Programmable Input/Output modules for Senstar sensors

UltraLink Input/Output (I/O) modules enhance Senstar perimeter sensors by extending the range of system integration options though the use of different I/O types, including outputs (relay, open-collector) and supervised dry-contact inputs.

UltraLink I/O modules can be used to integrate alarm and other site status conditions generated from third-party devices with that of Senstar's perimeter sensors. Via Senstar's Network Manager software, UltraLInk I/O modules can be programmed to activate on-site cameras, lights and sirens.

CONFIGURATION SOFTWARE

Senstar's Windows®-based Universal Configuration Module (UCM) software is used to configure the UltraLink I/O module and the operation of its relay outputs, open-collector outputs, and dry-contact inputs. The UCM software supports direct USB connections as well as network connections via the Network Manager.

Features and Benefits

- Modular system comprised of processor module along with output relay, dry-contact input, and open-collector expansion modules
- Processor module:
  - Host for network communications card
  - 8 relay output points
  - 8 dry-contact input points
  - Supports up to 8 expansion modules
  - Manages up to 272 total I/O points
  - Configurable via Silver Network™ connection or USB
  - Comm/power fail relay
  - Supplies power to expansion modules
- Three expansion module types:
  - Relay output module: Provides additional 32 relay output points
  - Dry-contact input module: Provides additional 32 input points
  - Open-collector output module: Provides 32 output points
- All modules are DIN-rail mount, 35 mm (1.38 in) "top hat" section
- Swing out DIN-rail with protective cover for 19 in rack
- Optional DIN-rail power supply
- All input/output connections via removable terminal blocks
- Rated for indoor and outdoor use (outdoor use requires customer-furnished weather-proof enclosure)

APPLICATIONS

UltraLink I/O modules receive and/or transmit alarm information as part of an integrated security system. Applications include:

- Converting alarms generated by Senstar sensors to relays or open-collector outputs for input to a third-party Security Management System (SMS) or Physical Security Information Management (PSIM) system
- Showing the status of third-party security devices on a Senstar or third-party SMS
- Sending camera commands to video switcher/Video Management Systems (VMS) via relays or open-collector output

NETWORK INTEGRATION

UltraLink I/O modules are installed as part of an overall Silver Network configuration. The UltraLink processor connects to the Silver Network via a communications card. Up to 8 UltraLink expansion modules can be attached to one processor module. All communications with the UltraLink processor are managed by the Network Manager software.

The controlling logic to determine the state of the I/O points (i.e., which relay output should be active when) can be provided:

- Via the SMS
- Via the direct output control feature of the Network Manager software (any event on any sensor on any Senstar network can automatically activate an UltraLink output point)
- The built-in the Network Manager mode (NM mode) on the UltraLink processor itself
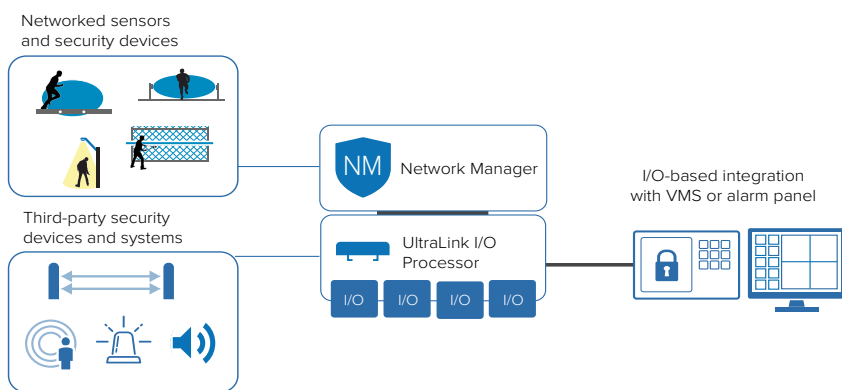
NETWORK MANAGER MODE

Network Manager mode enables the UltraLink I/O processor by itself to provide basic alarm functionality via its relay outputs. In Network Manager mode, the UltraLink I/O processor monitors networked Senstar sensors and triggers its relay outputs as required.

Network Manager mode enables granular per-zone alarms from sensors (such as FlexZone®) without requiring a PC, interface device, or Network Manager software.

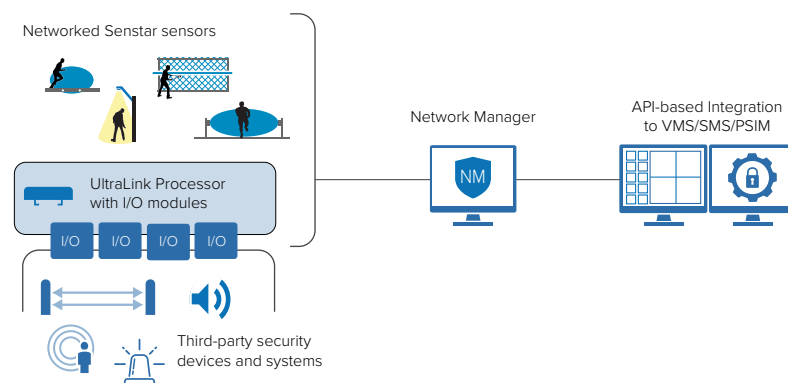Network Manager mode capabilities:

- Sensor network can consist of up to 8 sensors connected in loop mode with RS-422, single-mode fiber, or multi-mode fiber (no Ethernet PoE)
- Up to 4 output expansion modules are supported (up to 136 output points total)

ULTRALINK I/O MODULES – I/O-BASED INTEGRATION

Networked sensors and security devices

Third-party security devices and systems

NM Network Manager

UltraLink I/O Processor
I/O I/O I/O I/O

I/O-based integration with VMS or alarm panel

Senstar sensors are monitored by the site's alarm system or VMS via mapped UltraLink I/O points.

ULTRALINK I/O MODULES – INTEGRATION OF THIRD-PARTY DEVICES

Networked Senstar sensors

UltraLink Processor with I/O modules
I/O I/O I/O I/O

Third-party security devices and systems

Network Manager

NM

API-based Integration to VMS/SMS/PSIM

Third-party security devices are monitored by a Senstar or other integrated video/ security management system (VMS/SMS). Third-party device integration is achieved via I/O connections managed via the Network Manager software.

Technical Specifications

Processor

- Hosts one Gen2 Silver Network communications card (EIA-422, multi or single-mode fiber optic, or Ethernet)
- Expansion port for up to 8 UltraLink expansion modules
- USB configuration port
- Programmable fail relay
- Operating voltage: 12 to 48 VDC
- Supplies power to expansion modules
- Relay outputs (8 points, programmbable):
  - Form-C, 1A, 30 VAC/DC non-inductive load
  - Configurable activation type (latching, flash mode, pulse) and timing
    (0.125 to 10 seconds)
  - LED indicator for each relay
- Dry-contact inputs (8 points, programmable):
  - Input activation: NO or NC
  - Supervision types (none, single, double) and resistor values
  - Required input activation time
  - Noise tolerance and line drop allowance
  - Two LEDs per input: alarm, supervision
  - Full lightning protection: trazorbs and gas discharge devices on each input
- All input/output connections via removable terminal blocks

Relay output module

- 32 relay output points
- Same activation types and timing options as relay outputs on processor module

Dry-contact input module

- 32 dry-contact inputs
- Same specifications as dry-contact inputs on processor module

Open-collector output module

- 32 open-collector outputs
- Source voltage for outputs provided externally
- Up to 48 VDC, 100 mA maximum 'on' current
- 4 source voltage connections, each routed to 8 open-collector high-side contacts
- Same activation types and timing options as relay outputs on processor module

Common UltraLink module specifications

- Mounting: dual locking tabs for 35 mm DIN-rail dimensions, all modules (W/H):
  160 x 118 mm (6.3 x 4.65 in)
- All connections except USB made with removable screw-terminal connector; with a high/low terminal arrangement to ease wire routing
- Environment:
  - Temperature: –40 to 70 ℃ (–40 to 158 ℉)
  - Relative humidity: 0 to 95% non-condensing
  - Conformally coated

Swing-out DIN-rail specifications

- 19 in rack-mount swing-out mounting plate with 35 mm DIN-rail front and back
- Each DIN-rail can host 2 UltraLink modules with approximately 3 in (7.62 cm) of rail-space for other components (e.g. power supplies and/or network interface devices)
- Cover plate provides mechanical protection

Power supply

- 35 mm DIN-rail mount

PART	DESCRIPTION
00EM1400	UltraLink processor module
00EM1500	UltraLink dry-contact input module
00EM1600	UltraLink relay module
00EM1700	UltraLink open-collector output module
00MA0100	UltraLink swing-out DIN-rail
00CA0103	UltraLink link cable for linking back to back modules or those on different rails, 58 cm (23 in)
GP0151-48	Power supply , 115/230 VAC input, 48 VDC, 40W output
00BA2000	EIA-422 communications card
00BA2101	Single-mode fiber optic communications card with ST connectors
00BA2200	Ethernet card, PoE, 12 VDC Output, 10/100BASE-TX
00BA2700	Ethernet card, PoE, 48 VDC Output, 10/100BASE-TX
00CD0100	Universal documentation package on USB, includes Universal Configuration Module (UCM)