Fusion Engine
- Virtually eliminates nuisance alarms caused by wind, shadows loose signs, overgrown brush, and background activity
- Coverage footprint (width/depth): 12 x 5 m (40 x 16 ft)
- Calibration and operating parameters configured via UCM software
- Ideal Mounting Height: 2.4 to 3.7 m (8 to 12 ft)
- 1 Form A solid-state relay output (100 ma @ 60 V)

ELECTRICAL

- PoE: 3W (max)
- Punch-down terminal connectors

MECHANICAL

- Dimensions (width/height/depth): 18.4 x 19.4 x 10.2 cm (7.3 x 7.6 x 4.0 in)
- Weight: 0.6 kg (1.3 lbs)
- Rugged PVC enclosure
- Two cable entry points
- Mounting bracket (included)
- Fence clip (included)

ENVIRONMENTAL

- Outdoor, all-weather
- Ingress protection: IP54
- Impact and shock resistant
- Operating temperature: –40 to 60 °C (–40 to 140 °F)

NETWORKING

- 10/100 Mbit Ethernet
- Communications: Proprietary

ON-BOARD STORAGE

- Local sensor data storage
- Alarm queuing in the event of a network interruption

*Note: specifications subject to change without notice

PART	DESCRIPTION
E9FG0100	MultiSensor device (includes mounting bracket and removable fence clip)
00FG0220	Network Manager software (service version) for Windows 8/10/11
00CD0100	Universal documentation package on USB, includes Universal Configuration Module (UCM)