Advanced

Axis AX

Intelligent 2 & 4 Loop Fire Alarm Control Panels

Advanced has combined the latest technology with many years of fire experience, to create the Axis AX Series Intelligent Fire Alarm Control Panels. The panels are highly flexible and ideally suited to meet the needs of virtually any commercial, industrial or institutional application.

The Axis AX Multi Loop Panel is available in two standard models, the CAX-CTL-2 (2 Loop) and CAX-CTL-4 (4 Loop). Designed with installation and service engineers in mind, these intelligent panels are modularly packaged, using surface mount and dual flash microprocessor technology, with onboard real time clocks for ease of installation, troubleshooting, programming and maintenance.

The CAX-CTL-2 Intelligent Fire Alarm Control Panel provides two Style 4 or Style 6/7 Signaling Line Circuits (SLCs). Communications to field devices attached to the SLCs is via an advanced, 100% digital protocol with advantages of being highly immune to noisy environments and will operate over non-shielded cable without causing interference problems with sensitive electronic equipment.

Each 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, our unique sub-addressing of various input and/or output devices permits expanding system capacities further.

The CAX-CTL-2 also comes with two filter, 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 virtually any Listed notification appliance.

The CAX-CTL-4 Intelligent Fire Alarm Control Panel provides four Signaling Line Circuits (SLCs) and four fully filtered, voltage regulated Notification Appliance Circuits (NACs), each rated 2 Amp @ 24 VDC. In this configuration, the Axis AX Series panel can accommodate a total system capacity of 504 analog addressable point's standard, not counting sub-addressing capacity.

Both the CAX-CTL-2 and CAX-CTL-4 intelligent panels have 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 CAX-CTL-2 and CAX-CTL-4 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.



Features

- Advanced User Interface with Graphical LCD
- Multi-Pattern & Two-Stage NAC Control
- Remote Diagnostic Capabilities
- Advanced Networking
- Built-in Intelligent Multi-Meter
- Up to 504 Analog/Addressable Points
- Automatic Drift Compensation per Detector
- Automatic Detector Testing with Maintenance Alert
- Alarm Verification and PAS
- Style 4, 6 & 7 SLC Operation (Supports loop powered technology)
- Synchronisation of Audibles and Visuals (Panel or network wide)
- User-Friendly PC-NeT Field Configuration Program
- 5 to 10 Amps of System Power
- Optional ipGateway for Text and Email Status Notification

Simplifying and reducing initial system set-up, each Axis AX Series Intelligent Fire Alarm Control Panel is equipped with an installer-friendly “Auto-Learn/Loop Detection” feature that permits the rapid recognition of all signaling line circuits’ 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.

Designed with built-in powerful installation and customization tools, the Axis AX Series Intelligent Fire Alarm Control Panel(s) can adapt to virtually any application requirement. With Dynamix I/O 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.

Features Continued

- “Auto-Learn/Loop Detection” Programming
- Class A or B NAC Circuits
- SLC Circuits Compatibility with Xtralis VLC-400
- Voltage Regulated NACs (Compatible with most Listed NAC devices)

Listings and Approvals

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

The Axis AX Series 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 Axis AX Series Intelligent Fire Alarm Control Panel(s), and 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 dropdown menus with point-and-click operation makes project commissioning and troubleshooting fast and efficient.

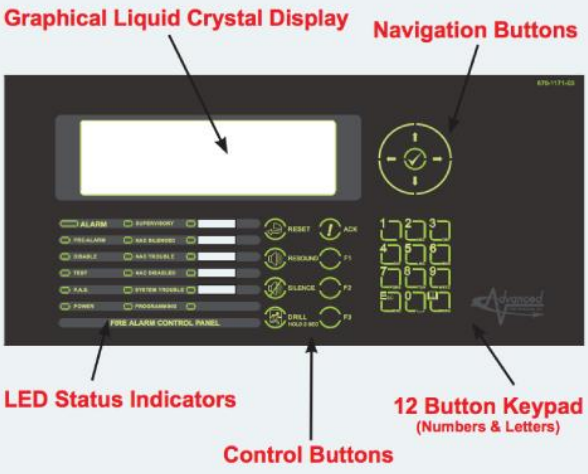
The Axis AX Series system accommodates remote graphical LCD annunciators (with or without system control capabilities) on the Advanced network. Multiple annunciator locations can be created based on installation demands. These locations can have either: no system control, partial system control, or full system control. In addition, information on system status changes can be vectored, allowing displays to receive only information pertaining to specific events.

The Axis AX Series panels can accommodate very large, sophisticated applications with relative ease. When installations exceed a single panel’s capacity the Advanced Ad-NeT-PluS peer-to-peer network may be implemented, providing up to 200 network nodes. The Ad-NeT-PluS is completely field programmable for interpanel functionality or segregation of information and control based on the overall installation requirements.

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.



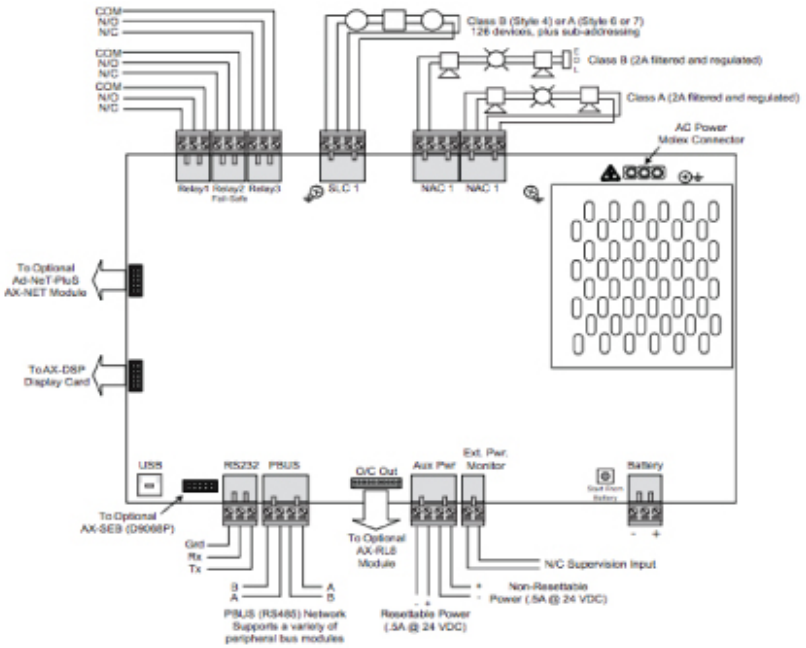
Button (Keys)	
	Reset
	Ack (panel buzzer acknowledge)
	Resound (resound signals)
	Silence (silence signals)
	Fire Drill
	Function Keys (3 - programmable control buttons)
	Navigation Keys (up, down, left, right, and tick [enter])
	12 Button Keypad (numbers, letters, esc, and menu)

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

Designed with the technician in mind, each module of the Axis AX Series 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 multi-meter allows technicians to interrogate any input and/or output and diagnose potential time consuming trouble issues with virtually no complications or aggravation. With an Axis AX Series panel, servicing a customer after installation can be as simple as using the Advanced Remote Diagnostic Virtual Panel Simulator and/or ipGateway (CAX-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 (CAX-LAN) provides real time text and email alerts of system status.

Wiring Diagram



Specification

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, High Breaking (In-line WireLink)
Fire, Supervisory, and Trouble Relays	(Power Limited - When utilising system power)
Type	Form "C"
Rating	1A @ 30 VDC/VAC
Trouble Relay	Normally Active (Fail-safe operation)
Auxillary 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	
Back Box	22.6"H x 14.5"W x 5.5"D
Housing	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	1.5 Ω
RS232	
Baud Rate	9600
Parity	None
Data Bits	8

Stop Bits	1
Base Card Operating Current	Quiescent Alarm
CAX-CTL-2	110mA 195mA
CAX-CTL- 4	175mA 260mA

* Refer to individual Axis AX series module data sheets for specific specifications regarding option modules

Order Codes and Options

CAX-CTL-2*	Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 2 SLCs, 2 NACs, 3 auxiliary relays (Cabinet supports batteries 7Ah - 18Ah) (254 Addressable Points)
CAX-CTL-4*	Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 4 SLCs, 4 NACs, 3 auxiliary relays (Cabinet supports batteries 7Ah - 18Ah) (504 Addressable Points)
	AX-CTL Base Card Option Modules**:
CAX-LPD	2 SLC, 2 NAC Expander Card
CAX-NAC	2 NAC Expander CArd
CAX-PSU	5 Amp Expansion Power Supply Module
CAX-NET4	Network Interface Card (Style 4)
CAX-NET7	Network Interface Card (Style 7)
CAX-RL8	8-Way Relay Output Card (Programmable)
CAX-012	Thermal Strip Printer
CAX-SEB/D9068P	Serial Expansion Board and Serial Digital Alarm Communicator

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

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