

AFC-100 Fire Alarm Control Panel

Features

- 100 addresses available on this analog addressable system
- Additional system capacity achieved via multi-point SLC modules
- 99 software zones
- NFPA 72 Compliant Smoke Sensitivity Test Built-In
- System Operates as Class A or Class B for SLC, P-Link and NACs
- 5 Amp Power Supply, Expandable to 310 amps
- 2 NACS, Regulated, Rated at 3 Amps each, expandable to 188
- 2 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

Description

The AFC-100 is an analog/addressable fire alarm system with a total system capacity of 100 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-100 has a 5 Amp power supply with two Notification Appliance Circuits (NACs) and two 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-100 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 loop expansion cards. The cards mount on a stacker bracket that allows access to all SLC circuit connections.



Technical Specifications

Dimensions	16"W x 17"H x 3 ⁷ /"D				
AC Mains	3.0 Amps @ 120 VAC 50/60 HZ 2.0 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-200 mA 5 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	1 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) 				

St. Louis, MO

Phone: 800-325-3936



The Symbol of Protection

The control panel may be connected with up to 100 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.

Potter Electric Signal Company, LLC

St. Louis, MO • Phone: 800-325-3936

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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	Isolater 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", 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 2 x 16 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-100 has a proprietary communication protocol that communicates through a RS-485 connection to field devices. Up to 32 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:

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

RA-6500R(F) $- 4 \ge 40$ 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.

 $\ensuremath{\text{CA-6075}}\xspace - \ensuremath{\text{Class}}\xspace A$ 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 multimode 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-100 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.

St. Louis, MO ·



Dimensions



Ordering Information

Model	Description	Stock No.
AFC-100	Fire Alarm Control Panel	3992753
	Replacement Board AFC-100	3992757

StarLink

AT&T * verizon

DUAL SIM/DUAL PATH AT&T and VERIZON Cell &/or IP UNIVERSAL 5G **COMMERCIAL FIRE LTE-M COMMUNICATORS**

AT&T + verizon

- NAPCO
- Easiest installation, powered by panel, NO extra power supply, NO extra conduit. (Excludes Metal Direct AC-Powered Model, shown below.)
- Labor-Saving Supervision Features Save Time & Money Uniquely including 4 supervised, programmable EOLR zone inputs; 2 Form C Relay outputs (no extra supervision modules to buy or install); plus, 2 Telephone style jacks for easy FACU-connection. Self-supervised on 4 wires.
- Easy-Repeat Account Templates Save your typical account setup and reuse for goof-proof communicator programming & fast deployment.

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• Free StarLink FACU-Saver App - Smartphone Pro sales tool for calculating/demonstrating account's cellular cost-savings with dealer by number of lines & locations vs. copper POTs lines leased from phone co. FREE download on Apple Store or Google Play.

- Pro Incentive Instant Rebate Program Dealers save on new and retrofit installations, replacing POTs, old radios, sunset networks and even new installations. (Nothing to mail in/fill out; Service credit automatically applied upon valid plan activation. See details online; scan QR code on back)
- UL & NFPA 72 Fire Code-Compliant, the StarLink Max2 Fire Series Wireless Commercial Fire Alarm Sole Path & Dual Path Communicators provide universal support for any brand 12V to 24V fire alarm control panel (FACU), reporting in Contact ID and 4/2. With broadest nationwide coverage footprint, Verizon or AT&T, using proven StarLink circuitry, they are also available in locking metal models.
- Over-the-Air Upgradeable Firmware for updates without a truck-roll.



StarLink Fire MAX 2: SLE-MAX2-Series The Power of 2: Dual SIM, Dual Path by Napco

- Dual SIM, Dual Path Universal full data 5G LTE-M cellular &/or IP commercial fire alarm reporting from any panel brand, virtually anywhere nationwide
- One Model to Stock: Provides both Verizon® & AT&T® Cell Networks plus either sole or dual path cell/IP reporting (selectable by plan)
- Auto-Network-Select by Site Upon power up, the signal-strength provided by each cell carrier is analyzed at the site, and the unit will lock-in the best carrier automatically, ie., AT&T or Verizon. Thereafter, it's periodically reviewed and dynamically swapped when needed.
- EZ Cell-Network ID- Red or Blue Indicators Inside the unit, the Carrier Indicators will light Blue for AT&T or Red for Verizon connection (also test button indicates signal strength on each for manual check)
- · See /Set SIM Status Remotely using a PC or smart device, the StarLink Network Operations Center (NOC), in Napco Headquarters, NY, can be accessed allowing you used to set parameters or view current status, Dual SIM status of accounts
- Supports 12V-24V FACUs, No Panel Reprogramming with those that communicate using Contact ID and 4/2 (such as on legacy panels), as primary or backup.
- UL & NFPA Code-compliant, replaces 2 POTs lines per FACU saves thousands of dollars per year over the leased landlines. (Show accounts savings -Free Sales Tool /Calculator App left)
- Proven StarLink Reliability & Best 5G LTE-M Performance Works where others can't -Signal Boost[™] Circuitry & unique dual-diversity twin antennas, maximizing signal acquisition and eliminating the multiphase effect signal-clash/drop-outs single-antenna units are prone to.



Universal Panel-Powered Commercial Fire FACU Communicator: Dual SIM for 2 Networks; Dual Path Cell or Cell/IP all in One Model verizon√ → 🥞 AT&T

One Dual SIM Dual Path Model is Both Verizon and AT&T and Sole or Dual Path with **Cellular + Internet Option.** StarLink Fire provides full data reporting, in sole & dual path, as a primary or backup, to any central station of your choice, w/o requiring any special equipment on premises. The units are very easily activated, plans for dual or sole path & check-in periods are selected, and 24/7 account management is provided all through www.napcocomnet.com.

Easy, Universal Installation at Every Application; standardly w/ Panel- Powered Technology" or metal units with choice of power source. StarLink Fire Communicators are easily connected to any 12V to 24V panel or Fire Alarm Control Panel (FACU) using easy Quick-Connect FACP modular jacks. For any application, StarLink Max Fire 2 Series comes in standard, ABS plastic Panel-Powered Technology[™] (powered by the panel), models, or in metal housings w/ or w/o & choice of power options, i.e., direct-connect 120VAC or Plug-in transformer. Quick Tip: Using StarLink Fire Max 2 with Power Supply models (suffix -PS) eliminates the need to do recalculations on the fire system being retrofitted as well.

StarLink Fire is End-to-End UL 864 Listed to protect signal reliability, speed & performance for critical life and safety alarm reports for maximum life safety & liability protection. UL-Listed from the UL 864 StarLink Fire Max 2 communicator, to Napco's NY UL 864 Network Operations Center (shown below in map), to any Central Station's UL Listed Receiver. (It is also backed by Disaster Recovery NOC in PA for immediate, mirrored emergency switchover.)





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SPECIFICATIONS: (Apply to all models unless otherwise stated) SLE-MAX2-FIRE & SLE-MAX2-CFB:

Electrical Ratings for +12V / 24V (Models w/o Power Supply)

- Input Voltage: 10-24VDC regulated (power-limited output from UL Certified FACU/panel Aux/Remote Fire Power).
- Input Current: 24VDC standby: 85mA

SLE-MAX2-CFBPS:

Electrical Ratings for 120VAC, 60Hz (Models with Power Supply)

- Input Voltage: 120VAC nominal
- Input Current: 200mA maximum
- Maximum Charging Current: 200mA

Electrical Ratings Fire Input 1:

- Input Voltage: 9-25VDC
- Max Input Current: Up to 2mA from FACU NAC circuit

Electrical Ratings for Inputs 2 to 5 (Class B):

- Maximum Loop Voltage: 25VDC
- Maximum Loop Current: 1.2mA (metal models); 1.7mA (plastic)
- End of Line Resistor (EOLR) Value: 10K

Electrical Ratings for PGM3 Output:

- Open Collector Output: Max Voltage 3V when active; 25V max. when not.
- PGM Max Sink Current: 50mA (up to 15VDC), 25mA (15.1VDC -25VDC)

Physical & Environmental

- Plastic Housing: 8 x 5¹/₂ x 1¹/₂ "(WHD) + antennas (2ea, supplied) 8¹/₄" H
- Metal Housing: 111/2 x 91/2 x 31/2"(WHD) + antennas (2ea, supplied) 81/4" H
- Housings: 2 Keyholes for wall mount
- Operating Temp. 32 to 120°F, 93% Humidity Max.

COMPLIANCES:

NFPA 72 Eds: 2022, 2019, 2016, 2013, 2010; UL 2610, UL 985, UL 1023, UL 864 10th Ed., CSFM, NYC FD, LAFD Napco US Network Operations Center (NOC) UL 864 10th Ed., UL 1610, UL 1635





 Dual SIM models auto-select optimal cell carrier and Red or Blue LED Indicators inside signal Verizon or AT&T respectively, shown right.

• LED Status /Trouble Indicators 3 Radio Status LED Indicators



(visible from outside standard model housing) - Green, Signal Strength; Amber- Busy/Activation; Red-Trouble. (Additional internal LEDs, not visible with cover closed, i.e., for troubleshooting and for AT&T or Verizon network selection, status). Power LED indicator viewable on outer metal enclosure models.

- Sole or Dual Path 5G LTE-M Cell Commercial Fire Alarm Communicator in One Simply select Cell or Cell/IP Service Plan & check-in period: 5 minutes, 60 minutes, 6 hours or 24 hours.
- Signal Boost and Patented Switching Dual Diversity Antenna for maximum signal acquisition & null /signal-clash avoidance, receiving signals on both antennas (2 supplied, nothing extra to buy.)
- "Return Receipt" Fully-Supervised Communication Path between premise & central station, keeping channel open until kiss-off is received from Central Station receiver

ORDERING INFORMATION								
Model	Description	Dual SIM/ Dual Path	Verizon	AT&T	Sole Path Cell	Dual Path Cell/IP	Low Current Draw, Standby (@24V)	Current Draw, Peak (@24V)
SLE-MAX2- FIRE	Universal Fire Communicator, Dual SIM, Dual Path, Panel- Powered Technology, ABS Plastic Housing	~	√	~	1	>	85mA	325mA
SLE-MAX2- CFB	Universal Fire Communicator, Dual SIM, Dual Path, Panel-Powered Technology	~	~	~	~	~	85mA	325mA
SLE-MAX2- CFBPS	Universal Fire Communicator, Dual SIM, Dual Path, Direct AC Power 120VAC Metal Housing w/ Provision. For Plug-in TRF12 XFormer, 16VAC, 20VA (w/ provision for backup battery)	~	~	~	~	~	200mA	200mA

OPTIONS/ACCESSORIES:

SLE-WIFI-MODULE: Optionally connects supported dual path models to Internet via WiFi, eliminating Ethernet cable connection. Requires 7AH battery. (see WI2191)

SLE-ANTEXT30: StarLink Omni-X Optional Extended Range Marine-Grade Complete Antenna Kit, w/ 30' of ultra low-noise LMR 300 cable, all hardware & ground fault isolator plate.

SLE-ANTEXT50: as above, 50' cable

SLE-ANTEXT75: as above, 75' cable

SLE-ANTEXT100: as above, 100' cable

SLE-ANTEXTO4: as above, 4' cable

SLE-FIRE-VR: FACU Voltage Drop Kit, maintains safe input voltage < 27.5VDC

TRF12: Plug in AC Transformer, used w/ SLE-MAX2-CFBPS model, 16.5V / 20VA (use subject to local code).

GEM-TAMPERKIT: Tamper switches and screws to protect metal housing where required.

SLE-ULPS-R: Power Supply, for installations where FACU cannot provide Aux Power.

SLE-FMBB: Opt.Metal Cable Management Backbox for surface mounting plastic StarLink communicator models adjacent to FACUs on same plane. Radio easily snaps in on 4 stand-offs, no rewiring. Red metal enclosure w/ 3/4" cable knockouts; 2 Connectors & 4" Conduit, supplied.

Also See FireLink FACUs with built-in StarLink Communicators & LCD Touchpads on Door, addressable & conventional, cloud-programmable.

Addressable, Conventional Fire Alarm Systems & **Leading Commercial Fire Cellular Communications**

For Compliance, Always Consult with AHJ & Tech Docs by Model, i.e., SLE-MAX2-FIRE (Plastic) WI2609LF; SLE-MAX2-CFBPS, -CFB (Dual Path Metal) WI2642LF. StarLink & StarLinkMAX Fire are trademarks of NAPCO Security Technologies, Inc. Other marks remain intellectual property of their respective companies. Preliminary data & promotions subject to change without notice. © NAPCO 2024.1 A852

FOR MORE





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





Description

The RA-6500 is a LCD remote annunciator for the PFC-6000 series fire control panels. The RA-6500 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-6500 features a 4x40 LCD display with LED's for Power, Alarm, Supervisory, Trouble, and Silenced conditions. It can be mounted on a single gang electrical box or a four square electrical box. 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	10%-93% @ 30°C (86°F) non condensing humidity
Maximum Wire Length	6500 ft.
Maximum Annunciators	31
Size (WxHxD)	10" x 7-7/8" x 1-5/8"
Wire Gauge	14 AWG-22 AWG



Installation

The RA-6500 is connected to the PFC-6000 series fire control panels using a four wire RS-485 connection. The connection is power limited and supervised. Up to thirty-one (31) RA-6500 LCD annunciators can be connected using Class B or Class A wiring. Class A wiring requires an optional Class A Expander.

RA-6500 Class B Wiring Example

Fig 1



RA-6500 Class A Wiring Example





Address Settings

The RA-6500 address is set by dip switch S1 located on the back of the RA-6500. The address must be set in the range of 1 to 31 to be recognized by the control panel.

RA-6500 Remote (Panel View)

Fig 3









Dimensions







Dip Switch Settings

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

Annunciator	Dip Switch Settings						
Address	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		Dip S	Switch Set	tings	
Address	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-6500	LCD Annunciator - RED	3992660
RA-6500	LCD Annunciator - BLACK	3992744
RA-6500	LCD Annunciator - GRAY	3992745
RA-6500	LCD Annunciator - LIGHT GRAY	3992746



PAD100-PSSA/PSDA

Addressable Pull Station Single/Dual Action

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





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.



PAD100-PSSA/PSDA

Addressable Pull Station Single/Dual Action

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



Ordering Information

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



PAD200-PD Photoelectric Smoke Sensor

Features

- UL 268 7th Edition
- Low profile, less than 2 inches with the base
- Wide selectable sensitivity range of 1.0 to 3.7%/foot
- Sensor communicates sensitivity to control panel
- UL listed smoke calibration and sensitivity
- · Optional locking tab to prevent unwanted removal
- Simple DIP switch address setting, no programming tool required
- LED alarm indicator
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control





Description

The Photoelectric Smoke Sensor is a listed Analog Addressable smoke sensor compatible with fire alarm control panels that utilize the Potter Addressable Device (PAD) protocol. The PAD200-PD is a low profile smoke sensor with a wide sensitivity range. The sensor and base (not included) are made of a durable plastic in an off-white color to blend in with the ceiling.

The PAD200-PD has a sensitivity range of 1.0 to 3.7 % per foot and is UL. The PAD200-PD features drift compensation and has built in dirty detector warning as well as. The PAD200-PD and the control panel communicate over a proven and robust digital communication path and the system analyzes the information at the particular device. The total polling speed is less than five (5) seconds, well under the UL requirements.

The sensor is compatible with any of the PAD series sensor bases and simply twists on. The PAD200-PD is addressed using DIP switches in the rear of the sensor and can be easily programmed in the field without special tools.

Setting the Address

Each addressable device on the SLC loop must have a unique address from 1 to 127 to function properly. The address is set using DIP switches.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to SLC or device. Verify the following:

- 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 VDC
Detector Current Draw	300 µA
Alarm indicator	1 LED
Alarm set-point range	1.0 to 3.7 %/ft 3.6-12 %/m
Installation temperature range	32 to 120 ° F / 0 to 49 ° C
Operating relative humidity range	0% to 93% (Non-condensing)
Start-up time	Max. 1 sec.
Maximum number of addresses per loop	127
Maximum number of lighted indicators in alarm per loop.	30
Color	Eggshell White
Weight (without base)	101g (3.56oz)
Dimensions (without base)	Height: 1.35 in (34mm) Diameter: 3.93 in (100 mm)



40 • Phone: 80



Air Velocity Ratings

The PAD200-PD has an Open Area of Protection air velocity rating of 0 to 300 feet per minute.

The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD200-PD will operate even though the LED may not illuminate.

Operation

The PAD200-PD is an analog addressable sensor that uses one address on the Signaling Line Circuit (SLC) of a compatible fire alarm control panel. The unit communicates with the control panel as it is polled. The LEDs flash every time the unit is polled and they will flash at a fast rate if the unit is in an active status. The polling LED can be turned off if desired for less conspicuous operation.

The PAD200-PD with the PAD100-4DB or PAD100-6DB has a low profile of less than two (2) inches to blend into the surrounding environment. The sensor includes an insect screen to prevent foreign objects from reaching the chamber and the can be cleaned to restore operation of a dirty detector.

Sensor Sensitivity

The PAD200-PD and the compatible control panel work in tandem to keep the sensitivity consistent. As the sensor is installed over time, the sensor compensates for the dirt in the unit until it is out of range. At that time, the panel will indicate a dirty sensor. The sensor will then have to be cleaned or replaced.

The PAD200-PD can be programmed to provide a maintenance alert prior to reaching the dirty sensor level which will allow for intervention prior to the sensor going into trouble. This allows for sensor replacement or cleaning prior to a nuisance trouble occurs.

NOTE: As required by NFPA, do not install the sensors until all construction is complete and the work area has been thoroughly cleaned. If the sensors have been installed in a construction environment, they should be cleaned or replaced before the system is placed into service.

Spacing

The PAD200-PD is UL listed with a recommended maximum spacing of 30 feet. Refer to NFPA 72 for specific information regarding detector spacing, placement and special applications.

Compatible Bases

All bases will mount on a single gang, double gang, octagon, 4" square or mud ring electrical box.

Device	Description	Stock No.
PAD100-4DB	4" Standard Base	3992731
PAD100-6DB	6" Standard Base	3992732
PAD100-IB	6" base with an isolator module included.	3992730
PAD100-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992728
PAD100-SB	6" base with sounder module included. Sound pattern is provided from external source.	3992729
PAD100-SPKB	6" base with speaker included	3992762

Ordering Information

Model	Description	Stock No.
PAD200-PD	Photoelectric Smoke Sensor	3992770



S/HS-WP Series

Outdoor Strobes and Horn/Strobes

Features

- Fixed 75cd strobe
- Includes the WPBB surface-mount (standard) or WPLPBB Low Profile (LP) enclosure
- WPBB/LP made of clear Lexan® provides maximum visibility and reliability, allowing full 75cd output
- Super-Slide® Bracket Ease of supervision testing
- Checkmate® Instant voltage verification
- · Synchronize strobe and/or horn with AVSM module
- · Switch selection for high/low dBA
- · Switch for chime, whoop, mechanical, and 2400Hz tone
- Input terminals accept 18 to 12 AWG
- Switch for continuous or temporal 3 tone (not available on whoop)
- Tamperproof re-entrant grill
- 5 year warranty



LP Version Standard



Application

The S/HS-WP Series Outdoor Signals are wall mount, low profile strobes and horn/strobes that offer dependable audible and visual alarms for warning and emergency notification in outdoor locations.

Description

The S/HS-WP Series Outdoor Signals are 24VDC strobes and horn/ strobes equipped with a fixed 75 candela strobe.

This series of outdoor signals are available in two different versions. The standard version includes a surface-mount back box (WPBB) to install directly on a wall. The Low Profile (LP) versions includes a low profile back box (WPLPBB) designed to be installed on a flush-mounted electrical box. The weatherproof enclosure is made of clear Lexan® which provides maximum visibility and reliability for effective visible signaling, allowing full 75cd output.

The S/HS-WP series strobe has a minimal operating current and a minimum flash rate of 1Hz regardless of input voltage. The strobe is synchronized using Gentex sync. protocol or the AVSM Sync. Module.

The S/HS-WP Series is equipped with a universal 4" mounting bracket which incorporates the popular Super-Slide® feature that allows the installer to easily pre-wire the system and test for supervision. The product also features a locking mechanism that secures the signal to the bracket without showing any screws and the Checkmate® - Instant Voltage Verification Feature which allows the installer to check the voltage drop, current draw, and match against the blue print.

Product Listings

- ANSI/UL 464 and 1638
- Complies with American with Disabilities Act (ADA)
- Complies with IBC / IFC / IRC

Technical Specifications

Operating Voltage	Nominal 24VDC (16-33VDC)
Operating Temperature	-31°F - 150°F (-35° - 66°C)
Dimonsions	LP Version - 5.75" H x 4.75" W x 3.25" D
Dimensions	Standard - 5.75" H x 4.75" W x 4.18"D
Wiring Connections	Terminals accept 18 - 12 AWG
Mounting	LP Version – Single gang, double gang, or 4" square back box
Woulding	Standard Version - Surface mount back box included
Shipping Weight	2.05 lbs.

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S-24-WP, 75 Candela, Outdoor Strobe Includes Standard or LP Enclosure					
Model Number	Number Stock Number Body Color				
S-24WR-WP	4890050	Red	Standard		
S-24WW-WP	4890051	Standard			
S-24PWR-WP	WR-WP 4890052 Red-Plain				
S-24PWW-WP	4890053	Off-White-Plain	Standard		
SLP-24WR-WP	Low Profile				
SLP-24WW-WP 4890055 Off-White Low Profi					
SLP-24PWR-WP 4890056 Red-Plain Low Profile					
SLP-24PWW-WP 4890057 Off-White-Plain Low Profile					

Model Designations

"W" = Wall Mount

- "R" = Red Face Plate
- "W"=Off White Face Plate
- "P"= Plain (Note: Plain units are non-returnable)

"LP"= Low Profile (WPLPBB Enclosure)

Strobe Current Ratings			
Candela	75 cd		
24 VDC	112 mA		
UL Max	170 mA		

NOTE: For unfiltered FWR ratings, see installation manual.

HS-24-WP Series, 75 Candela, Outdoor Horn /Strobe Includes Standard or LP Enclosure					
Model Number Stock Number Body Color Reverberant dBA at 10', per ANSI/UL 464			In Anechoic Room dBA at 10'	WP Enclosure	
HS-24WR-WP	4890060	Red	70-82	100	Standard
HS-24WW-WP	4890061	Off-White	70-82	100	Standard
HS-24PWR-WP	4890062	Red-Plain	70-82	100	Standard
HS-24PWW-WP	4890063	Off-White-Plain	70-82	100	Standard
HSLP-24WR	4890064	Red	70-82	100	Low Profile
HSLP-24WW	4890065	Off-White	70-82	100	Low Profile
HSLP-24PWR	4890066	Red-Plain	70-82	100	Low Profile
HSLP-24PWW	4890067	Off-White-Plain	70-82	100	Low Profile

Horn Decibel and Current Ratings				
Horn Setting	Minimum dBA at 10', Per UL 464 (HIGH)	Minimum dBA at 10', Per UL 464 (LOW)	Regulated 24VDC Max. Operating Current, at High Setting (mA)	
Temporal 3 2400Hz	78	71*	28	
Temporal 3 Mechanical	76	70*	25	
Temporal 3 Chime	70*	66*	15	
Continuous 2400Hz	81	74*	28	
Continuous Mechanical	80	72*	25	
Continuous Chime	70*	66*	15	
Whoop	82	69*	56	

*Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

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S/HS-WP Series

Outdoor Strobes and Horn/Strobes

Tone Switch Locations

Tono	Switch Position			
Tone	3	4	5	
Mechanical Temporal 3	ON	ON	ON	
Mechanical - Continuous	OFF	ON	ON	
2400Hz - Temporal 3	ON	OFF	ON	
2400Hz - Continuous	OFF	OFF	ON	
Chime - Temporal 3	ON	ON	OFF	
Chime - Continuous	OFF	ON	OFF	
Whoop	ON	OFF	OFF	
Whoop	OFF	OFF	OFF	

NOTES:

- Switch Positions 1 and 2 in the OFF position to select isolated horn and strobe power inputs
- Switch Position 6 ON = HIGH dBA
- Switch Position 6 OFF = LOW dBA

Super Slide® Mounting Bracket

Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out signals without changing mounting brackets and has locking edge connector for snap-in-place installation.



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Checkmate® Instant Voltage Verification

It is often necessary to confirm the voltage drop along the line of devices. The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically, this would be done at the end of the line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations.

NOTE: Care should be taken to not short the test probes.

Mounting Outdoor Enclosure

Super Slide® Mounting Plate: Mounts to WPBB Outdoor Enclosure



Super Slide[®] Mounting Plate: Mounts to WLPBB Outdoor Enclosure



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POTTER



Wiring Diagrams



NOTES:

- All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn and/or mute the horn.
- FOR SYNCHRONIZATION WIRING INFORMATION, REFERENCE AVSM CONTROL MODULE DATA SHEET (8830050) AND/OR AVSM CONTROL MODULE MANUAL FOR SYNCHRONIZATION MODULE WIRING DIAGRAMS. AVSM CONTROL MODULE DATA SHEET AND MANUAL CAN BE OBTAINED AT http://pottersignal.com OR CALL POTTER ELECTRIC AT 1-800-325-3936.

Architect and Engineering Specifications

The audible and/or visible signal shall be Potter S/HS-WP Outdoor Series or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/ UL 1638 and/or ANSI/UL 464.

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires. Additionally, the user shall be able to select either continuous or temporal tone output with the temporal signal having the ability to be synchronized.

The audible/visible and visible signaling appliance shall also maintain a minimum flash rate of 1Hz or up to 2 Hz regardless of power input voltage. The appliance shall have an operating current of 112mA or less for the 75Cd strobe circuit. The appliance shall also be capable of meeting the candela requirements of the ADA (75cd).

The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with a mounting bracket with terminals with barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox without the use of an adapter plate. The unit shall have an input voltage range of 16-33 volts with either direct current of full wave rectified power for 24 volt models.

The appliance shall be capable of testing supervision without disconnecting wires. Also the appliance shall be capable of mounting to a surface back box. The unit shall also be able to verify voltage at the unit without removing unit.

The appliance has extended temperature range of -31° to 150° F (-35° to 66° C). The appliance shall satisfy virtually all outdoor and severe environment applications. The WPBB enclosure includes a gasket that must be inserted between the box and mounting bracket. There are drain holes in the back box to allow for drainage, the seal on the WPBB enclosure is not water tight. The WPLPBB enclosure includes a weather seal for mounting to wall and intended for use with universal electrical box. To allow for drainage, bottom edge of enclosure is not water tight.

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Features

- · One Class B contact monitoring input
- · Small size allows mounting in most electrical boxes
- SLC Class A, Class X & Class B
- 6" Pigtail wiring connections
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



Description

The PAD100-MIM is used to monitor the status of an initiating device(s) that contain a normally open set of dry contacts. The module is enclosed in a plastic case to protect against inadvertent shorts and ground faults. The case can be mounted using a single screw. The PAD100-MIM has a status indicator LED to indicate communication and alarm condition. 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 micro input module (PAD100-MIM) is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. Generally the PAD100-MIM is used to monitor pull stations and other devices where the module is installed in an electrical box or enclosure behind the device being monitored.

Technical Specifications

Operating Voltage	24.0V
Max SLC Standby Current	200μΑ
Max SLC Alarm Current	200μΑ
IDC Input Circuit Wiring	Class B
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1µF
EOL Resistor	5.1Κ Ω
Operating Temperature Range	32 to 120°F (0 to 49°C)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	1.75" (44.5mm)L × 1.36" (34.5mm)W× .43" (11mm)D
Mounting Options	2-1/2" (64mm) deep single-gang box
Shipping Weight	0.3 lbs

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Setting the Address

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

Wiring Diagram

Fig 1



Ordering Information

Model	Description	Stock No.
PAD100-MIM	Micro Input Module	3992700



FIRE AL

DOCUMI

FAD/SRD ACE-11 Document Boxes

Store important system documents in a secure location with a cabinet built specifically to meet the requirements of NFPA72 7.7.2.1, NFPA72 7.7.2.3, NFPA72 7.7.2.5, and NFPA72 23.2.2.1.

Select models include our innovative 8GB flash drive slide tab that allows the user to select a USB-C or Micro USB connector to access records electronically per NFPA72 7.5.6.7.1 and NFPA72 7.5.6.7.2.

SPECIFICATIONS

The FAD and SRD Documents Box shall be UL Listed, constructed of 18 gauge cold rolled steel. It shall have a powder coat finish. The cover shall be permanently screened with 1" high lettering "FIRE ALARM DOCUMENTS" or "SYSTEM RECORD DOCUMENTS" with white indelible ink. The access door shall be locked with a 3/4" barrel lock and there will be a liftaway hinge. Models with digital storage will have a minimum of 8 gigabyte digital flash memory drive with a slide tab that allows user to select USB-C or Micro USB connector for uploading and downloading information. The enclosure will supply 4 mounting holes. Inside will accommodate standard 8 1/2" x 11" manuals, three-ring binders, and document records. The enclosure shall also provide 2 key ring holders with a location to mount standard business cards for key contact personnel.

CUSTOM BRANDING AVAILABLE





FEATURES

 18 gauge cold rolled steel construction with red or black powder coat and white lettering

SYSTEM RECORD

DOCUMENTS

6

- Dimensions are 12" wide x 13" tall and 3" deep
- Liftaway hinge
- Removable document holder with two key ring hooks and business card bracket
- Slide tab allows user to select USB-C or Micro USB connector to download from 8GB digital flash memory



DIMENSIONS



ORDERING INFORMATION

P/N#	Cover Text	Color	Custom Screening	USB Storage
SSU00672	Fire Alarm Documents	Red	No	No
SSU00673	Fire Alarm Documents	Red	Yes	No
SSU00685	Fire Alarm Documents	Red	No	Yes
SSU00686	Fire Alarm Documents	Red	Yes	Yes
SSU00689	System Record Documents	Red	No	Yes
SSU00690	System Record Documents	Red	Yes	Yes
SSU01672C	Fire Alarm Documents	Black	Yes	No
SSU01689	System Record Documents	Black	No	Yes
SSU01690	System Record Documents	Black	Yes	Yes

