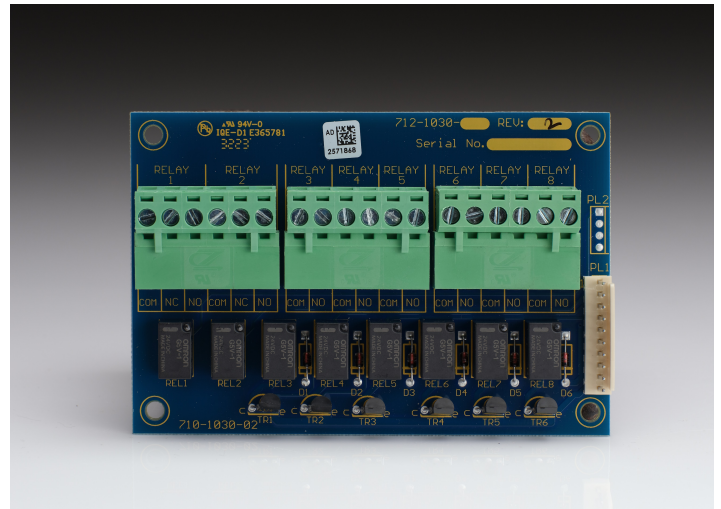


8-Way Relay Output Card

The AX-RL8 8-Way Relay Output Card is an internal peripheral card for use with Advanced Axis AX fire alarm control panels. The AX-RL8 card provides 2 Form-C and 6 Form-A (normally open) freely programmable relay contacts. Communications of the card and relays are done via a flat ribbon cable connection to the AX-CTL base card.

Compatible with the Axis AX Series Dynamix I/O relationship programming, the relays of the AX-RL8 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. To simplify installation, each AX-RL8 relay output is pre-configured to activate on a common alarm.

Ideally suitable for elevator control, HVAC shutdown, door holder release, or similar ancillary functions, each AX-RL8 relay is rated 30 VDC/VAC @ 1 Amp with a PF rating of 1 (resistive).



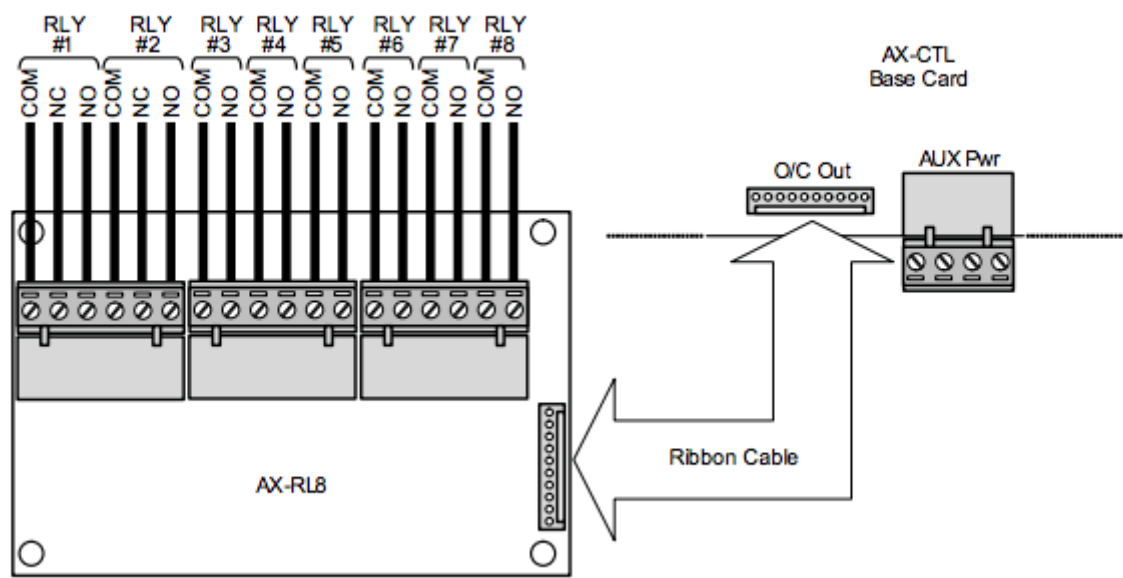
Features

- Eight (8) Individually Programmable Relays
- Contacts Rated 30 VDC/VAC, 1 Amp (Resistive)
- 2 Form-C and 6 Form-A Relays
- Fail-Safe Programmable
- Programmable Silenceable or Non-Silenceable
- Cost-Effective Ancillary Output
- Programmable Timing Functions
- Supports Dynamix I/O Relationship Programming
- Removable Field Wiring Terminal Blocks
- Rapid Activation Response

Listings and Approvals

- Certified to UL864 10th Edition – File No. S35979
- CSFM Approved: Pending
- NYCFC COA: Pending

Wiring Diagram



Specification

Relay Outputs	2 Form-C and 6 Form-A (Normally Open)
Relay Output Ratings	30 VDC/VAC @ 1 Amp, PF-1 (Resistive)
Operating Voltage	18-28 VDC (From Axis AXSeries Base Card)
Operating Current	0 mA
Quiescent	65 mA (All Relays On)
Alarm	
Environment	Indoor, Dry
Operating Temperature	32°F-120°F (0°C-48°C)
Humidity	10%-95% (Non Condensing)
Dimensions	2.76" X 4.13" X 0.71"
Weight	2.5 oz

Order Codes and Options

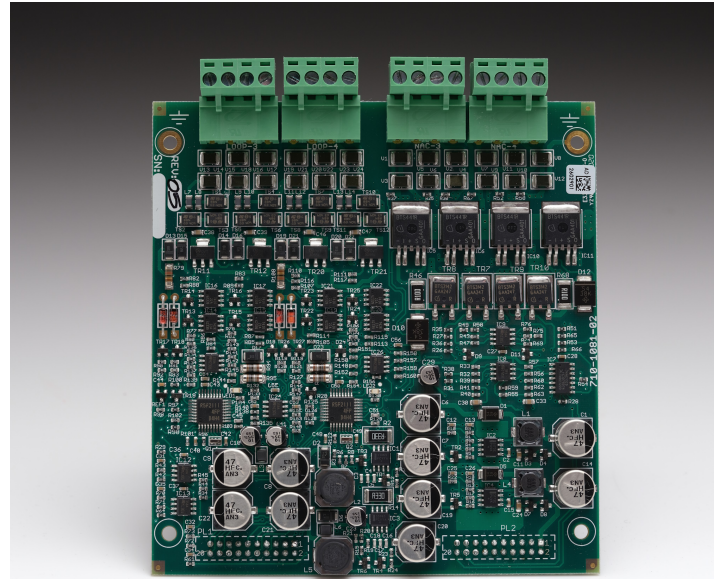
AX-RL8	8-Way Relay Output Card
521-194	10-Pin Flat Ribbon Cable, Replacement

AX-LPD and AX-NAC Module

The Advanced AX-LPD module provides SLC and NAC circuit expansion of an existing AX-CTL-2 fire alarm control panel. The module provides two Class X, A or B signalling line circuits (SLCs) and two notification appliance circuits (NACs). Communication to field devices attached to the SLCs is via an advanced, 100% digital protocol which has the advantages of being highly immune to noisy environments and the ability to operate over non-shielded cable without causing interference problems with sensitive electronic equipment.

Each SLC circuit supports up to 126 analogue addressable devices (any combination of intelligent detectors, input and/or output devices, including loop-powered technology devices), for a total expansion capacity of 252 points. In addition, the SLC circuits support the Advanced unique sub-addressing of various input and/or output devices, expanding system capacities further.

The AX-NAC module provides NAC circuit expansion of an existing AX-CTL-2 fire alarm control panel. The module provides two notification appliance circuits (NACs). The NAC circuits are filtered and regulated, capable of being wired Class A or B, each rated 2 Amp @ 24 VDC. Due to their exceptional regulation and high rating, the NAC outputs provide compatibility with virtually any listed notification appliance.



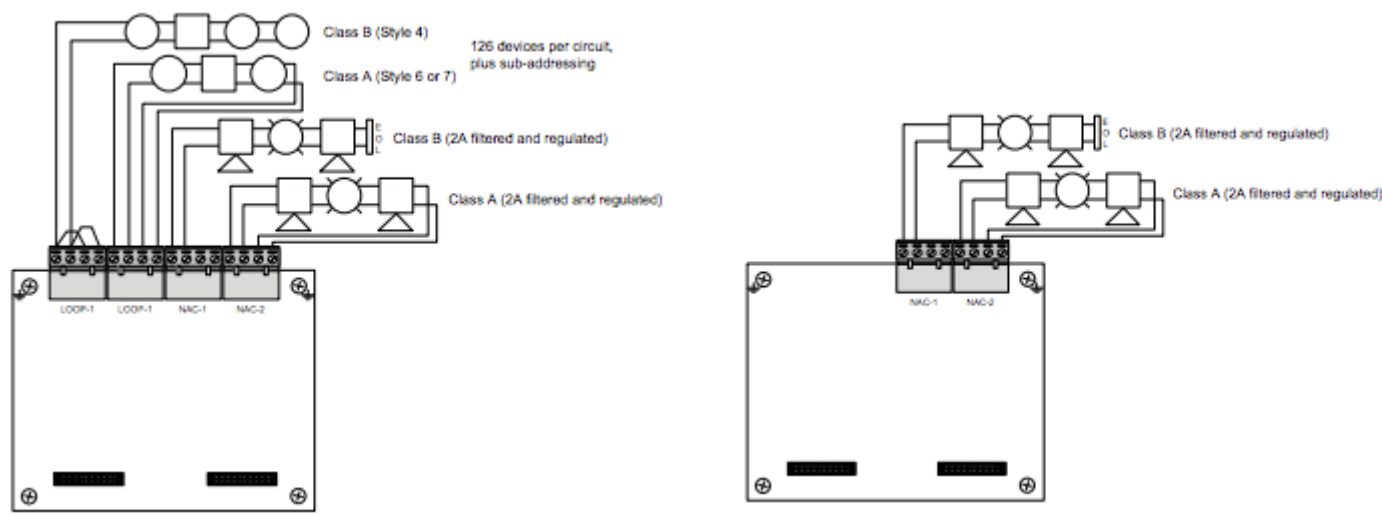
Features

- 2 SLC/NAC or 2 NAC Expansion
- “DynamiX” I/O Relationship Programming
- Multi-Pattern & Two-Stage NAC Control
- 252 Analogue Addressable Point Expansion
- Automatic Detector Testing with Maintenance Alert
- Automatic Drift Compensation per Detector
- Alarm Verification and PAS
- Class X, A or B SLC Operation (126 devices per SLC)
- SLC’s Support Loop-Powered Technology
- 2A rated Class A or B NAC Circuits
- Multi-Pattern and Two-Stage NAC Circuit Control
- Synchronised Audibles and Visuals (Panel or Network Wide)
- Programmable Silenceable & Non-Silenceable NACs
- Voltage-Regulated NACs (Compatible with many Listed NAC devices)
- “Auto-Learn/Loop Detection” Programming

Listings and Approvals

- Certified to UL864 10th Edition – File No. **S35979**
- CSFM Approved: Pending
- NYCFCO COA: Pending

Wiring Diagrams



Specification

SLC Loop

Class (Style)

Voltage

Minimum Return Voltage

Current

Class X, A or B

24 VDC

17 VDC

0.5A

NAC Circuits

Class (Style)

Voltage

Minimum Return Voltage

Current

Maximum Voltage Drop

Maximum Line Impedance

End of Line Resistor

Class A or B

24 VDC (Filtered and regulated)

16 VDC

2A (each)

3 VDC

1.5 Ω

10K

Environment

Indoor. Dry

Operating Temperature

32°F-120°F (0°C-48°C)

Humidity

10-95% (Non-condensing)

Dimensions

47 / 8 " W x 51 / 2 " L x 11 / 2 " D

Weight

4.5 oz

Order Codes and Options

AX-LPD

2-Way SLC/NAC

AX-NAC

2-Way NAC

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W: www.advancedco.com

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

Conventional Zone Module

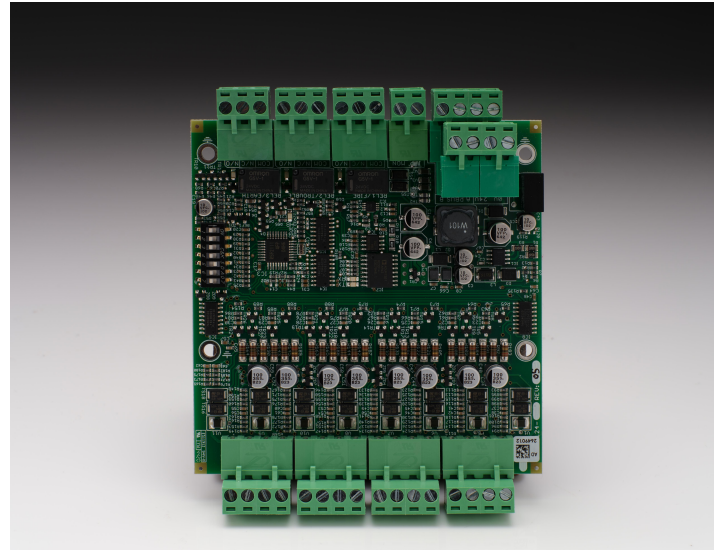
The AX-CZM Conventional Zone Module can be monitored and controlled by an Axis AX fire alarm control panel (P-BUS, "Peripheral Bus" operating mode), or by any UL864 listed fire alarm control panel ("Standalone" operating mode).

The AX-CZM module provides monitoring of up to eight (8) Class B conventional zone circuits with a programmable end-of-line resistor (6.8K, 4.7K, or 3.9K), or four (4) Class A conventional zone circuits. In addition, each AX-CZM module has three (3) Form C relay contacts defaulted in "Standalone" operating mode as an alarm, trouble and if required, earth/ground fault condition on a per module basis. If used in the "Peripheral Bus" mode of operation, these three (3) Form C relay contacts are freely programmable for any system functionality.

When connecting the AX-CZM module(s) to an Axis AX panel ("Peripheral Bus" operating mode), up to sixteen (16) AX-CZM modules can be supported. By supporting sixteen (16) AX-CZM modules, an Axis AX panel can accommodate up to 128 Class B (64 Class A) conventional zones and 48 (Form C) relay contacts. When used in the "Peripheral Bus" mode of operation, all zone and relay functionality is fully field programmable using the powerful cause and effect rules of Advanced's PC-NeT field configuration program.

In the "Peripheral Bus" or "Standalone" operating modes, the AX-CZM module must be powered by a UL-Listed 24 VDC nominal power supply and mounted inside an Advanced AXM-009 peripheral bus enclosure. In the "Standalone" mode of operation, the host (ANSI/UL 864 Listed) fire alarm control panel would monitor the single alarm, trouble (alarm and trouble contacts are common for all eight zones) and if required, earth/ground fault contacts for AX-CZM module status.

Each AX-CZM module makes use of Advanced's software monitoring and real-time power management (SMART-PM) techniques to minimise current requirements under alarm conditions across multiple zones. This SMART-PM technology results in lower power consumption, and increased fire alarm control panel battery life. Using the SMART-PM information, each zone circuit is capable of indicating a trouble condition when a 2mA load is exceeded (i.e. too many conventional smoke detectors added to the circuit).



Features

- Axis AX Series P-BUS or Standalone Operation
- Eight Class B or Four Class A Zone Circuits
- Programmable Class B End-of-Line
- P-BUS Operation Supports Sixteen AX-CZM's
- Three Form "C" Relay Contacts
- Advanced Power Management (SMARTPM)
- Programmable End-of-Line 6.8K, 4.7K or 3.9K
- 50 Ω Initiating Circuit Resistance
- Ideal for Retrofit Applications
- Extensive 2-Wire Detector Compatibility
- Conventional Detector and Contact Device Monitoring
- Programmable Alarm Verification
- P-BUS Supervised Remote Power Supply Monitoring
- 128 Class B (or 64 Class A) Zones and 48 Relays per Axis AX Series Panel
- Removable Terminal Blocks
- Programmable Latching/Non-Latching Input Types

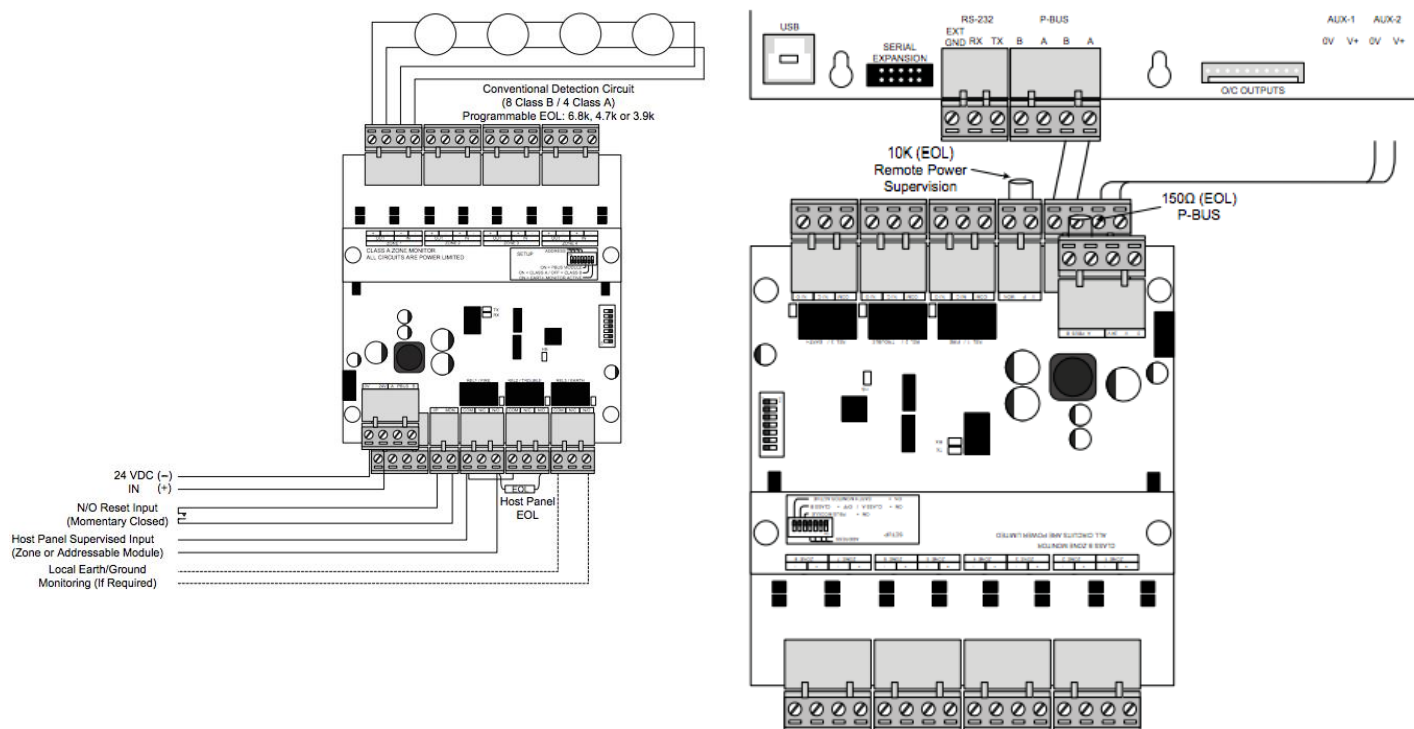
Listings and Approvals

- Certified to UL864 10th Edition – File No. S25235
- CSFM Approved: Pending
- NYCFCO COA: Pending

Specification

Operating Voltage	24 VDC
Operating Current	
Quiescent	110mA (Vs = 24, 8 Zones = Min Load)
Minimum	120mA (Vs = 24, 8 Zones = Max Load, Relays OFF)
Maximum	135mA (Vs = 24V, 8 Zones = Max Load, Relays ON)
Alarm	At Least 318mA (8 Zones = Max Load, 3 Relays ON)
Relays	
Relay 1	"Standalone" Common Alarm
Relay 2	"Standalone" Common Trouble (Fail-Safe)
Relay 3	"Standalone" Earth/Ground Fault
Ratings	1A @ 30 VDC
LEDs	
Red	Relay 1 - "Standalone" Alarm
Green	Relay 2 - "Standalone" Normal
Yellow	Relay 3 - "Standalone" Earth/Ground
Resistors	
Class B EOL	6.8K 4.7K or 3.9K
P-BUS Operation	10K
Remote Power	150K
End-of-Line	
Environment	Indoor, Dry
Operating Temperature	32°F - 120°F (0°C - 49°C)
Humidity	93% (Non-Condensing)
Weight	5.3 oz
Dimension	4.2" X 5"

Wiring Diagrams



Order Codes and Options

AX-CZM	Conventional Zone Module
AXM-009*	Peripheral bus enclosure (Supports 2 x AX-CZM)

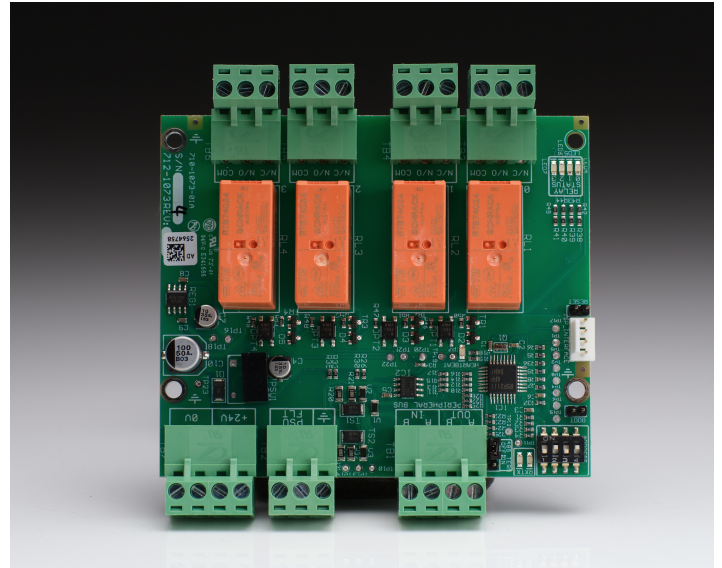
*For the gray enclosure, add the suffix **-G** to the part number.

4 Point Relay Card

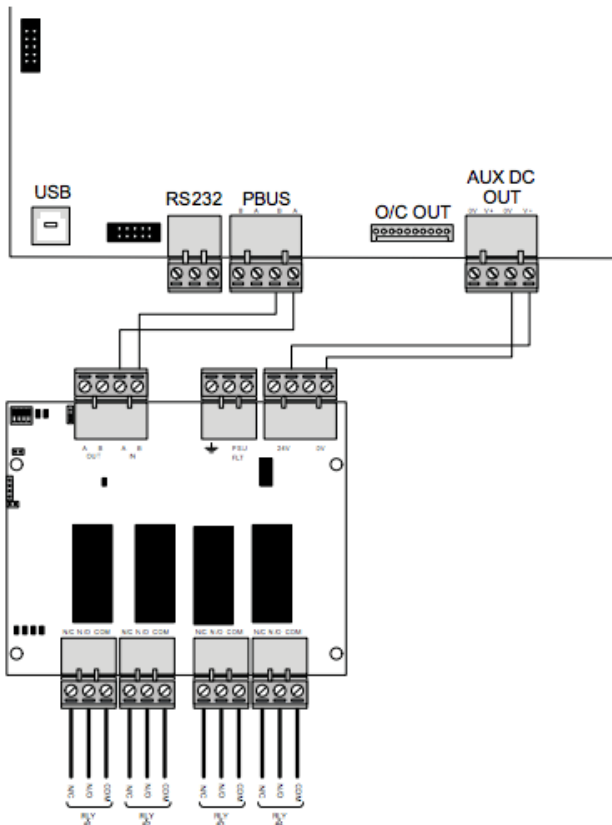
The AX-RL4 4 Point Relay Card is an optional PBUS (RS485 network) peripheral module that provides four individually programmable relay outputs from an Axis AX fire alarm control panel. Up to sixteen (16) AX-RL4 cards can be connected to a single Axis AX fire alarm control panel providing a maximum of 64 relay outputs. Each output of the AX-RL4 is fully field programmable using the powerful cause and effect rules of Advanced's PC-Net field configuration program.

The AX-RL4 4 Point Relay Card, can be installed in two different configurations; one AX-RL4 can be mounted within the Axis AX fire alarm control panel enclosure (if mounting location is available) or two (2) AX-RL4 cards can be mounted in a separate enclosure.

Each AX-RL4 card has onboard LEDs for the indication of individual relay activation, PBUS (RS485 network) communications and microprocessor heartbeat.



Wiring Diagram



Features

- Field Programmable Relay Card
- Mounted locally to FACP, or externally up to approx. 20m (or 65 ft) via RS485 PBus
- Powerful Cause & Effect Programming
- 120/240 VAC @ 5 Amp Rating
- Dedicated Power Supply Monitored Input
- Fully synchronised 64 Relays per Axis AX Series FACP Peripheral Bus
- Removable Field Wiring Terminal Blocks

Listings and Approvals

- Certified to UL864 10th Edition – File No. S35979
- CSFM Approved: Pending
- NYCFCO COA: Pending

Specification

Operating Voltage	15-30 VDC (From base card or listed power supply)
Operating Current	
Quiescent	22 mA
Alarm	100 mA
Output Ratings	5A @ 30 VDC/120VAC
LED Indicators	Relay Output Active PBus Communicators (RX/TX) Processor Heartbeat
End-of-Lines	10 K Ω - Fault Remote Power Supply 150 K Ω - PBUS EOL Built on Board
Environment	Indoor, Dry
Operating Temperature	32°F - 120°F (0°C-48°C)
Humidity	10-95% (Non-Condensing)
Weight (AX-RL4)	3 oz
Optional Enclosure Dimension	8.58" X 11.81" X 1.77"

Order Codes and Options

AX-RL4	4 Point Relay Card
AXM-009*	Optional Listed Enclosure (Supports 2 AX-RL4's)

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