X1100 Door Controller
Data Sheet

ADC-AC-X1100

www.alarm.com
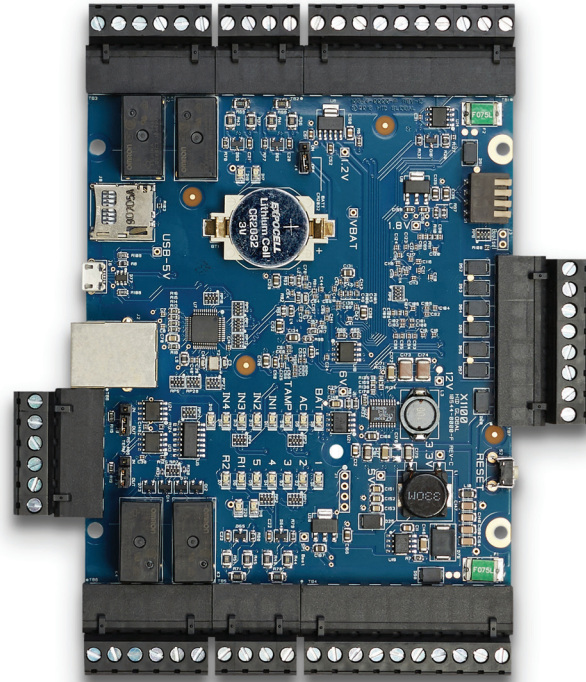
Specifications

The interface is for use in low-voltage, Class 2 circuits only.

The installation of this device must comply with all local fire and electrical codes.

Input power:
12 to 24 VDC ±10%, 1.9 A max

Communication:
Shielded 2-Wire RS-485

Inputs:
Two dedicated reader inputs
Four programmable inputs
One dedicated input for each of the following: Tamper, AC Fail, and Battery Fail

Outputs:
Four relay outputs 5 A (NO)
and 3 A (NC) @ 30 VDC
Two-wire LED control
Single-wire buzzer output

Certifications:
FCC, CE, UL 294 Certified

Dimensions:
(W x L x H)
6.46 x 5.51 x 1.02" (16.4 x 14 x 2.6 cm)

Temperature:
32°F – 158°F (0°C – 70°C) operational
-67°F – 185°F (-55°C – 85°C) storage

Operating humidity:
5% – 85% (non-condensing) RH

Availability:
Distribution

Overview

Alarm.com's Smarter Access Control is a powerful, easy-to-use solution for commercial properties that seamlessly integrates with the Alarm.com for Business platform. This platform enables intelligent automation and features, such as disarming when badging in, locking doors when arming, and tagging access events on the video timeline.

The X1100 Door Controller supports two readers with four relay outputs and four programmable inputs. For larger installations, the X1100 controller can manage up to 64 doors by connecting up to 31 X100 Two Reader Expansion Modules together.

Controller features

- 12 to 24 VDC input power

- Two dedicated reader inputs

- Support for 31 expansion modules and up to 64 readers

- Four relay outputs

- Four programmable inputs

Smarter Access Control Benefits

- Scan-to-add card format and serial detection

- Control doors and manage users from the Alarm.com app

- Integrated Alarm.com intrusion and video offerings

- User-friendly, flexible scheduling

- Configure hardware using web or app for easy installation

- Plug & play installation—no networking expertise required

X100
Two Reader Expansion Module
Data Sheet

ADC-AC-X100
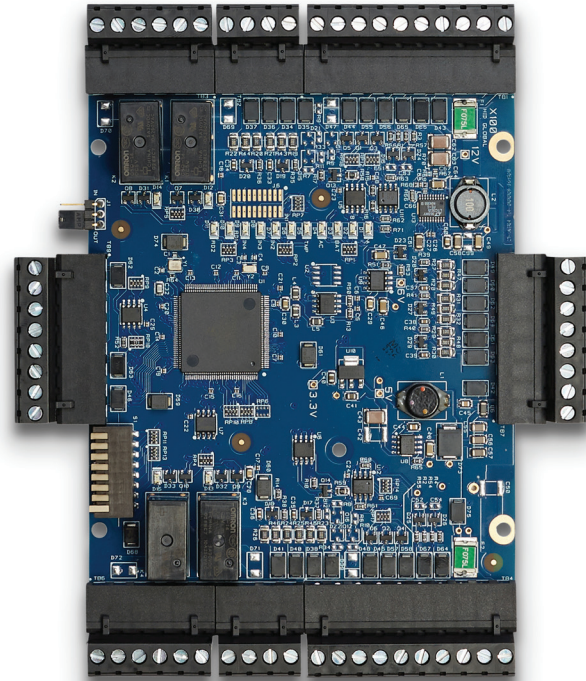
Specifications

The interface is for use in low-voltage, Class 2 circuits only.

The installation of this device must comply with all local fire and electrical codes.

Input power:
12 to 24 VDC ±10%, 1.5 A max input current, 450 mA nominal @ 12 V, 270 mA nominal @ 24 V, 340 mA max input current, excluding readers

Output power:
12 VDC, ±10%, 500 mA max each reader

Communication:
Shielded 2-Wire RS-485

Inputs:
Two dedicated reader inputs, four programmable inputs, one dedicated input for each of the following: Tamper, AC Fail, Battery Fail

Outputs:
Four relay outputs: 5 A @ 30 VDC resistive (NO), 3 A @ 30 VDC resistive (NC), two-wire LED control, single-wire buzzer output

Certifications:
UL 294 recognized, CE compliant, FCC Class A, ICES-003

Dimensions:
(W x L x H) 6.46 × 5.51 × 1.02" (16.4 × 14 × 2.6 cm)

Temperature:
32°F to 158°F (0°C to 70°C) operational, -67°F to 185°F (-55°C to 85°C) storage

Operating humidity:
5% – 85%(non-condensing) RH

Availability: Distribution

Overview

Alarm.com's Smarter Access Control is a powerful, easy-to-use solution for commercial properties that seamlessly integrates with the Alarm.com for Business platform. This platform enables intelligent automation and features, such as disarming when badging in, locking doors when arming, and tagging access events on the video timeline.

The X100 Two Reader Expansion Module adds support for two additional readers with four relay outputs and four programmable inputs to an Alarm.com X1100 Door Controller. For larger commercial installations, up to 31 X100 expansion modules can be connected together to manage up to 64 doors using a single X1100 Door Controller.

Features

• Provides all I/O needed for two additional doors

• Two dedicated reader inputs

• Four relay outputs

• Four programmable inputs

• For use with X1100 Door Controller only

• Connect up to 16 expansion modules per expansion port, up to 31 expansion modules total

Smarter Access Control Benefits

• Scan-to-add card format and serial detection

• Control doors and manage users from the Alarm.com app

• Integrated Alarm.com intrusion and video offerings

• User-friendly, flexible scheduling

• Configure hardware using web or app for easy installation

• Plug & play installation— no networking expertise required

Only compatible with HID Aero Series expansion modules

HID

Alarm.com Access Control Readers

Data Sheet

ADC-AC-ET10, ADC-AC-ET20, ADC-AC-ET25
www.alarm.com

Specifications

RF Technologies: 125 KHz, 13.56 MHz, NFC, Bluetooth Low Energy

Reads: MIFARE DESFire® EV1 & EV2, LEAF, FSK and ASK proximity

Input power: 5-16 VDC, 144 mA max (ET10), 169 mA max (ET20), 193 mA max (ET25)

Output: OSDP, Wiegand, accelerometer-based tamper detection

Read ranges: EV1: 1.2", EV2: 2.2", 125 kHz up to 4"

Temperature: -31°F – 151°F (-35°C – 66°C)

Dimensions: 5.1 x 1.7 x 0.7" (13.0 x 4.3 x 1.8 cm) (ET10), 5.1 x 3.3 x 0.7" (13.0 x 8.4 x 1.8 cm) (ET20 & ET25)

Operating Humidity: 5 – 95% (non-condensing) RH

Weight: 7 oz (ET10), 10 oz (ET20), 11.3 oz (ET25)

Country of Origin: USA

Weight: 7 oz (ET10), 10 oz (ET20), 11.3 oz (ET25)

Certifications: FCC, IC, CE, UL 294,EN 302291, EN 301489, EN 300330,EN 50130-4, IP55, BIS IS 13252

Overview

Alarm.com's Smarter Access Control is a powerful, easy-to-use solution for commercial properties that seamlessly integrates with the Alarm.com for Business platform. This platform enables intelligent automation and features, such as disarming when badging in, locking doors when arming, and tagging access events on the video timeline.

These three multi-technology contactless access control readers offer a modern aesthetic and a state-of-the-art feature set, including Proximity (125 kHz), MIFARE DESFire (13.56 MHz), NFC, and Bluetooth®. All readers are fully OSDP™ compliant and are enabled for OSDP Secure Channel.

Features

- Multiple technologies in a single reader: Proximity, MIFARE DESFire, NFC & BLE
- Mobile Credentials support enables phones to unlock doors, eliminating badges
- OSDP Auto-Detect
- OSDP Secure Channel and remote firmware upgradability
- MIFARE DESFire® EV1 & EV2 support
- LEAF credential support for secure, open, interoperability
- FSK and ASK legacy proximity credentials support for seamless transitions
- Accelerometer-based tamper detection
- Tri-state LED light bar (red, green, amber) and audible beeper
- Accommodates indoor, outdoor installation environments

Benefits

- Scan-to-add card format and serial detection
- Control doors and manage users from the Alarm.com app
- Integrated Alarm.com intrusion and video offerings
- User-friendly, flexible scheduling
- Configure hardware using web or app for easy installation
- Plug & play installation—no networking expertise required

Alarm.com Smart Credentials

Data Sheet

ADC-AC-CARD-50D4
ADC-AC-CARD-50H4
ADC-AC-FOB-60H8

www.alarm.com

Features

MIFARE® DESFire® EV2 smart credentials

Additional Proximity support with Smart + Proximity Card

LEAF credential support for secure interoperability

Smarter Access Control Benefits

Scan-to-add card format and serial detection

Control doors and manage users from the Alarm.com app

Integrated Alarm.com intrusion and video offerings

User-friendly, flexible scheduling

Configure hardware using web or app for easy installation

Plug & play installation—no networking expertise required

Overview

Alarm.com's Smarter Access Control is a powerful, easy-to-use solution for commercial properties that seamlessly integrates with the Alarm.com for Business platform. This platform enables intelligent automation and features, such as disarming when badging in, locking doors when arming, and tagging access events on the video timeline.

Alarm.com Smart Credentials provide secure access control authentication, in addition to data storage for biometrics, user privileges, or other custom applications. Each Smart Card and Smart Key Fob is equipped with an Alarm.com-specific encryption key which can only be read using Alarm.com readers, providing an additional layer of security. The Smart + Proximity Card allows businesses to continue supporting older credentials while transitioning to new smart credentials.

Features	Smart Card	Smart + Proximity Card	Smart Key Fob
SKU	ADC-AC-CARD-50H4	ADC-AC-CARD-50D4	ADC-AC-FOB-60H8
Security Level	EAL 5+	EAL 5+	EAL 5+
Memory Size	4K	4K	8K
Frequency	13.56 MHz	125 kHz + 13.56 MHz	13.56 MHz
Technology	MIFARE DESFire EV2	MIFARE DESFire EV2 + Proximity	MIFARE DESFire EV2
Dimensions	3.4 x 2.1 x 0.03" (8.7 x 5.4 x 0.08 cm)	3.4 x 2.1 x 0.03" (8.7 x 5.4 x 0.08 cm)	1.6 x 1.2 x 0.2" (4.0 x 3.1 x 0.5 cm)
Read Range	Up to 3" (7.6 cm)	Up to 3" (7.6 cm)	Up to 3" (7.6 cm)
Slot Punch	Vertical or Horizontal	Vertical or Horizontal	N/A
Storage & Operating Temperatures	-50°F – 160°F (10°C – 71°C)	-50°F – 160°F (10°C – 71°C)	-13°F – 176°F (-25°C – 80°C)
Material	PVC + PET	PVC + PET	Polycarbonate
LEAF Compatibility	LEAF enabled	LEAF enabled	LEAF enabled
Color	White	White	Black with White Center
Country of Origin	USA	USA	USA

LifeSafety Power®

FLEXPOWER
UNIFIED POWER SOLUTIONS
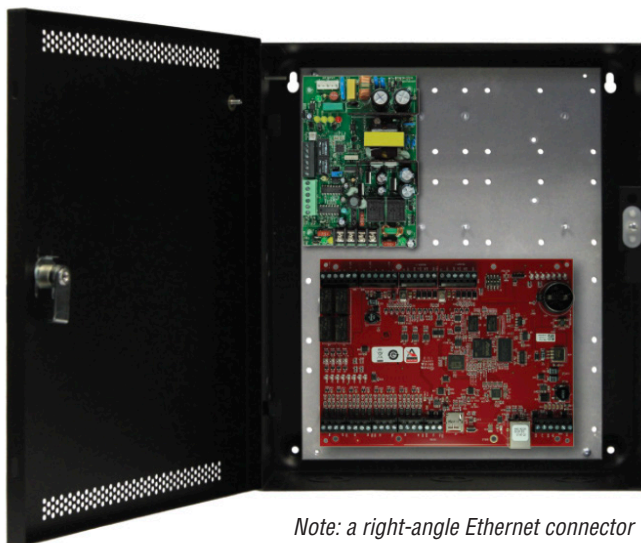
FLEXPOWER
MCLASS™

Overview

MCLASS multi-purpose enclosures offer maximum flexibility, function-ality and savings to access system designers. MCLASS enclosures are engineered to house FlexPower® power management boards alongside Mercury Security™ access hardware in one compact, secure UL294 listed system.

To prevent damage to system electronics, the backplate separates from the enclosure for access hardware mounting in the shop while wiring is pulled to the enclosure at the job site. Once configured, the backplate can be remounted for final ties and checkout.

Features

➢ Mounts LSP power and access hardware in a variety of combinations
➢ Removable backplate simplifies job installation
➢ Pre-engineered access mounting patterns saves installation time
  ◆ Power and distribution boards are mounted and pre-wired
  ◆ Access boards mount on provided threaded standoffs
➢ Mechanical upgrades
  ◆ Removable door with quick disconnect grounding strap
  ◆ Lockset and tamper switch provided
  ◆ 4.5" enclosure depth to accommodate battery area
  ◆ 16 Gauge steel with textured black finish
  ◆ Multiple knockouts all four sides

Part No.	Door Count	Description	Weight
E1M	2 Doors	Enclosure with main backplate	13 lbs

E1 enclosure size: 14H x 12W x 4.5D

cULus CE

Custom Backplate System

Flexible Mounting Pattern

The E1M backplate is designed with a unique Mercury mounting pattern to provide the installer with a configuration mechanism capable of support-ing both standard and PoE subassemblies in an extremely efficient manner for maximum door count.

The backplate is removable and mounts controllers and LSP modules in both single and dual voltage configurations.

The 4.50" cabinet depth allows for various battery sizes and capacities based on standby time required.

LSP/Mercury Joint UL/CUL Listing

Any combination of listed LSP and Mercury controllers may be configured and retain UL/CUL system listing.

Note: a right-angle Ethernet connector is required when mounting an LP1502

UL UNIFIED POWER LISTED

E1M Mercury Mounting Guide

| Mercury	Slots w/Power	Slots all Mercury
LP1502 / 4502	1	2
MR16in / MR16out	1	2
MR50	1	1
LP1501 / MR51e	3	4

Enclosure Features

◆ Custom Backplate
  – *LSP power modules pre-wired in top area*
  – *One EP1502 controller or up to three POE controllers*
◆ Mechanical
  – *4.5" cabinet depth*
  – *Removable door with "fast disconnect" ground strap*
  – *Multiple knockouts all four sides*
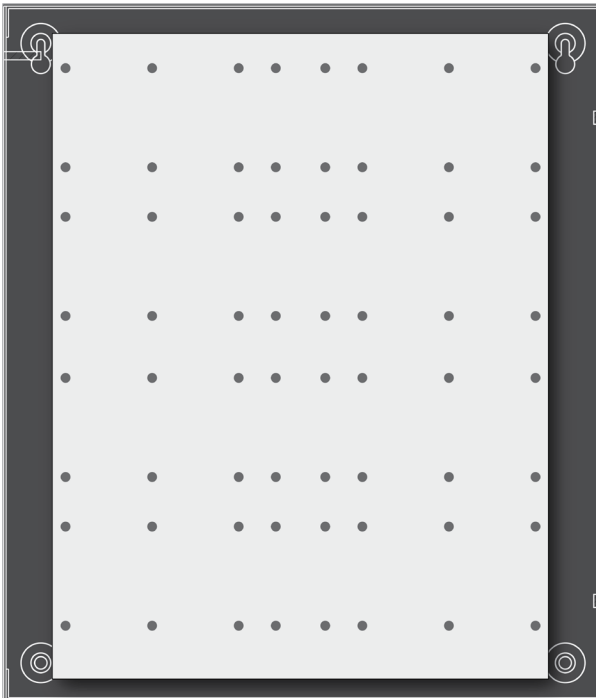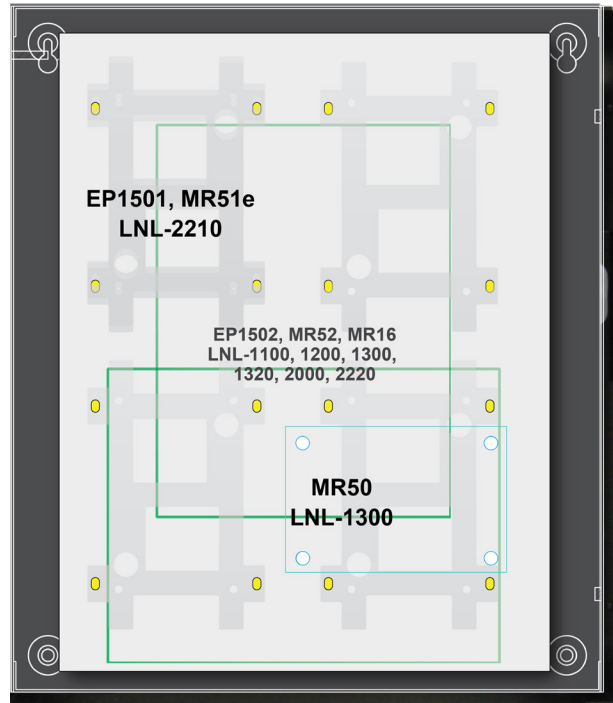 – *Network module mounting holes for field upgrade*

POE (4) slots

MR50 (1) slot
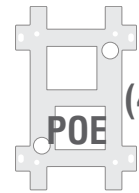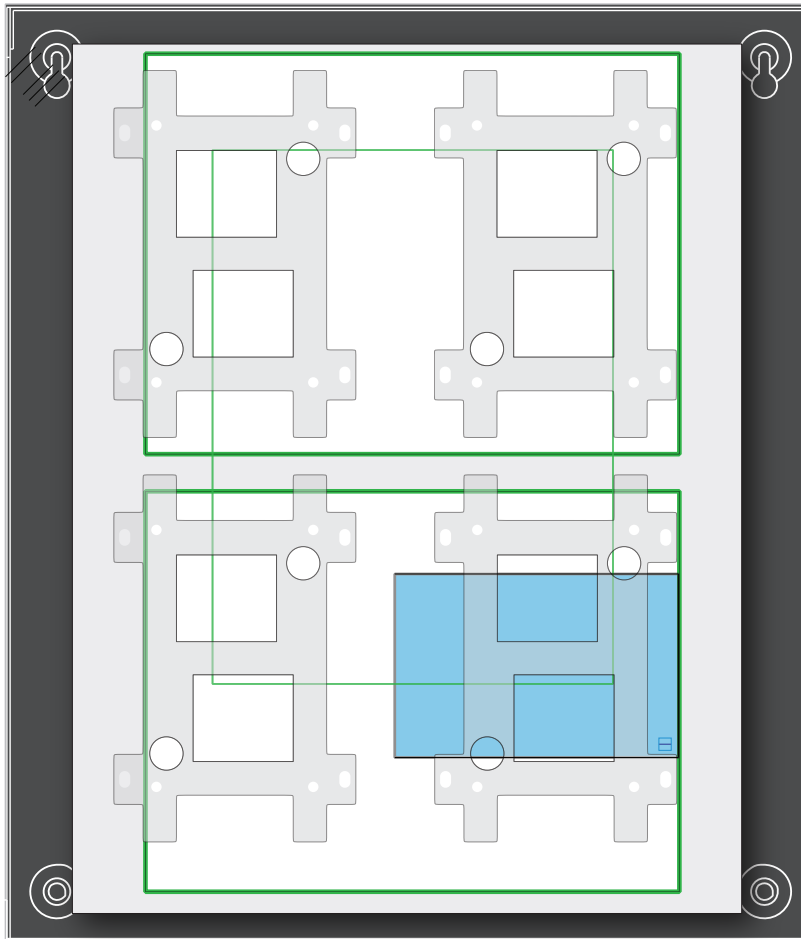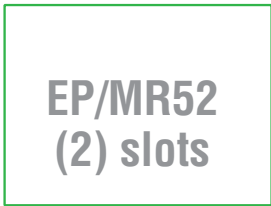
EP/MR52 (2) slots

BACKPLATE MOUNTING PATTERNS

Hole pattern for FlexPower modules

Hole pattern for Mercury access hardware

**EP1501, MR51e
LNL-2210**

EP1502, MR52, MR16
LNL-1100, 1200, 1300,
1320, 2000, 2220

**MR50
LNL-1300**

TYPICAL SYSTEM CONFIGURATIONS

Power up to three PoE controllers

12 and 24VDC power

P/N:B100
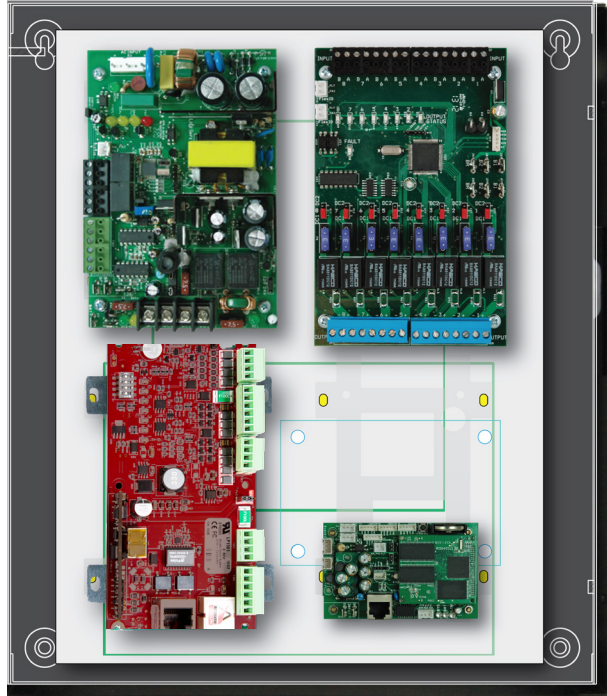
- FPO75-E1M
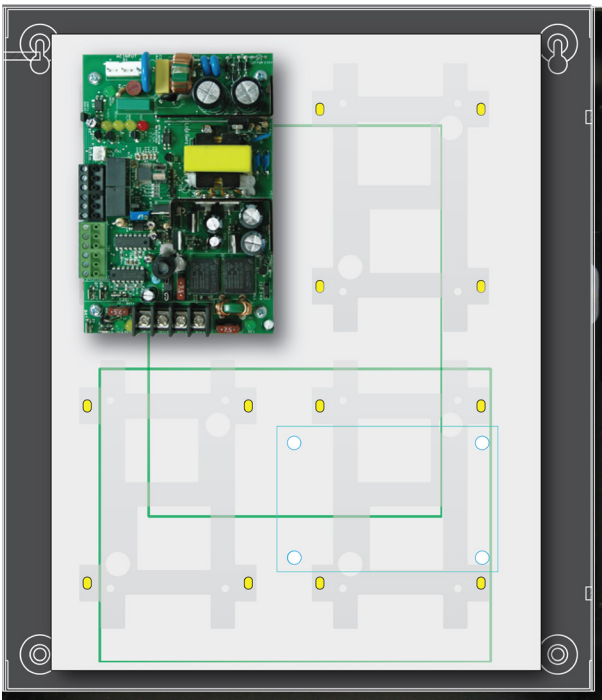
- FPO75-B100C4PE1M

TYPICAL SYSTEM CONFIGURATIONS
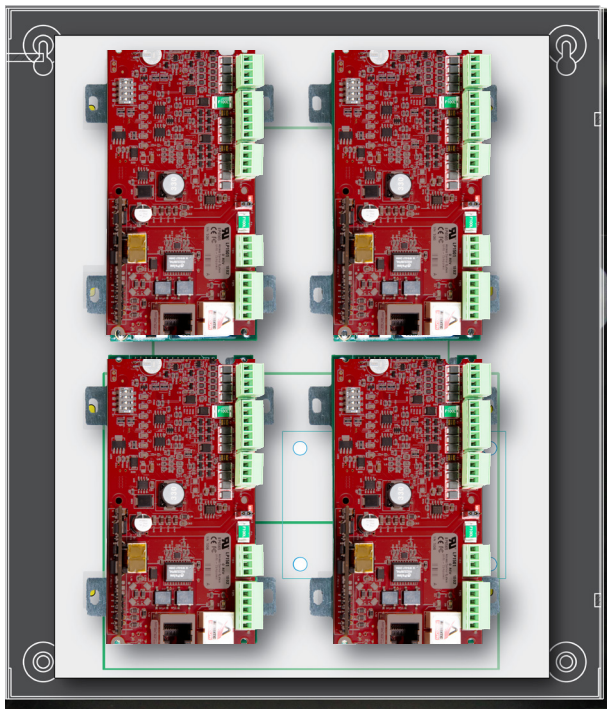
Two door with 4 relay control outputs

◆ FPO75-C4PE1M

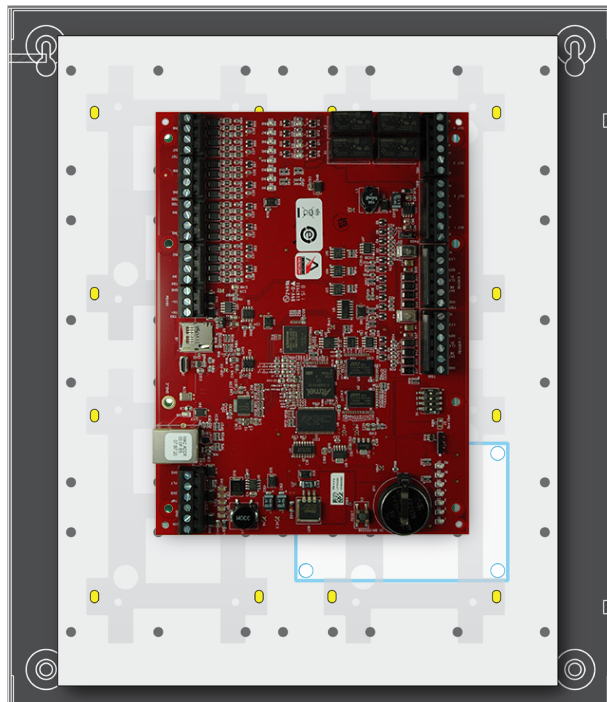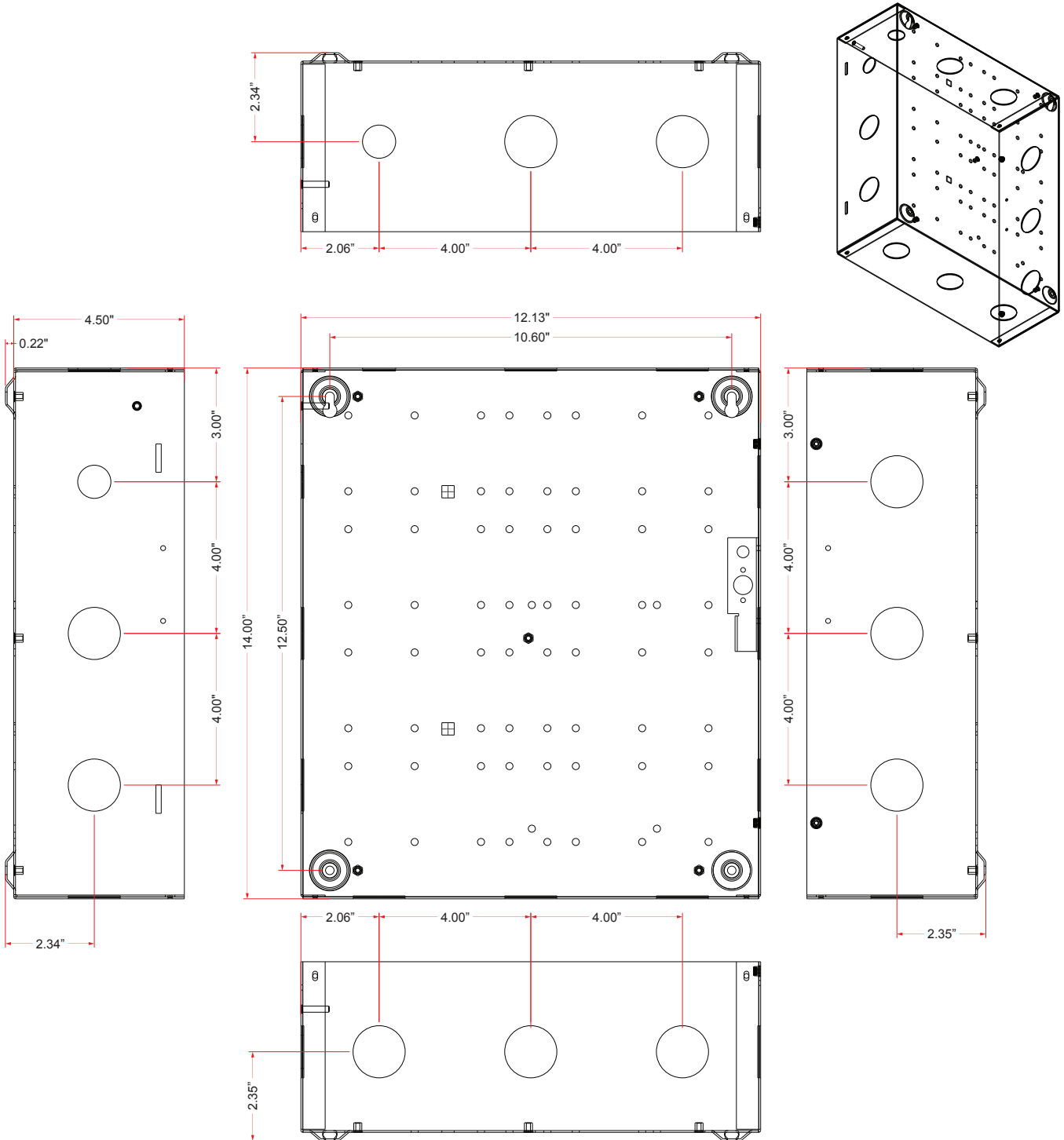*Remote monitoring and 8 relay control ouputs*

◆ FPO75-M8NL4E1M

Backplate fits up to four LP1501 sized boards

Backplate houses one MR52 sized board in vertical position

E1 Enclosure Dimensions (H x W x D)
14.00" x 12.00" x 4.50" (36 x 31 x 11.4 cm)

2.34"

2.06"   4.00"   4.00"

4.50"

0.22"

12.13"

10.60"

3.00"

3.00"

14.00"

12.50"

4.00"

4.00"

4.00"

4.00"

2.34"

2.06"   4.00"   4.00"

2.35"

2.35"

lifesafetypower.com

(888) 577-2898
info@lifesafetypower.com

 Specifications subject to change without notice.

LifeSafety Power
10027 S. 51st Street, Suite 102
 Phoenix, AZ 85044 USA

Wall Mounted Power Supplies

12VDC/24VAC

PATRIOT®
Power Supplies

Features

- LED voltage display
- Battery backup
- Mains fail and low battery contacts
- Lockable front door
- Internal GPO recess
- Short circuit & overload protection
- Cooling by free air convection
- Individually fused outputs
- LED indicators on all outputs
- Battery back (options)
- Tamper switch (option)
- User adjustable voltage for DC units
- Low battery signal (11 or 22V DC) for DC units
- Low voltage cut off (10 or 20V DC) for DC units

N12754

Specifications

Model	Description	Dimensions (WxDxH)
24V AC		
W-AC24-4A	24V AC, 4A, 9 x 1A Outputs	362x92x235mm
W-AC24-8A	24V AC, 8A, 16 x 1A Outputs	362x92x235mm
W-AC24-16A	24V AC, 16A, 32 x 1A Outputs	345x120x435mm
W-AC24-25A	24V AC, 25A, 32 x 1A Outputs	345x120x435mm
12V DC		
W-DC12-4A	12V DC, 4A, 9 x 1A Outputs	362x92x235mm
W-DC12-8A	12V DC, 8A, 16 x 1A Outputs	362x92x235mm
W-DC12-12A	12V DC, 12A, 16 x 1A Outputs	362x92x235mm
W-DC12-12C4	13.5V DC, 8A, 16 x 1A Outputs	362x92x235mm
W-DC12-24A	12V DC, 25A, 32 x 1A Outputs	345x120x435mm
13.5V DC		
WB-DC12-4A	13.5V DC, 4A, 9 x 1A Outputs, with 1 x 9AH/12V Battery	362x92x235mm
WB-DC12-8A	13.5V DC, 8A, 16 x 1A Outputs, with 1 x 9AH/12V Battery	362x92x235mm
WB-DC12-12A	13.5V DC, 12A, 16 x 1A Outputs, with 1 x 9AH/12V Battery	362x92x235mm
WB-DC12-24A	13.5V DC, 24A, 32 x 1A Outputs, with 1 x 9AH/12V Battery	345x120x435mm

Specifications subject to change without prior notice.

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