



Remote management with local fall-back for Senstar sensors

Rugged, embedded controller for Senstar sensors

REMOTE SITE SECURITY

Sophisticated security systems are increasingly being used to protect unattended critical infrastructure sites such as electrical substations and pipeline valve and compressor stations. Facility owners face the challenge of implementing centralized command and control using their available WAN/SCADA networks while still maintaining a local deterrent capability in the event of a network outage – all while minimizing maintenance costs.

The Senstar Rugged Controller is the ideal complement to the use of Senstar sensors at unattended sites. It connects to installed security sensors and I/O devices and provides a standard Ethernet/IP-based interface for communication with the central Security Management System (SMS) using the facility's own WAN/SCADA network.



Features and Benefits

- DIN-rail mounted, fanless operation for unattended industrial environments
- Embedded software simplifies and reduces the cost of installation, configuration, and management:
- Network Manager (NM): Communicates alarm and status information to a centrally located Security Management System (SMS) and provides the autonomous local integration of security sensors, CCTV and deterrent systems
- Alarm Integration Module (AIM): Provides easily configured relay-based integration and an optional local security status display
- Universal Configuration Module (UCM): Provides remote access to Senstar networked sensors
- Sensor Management Toolkit: Remote GUI-based status and diagnostic tools for Senstar networked sensors
- High-level SMS integration via a bi-directional ASCII text interface or a complete SDK integration
- Software Development Kit (SDK) includes complete API documentation, sample code, test software, and a NM simulator
- Isolated Digital I/O (4-in/4-out) provides integration with SCADA remote terminal units (RTUs) and other relay-controlled subsystems
- Redundant configuration available for increased reliability at critical sites

The Senstar Rugged Controller can be programmed to activate video recording and deterrence devices (lights, sirens, etc.) in response to sensor alarms or diagnostic events. Security is enhanced as the desired actions will occur even if network connection to the central SMS is temporarily lost.

To facilitate on-going maintenance, it provides a common network access point from which all configuration, calibration, and event log data can be viewed for Senstar sensors and I/O devices. This access point can be used both remotely over the WAN/SCADA network and locally by an on-site technician. Maintenance visits to the sites are reduced, as is the need to access individual sensors when site visits are required.

EMBEDDED SOFTWARE

The Senstar Rugged Controller includes pre-installed embedded versions of Senstar software:

- Network Manager
- Sensor Management Toolkit (Status Tool, Event Log Tool, and Plot Tool)
- Universal Configuration Module (UCM)
- Alarm Integration Module software

See the Senstar Sensor Integration datasheet for information about each software component.

The software is configured to start up automatically at power-up without the need for user log-on and to automatically restart in the unlikely event of a system crash.

SENSOR MANAGEMENT

Senstar's Silver Network™ allows a wealth of information to be communicated between Senstar sensors and the management software, including:

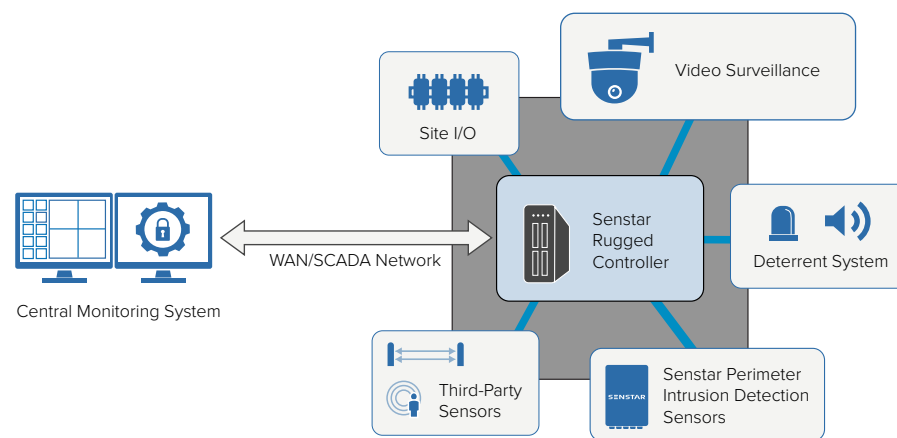
- Intrusion alarm status
- Operational status, such as alarm location, device tamper status, and diagnostic alarms
- Configuration data, such as thresholds, gain settings and zone lengths
- Alarm and supervision status of auxiliary inputs
- Control messages for auxiliary relay outputs
- Sensor response data for calibration and troubleshooting
- Firmware updates
- Event logs (sensors maintain internal event logs that can be remotely accessed)
- Sensor diagnostic information such as temperature, input and battery voltage, power consumption, and total power on time
- Commands to initiate sensor self-test (device-dependent)

NETWORK CONNECTIONS

The Senstar Rugged Controller connects to Senstar sensors and I/O devices (including FlexZone™, UltraWave™, OmniTrax®, and UltraLink I/O) over Senstar's Silver Network protocol. It supports the following connection types:

- Direct RS-422 connections to sensors
- Multi or single-mode fiber connections to sensors via the Silver Network Interface Unit (SNIU)
- 2 Ethernet ports for connections to local sensors (via switch) and facility WAN/SCADA network.
- 4 isolated digital inputs for collecting status information from third-party sensors
- 4 open-collector outputs for driving local alarm panels/RTUs
- USB and 15-pin VGA connector for optional on-site technician access (customer-furnished mouse, keyboard and/or monitor)

The number of inputs and outputs are expandable by adding UltraLink I/O modules. For all network connections, Senstar sensors require appropriate communications cards.



Integrated remote site management with local control of deterrent device

Technical Specifications

General

- Processor: Dual-core Intel Atom™ E3827
- Memory: 4 GB RAM
- Storage: 32 GB (2.5" SATA SSD)

Electrical

- Input voltage: 12 to 48 VDC
- OVP, UVP and reverse protection

Mechanical

- Ingress rating: IP30
- Enclosure: Fanless extruded aluminum case
- Mounting hardware: Steel DIN rail mount
- Weight: 1.5 kg (3.3 lbs)
- Dimensions: 100 x 155 x 110 mm (3.96 x 4.33 x 5.31 in)
- Vibration: 5g from 10–150 Hz, amplitude 0.35 mm (operation/storage/transport)

Environmental

- Operating temperature: –40 to 70 °C (–40 to 158 °F)
- Storage temperature: –40 to 85 °C (–40 to 185 °F)
- Humidity: 5 to 95% relative

Inputs/outputs

- 2 RS-232/422/485 115.2 kbps ports (no isolation)
- 4 RS-232/422/485 921.6 kbps ports (15 KV ESD protection)
- 2 USB ports (1 USB 3.0, 1 USB 2.0)
- 2 Ethernet ports: RJ-45, 10/100/1000 mbit (1.5 KV magnetic isolation protection)
- VGA port: DB15 connector
- 8 isolated digital inputs:
 - Dry contact operation: 0 to 30 VDC
 - Wet contact operation: Logic 0 for 10 to 24V, logic 1 for 0 to 3V
- 8 open-collector outputs (maximum 30 VDC @ 200 mA)

CERTIFICATIONS/COMPLIANCE

- Heavy Industrial CE
- FCC Part 18
- UL60950-1, UL508
- Included software:
 - Microsoft Windows® 10 embedded OS
 - Senstar Network Manager Service
 - Senstar Network Manager SDK
 - Senstar Alarm Integration Module (does not require hardware key)
 - Senstar Universal Configuration Module
 - Senstar Plot Tool
 - Senstar Status Tool
 - Senstar Event Log Tool

PART	DESCRIPTION
00FG0300	Senstar Rugged Controller: DIN-rail mounted embedded industrial controller (IP30) for harsh environments. Includes Network Manager and UCM software and AIM license