**ultraLink**

Flexible input / output modules for system integration

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**Features & Benefits**

- Modular system comprised of processor module, relay module, open-collector output module and dry-contact input module
- Processor module:
  - Hosts Silver network communications card
  - 8 relay outputs
  - 8 dry-contact inputs
  - ultraLink expansion port for adding up to 8 expansion modules
  - USB configuration port
  - Comm / power fail relay
  - Supplies power to connected modules
- Relay output module with 32 relay outputs
- Open-collector output module with 32 outputs
- Dry-contact input module with 32 inputs
- For each processor module a total of up to 272 I/O points can be controlled
- Cable interconnection for power and communication to expansion modules
- 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

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**SYSTEM INTEGRATION AND MANAGEMENT**

**DESCRIPTION**

ultraLink Input / Output (I/O) modules are hardware components that form an integral part of Senstar’s system integration capability. ultraLink I/O modules attached to Senstar’s Silver Network™ and provide a range of I/O types including outputs (relay, open-collector), and supervised dry-contact inputs. ultraLink outputs can be used to transmit alarms from Senstar’s family of networked sensors using only Senstar’s Network Manager Service (NMS) software. For more sophisticated applications ultraLink I/O modules can be controlled by Senstar’s StarNeT™ 1000 or Alarm Integration Module (AIM) software.

**APPLICATION**

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

- Converting sensor alarms collected over Senstar’s Silver Network to relays or open-collector outputs for input to a 3rd-party Security Management System
- Collecting auxiliary sensor alarms with dry-contact inputs for display with AIM or StarNeT 1000
- Use with AIM or StarNeT 1000 for sending camera commands to video switcher / Video Management System (VMS) via relays or open-collector outputs

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**ultraLink I/O Modules for Relay Integration to SMS**
Technical Specifications

SYSTEM CONFIGURATION DESCRIPTION
ultraLink I/O modules are installed as part of an overall Silver Network configuration. The ultraLink Processor module connects to the Silver Network via a Silver Network communications card. Up to 8 ultraLink expansion modules can be attached to one processor module. As with other Silver Network devices such as OmniTrax, XField, FlexPS and ultraWave all communications with the ultraLink processor module is managed by the NMS software.

The controlling logic to determine the state of the I/O points (i.e., which relay should be active when, etc.) can be provided by any one of StarNeT 1000, AIM, the Direct Output Control capability provided by the NMS, or the Network Manager mode (NM mode) built-in to the ultraLink processor.

Configuring the modes of operation of the relay outputs, open-collector outputs and dry-contact inputs is done with Senstar’s standard Windows®-based Universal Control Module (UCM) software. The UCM can be connected to the ultraLink modules either by a direct USB connection to the ultraLink processor or by an IP connection via the NMS.

The NM mode built-in to the ultraLink processor provides automatic assignment of sensor alarms to ultraLink outputs for networks of up to 9 sensors. No NMS software, computer, or gateway hardware from sensor network to computer is required. For each sensor NM mode assigns 8 output points (sensor alarms, diagnostic alarms, dry contact inputs) to 8 ultraLink outputs (relay or open-collector). Also for each sensor NM mode assigns 8 ultraLink input points to 8 sensor input points (relay control states, self-test inputs, audio select). The 8 outputs and inputs from the first sensor are assigned to the I/O of the ultraLink processor, the next 4 sensors are assigned to ultraLink output card #1 and input card #1, and the last four sensors to output card #2 and input card #2.

TECHNICAL SPECIFICATIONS
PROCESSOR:
• Hosts one Gen2 Silver Network communications card (EIA-422, multi-mode fiber optic, single-mode fiber optic or Ethernet)
• Expansion port for adding up to 8 ultraLink expansion modules
• USB configuration port for specifications with UCM software
• Programmable fail relay
• 8 relay outputs - detailed specifications as per relay module
• 8 dry-contact inputs - detailed specifications as per dry-contact module
• Operating voltage: 12 to 48 VDC
• Supplies power to connected modules

RELAY OUTPUT MODULE FEATURES:
• 32 relay outputs
• Form C, 1A, 30 VAC / DC non-inductive load
• Configurable for activation type and timing:
  • Activation type: latching, flash mode, pulse
  • Hold / activation times programmable from 0.125 to 10 seconds
• LED indicator for each relay

OPEN-COLLECTOR OUTPUT MODULE SPECIFICATIONS:
• 32 open-collector outputs
• Source voltage for outputs provided externally
  • Up to 48 VDC, max ‘On’ current of 100 mA
  • 4 source voltage connections provided, each
  • is routed to 8 open-collector high-side contacts
• Configurable for activation type and timing:
  • Activation type: latching, flash mode, pulse
  • Hold / activation times programmable from 0.125 to 10 seconds
• LED indicator for each output

OPEN-COLLECTOR OUTPUT MODULE SPECIFICATIONS:
• 32 dry-contact inputs
• Programmable options:
  • Input activation: NO or NC
  • Supervision type: none, single, double
  • Supervision resistor values
  • Required input activation time
  • Noise tolerance and line drop allowance
• Two LEDs per input: alarm, supervision
• Full lightning protection: trazors and gas discharge devices on each input

COMMON ULTRALINK MODULE SPECIFICATIONS:
• Mounting: dual locking tabs for 35 mm DIN-rail
• Dimensions, all modules: 160 W x 118 mm H (6.3 W x 4.65 in. H)
• Connections: all connections except USB made with removable Phoenix-style screw-terminal connector with a high / low terminal arrangement to ease wire routing
• Environment:
  • Temperature: 0º to +55ºC (32º to +131º F)
  • Relative humidity: 0 to 95% non-condensing

SWING-OUT DIN-RAIL SPECIFICATIONS:
• 19" rack-mount
• Swing-out mounting plate with 35 mm DIN-rail front and back
• Each DIN-rail can host 2 ultraLink modules with approx.
  3" of rail-space for other DIN-rail components such as power supplies and / or network interface devices
• Cover plate provides mechanical protection to installed modules

POWER SUPPLY:
• 35 mm DIN-rail mount
• 115 / 230 VAC input, 24 VDC output at 40 W

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>00EM1400</td>
<td>ultraLink processor module</td>
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<tr>
<td>00EM1500</td>
<td>ultraLink dry-contact input module</td>
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<tr>
<td>00EM1600</td>
<td>ultraLink relay module</td>
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<tr>
<td>00EM1700</td>
<td>ultraLink open-collector output module</td>
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<tr>
<td>00MA0100</td>
<td>ultraLink swing-out DIN-rail</td>
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<td>00CA0103</td>
<td>ultraLink link cable, 58 cm (23 in), for linking</td>
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<td></td>
<td>back to back modules or those on different rails</td>
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<tr>
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See ultraLink sensor Integration Components datasheet for information on ultraLink software and Silver Network components.

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