

* SOME SYSTEM AND INPUTS MAY NOT BE APPLICABLE TO THIS PROJECT.
** IT IS NOT THE INTENT TO REPROGRAM THE PANEL, SEQUENCE SHOWN FOR REFERENCE ONLY.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1 MANUAL STATIONS	●													
2 SMOKE OR HEAT DETECTOR	●	●		●	●		●	●	●				●	
3 DUCT SMOKE DETECTOR		●	●											
4 SMOKE CONTROL DETECTOR						●		●	●					
5 ELEVATOR CONTROL SMOKE DETECTOR	●							●	●					
6 ELEVATOR HEAT DETECTOR	●		●					●	●			●		●
7 SPRINKLER FLOW SWITCH		●						●	●			●		
8 SPRINKLER TAMPER SWITCH			●				●							
9 FIRE PUMP			●											
10 SYSTEM TROUBLES				●			●							
11 ELEVATOR ROOM SMOKE	●		●	●	●			●	●	●		●	●	
12 ELEVATOR LOBBY SMOKE	●	●	●	●	●			●	●	●		●	●	
13 ELEVATOR HOISTWAY SMOKE	●	●	●	●	●			●	●	●		●	●	

ALARM CONDITION ANNUNCIATION
SUPERVISORY CONDITION ANNUNCIATION
ACTIVE NOTIFICATION ANNUNCIATION
SEND ALARM CODE TO MONITORING STATION
SEND BRANNORTH CODE TO MONITORING STATION
SEND TRIBLE CODE TO MONITORING STATION
SEND DOWN COMMAND TO MONITORING STATION
SEND UP COMMAND TO MONITORING STATION
SEND RECALL COMMAND TO ANY EQUIPMENT
SEND DOWN COMMAND TO ELEVATOR EQUIPMENT
SEND UP/CALL COMMAND TO ELEVATOR EQUIPMENT
SEND SHUNT COMMAND TO ELEVATOR EQUIPMENT
ANY DOWN COMMAND TO ACCESS CONTROLS
ANY UP/CALL COMMAND TO ACCESS CONTROLS
ANY DOWN COMMAND TO EMERGENCY FANS
ANY UP/CALL COMMAND TO EMERGENCY FANS
ANY DOWN COMMAND TO ALL FIREWORKS

MIRCOM POWER REQUIREMENTS (ALL CURRENTS ARE IN AMPERES)

ITEM	DESCRIPTION	QTY	STANDBY	TOTAL STANDBY	ALARM	TOTAL ALARM
1	EXPANDER	1	.060	.060	.200	.200
2	NAC CKT S1	12			.214	2.568
3	NAC CKT S2	13			.214	2.782
4						
5						
6						
TOTAL CURRENTS				.060		5.55

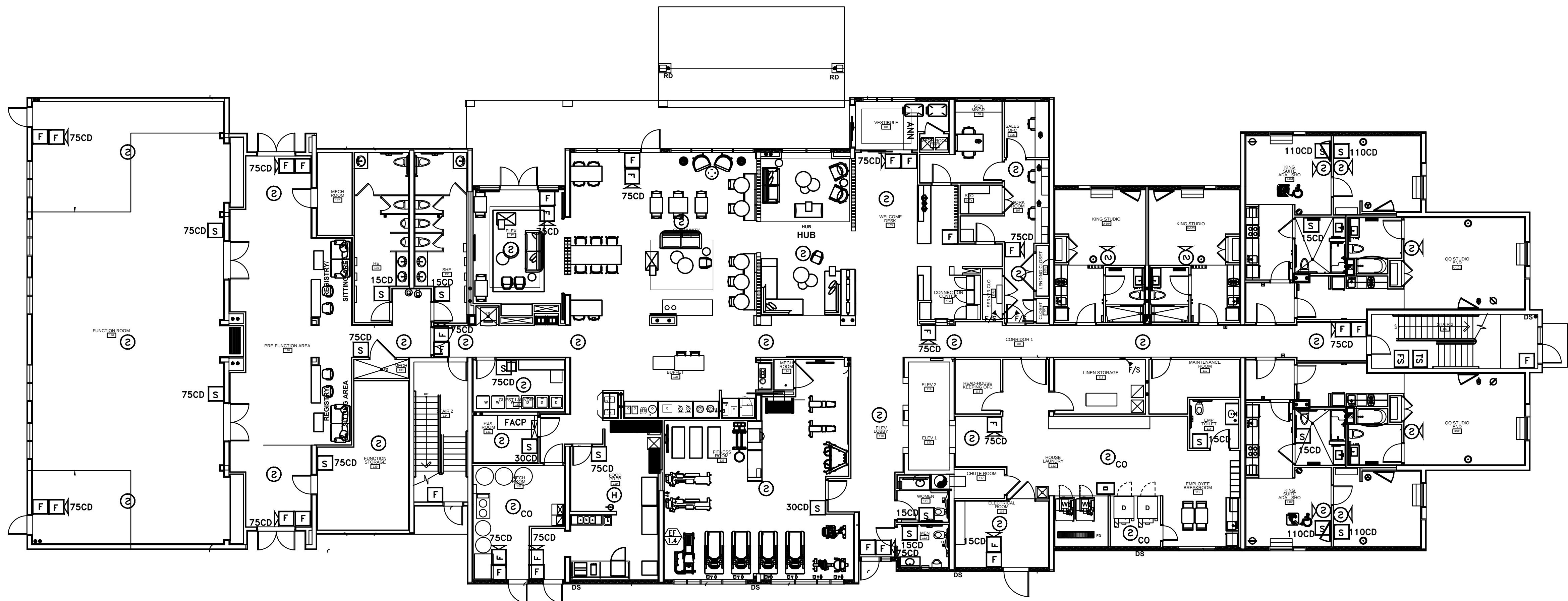
Standby .060 x 24 Hrs =1.44 + Alarm 5.55 x Alarm Hr .083 = .460

Standby 1.44 + Alarm .460 = 1.9AH	BATTERY MODEL	BATTERY SIZE
	YUSA	7AH

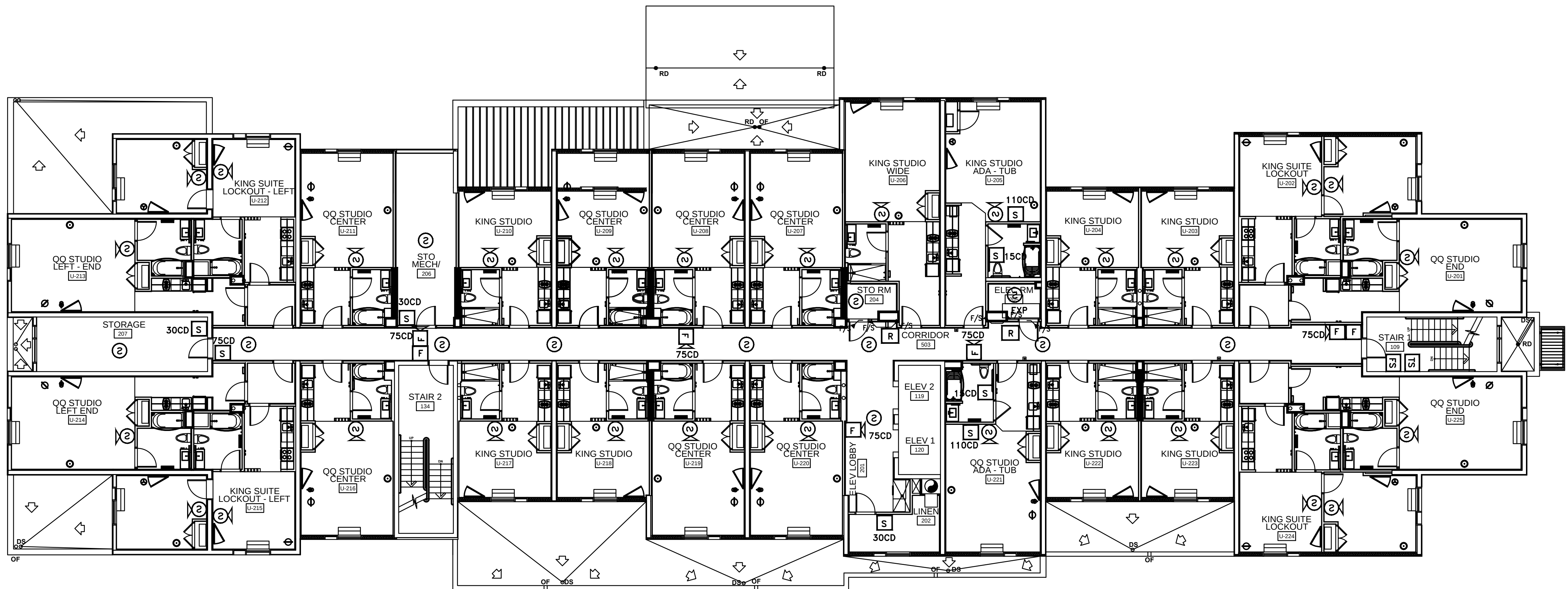
A = 16/2 FPLP NON-SHIELDED (WHITE/BLUE)
B = 14/2 FPLP NON-SHIELDED (BLUE)
C = 14/2 FPLP NON-SHEILDED (YELLOW)
D = 14/2 FPLP NON-SHEILDED (BLACK)
E = 18/4 FPLP NON-SHEILDED (WHITE)

FACP	—	POTTER SIGNAL FIRE CONTROL PANEL
ANN	—	POTTER SIGNAL REMOTE ANNUNCIATOR
EXP	—	POTTERSIGNAL NAC CIRCUIT EXPANDER PANEL
F	—	POTTER SIGNAL ADDRESSABLE MANUAL STATION
R	—	POTTER SIGNAL ADDRESSABLE CONTROL RELAY
TS	—	TAMPER SWITCH BY OTHERS
FS	—	FLOW SWITCH BY OTHERS
DD	—	POTTER SIGNAL DUCT DETECTOR
SM	—	POTTER SIGNAL SOUNDER CONTROL MODULE
CO	—	POTTER SIGNAL CARBONMONOXIDE DETECTOR
DH	—	DOOR HOLDER
MM	—	POTTER SIGNAL DUAL MONITOR MODULE
H	—	POTTER SIGNAL HEAT DETECTOR
②	—	POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" STANDARD BASE
② Co	—	POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" BASE, CO DETECTOR W/6" STANDARD BASE
② X	—	POTTER SIGNAL LF SOUNDER BASE WITH PHOTO SMOKE DETECTOR
H X	—	POTTER SIGNAL CEILING HORN/STROBE WHITE
S	—	POTTER SIGNAL MULTI cd STROBE ONLY WHITE
F X	—	POTTER SIGNAL HORN/STROBE MULTI cd WHITE
F X WP	—	POTTER SIGNAL HORN/STROBE MULTI cd WHITE WEATHERPROOF
	—	END OF LINE RESISTOR

1. Verify with contract drawings for exact device location and mounting height.
2. All Visual Signal Device Candella Ratings (cd) indicated next to Device.
3. Fire Alarm System Complies with 2013 NFPA 72 & 101 of F.F.P.C.



1ST FLOOR FIRE ALARM
SCALE: 3/32" = 1'-0"



2ND FLOOR FIRE ALARM
SCALE: 3/32" = 1'-0"

REVISION NO.	DATE	BY	DISCREPTION

PROJECT DESCRIPTION	DATE	STATUS	REMARKS
1. Project A: Development of a new software module for data analysis.	2023-01-15	Completed	Exceeded expectations, high quality deliverables.
2. Project B: Implementation of a new database system for customer records.	2023-02-28	In Progress	Minor delays, but on track for completion.
3. Project C: Research and development of a new product line.	2023-03-10	On Hold	Resource allocation issues, pending management review.
4. Project D: Marketing campaign for the upcoming product launch.	2023-04-05	Planned	Initial strategy meeting scheduled for next week.
5. Project E: Internal audit and compliance review.	2023-05-01	Completed	Identified areas for improvement, recommendations implemented.

TOWNPLACE SUITES
NW COMMERCE DRIVE
LAKE CITY, FLORIDA 32055

DRAWING	DESCRIPTION
---------	-------------

FIRE ALARM SYSTEM SHOP DRAWING

10/25/21

Kevin Dail
President

352-567-5996

352-567-5996
kevin@sesalarms.com

37919 Heather Plaza
Dade City, FL 33525
Fax-352-521-6085



SES
Specialty Electronics
Systems, Incorporated
L.C. #EF0001046

ACCESS CONTROL-BURGLAR ALARMS-CCTV-FIRE ALARM-CHARGE OPERATORS

* SOME SYSTEM AND INPUTS MAY NOT BE APPLICABLE TO THIS PROJECT.
** IT IS NOT THE INTENT TO REPROGRAM THE PANEL, SEQUENCE SHOWN FOR REFERENCE ONLY.

		ALARM CONDITION ANNUNCIATION														SMOKE/HEAT CONDITION ANNUNCIATION														TRIBLE CONDITION ANNUNCIATION														ACTIVE INDICATION ANNUNCIATION														SEND ALARM CODE TO MONITORING STATION														SEND SMOKE/HEAT CODE TO MONITORING STATION														SEND TROUBLE CODE TO MONITORING STATION														SEND SHUTDOWN COMMAND TO MONITORING STATION														SEND RECALL COMMAND TO ALL JOURNEY														SEND UNLOCK COMMAND TO ELEVATOR EQUIPMENT														SEND SHUTDOWN COMMAND TO ACCESS CONTROL														THAT INDICATORS AT BOYS' CLUB AND ALSO TO LEFT PROPHETARY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
SYSTEM INPUTS		A	B	C	D	E	F	G	H	I	J	K	L	M	N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

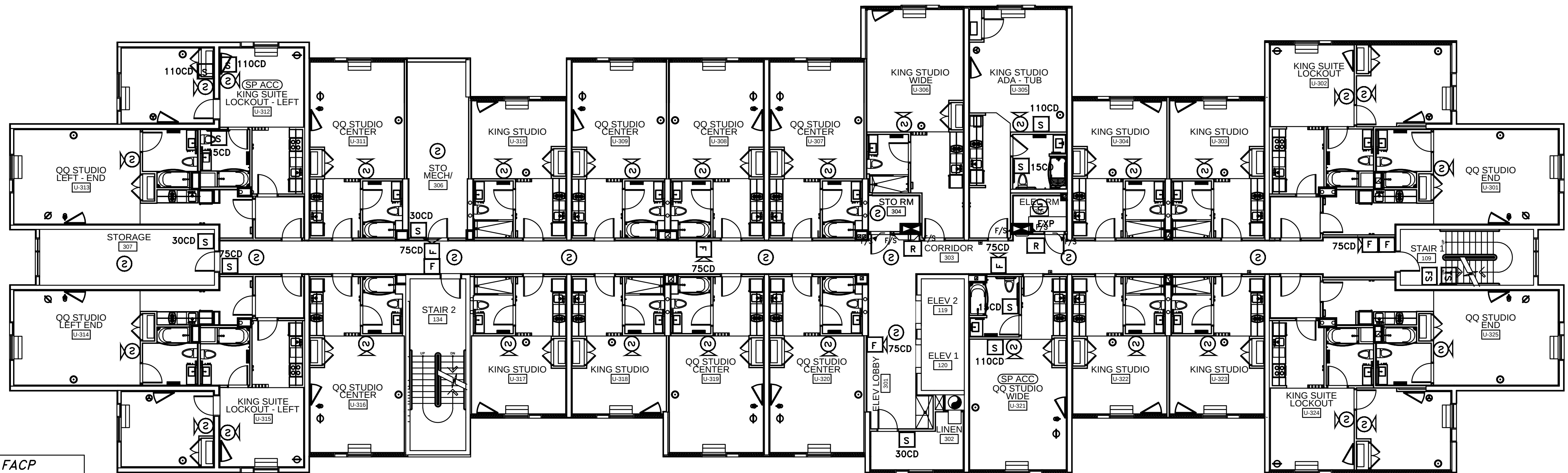
MIRCOM POWER REQUIREMENTS (ALL CURRENTS ARE IN AMPERES)						
ITEM	DESCRIPTION	QTY	STANDBY	TOTAL STANDBY	TOTAL ALARM	TOTAL ALARM
1	EXPANDER	1	.060	.060	.200	.200
2	NAC CRT 53	14			.214	2.99
3	NAC CRT 54	15			.214	3.21
4	SOUNDER BASE POWER	21	.0041	.086	.0865	2.03
5						
6						
TOTAL CURRENTS				.146		8.43
Standby .060 x 24 Hrs =1.46 + Alarm 8.43 x Alarm Hr .083 = .700						
Standby 1.46 + Alarm .700 = 2.16AH			BATTERY MODEL		BATTERY SIZE	
			YUSA		7AH	

MIRCOW POWER REQUIREMENTS (ALL CURRENTS ARE IN AMPERES)						
ITEM	DESCRIPTION	QTY	STANDBY	TOTAL STANDBY	ALARM	TOTAL ALARM
1	FACP	1	.130	.130	.200	.200
2	ANN	1	.020	.020	.025	.025
3	SMOKE DETECTOR	266	.000300	.0798	.000300	.0798
4	HEAT DETECTOR	4	.000300	.012	.000300	.012
5	CO DETECTOR	65	.000300	.0195	.000300	.0195
6	DUCT DETECTOR	16	.000300	.0048	.000300	.0048
7	REMOTE TEST STATION	16	.000200	.0032	.000200	.0032
8	CONTROL RELAY	16	.000240	.00384	.000240	.00384
9	DUAL MONITOR MODULE	10	.000240	.0024	.000240	.0024
10	NAC MODULE	24	.000200	.0048	.000200	.0048
11	PULL STATION	15	.000200	.003	.000200	.003
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23				.2723		.0347
Total				2723 x 24 Hrs = 6.53 + Alarm	.0347 x Alarm Hr	.083 = .0028
Standby 6.53 + Alarm .0347 = 6.564Hr				BATTERY MODEL	BATTERY SIZE	
				YUSA	244H	

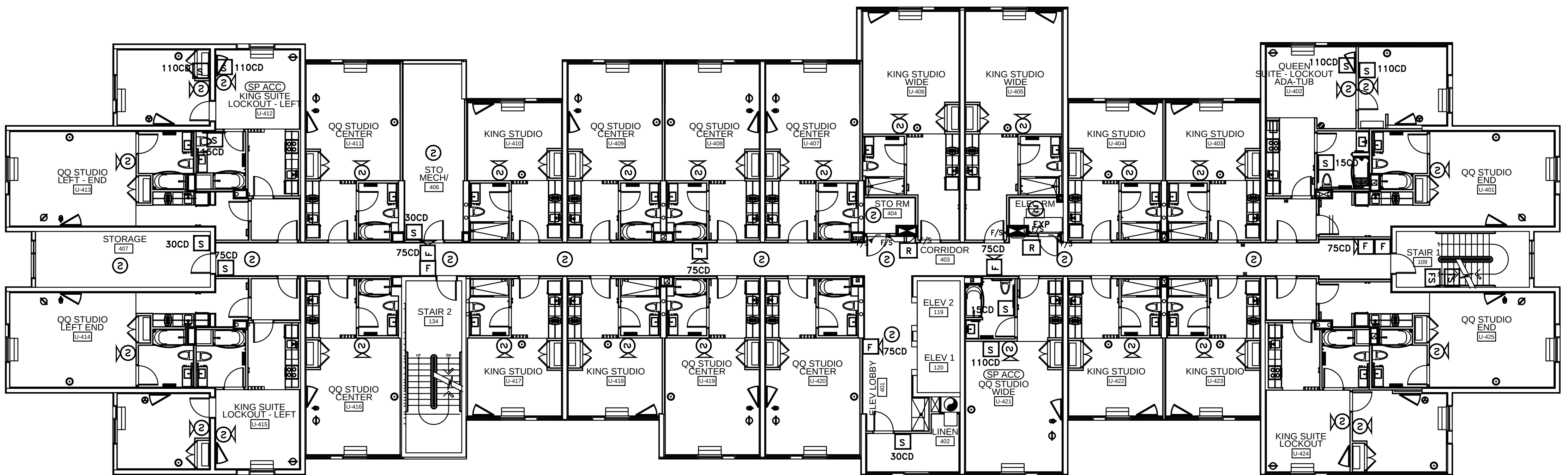
A = 16/2 FPLP NON-SHIELDED (WHITE/BLUE)
B = 14/2 FPLP NON-SHIELDED (BLUE)
C = 14/2 FPLP NON-SHIELDED (YELLOW)
D = 14/2 FPLP NON-SHIELDED (BLACK)
E = 18/4 FPLP NON-SHIELDED (WHITE)

	—	POTTER SIGNAL FIRE CONTROL PANEL
	—	POTTER SIGNAL REMOTE ANNUNCIATOR
	—	POTTERSIGNAL NAC CIRCUIT EXPANDER PANEL
	—	POTTER SIGNAL ADDRESSABLE MANUAL STATION
	—	POTTER SIGNAL ADDRESSABLE CONTROL RELAY
	—	TAMPER SWITCH BY OTHERS
	—	FLOW SWITCH BY OTHERS
	—	POTTER SIGNAL DUCT DETECTOR
	—	POTTER SIGNAL SOUNDER CONTROL MODULE
	—	POTTER SIGNAL CARBONMONOXIDE DETECTOR
	—	DOOR HOLDER
	—	POTTER SIGNAL DUAL MONITOR MODULE
	—	POTTER SIGNAL HEAT DETECTOR
	—	POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" STANDARD BASE
	—	POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" BASE, CO DETECTOR W/6" STANDARD BASE
	—	POTTER SIGNAL Lf SOUNDER BASE WITH PHOTO SMOKE DETECTOR
	—	POTTER SIGNAL CEILING HORN/STROBE WHITE
	—	POTTER SIGNAL MULTI cd STROBE ONLY WHITE
	—	POTTER SIGNAL HORN/STROBE MULTI cd WHITE
	—	POTTER SIGNAL HORN/STROBE MULTI cd WHITE WEATHERPROOF
	—	END OF LINE RESISTOR

1. Verify with contract drawings for exact device location and mounting height.
2. All Visual Signal Device Candella Ratings (cd) indicated next to Device.
3. Fire Alarm System Complies with 2013 NFPA 72 & 101 of F.F.P.C.



SCALE: 3/32" = 1'-0"



SCALE: 3/32" = 1'-0"

[illegible]

PROJECT DESCRIPTION	DATE	STATUS	REMARKS
1. Project A: Development of a new software module for the CRM system.	2023-10-01	In Progress	Initial requirements gathering and design phase completed.
2. Project B: Marketing campaign for the upcoming product launch.	2023-10-05	On Hold	Waiting for final budget approval from the marketing department.
3. Project C: Infrastructure upgrade for the server room.	2023-10-10	Completed	All hardware and software components successfully installed and tested.
4. Project D: Training program for new hires.	2023-10-15	Planned	Curriculum development in progress, scheduled for next month.
5. Project E: Research and development of a new product line.	2023-10-20	On Hold	Market research phase completed, awaiting executive decision.

TOWNPLACE SUITES
NW COMMERCE DRIVE
LAKE CITY, FLORIDA 32055

DRAWING DESCRIPTION

FIRE ALARM SYSTEM SHOP DRAWING

10/25/21

Kevin Dail
President

352-567-5996
kevin@sesalarms.com

37919 Heather Plaza
Dade City, FL 33525
Fax-352-521-6085

ACCESS CONTROL—BURGLAR ALARMS—CCTV—FIRE ALARM—GARGE OPERATORS



SEQUENCE OF OPERATION

* SOME SYSTEM AND INPUTS MAY NOT BE APPLICABLE TO THIS PROJECT.

** IT IS NOT THE INTENT TO REPROGRAM THE PANEL, SEQUENCE SHOWN FOR REFERENCE ONLY.

SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1. MANUAL STATIONS														
2. SMOKE OR HEAT DETECTOR														
3. DUCT SMOKE DETECTOR														
4. SMOKE CONTROL DETECTOR														
5. ELEVATOR CONTROL SMOKE DETECTOR														
6. ELEVATOR HEAT DETECTOR														
7. SPRINKLER FLOW SWITCH														
8. SPRINKLER TAMPER SWITCH														
9. FIRE PUMP														
10. SYSTEM TROUBLES														
11. ELEVATOR ROOM SMOKE														
12. ELEVATOR LOBBY SMOKE														
13. ELEVATOR HOISTWAY SMOKE														

ALARM CONTROL ANNUNCIATION

STROBE LOCATION ANNUNCIATION

TRIBLE LOCATION ANNUNCIATION

ACTIVE NOTIFICATION DEVICES

SEND ALARM CODE TO MONITORING STATION

SEND TROUBLE CODE TO MONITORING STATION

SEND SUPERVISORY CODE TO MONITORING STATION

SEND COMMAND TO MAKE CONTROL EQUIPMENT

SEND COMMAND TO SHUNT FIRE EQUIPMENT

SEND INVAULT COMMAND TO ACCESS POWER

SEND SHUTDOWN COMMAND TO ACCESS POWER

ANNUNCIATION AT REPT PUMP AND TO LEFT PROPRIETORS

ALL ELEVATORS ARE IN LOWER FLOOR TO USE

BATTERY CALCULATIONS 3RD FLOOR

MISCOM POWER REQUIREMENTS (ALL CURRENTS ARE IN AMPERES)

ITEM	DESCRIPTION	QTY	STANDBY	TOTAL STANDBY	ALARM	TOTAL ALARM
1	EXPANDER	1	.060	.060	.200	.200
2	NAC CKT SS	14			.214	2.99
3	SOUNDER BASE POWER	19	.0041	.078	.0965	1.83
4	SOUNDER BASE POWER	19	.0041	.078	.0965	1.83
5						
6						
TOTAL CURRENTS				.216		10.06
Standby .216 x 24 Hrs =5.18 + Alarm 10.06 x Alarm Hr .083 = .835						
Standby 5.18 + Alarm .835 = 6.01AH						
			BATTERY MODEL	BATTERY SIZE		
			YUSA	7AH		

FIRE ALARM WIRE LEGEND

A = 16/2 FPLP NON-SHIELDED (WHITE/BLUE)

B = 14/2 FPLP NON-SHIELDED (BLUE)

C = 14/2 FPLP NON-SHIELDED (YELLOW)

D = 14/2 FPLP NON-SHIELDED (BLACK)

E = 18/4 FPLP NON-SHIELDED (WHITE)

FIRE ALARM SYMBOLS

FACP

POTTER SIGNAL FIRE CONTROL PANEL

ANN

POTTER SIGNAL REMOTE ANNUNCIATOR

EXP

POTTERSIGNAL NAC CIRCUIT EXPANDER PANEL

F

POTTER SIGNAL ADDRESSABLE MANUAL STATION

R

POTTER SIGNAL ADDRESSABLE CONTROL RELAY

TS

TAMPER SWITCH BY OTHERS

FS

FLOW SWITCH BY OTHERS

DD

POTTER SIGNAL DUCT DETECTOR

SM

POTTER SIGNAL SOUNDER CONTROL MODULE

CO

POTTER SIGNAL CARBONMONOXIDE DETECTOR

DH

DOOR HOLDER

MM

POTTER SIGNAL DUAL MONITOR MODULE

H

POTTER SIGNAL HEAT DETECTOR

②

POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" STANDARD BASE

②CO

POTTER SIGNAL PHOTO SMOKE DETECTOR W/6" BASE, CO DETECTOR W/6" STANDARD BASE

②H

POTTER SIGNAL LF SOUNDER BASE WITH PHOTO SMOKE DETECTOR

②H

POTTER SIGNAL CEILING HORN-STROBE WHITE

S

POTTER SIGNAL MULTI cd STROBE ONLY WHITE

F

POTTER SIGNAL HORN-STROBE MULTI cd WHITE

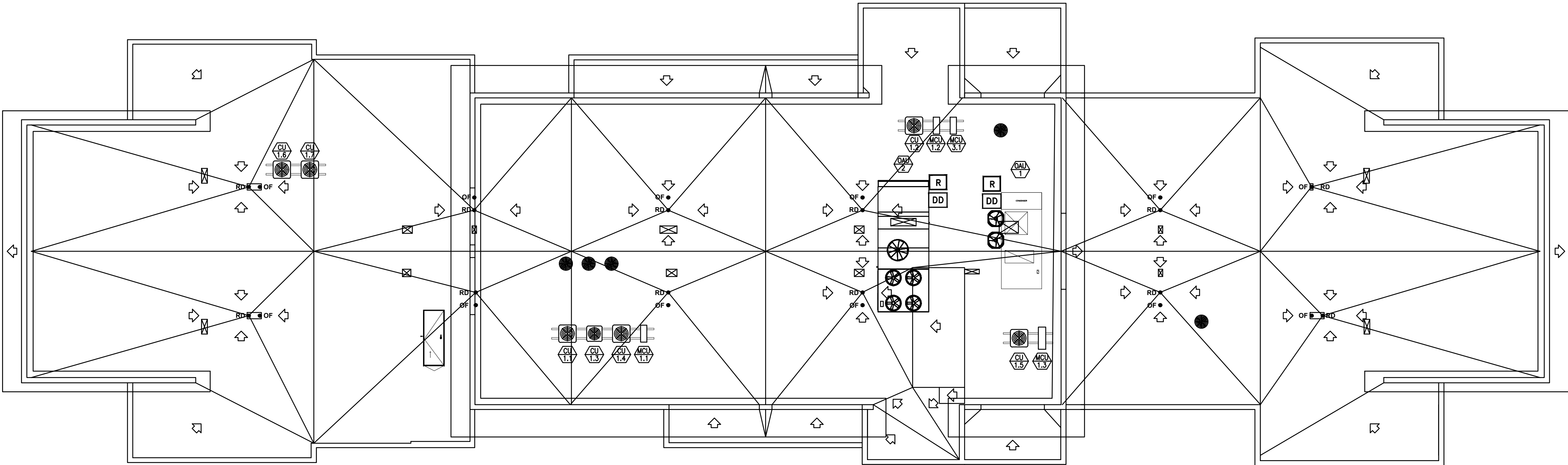
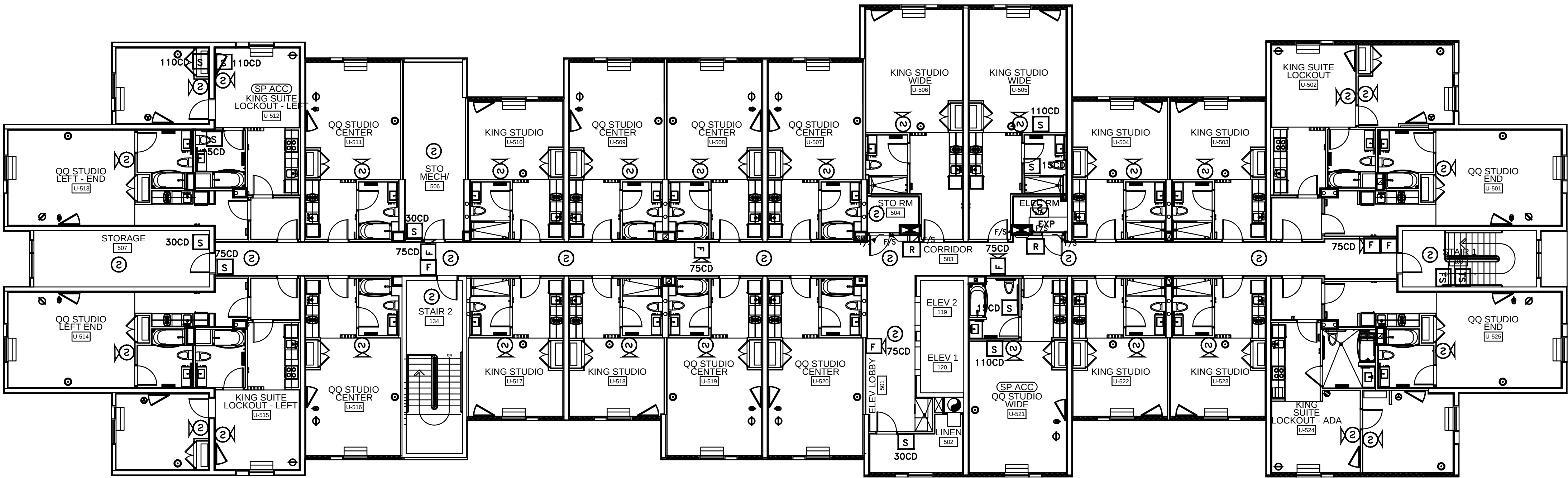
FWP

POTTER SIGNAL HORN-STROBE MULTI cd WHITE WEATHERPROOF

—

END OF LINE RESISTOR

- NOTES:
1. Verify with contract drawings for exact device location and mounting height.
2. All Visual Signal Device Candella Ratings (cd) indicated next to Device.
3. Fire Alarm System Complies with 2013 NFPA 72 & 101 of F.F.P.C.



REVISION NO.	DATE	BY	DISCREPTION

PROJECT DESCRIPTION
TOWNPLACE SUITES NW COMMERCE DRIVE LAKE CITY, FLORIDA 32055

DRAWING DESCRIPTION
FIRE ALARM SYSTEM SHOP DRAWING

ses

Specialty Electronics Systems Incorporated
10700 104th Ave N
P.O. Box 10404

Kevin Dail
President

352-567-5996
kevin@sesalarms.com

37919 Heather Plaza
Lake City, FL 32025
Pon 352-527-0035

ACCESS CONTROL-BURGULAR ALARMS-CITY-FIRE ALARM-GARAGE OPERATORS

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

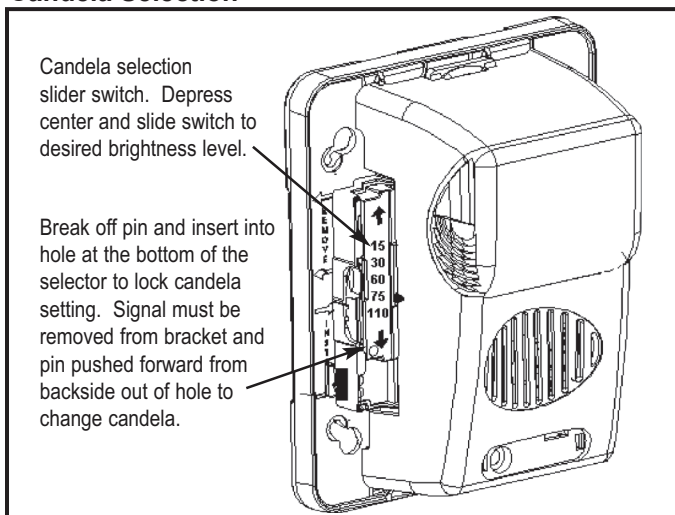
Mounting Options	Single or Double gang, 4" square box, and AVBB surface mount back box
Terminals	Screw-Clamp Type
Wire Gauge	18 – 12 AWG
Operating Temp	32°F – 120°F (0° – 49°C)
Dimensions	Height – 5" Width – 4.5" Depth – 2.5"
Shipping Weight	1.05 lbs

TONE	SWITCH POSITION		
	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:

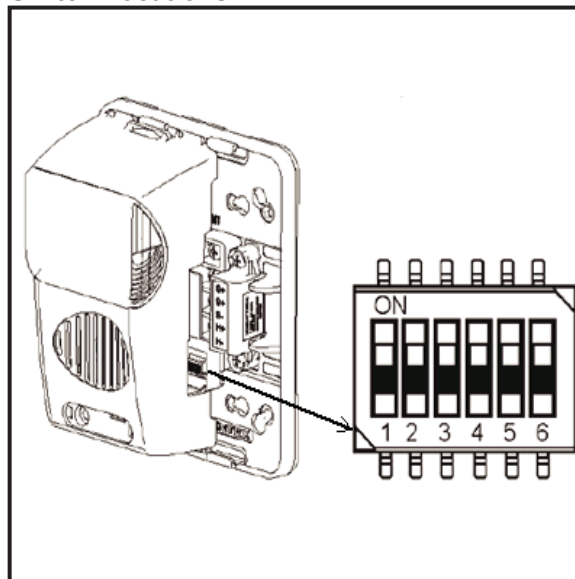
- Switch Positions 1 The and 2 in the OFF position to select isolated horn and strobe power inputs
- Switch Position 6 ON = HIGH dBA
- Switch Position 6 OFF = LOW dBA

Candela Selection

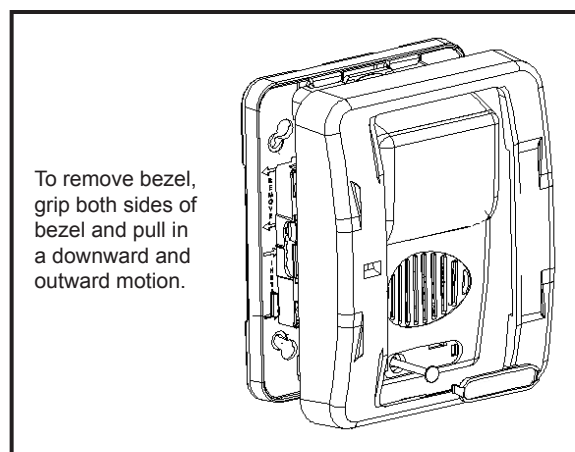
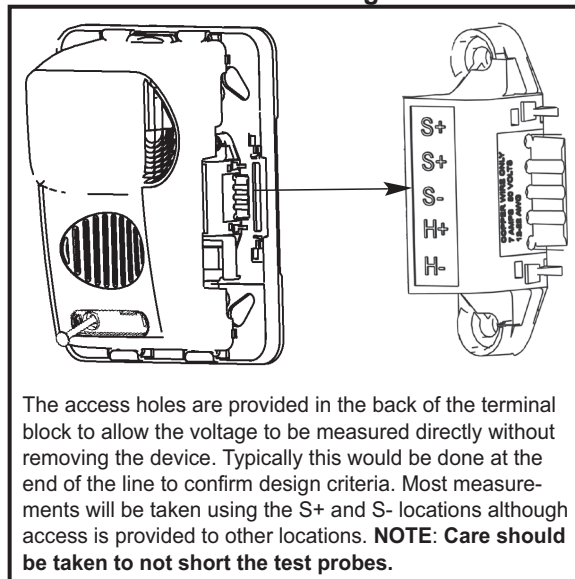


Super Slide® Mounting Bracket
Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out signals without changing mounting brackets and has locking edge connector for snap-in-place installation.

Switch Locations



Checkmate™ - Instant Voltage Verification



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.

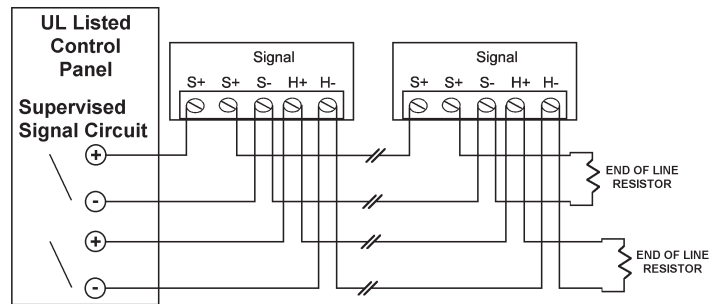
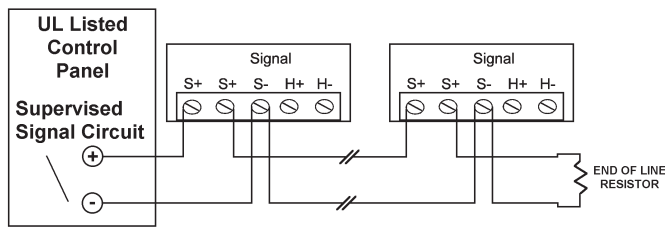
S-24 & HS-24 Horn Ratings

Horn Mode	Horn Decibel Levels		Horn Current Ratings
	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.

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:

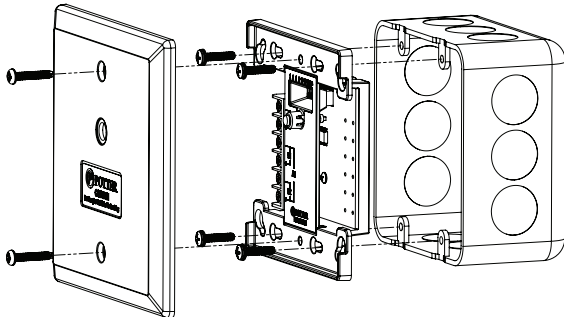
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

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 120°F (0 to 49°C)
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

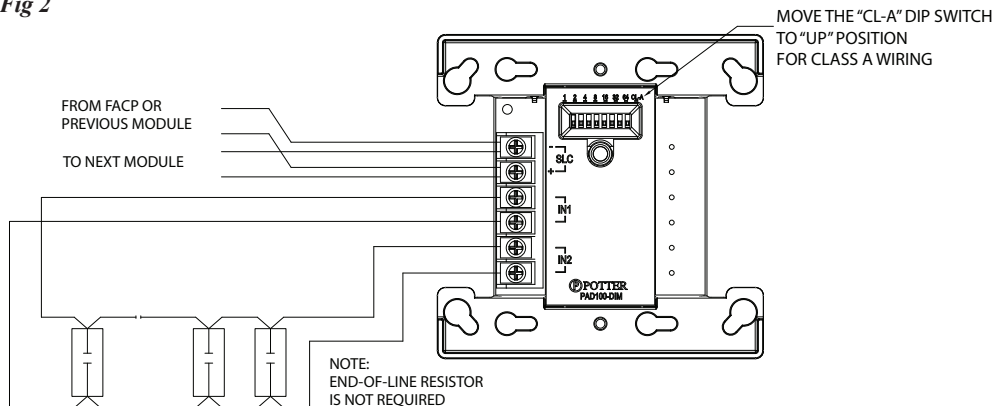
Fig 1



Wiring Diagrams

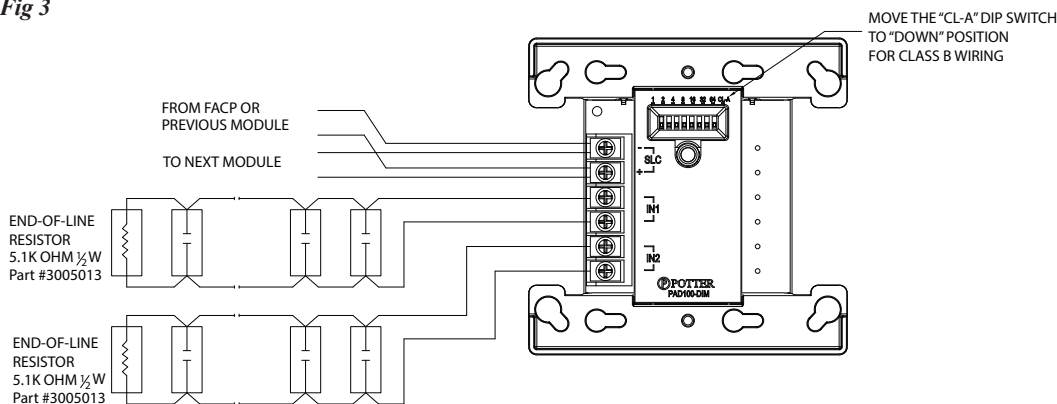
PAD100-DIM With One Class A Circuit

Fig 2



PAD100-DIM With Two Class B Circuits

Fig 3



Ordering Information

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

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



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:

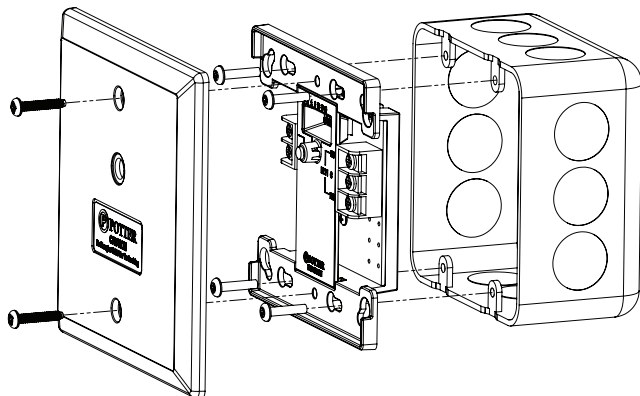
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

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 120°F (0 to 49°C)
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

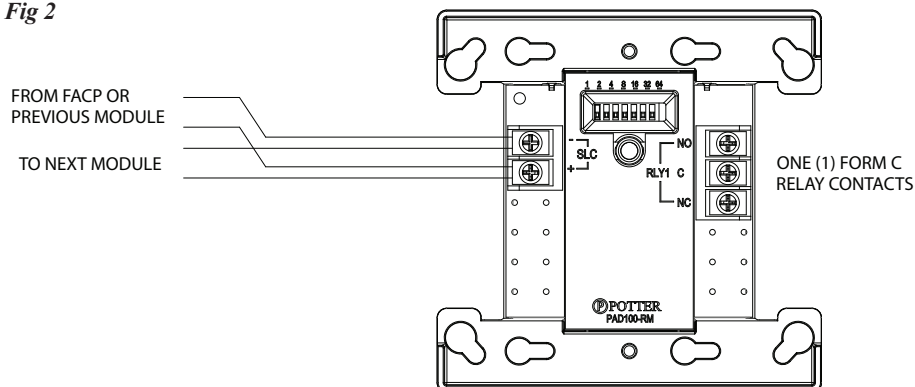
Fig 1



Wiring Diagram

PAD100-RM Relay Circuit

Fig 2



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

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

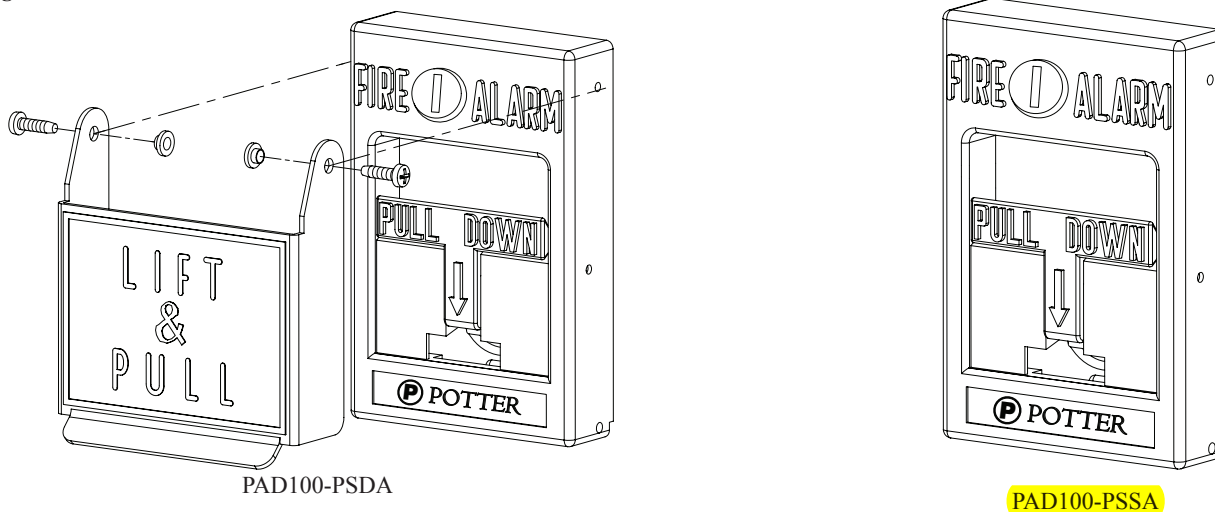
Operating Voltage	24.0 VDC
Max SLC Standby Current	200uA
Max SLC Alarm Current	200uA
Environmental Limitations	32°F - 120°F (0° - 49°C) Indoor Only
Dimensions	4.75” H x 3.25” W x 1.75” D
Relative Humidity Range	0 - 93% (non-condensing)
Mounting Options	Single gang box or Potter P32-BB/DBB
Shipping Weight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

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.

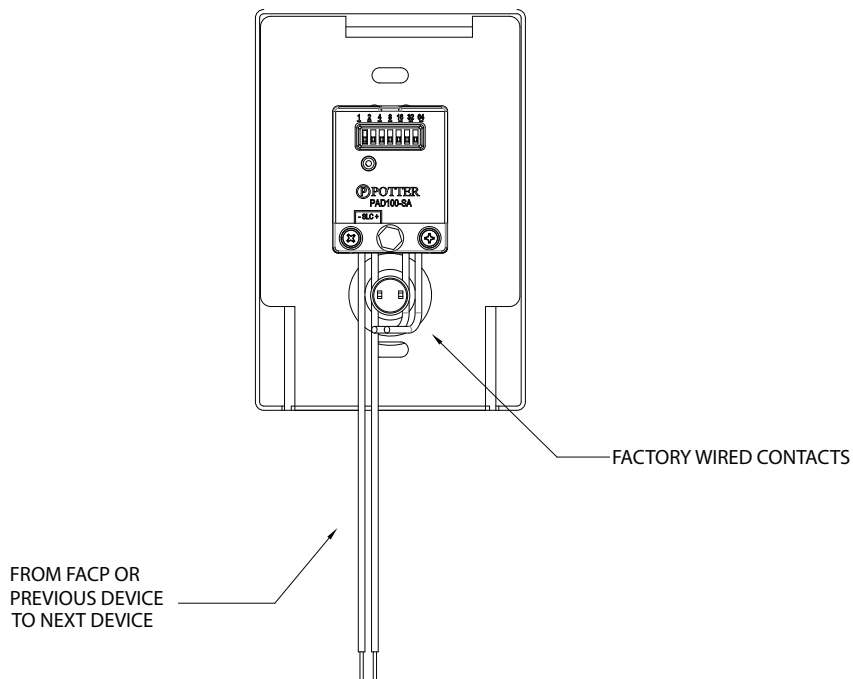
Pull Station Front View

Fig 1



Pull Station Back View and Wiring

Fig 2



Ordering Information

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

Features

- Detects smoke in building HVAC ducts
- Ships complete with housing and head
- Compatible with addressable IPA and AFC/ARC series panels
- SLC in and out wire terminals
- SLC Class A, Class X & Class B
- Installation without removing the head
- Listed Air Velocity of 100 to 4,000 ft/minute
- No screens or filters in housing
- Durable plastic enclosure and clear cover
- Integrated cover tamper switch
- Utilizes simple snap in sampling tubes STN series
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



Description

The PAD100-DUCT is designed and built to meet all local requirements, as well as the NFPA regulations regarding duct smoke detectors. Air sampling is accomplished by two tubes which protrude into the duct. An exhaust tube of one standard length (7") is supplied in the installation kit with the smoke duct unit. Once the duct width has been determined the air intake sampling tubes must be ordered. Sampling tubes are supplied in three standard lengths: 2.5 ft., 5 ft., and 10 ft. and cut to size to fit the duct. Mounting the duct smoke unit is accomplished by the use of a template and 2 sheet metal screws, which are provided. Mounting can be achieved without the removal of the clear cover which is secured by 4 capture screws.

Application

The Potter Electric PAD100-DUCT duct smoke detector provides early detection of smoke and products of combustion present in air moving through HVAC ducts in commercial, industrial and residential applications. The PAD100-DUCT is compatible with the IPA and AFC/ARC series addressable fire alarm control panels.

Technical Specifications

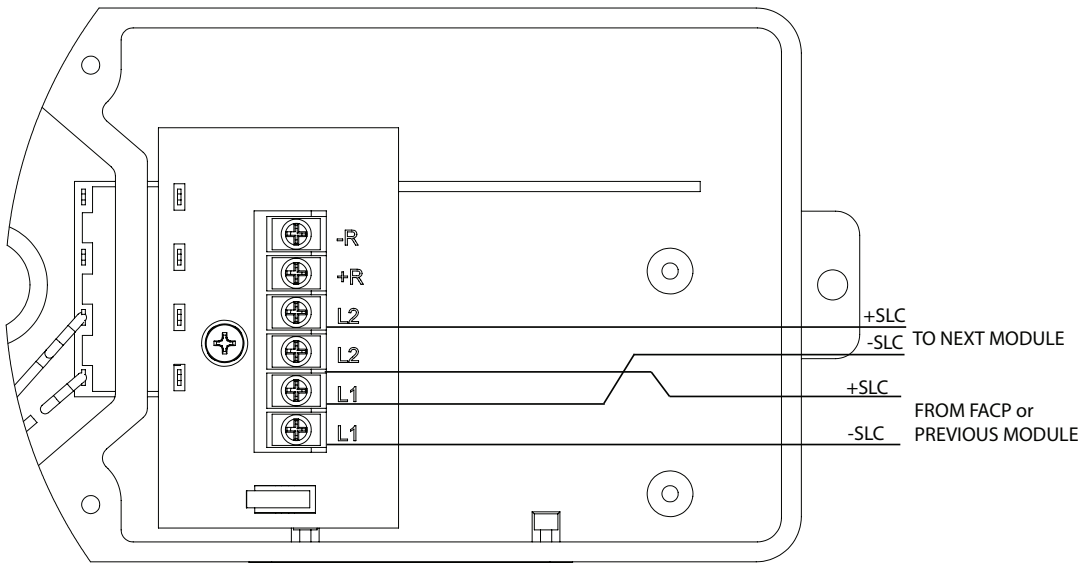
Duct Detector Model Number	PAD100-DUCT
Operating Voltage	24 VDC
Current Draw	300 μ A
Detector Head Model	PAD100-DD
Detector Head Type	Photoelectric
Alarm Set Point	Fixed at 2.5%/ft
Sensitivity Test Method	Self diagnostic test
Air Velocity	100 to 4000 ft./min
Ambient Temperature	32°F to 120°F (0°C to 49°C)
Humidity	10% to 85% Relative humidity (non-condensing)
Housing Material	Plastic backbox, clear plastic cover
Finish	Gray backbox with clear cover
Dimensions	13 1/2" L x 4 1/2" W x 2 1/4" H
Maximum Net Weight	2 lbs.
Sampling Tubes	2.5 ft., 5 ft., or 10 ft.

Engineering Specifications

Air duct smoke detectors shall be Potter Electric PAD100-DUCT Series. The detectors shall be listed by Underwriters Laboratories per UL 268A. The detectors shall operate at air velocities from 100 feet per minute to 4000 feet per minute. The duct detector housings shall be of plastic construction and complete mechanical installation may be performed without removal of detector cover. Visual indication of alarm and power must be provided on detector front. Detector heads shall not require additional filters or screens which must be maintained. The housing shall contain a detector base and PAD100-DD duct smoke detector head. Terminal connections shall be of the screw type and be a minimum of # 12 screw. All wiring must comply with local codes and regulations. Detector shall use the STN series of sampling tubes.

Wiring Diagram

Fig 1



Ordering Information

Model	Description	Stock No.
PAD100-DUCT	Analog Addressable Duct Detector	3992713

Model	Description	Stock No.
STN-2.5	2.5' Sampling Tube	1000274
STN-5	5' Sampling Tube	1000275
STN-10	10' Sampling Tube	1000276

Features

- 4,064 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, ideal for manual release and abort
- Strobe Synchronization and System Wide Sync for Potter/AMSECO®, Gentex®, Cooper Wheelock® and System Sensor® strobes
- Dedicated Alarm, Supervisory and Trouble Relays
- 4,000 Event History Buffer
- Cabinet will house up to 18 AH batteries
- 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
- UUKL Listed for Smoke Control



Description

The IPA-4000 is an expandable analog/addressable releasing fire alarm system with a total system capacity of 4,064 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. The system is expandable with a total of thirty-one additional addressable Signaling Line Circuits (SLC) each with a maximum of 127 devices. 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 IPA-4000 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 Potter/AMSECO, Gentex, System Sensor and Cooper/Wheelock and with the exclusive Quadrasync each output may have a unique brand and all strobes will flash together. The I/Os are designed for inputs such as manual release stations and abort switches that will not require polling and react nearly instantaneously.

The IPA-4000 is listed for releasing of fire suppression systems. The software allows cross zones, counting zones, and timers for suppression. The system is capable of multiple release outputs across multiple hazards. In addition, the PSN-1000 may be used to extend releasing capability. 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 IPA-4000 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-200 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 12, 12A, 13, 15, 16, 17, 17A, 70, 72, 750, and 2001 • 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 2000, 2003, 2006, 2009, 2012

SLC Loop Accessories

The control panel may be connected with up to 4,064 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
PAD100-PD	Analog Photo Electric Smoke Detector is a smoke detector with a listed obscuration of 1.02 to 3.83 percent per foot.
PAD100-PHD	Combination Analog Photo Electric Smoke/Heat Detector – a smoke detector with a listed obscuration of 1.02 to 3.83 percent obscuration and a fixed temperature 135° Fahrenheit heat detector.
PAD100-HD	Analog Fixed Temperature Heat Detector that is selectable from 135° F to 185°F.
PAD100-DUCTR	Addressable Duct Smoke Detector with Form C Relay.
PAD100-DUCT	Addressable Duct Smoke Detector.
PAD100-6B	6" round base that is mounted to an electrical box and wired for connection of one of the above sensors.
PAD100-4B	4" round base that may be mounted to an electrical box and wired for connection to the above sensors.
PAD100-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop.
PAD100-RB	Addressable Relay Base that contains one relay controlled by the SLC. Relay is rated at rated at 2 amps at 30 VDC or 0.5A at 125VAC.
PAD100-SB	Addressable Sounder Base that contains an addressable sounder module that may be configured for local, group and all call.
PAD100-CD	Addressable CO gas detector.
PAD100-DD	Addressable photo electric smoke detector for use in DUCT/DUCTR enclosure.
PAD100-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module that may be configured for local, group and all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz)
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.

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.
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 IPA-4000 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 (maximum of 31 per IPA-4000)

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 IPA-4000 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 IPA 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

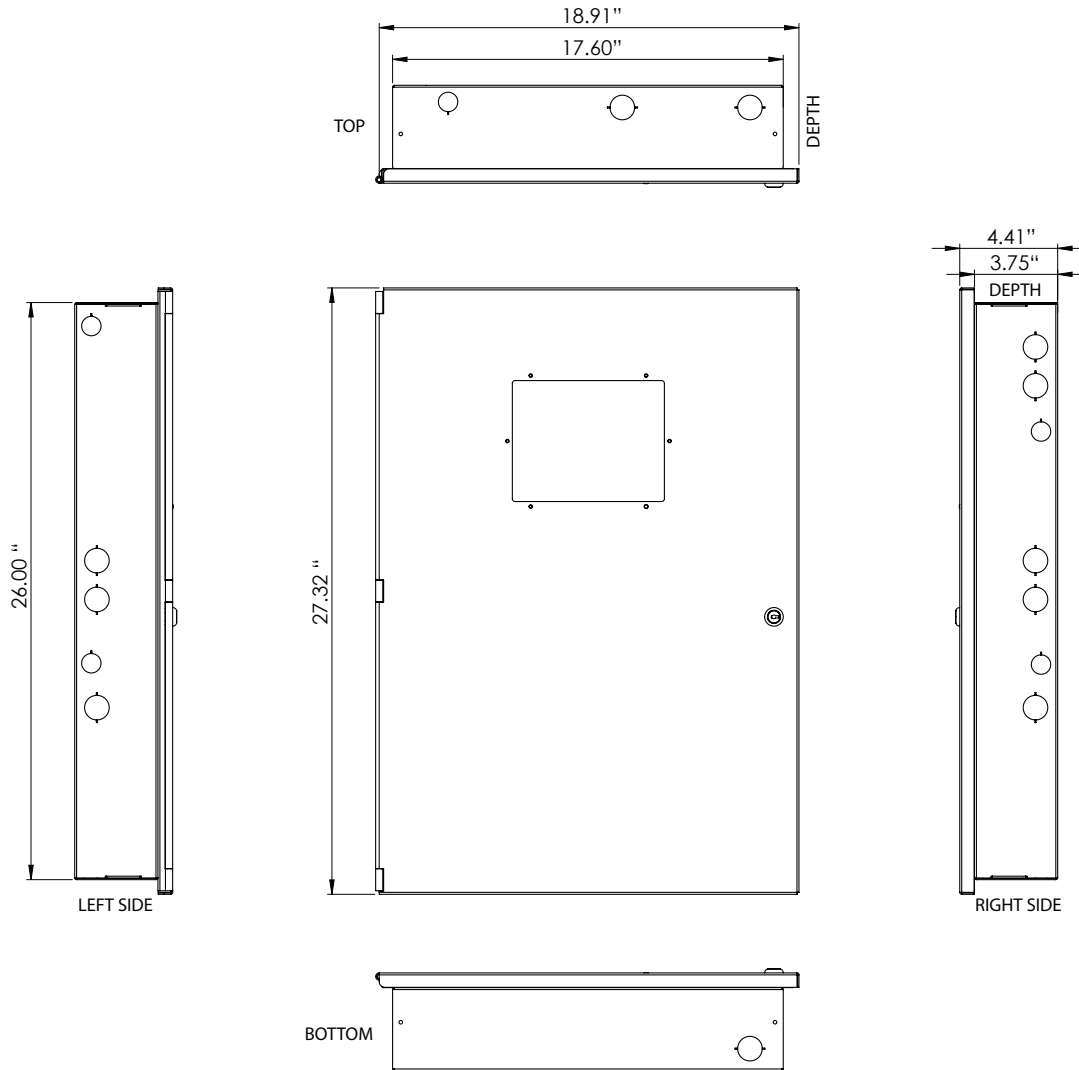
AE-14 – Fourteen card expansion cabinet

Ethernet/I.P. Connection

The IPA-4000 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



Compatible Releasing Devices

Note: For releasing applications please order the Potter EOLD (3005012) for circuits connected to a releasing solenoid or actuator.

Brand	Description
Skinner	73218BN4UNLVN0C112CZ 73212BN4TNLVN0C322C2
Victaulic	753-E Series
Mini Max	MX123 & MX200 w/ 8876677 & 889323
Viking	11591, 11601, 11602, 13843, & 13844
TLX	PA0036

Ordering Information

Model	Description	Stock No.
IPA-4000	Fire Alarm Releasing Control Panel	3992717
	Replacement Board IPA-4000	3992740

Features

- Terminals Marked with Polarity to assist with installation
- Duplicate terminals for in and out SLC wiring
- Terminals accept 22 to 12 AWG wire sizes
- Installs on single gang, double gang, octagon or 4" square box
- Locking tab prevents unauthorized detector removal
- Product includes 5 year warranty



Application

The Potter **PAD100-6DB** and PAD100-4DB detector bases are used to install Potter's addressable smoke and heat detectors. The PAD100-6DB will mount on a single gang, double gang, octagon or 4" square electrical box.

Description

The **PAD100-6DB** and PAD100-4DB are low-profile, surface mount bases used with Potter's addressable detectors. The base uses screw-clamp terminals that accept wire ranging from 22 to 14 AWG. When installed on recessed electrical boxes the PAD100-6DB is wide enough to completely cover the back box and the immediate surrounding area. The base is equipped with a locking tab to deter unauthorized removal of the attached detector.

Technical Specifications

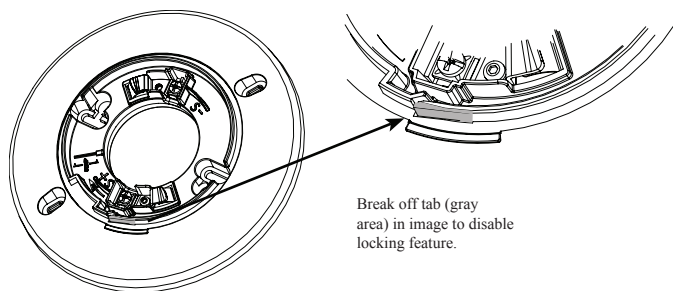
Mounting Options	Single gang, double gang, octagon, and 4" square box
Terminals	Screw-Clamp Type
Wire Gauge	22 to 12 AWG
Dimensions	Diameter: 6.3 in (166 mm) Height 0.72 in (18 mm)
Shipping Weight	87g (3.07 oz)
Material	Durable Plastic

Locking Feature

The **PAD100-6DB** and PAD100-4DB include a locking feature that prevents removal of the detector without using a tool.

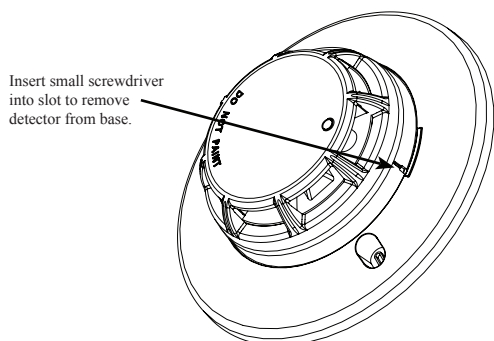
1. To eliminate this feature, break off the locking tab (refer to Figure 1), and then install the detector.

Fig. 1



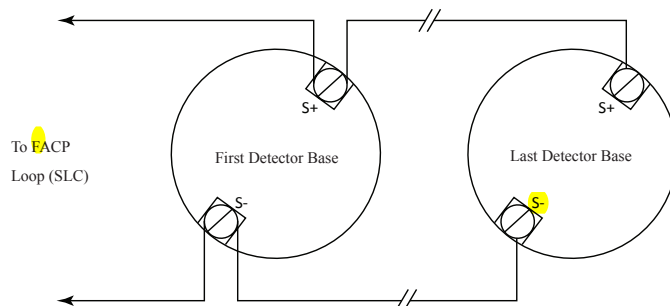
2. To remove the detector from the base when the locking feature has been enabled, insert a small screw driver into the slot on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise.

Fig. 2



Wiring Diagram

Fig. 3



Ordering Information

Model	Description	Stock No.
PAD100-6DB	6" Sensor Base	3992732
PAD100-4DB	4" Sensor Base	3992731

Features

- 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 PAD100-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 PAD100-PD has a sensitivity range of 1.0 to 3.7 % per foot and is UL. The PAD100-PD features drift compensation and has built in dirty detector warning as well as. The PAD100-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 PAD100-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 μ A
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)

Air Velocity Ratings

The PAD100-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 PAD100-PD will operate even though the LED may not illuminate.

Operation

The PAD100-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 PAD100-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 PAD100-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 PAD100-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 PAD100-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.
PAD100-PD	Photoelectric Smoke Sensor	3992733

Features

- Selectable Rate of Rise and/or Fixed Heat Detector
- Low profile
- Reliable detection technology
- LED Alarm Indicator
- Ambient temperature listing of 32° F to 150° F
- Simple DIP switch address setting, no programming tool required
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



Description

The PAD100-HD is a listed Analog Addressable rate of rise and/or fixed temperature heat sensor compatible with any fire alarm control panel that has the Potter Addressable Device (PAD) protocol. The heat sensing portion utilizes a proven thermistor for accurate and reliable heat detection. The sensor and base (not included) are made of a durable plastic in an off white to blend in with the ceiling.

The PAD100-HD is UL listed with a selectable fixed temperature point from 135° to 185° Fahrenheit and can be used for rate of rise applications. See detector spacing limitations below. This flexibility allows the installer to cover a wide variety of applications with a single unit.

The PAD100-HD 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 PAD100-HD 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 μ A
Alarm indicator	1 LED
Alarm set-point range	135 to 185 °F/ 57 to 85 °C
Installation temperature range	32 to 150 °F / 0 to 66 °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)	82g (2.89 oz)
Dimensions (without base)	Height: 1.94 in (49mm) Diameter 3.93 in (100mm)

Operation

The PAD100-HD 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 LED flashes every time the unit is polled and 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 PAD100-HD with the PAD100-4DB or PAD100-6DB has a low profile to blend into the surrounding environment. The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD100-HD will operate even though the LED will not illuminate.

Spacing

The ANSI/UL listed spacing limitations of PAD100-HD smooth ceiling are dependent on alarm set point.

Alarm Set-Point	Rate of Rise Spacing	Fixed Temperature Spacing
135°F to 160°F (57°C to 71°C)	Max. 70 ft.	Max. 70 ft.
161°F to 174°F (72°C to 79°C)	Max. 60 ft.	Max. 60 ft.
175°F to 185°F (80°C to 85°C)	Max. 15 ft.	Max. 15 ft.

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.
PAD100-HD	Fixed Temperature Heat Sensor	3992735

Features

- Carbon Monoxide detection device compliant with UL 2075
- 8 year lifespan with built in end of life indication
- Low profile
- Walk Test mode allows for fast easy validation of sensor operation
- Reliable detection technology
- LED Alarm Indicator
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control



Description

The PAD100-CD is an Analog Addressable carbon monoxide (CO) sensor compatible with any fire alarm control panel that has the Potter Addressable Device (PAD) protocol. The CO sensing portion utilizes a proven electrochemical sensor for accurate detection of CO gas for life safety applications. The sensor and base (not included) are made of a durable plastic in an off white to blend in with the ceiling.

The PAD100-CD is listed to comply with the requirements of UL 2075. The sensor 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 PAD100-CD 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 μ A
Alarm indicator	1 LED
Alarm set-point range	70 ppm, 150 ppm, 400 ppm
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)	92g (3.25oz)
Dimensions (without base)	Height: 1.43 in (36mm) Diameter: 3.93 inches (100mm)

Operation

The PAD100-CD 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 LED flashes 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 PAD100-CD with the PAD100-4DB or PAD100-6DB has a low profile of less than two (2) inches to blend into the surrounding environment.

Detection Levels

The PAD100-CD will provide alarm reports at these required levels:

Alarm set-point

70 ppm for 2 hours

150 ppm for 30 min

400 ppm for 10 minutes

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.
PAD100-CD	Carbon Monoxide Detector	3992736

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

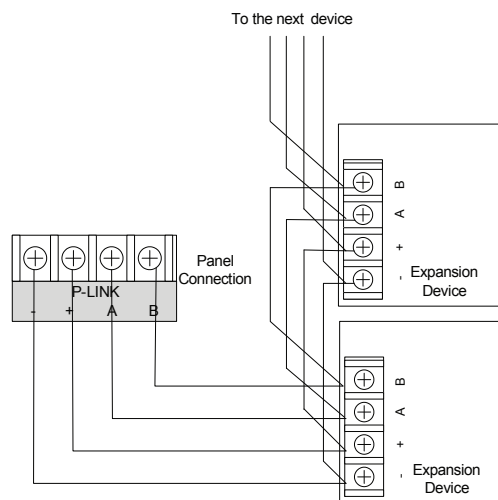
Standby Current	20 mA
Alarm Current	25 mA
Operating Temperature	0°C-49°C (32°F-120°F)
Operating Humidity Range	10%-93% @ 30°C (86°F) non condensing humidity
Maximum Wire Length	6500 ft.
Maximum Annunciators	31
Size (WxHxD)	10" x 7-7/8" x 1-5/8"
Wire Gauge	14 AWG-22 AWG

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.

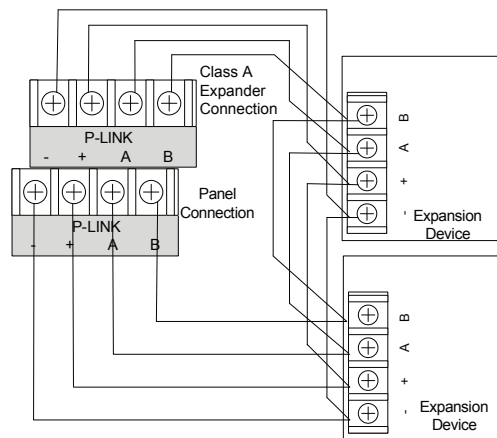
RA-6500 Class B Wiring Example

Fig 1



RA-6500 Class A Wiring Example

Fig 2

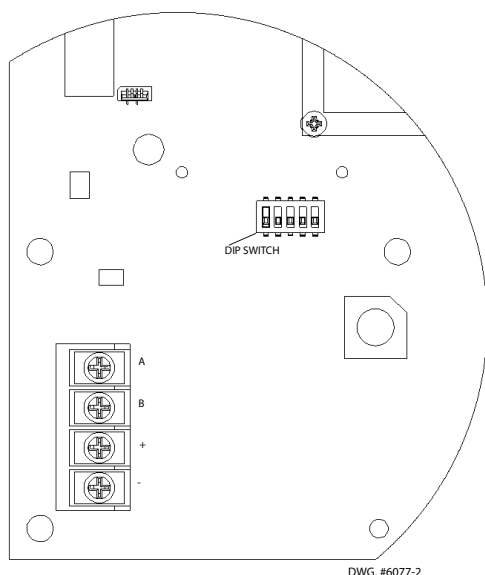


Address Settings

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



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-6500	LCD Annunciator - RED	3992660
RA-6500	LCD Annunciator - BLACK	3992744
RA-6500	LCD Annunciator - GRAY	3992745
RA-6500	LCD Annunciator - LIGHT GRAY	3992746

Features

- Addressable low frequency sounder base, allows for single station, grouped or all call activation
- May be mapped to any device connected to the control panel
- Terminals accept 18 to 12 AWG wire sizes
- Supports Class A, Class X and Class B wiring
- Does not require SLC Loop address, uses PAD sub point addressing feature
- Complies with the Low Frequency Signal Requirements (520 Hz)



Description

The Addressable Low Frequency Sounder Base (PAD100-LFSB) is a sounder base that may be utilized in a variety of applications. The base has a locking feature for the sensor that may be used or removed in the field. Once the head is removed, the sounder is accessible in the bottom of the unit.

The base has an independent sounder module that may be programmed as a single station, zone or all call sounder. The PAD100-LFSB passes through the sound pattern sent to the sounder, therefore it may reproduce in any pattern the power supply provides.

The PAD100-LFSB does not consume an address on the loop and is fully programmable to operate with any input. Once activated the sounder will also follow the input from the power source and deactivate accordingly.

Technical Specifications

External PWR Voltage	16-33 VDC
External PWR Standby Current	4.1 mA
External PWR Active Current	33 VDC -86.7 mA 24 VDC - 96.5 mA 16 VDC - 156.6 mA
SLC Operating Voltage	24 VDC
SLC Standby Current	200 μ A
Installation temperature range	32°F to 120°F (0°C to 49°C)
Operating relative humidity range	0% to 93% (Non-condensing)
Sound Pressure Level	85 DBA minimum
Start-up time	Max. 1 sec.
Maximum number of devices per zone	127
Color	Eggshell White
Dimensions (without detector)	Height: 2.75 in (70mm) Diameter: 6 in (153 mm)
Mounting	Ceiling or wall

Detector Base Mounting

PAD100-LFSB can be mounted directly on an electrical box or the LFSBBB-W back box. The mounting holes are configured for a 4" x 2-1/8" deep square box. See Fig. 1 for electrical box mounting and Fig. 2 for back box mounting.

Fig. 1

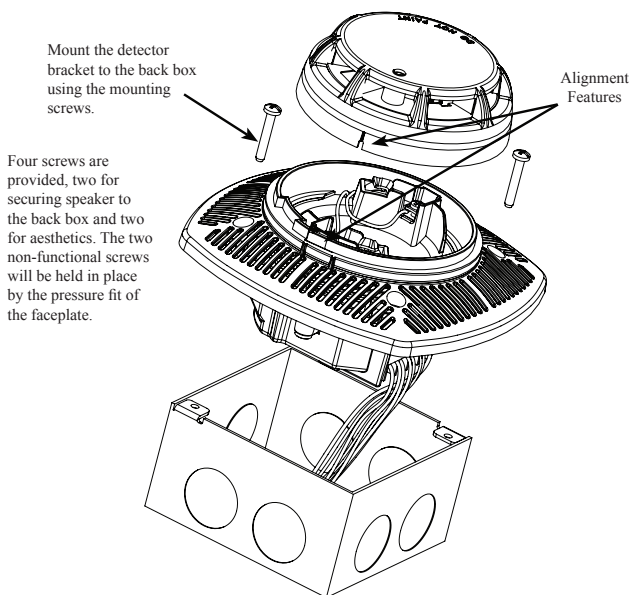
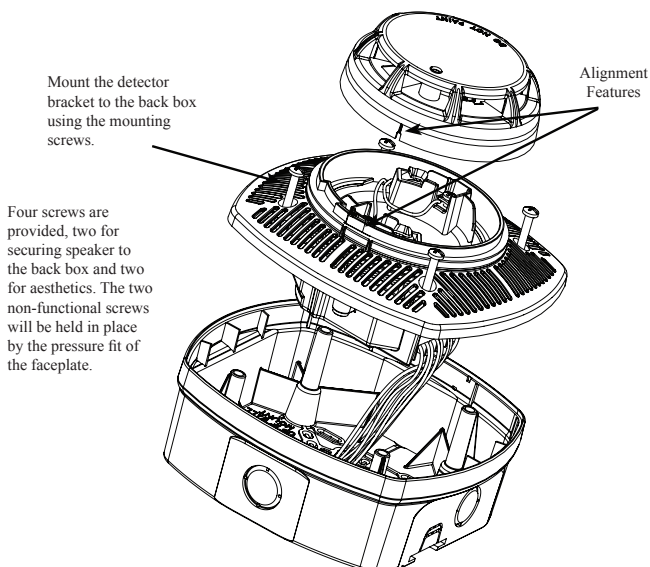


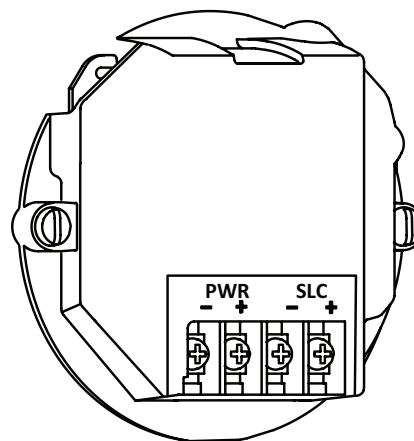
Fig. 2



Detector Base Wiring

The SLC supports NFPA wiring Class B, A and X. (See device installation sheet for wiring details). The device also requires 24VDC power. 12 to 18 AWG conductors can be used.

Fig. 3



Ordering Information

Model	Description	Stock No.
PAD100-LFSB	Addressable Low Frequency Sounder Base	3992760
LFSBBB-W	Back Box	3992761