

Intelligent Switch Monitors - obsolete

Available in various configurations, compact package (mini), 4" electrical box mount and with or without priority interrupt, the Intelligent Monitor Modules from Advanced offer unique fire alarm industry features that simplify installations and provide superior flexibility.

Designed for installation on Advanced Axis AX Series SLC (signaling line circuit), each Intelligent Monitor Module provides an addressable interface for a single contact device or group of contact devices connected via an initiating device circuit (IDC). With the flexibility of the Advanced Axis AX Series Intelligent Fire Alarm Control Panels, contact devices can be normally open (N.O.) or normally closed (N.C.) dry contacts. Contact devices range from heat detectors, linear heat detectors, 4-wire conventional smoke detectors, water flow switches, tamper switches, manual pull stations, switch input points for control, etc.

Mini Switch Monitor (55000-831AEL) Designed with flying leads for field wiring, the Mini Switch Monitor can either fit inside the device being monitored, or can be placed in an electrical box in the vicinity of the device being monitored. Based on installation requirements, the Mini Switch Monitor's initiating device circuit (IDC) is capable of being wired Class A or B to the monitored contact device(s). An integral eight position programming DIP switch must be set for device addressing and wiring classification definition. Each Mini Switch Monitor incorporates a red status LED which illuminates steady during active condition. Mini Switch Monitor's can monitor any number of contact devices, however, it is recommended not to mix alarm, supervisory, or security contacts on the same monitoring module circuit.

Mini Priority Switch Monitor (55000-830AEL) The Mini Priority Switch Monitor is identical to the Mini Switch Monitor with the exception of a priority interrupt feature. The priority interrupt provides the fastest response possible to the Axis AX Series Intelligent Fire Alarm Control Panel(s). When the priority interrupt device is in an active state, the monitor's priority interrupt bypasses the normal Axis AX Series SLC communications process, and immediately allows the device to communicate with the Axis AX Series Intelligent Fire Alarm Control Panel(s). The Mini Priority Switch Monitor is utilized to monitor highly critical contact devices such as manual pull stations.



Features

- Compact Size
- Class A or B Wiring
- Flexible Device Type Programming
- Optional Priority Interrupt
- Cost-Effective & Trouble-Free Installation
- 8 Position DIP Switch Addressing
- Integral Status LED
- 4" or 2 Gang Electrical Box Mounting
- Durable Construction

Listings and Approvals

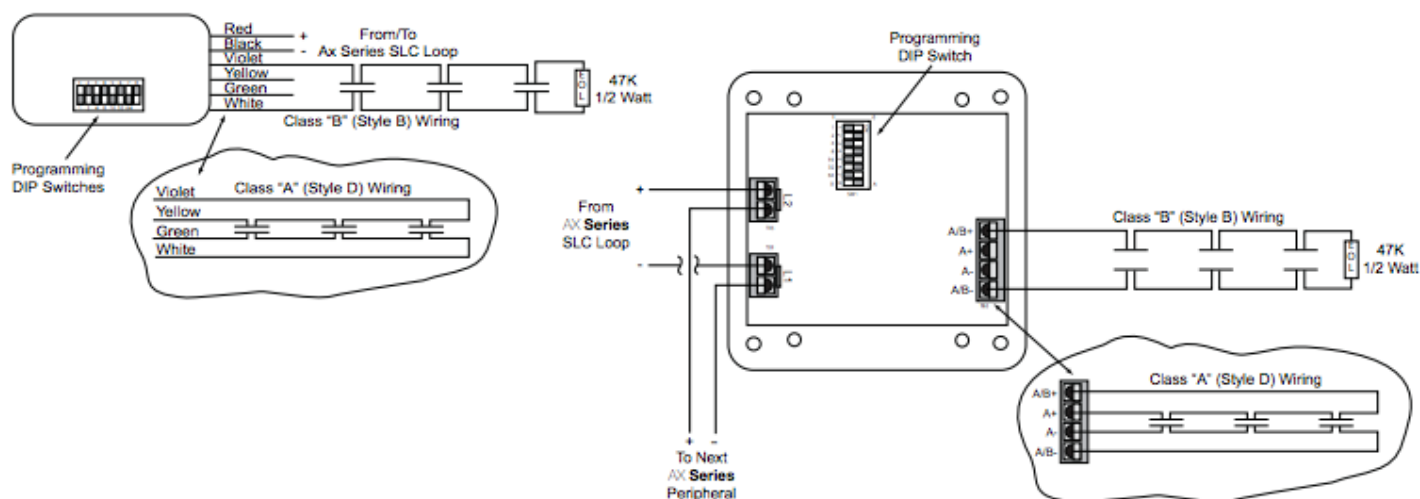
- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL Listed UOXX.S7003 / ML file: S24460
- CSFM Approved: 7300-1713:108
- NYC MEA: 294-95-E

Switch Monitor (55000-805AEL) The Switch Monitor is designed to mount to the front of a 4" square or 2-gang electrical box. Based on installation requirements, the Switch Monitor's initiating device circuit (IDC) is capable of being wired Class A or Class B to the monitored contact device(s). An integral eight position programming DIP switch provides programming of device address and wiring classification definition. Each Switch Monitor incorporates a red status LED which illuminates steady during active condition. Switch Monitor's can monitor any number of contact devices, however, it is recommended not to mix alarm, supervisory, or security contacts on the same monitoring module circuit.

Priority Switch Monitor (55000-806AEL), The Priority Monitor, is identical to the Switch Monitor with the exception of a priority interrupt feature. The priority interrupt provides the fastest response possible to the Axis AX Series Intelligent Fire Alarm Control Panel(s). When the priority interrupt device is in an active state, the monitor's priority interrupt bypasses the normal Axis AX Series SLC communications process, and immediately allows the device to communicate with the Axis AX Series Intelligent Fire Alarm Control Panel(s). The Priority Switch Monitor is utilized to monitor highly critical contact devices such as manual pull stations.

Mini Switch Monitor (55000-831AEL, -830AEL)

Switch Monitor (55000-805AEL, -806AEL)



Specification

Voltage	17-28 VDC, with Communication Pulses 5-9 VDC
Operating Current	(55000-805AEL, -806AEL, -831AEL, -830AEL)
Quiescent	0.6 mA
Alarm	0.6 mA
W/LED	5.6 mA
Line Impedance	100 Ω
End-of-Line Resistor	47 K Ω , 0.5 Watt (Class "B" Only)
Wiring	
Mini Switch Monitor(55000-831AEL, -830AEL)	Wire Leads (18 AWG, 6" Long)
Switch Monitor (55000-805AEL, -806AEL)	Screw In-Out Terminals
Mounting	
Mini Switch Monitor (55000-831AEL, -830AEL)	Inside Electrical Box Mount
Switch Monitor (55000-805AEL, -806AEL)	4" Square or 2-Gang Electrical Box
Dimensions (Diameter & Height)	
Mini Switch Monitor(55000-831AEL, -830AEL)	3"W x 2"H x 3/4"D
Switch Monitor (55000-805AEL, -806AEL)	4 1/2"W x 4 1/2"H x 1"D
Weight	
Mini Switch Monitor (55000-831AEL, -830AEL)	1.5 oz
Switch Monitor (55000-805AEL, -806AEL)	3 oz
Operating Temperature	32°-120° F (0°-49° C)
Humidity	10-93% (Non-Condensing)

Order Codes and Options

55000-831AEL	Mini Switch Monitor
55000-830AEL	Mini Priority Switch Monitor
55000-805AEL	Switch Monitor
55000-806AEL	Priority Switch Monitor

Intelligent I/O Relay Output & Switch Monitor - obsolete

The Advanced Intelligent I/O Relay Output & Switch Monitor (55000-820ADV) is an application specific addressable module for use with the Axis AX Series Intelligent Fire Alarm Control Panels. Each module is SLC loop powered, eliminating the need for additional field wiring and external power supplies.

Designed for installation on Advanced Axis AX Series SLC (signaling line circuit), the 55000-820ADV provides a single initiating device circuit (IDC) input, an independently controlled Form-C relay contact output, and an unmonitored optically isolated voltage input. The 55000-820ADV utilizes the Advanced unique sub-addressing for both the independently controlled relay and the optically isolated voltage input. By sub-addressing these I/O features, Axis AX Series system point capacities are expanded with installation, programming, and commissioning time minimized. The 55000-820ADV mounts to the front of a standard 4" square or 2-gang electrical outlet box.

The IDC input of the 55000-820ADV is capable of being wired Class A or B and can monitor a single contact device or a group of devices. Contacts can be normally open (N.O.) or normally closed (N.C.) ranging from heat detectors, linear heat detectors, 4-wire conventional smoke detectors, water flow switches, tamper switches, manual pull stations, switch input points for control or any other supervised input requirement. Though the IDC input can monitor any number of contact devices, it is recommended not to mix alarm, supervisory, or security contacts on the same IDC module circuit.

Compatible with the Axis AX Series Dynamix I/O relationship programming, the relay output of the 55000-820ADV can be individually assigned to any input or output relationship, output group, timing function, gated function, invert operation, etc. to perform project-specific control operations. Ideally suitable for elevator control, HVAC shutdown, door holder release, or similar ancillary functions, the 55000-820ADV relay is rated 24 VDC @ 1 Amp (resistive) or 30 VAC .5 Amp (resistive).

The optically isolated voltage input of the 55000-820ADV is utilized for special applications when unsupervised status monitoring of a voltage input is required (i.e. HVAC status, ancillary product status, manufacturing process equipment status, etc.).

Each 55000-820ADV incorporates an integral eight position programming DIP switch which allows for device addressing and wiring classification definition. The module contains a red status LED which illuminates steadily during an active condition of the IDC input.



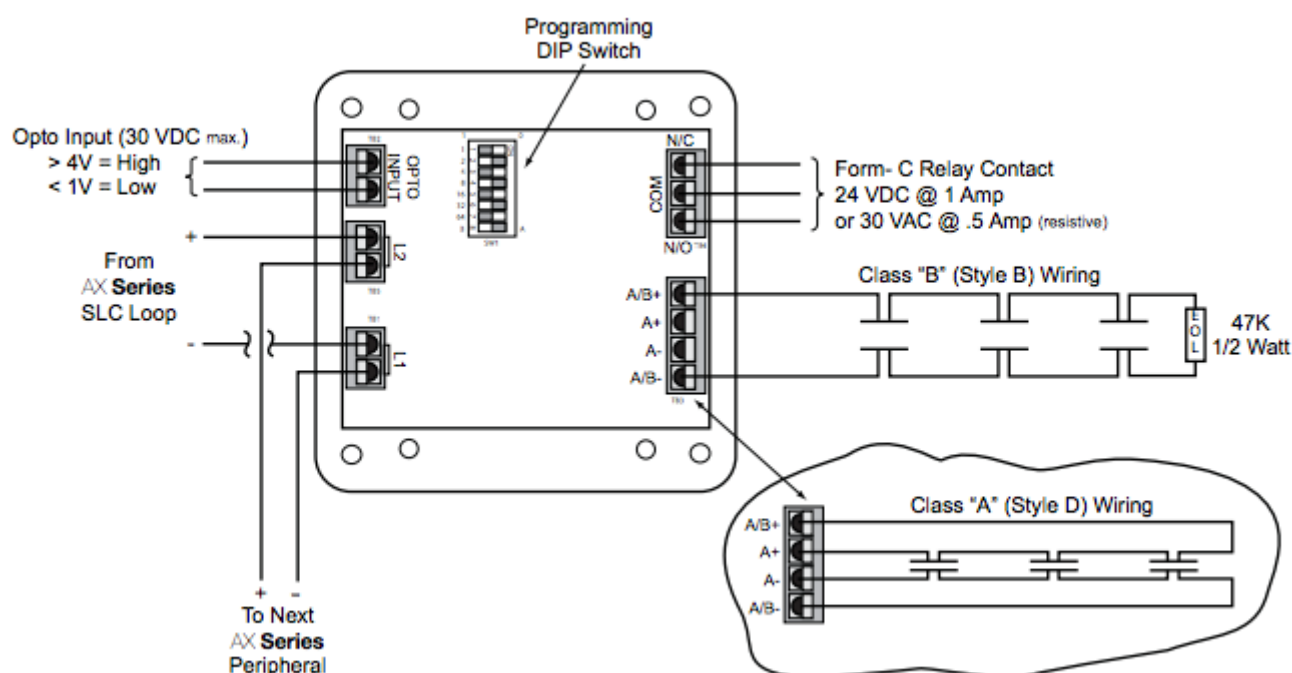
Features

- SLC Loop-Powered & Sub-Addressable
- 4" Square or 2-Gang Electrical Box Mounting
- Flexible Programming
- Durable Construction
- Cost-Effective & Trouble-Free Installation
- Optically Isolated Voltage Input

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL file: UOXX.S7003 / ML file: S24460
- CSFM Approved: 7300-1713:108
- NYC MEA: 294-95-E

Wiring Diagram



Specification

Voltage	17-28 VDC, with Communication Pulses 5-9 VDC
Operating Current	
Quiescent	0.85 mA
Alarm	0.85 mA
With LED's	5.85 mA
Line Impedance	100Ω
Wiring Classification	Class A or Class B
End-of-Line Resistor	47 KΩ, 0.5 Watt (Class "B" Only)
Relay Output	Form-C
Rating	24 VDC @ 1 Amp or 30 VAC @ .5 Amp (Resistive)
Optically Isolated Input	Unsupervised
Voltage	35 VDC (Max.)
Input	Programmable Active High (Less than 4V) or Low (Less than 1V)
Mounting	4" Square or 2-Gang Electrical Outlet Box
Dimensions (Diameter & Height)	4 1/2"W x 4 1/2"H x 1"D
Weight	2.8 oz
Operating Temperature	32° -120°F (0° -49°C)
Humidity	10-93% (Non-Condensing)

Order Codes and Options

55000-820AEL	Intelligent I/O Relay Output & Switch Monitor
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Intelligent Relay Output Module - obsolete

Advanced Intelligent Relay Module is an application specific addressable module for use with the Axis AX Series Intelligent Fire Alarm Control Panels.

The module is SLC (signaling line circuit) loop powered, eliminating the need for additional field wiring and external power supplies.

The Intelligent Relay Output Module provides two isolated Form "C" relay contacts for controlling a variety of auxiliary control functions, such as elevators, HVAC, door holders, dampers, control equipment, etc.

Compatible with the Axis AX Series Dynamix I/O relationship programming, the module's Form "C" outputs can be assigned to any input or output relationship, output group, timing function, gated function, etc. enhancing project specific control operations.

Relay ratings of each Form "C" contact is 24 VDC @ 2 Amp (resistive) or 30 VAC @ .5 Amp (resistive).



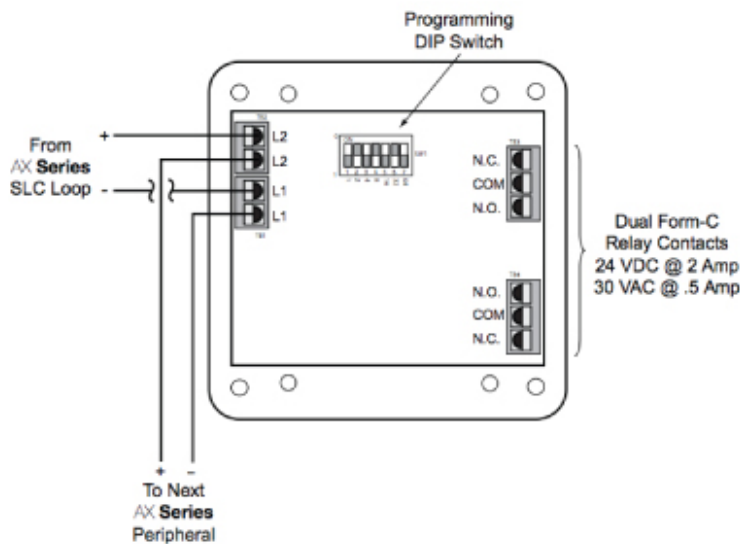
Features

- Compact Size
- Two Isolated Form "C" Relay Contacts
- Flexible Device Type Programming
- Loop Powered Directly from SLC Loop
- Cost-Effective & Trouble-Free Installation
- 7 - Position Addressable DIP Switch
- Integral Polling Status LED
- 4" or 2-Gang Electrical Box Mounting
- Durable Construction

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL file: UOXX.S7003 / ML file: S2446
- CSFM Approved: 7300-1713:0112

Wiring Diagram



Specification

AX Series SLC Loop

Voltage	17-28 VDC
Modulation Voltage	5-9 VDC (Peek to Peek)
Supervisory Current	0.85 mA
Surge Current	2.5 mA
Alarm Current	3.5 mA (LED On) (Max.)
Line Impedance	50 Ω (Max.)

Relay Output Rating	
DC Voltage	24 VDC @ 2 Amp (Resistive)
AC Voltage	30 VAC @ .5 Amp (Resistive)

Wiring	Screw In-Out Terminals
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Mounting	4" Square or 2-Gang Electrical Box
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Dimensions (Diameter & Height)	4 1/2"W x 4 1/2"H x 1"D
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Weight	2.8 oz
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Operating Temperature	32°-120°F (0°-49°C)
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Humidity	10-93% (Non-Condensing)
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Order Codes and Options

55000-863AEL	Intelligent Relay Output Module
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Intelligent NAC Module

Advanced Intelligent NAC Module is an addressable module for use with the Axis AX Series Intelligent Fire Alarm Control Panel's SLC Loops. Each module incorporates an independent, individually programmable, notification appliance circuit (NAC), providing cost-effective solutions in areas requiring multiple notification appliance circuits. Each NAC module allows switching of an external power supply, such as a 24 VDC regulated power source or audio amplifier to a group of notification appliances.

The notification appliance circuit can be wired either Class A or B. Each module also supervises the wiring for opens, shorts and grounds and reports this status back to the intelligent fire alarm control panel. Typical input power to the NAC module would be from the main FACP, a power supply booster or an amplifier.

To increase the already rapid response activation, each module can be set to a group address, allowing all NAC modules assigned to a common group address to be activate from a single command poll from the intelligent fire alarm control panel.

An eight position programming DIP switch is provided on each NAC module for NAC circuit addressing and wiring classification definition. An additional four position programming DIP switch is provided for group addressing. The NAC module mounts to the front of a standard 4" square or 2-gang electrical outlet box. Displayed on the front of each module is a single red status LED that flashes when the module is polled.

Compatible with the Axis AX Series Dynamix I/O relationship programming, the NAC module can be individually assigned to activate from any input zone or address. In addition, the NAC module can be programmed with various output relationships, timing functions, gated functions, etc. to perform project-specific control operations.



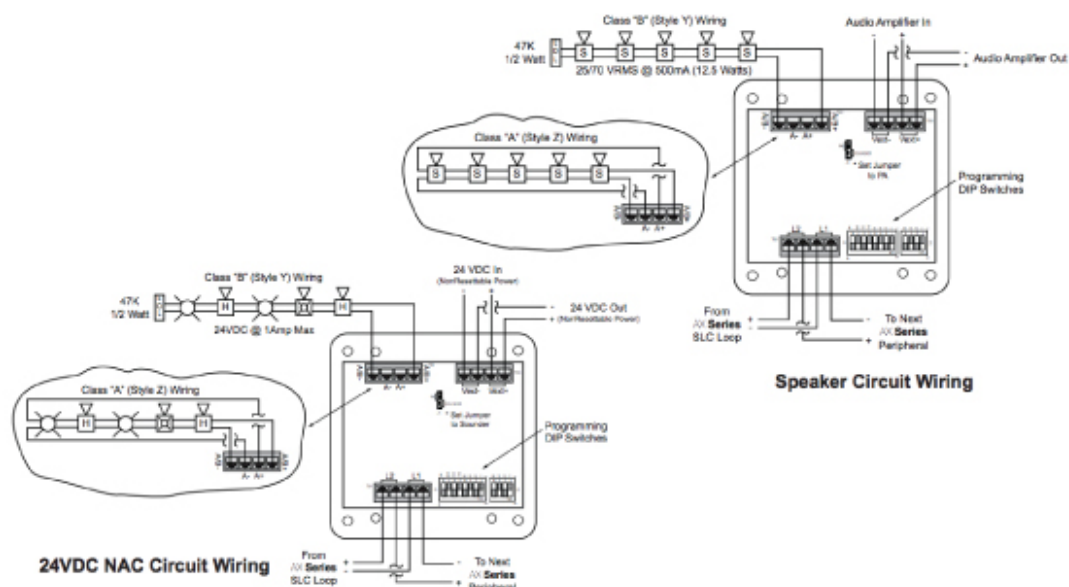
Features

- Class A or B Wiring
- Horn/Strobe or Speaker Control
- Flexible Programmability
- Durable Construction
- Cost-Effective & Trouble-Free Installation
- 25/70 VRMS Speaker Capability

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL file: UOXX.S7003 / ML file: S24460
- CSFM Approved: 7300-1713:108
- NYC MEA: 294-95-E

Wiring Diagram



Specification

Voltage	17-28 VDC, with Communication Pulses 5-9 VDC
Operating Current	1 mA (Quiescent) 1 mA (Alarm) 6 mA (With LED's)
Line Impedance	50 Ω
Wiring Classification	Class A or B
End-of-Line Resistor	47 K Ω , 0.5 Watt (Class "B" Only)
Circuit Voltage Input	24 VDC or 25/70 VRMS
Max NAC Circuit Line Loss	24VDC @ 1 Amp (Use Regulated DC Listed Supply)
Max Speaker Circuit Output	24VDC, 25 /70.7VRMS @ 500mA
Wiring Terminals	Screw In-Out Terminals
Mounting	4" Square or 2-Gang Electrical Outlet Box
Dimensions (Diameter & Height)	4 1/2"W x 4 1/2"H x 1"D
Weight	2.8 oz
Operating Temperature	32° -120° F (0° -49° C)
Humidity	10 - 93% (Non-Condensing)

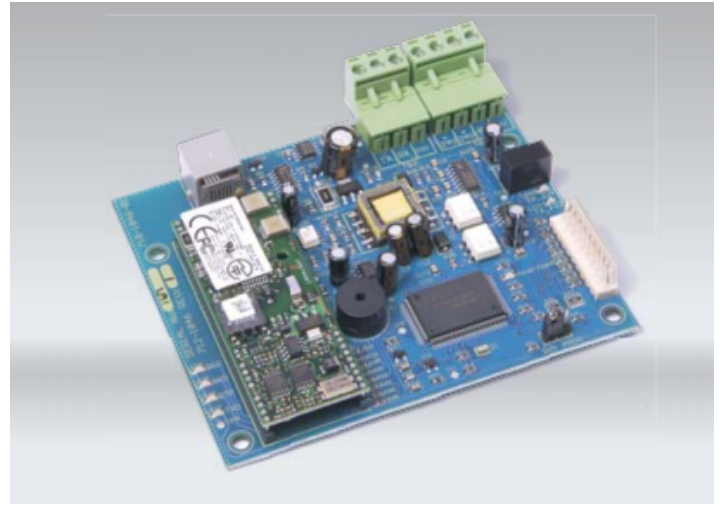
Order Codes and Options

55000-825ADV	Notification Appliance Circuit Module
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AX-MDM Module

The AX-MDM, 24 VDC Modem Module, provides remote telephone dial-in access to an Axis AX Series Intelligent Fire Alarm Control Panel, so qualified and trained Advanced fire alarm technicians can monitor, maintain and perform service requirements of various Axis AX Series installations. The remote access to the Axis AX Series Intelligent Fire Alarm Control Panel is accomplished with the Advanced Axis AX terminal dial-up (Virtual Terminal Software).

The AX-MDM can be mounted either inside the Axis AX Series Intelligent Fire Alarm Control Panel enclosure or mounted in its own enclosure located adjacent to the Axis AX Series Intelligent Fire Alarm Control Panel.



Features

- Remote Dial-Up Access to Axis AX Series Panels
- Operates on 24 VDC with Battery Backup
- Permits use of Axis AX Virtual Terminal Software
- Mounts within Axis AX FACP or Remotely

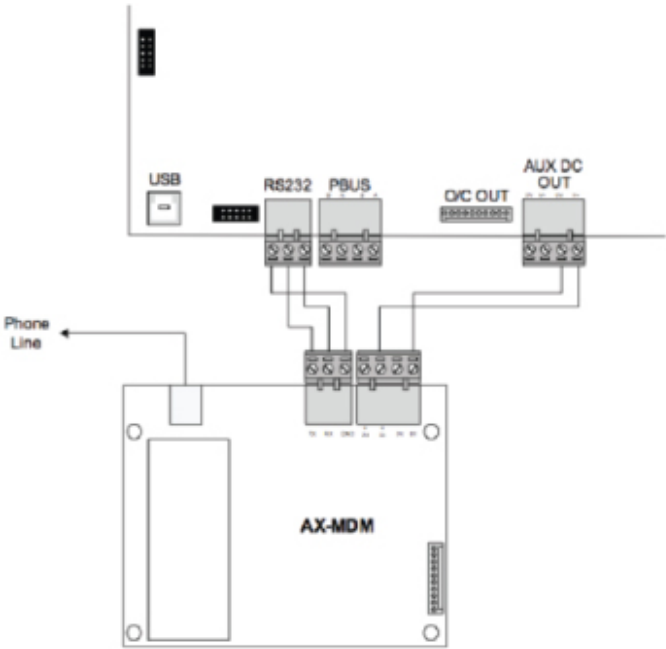
Listings and Approvals

- ETL ANSI/UL 864 Listed: 3118002NYM-001B
- CSFM Approved: 7165-1713:0101
- NYCFCO COA #6080

Specification

Operating Voltage	15-30 VDC (From base card or Listed power supply)
Operating Current	100 mA
Environment	Indoor, Dry
Operating Temperature	32-120° F (0-48° C)
Humidity	10-95% (Non-condensing)
Weight (AX-MDM)	3 oz
Optional Enclosure Dimension	8.58" x 11.81" x 1.77"

Wiring Diagrams



Order Codes and Options

AX-MDM	24 Volt DC, Modem Module
AXM-009*	Optional Listed Enclosure

*For gray enclosure, add the suffix "G" to the part number.

Intelligent Single Loop Fire Alarm Control Panel

Axis AX is built on years of technology leadership in the intelligent fire systems market, and it is used across the globe in some of the most challenging and prestigious locations. Axis AX is Advanced's highest performing UL 864 compliant panel range and comes complete with digital audio.

The state of the art Axis AX single loop panel is available in two configurations, the compact AX-CTL-1, and the standard sized AX-CTL-1L. The single loop panel contains the same features as the 2 loop and 4 loop Axis AX panels and is ideally suited to smaller applications. However, as a member of the Axis AX Series, it can be easily utilized in larger applications due to its integral peer-to-peer networking capabilities.

Designed with installation and service engineers in mind, the AX-CTL-1 (1L) intelligent panel is modularly packaged, using surface mount and dual flash microprocessor technology, with onboard real time clocks for ease of installation, troubleshooting, programming, and maintenance.

The AX-CTL-1 (1L) Intelligent Single Loop Fire, Alarm Control Panel, provides a single Style 4 or Style 6/7 Signaling Line Circuit (SLC). Communications to the field devices attached to the SLC is via an advanced, 100% digital protocol with advantages of being highly immune to noisy environments. The SLC supports up to 126 analog addressable devices (any combination of intelligent detectors, input and/or output devices, including loop powered technology devices). In addition, unique sub-addressing of various input and/or output devices is permitted, expanding on overall AXCTL-1 (1L) system capacity.

The AX-CTL-1 (1L) comes with two filtered, voltage regulated Notification Appliance Circuits (NACs), Class A or B, each rated 2 Amp @ 24 VDC. Due to exceptional regulation and high rating, the onboard NAC outputs provide compatibility with most Listed notification appliance devices.

The AX-CTL-1 (1L) intelligent panel has resettable and non-resettable power outputs; each rated .5 Amp @ 24 VDC, for connection to four-wire conventional smoke detectors and/or ancillary devices. Each AX-CTL-1 (1L) contains three, field programmable, Form "C" relays, each rated 1 Amp @ 30 VDC, defaulted as a fail-safe trouble relay, alarm relay, and supervisory relay.

Simplifying and reducing initial system set-up, each AX-CTL-1 (1L) Intelligent Single Loop Fire Alarm Control Panel is equipped with an installer-friendly "Auto-Learn/ Loop Detection" feature that permits the rapid recognition of all signaling line circuit devices. This rapid recognition simplifies the assignment of critical life safety functions immediately. Assignments include intelligent detector type and operation criteria, addressable input device recognition as an alarm input and addressable output control on a general alarm basis.



Features

- 126 Analog Addressable Points
- Advanced User Interface with Graphical LCD
- "Dynamix" I/O Relationship Programming
- Multi-Pattern & Two-Stage NAC Control
- Remote Diagnostic Virtual Panel Simulator
- Peer-to-Peer Networking up to 200 Nodes
- Automatic Drift Compensation per Detector
- Automatic Detector Testing with Maintenance Alert
- Alarm Verification and PAS
- SLC Circuit Compatibility with Xtralis VLC-400
- Style 4, 6 & 7 SLC Operation (Supports loop powered technology)
- Class A or B NAC Circuits
- Voltage Regulated NACs (Compatible with most Listed NAC devices)
- Synchronization of Audibles and Visuals (Panel or network wide)
- "Auto-Learn/Loop Detection" Programming
- Built-in Intelligent Multi-Meter
- Optional ipGateway for text and email status notification
- Optional Integral or Portable Printer

Designed with powerful built-in installation and customization tools, the AX-CTL-1 (1L) Intelligent Single Loop Fire Alarm Control Panel can adapt to virtually any application requirement. With DynamiX programming, typical time-consuming complexities associated with I/O relationship programming such as two-stage multi-pattern NAC control, intelligent detector drift compensation, precision response/sensitivity mode settings, flexible timing functions, and more, are sharply reduced.

The AX-CTL-1 (1L) intelligent panels are fully field programmable via the onboard graphical LCD display and alphanumeric keypad. Front panel programming may encompass defining input to output relationships, configuring output circuit characteristics, entering zone, device, and other text descriptions, and configuring multiple user-access passwords.

To maximize the capability and flexibility of the AX-CTL-1 (1L) Intelligent Single Loop Fire Alarm Control Panel and to expand upon the customization of an installation, the Advanced Windows based PC-NeT field configuration tool is available. The PC-NeT field configuration tool is a powerful, user-friendly programming tool that allows users to perform virtually any I/O relationship with multiple criteria. Simple drop-down menus with point-and-click operation make project commissioning and troubleshooting fast and efficient.

Designed with the technician in mind, each module of the AX-CTL-1 (1L) intelligent panel is easy to install and service. The integral power supply offers status LEDs, temperature compensated charging, and the ability to operate directly from the batteries when AC supply is not yet available at the installation site. A unique built-in intelligent multimeter allows technicians to interrogate any input and/or output and diagnose potential time-consuming trouble issues with virtually no complications or aggravation. With an AX-CTL-1 (1L) intelligent panel, servicing a customer after installation can be as simple as using the Advanced Remote Diagnostic Virtual Panel Simulator and/or ipGateway (AX-LAN). The simulator can be activated from any Windows based PC and connected to the installation site via a dedicated modem.

The Remote Diagnostic Virtual Panel Simulator emulates the on-site control panel LCD and keypad in real time from an off-site location. The simulator is an incredibly powerful tool for diagnosing and troubleshooting site applications. The ipGateway (AX-LAN) provides real-time text and email alerts of system status.

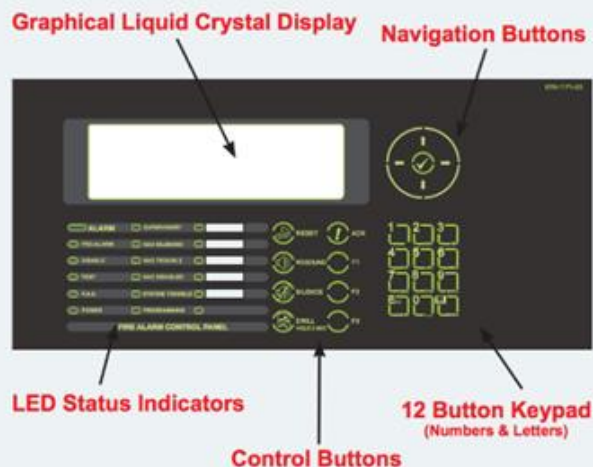
Listings and Approvals

- ETL ANSI/UL 864 Listed: 3118002NYM-001B
- CSFM Approved: 7165-1713:0101
- NYC FD COA #6080

Advanced User Interface w/Graphical LCD:

Designed to be user-friendly and easy to operate, the Advanced User Interface w/Graphical LCD (backlit 240 x 64) is the information and control center for the AX Series Intelligent Fire Alarm Control Panel(s).

The unit incorporates a graphical LCD display, LED status indicators, control buttons (including 3 programmable buttons), navigation buttons, and a 12 button keypad for complete system status, interrogation, and control.



Button (Keys)

	Reset
	Ack (panel buzzer acknowledge)
	Resound (resound signals)
	Silence (silence signals)
	Fire Drill
	Function Keys (3 - programmable control buttons)
	Navigation Keys (up, down, left, right, and tick [enter])
	12 Button Keypad (numbers, letters, esc, and menu)

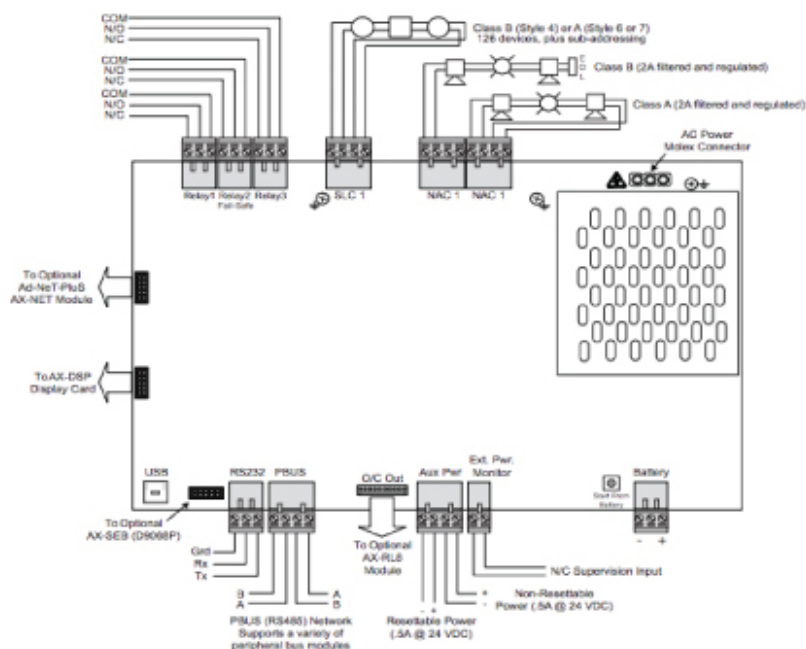
LED Indicators

Alarm	Red
Pre-Alarm	Red
Disable	Yellow
Test	Yellow
P.A.S.	Yellow
Power	Green
Supervisory	Yellow
NAC Silenced	Yellow
NAC Trouble	Yellow
NAC Disabled	Yellow
System Trouble	Yellow
Programming	Yellow
Programmable LED 1	Red
Programmable LEDs 2-5	Yellow

Specifications

Operating Voltage	120 VAC (1.4A) - 240 VAC (0.7A), 50/60Hz
System-Brown-Out	98 VAC Nominal
Battery Circuit	
Charging Voltage	27.4 VDC Nominal
Temp. Compensated Charging Current	2 Amp
Battery Derating Factor	0.83A
Battery Capacity	7Ah (minimum), 48Ah (maximum)
Battery Fuse	5A @ 240 VAC, Time Delayed, Ceramic.
Fire, Supervisory, and trouble relays	(Power Limited - When utilizing system power)
Type	Form "C"
Rating	1A @ 30 VDC/VAC
Trouble Relay	Normally Active (Fail-safe operation)
Auxiliary Power Outputs	(Power Limited)
Resettable	
Voltage	24 VDC
Current	0.5A
Reset time	10-15 Seconds
Non-resettable	
Voltage	24 VDC
Current	0.5A
Humidity	85% Relative Humidity
Temperatures	
Operating	32°F - 120°F (0°C - 49°C)
Recommended Room	60°F - 86°F (15°C - 27°C)
Enclosure Dimensions	
AX-CTL-1	19.1"H x 16"W x 5.3"D
AX-CTL-1L	24.1"H x 16"W x 6.3"D
SLC Loop	(Power Limited)
Class (Style)	Class A or B (Style 4, 6 or 7)
Voltage	24 VDC
Minimum Return Voltage	17 VDC
Current	0.5A
NAC circuits	(Power Limited)
Class (Style)	Class A or B
Voltage	24 VDC (Filtered and regulated)
Minimum Return Voltage	16 VDC
Current	2A (Each)
Maximum Voltage Drop	3 VDC
Maximum Line Impedance	1.5Ω
Baud Rate	9600
Parity	None
Data Bits	8
Stop Bits	1
Base Card Operating Current	Quiescent Alarm
AX-CTL-1(L)	110mA 195mA
* Refer to individual Axis AX series module datasheets for specific specifications regarding option modules	

Wiring Diagram



Order Codes and Options

AX-CTL-1*	Intelligent Single Loop Fire Alarm Control Panel with compact enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays (Enclosure supports batteries 7Ah - 18Ah)
AX-CTL-1L*	Intelligent Single Loop Fire Alarm Control Panel with standard Axis AX Series enclosure, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays (Enclosure supports batteries 7Ah - 18Ah)
	AX-CTL Base Card Option Modules**:
AX-NET4	Network Interface Card (Style 4)
AX-NET7	Network Interface Card (Style 7)
AX-RL8	8-Way Relay Output Card (Programmable)
AX-012	Thermal Strip Printer
AX-SEB/D9068P	Serial Expansion Board and Serial Digital Alarm Communicator

* For the gray enclosure, add the suffix "G" to the part number.

** Refer to individual Axis AX Series module data sheets for peer to peer network and peripheral bus optional modules.

Audio Zone Splitter Module

The AV-ZS audio zone splitter module is an optional module for use with the Advanced AV-AMP-80 audio amplifier. The module is designed to take one or both AVAMP-80 audio notification appliance circuits and split them into additional audio notification appliance circuits. Each audio notification appliance circuit of the AV-ZS is capable of supporting 20 Watts and can be wired Class A or B. If splitting both audio notification appliance circuits of the AVAMP-80 amplifier, each circuit will be split into two audio notification appliance circuits. If splitting only one audio notification appliance circuit of the AV-AMP-80 amplifier, the circuit will be split into four audio notification appliance circuits. The AV-ZS audio zone splitter module mounts above the associated AV-AMP-80 audio amplifier.

The AV-ZS audio notification appliance circuits are activated by switching a common "COM" AV-ZS voltage through an activation relay contact, back to a specific input zone selection on the AV-ZS audio zone splitter module. Also, activating all AV-ZS audio notification appliance circuits is possible by activating the "All" input selection. The audio notification appliance circuit activation must be wired within 20 feet of the activation relay contact. When the AV-ZS audio zone splitter module is utilized with an Advanced PBUS (RS485) AV-AMP-80 amplifier, the "All" input selection must be constantly activated allowing tracking of the two onboard AV-AMP-80 amplifiers for audio control via the AX-CTL base card PBUS (RS485).

The AV-ZS audio zone splitter module reports associated audio notification appliance circuit status (open circuit, short circuit, and grounds) via the associated AV-AMP-80 audio notification appliance circuit. Also, a fail-safe trouble relay contact is available which opens on any splitter audio notification appliance circuit trouble condition or with the loss of 24 VDC input power; this trouble relay contact can be monitored for individual AV-ZS trouble indication. When the AV-ZS audio zone splitter module is utilized with the Advanced AV-VBM audio panel, an optional AV-ZS-CM audio zone splitter switch module is available for manually controlling the four AV-ZS audio notification appliance circuits.



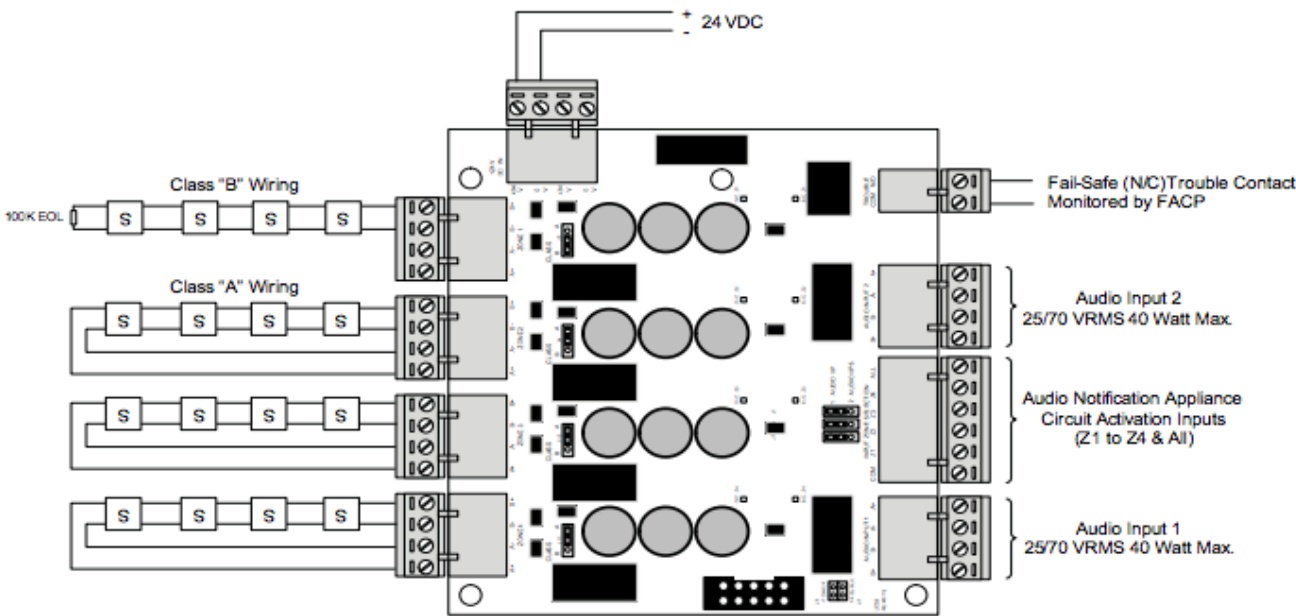
Features

- Four Supervised Class A or B Audio NAC Circuits
- Converts Two Audio NAC Circuits to Four
- Converts One Audio NAC Circuit to Four
- Supports 25 or 70 VRMS
- Mounts Above Advanced AV-AMP-80 Amplifier
- Supervised Circuits for Opens, Shorts and Ground Faults
- Individual Audio Notification Appliance Circuit Activation
- Dedicated All Audio NAC Circuit Activation
- Fail-Safe Trouble Relay Contact
- Individual Open / Short Circuit Status LEDs
- Optional AV-ZS-CM Switch Module for AV-VBM Usage

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001, 100027836NYM-001c

Wiring Diagram



Specification

Input Voltage (DC)	24 VDC Nominal
Current Quiescent	.100A
Alarm	.075A (All Zone Circuits Active)
Zone Circuits	Four (4) Independent Audio Notification Appliance Circuits
Wiring	Class A or B (Jumper selection per circuit)
Circuit EOL	100K (End of line resistor)
Maximum Wattage	20W (Per circuit)
Audio Inputs	40 Watts @ 25 or 70 Vrms
Audio In Jumpers	1 to 4, 1 Audio Input to 4 Audio Outputs
J1, J6 & J7	2 to 2. 2 Audio Inputs to 2 Audio Outputs (Per input)
PCB Status LEDs	8, 2 per Circuit (Open Circuit and Short Circuit)
Trouble Contact	Fail-Safe (COMM / N/O [Closed when normal])
Input Zone Selection	Individual and All Circuit Activation Inputs via Common Switch Voltage
14-Pin Cable Port	Available for Optional AV-ZS-CM Zone Splitter Switch Module

Order Codes and Options

AV-ZS	Audio Splitter Module
AV-ZS-CM	AV-VBM, Zone Splitter Switch Module

Portable Firefighter Phone Handset

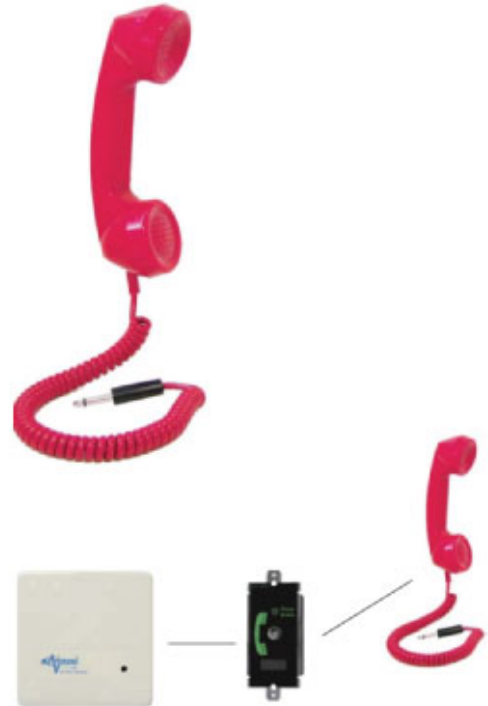
The AV-PHONE from Advanced is a Portable Firefighter Telephone Handset that comes with an RCA ¼" plug and is designed to be used with the AV-JACK, an addressable phone jack. Since the AV-PHONE is portable, a firefighter may carry the phone with him as he moves from one location to another. By simply plugging the AV-PHONE into an addressable AV-JACK, communications with the Command Center may be established.

When the AV-PHONE is plugged into the AV-JACK, a buzzer sounds at the Command Center indicating a request for service. Simultaneously, an associated LED flashes at the Command Center to indicate the location and identity of the incoming call. Once the Command Center operator presses the telephone connect button, the LED at the Command Center turns on steady and the LED at the AV-JACK turns on to indicate to the firefighter that the connection from the AV-JACK to the Command Center has been made.

The AV-JACK is compatible with the AV-TEL (up to 40) and AV-TEL-RISER6 (up to 35 per circuit, 210 total) telephone riser circuitry. The AV-TEL or AV-TEL-RISER6 circuitry creates a fully supervised telephone "party line" that allows field mounted firefighter telephones to communicate with up to 5 other firefighter telephones on each telephone riser as well as the Command Center Telephone simultaneously. The "party line" can be configured as a Class A or B circuit.

Advanced has a variety of field mounted firefighter telephones to choose from. Customers may choose from either a firefighter's telephone that is mounted in an enclosure or an AV-JACK. Any combination of up to 40 firefighters telephones and/or AV-JACKs are supported by the telephone riser circuitry located at the Command Center.

All wiring from the AV-TEL or AV-TEL-RISER6 to all field mounted Firefighter Telephones, and AV-JACKs is fully supervised for opens, shorts, and earth faults.



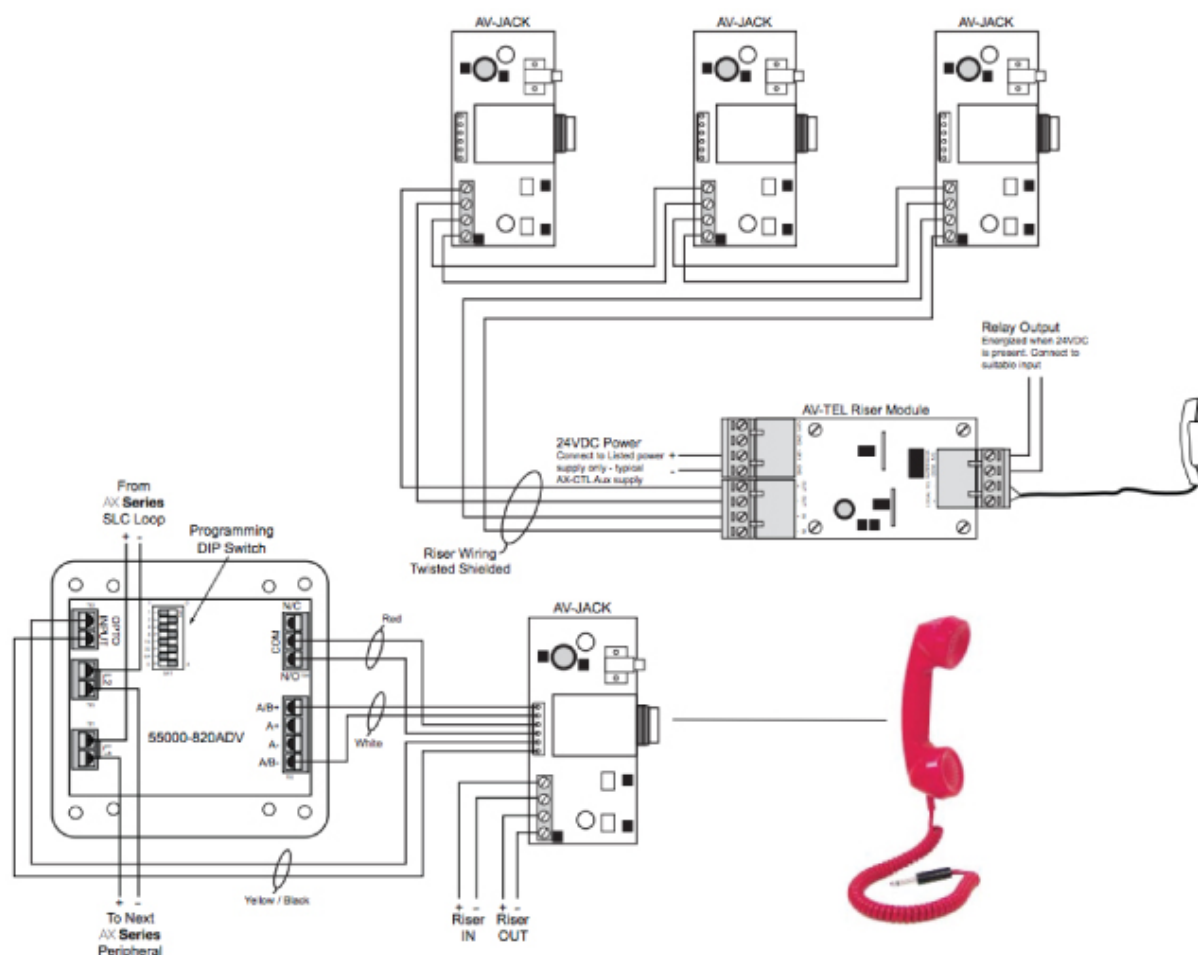
Features

- Made from high impact plastic
- Tip and Sleeve Connection
- Built-In Noise Filter
- Lightweight

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL Listed: file UOXX.S2580

Wiring Diagram



Order Codes and Options

AV-PHONE	Portable Firefighter Phone Handset (red) with RCA ¼" plug.
AV-JACK	Addressable Firefighter Telephone Jack. Fully Supervised. Includes Phone Active LED that illuminates upon connection with Command Center Telephone.

Firefighter Telephone Cabinets

The AV-SC-5 provides storage for up to 5 AV-PHONE portable firefighter telephone handsets. The AV-SC-10 provides storage for up to 10 AV-PHONE handsets.

Cabinets are made from 16 Gauge Steel and come with a durable red finish. White indelible lettering "EMERGENCY TELEPHONE HANDSETS" is prominently displayed on the cabinet cover. The piano-hinged door is secured with a CAT-30 door lock. Both cabinets come ready for surface mounting.



Features

- Convenient Storage of Portable Handsets
- Available in two sizes: 5 or 10 phones
- Surface Mount
- 16 Gauge Steel Construction
- Durable Red Finish

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- UL Listed: file UOXX.S2580
- CSFM Approved: 7165-1713:0101
- NYCFC COA: #6150

Order Codes and Options

AV-SC-5	Firefighter Phone Cabinet (red). Holds 5 AV-PHONE phones. Dimensions: 3.5"W x 13.125"H x 4"D
AV-SC-10	Firefighter Phone Cabinet (red). Holds 10 AV-PHONE phones. Dimensions: 23.5"W x 23.625"H x 4"D

Addressable Firefighter Phone w/Riser Module

When added to an Axis AX Series Command Center, the AV-TEL provides Firefighter Telephone support. The AVTEL is a self-contained unit that includes a Firefighter Telephone along with Telephone Riser Circuitry in an easy to install enclosure. The AV-TEL mounts to the inner door of an Advanced Axis AX Series Command Center.

The AV-TEL circuitry creates a fully supervised telephone "party line" that allows field mounted firefighter telephones to communicate with up to 5 other firefighter telephones on the "party line" as well as the command center telephone simultaneously. The "party line" can be configured as a Class A or B circuit.

Advanced has a variety of field mounted firefighter telephones to choose from. Customers may choose from either a firefighter's telephone that is mounted in an enclosure or an AV-JACK. Any combination of up to 40 firefighters telephones and/or AV-JACKs are supported by the AV-TEL riser module.

All wiring from the AV-TEL to all field mounted addressable firefighter telephones, and AV-JACKs is fully supervised for opens, shorts and ground faults.

The riser module of the AV-TEL requires a regulated 24 VDC supply rated at 600mA. This can be provided from the AUX Output of the command center AX-CTL base card, depending on other overall loadings of this supply. Maximum riser operational current with 5 telephones active plus the command center telephone is 300mA.

The riser module is equipped with a trouble relay contact which is energized by the 24 VDC supply. This trouble contact may be monitored by one of the inputs located on the back of the AX-DSP display card. However, this is not essential because each addressable AV-JACK and firefighter telephone provides supervision of the riser voltage as well.



Features

- Compatible with Axis AX Series Command Centers
- Class A or B Telephone Riser
- Fully Supervised
- Individually Addressed Field Telephones

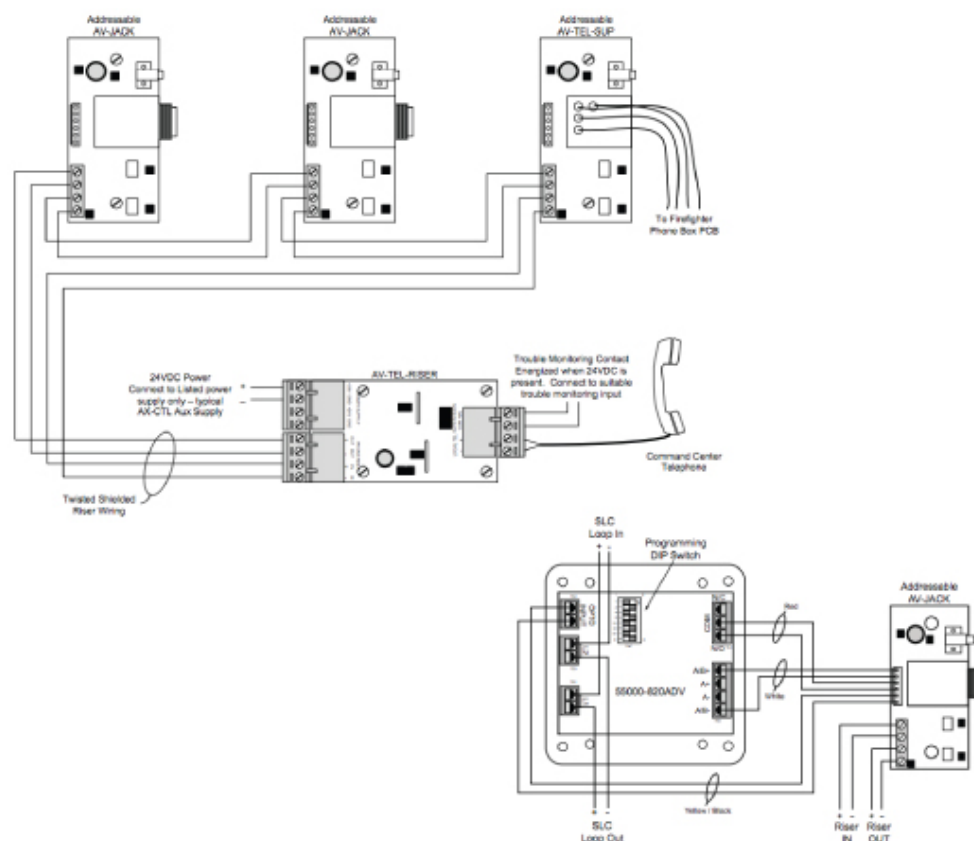
Ratings

- 24VDC, 600mA Short Circuit Maximum
- All Circuits Power Limited
- Riser Circuitry Contains Resettable Fuses
- Terminals Support 12-22 AWG Wire
- Maximum Circuit Impedance 40Ω

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- CSFM Approved: 7165-1713:0101
- NYC FD COA #6105

Wiring Diagram



Order Codes and Options

AV-TEL	Firefighter Phone with Telephone Riser Module and Enclosure. Mounts to inner door of Axis AX Series Command Centers.
AV-JACK	Addressable Firefighter Telephone Jack. Fully Supervised. Includes Phone Active LED that illuminates upon connection with Command Center Telephone. Comes with interface cabling for 55000-820ADV addressable I/O module connection.
AV-TEL-SUP	Addressable Firefighter Telephone supervision module for mounting within a firefighter's warden station. Comes with required mounting hardware and interface cabling for 55000-820ADV addressable I/O module connection.

Addressable Firefighter Phone Handset Interface

The AV-TEL-SUP is compatible with the AV-TEL and AV-TEL-RISER6 telephone riser circuitry. The AV-TEL and AV-TEL-RISER6 circuitry create fully supervised telephone “party lines” that allows the Axis AX Series Command Center to communicate with any combination of 5 (five) riser remote firefighter emergency station phone handsets, addressable firefighter warden station phone handsets or AV-JACKs as well as the command center telephone simultaneously. The “party line” can be configured as a Class A or B circuit.

The AV-TEL-SUP firefighter telephone supervision module is pre-mounted to an Advanced firefighter emergency or warden station phone handset assembly (AV-TEL-CCS, AV-TEL-CCP, AV-TEL-ACS or AV-TELACP).

When a firefighter emergency or warden station phone handset is removed from its cradle or the push to talk button is pressed the AV-TEL-SUP will send a signal to the 55000-820ADV input/output module. The signal from the 55000-820ADV input/output module will cause the buzzer to sound at the command center indicating a telephone call-in. Also, an associated LED flashes at the command center to indicate the location and identity of the incoming call. Once the command center operator presses the telephone connect button, the LED at the command center turns on steady and the LED located on the firefighter emergency or warden station phone handset assembly will turn on to indicate to the firefighter that the connection from the firefighter phone handset to the command center has been made.

Advanced has a variety of addressable field mounted firefighter emergency or warden station phone handset assemblies. Customers may choose from assemblies with coiled or armored cord and with or without a push to talk button. Any combination of up to 40 (AV-TEL with riser module) or 35 (per AV-TEL-RISER6 riser, six risers per AV-TEL-RISER6 [210 AV-TEL-SUPs max]) firefighter emergency or warden station phone handset assemblies and/or AV-JACKs are supported by the telephone riser.

All wiring from the AV-TEL or AV-TEL-RISER6 to the addressable field mounted firefighter emergency or warden station phone handset assemblies, and AV-JACKs are fully supervised for opens, shorts and ground faults.

The EOL Resistor supplied with the Addressable I/O Module P/N 55000-820ADV is not required – an EOL Resistor is incorporated on the AV-TEL-SUP PCB.



Features

- Firefighter Emergency & Warden Station Interface
- Individual Address per Station
- Supervised against Opens, Shorts, and Grounds
- Class A or B Configuration
- Five (5) Phone “Party Line” Communications per Telephone Riser
- Up to 40 AV-TEL-SUP's per AV-TEL Riser or 35 (max 210 / six risers) per AV-TEL-RISER6 Riser

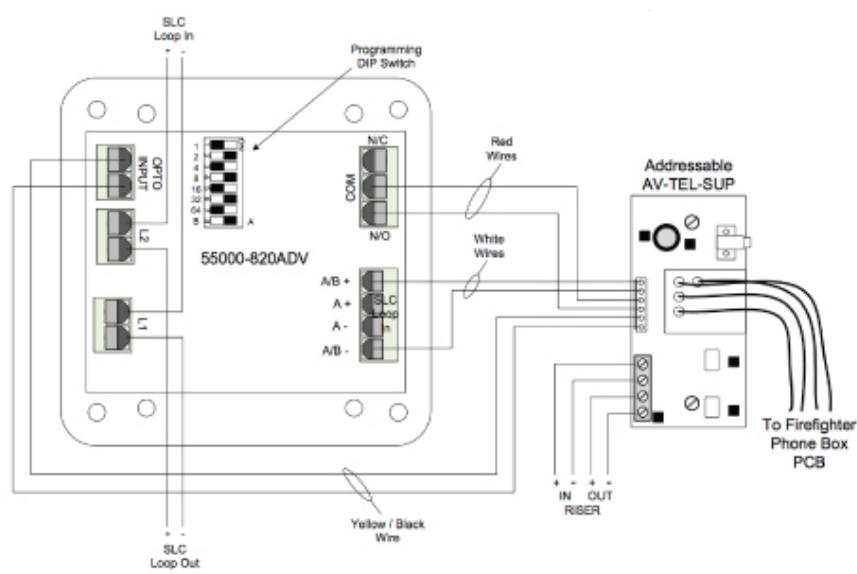
Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- CSFM Approved: 7165-1713:0101
- NYC FD COA #6105

A 6 conductor cable is supplied with the pre-mounted AVTEL-SUP module in the firefighter phone handset assembly and is required to be wired to the I/O Module as shown below. Red and White wires are not polarity sensitive. Yellow and Black wires are not polarity sensitive, but it is recommended to wire to the terminal positions as shown.

The 6 conductor cable supplied is 12" long with 24 AWG wires. If the wires need to be extended, use cable suitable for the purpose and connect using a suitable terminal block or wire nuts (maximum recommended distance is 30').

Wiring Diagram



Specification

Voltage	9 - 24 VDC
Current Draw	10 mA Quiescent / 30 mA Active
Wire Gauge	12 - 22 AWG, All Circuits Power Limited
Environment	Indoor Use Only
Mounting	AV-TEL-SUP is pre-mounted to Advanced Firefighter Phone Handset Assembly

Order Codes and Options

AV-TEL-CCS	Coil Cord Standard Firefighter Phone Handset, Includes Addressable AV-TEL-SUP Module
AV-TEL-CCP	Coil Cord Standard Firefighter Phone Handset w/Push to Talk Button , Includes Addressable AV-TEL-SUP Module
AV-TEL-ACS	Armored Cord Standard Firefighter Phone Handset , Includes Addressable AV-TEL-SUP Module
AV-TEL-ACP	Armored Cord Standard Firefighter Phone Handset w/Push to Talk Button , Includes Addressable AV-TEL-SUP Module
AV-TEL-SUP	Addressable Interface for Firefighter Phone Handset Assembly

Addressable Firefighter Telephone Jack

The AV-JACK can be mounted to a single-gang electrical back box and provides the capability of supporting a Portable Firefighter Telephone. The Advanced AV-PHONE is a compatible red Firefighter Telephone that has a mating male RCA ¼" plug.

When the AV-PHONE is plugged into the AV-JACK, a buzzer sounds at the Command Center indicating a request for service. Simultaneously, an associated LED flashes at the Command Center to indicate the location and identity of the incoming call. Once the Command Center operator presses the telephone connect button, the LED at the Command Center turns on steady and the LED at the AV-JACK turns on to indicate to the firefighter that the connection from the AV-JACK to the Command Center has been made.

The AV-JACK is compatible with the AV-TEL and AV-TEL-RISER6 telephone riser circuitry. The AV-TEL and AV-TEL-RISER6 circuitry create fully supervised telephone "party lines" that allow field mounted firefighter telephones to communicate with up to 5 other firefighter telephones on individual riser "party lines" as well as the Command Center telephone simultaneously. The "party line" can be configured as a Class B or Class A circuit.

Advanced has a variety of field mounted firefighter telephones to choose from. Customers may choose from either a firefighter's telephone, with AV-TEL-SUP module, that is mounted in an enclosure or an AVJACK. Any combination of up to 40 firefighters telephones and/or AV-JACKs are supported by the AV-TEL riser, while each riser of the AV-TEL-RISER6 supports 35 firefighters telephones and/or AV-JACKs. All wiring from the AV-TEL or AV-TEL-RISER6 to all field mounted firefighter telephones, and AV-JACKs are fully supervised for opens, shorts and ground faults.

The EOL Resistor supplied with the Addressable I/O Module P/N 55000- 820ADV is not required – an EOL Resistor is incorporated on the AV-JACK PCB. A 6 conductor cable is supplied with the AV-JACK and is wired to the I/O Module as shown. Red and White wires are not polarity sensitive. Yellow and Black wires are not polarity sensitive, but it is recommended to wire to the terminal positions as shown. The 6 conductor cable supplied is 12" long with 24 AWG wires. If the wires need to be extended use cable suitable for the purpose and connect using an appropriate terminal block or wire nuts. Maximum recommended distance is 30'.



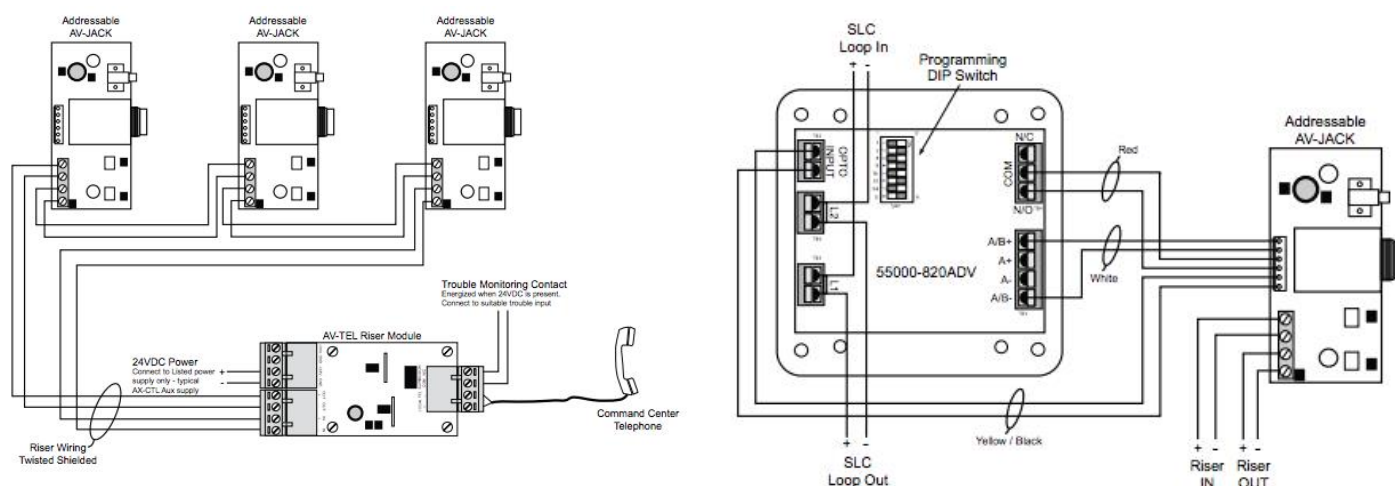
Features

- Individually Addressable Telephone Jacks
- Phone Active LED Indicator
- Telephone Riser Supply Supervision
- Supervised against Opens, Shorts, and Grounds
- Class A or B Configuration
- Slide-in Custom Location Label
- Mounts in a Single-Gang Electrical Box
- Compatible with AV-TEL and AV-TEL-RISER6 Products
- Field Programmable for Buzzer and LED Status Indications
- Class A or B Wiring
- Five (5) Phone "Party Line" Communications per Telephone Riser
- Up to 40 AV-JACKs per AV-TEL Riser & up to 35 per AVTEL-RISER6 Riser (210 max)

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- CSFM Approved: 7165-1713:0101
- NYCFD COA #6105

Wiring Diagram



Specification

Voltage	9 - 24 VDC
Current Draw	10 mA Quiescent / 30 mA Active
Wire Gauge	12 - 22 AWG, All Circuits Power Limited
Environment	Indoor Use Only
Electrical Backbox	Single-Gang (3 1/2" deep) or Double Gang (with single-gang plaster ring) per NEC, Article 314

Order Codes and Options

AV-JACK	Addressable Firefighter Telephone Jack. Fully Supervised. Includes Phone Active LED that illuminates upon connection with Command Center Telephone
AV-PHONE	Portable Firefighter Phone Handset (red) with RCA 1/4" plug.
AV-TEL	Firefighter Phone w/Telephone Riser Module and Enclosure. Mounts to inner door of AX Command Centers.

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As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.

Remote Annunciator Enclosures

Advanced offers two optional surface mount Remote Annunciator Enclosures, AX-ANN-WP and AX-ANN-TP. Each enclosure accommodates one AX-ANN-C or AX-ANN-D remote annunciator.

The AX-ANN-WP is a weatherproof remote annunciator enclosure incorporating a heater and thermostat protecting the AX-ANN-C and AX-ANN-D remote annunciator from weather and outdoor elements, while the AX-ANN-TP is a tamperproof remote annunciator enclosure protecting the AX-ANN-C and AX-ANN-D remote annunciator from vandalism and malicious damage.

Also, the AX-ANN-WP incorporates a gasket, clear Lexan window, and a corrosive resistant piano hinged drop-down door to prevent dust and moisture buildup on the remote annunciator.



Features

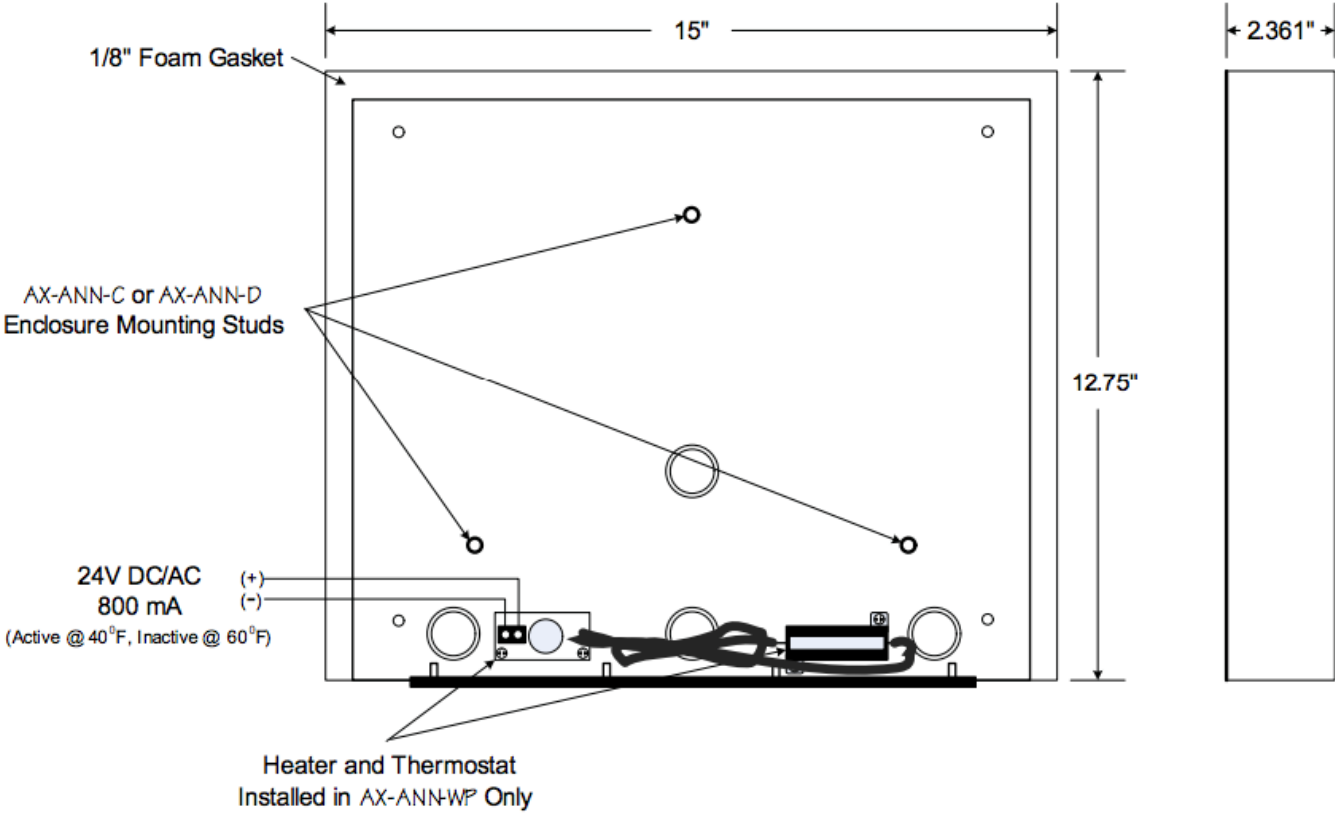
- 16 Gauge Cold Rolled Steel Construction
- Houses one AX-ANN-C or AX-ANN-D Annunciator
- Full Length Piano Hinged Drop-Down Door
- Clear Lexan Window
- Tamperproof Version for Vandalism Protection
- Weatherproof Version Includes Built-In Heater
- CAT-30 Keyed to Match Fire Alarm Control Panel
- Powder Coated Red
- Dimensions 15"W x 12.75"H x 2.361"D
- Surface Mount

Specification

Electrical Characteristics

AX-ANN-WP Heater/Thermostat	24V DC/AC @ 800 mA (Active at 40°F, inactive at 60°F)
Keylock	CAT-30
Knockouts	Four ½"
Color	Red
Dimensions	15"W x 12.75"H x 2.361"D
Weight	9.0 lbs

Wiring Diagram



Order Codes and Options

AX-ANN-TP	Tamperproof Enclosure (Less AX-ANN-C or AX-ANN-D annunciator)
AX-ANN-WP	Weatherproof Enclosure with 24V heater/thermostat (Less AX-ANN-C or AX-ANN-D annunciator)

Intelligent ipGateway

Providing superior remote monitoring and diagnostic interrogation from any remote location, via a secured internet connection, the Advanced Intelligent ipGateway (AX-LAN) provides an internet gateway to a single Axis AX Series Intelligent Fire Alarm Control Panel or to a complete Axis AX Series peer-to-peer network (AD-NeT-PluS) installation.

The ipGateway consists of the ipGateway PCB, enclosure, and integral display software. It consumes one node address on an AD-NeT-PluS network and can be utilized on either the Advanced Style 4 or Style 7 fault-tolerant peer-to-peer network.

The Intelligent ipGateway gathers real-time information from a standard web browser giving a visual and audible indication of the status of all AD-NeT-PluS connected nodes. The state of each network node and the status of individual devices (such as analog values of intelligent smoke detectors) of an AD-NeT-PluS network can be displayed at any time in a user-friendly clear and concise manner. Installation event logs can be viewed, saved, or printed as needed without the need to be physically at the installation site.

In addition to providing real-time remote access to Advanced Axis AX Series networks, the ipGateway can be configured to provide email notification based on various system/installation status changes. Status events such as alarms, supervisory, pre-alarms, troubles, disables, etc. can be sent via email to various designated email accounts based on time-of-day and day-of-week settings.

Specific custom user text messages can be configured for any email, providing precise and accurate information immediately to critical personnel.

With unique password protected access, granted by authorized on-site building maintenance personnel or a service technician, remote external commands can be generated over the TCP/IP network. This feature allows the remote user to assist local personnel in maintenance and troubleshooting of virtually any issue related to an Axis AX Series installation. This remote access and control incorporates a safety time-limiting feature, to avoid prolonged access without approval.



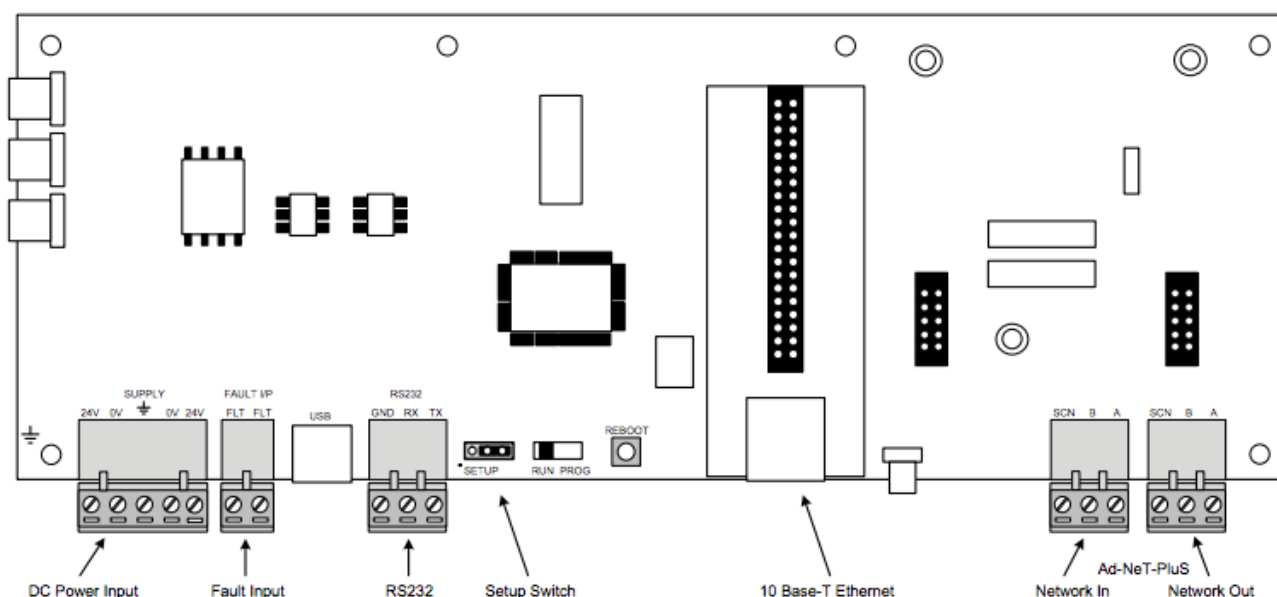
Features

- Monitoring & Interrogation via the Internet
- Secured Internet Connection
- AD-NeT-PluS Network
- Password Protected
- Event Notification via Email
- Configurable via the Internet

Listings and Approvals

- ETL ANSI/UL 864 Listed: 101564744NYM-001
- CSFM Approved: 7120-1713:0100
- NYCFCO COA #6105

Wiring Diagram



Specification

Operating Voltage	18 - 28 VDC
Operating Current (AX-NET4 & 7)	
AX-LAN (Style 4 Network)	70 mA
AX-LAN/ST7 (Style 7 Network)	110 mA
Environment	Indoor, Dry
Operating Temperature	32°F-120°F (0°C-48°C)
Humidity	10-95% (Non-Condensing)
Enclosure	
Dimensions and Knockouts	8 3/8"H x 11 3/4"W x 1 5/8"D, 4 top, 4 Bottom Rear
Weight (PCB & Enclosure)	4.5 lb
Wiring	Twisted Pair 18 - 20 AWG Minimum Recommended Twisted Shielded (Belden 8760, 8762)
Serial Interface	Isolated RS-232
Fault Input	Remote Power Supply Monitoring Input
Ethernet Interface	10 Base-T, RJ45
Indications	Microprocessor Heartbeat Network Transmit/Receive LAN Activity/LAN Connectivity/LAN Run

Order Codes and Options

AX-LAN	ipGateway Style 4 with enclosure
AX-LAN/ST7	ipGateway Style 7 with enclosure
AX-LAN-PCB	ipGateway PCB with Mounting Hardware
AX-LAN-CAB	ipGateway Enclosure