Axis AX

Intelligent Single Loop Fire Alarm Control Panel

The CAX-CTL-1L Intelligent Single Loop Fire Alarm Control Panel is a member of the industry leading Axis AX Series Intelligent Fre Alarm Control Panels by Advanced. The CAX-CTL-1L contains the identical features as the Advanced CAX-CTL-2 (2 loop) and CAX-CTL-4 (4 loop) Intelligent Fire Alarm Control Panels, and is ideally suited to smaller applications. However, as a member of the Axis AX Series product line the CAX-CTL-1L can easily be utilized in larger applications due to its integral peer-to-peer networking capabilities.

Designed with installation and service engineers in mind, the CAX-CTL-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 CAX-CTL-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 CAXCTL-1L system capacity.

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

The CAX-CTL-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 CAX-CTL-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.



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
- AD-NeT-PluS Peer-to-Peer Networking
- 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

Simplifying and reducing initial system set-up, each CAX-CTL-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

Listings and Approvals

- CAN/ULC-S527-11 & CAN/ULC-S559-04 Listed: 100780709NYM-001

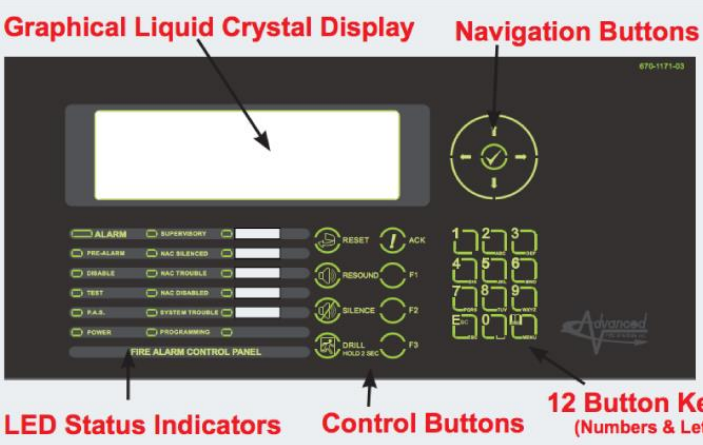
Designed with built-in powerful installation and customization tools, the CAX-CTL-1L Intelligent Single Loop Fire Alarm Control Panel can adapt to virtually any application requirement. With DynamiX programming, typical time-consuming complexities associated with I/O relationship programming such as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

The CAX-CTL-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 CAX-CTL- 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.

The CAX-CTL-1L intelligent panel can accommodate remote graphical LCD annunciators (with or without system control capabilities) on the Ad-NeT-PluS peer-to-peer 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. 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 inter-panel functionality or segregation of information and control based on installation requirements.

Designed with the technician in mind, each module of the CAX-CTL-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 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 CAX-CTL-1L intelligent 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.



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-CTL-1 (1L) Intelligent Single Loop Fire Alarm Control Panel.

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.

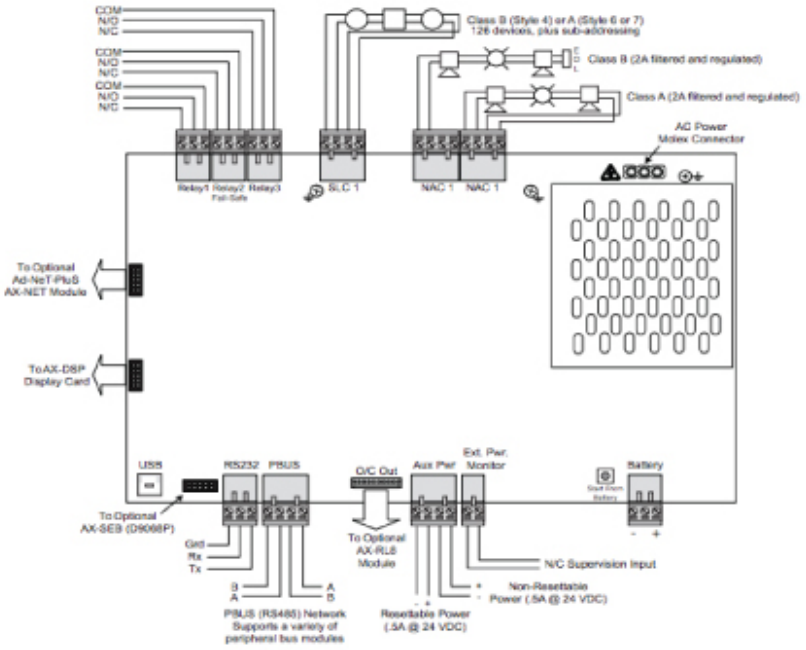
Button (Keys)

	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

Wiring Diagram



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 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	
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

Order Codes and Options

CAX-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)
CAX-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**:
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 optional modules.

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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.