

9/13/2023

# **SANO**

# 2801 NE Independence Avenue Suite 201

Lee's Summit, MO

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**Submittals** 

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Potter PSN-1000 Remote Power Supply

Potter HS-24WW Wall Mount Horn/Strobe (White)

Potter S-24WW Wall Mount Strobe (White)

Belden Wire FPLP 14/2 (Red Jacket)

# Submittals







#### **Features**

- 10 Amp Power Supply
- 3 Amps, regulated per NAC
- 6 NACs Class B or 3 NACs Class A
- 2 dry contact inputs
- Fully programmable and monitored through control panel
- Isolated P-Link repeater connection, Class A or B
- Up to 31 power supplies per control panel with system wide sync
- Quadrasync feature synchronizes strobes from Potter/AMSECO, Gentex, Cooper-Wheelock and System Sensor.
- Compatible with all Potter PFC-6000 series fire alarm control panels.

#### Electrical Specs

- 120/240 VAC Input at 50/60 HZ
- 5.1 Amps/3.0 Amps max draw
- Standby Current 60 mA
- Alarm Current 200 mA





Product includes a 5 year warranty

#### Description

The PSN-1000 series is a UL listed intelligent 10 amp notification power supply and P-Link (RS-485) repeater. The power supply connects to the P-Link bus from the control panel and is operated and supervised from the panel. The power supply may be installed 6,500 feet from the control panel. The PSN-1000 then repeats the P-Link communication for another 6,500 feet.

The power supply has six (6) Class B or three (3) Class A power outputs. Each output is regulated and power limited with a 3 Amp maximum rating. In addition, the PSN-1000 has two (2) programmable dry contact inputs. The dry contact inputs are Class B, supervised inputs.

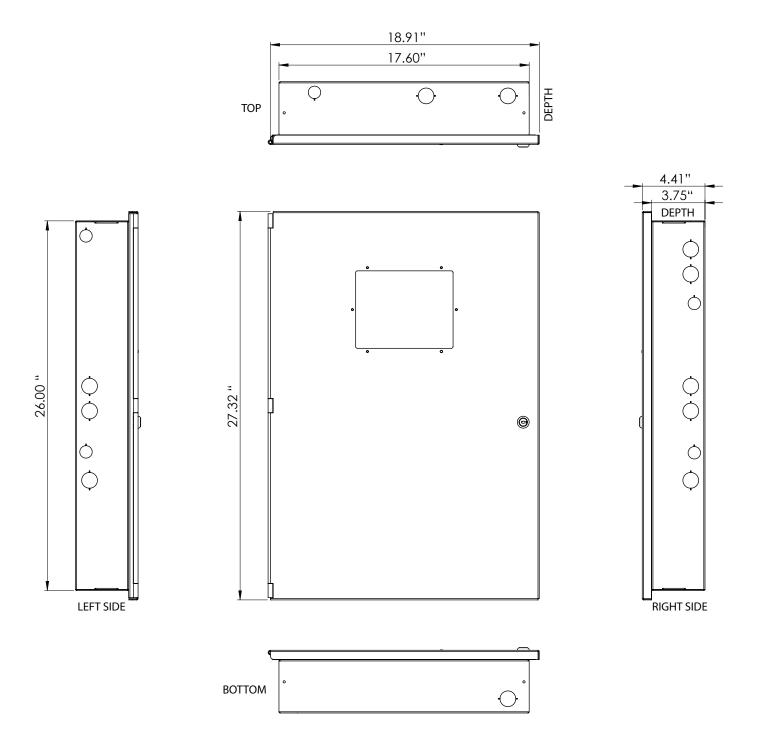
The power supply operates on either 120 or 220 VAC power and has a regulated 24 VDC output. In addition, the panel can charge up to 55 AH batteries and will house 18 AH batteries. The cabinet is constructed out of 18 gauge cold rolled steel with a durable red powder coat finish. A standard Potter key lock is provided for securing the door. Electrical conduit knockouts are provided on the sides and top providing installers with multiple options for installing conduits and providing proper power separations.

The PSN-1000 is a self contained intelligent power supply/P-Link repeater complete with cabinet. The PSN-1000E is the intelligent power supply/P-Link repeater with additional cabinet room for the exclusive Stacker Bracket for SLCE-127 loop expanders. Both cabinets include space for 18 AH batteries.

The power supplies are programmed and controlled through the main control panel P-Link bus. The panel displays any troubles or off normal conditions of the power supply and the events are stored in the panel history buffer.

Each output can be independently configured to provide one of four synchronization patterns, constant power, ANSI temporal Code 3 or Door Holder power. The panel can be configured to synchronize Potter/AMSECO®, Gentex®, Cooper Wheelock® and System Sensor®.





Dimensional drawings showing the cabinet in all three planes. Knock out locations.



# S-24 & HS-24

# Selectable Candela Strobe & Horn/Strobes

#### **Features**

- 24VDC units have field selectable candela options of 15, 30, 60, 75 & 110
- Super-Slide® Bracket Ease of Supervision Testing
- Checkmate® Instant Voltage Verification
- Synchronize strobe and/or horn with AVSM Control Module
- Prewire entire system, install mounting bracket, then install signals
- · Documented lower installation and operating costs
- · Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- · Tamperproof re-entrant style grill
- Switch for continuous or temporal 3 tone (not available on whoop tone)
- Silence audible while visual appliance will remain flashing (for use in accepted jurisdictions)
- · Faceplate available in red or off-white





# **Description**

The S-24/HS-24 Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the absolute lowest current available. The S-24 & HS-24 Series 24VDC offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela. The Strobe and Horn/Strobe offers a continuous or sync temporal three in 2400Hz and mechanical tone, a chime and whoop tone. All tones are easy for the professional to change in the field by the use of switches. The S-24 & HS-24 Series has a minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

This Series is shipped with a standard 4" metal mounting plate which incorporates the popular Super-Slide® feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The S-24/HS-24 also features the patented Checkmate® - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint.

The S-24 & HS-24 Series appliances are ANSI/UL 464 and ANSI/UL 1971, listed for use with fire protective systems and are warranted for three years from date of purchase.

# **Technical Specifications**

Mounting Options	Single or Double gang, 4" square box, and AVBB surface mount back box
Terminals	Screw-Clamp Type
Wire Gauge	18 – 12 AWG
Operating Temp	32°F – 120°F (0° – 49°C)
Dimensions	Height – 5" Width – 4.5" Depth – 2.5"
Shipping Weight	1.05 lbs

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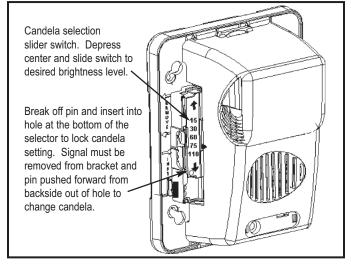
# Selectable Candela Strobe & Horn/Strobes

TONE	TONE SWITCH POSITION		
TONE	3	4	5
Mechanical Temporal 3	ON	ON	ON
Mechanical Continuous	OFF	ON	ON
2400 Hz Temporal 3	ON	OFF	ON
2400 Hz Continuous	OFF	OFF	ON
Chime Temporal 3	ON	ON	OFF
Chime Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

#### **NOTE:**

- Switch Positions 1The 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

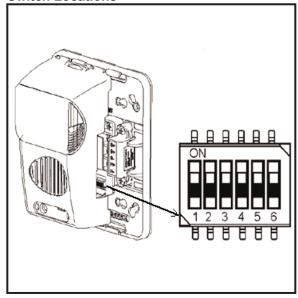
#### **Candela Selection**



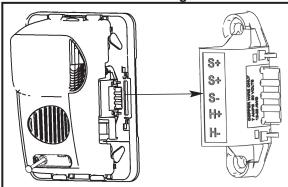
#### Super Slide® Mounting Bracket

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.

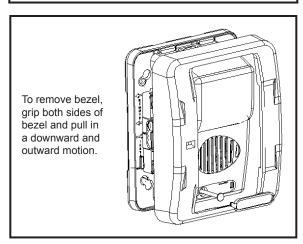
#### **Switch Locations**



# Checkmate™ - Instant Voltage Verification



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.



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# Selectable Candela Strobe & Horn/Strobes

# S-24 24 VDC Selectable Candela, Low Profile Evacuation Strobe

Model Number	Part Number	Nominal Voltage	Candela (ANSI/UL 1971)
S-24WR	4890010	24 VDC	15, 30, 60, 75, 110
S-24WW	4890011	24 VDC	15, 30, 60, 75, 110

# HS-24 24 VDC Selectable Candela, Low Profile Evacuation Strobe

Model Number	Part Number	Nominal Voltage	Candela (ANSI/ UL 1971)	Reverberant dBA at 10 ft, per ANSI/UL 464	In Anechoic Room at 10 ft
HS-24WR	4890030	24 VDC	15, 30, 60, 75, 110	62-82	100
HS-24WW	4890031	24 VDC	15, 30, 60, 75, 110	62-82	100

# S-24 & HS 24 Strobe Current Ratings

24 VDC (16 - 33 Volts)		
Candela	24 VDC	UL Max
15 cd	30 mA	42 mA
30 cd	35 mA	58 mA
60 cd	66 mA	97 mA
75 cd	80 mA	116 mA
110 cd	103 mA	161 mA

# **Model Designations:**

W = Wall mount

R = Red Faceplate

W=White Faceplate

All units are available in plain (no lettering)

Plain units are non-returnable.

"ALERT" bezel available for order.

"AGENT" bezel available for order.

# S-24 & HS-24 Horn Ratings

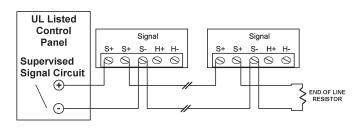
	Horn Decib	el Levels	Horn Current Ratings
Horn Mode	Minimum SPL at 10 ft, per ANSI/UL 464 (HIGH)	Minimum SPL at 10 ft, per ANSI/UL 464 (LOW)	Regulated 24 VDC Max Operating @ High Setting (mA)
Temp 3 (2400 Hz)	78 dBA	71* dBA	28 mA
Temp 3 (Mechanical)	76 dBA	70* dBA	25 mA
Temp 3 (Chime)	70* dBA	66* dBA	15 mA
Continuous (2400 Hz)	81 dBA	74* dBA	28 mA
Continuous (Mechanical)	80 dBA	72* dBA	25 mA
Continuous (Chime)	70* dBA	66* dBA	15 mA
Whoop	82 dBA	69* dBA	56 mA

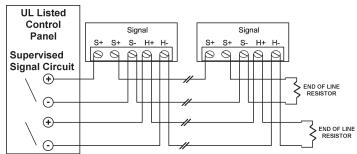
#### **NOTES:**

- For nominal and peak current across ANSI/UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power see installation manual.
- Potter does not recommend using a coded or pulsing signaling circuit with any of our strobe products.
- The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.
- \* 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).



# S-24 & HS-24 Series Wiring Diagram





#### 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 Potter 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 TECHNICAL SUPPORT AT 1-866-956-1211

## **Architect & Engineering Specifications**

The audible and/or visible signal shall be Potter S-24 strobe and Potter HS-24 horn/strobe Series or approved equal and shall be listed by Underwriters Laboratories, Inc. per ANSI/UL 1971 and/or ANSI/UL 464. The notification appliance shall also be listed with Factory Mutual Listing Service (FM) and the California State Fire Marshal (CSFM).

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at 24VDC 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.

Unit shall be capable of being installed so that any unauthorized attempt to change the candela setting will result in a trouble signal at the fire alarm control panel.

The audible/visible and visible signaling appliance shall also maintain a minimum flash rate of 1Hz or up to 2Hz regardless of power input voltage. The strobe appliance shall have an operating current of 42mA or less at 24VDC for the 15Cd strobe circuit.

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 and 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 or full wave rectified power for 24VDC models.

The appliance shall be capable of testing supervision without disconnecting wires, verify voltage without removing unit and be capable of mounting to a surface back box.







Fire Alarm, #14-2c BC, FPLP

#### **Product Description**

Fire Alarm Cable, Plenum-FPLP, 2-14 AWG solid bare copper conductors with Flamarrest® insulation, Flamarrest® jacket with ripcord

#### **Technical Specifications**

#### Use

Suitable Applications:

14 AWG Bare Copper Conductors ~ Flamarrest® Insulation ~ Cabled Together ~ Red Flamarrest® Jacket With Ripcord ~ Shielded Version Has Overall Beldfoil® Shield Tape (Foil Side Out) And Drain Wire ~ Sequential Footage Marking Every Two Feet

#### **Physical Characteristics (Overall)**

#### Conductor

AWG	Stranding	Material	No. of Conductors
14	Solid	BC - Bare Copp	er 2
	Number of uctors:	2	

#### Insulation

Material	Material Trade Name	Nominal Wall Thickness
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.01 in

#### **Color Chart**

Number	Color
1	Black
2	Red

#### **Outer Shield Material**



#### **Outer Jacket Material**

Material	Material Trade Name	Nominal Diameter	Nominal Wall Thickness	Ripcord
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.201 in	0.015 in	Yes

## **Electrical Characteristics**

#### Capacitance

Nom. Capacitance Conductor to Conductor 37 pF/ft

#### **Construction and Dimensions**

#### Conductor DCR

Nominal Conductor DCR 2.43 Ohm/1000ft

#### Current

## Voltage

# UL Voltage Rating

300V RMS

## **Applicable Standards & Environmental Programs**

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	California State Fire Marshall

#### **Standards**

NEC Articles:	760
NEC/(UL) Specification:	FPLP

#### Flame Test

UL Flammability:	NFPA 262 Plenum Flame Test (UL910)

## Suitability

Suitability - Indoor:
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## **Mechanical Characteristics**

Operating Temp Range:	0°C To +75°C
Bulk Cable Weight:	35(lbs/1000ft)
Max Recommended Pulling Tension:	99.4(lbs)
Min Bend Radius/Minor Axis:	2(in)

#### **Temperature Range**

|--|

#### Plenum/Non-Plenum

Plenum (Y/N):
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#### **Part Number**

on-Plenum Number:	5120UL

#### **History**

#### **Variants**

Item #	Color
6120UL 0011000	
6120UL 0021000	
6120UL 002500	
6120UL 0101000	
6120UL D151000	
6120UL 0051000	Green
6120UL 8771000	Natural
6120UL 0031000	Orange
6120UL 0071000	Violet
6120UL 0071000	Violet
6120UL 0041000	Yellow

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