LINX integrated

11409 58^Th Ave E- Puyallup, WA. 98373

FIRE ALARM

SUBMITTALS

EAST BROWNSTONE

707 39TH AVENUE SE, PUYALLUP, WA 98374

POTTER
The Symbol of Protection

AFC-1000
Fire Alarm Control Panel

ASSEMBLED IN THE USA

Features

- 1,270 addresses available on this analog addressable system
- Additional system capacity achieved via multi-point SLC modules
- 1500 software zones
- NFPA 72 Compliant Smoke Sensitivity Test Built-In
- System Operates as Class A or Class B for SLC, P-Link and NACs
- 10 Amp Power Supply, Expandable to 315 amps
- 6 NACS, Regulated, Rated at 3 Amps each, expandable to 192
- 4 Input/Output (I/O) Circuits for system flexibility rated at 1 Amp each
- Strobe Synchronization and System Wide Sync for Gentex®, AMSECO®, Cooper Wheelock® and System Sensor® strobes
- Dedicated Alarm, Supervisory and Trouble Relays
- 4,000 Event History Buffer
- Optional two line DACT with UD-2000 that can report General, Zone or Point Information
- Built in IP communicator
- Ethernet Port for Programming and Network Connectivity
- E-Mail System Status, Reports and Event Information
- Product includes 5 year warranty

FM APPROVED

NYC Fire Dept.
Certificate of Approval
6256

7165-0328:0509

UL LISTED S735

Description

The AFC-1000 is an expandable analog/addressable releasing fire alarm system with a total system capacity of 1270 addresses. Additional capacity on the system is achieved using multi-point SLC modules The control panel utilizes the exclusive Potter protocol that includes a complete line of sensors and modules. Each SLC may be comprised of any combination of smoke sensor, heat detectors or modules and allows for a total of 50 ohms of impedance and may use any wire compliant with the National Electrical Code (NEC).

The AFC-1000 has a 10 Amp power supply with six Notification Appliance Circuits (NACs) and four Input/Output (I/O) circuits. The NACs are rated at 3 Amps each and the I/Os are rated at 1 Amp each. Each output is regulated and power limited. In addition, each output is uniquely programmable and may be configured for steady signal, strobe synchronization, constant power, door holder power, or releasing. The strobe synchronization includes Gentex, AMSECO, System Sensor and Cooper/Wheelock and with the exclusive Quadrasync each output may have a unique brand and all strobes will flash together.

The NACs may be expanded using the PSN-1000 series intelligent power supplies. Each PSN-1000 adds another 10 Amps of power, 2 additional input circuits and the AFC-1000 will support up to 31 power supplies. The system will synchronize the strobes system wide. In addition, the PSN-1000E has space to allow the installation of up to six PAD100-SLCE SLC loop expansion cards. The cards mount on a stacker bracket that allows access to all SLC circuit connections.

Technical Specifications

Dimensions	18 ¹⁵⁄₁₆”W x 27 ⁵⁄₁₆”H x 4 ⁷⁄₁₆”D
AC Mains	5.0 Amps @ 120 VAC 50/60 HZ 3.0 Amps @ 240 VAC 50/60 HZ
Enclosure	16 gauge cold rolled steel with removable locked door with Lexan viewing window
Battery	Standby Current-130 mA Alarm Current-220 mA • 10 Amps power for NACs, I/O, and P-Link • 3 Amps per NAC, regulated • 1 Amp per I/O circuit, regulated • Battery Charger range 8-55 Ah • Battery Charger voltage 27.3 VDC • P-Link maximum current of 1 Amp
Temperature and Humidity Range	32° to 120° (0°C to 49°C) with a maximum humidity of 93% non-condensing.
Standards	• NFPA, 13,15, 16, 17, 17A, 70, 72, and 750 • ANSI/UL 864 - Local (L), Remote Station (RS), Central Station (CS), Propriety (PPU), Auxiliary (AUX). Type of Service: Automatic (A), Manual (M),Water flow (WF) Sprinkler Supervisory (SS) Type of Signaling: Digital Alarm Communicator (DAC), March Time (March), Non Coded (NC), Reverse Polarity (Rev Pol), Other Technologies (OT) • IBC (International Building Code)

SLC Loop Accessories

The control panel may be connected with up to 1,270 addressable devices or modules in any combination. The SLC is not restricted by any special wire requirements and may be wired with any wire that complies with the NEC.

SLC Loop Devices

Device	Description
PAD Series-PD	Analog Photoelectric Smoke Detector is a smoke detector with a listed obscuration of 1.1 to 3.5%/foot. UL 268 7th Edition.
PAD Series-PHD	Combination Analog Photoelectric Smoke/Heat Detector – a smoke detector with a listed obscuration of 1.1 to 3.5 %/foot obscuration and a fixed temperature range of 135° to 185° F heat detector. Smoke detection compliant with UL 268 7th Edition.
PAD Series-PCD	Combination Photoelectric Smoke/Carbon Monoxide Detector. Smoke detection compliant with UL 268 7th Edition. Carbon Monoxide detection compliant with UL 2075.
PAD200-PCHD	Combination Photoelectric Smoke/Heat/Carbon Monoxide Detector. Smoke detection compliant with UL 268 7th Edition. Heat detection with a fixed temperature range of 135° to 185° F and UL 521 7th Edition compliant. Carbon Monoxide detection compliant with UL 2075.
PAD Series-HD	Analog Fixed Temperature (135° - 185°F) or Rate-of-Rise Heat Detector (software selectable).
PAD Series-DUCTR	Addressable Duct Smoke Detector with Form C Relay rate at 10Amps @ 250/120VAC or 8 Amps at 30VDC.
PAD Series-DUCT	Addressable Duct Smoke Detector.
PAD100-6DB	6" round base that is mountable to an electrical box and wired for connection to the PAD100/200 devices.
PAD100-4DB	4" round base that may be mounted to an electrical box and wired for connection to the PAD100/200 devices.
PAD100-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop and used for connection to the PAD100/200 devices.
PAD100-RB	Addressable Relay Base that contains one relay controlled by the SLC. Relay at rated at 2 amps at 30 VDC or 0.5A at 125VAC. For PAD100/200 devices only.
PAD100-SB	Addressable Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. For PAD100/200 devices only.
PAD Series-CD	Addressable CO gas detector.
PAD200-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure.
PAD300-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure or pendant mount applications.
PAD100-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz) and used for connection to the PAD100/200 devices.
PAD100-SPKB	Speaker base is a wall or ceiling mount speaker capable of 25 or 70.7 VRMS and is field selectable from 1/8W to 4W and used for connection with the PAD100/200 devices.
PAD300-6DB	6" round base which is mountable to an electrical box and wired for connection to the PAD300 devices.
PAD300-4DB	4" round base which is mountable to an electrical box and wired for connection to the to the PAD300 devices.
PAD300-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop. Used for connection to the PAD300 devices.
PAD300-RB	Addressable Relay Base that contains one relay controlled by the SLC. The Relay is rated 2 amps at 30 VDC or 0.5A at 125VAC and used for connection to the PAD300 devices
PAD300-SB	Addressable Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call; and used for connection to the PAD300 devices.
PAD300-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz) and used for a connection to the PAD300 devices.

Modules

Device	Description
PAD100-MIM	Micro Input Module provides a small foot print contact module for mounting inside an enclosure.
PAD100-PSSA	Single Action Addressable Pull Station.
PAD100-PSDA	Dual Action Addressable Pull Station.
PAD100-SIM	Single Input Module is a standard contact module with an LED that mounts into a 4" square electrical box.
PAD100-DIM	Dual Input Module is a device that can monitor two distinct inputs with a single device or in a Class A mode.
PAD100-TRTI	Two Relay Two Input module provides two form C relays that are individually controlled by the control panel. Each relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC. Also provides two contact inputs.
PAD100-NAC	Notification Appliance Circuit module is an addressable remote appliance circuit controlled by the panel.
PAD100-ZM	Zone Module is used to connect conventional 2-wire smoke detectors to the system.
PAD100-IM	Module interrupts a short on the SLC and prevents the short from affecting protected devices on the loop.
PAD100-RM	Relay Module that provides one form C relay controlled by the control panel. Relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC.
PAD100-LED	Module provides a single addressable LED that is controlled by the control panel.
PAD100-SM	Speaker Module provides switching for two audio channels.
PAD100-LEDK	Addressable LED and key switch that mounts in a single gang box.
PAD100-DRTS	DUCTR Remote Test Switch that mounts in a single gang box and optionally supervised. For use with the PAD100-DUCTR only.
PAD100-OROI	One Relay One Input Module provides one form C relay and one input. The relay is rated at 2 amps at 30VDC or 0.5 amps at 125VAC.

SLC Features

The Potter protocol is a digital protocol with a proven design for reliability and noise immunity. The system does not require special cable or conductors for connection of the Signaling Line Circuit as long as the cable is compliant with NFPA 70 and NFPA 72. The system allows for Class A or Class B installations as well as "T-Taps."Each loop is capable of 127 points, with a max wiring distance of 10,000 ft.

Sensor Features

The sensors through the fire alarm control panel provide a real time status as to the condition of the system. The smoke detector sensitivity, heat detector temperature level and drift compensation are all programmable options. The system also allows for a day/night mode where the panel automatically adjusts the sensitivity depending on the time of day. To assist in the reduction of false alarms, the smoke detectors also have a maintenance warning that sends a trouble signal when a detector is dirty to the point that it can no longer maintain the programmed sensitivity.

User Interface

The fire alarm control panel has a 4 x 40 LCD display to provide information to the system status. The keypad has navigation keys to allow manipulation of the Menu on board the panel. The panel is shipped standard with the following LEDs:

- AC Power - Green
- Alarm - Red
- Earth Fault - Amber
- Supervisory - Amber
- Silenced - Amber
- Trouble - Amber
- Pre-Release - Amber
- Release - Red

The common buttons include a Silence, Reset, Acknowledge, and Drill. All of the buttons are accessible once the locked door is opened.

P-Link

The AFC-1000 has a proprietary communication protocol that communicates through a RS-485 connection to field devices. Up to 64 devices may be connected to a single P-Link connection. The P-Link includes the communication terminals and regulated 24 VDC connection for the field devices. The field devices may be any of the following:

PAD100-SLCE-Analog/Addressable loop expansion module

SLCE-127 -Nohmi addressable loop expansion module for retrofit applications.

RA-6075R – 2 x 16 LCD annunciator with a key pad in a locked metal enclosure.

RA-6500R(F) – 4 x 40 LCD annunciator with a key pad in a locked metal enclosure. Flush mount version available.

LED-16(F) – 16 LED annunciator with common indicators in a locked metal enclosure. Flush mount version available.

PSN-1000(E) – 10 amp, remote intelligent power supply with 6 NACs, 2 Inputs and a P-Link repeater. This panel is listed in conjunction with the AFC-100 as releasing circuits

CA-6500 – Class A convertor that converts the SLC, NACs and P-Link connection

UD-2000 – UL listed, Dual line telephone alarm communicator

DRV-50 – LED driver expander, used to connect up to 50 LEDs in a graphic display

FCB-1000 – Fire communication bridge, provides remote mounting of the Ethernet connection

FIB-1000 – Fiber interface module, used to extend P-Link to multi-mode fiber (2 required)

RLY-5 – Relay module, provides 5 form C relay contacts rated at 3.0 amps 24VDC/125AC

SPG-1000 – Serial parallel gateway, allows for the connection to a serial or parallel printer

The **FIB-1000**, **FCB-1000** and the **SPG-1000** may be installed in the stacker bracket or ordered with the optional rack mount enclosure.

MC-1000 Multi-Connect allows up to sixty-three AFC series panels to share a single reporting technology.

IDC-6 – Initiating device circuit provides 6 programmable inputs

AE-2 – Two card expansion cabinet

AE-8 – Eight card expansion cabinet

**AE-14** – Fourteen card expansion cabinet

Ethernet/I.P. Connection

The AFC-1000 is shipped standard with an Ethernet connection. This connection is the programming port and may be connected to a building Wide Area Network (WAN) or Local Area Network (LAN). Once connected to the Internet, the panel may be selectively programmed to e-mail alarm conditions, trouble conditions, supervisory conditions, test, Event History and detector status. An e-mail may be sent to the panel and the panel will e-mail the event history, detector status, configuration file or server status to an authorized E-mail account. In addition, reminders may be set to send an e-mail for service, testing or other conditions.

In addition, the Ethernet connection is UL listed as an IP communicator. The IP communicator is listed to report to the UL listed Sur-Gard III IP receiver. The IP communicator replaces the traditional less reliable alarm communicator transmitter that utilized telephone lines. The IP communicator is an active method of connection and communication to the monitoring station.

Dimensions

TOP

18.91"

17.60"

DEPTH

4.41"

3.75"

DEPTH

LEFT SIDE

26.00 "

27.32 "

RIGHT SIDE

BOTTOM
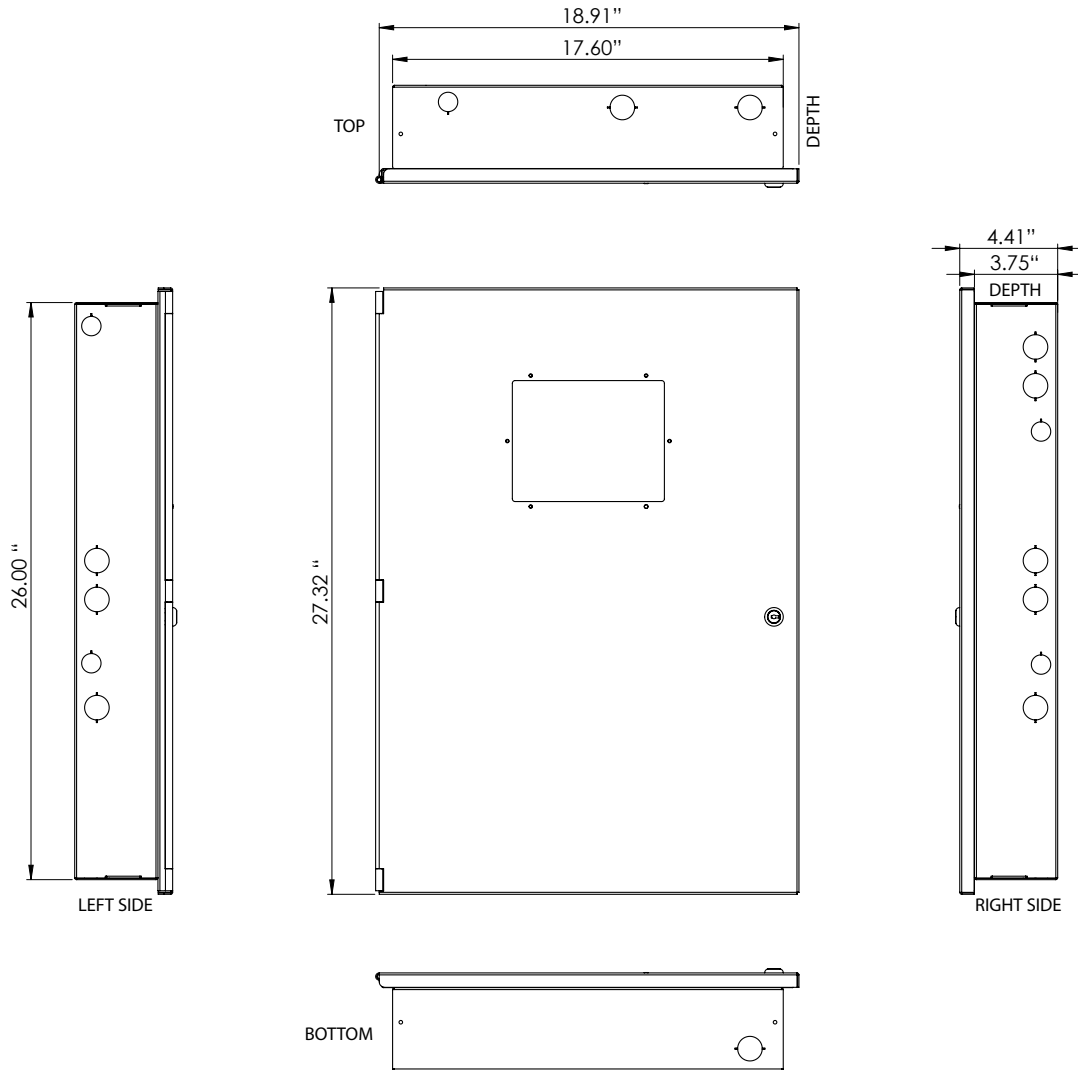
Ordering Information

Model	Description	Stock No.
AFC-1000	Fire Alarm Control Panel	3992754
	Replacement Board AFC-1000	3992758

Features

- PSN-64 has 6 amps regulated with 4 outputs

- PSN-106 has 10 amps regulated with 6 outputs

- May be configured as up to three class "A" Style "Z" notification circuits

- Two Trouble relays (5A at 30VDC) General System Trouble (programmable for AC delay) Low AC Trouble with optional delay settings

- Diagnostic LED's Status LED's for Active NAC and NAC Trouble conditions.

- Quadrasync feature synchronizes strobes from AMSECO, Gentex, Cooper-Wheelock and System Sensor.

- Configurable output circuits (DIP switch sets options for each circuit)

- Reference EOL allows 2K – 27K EOL value to be used

- Pass Thru mode allows the outputs to match the input signal from FACP

Description

The PSN series of notification power supplies offers reliable notification power with unprecedented versatility. The power supplies offer either 6 or 10 amps of continuous power through 4 or 6 outputs respectively. Each output is rated at 3 amps and it may be used continuously without any derating. The power supply operates on either 120 VAC or 220 VAC power input and has a regulated 24 VDC output. In addition, the power supply can charge up to 55 AH batteries and leads the industry in housing up to 18 AH batteries. The cabinet is constructed out of 18 gauge cold rolled steel and has a durable red powder coat finish. In addition, a key lock is provided for securing the door. Ample electrical knockouts are provided on the sides and the top, allowing the installer options for running wires and maintaining the correct separations.
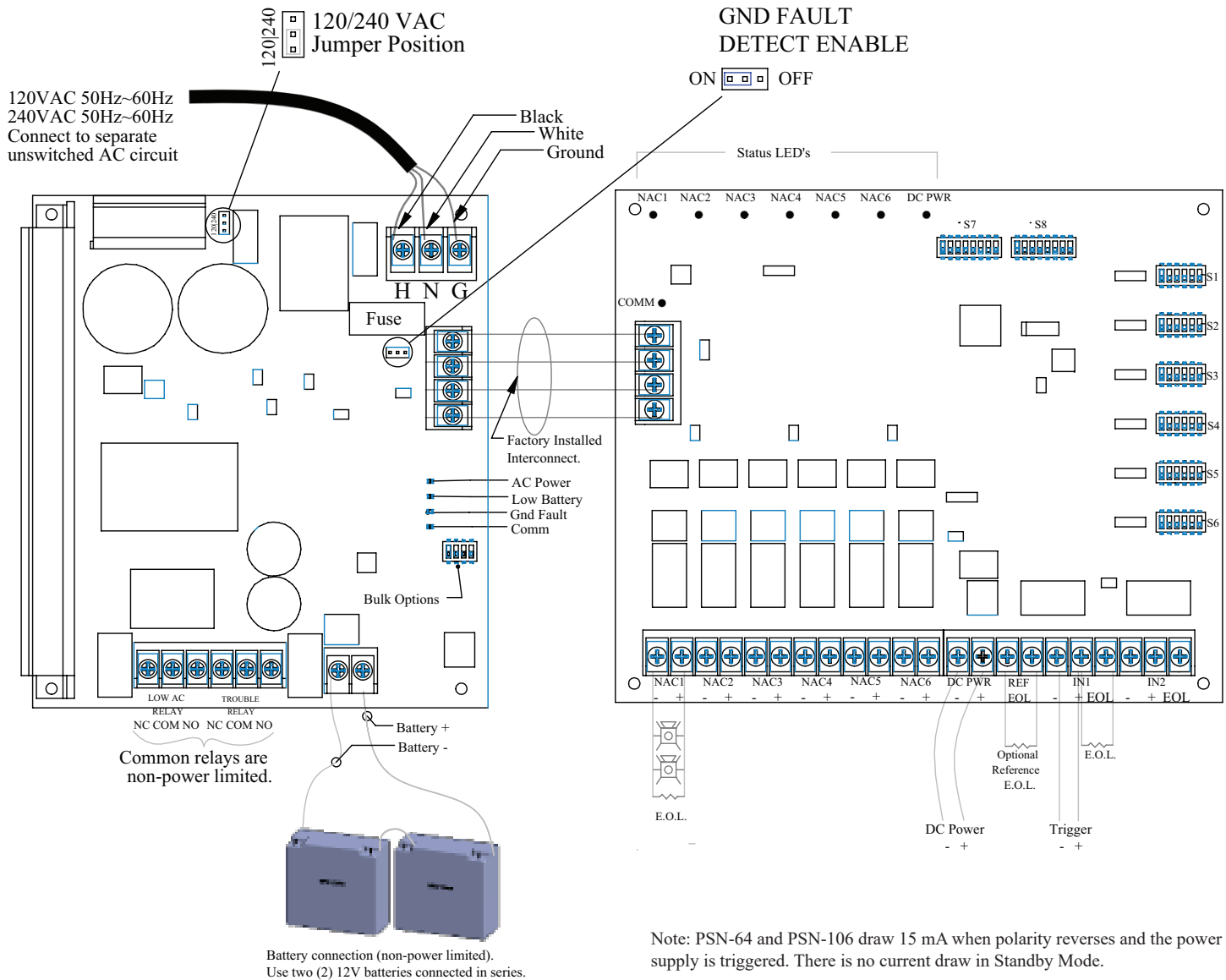
The power supply offers an industry leading Quadrasync function that allows for multiple strobe circuits of different brands to be synchronized to flash at the same time. The power supply can have four different brands each connected to its own circuit and all the strobes flash together. Each output can independently be configured to provide one of four synchronizations or steady power. This provides unequivocal flexibility in new and retrofit installations. The power supply can be configured to synchronize AMSECO®, Gentex®, Wheelock® and System Sensor® strobe devices. Each output can be configured to the same sync protocol or set independently. In addition, the power supply has an input Pass Thru mode which allows the outputs to follow the input signal from a non-supported synchronization protocol. The power supply will recognize the type of input being supplied and pass this through to the outputs with

the same pattern. This input pass through can be selected on each output independently. The power supply contains simple dipswitch programming and LED indicators providing the installer the ability to correct any possible faults. A Trouble Memory is provided to allow an installer to review past troubles and make the necessary repairs. Each output has an LED to pinpoint the exact circuit where a trouble may have occurred. Relays are provided for monitoring the general system and AC failure. Each output and be independently configured for various applications and installations. Each output can be independently configured for Class A or Class B operation, constant power, ANSI Temporal Code 3, Single, Multiple or Combo Inputs or Door Holder Power.

Technical Specifications

Size (H x W x D)	16 1/8" W x 16 ¾" W x 3 ½" D
Enclosure	Eighteen (18) gauge sheet steel with hinged, locked door
Power Input	120VAC @ 60Hz 220/240VAC @ 50Hz 5.1 Amps @ 120 VAC 2.5 Amps @ 240 VAC
Current	75mA Standby & Alarm (no external load)
Input Voltage Trigger	15mA @ 8 – 33 VDC
Terminals	18-12 AWG
Temperature	32° F to 120°F (0°C to 49°C) with a maximum humidity of 93% non-condensing
NAC Output	3 Amp max per NAC, Regulated
Battery Charging	27.3 @ 1A, can support 7 – 55Ah batteries

PSN-106 Wiring Diagram

120|240

120/240 VAC
Jumper Position

GND FAULT
DETECT ENABLE

ON ▭ OFF

120VAC 50Hz~60Hz
240VAC 50Hz~60Hz
Connect to separate
unswitched AC circuit

Black
White
Ground

Status LED's

NAC1 NAC2 NAC3 NAC4 NAC5 NAC6 DC PWR

S7   S8

H N G

Fuse

COMM ●

S1
S2
S3
S4
S5
S6

Factory Installed
Interconnect.

AC Power
Low Battery
Gnd Fault
Comm

Bulk Options

LOW AC   TROUBLE
RELAY   RELAY
NC COM NO   NC COM NO

Common relays are
non-power limited.

Battery +
Battery -

NAC1   NAC2   NAC3   NAC4   NAC5   NAC6   DC PWR   REF   IN1   IN2
- +   - +   - +   - +   - +   - +   - +   EOL   EOL   EOL
                                                                       -   + EOL   -   + EOL

E.O.L.

Optional
Reference
E.O.L.

E.O.L.

DC Power   Trigger
- +   - +

Battery connection (non-power limited).
Use two (2) 12V batteries connected in series.

Note: PSN-64 and PSN-106 draw 15 mA when polarity reverses and the power
supply is triggered. There is no current draw in Standby Mode.

Ordering Information

Model	Description	Stock No.
PSN-106	10 A Power Supply, 6 NAC Circuits, Red Enclosure	3006437
PSN-106B	10 A Power Supply, 6 NAC Circuits, Black Enclosure	3006446
PSN-64	6 A Power Supply, 4 NAC Circuits, Red Enclosure	3006436

Engineering Specifications

The contractor shall supply and install the Potter PSN power supply. The power supply shall operate on either 120 or 240 VAC input. The panel shall be capable of continuous load power without any degradation to the main supply or the distribution board. The cabinet shall be capable of housing up to 18AH batteries and the panel shall be capable of charging up to 55 AH batteries in an external cabinet.

The panel shall have dip switches for simplistic configuration of the system and LEDs to provide visual indication to the installer of the status of the system. The dip switches shall allow for AC power delay selection, Class A/B operation per output, Door Holder Power options, constant auxiliary power, trigger input type, ANSI Code 3 Temporal Code, Pass Thru (input tracking), AMSECO® sync, Gentex® Sync, System Sensor® Sync or Wheelock® sync. The LEDs shall provide indication of communication between the power supply and distribution circuit assemblies. The LEDs shall have distinct flash patterns to provide further indication of the troubles present. The panel shall have selectable Trouble Memory to provide the installer an indication that a past trouble existed on a circuit for diagnostic purposes.

Each output of the power supply shall be capable of 3 amps of continuous power without degradation overtime. The power supply shall provide for multiple circuits of strobe appliances. The power supply shall synchronize the flashes of any of the above listed strobe appliances on a per circuit basis. Up to four different strobe circuits may be connected and all the strobes shall flash in unison as required by UL 864. In addition to this Quadrasync feature, the panel shall allow any of the four above mentioned sync patterns as an input and pass this signal through and synchronize the outputs to match the input flash pattern.

Features

- Industry leading 4 line by 40 Character LCD
- Common buttons for navigation
- Common LEDs for status indication
- 31 annunciator per panel
- Maximum wire length of 6,500 feet
- Available in 4 colors
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

FM APPROVED

UL LISTED

Description

The RA-6500F is a flush mount LCD remote annunciator for various Potter fire control panels. The RA-6500F communicates using a RS-485 connection to the main panel providing common indication of Alarms, Supervisory, Trouble and other system status and control functions.

The RA-6500F features a 4x40 LCD display with LED's for Power, Alarm, Supervisory, Trouble, Silence, Pre-Release, and Release conditions. It can be flush mounted or surface mounted. The annunciator is enclosed in a sheet metal enclosure and has a Potter lock securing the keypad.

Technical Specifications

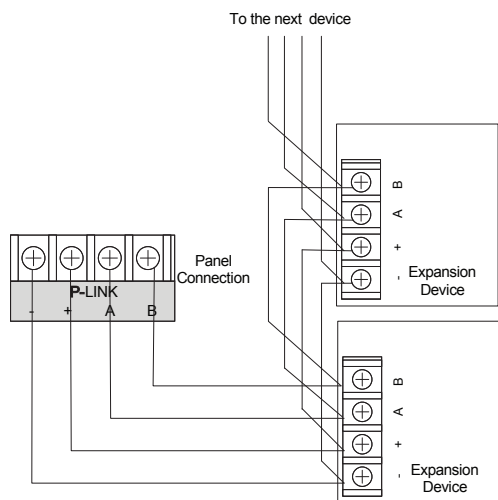|	
Standby Current	20 mA
Alarm Current	25 mA
Operating Temperature	0°C-49°C (32°F-120°F)
Operating Humidity Range	0 to 93% (non-condensing)
Maximum Wire Length	6500 ft.
Maximum Annunciators	31
Flush Mount Size (WxHxD)	11 3/8" x 9-1/4" x 7/8"
Wire Gauge	12 AWG-22 AWG
Compatible Panels	IPA Series AFC/ARC Series PFC-4064 P-Series* PFC-6000 Series*

*Legacy Product

Installation

The RA-6500F is connected to the PFC series or IPA series fire control panels using a four wire RS-485 connection. The connection is power limited and supervised. Up to thirty-one (31) RA-6500F LCD annunciators can be connected using Class B or Class A wiring. Class A wiring requires an optional Class A Expander.
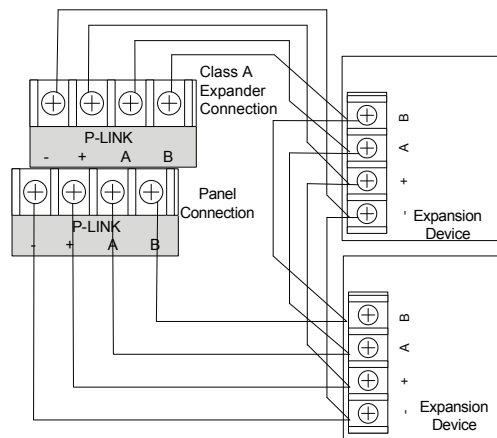
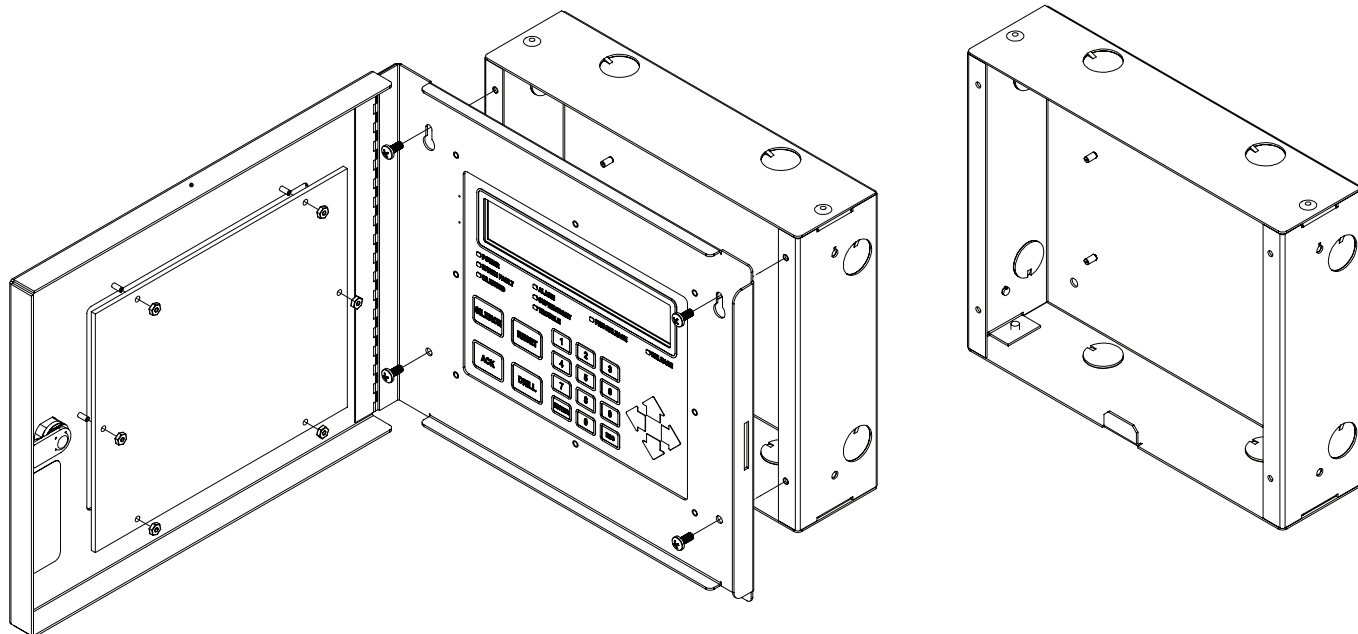*RA-6500F Class B Wiring Example*
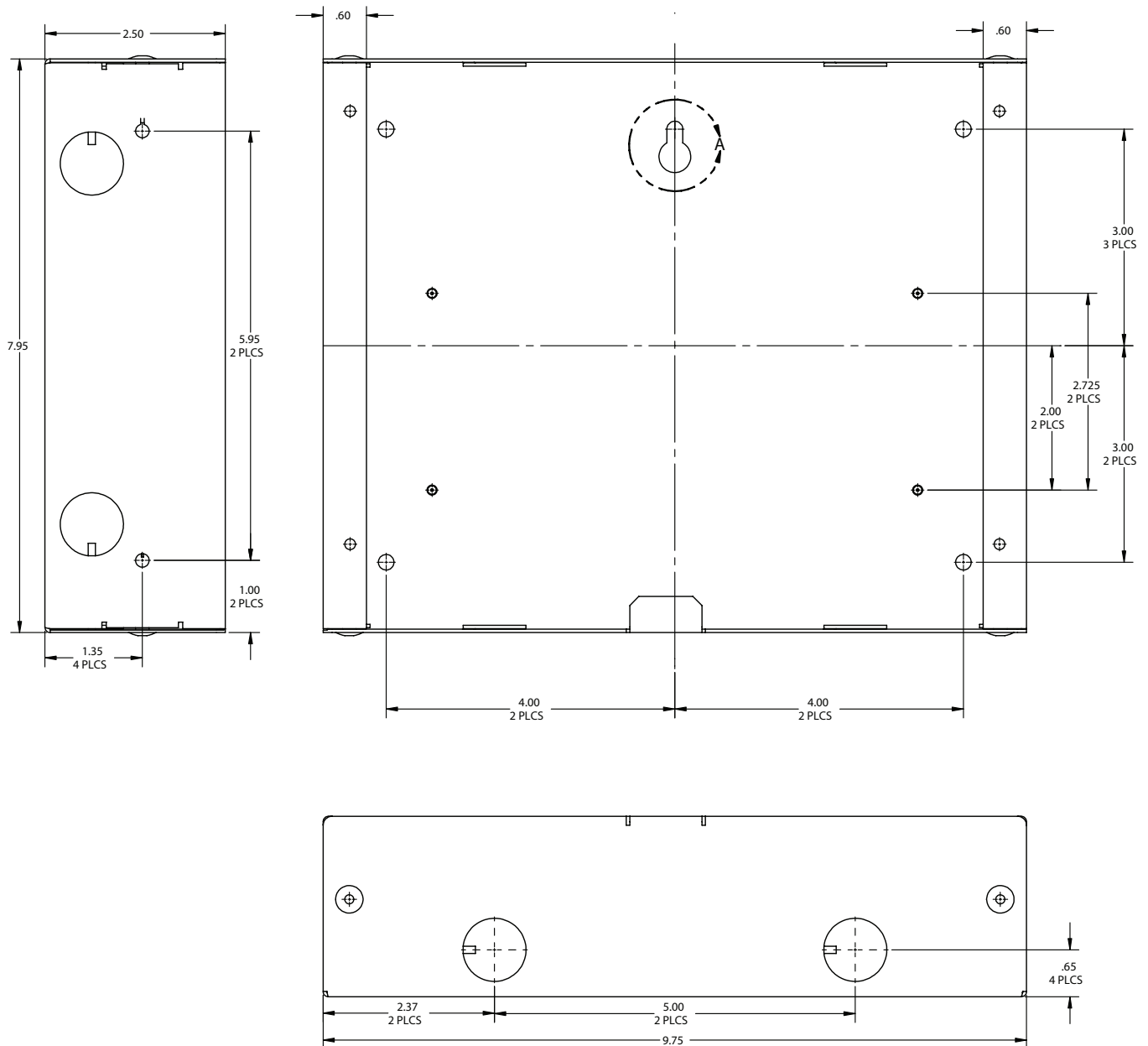
Fig 1

RA-6500F Class A Wiring Example

Fig 2

RA-6500F Front View

Fig 3

POTTER
The Symbol of Protection

Dimensions

.60

.60

2.50

7.95

5.95
2 PLCS

1.00
2 PLCS

1.35
4 PLCS

A

3.00
3 PLCS

2.725
2 PLCS

2.00
2 PLCS

3.00
2 PLCS

4.00
2 PLCS

4.00
2 PLCS

.65
4 PLCS

2.37
2 PLCS

5.00
2 PLCS

9.75

Dip Switch Settings

Refer to the table below for dip switch settings per Annunciator Address.

Annunciator Address	Dip Switch Settings				
	SW-1	SW-2	SW-3	SW-4	SW-5
1	On	Off	Off	Off	Off
2	Off	On	Off	Off	Off
3	On	On	Off	Off	Off
4	Off	Off	On	Off	Off
5	On	Off	On	Off	Off
6	Off	On	On	Off	Off
7	On	On	On	Off	Off
8	Off	Off	Off	On	Off
9	On	Off	Off	On	Off
10	Off	On	Off	On	Off
11	On	On	Off	On	Off
12	Off	Off	On	On	Off
13	On	Off	On	On	Off
14	Off	On	On	On	Off
15	On	On	On	On	Off
16	Off	Off	Off	Off	On

Annunciator Address	Dip Switch Settings				
	SW-1	SW-2	SW-3	SW-4	SW-5
17	On	Off	Off	Off	On
18	Off	On	Off	Off	On
19	On	On	Off	Off	On
20	Off	Off	On	Off	On
21	On	Off	On	Off	On
22	Off	On	On	Off	On
23	On	On	On	Off	On
24	Off	Off	Off	On	On
25	On	Off	Off	On	On
26	Off	On	Off	On	On
27	On	On	Off	On	On
28	Off	Off	On	On	On
29	On	Off	On	On	On
30	Off	On	On	On	On
31	On	On	On	On	On

Ordering Information

Model	Description	Stock No.
RA-6500F	LCD Annunciator Flush Mount - RED	3992725
RA-6500F	LCD Annunciator Flush Mount - BLACK	3992741
RA-6500F	LCD Annunciator Flush Mount - GRAY	3992742
RA-6500F	LCD Annunciator Flush Mount - LIGHT GRAY	3992743

Features

- 5G LTE-M commercial fire alarm communicator
- Verizon or AT&T models available
- Direct connect to Potter panels with Ethernet (Contact ID)
- UD-2000 DACT not required when using Ethernet on Potter panels
- Interfaces with other panels over a single DACT connection for universal compatibility
- Meets UL 864 requirements for sole, primary, or backup path communications
- 5-minute or 60-minute supervision
- Power from fire panel 24V auxiliary power supply or plug-in transformer (included)
- Red/Locking metal enclosure
- Secure cloud-based account management tools
- Use any local and national central stations with no extra equipment or setup
- IntelliView Compatible – iOS/Android App & Browser access
- IntelliView Cloud Services and Apps included when used on Potter Panels
  - *Alert:* Detailed event status, counters, history, push notifications
  - *Backup:* Panel programming backed up to the cloud
  - *Test/Inspect:* One person walk-test tool
  - *Program:* Remotely Upload & Download panel configurations

Description

Provides sole or dual path 5G LTE-M cellular monitoring communication for any commercial fire panel. Potter panels using the Potter IntelliCom Advanced Gateway offer the most advanced features in the industry without the need for a UD-2000 POTs dialer. Potter panels enable automatic panel program backups/retrieval, remote programming, cloud storage, and mobile walk test that creates an NFPA-72 initiation device report. If the existing panel supports Contact ID, it's a candidate for upgrading with the Potter IntelliCom Advanced Gateway.

Technical Specifications

Cellular Service	5G LTE - Verizon or AT&T
Dimensions	7.5" H x 11.5" W x 3.5" D
Color	Red
Primary Power	12VAC or 12/24VDC (29VDC max)
Standby Current	68mA @ 24VDC (w/ Link Supervision)
Transmit Current	140mA @24VDC
Compatible Panels	Fire panels with dialer (Contact ID)
Potter Panels – See manual for specific services available. UD-2000 not required.	IPA-4000(V), IPA-100, IPA-60, AFC-1000(V), AFC-100, AFC-50, ARC-100, PFC-4064
Communication Protocols:	
Ethernet	CID over Ethernet
DACT	CID, SIA, Pulse (4x2, 3x1), Radionics (IIe/3a2,4), DMP
Agency	ANSI/UL 864 Fire Protective Signaling Systems)
Certifications	FCC

Central Station

Ethernet

and/or

Contact ID

Rich Data

IP/ Network
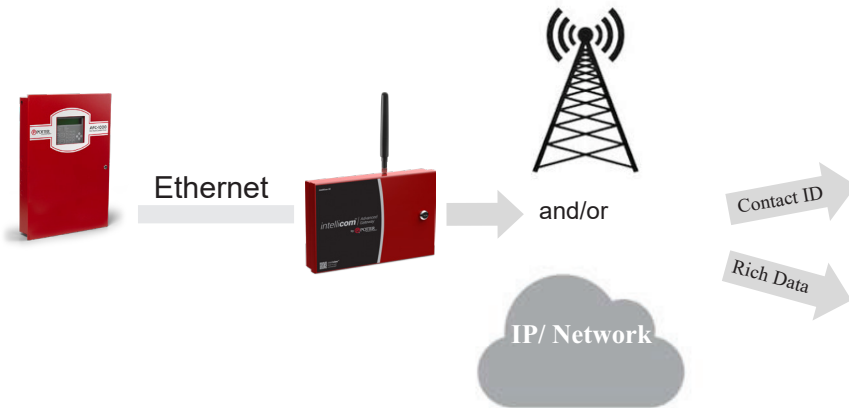
Your Preferred Central Station
National Central Stations
Local Central Stations
Sur-Gard & DMP Receivers

**IntelliView
Potter Cloud Services**

Active Signal Alerts
Panel Program Cloud Backup
Panel Program Cloud Restoral
Panel Remote Programming
Walk Test
Cloud Storage for Programs

Potter IntelliView App & Web Services Included

Alert
Signals, Push Notifications, Status

Test & Inspect
Initiation Device Report Generator

5G LTE-M

Program
Remote Programming Tool

Backup
Automated Cloud Backup & Restoral

Test & Inspect
Initiation Device Report Generator

Potter Test & Inspection Initiation Device Report Generator is an automated way to create the NFPA-72 Initiating Device Supplementary Record of Inspection and Testing. This tool eliminates the time-consuming manual process of creating a list of points for the required report. The tool allows a technician to import all the points, mark them as Pass/Fail, document the visual & functional test, and export the results into a file that can be included with the remainder of the user provided NFPA-72 report. This cloud-based tool is complimentary to all customers using a compatible Potter fire alarm control panel with an IntelliCom Advanced Gateway

Backup
Automated Cloud Backup & Restoral

Potter Automated Cloud Backup & Restoral is an automated way to backup Potter fire alarm control panel databases. This tool ensures that the panels program is always available and secure. Technicians can instantly recover the database from the secure server at any time. Never have to find a specific technician's computer, or thumb drive ever again. This service will save many hours whenever you have that unfortunate event that requires the system to be reprogrammed. This cloud-based tool is complimentary to all customers using a compatible Potter fire alarm control panel with an IntelliCom Advanced Gateway

FPP
Remote Programming Tool

Web based programming is a reality with the IntelliCom Advanced Gateway and Potter panels. Potter Programming Tool databases can be remotely sent to panels – from anywhere in the world. This is a great tool when commissioning systems, making updates during a T&I session, or simply making label changes. No longer does the technician with the knowledge to reprogram the panel have to be on site.** This cloud-based tool is complimentary to all customers using a compatible Potter fire alarm control panel with an IntelliCom Advanced Gateway.

** NFPA-72 Requires that when changes are made to site-specific software, all functions known to be affected by the change, or identified by a means that indicates changes, must be 100 percent tested. In addition, 10 percent of initiating devices that are not directly affected, up to a maximum of 50 devices, must also be tested and proper operation verified.

Alert
Signals, Push Notifications, Status

Panel information is right at your finger tips any time you need it. Receive alerts to any Android or iOS compatible mobile device. Push notifications to the mobile app allow for immediate signal notification. Remote Acknowledge, Silence, Reset, Enable/Disable, and Drill operations are available while a panel is in Walk Test. Prepare for a site visit by retrieving point information and panel history. This cloud-based tool is complimentary too all customers using a compatible Potter fire alarm control panel with an IntelliCom Gateway

Ordering Information

Model	Description	Stock No.
IntelliCom-5GV	5G LTE-M Dual path commercial fire alarm communicator (Verizon)	3994000
IntelliCom-5GA	5G LTE-M Dual path commercial fire alarm communicator (AT&T)	3994001
Accessories		
TG-TAMPER	Tamper Switch Assembly compatible with Potter metal enclosures	3994002
ACD-12	12 feet - low loss high performance antenna cable and mounting bracket	3994003
ACD-35	35 feet - low loss high performance antenna cable and mounting bracket	3994004
ACD-50	50 feet - low loss high performance antenna cable and mounting bracket	3994005
ACD-100	100 feet - low loss high performance antenna cable and mounting bracket	3994006
HGDL-0	High Gain Directional Antenna	3994007
EXDL-0	External Omni-Directional Antenna	3994008

PAD100-DIM
Dual Input Module

Features

- Single module with dual contact monitoring inputs
- Two (2) Class B or one (1) Class A monitoring inputs
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

NOTE: This addressable module does not support 2-wire smoke detectors.

Description

The PAD100-DIM uses one (1) SLC loop address when monitoring two (2) Class B circuits or one (1) Class A circuit. The module mounts on either a 4" square or double gang box. The module is capable of monitoring two (2) separate class B circuits making it ideal for monitoring sprinkler waterflow and valve tamper switches when they are located in the same proximity. The PAD100-DIM includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel. When an input is activated, the LED will flash at a fast rate.

Application

The PAD100-DIM is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-DIM is an interface module used to monitor dry contact devices such as sprinkler waterflow, valve tamper switches, or conventional pull stations. The module is capable of monitoring two separate Class B or one Class A circuits.

Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the PAD100-DIM. When the PAD100- DIM is used to monitor two individual Class B circuits a single device address is assigned, each input is then identified as a sub-point of the module address. For example, if the address number is assigned as "8", the first input will be "8.1" and the second input will be "8.2".

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:
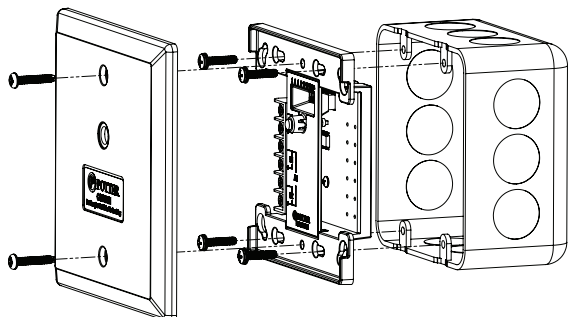
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Technical Specifications

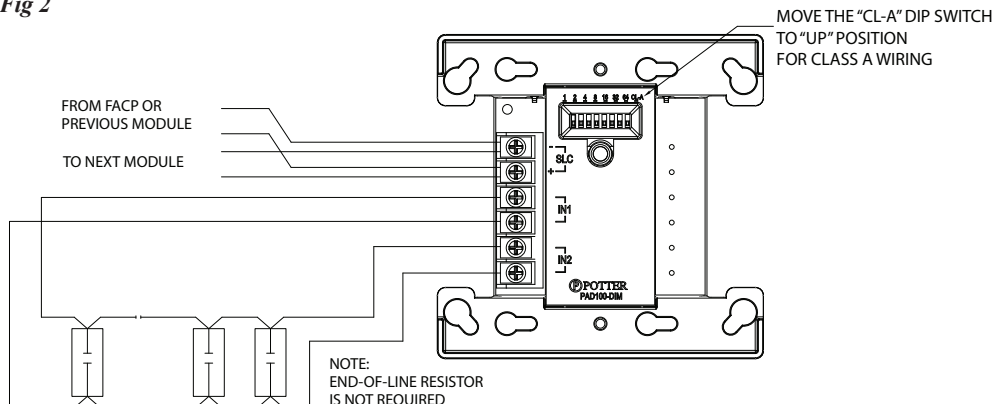|	
Operating Voltage	24.0V
Max SLC Standby Current	240µA
Max SLC Alarm Current	240µA
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1µF
EOL Resistor	5.1K Ω
Operating Temperature Range	32 to 120ºF (0 to 49ºC)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

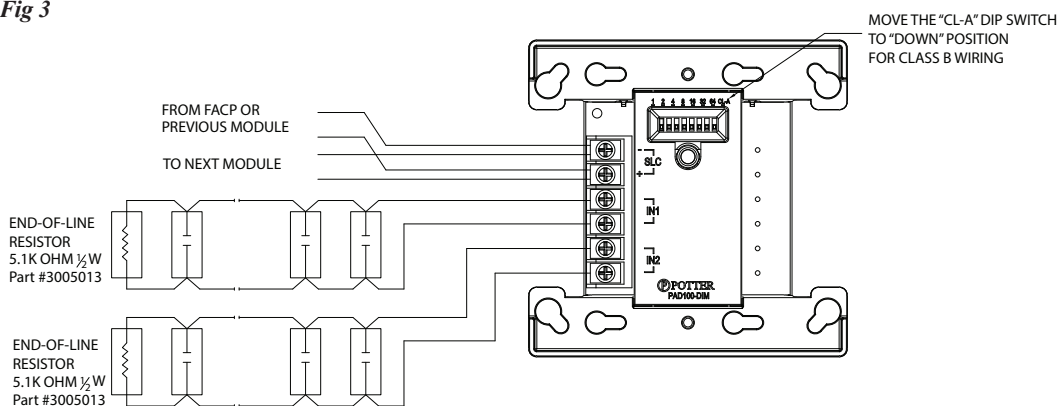# Installation Using Compatible Electrical Box
Fig 1

Wiring Diagrams

PAD100-DIM With One Class A Circuit
Fig 2

MOVE THE "CL-A" DIP SWITCH
TO "UP" POSITION
FOR CLASS A WIRING

FROM FACP OR
PREVIOUS MODULE

TO NEXT MODULE

SLC

IN1

IN2

NOTE:
END-OF-LINE RESISTOR
IS NOT REQUIRED

PAD100-DIM With Two Class B Circuits
Fig 3

MOVE THE "CL-A" DIP SWITCH
TO "DOWN" POSITION
FOR CLASS B WIRING

FROM FACP OR
PREVIOUS MODULE

TO NEXT MODULE

SLC

IN1

IN2

END-OF-LINE
RESISTOR
5.1K OHM ½ W
Part #3005013

END-OF-LINE
RESISTOR
5.1K OHM ½ W
Part #3005013

Ordering Information

Model	Description	Stock No.
PAD100-DIM	Dual Input Module	3992703

POTTER
The Symbol of Protection

Features

- One (1) Class B monitoring input
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

NOTE: This addressable module does not support 2-wire smoke detectors.

ASSEMBLED IN THE USA

FM APPROVED

Description

The PAD100-SIM uses one (1) SLC loop addresses when monitoring one (1) Class B circuit. The module mounts on either a 4" square or double gang box. The module is capable of monitoring one (1) Class B circuit. The PAD100-SIM includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel. When the input is activated, the LED will flash at a fast rate.

Application

The PAD100-SIM is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-SIM is an interface module used to monitor dry contact devices such as sprinkler waterflow, valve tamper switches, or conventional pull stations. The module is capable of monitoring one Class B circuit.

Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the PAD100-SIM.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:
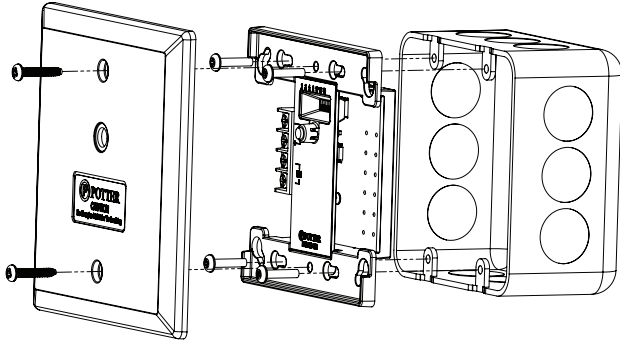
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Technical Specifications

|	
Operating Voltage	24.0V
Max SLC Standby Current	240µA
Max SLC Alarm Current	240µA
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1µF
EOL Resistor	5.1K Ω
Operating Temperature Range	32 to 120ºF (0 to 49ºC)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

Installation Using Compatible Electrical Box
Fig 1

Wiring Diagram
PAD100-SIM With Class B Circuit
Fig 2

FROM FACP OR
PREVIOUS MODULE

TO NEXT MODULE

END-OF-LINE RESISTOR
5.1K OHM ½ W
Part #3005013
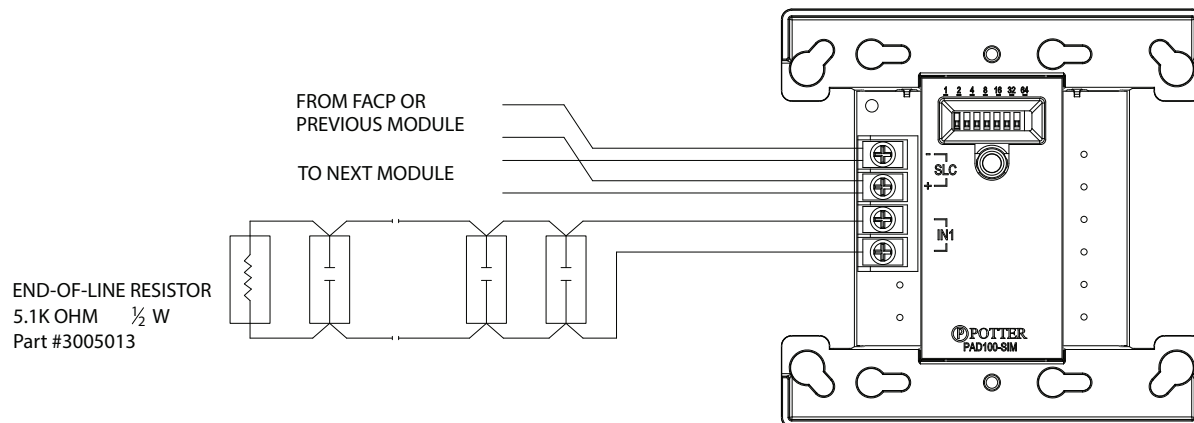
Ordering Information

Model	Description	Stock No.
PAD100-SIM	Single Input Module	3992704

POTTER
The Symbol of Protection

Features

- Single or Dual Action versions
- Durable die-cast construction
- Reset key matches the fire alarm control panels
- Compatible with IPA Series panels
- SLC Class A, Class X & Class B
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

FM APPROVED

Description

The PAD100-PSSA (Single Action) is activated by simply pulling the white "T" bar handle down. The PAD100-PSDA (Dual Action) is activated by lifting the front cover and then pulling the white "T" bar handle down. Once activated, the "T" bar cannot be reset without opening the front cover. Opening the front cover will also activate the pull station. To reset the PAD100-PS Series, use the Potter WS-93 key to unlock and open the front cover. Once the cover is open, push the "T" bar back into the normal position and re-secure the front cover.

Application

The PAD100-PSSA/PSDA is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. It is a non-coded addressable pull station available in either a single or dual action model and installs on a single gang box or surface mounts using the P32-BB or P32-DBB (deep) back box.

Technical Specifications

Operating Voltage	24.0 VDC
Max SLC Standby Current	200uA
Max SLC Alarm Current	200uA
Environmental Limitations	32°F - 120°F (0° - 49°C) Indoor Only
Dimensions	4.75" H x 3.25" W x 1.75" D
Relative Humidity Range	0 - 93% (non-condensing)
Mounting Options	Single gang box or Potter P32-BB/DBB
Shipping Weight	APS-SA - 1.22 lbs. APS-DA - 1.46 lbs.

Setting the Address

The PAD100-PS Series uses one SLC address assigned to the device. The address is set using the DIP switch located on the back of the PAD100-PS device.
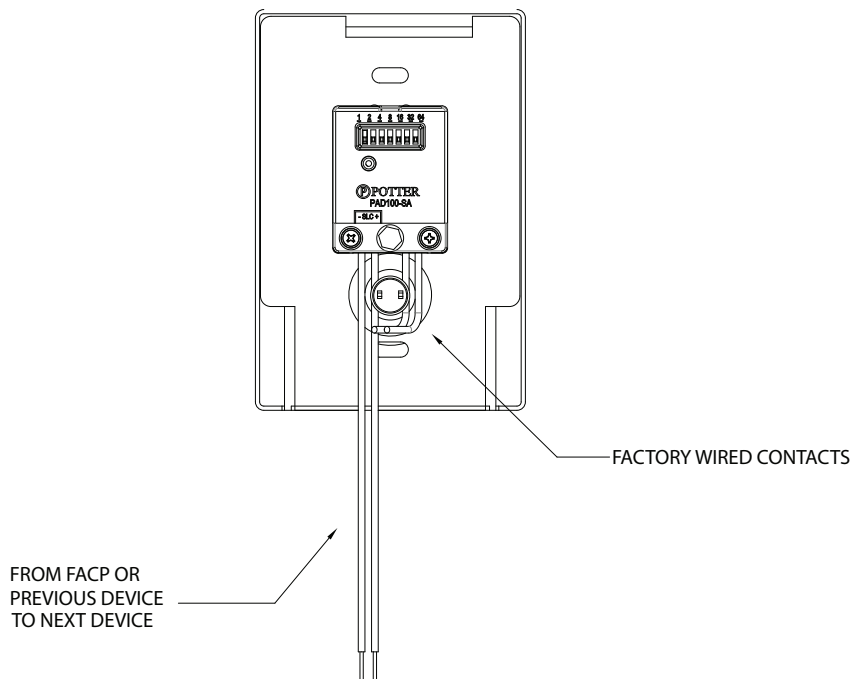
Pull Station Front View
Fig 1

PAD100-PSDA
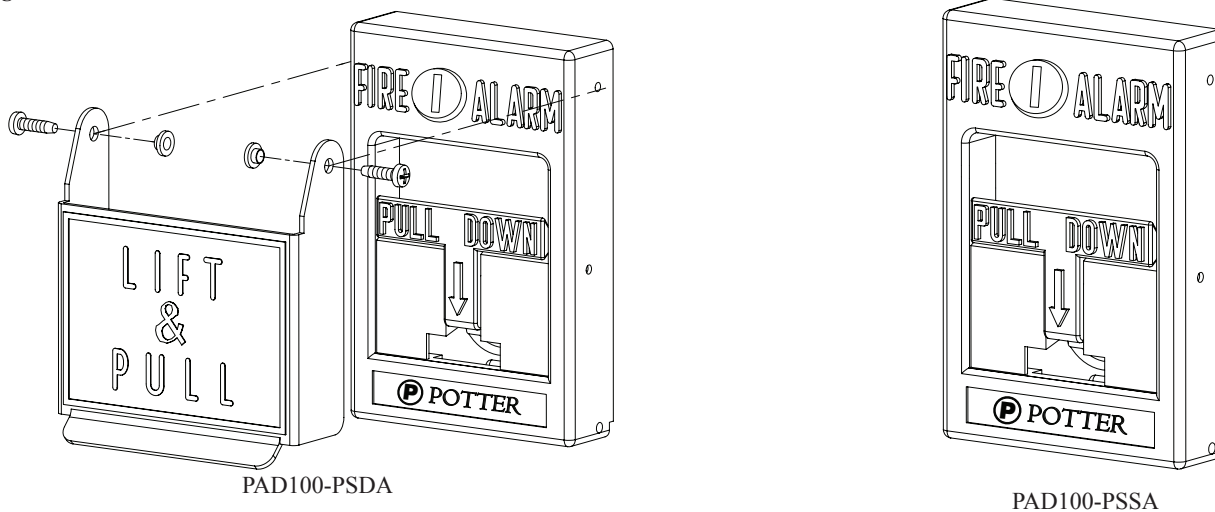
PAD100-PSSA

Pull Station Back View and Wiring
Fig 2

FACTORY WIRED CONTACTS

FROM FACP OR
PREVIOUS DEVICE
TO NEXT DEVICE

Ordering Information

Model	Description	Stock No.
PAD100-PSSA	Addressable Pull Station, Single Action	3992721
PAD100-PSDA	Addressable Pull Station, Dual Action	3992720

Features

- One (1) Form C relay contact
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

FM APPROVED
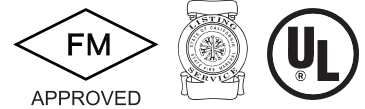
Description

The PAD100-RM uses one (1) SLC loop address to provide one (1) Form C relay contact. The module mounts on either a 4" square or double gang box. The PAD100-RM includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel.

Application

The PAD100-RM is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-RM is an interface module providing one (1) Form C relay contact.

Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the PAD100-RM. The PAD100-RM uses a single device address to identify relay contacts.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:
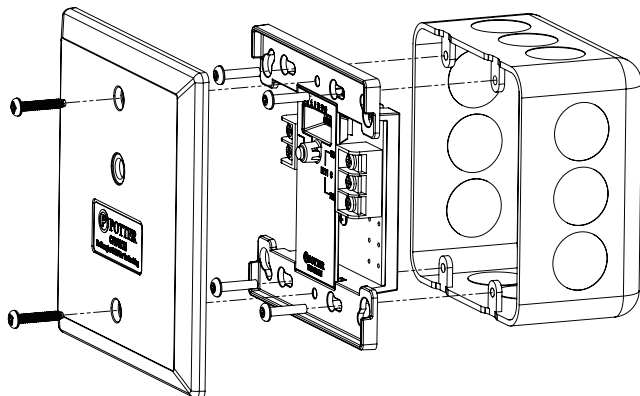
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Technical Specifications

|	
Operating Voltage	24.0V
Max SLC Standby Current	240µA
Max SLC Alarm Current	240µA
Relay Contacts	2A @30VDC, 0.5A @125VAC
Operating Temperature Range	32 to 120ºF (0 to 49ºC)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

Installation Using Compatible Electrical Box
Fig 1

Wiring Diagram

PAD100-RM Relay Circuit

Fig 2

FROM FACP OR PREVIOUS MODULE

TO NEXT MODULE

SLC

RLY1

NO
C
NC

ONE (1) FORM C RELAY CONTACTS
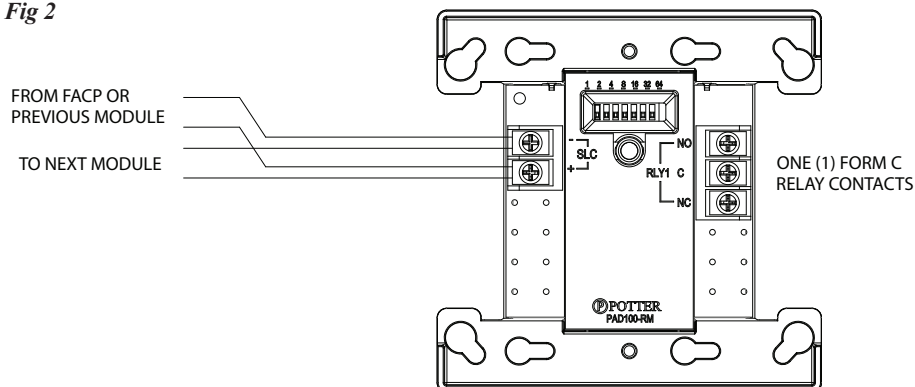
NOTICE

It is possible that the internal relay in the PAD100-RM may be shipped in the non-normal / activated state. To ensure that the internal relay is set to the normal state, connect the module to the SLC loop and reset the control panel before terminating the wiring to the modules output.

Ordering Information

Model	Description	Stock No.
PAD100-RM	Relay Module	3992705

Weatherproof appliances, Version 2
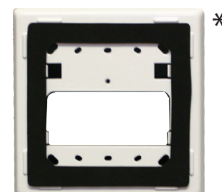
Description

Designed for life safety, performance and reliability, the Wheelock weatherpoof notification appliances nclude:

Weatherproof Appliances	Series
Strobes	RSSWP
Horn strobes	ASWP
Horn	AH-24WP, AH-12WP
Multitone horn strobes	MTWP
Multitone horns	MT
Speaker strobes	ET70WP
Speakers	ET-1010

All strobe models are UL dual listed—meeting both UL1638 and UL1971 requirements. As dual listed appliances, these weatherproof strobes, horn strobes and speaker strobes are listed for outdoor applications under UL 1638 as well as under UL 1971, the Standard for Safety Signaling Devices for Hearing Impaired. With an extended temperature range of –40°F to 150°F (–40°C to 66°C), Wheelock weatherproof appliances meet or exceed UL outdoor test requirements for rain, humidity and corrosion resistance while providing multiple strobe intensity options, including the highest strobe ratings available for area coverage per NFPA 72 strobe spacing tables (up to 185 candela for wall mounting and 177 candela for ceiling mounting).

To enable weatherproof mounting, Eaton provides the industry's widest choice of mounting options for surface or unique semi-flush installation. Models are available for surface mounting to Wheelock weatherproof backboxes on walls or ceilings. The optional WP-KIT allows the weatherproof backboxes (IOB, WPBB or WPSBB) to be mounted to a recessed electrical box for concealed conduit installation. For semi-flush installation, the WPA* and WFPA* kits allow a customer to mount the weatherproof appliances to a recessed electrical box without the need for an external weatherproof backbox. See Table 10 on page three of this document for a summarization of these mounting options and the required accessories.

All models may be synchronized using the Wheelock DSM sync modules, Wheelock power supplies or other manufacturers panels incorporating the Wheelock patented sync proto-col. The horn output of horn strobes can be independently controlled on 2-wire circuits using the Wheelock patented sync protocol. MTWP horn strobe models are 4-wire appliances; the strobes can be synchronized while the audible can be connected to a coded fire alarm system. MT horns may be synchronized, using the temporal Code 3 horn setting.

Powering Business Worldwide

Features & benefits

- Weatherproof with extended temperature range of –40°F to 150°F (–40°C to 66°C)*

- Dual listed strobe models (UL 1638 and UL 1971)

- Industry's highest strobe candela options

- Strobes and Code 3 horn synchronize using the Wheelock Sync Modules or panels with built-in Wheelock Patented Sync Protocol

- Models with field selectable tone, dBA and candela settings

- Wall or ceiling mounting options

- MTWP and ET70WP kits that include the device and IOB backbox are available; See ordering information for specific models

- Surface or semi-flush mounting (indoor and outdoor)

- IN/OUT wiring termination accepting two #12-18 AWG wires at each terminal

Note: Please read these specifications and associated installation instructions, before using, specifying, or installing this product. Visit Eaton.com/massnotification for current installation instructions.

Approvals & compliances

- Approvals include: UL Standards 1971, 1638, 464 and 1480; ULC, California State Fire Marshal (CSFM); and Factory Mutual (FM) (see agency approvals by model number on pages 4 and 5 of this document)

  - The series RSSWP, ASWP, AH-24WP, MTWP-2475W, and MT-12/24 have UL/ULC approval down to –40°F. The ET-1010 and ET70WP have UL approval down to –40°F.

  - Compliance with the following requirements: NFPA; UFC; FCC, ANSI 117.1; OSHA Part 29, 1910.165; AD

General notes

- Strobes are designed to flash at 1 flash per second minimum over their UL Listed Regulated Voltage Range.

- All candela ratings represent minimum effective Strobe intensity based on UL Standards 1971 and 1638 as indicated in candela ratings table.

- Models are available in red or white. Contact Customer Service for order code and delivery.

Drawings

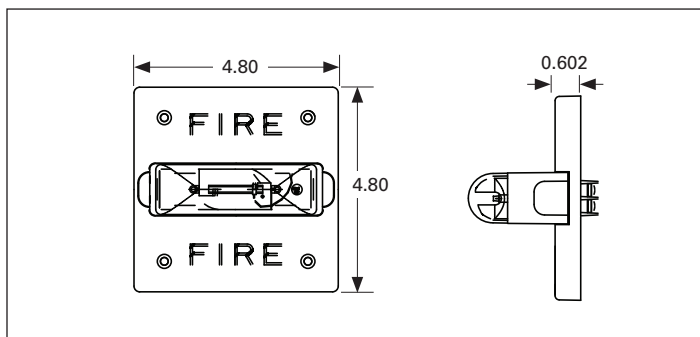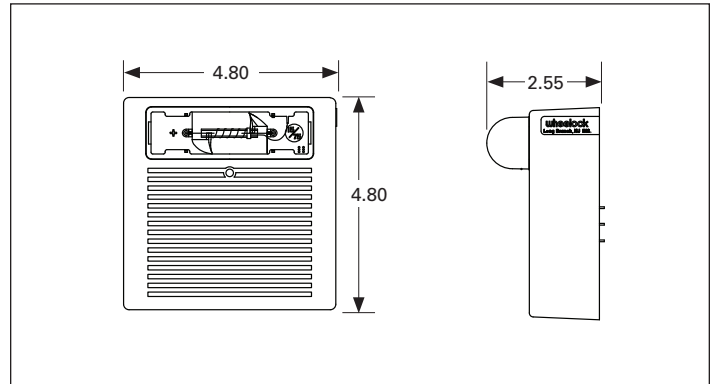Figure 1. RSSWP front and side views
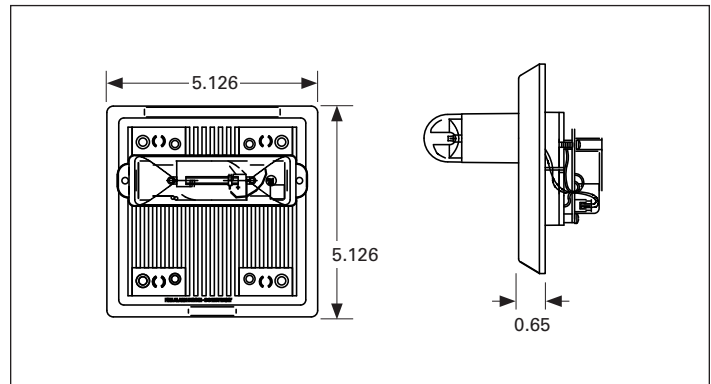

Figure 2. ASWP front and side views

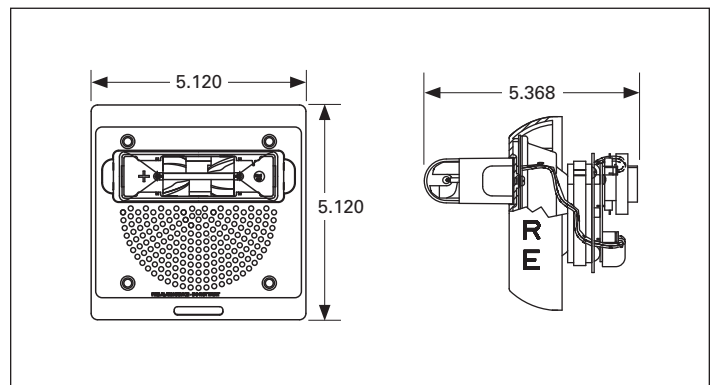Figure 3. MTWP front and side views

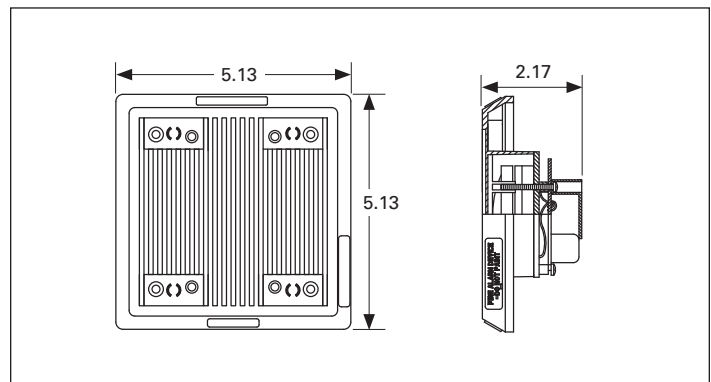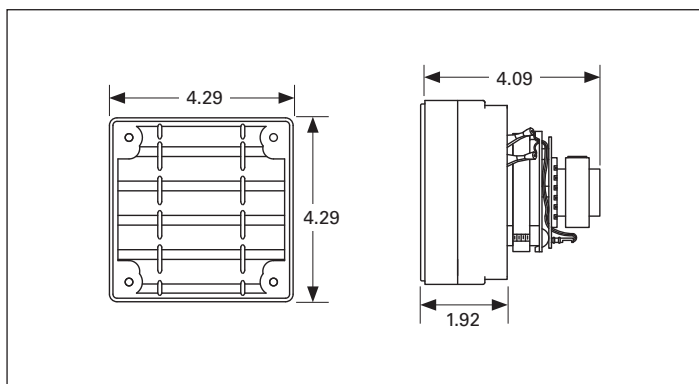Figure 4. ET70WP front and side views

Figure 5. MT front and side views

Figure 6. ET-1010 front and side views

Table 1. Maximum RMS current for AH models

	UL Max Current for AH
	24 VDC
High (99) dBA	0.080
Med (95) dBA	0.043
Low (90) dBA	0.021

Table 2. dBA ratings for ET-1010 and ET70WP models

	UL Reverberant dBA @ 10 ft.						
	Watts						
Model	**1/8**	**1/4**	**1/2**	**1**	**2**	**4**	**8**
ET-1010	77	80	83	86	87	92	94
ET70WP	77	80	83	86	88	91	93

Table 3. Maximum RMS current and dBA, MT weatherproof models

dBA	MTWP/MT 24 VDC		MT 12 VDC	
	HI	**STD**	**HI**	**STD**
Horn	0.108	0.044	0.177	0.034
Bell	0.053	0.024	0.095	0.020
March Time	0.104	0.087	0.142	0.034
Code 3 Horn	0.122	0.035	0.200	0.034
Code 3 Tone	0.135	0.035	0.152	0.021
Slow Whoop	0.098	0.037	0.142	0.035
Siren	0.104	0.036	0.152	0.030
Hi/Lo	0.057	0.025	0.114	0.026

UL Reverberant dBA at 10 Feet			
24 VDC HI	**STD**	**12 VDC HI**	**STD**
92	87	92	87
86	80	86	80
89	84	89	84
88	83	88	83
85	80	85	80
90	85	90	85
89	84	89	84
86	81	86	81

Table 4. Strobe and ASWP ratings

Candela ratings					Maximum RMS Current for ASWP		
Strobe Candela	**UL 1971**	**UL 1638 @ 77°F**	**UL 1638 @ –40°F**	**Max RMS Current (strobe only)**	**High**	**Med**	**Low**
2475W	30 ①	180	115	0.138	0.168	0.155	0.150
2475C	15	180	115	0.138	0.168	0.155	0.150
MCWH	135	135	56	0.300	0.355	0.340	0.335
	185	185	77	0.420	0.480	0.465	0.460
MCCH	115	115	47	0.300	0.355	0.340	0.335
	177	177	73	0.420	0.480	0.465	0.460
24185	185	185	77	0.420			
24177	177	177	73	0.420			

① Wall mount rating only

Wall mount models

Table 5. Specification and ordering information

Model Number	Finish	Kit	Order Code	Agency Approvals			
				UL	ULC	CSFM	FM
Strobe							
RSSWP-2475W-FR	Red		9013	X	X	X	X
RSSWP-2475W-FW	White		3034	X	X	X	X
RSSWP-24MCWH-FR	Red		5161	X	X	X	–
RSSWP-24MCWH-FW	White		5165	X	X	X	–
Audible strobe							
ASWP-2475W-FR	Red		9012	X	X	X	X
ASWP-24MCWH-FR	Red		5137	X	X	X	–
ASWP-24MCWH-FW	White		5140	X	X	X	–
Multitone strobe							
MTWP-2475W-FR	Red		8420	X	X	X	X
MTWP-2475W-FW	White		3112	X	X	X	X
MTWP-24MCWH-FR	Red		5132	X	X	X	–
MTWP-24MCWH-FW	White		5134	X	X	X	–
MTWP-2475W-FR KIT	Red	Includes IOB-R backbox	9082	X	X	X	X
MTWP-2475W-FW KIT	White	Includes IOB-W backbox	9083	X	X	X	X
MTWP-2475W-NW KIT	White	Includes IOB-W backbox	9084	X	X	X	X
Speaker strobe							
ET70WP-2475W-FR	Red		9077	X	–	X	X
ET70WP-2475W-FW	White		3179	X	–	X	X
ET70WP-2475W-ALR	Red		4480	X	–	X	X
ET70WP-2475W-ALW	White		4481	X	–	X	X
ET70WP-24185W-FR	Red		4885	X	–	X	X
ET70WP-24185W-FW	White		4891	X	–	X	X
ET70WP-2475W-FR KIT	Red	Includes IOB-R backbox	9078	X	–	X	X
ET70WP-2475W-FW KIT	White	Includes IOB-W backbox	9079	X	–	X	X
ET70WP-24135W-NW	White		1111	X	–	X	X
ET70WP-24135W-FR	Red		4872	X	–	X	X
ET70WP-24135W-FW	White		4875	X	–	X	X
ET70WP-24135W-ALW	White		6407	X	–	X	X

Ceiling mount models

Table 6. Specification and ordering information

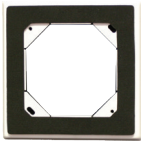| Model Number	Finish	Kit	Order Code	Agency Approvals			
				UL	ULC	CSFM	FM
Strobe							
RSSWP-2475C-FR	Red		4338	X	X	X	X
RSSWP-2475C-FW	White		4446	X	X	X	X
RSSWP-24MCCH-FR	Red		5167	X	X	X	–
RSSWP-24MCCH-FW	White		5187	X	X	X	–
Audible strobe							
ASWP-2475C-FR	Red		4251	X	X	X	X
ASWP-2475C-FW	White		4502	X	X	X	X
ASWP-24MCCH-FR	Red		5149	X	X	X	–
ASWP-24MCCH-FW	White		5157	X	X	X	–
Multitone strobe							
MTWP-2475C-FR	Red		4457	X	X	X	X
MTWP-2475C-FW	White		4458	X	X	X	X
MTWP-24MCCH-FR	Red		5102	X	X	X	–
MTWP-24MCCH-FW	White		5122	X	X	X	–
Speaker strobe							
ET70WP-2475C-FR	Red		4452	X	–	X	X
ET70WP-2475C-FW	White		4454	X	–	X	X
ET70WP-24177C-FR	Red		4845	X	–	X	X
ET70WP-24177C-FW	White		4859	X	–	X	X
ET70WP-2475C-FR KIT	Red	Includes IOB-R backbox	9080	X	–	X	X
ET70WP-2475C-FW KIT	White	Includes IOB-W backbox	9081	X	–	X	X
ET70WP-24115C-FR	Red		4550	X	–	X	X
ET70WP-24115C-FW	White		4732	X	–	X	X
ET70WP-24115C-NW	White		3552	X	–	X	X

Wall or ceiling mount models

Table 7. Specification and ordering information

Model Number		Finish	Order Code	Agency Approvals			
				UL	ULC	CSFM	FM
Audible							
AH-24WP-R		Red	7416	X	X	X	X
Horn							
MT-12/24-R		Red	5023	X	X	X	X
MT-12/24-W		White	5024	X	X	X	X
Speaker							
ET-1010-R		Red	3135	X	Available	X	X
ET-1010-W		White	3137	X	Available	X	X

Mounting accessories

Table 8. Ordering information

Model Number	Finish	Order Code
Backboxes		
IOB-R [1]	Red	5046
IOB-W [1]	White	5047
WPSBB-R [1]	Red	9751
WPSBB-W [1]	White	3033
WPBB-R [1]	Red	9014
WPBB-W [1]	White	4692
WBB-R	Red	2959
WBB-W	White	2960

[1] IOB, WPSBB and WPBB models include weep holes and plug in the event that moisture may have entered the appliance.

Model Number	Finish	Order Code
Gasket kit		
WP-KIT	N/A	4486
Flush plates		
WFPA-R	Red	4698
WFPA-W	White	4701
WFP-R	Red	4696
WFP-W	White	4697

Table 9. Mounting options

Mounting Options	Surface Mount		Flush Mount
	Exposed Conduit	Concealed Conduit	
RSSWP Strobes	WPSBB	WPSBB + WP-KIT	WFP
ET70WP Speaker Strobes	IOB	IOB + WP-KIT	WFP
ASWP Horn Strobes	WPBB	WPBB + WP-KIT	WFPA
AHWP Horns	WBB	—	WFP
ET-1010 Speakers	WBB	—	WFP
MTWP Multitone Strobes	IOB	IOB + WP-KIT	WFP
Multitone	IOB	IOB + WP-KIT	WFP

Note: Refer to Data Sheet TD450028EN for mounting options

Architects and engineers specifications

General

Weatherproof notification appliances shall be UL listed for outdoor use. Weatherproof strobe appliances shall be listed under UL Standard 1638 (Standard for Visual Signaling Appliances) for Indoor/Outdoor use and UL Standard 1971 (Standard for Safety Signaling Devices for Hearing Impaired). The appliances shall be available for optional wall mounting or ceiling mounting to weatherproof backboxes using either exposed conduit, concealed conduit, or semi-flush mounting to a recessed electrical box in walls or ceilings using Wheelock mounting accessories.

Weatherproof Strobes and Audibles

Weatherproof strobe appliances shall be Wheelock RSSWP models or approved equals. The weatherproof strobes shall produce a minimum flash rate of 60 flashes per minute over the UL Regulated Voltage Range of 16 to 33 VDC and shall incorporate a Xenon flashtube. The weatherproof strobes shall be available with UL 1971 candela ratings up to 185 cd for wall mounting and 177 cd for ceiling mounting. UL 1638 candela ratings up to 180 cd at 77°F shall be available. The strobes shall operate over an extended temperature range of –40°F to 150°F (–40°C to 66°C) and be listed for maximum humidity of 95% RH. Strobe inputs shall be polarized for compatibility with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP).

Weatherproof audibles shall be Wheelock AH models or approved equals, and the weatherproof audible/strobe combinations shall be Wheelock ASWP models or approved equals. The weatherproof horns and multitone audibles shall be listed for Indoor/Outdoor use under UL Standard 464. The horns shall be able to produce a continuous output or a temporal code-3 output that can be synchronized. The horns shall have at least 3 sound level settings. Horn/strobe combinations shall be able to be synchronized on a single NAC.

Multitone audibles shall Wheelock MT models or approved equals. The multitone horns shall be able to produce 8 distinct tones selectable by dip switch and shall have at least 2 sound level settings. Multitone audible/strobe combinations shall have independent inputs for the audible and strobe. The strobes and Code 3 horns shall be able to be synchronized. The audibles shall be able to be coded when operated on a separate NAC.

ASWP audibles and strobes shall be able to be synchronized on a 2-wire circuit with the ability to silence the audible if required. The strobes on MT multitone audible/strobe appliances shall be able to be synchronized and shall be able to be operated on a separate circuit from the audibles while the audible circuit is connected to a coded or continuous NAC. When set to Code 3 Horn, the MT multitone audibles shall be able to be synchronized.

Weatherproof Speakers and Speaker/Strobes

Weatherproof speakers shall be Wheelock ET-1010 models or approved equals, and speaker strobes shall be ET70WP or approved equals. Weatherproof speakers and speaker strobes shall be UL listed for indoor/outdoor use under UL Standard 1480. All speakers shall provide field selectable taps for 1/8W to 8W operation for either 25 VRMS or 70 VRMS audio systems and shall incorporate a sealed back construction for extra protection and improved audibility. Speakers shall be listed to produce up to 94 dBA and shall incorporate a vandal resistant grille design. Speaker strobes shall be available for surface or semi-flush mounting to walls or ceilings and shall be listed to produce up to 93 dBA.

Sync Modules

When synchronization of strobes or temporal code-3 audibles is required, the appliances shall be compatible with the Wheelock DSM sync modules, Wheelock power supplies or other manufacturers panels with built-in Wheelock patented sync protocol. The strobes and audibles shall not drift out of synchronization at any time during operation.

Weatherproof Mounting Accessories

Weatherproof mounting options shall include surface mounting or semi-flush mounting to walls or ceilings. Surface mounted appliances shall mount to Wheelock IOB, WBB, WPBB or WPSBB weatherproof backboxes using either exposed conduit or concealed conduit. For concealed conduit the weatherproof backbox shall be mounted to a recessed electrical box with Wheelock's WP-KIT to provide a weatherproof seal for the electrical box. Semi-flush mounted appliances shall mount to a recessed electrical box using Wheelock WFP or WFPA flush plates to provide a weatherproof seal between the electrical box and the appliance.

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Eluxa low frequency sounders and sounder strobes

Description

Eaton has developed the Wheelock Eluxa low frequency sounders (ELFHN) and sounder strobes (ELFHS) to meet the National Fire Protection Association (NFPA 72) low frequency sounder requirements for sleeping rooms for both fire alarm and carbon monoxide (CO) signaling. In a single device, the Eluxa low frequency sounders features both low and high candela settings and alarm signals for dual applications - T3 (fire) and T4 (CO) tones.

High efficiency, LED technology

Eaton's high energy efficient technology leads the industry in lowest current draw across the full candela range, which reduces overall power consumption and costs in fire alarm systems. As the first notification appliances in the industry to utilize LED as the light source, this breakthrough and patented optical design, resulting in best-in-class efficiency, enables material and system cost savings, allowing for a greater number of appliances on the notification appliance circuit and fewer power supplies. All strobe models feature 110 and 177 candela settings for both wall- and ceiling- mount models.

Low profile design and rich feature set

With the industry's smallest footprint, the Eluxa low frequency sounders and sounder strobes are aesthetically pleasing as the low profile design does not detract from the interior decor. Eluxa is feature rich with low and high candela settings and 3 horn patterns (Continuous, T3, T3/T4) in 1 device, pre-wire/pre-test via mounting plate with hinged feature for ease-of-installation, and no tools needed for setting changes. These products are suitable for indoor wall and ceiling mount applications. The ELFHS and ELFHN models are for 24V operation. Special lettering, ALERT, CO, and no lettering, is available.

Approvals and synchronization

Eaton's Eluxa strobes meet the 20 millisecond light pulse duration requirements of the 2016 edition of NFPA 72. By meeting this latest requirement, xenon and LED devices can now be in the same field of view.

The Eluxa notification appliances are listed under UL Standards 1971, 1638, and 464 and under CAN/ULC-S525 and CAN/ULC-S526. The appliances are Restriction of Hazardous Substances (RoHS) compliant and contain no mercury or other hazardous substances.

In addition, the Eluxa product line has been UL/ULC listed as compatible with all Fire Alarm Control Panels (FACP) and accessories that have been determined to be compatible with Exceder LED3 and Wheelock RSS strobe-based products including the RSS, CH, E, EH, ET, ST, HS, MT, S8, SA, STH and Z Series. The listing also includes the ability to install the Eluxa strobes in the same notification zone and field of view with any Wheelock RSS strobe and Exceder LED3 models.

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Features

- Meets NFPA 72 fire and CO low frequency sounder codes for sleeping rooms in a single device
- 3 horn patterns
  - Continuous, T3, and T3/T4; Fire and CO signaling in 1 device
- Energy efficient
  - LED technology provides industry's lowest current draw
- Low-profile design
  - Smallest footprint with sleek, modern aesthetics
- Special lettering available: ALERT, CO, no lettering
- Field selectable candela settings: 110, 177 cd
- Easy-to-install
  - Mounting plate included with all models: Convenient capture hinge allows installers to easily hold the device while fastening the single-mount screw in place.
  - Finger slide switches--No tools needed for setting changes
  - Built-in level adjustment feature and snap-on grille cover
  - IN/OUT screw terminals using #12 to #18 AWG wires
  - Mounting Options: ELSPKBB backboxes, single-gang backboxes and 4" square backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models.
- Strobe synchronization components
  - Meet synchronizing standards with Wheelock's DSM Sync Modules or Power Supplies
- Compliance
  - NFPA 72 2016 - 20 ms flash duration requirements
  - UL 1971, UL 1638, UL 464, ULC S525, ULC S526
  - California State Fire Marshal (CSFM)
  - ADA/NFPA/ANSI/OSHA
  - RoHS

Note: Please read these specifications and associated installation instructions, before using, specifying, or installing this product. Visit Eaton.com/Lifesafetynotification for current installation instructions.

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL 1971.

Settings

The 520 tone is generated within the appliance itself. When the selector switch is set for T3, the sound pattern is also generated within the appliance. When the selection switch is set to continuous, the product is listed for coded operations. The T3/T4 pattern or other pattern must be generated by the FACP according to the alarm condition sensed by the panel (fire or CO alarm).

When the device is set to T3/T4, the appliance can switch from T3 to T4 based upon the condition sensed by the FACP and passed to the Wheelock DSM module.

Drawings
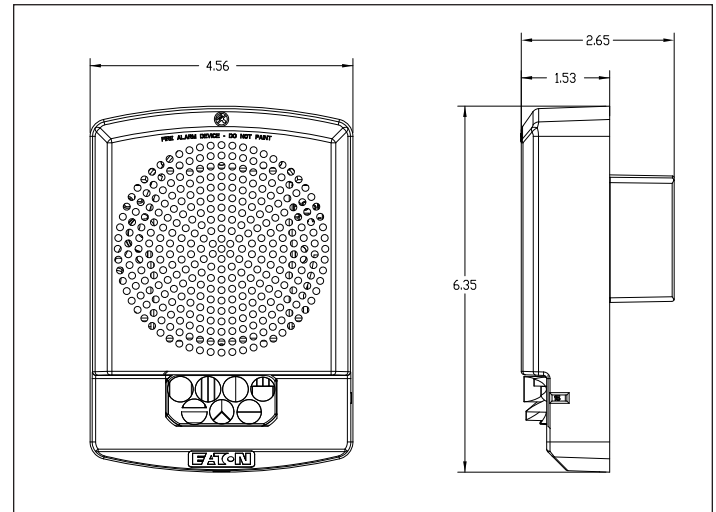
Figure 1. Wall Low Frequency Sounder Strobe
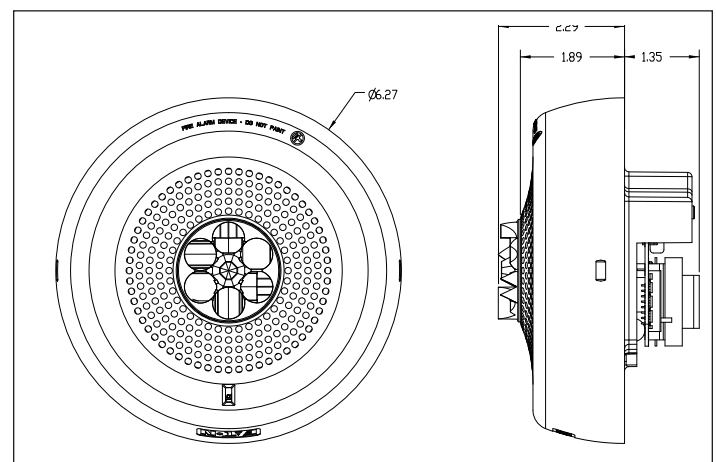
Figure 2. Ceiling Low Frequency Sounder

Table 1. Horn Only Current Draw

		UL/ULC Max Current ①
Eluxa Sounders		**24VDC**
Model	**Horn Settings**	**16.0-33.0**
ELFHN/ELFHNC	Continuous	0.098
	Code 3	0.098
	Code 3/Code 4	0.098

Table 2. Horn Strobe Current Draw

		UL/ULC Max Current ①	
Eluxa Sounder Strobes			
Model	**Regulated Voltage Range VDC**	**110**	**177**
ELFHS	16.0-33.0	0.164	0.256
ELFHSC	16.0-33.0	0.164	0.256

① RMS current ratings are per UL maximum RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v). For strobes the UL max current is usually at the minimum listed voltage. For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation instructions.

Table 3. Sound Output (SPL) - UL

ELFHS/ELFHN 24V
Reverberant dBA per UL 464 ①

Description	16.0V	24.0V	33.0V
Continuous	80	80	80
Code 3	80	80	80
Code 3/Code 4 ᵇ	80	80	80

Table 4. Sound Output (SPL) - ULC

ELFHS/ELFHN
dBA per ULC S525-16 ①

Description	16.0V	24.0V	33.0V
Continuous	85	85	85
Code 3	85	85	85
Code 3/Code 4	85	85	85

Table 5. Specification & Ordering Information

Model	Strobe Candela	Mounting	Red	White	Lettering	Sync w/ DSM or Wheelock Power Supplies
Sounder Strobes						
ELFHSR	110, 177	Wall	X		FIRE	X
ELFHSW	110, 177	Wall		X	FIRE	X
ELFHSR-AL	110, 177	Wall	X		ALERT	X
ELFHSW-AL	110, 177	Wall		X	ALERT	X
ELFHSR-CO	110, 177	Wall	X		CO	X
ELFHSW-CO	110, 177	Wall		X	CO	X
ELFHSR-N	110, 177	Wall	X		No Lettering	X
ELFHSW-N	110, 177	Wall		X	No Lettering	X
ELFHSRC	110, 177	Ceiling	X		FIRE	X
ELFHSWC	110, 177	Ceiling		X	FIRE	X
ELFHSRC-AL	110, 177	Ceiling	X		ALERT	X
ELFHSWC-AL	110, 177	Ceiling		X	ALERT	X
ELFHSRC-CO	110, 177	Ceiling	X		CO	X
ELFHSWC-CO	110, 177	Ceiling		X	CO	X
ELFHSRC-N	110, 177	Ceiling	X		No Lettering	X
ELFHSWC-N	110, 177	Ceiling		X	No Lettering	X
Sounders						
ELFHNR		Wall	X		FIRE	X
ELFHNW		Wall		X	FIRE	X
ELFHNR-AL		Wall	X		ALERT	X
ELFHNW-AL		Wall		X	ALERT	X
ELFHNR-CO		Wall	X		CO	X
ELFHNW-CO		Wall		X	CO	X
ELFHNR-N		Wall	X		No Lettering	X
ELFHNW-N		Wall		X	No Lettering	X
ELFHNRC		Ceiling	X		FIRE	X
ELFHNWC		Ceiling		X	FIRE	X
ELFHNRC-AL		Ceiling	X		ALERT	X
ELFHNWC-AL		Ceiling		X	ALERT	X
ELFHNRC-CO		Ceiling	X		CO	X
ELFHNWC-CO		Ceiling		X	CO	X
ELFHNRC-N		Ceiling	X		No Lettering	X
ELFHNWC-N		Ceiling		X	No Lettering	X

Accessories	Description		Red	White
ELSPKBB-R	Eluxa Backbox	Wall	X	
ELSPKBB-W	Eluxa Backbox	Wall		X
LSPKBB-CR	Exceder LED Backbox	Ceiling	X	
LSPKBB-CW	Exceder LED Backbox	Ceiling		X

① RMS current ratings are per UL maximum RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v). For strobes the UL max current is usually at the minimum listed voltage. For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation instructions.

Note: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Cooper Wheelock Inc., dba Eaton standard terms and conditions.

Table 6. Specifications

Physical	
Material	Red or white textured UV stabilized, colored impregnated engineered plastic. Exceeds 94V-0 UL flammability rating
Weight	1.10 lbs.
Lens	Light Emitting Diode (LED) in a rugged Lexan lens
Dimensions	Wall: ELFHN - 6.35"H x 4.56" W x 1.54" D; ELFHS: 6.35"H x 4.56" W x 1.54" D; ELFHNC: 6.27" Diameter x 1.9" D; ELFHSC: 6.27" Diameter x 2.29" Depth
Operating Temperature	Indoor: 32°F to 122°F (0°C to 50°C) and maximum humidity of 93%
Mounting & Wire Connections	
Mounting (indoor only)	Wall and ceiling-mount applications (model dependent). Mounting Options: ELSPKBB backboxes, single-gang backboxes and 4" square backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models.
Wire Connections	#12 through #18 AWG
Power & General	
Operating voltage	24 VDC/VFWR: 16 - 33 VDC/VFWR
Strobe Output Rating	UL 1971: Field selectable candela 110, 177 cd
Strobe Flash Rate	Strobes are designed to flash at 1 flash per second
Synchronization Models	Strobes can be synchronized with Wheelock's DSM Sync Modules, PS Power Supplies, using Wheelock patented sync protocol
Temporal Audible Pattern	Continuous, Code 3, or Code 3/Code 4 Sync Control. The Code 3 temporal pattern (1/2 second on, 1/2 second off, 1/2 second on, 1/2 second off, 1/2 second on, 1-1/2 off and repeat) is specified by ANSI and NFPA 72 for standard emergency evacuation signaling. The Code 4 temporal pattern (four cycles of 100 milliseconds ± 10 percent "on" and 100 milliseconds ± 10 percent "off," followed by 5 seconds ± 10 percent "off")is specified by NFPA 720.

Architects and Engineers Specifications

The low frequency sounders and sounder strobes appliances shall be Eluxa series ELFHN sounder and ELFHS sounder strobe for wall-mount applications and ELFHNC and ELFHSC for ceiling-mount applications or approved equals. The sounders shall be UL Listed under UL 464 for Fire Protective Service and ULC S525. Sounders equipped with strobes shall be listed under UL 1971 for Emergency Devices for the Hearing-Impaired, UL 1638, and ULC S526. The series shall be Restriction of Hazardous Substances (RoHS) compliant and contain no mercury or other hazardous substances. In addition, the sounder strobes shall meet the requirements of FCC Part 15 and ICES-003. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to operate from 16 to 33 VDC.

The ELFHS sounder strobe shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Light Emitting Diode (LED) as the light source with a rugged Lexan® lens. The strobe shall be of low current design. The LED strobe flash duration shall be 20 ms or less. The strobe intensity of ELFHS models shall have field selectable of 110 and 177 candela. The audible shall have a minimum of 3 modes of operation: T3 (fire), Continuous, and T3/T4 Sync Control.

The ELFHS and ELFHN shall be designed with a low profile design for indoor surface or flush mounting. Mounting options shall include ELSPKBB backboxes, single-gang backboxes, and 4" square

backboxes for wall models and LSPKBB-C backboxes and 4" square, 2 1/8" deep backboxes for ceiling models. The sounder and sounder strobe shall incorporate a mounting plate with a snap-on grille cover and shall mount to standard electrical hardware requiring no additional trimplate or adapter. Removal of an appliance shall result in a supervision fault condition by the Fire Alarm Control Panel (FACP). All notification appliances shall be backwards compatible.

The ELFHN and ELFHS wall models shall have a low profile measuring 6.35"H x 4.56" W x 1.54" D. ELFHNC and ELFHSC ceiling models shall have a low profile with a diameter measuring 6.27" and depth of 2.29". Finish shall be red or white. Special lettering, ALERT, CO and No lettering, shall be available.

When synchronization is required, the appliance shall be compatible with Wheelock's DSM Sync Modules, PS Power Supplies, or other manufacturer's panels with built-in Wheelock Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync protocol fails to operate, the strobe shall revert to a non-synchronized flash-rate and still maintain (1) flash per second over its Regulated Voltage Range. The appliance shall also be designed so that the audible signal may be silenced while maintaining strobe activation when used with Wheelock patented sync protocol.

UL 1971, UL 1638, UL 464, ULC S525, ULC S526, CSFM, FCC, RoHS, ICES

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F·T·N

Powering Business Worldwide

Eluxa horns, horn strobes, & strobes

Description

The Wheelock Eluxa horns, horn strobes, and strobes by Eaton feature an advanced power saving LED technology with a full range of low and high candela settings for indoor wall and ceiling-mount applications.   Designed in sleek, modern enclosures, Eluxa's aesthetically pleasing low profile will blend with the building's interior décor.

High efficiency, LED technology

Eaton's high energy efficient technology leads the industry in lowest current draw for a combined high and low candela device, which reduces overall power consumption. As the first notification appliances in the industry to utilize LED as the light source, this breakthrough optical design, resulting in best-in-class efficiency, enables material and system cost savings, allowing for a greater number of appliances on the notification appliance circuit and fewer power supplies. This reduces installation and operating costs. All strobe models feature six candela settings: 15, 30, 75, 110, 135, 185 cd on wall models and 15, 30, 75, 110, 150, 177 cd on ceiling models.

Low profile design and rich feature set

With the industry's smallest footprint, the Eluxa horns, horn strobes, and strobes are aesthetically pleasing to building owners as the low profile design does not detract from the interior decor. Eluxa is feature rich with 6 candela settings and 3 horn patterns (Continuous, T3, T3/T4) in 1 device, pre-wire/pre-test via mounting plate with hinged feature for ease-of-installation, single-gang design (wall models), and no tools needed for setting changes. The ELST strobe, ELHS horn strobe, and the ELHN horn are for 24V operation. ELHN is suitable for 12V applications.

Approvals and synchronization

Eaton's Eluxa strobes meet the 20 millisecond light pulse duration requirements of the 2016 edition of NFPA 72. By meeting this latest requirement, xenon and LED devices can now be in the same field of view.

The Eluxa notification appliances are listed under UL Standards 1971, 1638, and 464 and under CAN/ULC-S525 and CAN/ULC-S526. The appliances are Restriction of Hazardous Substances (RoHS) compliant and contain no mercury or other hazardous substances.

In addition, the Eluxa product line has been UL/ULC listed as compatible with all Fire Alarm Control Panels (FACP) and accessories that have been determined to be compatible with Exceder LED3 and Wheelock RSS strobe-based products including the RSS, CH, E, EH, ET, ST, HS, MT, S8, SA, STH and Z Series. The listing also includes the ability to install the Eluxa strobes in the same notification zone and field of view with any Wheelock RSS and Exceder LED3 strobe models.

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Features

- Energy efficient
  - LED technology provides industry's lowest current draw
  - Fewer power supplies required, smaller wire gage, reduced wire runs
- Low-profile design
  - One of the smallest, most compact single-gang designs
  - Sleek, modern aesthetics with no visible mounting screws
- Special lettering available
- 6 Field selectable settings in 1 device
  - Wall: 15, 30, 75, 110, 135, 185 cd
  - Ceiling: 15, 30, 75, 110, 150, 177 cd
- 3 horn patterns
  - Continuous, T3, and T3/T4; Fire and CO signaling in 1 device
- Sound pressure (Anechoic) dBA
  - Low 86, High 91 (for Continuous, T3, and T4)
- Easy-to-install
  - Mounting plate included with all models: Convenient capture hinge allows installers to easily hold the device while fastening the single-mount screw in place.
  - Pre-wire/pre-test capability to check for wiring and ground faults prior to appliance installation
  - Finger slide switches--No tools needed for setting changes
  - IN/OUT screw terminals using #12 to #18 AWG wires
  - Mounting options include ELSBB, any single-gang backbox and to 4″ square with adapter kit for wall models and LSPKBB-C backboxes, 4″ square, 1 1/2″ or 2 1/8″deep and 4″ Octagonal, 1 ½″ or 2 1/8″deep for ceiling models
- Strobe synchronization
  - Meet synchronizing standards with Wheelock's DSM Sync Modules, PS Power Supplies or SAFEPATH products
  - Ability to mix xenon and LED strobes in the same field of view
- Compliance
  - NFPA 72 2016 - 20 ms flash duration requirements
  - UL 1971, UL 1638, UL 464, ULC-S525, ULC-S526
  - California State Fire Marshal (CSFM)
  - RoHS
  - FCC Part 15, ICES

Note: Please read these specifications and associated installation instructions, before using, specifying, or installing this product. Visit Eaton.com/Lifesafetynotification for current installation instructions.

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective strobe intensity based on UL 1971.
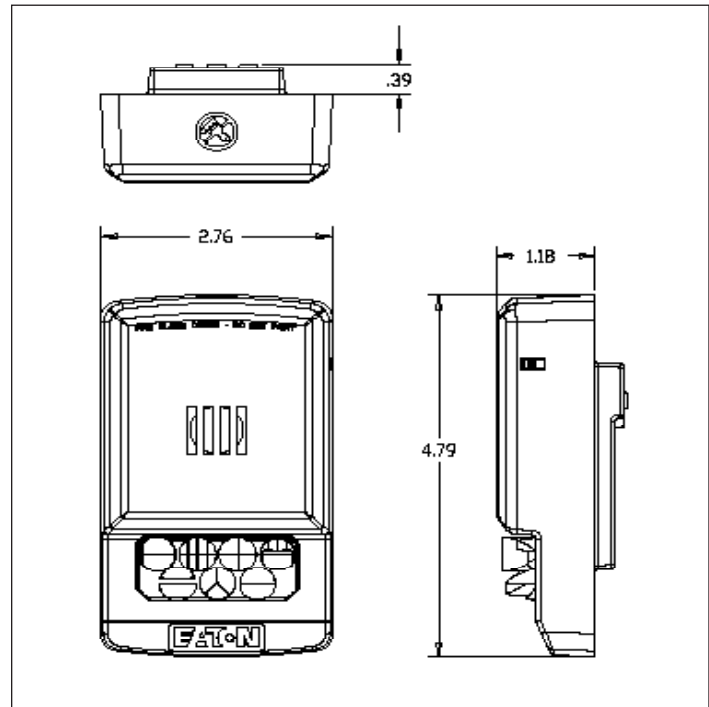
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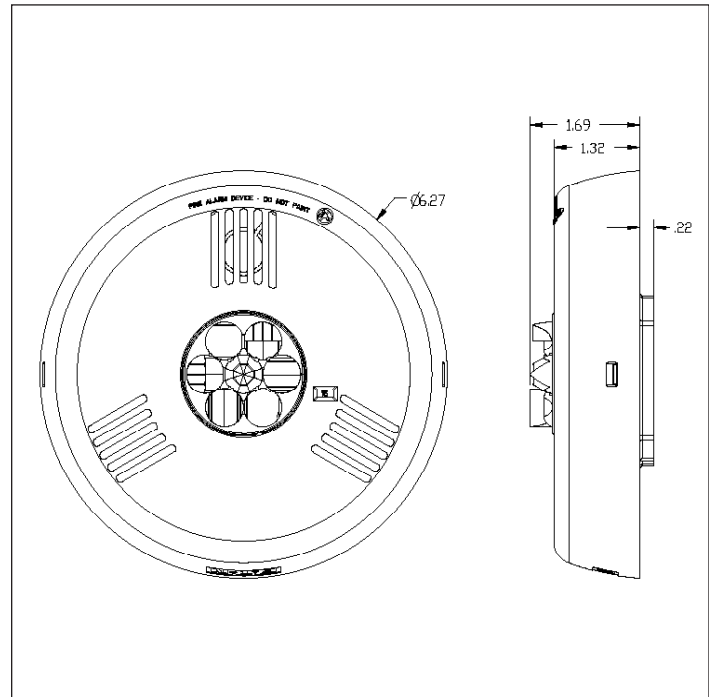

Figure 1. Wall, horn strobe

Figure 2. Ceiling, horn strobe

Table 1. Horn ratings per UL/ULC Anechoic

Eluxa Horns

Model	Regulated Voltage Range VDC	High dB	Low dB
ELHN/ELHNC	8.0 - 17.5	0.025	0.020
ELHN/ELHNC	16.0 - 33.0	0.028	0.021

Table 2. Strobe ratings

Model	Regulated Voltage Range VDC	UL/ULC Max Current ① 24VDC							
		15	30	75	110	135	150	177	185
ELST	16.0-33.0	0.022	0.030	0.060	0.086	0.125			0.185
ELSTC	16.0-33.0	0.022	0.030	0.060	0.086		0.125	0.185	

Table 3. Code 3 horn strobe ratings

Eluxa Horn Strobes Model	Regulated Voltage Range VDC	UL/ULC Max Current ① at Anechoic High continuous 24VDC							
		15	30	75	110	135	150	177	185
ELHS	16.0-33.0	0.037	0.046	0.077	0.109	0.146			0.208
ELHSC	16.0-33.0	0.037	0.046	0.077	0.109		0.146	0.208	

Eluxa Horn Strobes Model	Regulated Voltage Range VDC	UL/ULC Max Current ① at Anechoic Low continuous 24VDC							
		15	30	75	110	135	150	177	185
ELHS	16.0-33.0	0.030	0.039	0.070	0.102	0.139			0.201
ELHSC	16.0-33.0	0.030	0.039	0.070	0.102		0.139	0.201	

Table 4. Specification & Ordering Information

Model	Mounting	Strobe Candela	Red	White	Lettering	Sync w/ DSM or Wheelock Power Supplies
Horn strobes						
ELHSR	Wall	15/30/75/110/135/185	X		FIRE	X
ELHSW	Wall	15/30/75/110/135/185		X	FIRE	X
ELHSR-A	Wall	15/30/75/110/135/185	X		AGENT	X
ELHSR-N	Wall	15/30/75/110/135/185	X		No Lettering	X
ELHSW-A	Wall	15/30/75/110/135/185		X	AGENT	X
ELHSW-AL	Wall	15/30/75/110/135/185		X	ALERT	X
ELHSW-N	Wall	15/30/75/110/135/185		X	No Lettering	X
ELHSW-EV	Wall	15/30/75/110/135/185		X	EVACUATE	X
ELHSRC	Ceiling	15/30/75/110/150/177	X		FIRE	X
ELHSWC	Ceiling	15/30/75/110/150/177		X	FIRE	X
Strobes						
ELSTR	Wall	15/30/75/110/135/185	X		FIRE	X
ELSTW	Wall	15/30/75/110/135/185		X	FIRE	X
ELSTR-A	Wall	15/30/75/110/135/185	X		AGENT	X
ELSTR-AL	Wall	15/30/75/110/135/185	X		ALERT	X
ELSTW-A	Wall	15/30/75/110/135/185		X	AGENT	X
ELSTW-AL	Wall	15/30/75/110/135/185		X	ALERT	X
ELSTW-N	Wall	15/30/75/110/135/185		X	No Lettering	X
ELSTR-N	Wall	15/30/75/110/135/185	X		No Lettering	X
ELSTW-EV	Wall	15/30/75/110/135/185		X	EVACUATE	X
ELSTRC	Ceiling	15/30/75/110/150/177	X		FIRE	X
ELSTWC	Ceiling	15/30/75/110/150/177		X	FIRE	X
ELSTRC-AL	Ceiling	15/30/75/110/150/177	X		ALERT	X
ELSTWC-AL	Ceiling	15/30/75/110/150/177		X	ALERT	X
ELSTWC-EV	Ceiling	15/30/75/110/150/177		X	EVACUATE	X
Horns						
ELHNR	Wall		X		No Lettering	X
ELHNW	Wall			X	No Lettering	X
ELHNRC	Ceiling		X		No Lettering	X
ELHNWC	Ceiling			X	No Lettering	X
Accessories						
ELSBB-R	LED Backbox, wall		X			
ELSBB-W	LED Backbox, wall			X		
ESB-KIT-R	Trim Plate, wall		X			
ESB-KIT-W	Trim Plate, wall			X		
LSPKBB-CR	Backbox, ceiling		X			
LSPKBB-CW	Backbox, ceiling			X		

① RMS current ratings are per UL maximum RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

② Regulated Voltage Range- VDC

Note: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Cooper Wheelock Inc., dba Eaton standard terms and conditions.

Table 5. Specifications

Physical	
Material	Red or white textured UV stabilized, colored impregnated engineered plastic. Exceeds 94V-0 UL flammability rating
Weight	Wall: 0.35 lbs; Ceiling: 0.55 lbs
Lens	Light Emitting Diode (LED) in a rugged Lexan lens
Dimensions	Wall: 4.79"H x 2.76" W x 1.18" D, Trimplate: 5.25" H x 4.58" W x 0.32" D; Ceiling: 6.27" Diameter x 1.69" D
Operating Temperature	Indoor: 32°F to 122°F (0°C to 50°C) and maximum humidity of 93%
Mounting & Wire Connections	
Mounting (indoor only)	Mounting plate included with all models. ELHS and ELST are for wall-mount applications only. ELHN can be used for wall and ceiling-mount applications. Wall mounting: Single-gang, ELSBB backboxes or to 4" square with adapter kit. ELHN can be used for wall and ceiling-mount applications. ELHSC and ELSTC are for ceiling mount applications only. The ELHNC can also be used for wall-mount applications. Ceiling mounting: LSPKBB-C backboxes or to 4" square, 1 1/2" or 2 1/8"and Octagonal, 1 ½" or 2 1/8"deep
Wire Connections	#12 through #18 AWG
Power & General	
Operating voltage	12 VDC/VFWR: 8 - 17.5 VDC/VFWR; 24 VDC/VFWR: 16 - 33 VDC/VFWR (12 VDC ELHN/ELHNC models only)
Strobe Output Rating	UL 1971, UL 1638, ULC S526: Selectable 15, 30, 75, 110, 135, 185 candela output for wall models; Selectable 15, 30, 75, 110, 150, 177 candela output for ceiling models
Synchronization Models	Strobes can be synchronized with Wheelock's DSM Sync Modules, PS Power Supplies or SAFEPATH products, using Wheelock patented sync protocol

Architects and Engineers Specifications

The LED notification appliances shall be Wheelock® ELHS audible visual strobe appliances, ELST visual strobe appliances and ELHN audible appliances for wall and ceiling-mount applications with a low-profile design or approved equals. Special lettering, including AGENT, ALERT, EVACUATE, and no lettering, shall be available. The ELHS and ELST strobes shall be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired) for Indoor Fire Protection Service and UL 1638 (Visible Signaling Devices.   The ELHS and ELHN Audibles shall be UL Listed under Standard 464 (Fire Protective Signaling).   All models shall meet the requirements of FCC Part 15 and ICES-003. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to operate from 16 to 33 VDC/VFWR.

The ELHS audible strobe and ELST strobe appliances shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Light Emitting Diode (LED) as the light source with a rugged Lexan® lens. The appliances shall be of low current design. The LED strobe flash duration shall be 20 ms. Where Multi-Candela appliances are specified, the strobe intensity shall have 6 field selectable settings at 15, 30, 75, 110, 135 and 185 candela for wall mount applications and 15, 30, 75, 110, 150 and 177 for ceiling applications. The selector switch for selecting the candela shall be tamper resistant. Appliances with candela settings shall show the candela selection in a visible location at all times when installed.

The audible shall have a choice of three (3) horn patterns (high & low output): Continuous, T3, and T3/T4 for fire (T3) and CO (T4) signaling.

The ELHS audible strobe, ELST strobe, and ELHN audible shall include a hinged mounting plate. Mounting options shall include LED backboxes, single-gang backbox and to 4" square with adapter kit for wall-mount models and LED Ceiling backboxes, 4" square, 1 1/2" or 2 1/8"deep and 4" Octagonal, 1 ½" or 2 1/8"deep for ceiling models. Two wire appliance wiring shall be capable of directly connecting to the mounting base. Removal of an appliance shall result in a supervision fault condition by the Fire Alarm Control Panel (FACP). All notification appliances shall be backwards compatible.

The ELHS, ELHN and ELST wall models shall have a low profile measuring 4.79"H x 2.76"W x 1.18"D. The ELHSC, ELHNC and ELSTC ceiling models shall have a low profile measuring 6.27" Diameter with 1.69"D.

When synchronization is required, the appliance shall be compatible with Wheelock®'s DSM Sync Modules, PS Power Supplies, SAFEPATH products or other manufacturer's panels with built-in Wheelock® Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync protocol fails to operate, the strobe shall revert to a non-synchronized flash-rate and still maintain (1) flash per second over its Regulated Voltage Range. The appliance shall also be designed so that the audible signal may be silenced while maintaining strobe activation when used with Wheelock® patented sync protocol.

NFPA 72 2016, UL 1971, UL, 1638, UL 464 ULC-S525-16, ULC-S526-16, CSFM, FCC, RoHS, ICES

WE ENCOURAGE AND SUPPORT NICET CERTIFICATION
3 YEAR WARRANTY

AceBOX
BY SPACE AGE ELECTRONICS

SDB
System Document Box

SYSTEM RECORDS DOCUMENTS

FAMILY OWNED · MADE IN USA · SINCE 1963

FEATURES

- Dimensions: 14 1/4" tall, 14 1/3" wide and 3" deep

- Velcro strap and inside edge keep important documents secure

- Standard thumb screw included with a knock-out if lock is needed (sold separately)

- 20 gauge cold rolled steel construction with durable, red powder coat finish
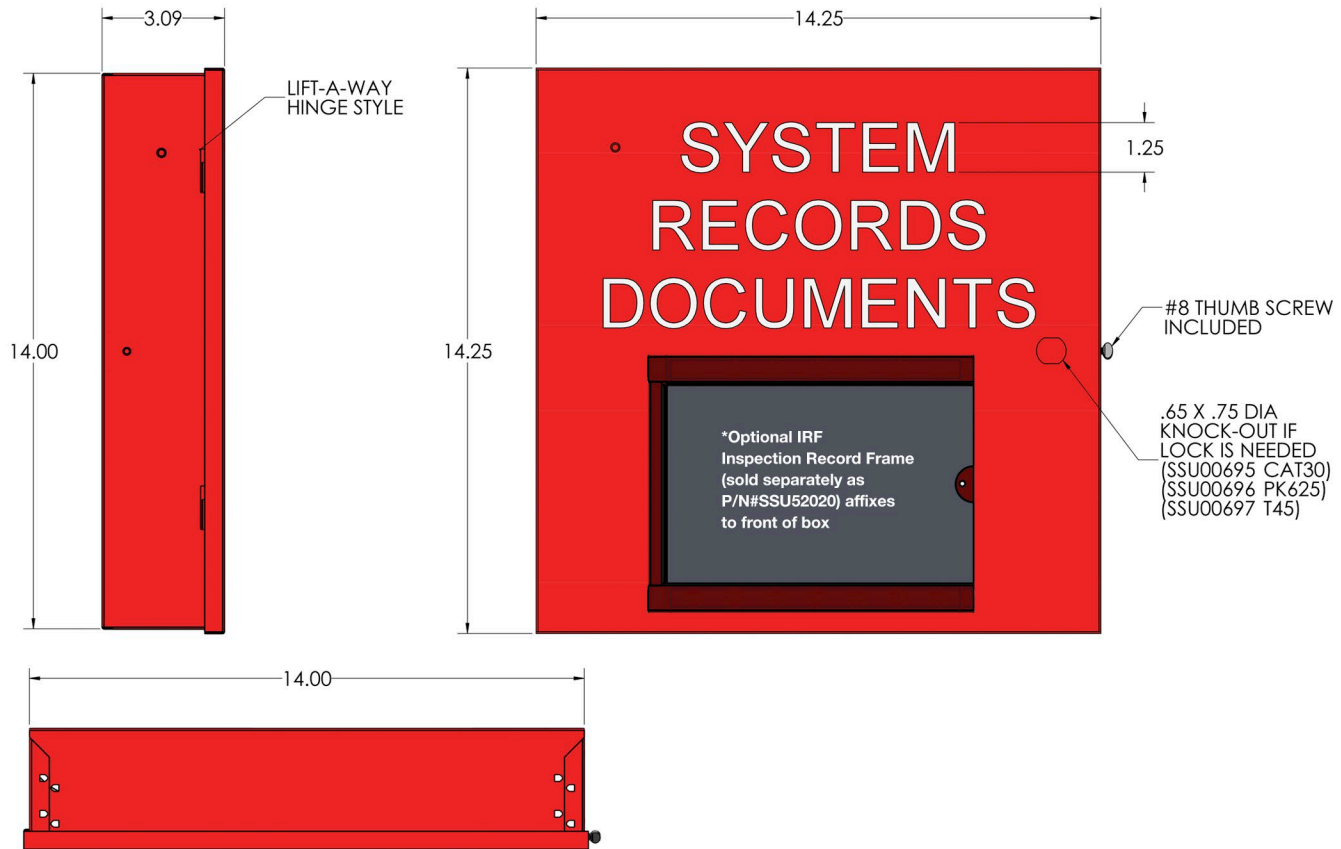
- Lift-a-way hinge door for easy access

A cost-effective answer for those looking for a durable, code-compliant enclosure to ensure mandated records are maintained at the fire alarm control unit location.

Every durable box is fabricated from 20 gauge steel with a powder coat finish and features a formed lift-a-way hinge. Also included is a Velcro strap and inside edge to keep important documents secure.

SPECIFICATIONS

The SDB System Document Box shall be constructed of 20 gauge cold rolled steel and finished with a durable, red powder coat. Front cover will feature a lift-a-way hinge. Door shall be secured with a standard thumb screw with a knock-out available if a lock is needed. Construction shall include a Velcro strap and inside edge to hold documents in place.

AceBOX

DIMENSIONS

3.09

LIFT-A-WAY
HINGE STYLE

14.00

14.25

1.25

SYSTEM
RECORDS
DOCUMENTS

14.25

#8 THUMB SCREW
INCLUDED

*Optional IRF
Inspection Record Frame
(sold separately as
P/N#SSU52020) affixes
to front of box

.65 X .75 DIA
KNOCK-OUT IF
LOCK IS NEEDED
(SSU00695 CAT30)
(SSU00696 PK625)
(SSU00697 T45)

14.00

ORDERING INFORMATION

SSU00691   SDB System Document Box

Accessories:

SSU00695   CAT30 Lock kit

SSU00696   PK625 Lock Kit

SSU00697   T45 Lock Kit

SSU03161   Inspection and Maintenance Identification Labels

SSU52020   IRF Inspection Record Frame

TERMINAL CABINET	TERMINAL CABINET	DUCT DETECTOR	DUCT DETECTOR
EOL	EOL	FIRE ALARM JUNCTION BOX	FIRE ALARM JUNCTION BOX
FIRE ALARM	FIRE ALARM	ELEVATOR CONTROL CABINET	ELEVATOR CONTROL CABINET
FIRE ALRM / EMERGENCY CIRCUIT INSIDE			

Inspection and Maintenance
Identification Labels for verification
per NFPA 72 Chapter 14 (sold separately)

MEMBER OF NFPA   NEMA   ISO 9001:2015 REGISTERED   ADA

Product Data Sheet
IM Series: IM-12180NB (UT-12180NB)
12 Volt, 18.0 Amp. Hour

Specifications

Rated Voltage		12V
Nominal Capacity	18.0Ah	(C_{20},1.75V/cell,20hrs)
Dimensions	Length Width Container Height Total Height	7.14 inches (181.5 mm) 3.01 inches (76.5 mm) 6.59 inches (167.5 mm) 6.59 inches (167.5 mm)
Approx Weight		11.8 lbs (5.35 Kg)
Terminal		NB 2
Container Material		ABS
Rated Capacity (25°C)	18.0 Ah 17.0 Ah 15.5 Ah 13.8 Ah 11.8 Ah	(20hr,0.900A,1.75V/cell) (10hr,1.70A,1.75V/cell) (5hr,3.10A,1.75V/cell) (3hr,4.59A,1.75V/cell) (1hr,11.8A,1.60V/cell)
Max. Discharge Current		270A (5s)
Internal Resistance (25°C)		Approx 16mΩ
Operating Temp.Range	Discharge Charge Storage	5 ~ 122°F (-15 ~ 50°C) -4 ~ 104°F (-20 ~ 40°C) 5 ~ 104°F (-15 ~ 40°C)
Nominal Operating Temp. Range		77±5°F (25±3°C)
Standby/Float Use	Initial Charging Current less than 5.4A. Voltage 13.5V~13.8V at 77°F(25°C)Temp. Coefficient -10mV/°F	
Temperature Effect on Capacity	104°F (40°C) 77°F (25°C) 32°F (0°C)	103% 100% 86%
Self Discharge	IM series batteries may be stored for up to 6 months at 77°F(25°C) and then a freshening charge is required. For higher temperatures - time interval will be shorter.	

Layout
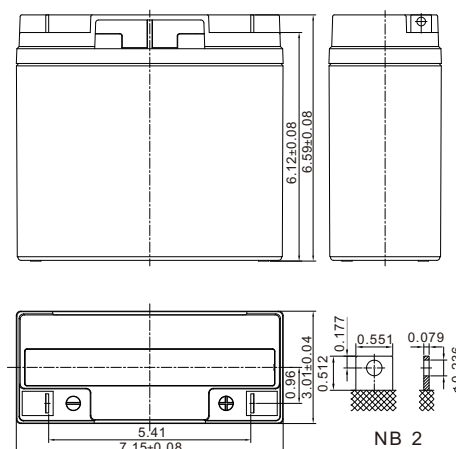
Constant Current Discharge (Amperes) at 77°F(25°C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	54.7	37.5	29.2	24.0	17.9	13.1	10.7	7.84	6.16	4.45	3.54	3.02	2.58	2.03	1.66	0.880
1.80V/cell	58.9	39.8	30.6	25.0	18.4	13.4	11.0	8.00	6.28	4.52	3.59	3.06	2.62	2.06	1.69	0.890
1.75V/cell	62.0	41.4	31.7	25.7	18.9	13.7	11.2	8.15	6.39	4.59	3.64	3.10	2.65	2.09	1.70	0.900
1.70V/cell	64.9	43.0	32.7	26.4	19.4	14.0	11.4	8.29	6.48	4.66	3.69	3.14	2.68	2.11	1.72	0.907
1.67V/cell	67.2	44.2	33.5	27.0	19.7	14.2	11.6	8.40	6.56	4.70	3.73	3.17	2.71	2.12	1.73	0.914
1.60V/cell	71.3	46.1	34.7	27.8	20.3	14.6	11.8	8.58	6.69	4.79	3.79	3.22	2.75	2.15	1.75	0.924

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV

Constant Power Discharge (Watts/cell) at 77°F(25°C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	103.5	71.4	55.9	46.3	34.6	25.4	20.8	15.3	12.1	8.74	6.98	5.95	5.11	4.03	3.31	1.76
1.80V/cell	110.3	75.2	58.3	47.9	35.5	25.9	21.3	15.6	12.3	8.87	7.07	6.03	5.18	4.09	3.35	1.78
1.75V/cell	114.9	77.6	59.9	48.9	36.2	26.4	21.6	15.8	12.4	8.98	7.16	6.10	5.23	4.13	3.38	1.80
1.70V/cell	119.2	80.2	61.5	50.1	37.0	26.9	21.9	16.1	12.6	9.10	7.24	6.17	5.29	4.17	3.41	1.81
1.67V/cell	122.3	82.0	62.8	51.0	37.5	27.3	22.2	16.2	12.7	9.18	7.30	6.22	5.33	4.20	3.43	1.83
1.60V/cell	127.2	84.4	64.5	52.3	38.4	27.8	22.6	16.5	12.9	9.32	7.41	6.30	5.40	4.25	3.47	1.85

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV

Product Data Sheet
IM Series: IM-12180NB (UT-12180NB)
12 Volt, 18.0 Amp. Hour

UltraTech
POWER PRODUCTS

Applications

• All purpose
• Uninterruptable Power Supply (UPS)
• Electric Power System (EPS)
• Emergency backup power supply
• Alarm and security system
• Communication power supply
• DC power supply
• Auto control system

General Features

• 5 years design life(77⁰F)

• Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance

• High purity PbCaSn raw material alloy is used for plate grids, assuring less gassing & low self-discharge rate

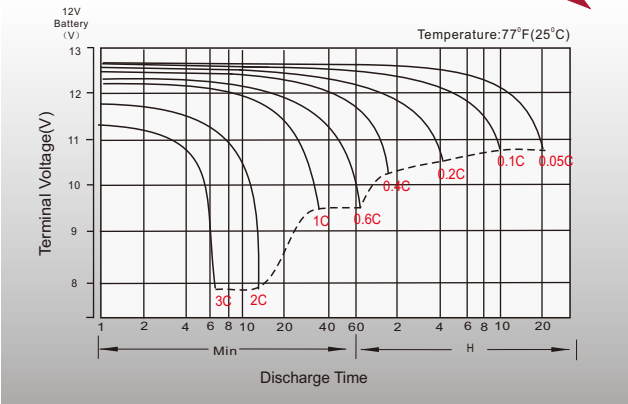• High quality AGM separator: extend cycle life and prevent micro short circuit

Standards

• Compliance with IEC 60896 standards, EU Battery Directive

• UL, CE Certified

• Manufactured in IATF16949,ISO45001, ISO 9001 and ISO 14001 certified production facilities
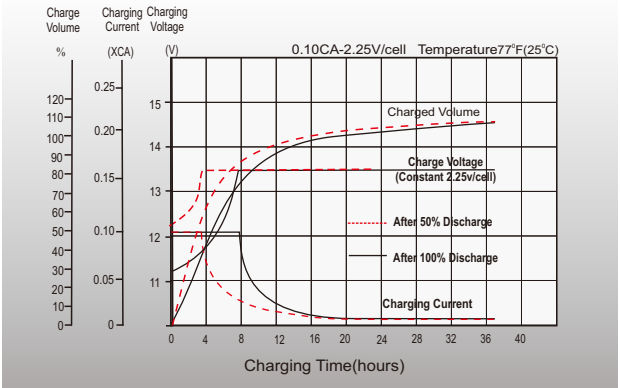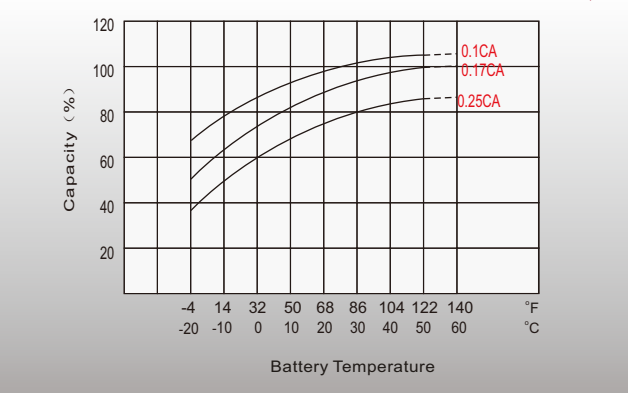
Discharge Characteristics

Curves represent Constant Current draw (Amp.)
1C curve = 1 x Nominal capacity=18amp. constant draw   0.05C curve = 0.05 x Nominal capacity = 0.90amp. draw
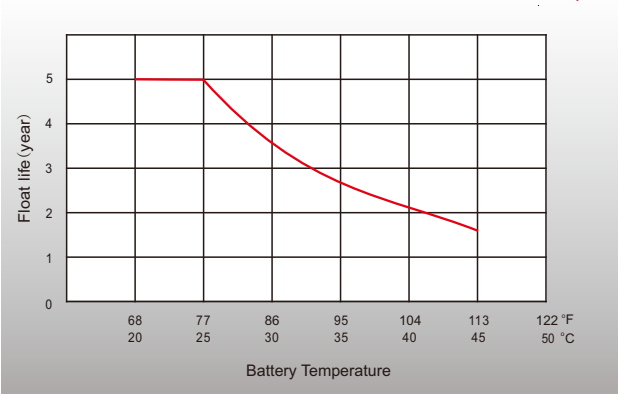
Standby/Float Charging Characteristics

Temperature Effectes on Battery Capacity

Temperature Effectes on Long Term Float Life

Sales Offices

Sales: 1.800.233.6261
Website: www.adiglobaldistribution.us
         www.adiglobaldistribution.ca

Product Data Sheet
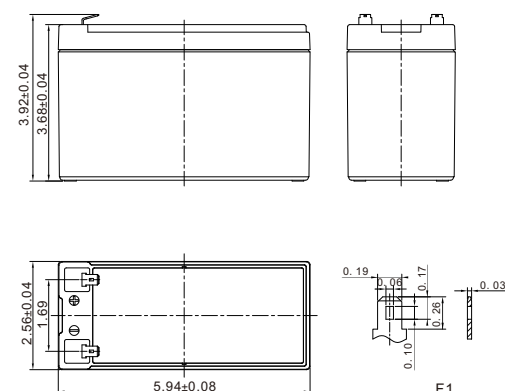## IM Series: IM-1272F1 (UT-1272F1)
12 Volt, 7.0 Amp. Hour

Specifications

Rated Voltage		12V
Nominal Capacity	7.0Ah	$(C_{20},1.75V/cell,20hrs)$
Dimensions	Length Width Container Height Total Height	5.95 inches (151 mm) 2.56 inches (65 mm) 3.68 inches (93.5 mm) 3.92 inches (99.5 mm)
Approx Weight		4.34 lbs (1.97 Kg)
Terminal		F1
Container Material		ABS
Rated Capacity (25^0C)	7.00 Ah 6.53 Ah 5.85 Ah 5.30 Ah 4.27 Ah	(20hr,0.350A,1.75V/cell) (10hr,0.653A,1.75V/cell) (5hr,1.19A,1.75V/cell) (3hr,1.77A,1.75V/cell) (1hr,4.27A,1.60V/cell)
Max. Discharge Current		105A (5s)
Internal Resistance (25^0C)		Approx 33mΩ
Operating Temp.Range	Discharge Charge Storage	$5 \sim 122^0$F $(-15 \sim 50^0$C) $-4 \sim 104^0$F $(-20 \sim 40^0$C) $5 \sim 104^0$F $(-15 \sim 40^0$C)
Nominal Operating Temp. Range		$77±5^0$F $(25±3^0$C)
Standby/Float Use	Initial Charging Current less than 2.1A. Voltage 13.5V~13.8V at 77^0F(25^0C)Temp. Coefficient -10mV/^{0}F	
Temperature Effect on Capacity	104^0F $(40^0$C) 77^0F $(25^0$C) 32^0F $(0^0$C)	103% 100% 86%
Self Discharge	IM series batteries may be stored for up to 6 months at 77^0F(25^0C) and then a freshening charge is required. For higher temperatures - time interval will be shorter.	

Layout

Constant Current Discharge (Amperes) at 77^{0}F(25 ^{0}C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.0	12.5	9.90	8.10	6.12	4.64	3.91	2.90	2.38	1.72	1.36	1.16	0.99	0.780	0.637	0.343
1.80V/cell	18.5	13.2	10.3	8.35	6.28	4.73	3.99	2.95	2.41	1.74	1.38	1.18	1.01	0.790	0.644	0.347
1.75V/cell	19.9	13.8	10.7	8.60	6.43	4.83	4.06	3.00	2.45	1.77	1.40	1.19	1.02	0.800	0.653	0.350
1.70V/cell	21.4	14.4	11.1	8.86	6.57	4.92	4.13	3.05	2.49	1.79	1.42	1.21	1.03	0.809	0.660	0.354
1.67V/cell	22.3	14.8	11.3	9.01	6.67	4.98	4.17	3.08	2.51	1.81	1.43	1.22	1.04	0.816	0.665	0.356
1.60V/cell	24.3	15.7	11.8	9.40	6.87	5.11	4.27	3.14	2.56	1.84	1.46	1.24	1.06	0.829	0.675	0.361

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV

Constant Power Discharge (Watts/cell) at 77^{0}F(25 ^{0}C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.3	23.9	19.1	15.6	11.8	9.01	7.61	5.67	4.65	3.37	2.69	2.29	1.96	1.55	1.27	0.686
1.80V/cell	34.8	25.0	19.7	16.0	12.1	9.15	7.73	5.74	4.71	3.42	2.72	2.32	1.99	1.57	1.28	0.693
1.75V/cell	37.4	26.1	20.3	16.4	12.3	9.30	7.84	5.82	4.77	3.46	2.76	2.35	2.01	1.58	1.29	0.700
1.70V/cell	39.9	27.2	20.9	16.8	12.5	9.40	7.95	5.90	4.84	3.50	2.79	2.37	2.03	1.60	1.31	0.707
1.67V/cell	41.4	27.8	21.3	17.1	12.7	9.50	8.02	5.95	4.87	3.53	2.81	2.39	2.05	1.61	1.32	0.712
1.60V/cell	44.7	29.2	22.1	17.6	13.0	9.70	8.17	6.05	4.95	3.59	2.85	2.43	2.08	1.64	1.34	0.722

C.O.V - Cutoff Voltage/cell. The battery is fully charged & being discharged to COV

Product Data Sheet
IM Series: IM-1272F1 (UT-1272F1)
12 Volt, 7.0 Amp. Hour

Applications

• All purpose
• Uninterruptable Power Supply (UPS)
• Electric Power System (EPS)
• Emergency backup power supply
• Alarm and security system
• Communication power supply
• DC power supply
• Auto control system

General Features

• 5 years design life(77⁰F)

• Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance

• High purity PbCaSn raw material alloy is used for plate grids, assuring less gassing & low self-discharge rate

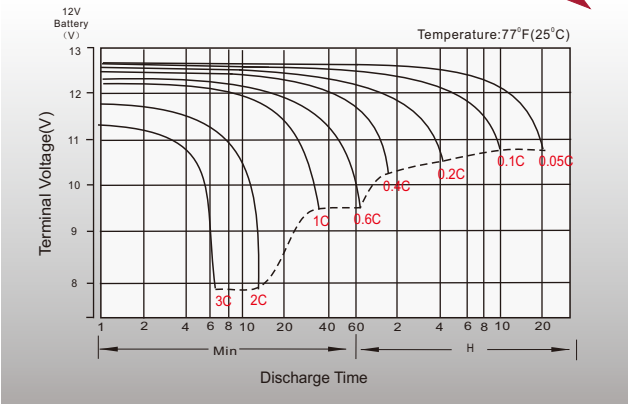• High quality AGM separator: extend cycle life and prevent micro short circuit

Standards

• Compliance with IEC 60896 standards, EU Battery Directive

• UL, CE Certified

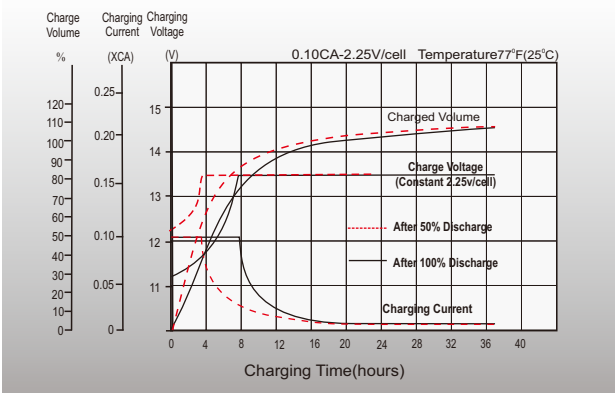• Manufactured in IATF16949,ISO45001, ISO 9001 and ISO 14001 certified production facilities
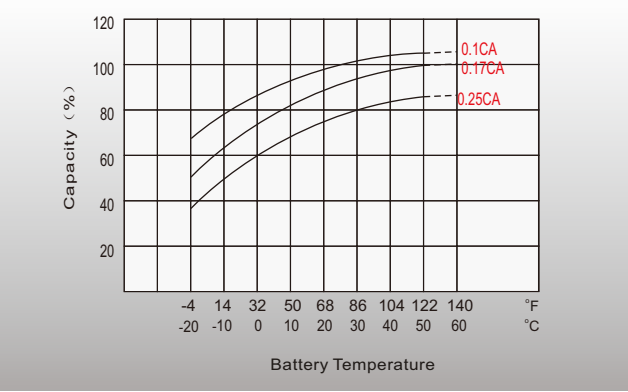
Discharge Characteristics

Curves represent Constant Current draw (Amp.)
1C curve = 1 x Nominal capacity= 7amp. constant draw   0.05C curve = 0.05 x Nominal capacity = 0.35amp. draw
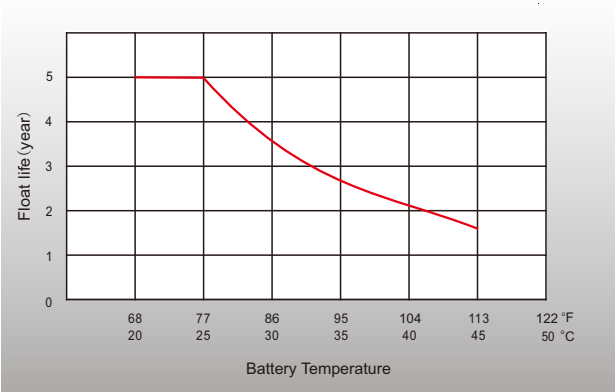
Standby/Float Charging Characteristics

Temperature Effectes on Battery Capacity

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