



SightLogix SightSensor

Thermal Long Wave Infrared (LWIR)

GPS Video Analytic Thermal Target Sensor

The SightLogix Long Wave Infrared (LWIR) Thermal detection SightSensor™ operates in total darkness. It is a high-performance, intelligent long-range infrared video surveillance platform designed for 24-hour automated security around critical outdoor assets. The SightSensor integrates camera control, image stabilization, advanced image processing, object tracking and behavior analysis inside a ruggedized camera enclosure for reliable security with especially low false and nuisance alarm rates.

Intelligent Infrared Surveillance

The Thermal SightSensor is specifically designed for long-range automated outdoor perimeter and buffer zone protection without lighting. As a complete edge device built for the outdoors, the Thermal SightSensor operates in all weather and geographical locations under zero-light levels. Its NEMA-4X enclosure is pressurized to protect the electronics from temperature and humidity fluctuations. SightSensors are being deployed at some of the world's harshest locations – from the Canadian arctic to the mid-eastern desert.

Thermal "Edge" Architecture

SightLogix patented "edge" architecture combines long-range thermal imaging digitally coupled to the most powerful on-board architecture available on the market: Five (5) digital signal processors (DSP) tightly integrated with the camera optics, geo-spatial tracking of targets and policies, and the most highly advanced image stabilization and filtering algorithms ever developed.



SightMonitor Coordination Software

Pre-emptive Security for Perimeters and Buffer Zones

The long-range Thermal SightSensor surveillance camera is one element of the SightLogix Enterprise Security System. Options include Visible SightSensors for long-range day/night surveillance; SightAnalyzers that enhance pre-qualified analog cameras with SightLogix video analytics; SightTrackers that automatically steer PTZ cameras for target identification; and SightMonitor software for GPS target location display. SightLogix systems are available in fixed, rapid deployment or mobile deployment configurations.

Unparalleled Accuracy and Range

The Thermal SightSensor can reliably detect vehicle-sized objects up to 2000 meters and pedestrians up to 1400 meters in its maximum range configuration, withstanding the challenges of zero light, wind, moisture, vibrations and extremes of temperature and humidity.

Geo-registered Situational Awareness

SightSensors operate seamlessly with SightMonitor, which provides a real-time geospatial topology view of target locations overlaid on a satellite image of the perimeter. This allows the sensor to track and report on intruder locations, providing immediate and comprehensive outdoor situational awareness.

Greater Range Drives Greater Cost Savings

Longer-range coverage and increased reliability means fewer cameras are needed. This results in significant cost savings (in excess of 50%) in power and communications infrastructure, and more efficient use of security personnel.

The "edge" design allows for the direct processing of video at the imager level and provides access to the full dynamic range of the camera core. This equates to unprecedented sensitivity by accessing 100X more data than otherwise available. The result is accuracy and detection range unparalleled in thermal perimeter surveillance.

Why SightLogix?

- Long-range infrared COTS solution
- Geo-spatial tracking of targets and policies
- Highly advanced image stabilization and video analytics algorithms
- Real-time intruder GPS location
- Supports solar power and multiple forms of communications including all wireless transmissions
- Low false/nuisance alarm rate (FAR/NAR) and near zero misdetect level at extremely long range
- Digital Detail Enhancement

Technical Specifications

Thermal Sensor	
Core	FLIR Uncooled, Long-Wave (7.5-13.5µm, VOx Microbolometer)
Array Size / Pitch	640 x 480, 25µm & 320 x 240, 38µm
Sensitivity	<65mK NEΔT at f/1.0 & 85mK at f/1.6
Video Output	IP Network MPEG-4 & MJPEG (Dual Stream)
Lens (mm)	100, 50, 35, 19, 14.25 (Athermal)
Detection Range - Vehicular	Up to 2000 meters
Detection Range - Pedestrian	Up to 1400 meters
Target Geo-location	Automated on SightMonitor or C ²
Electronic Stabilization	No false detects even with camera motion
Image Enhancement	Digital Detail Enhancement
Interfaces	Ethernet Command & Control; Wireless Option
Analytic Modes	
Modes	Multi-Mode Tripwire, Directional Zone Violation, Loitering, From/To
Target Attributes	Height, Width, Speed, Direction, Aspect-Ratio
Activity	Object Left Behind, Missing Object, Wrong Direction
Programmable Policies	Define Multiple Zones; Apply Multiple Policies
Max Objects per SightSensor	64

Max Zones per SightSensor	64
Zone Types	Alarm, Mask, Ignore
Geo-Data	Provide XML Data for Multi-Spectral Confirmation of Targets with Visual Sensors, Radar, Etc.

Environmental Specifications	
Temperature	-30 °C to +60 °C
Rating	NEMA-4X
Purge	Nitrogen, 10psi

Power Requirements	
Voltage	24 VAC or 24 VDC
Power	20 Watts (nominal)
Connector	Circular, Weatherized, Hermetic Sealed

SightSensor Dimensions	
Dimensions	19" x 7" x 6.5" (LWH)
Weight	16 lbs.
Mounting	Standard 3 hole camera mount – 3 x ¼-20 tpi bolts

SightMonitor Specifications	
Operating Systems	XP Pro (SP2)
Aerial Image Format	Geo-rectified aerial images in common image formats e.g. JPEG
Typical System Requirements	Standard high-end PC running Windows Operating System

All specifications are subject to change without notice.

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