

Advanced has combined the latest technology with many years of fire experience, to create the AxisAX 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 AxisAX Series Intelligent Fire Alarm Control Panels are available in two standard models, the AX-CTL-2 and AX-CTL-4. Modular construction permits field configuration of a panel(s) to suit specific installation requirements.

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

The AX-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.



### Features

- Automatic Drift Compensation per Detector
- Automatic detector testing w/maintenance alert
- Alarm verification and PAS
- 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)

- Synchronisation of audio and visual alerts (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
- 5 to 10 Amps of system power

### Axis AX Series Intelligent Fire Alarm Control Panel 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.
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)

# Axis<sup>AX</sup>

## Intelligent 2 & 4 Loop Fire Alarm Control Panels

Maximum Voltage Drop	3 VDC	
Maximum Line Impedance	1.5Ω	
RS232		
Baud rate	9600	
Parity	None	
Data bits	8	
Stop bits	1	
Base Card operating current	Quiescent	Alarm
AX-CTL-2	110mA	195mA
AX-CTL-4	174mA	260mA

\* Refer to individual Axis AX series module datasheets for specific specifications regarding option modules

## Key Features

Up to 504 Analog Addressable points	Multi-pattern & two-stage NAC control
"Dynamix" I/O relationship programming	Advanced user interface w/graphical LCD
Ad-NeT-Plus peer-to-peer networking	Remote Diagnostics Virtual Panel Simulator

AX-CTL-2\*: Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 2 SLCs, 2 NACs, 3 auxillary relays (cabinet supports batteries 7Ah - 18Ah)(Up to 252 addressable points)

AX-CTL-4\*: Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 4 SLCs, 4 NACs, 3 auxillary relays (cabinet supports batteries 7Ah - 18Ah)(Up to 504 addressable points)

AX-NET4: Network interface card (style 4)

AX-NET7: Network interface card (Style 7)

AX-LPD: 2 SLC, 2 NAC Expander card

AX-NAC: 2 NAC Expander card

AX-PSU: 5 Amp Expansion Power Supply Module

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 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 option modules

## Listings and Approvals

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

The AX-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 AxisAX Series panel can accommodate a total system capacity of up to 504 analog addressable points as standard, not counting sub-addressing capacity. Both the AX-CTL-2 and AX-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 AX-CTL-2 and AX-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. Simplifying and reducing initial system set-up, each AxisAX 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 AxisAX Series Intelligent Fire Alarm Control Panel(s) can adapt to virtually any application requirement. The AxisAX 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 AxisAX 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.

The AxisAX Series system accommodates 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. In addition, information on system status changes can be vectored, allowing displays to receive only information pertaining to specific events. The AxisAX 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. Designed with the technician in mind, each module of the AxisAX 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 AxisAX Series 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.

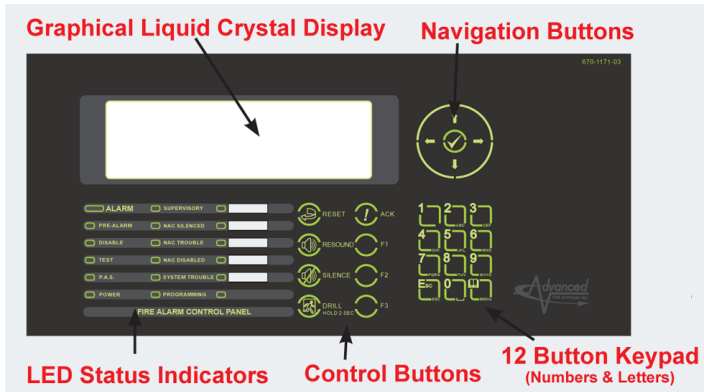
## Advanced User Interface w/Graphical LCD:

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.

### 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



## 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)

