BAKERSFIELD CITY SCHOOL DISTRICT
(4) 24X40 TEMPORARY PORTABLE CLASSROOMS
AT WILLIAM PENN ELEMENTARY SCHOOL
BAKERSFIELD, KERN COUNTY, CALIFORNIA

BID OPENING:
October 2, 2025 at 2:00pm,

Job No. 1318.1
Appl. No. 15-6
File No. 03-123199

ADDENDUM NO. #04

NOTICE TO CONTRACTORS FIGURING THIS WORK

You are hereby notified of the following changes in the plans and specifications, which shall take precedence over anything to the contrary therein.

4-1) Refer to DSA Approved Drawing No. E2.00 FIRE ALARM SITE PLAN, SYMBOL LEGEND, DETAILS, NOTES & SCHEDULES, FIRE ALARM SYMBOL SCHEDULE;

a. REVISE: Photoelectric smoke detector with base to be Hochiki #ALO-V, Base #YBN-NSA-47 in lieu of Hochiki #ALN-V, Base #HSB-NSA-6 as indicated per attached Drawing No. 01.

b. REVISE: Base for Attic heat detector to be #YBN-NSA-47 in lieu of Base #YBN-NSA-4 as indicated per attached Drawing No. 01.

c. REVISE: Existing Fire Alarm Control Panel to be Hochiki #LATITUDE in lieu of #FIRENET 4127 as indicated per attached Drawing No. 01.

4-2) Refer to DSA Approved Drawing No. E2.10 FIRE ALARM SINGLE LINE DIAGRAM AND SCHEDULES, FIRE ALARM SINGLE LINE DIAGRAM;

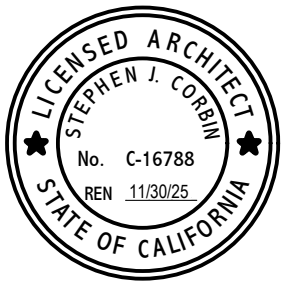
a. REVISE: Existing Fire Alarm Control Panel to be Hochiki #LATITUDE in lieu of #FIRENET 4127 as indicated per attached Drawing No. 02 See also Item 4-1c. of this Addendum.

4-3) Refer to DSA Approved Project Manual, Specification Section 28 31 11 FIRE ALARM;

a. ADD: FIRE ALARM COMPONENT BOOKLET as attached to this Addendum.

CONFORMANCE WITH SPECIFICATIONS

All work shall be in conformance with the specifications as they apply to work of a similar nature.



SCARCHITECT, INC.
1601 New Stine Road, Ste. 280
Bakersfield, CA 93309

Stephen J. Corbin, AIA, NCARB, LEED-AP BD+C
Architect

FIRE ALARM SYMBOL SCHEDULE

SYMBOL	NAME	DESCRIPTION	CSFM #
(E)	EXISTING ITEM		
U.O.N.	UNLESS OTHERWISE NOTED		
	WIRING UNDERGROUND OR IN WALL	3/4"C MIN U.O.N.	
	EXISTING CONDUIT TO REMAIN		
1 FACP	FIRE ALARM CONTROL PANEL	HOCHIKI # LATITUDE	7165-0410:0506
EXP	EXISTING FIRE ALARM EXPANDER PANEL	HOCHIKI # FN-642-ULADA	7315-0410:0166
	TERMINAL CABINET	24"HX18"WX4"D	
EVAC	EXISTING FIRE ALARM VOICE EVACUATION AMPLIFIER	HOCHIKI #EVAX-25	6911-0410:0176
SOM	EXISTING OUTPUT MODULE	HOCHIKI #DCP-SOM-A	7300-0410:0150
A	ATTIC HEAT DETECTOR WITH BASE	HOCHIKI #ATJ-EA BASE #YBN-NSA-47	7270-0410:0203 7490-0410:0132
1	PHOTOELECTRIC SMOKE DETECTOR WITH BASE	HOCHIKI #ALO-V BASE #YBN-NSA-47	7272-0410:0510 7490-0410:0132
xW C(MC)cd	F.A. SPEAKER / STROBE. (CEILING MTD.) xW = WATTAGE C = CEILING MOUNTED, (MC)cd= MULTI-CANDELA SETTINGS	HOCHIKI #HSSPKCLPW (SEE PLANS FOR SETTINGS)	7320-0410:0194
S xW	FIRE ALARM EXTERIOR SPEAKER. (WALL MTD.) xW = WATTAGE	GENTEX #WSSPKR (SEE PLANS FOR SETTINGS)	7320-0569:0141
	END-OF-LINE RESISTOR	PER MANUFACTURER SPECIFICATION	

1 REVISE FACP, SMOKE DETECTOR AND BASES

ITEM • 4-1)
REF. DSA APPROVED DRAWING, SHEET E2.00

DPG
Engineering Inc.
6702 N. Cedar Suite 205
Fresno, Ca. 93710
Ph. (559) 276-5144
Fax (559) 900-4929
Email @ dpgengineering.com

REGISTERED PROFESSIONAL ENGINEER
DAVOR P. GOLIK
17151
EXP. 09/30/25
ELECTRICAL
STATE OF CALIFORNIA

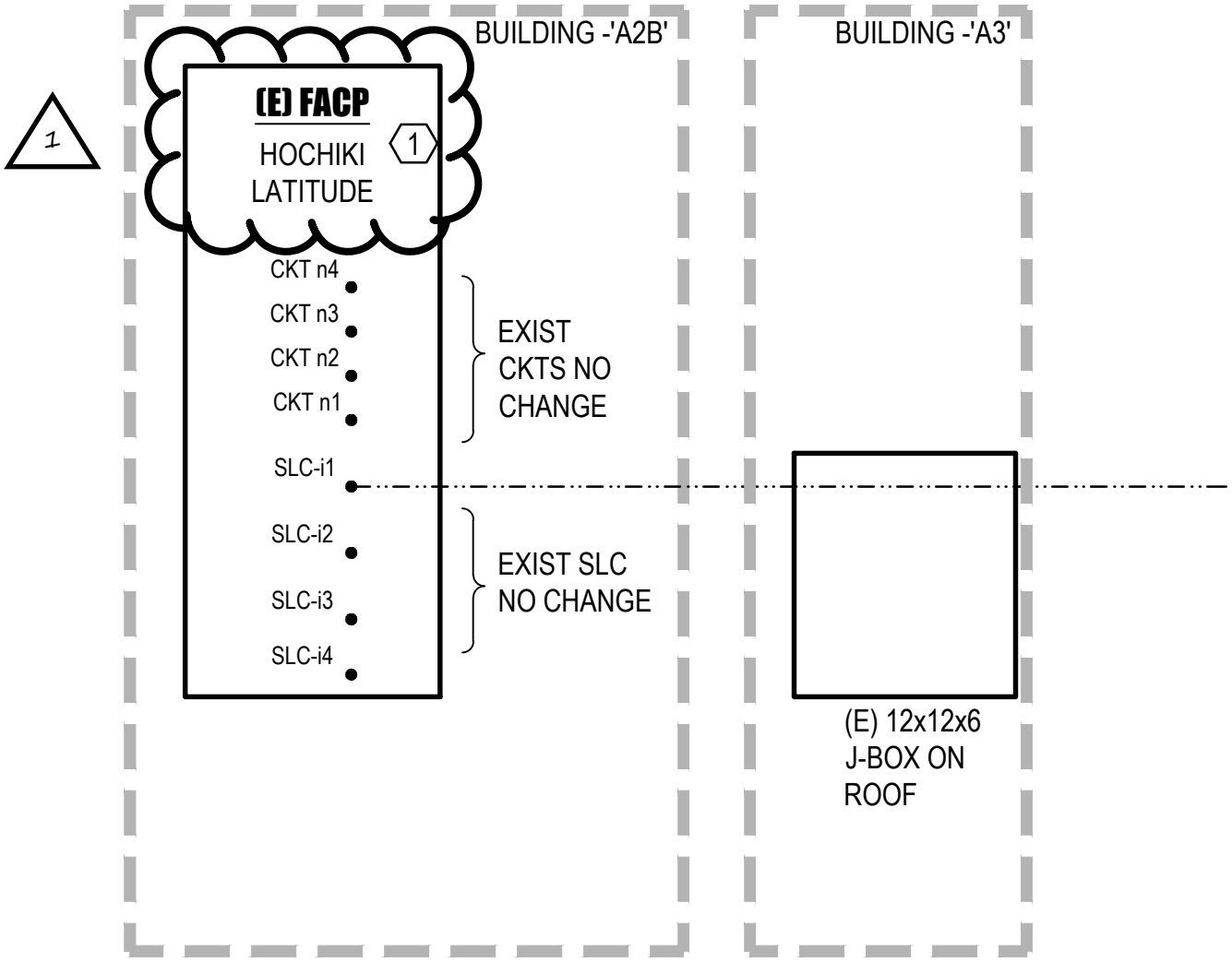
ARCHITECT
1601 New Stine Road, #280
Bakersfield, CA 93309 Ph: (661) 397-4377 FAX: (661) 397-4378
WWW.SCARCHITECT.COM

LICENSED ARCHITECT
STEPHEN J. CORBIN
No. C-16788
REN 11/30/25
STATE OF CALIFORNIA

ADDENDUM #04

(4) 24x40 PORTABLE CLASSROOMS
WILLIAM PENN ELEMENTARY SCHOOL
2201 SAN EMIDIO STREET
FOR
BAKERSFIELD CITY SCHOOL DISTRICT
BAKERSFIELD, KERN COUNTY, CALIFORNIA

JOB NO:	DATE:
1318.1	09/16/25
APPL#: 03-123199	FILE#: 15-6
DWG NO: 01	



REFERENCE NOTES

1. EXISTING HOCHIKI FIRENET 4127 FACP TO BE REPLACED WITH NEW HOCHIKI LATITUDE.

1 REVISE FACP

ITEM • 4-2)
REF. DSA APPROVED DRAWING, SHEET E2.10

DPG
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LICENSED ARCHITECT
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ADDENDUM #04

(4) 24x40 PORTABLE CLASSROOMS
WILLIAM PENN ELEMENTARY SCHOOL
2201 SAN EMIDIO STREET
FOR
BAKERSFIELD CITY SCHOOL DISTRICT
BAKERSFIELD, KERN COUNTY, CALIFORNIA

JOB NO:	DATE:
1318.1	09/16/25
APPL#: 03-123199	FILE#: 15-6
DWG NO: 02	

ADDENDUM #4
ITEM 4-3)

DPG
Engineering Inc.

FIRE ALARM SUBMITTAL

(4) 24X40 PORTABLE CLASSROOMS
WILLIAM PENN ELEMENTARY SCHOOL
2201 SAN EMIDIO STREET
FOR
BAKERSFIELD CITY SCHOOL DISTRICT
BAKERSFIELD, KERN COUNTY, CALIFORNIA

6702 N. Cedar Ave. Suite 205 Fresno, Ca. 93710 ♦ tel 559.276.5144 fax 559.900.4929 ♦ davor@dpgengineering.com

FIRE ALARM SYMBOL SCHEDULE

SYMBOL	NAME	DESCRIPTION	CSFM #
(E)	EXISTING ITEM		
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	END-OF-LINE RESISTOR	PER MANUFACTURER SPECIFICATION	

FireNET L@TITUDE - ANALOG ADDRESSABLE FIRE ALARM CONTROL PANEL

DESCRIPTION

The all new L@titude product range of fire alarm control equipment combines the very latest hardware and software to produce a control and indication system, which is powerful and sophisticated, yet simple to use and understand. The flexibility of the L@titude platform is such that it can be re-configured to realize many other control and indication applications, with direct integration into intelligent buildings.

Moving away from the simple, price driven competitive model used by most manufacturers today, the L@titude concept is designed to add value to System Designers, Integrators, Service Providers, and end users. Developed from the “ground up” and using some of the most advanced technology available, L@titude is designed as one of the most powerful, intelligent, and technically robust fire alarm products available.

Not only do the products and services offered under the L@titude brand provide solutions to the most technically challenging applications in life safety, L@titude will deliver added value, market advantage, and a competitive edge to your business.

PRODUCT LISTINGS

FM APPROVED
Manufactured by Kentec Electronics Ltd. Dartford, DA11JQ, United Kingdom

California State Fire Marshal
7165-0410:0506

STANDARD FEATURES

- UL Listed (10th Edition), FM and CSFM Approved
- 2 to 8 loop or 2 to 16 loop versions
- 400mA loop current
- Programmable NACs; 4 Class B or 2 Class A, all with internal synchronization
- 5.25 A or 10.25 A power supply options
- 3 programmable inputs and 5 programmable relay outputs
- 7 inch, full-color resistive touch screen with intuitive user interface
- Up to 24 programmable soft “function keys”
- Up to 64 user login accounts
- Hard-wired fire and trouble routing inputs and outputs
- Modular and expandable electronics
- 400 subaddress points per loop (800 per loop module)
- Option to “invert” inputs and outputs
- 5,000 programmable cause and effects; over 50,000 inputs and outputs
- Can be networked with programmable functionality
- Programming via USB port to PC or memory stick
- L@ti-View Graphical PC User Interface - coming soon!

Specifications subject to change without notice.

Hochiki America Corporation
7051 Village Drive, Suite 100, Buena Park, CA 90621-2268
Phone: 714-522-2246 Fax: 714-522-2268
Technical Support: 800-845-6692 or technicalsupport@hochiki.com

ISO 9001:2015 CERTIFIED

FireNET L@TITUDE - ANALOG ADDRESSABLE FIRE ALARM CONTROL PANEL

Single Aperture

Double Aperture
Includes Zone LED Module and Printer

Optional Panel Peripherals

• Dual Loop Panel Module (S758)
The Dual Loop Panel Module monitors loop device status and provides status to the panel processor. It holds device configurations and operates in a standalone manner when catastrophic failures occur.

• 16 Channel I/O Interface Card (K6006)
The 16 Channel I/O Interface enhances the versatility of the alarm system by providing additional input and output capabilities to the L@titude Fire Alarm Control Panel. Inputs or outputs can be selected for up to 16 individual channels, and are configured in the same way as devices connected to addressable loops of the panel. The 16 Channel I/O Interface can be configured to contribute or act upon cause and effect logic.

• Media Gateway™ Panel Module (S788)
The Media Gateway™ Panel Module provides connectivity to monitoring centers using IP (Sur-Gard), or dialup connectivity. The Media Gateway™ may also be used to meet integration application requirements.

• 8 Channel Relay Panel Module (S791)
The 8 Channel Relay Panel Module has 8 voltage-free changeover relay contacts, each of which can be individually programmed. All outputs are configurable in the same way as devices connected to the loops and all may be acted upon by cause and effect logic. These boards are typically used in applications which require more than the five standard relay outputs, such as signaling to other systems or plant control.

• Network Module (S723)
The L@titude Network Module provides enhanced high-speed communication for networking fire control panels. The network provided by this module can support combinations of L@titude Fire Alarm Control Panels and L@titude Vision units. L@titude Fire Alarm Control Panels can receive events from other panels in the network. The Class X networking used in conjunction with the Network Module provides tolerance against open and short circuit trouble conditions.

• Printer (S768)
The L@titude Printer is an optional feature for printing fire system events as they occur. The printer is located on the fascia, below the Zone LEDs (if present). It is a thermal printer and never requires replacement ink. Printing is performed on heat-sensitive paper rolls. A trouble message is reported when the paper runs out. The printer includes a front-loading feature for replacing paper rolls.

• Zone LED Module (S771)
The Zone LED module contains 48 LEDs and is connected to the LCD Main Processor Board of the L@titude Fire Alarm Control Panel. A maximum of three Zone LED modules can be connected to provide the fascia with 144 Zone LED indicators.

• 4 Channel NAC Panel Module (S793)
Additional NAC output capability can be added to by using 4 Channel NAC Modules. These boards have 4 supervised NAC outputs, each of which can be individually programmed. The circuits can be configured for class A or B operation. These circuits can be configured to act upon cause and effect logic.

• 8 Channel Conventional Zone Panel Module (S792)
The 8 Channel Conventional Zone Panel Module has 8 supervised detection circuits (Class B). Each circuit can support up to 20 conventional detectors and approved devices. Individual circuits may be configured for trigger resistor or short circuit activation. These circuits may be used for any of the standard input actions and can be configured to contribute to cause and effect logic. Each pair of circuits (e.g., 1 and 2, 3 and 4, etc.) can be joined to form a single Class A configuration.

• 16 Channel I/O Interface Panel Module (S772)
The 16 Channel I/O Interface Panel Module will provide the same functionality as the 16 Channel I/O Interface Card, with the convenience of a plug-in-module.

FireNET L@TITUDE - ANALOG ADDRESSABLE FIRE ALARM CONTROL PANEL

TECHNICAL SPECIFICATIONS

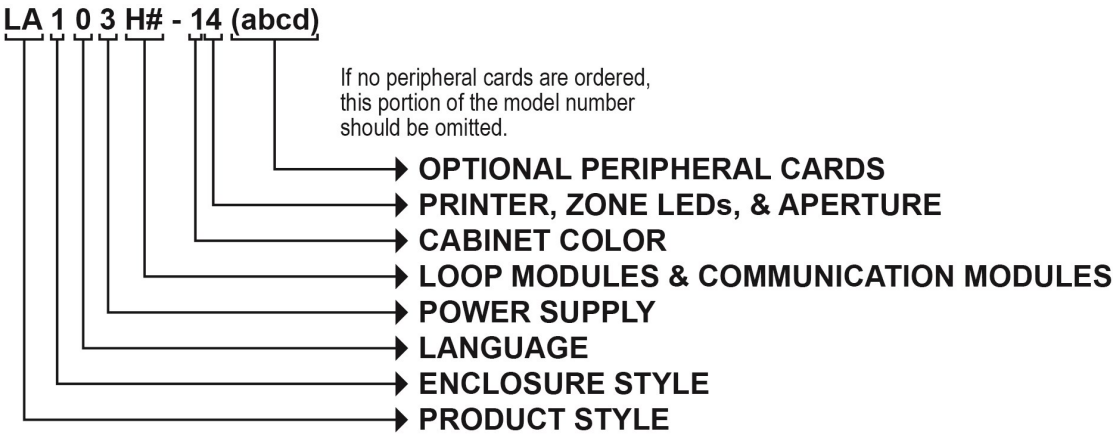
2 to 8 LOOP (4 SLOT) ENCLOSURE	
Size	**Standard Cabinet -** 420mm (W) x 590mm (H) x 153mm (D), or 16.5in (W) x 23.2in (H) x 6in (D) **Deep Cabinet -** 420mm (W) x 590mm (H) x 203mm (D), or 16.5in (W) x 23.2in (H) x 8in (D)
Construction	Mild sheet steel enclosure, 1.5mm, 16 gauge
Cable Entry	**Standard Cabinet -** 28 knockouts top, 19 knockout back, 1 knockout each side, 2 knockout bottom **Deep Cabinet -** 38 knockouts top, 19 knockout back, 1 knockout each side, 2 knockout bottom
Optional Semi-Flush Mounting Kit	Semi-Flush Mounting Collar Kit KM5FCRD - Red KM5FCGY - Gray KM5FCBS - Black
Battery Capacity	**Standard Cabinet** - Up to 28 Ah (Power Sonic PS-12280) **Deep Cabinet** - Up to 40 Ah (Power Sonic PS-12400)
2 to 16 LOOP (8 SLOT) ENCLOSURE	
SIZE	**8 Slot Standard Cabinet -** 540mm (W) x 720mm (H) x 160mm (D), or 21.3in (W) x 28.3in (H) x 6.3in (D) **8 Slot Deep Cabinet -** 540mm (W) x 720mm (H) x 212mm (D), or 21.3in (W) x 28.3in (H) x 8.3in (D)
Construction	Mild sheet steel enclosure, 1.5mm, 16 gauge
Cable Entry	**Standard Cabinet -** 38 knockouts top, 25 knockout back, 2 knockout each side, 2 knockout bottom **Deep Cabinet -** 50 knockouts top, 25 knockout back, 2 knockout each side, 2 knockout bottom
Battery Capacity	**Standard Cabinet** - Up to 28 Ah (Power Sonic PS-12280) **Deep Cabinet** - Up to 40 Ah (Power Sonic PS-12400)
ALL MODELS	
Finish	Epoxy powder coated
Color	Lid & Box - Red, Gray or Black Control Plate - RAL7016
Power supply voltage	120 V AC or 240 V AC
Power supply rating at 24V DC	5.25 A (charges up to 60 Ah) 10.25 A (charges up to 100Ah)
Display	Full color 800 x 480 LCD with resistive touch screen and automatic backlight dimming
Software zones	2,000
Software groups	5,000
Cause and Effects	5,000
Event log	10,000 events, 1 second resolution. Filterable and printable
Detection loops	2 to 16 added 2 at a time (S758 dual loop cards)
Detection loop current	400 milliamps each
AUX 24V Output	2; each rated at 900 mA
NACs	4; each rated at 2.5A (1.3A for System Sensor devices). 4 Class B or 2 Class A
Programmable Relay Outputs	5; 30 V DC 1 Amp
Programmable Inputs	3; designed to be activated by voltage-free contacts
Network Connections	Optional network card provides communication for networking 64 fire control panels
NAC Synchronization	Internal Support of System Sensor, Wheelock, Gentex and Amseco protocols
Printer (OPTIONAL)	40 column, front-loading thermal
Zone LED Indicators (OPTIONAL)	Up to 3 banks of 48 (144) as standard
Maximum Number of Nodes on a Network	64 UL Listed for 64 nodes

ELECTRICAL SPECIFICATIONS

PART NUMBER	MODEL	NAME	STANDBY CURRENT	ALARM CURRENT	NOTES
	See Below	*L@titude Control Panel	.350A	.450A	
	See Below	Vision Annunciator	.341A	.341A	
0101-02710	S408	10.25A Power Supply	.080A	.080A	
0101-02690	S406	5.25A Power Supply	.078A	.078A	
0101-01220	S723	Network Module	.080A	.080A	
0101-01230	S758	Dual Loop Module	.115A	.115A	Figures exclude SLC devices
0101-01280	S788	Media Gateway Module	.114A	.114A	
0101-01250	S791	8-Channel Relay Module	.010A	.160A	Alarm all 8 relays active
0101-01330	S771	Zone LED Module	.005A	.005A	+.003A per active LED
0101-01290	S768	Thermal Printer	.000A	1.500A	

Current draw includes LCD main processor board, main back board, System A board, and System B boards only

FireNET L@TITUDE - ANALOG ADDRESSABLE FIRE ALARM CONTROL PANEL



Panel Options	Valid Entries	Description
Product Style	LA	FireNET L@titude
	LF	FireNET L@titude Vision Repeater
Enclosure Style	1	4 Slot Standard Enclosure
	2	4 Slot Standard Plex-Door Enclosure
	3	4 Slot Deep Enclosure
	4	4 Slot Deep Plex-Door Enclosure
	5	4 Slot Extra Deep Guard Station Enclosure - FUTURE ENHANCEMENT
	6	4 Slot 19" Rack Mount Enclosure - FUTURE ENHANCEMENT
	7	8 Slot Standard Enclosure - 16 Loop
	8	8 Slot Standard Plex-Door Enclosure - 16 Loop
	9	8 Slot Deep Enclosure - 16 Loop
	A	8 Slot Deep Plex-Door Enclosure - 16 Loop
	C	Annunciator
Language	0	English
	1	Portuguese
	2	Spanish
	3	Taiwanese
Power Supply	0	None
	1	5.25 A 120V
	2	5.25 A 240V
	3	10.25 A (auto-voltage sensing)
Loop Modules & Communication Modules	00	Not Fitted
	NC	Network Module only (Network Vision Annunciator)
	H#	2-Loop Panel Module, Hochiki Protocol
	I#	2-Loop Panel Module, Hochiki Protocol, and Media Gateway™
	J#	2-Loop Panel Module, Hochiki Protocol, and Network Module
	K#	2-Loop Panel Module, Hochiki Protocol, Network Module, and Media Gateway™
Cabinet Color	1	■ Red (RAL3002)
	4	■ Gray (BS 00 A 05)
	6	■ Black (RAL9005)
Printer, Zone LEDs & Aperture	0	No Printer / No Zone LEDs
	1	No Printer / No Zone LEDs, Blank 2nd Aperture
	3	Printer / No Zone LEDs
	4	Printer / 48 Zone LEDs
	5	No Printer / 48 Zone LEDs
	6	No Printer / 96 Zone LEDs
	7	No Printer / 144 Zone LEDs
Optional Peripheral Cards	a	16 Channel I/O Panel Module (S772) - FUTURE ENHANCEMENT
	b	8 Channel Relay Panel Module (S791)
	c	8 Channel Conventional Zone Module (S792) - FUTURE ENHANCEMENT
	d	4 Channel NAC Module (S793) - FUTURE ENHANCEMENT

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
FIRE ENGINEERING & INVESTIGATIONS DIVISION
BUILDING MATERIALS LISTING PROGRAM

LISTING SERVICE

LISTING No.:	7165-0410:0506
PARENT LISTING No.:	7165-2298:0500
CATEGORY:	7165 - FIRE ALARM CONTROL UNIT (COMMERCIAL)
LISTEE:	Hochiki America Corporation 7051 Village Drive, Ste. 100, Buena Park, CA, 90621 Contact: Hem, Ravi (800) 403-7029 Email: rhem@hochiki.com
DESIGN:	Model “L@titude” control unit, Model(s) LA followed by 1, 2, 3, 4, 7, 8, 9 or A, followed by 0, 1, 2 or 3, followed by 0, 1, 2 or 3, followed by 00 or H, I, J, or K, followed by 1 through 8, followed by 1, 4 or 6, followed by 0, 1, 3, 4, 5, 6 or 7, and may be optionally followed by 0 and 1 through 8. Analog addressable fire alarm control unit. Local, automatic, manual, auxiliary, remote station, central station, proprietary, waterflow and sprinkler supervisory service. Refer to listee's data sheet for additional detailed product description and operational considerations. System components: S406; Power Supply S408; Power Supply S560; 16 Channel I/O Module S723; Network Module S758; Dual Loop Panel Module S769; System A Panel Module S770; System B Panel Module S771; Zone LED Module S787; Vision Network Annunciator S788; Media Gateway Panel Module
RATING:	120/240 VAC
INSTALLATION:	In accordance with listee's printed installation instructions, NFPA 72, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.
MARKING:	Listee's name, model/catalog number, electrical rating, and UL label.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
FIRE ENGINEERING & INVESTIGATIONS DIVISION
BUILDING MATERIALS LISTING PROGRAM

LISTING SERVICE

APPROVAL:	Listed as fire alarm control units suitable for use with separately listed compatible initiating and indicating devices. These control units can generate a distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 2016 Edition. This control unit meets the requirements of UL-864, 10th Edition Standard. Refer to manufacturer's Installation Manual for details.
NOTES:	For Fire Alarm Verification Feature (delay of fire alarm signal), the maximum Retard/Reset/Restart period shall not exceed 30 seconds.

This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test resultsand/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria.Refer to listee's data sheet, installation instructions and/or other suitable information sources.

Date Issued: 07/21/2025

Listing Expires: 06/30/2026

Authorized By: **Michael Huang** , Program Coordinator
Fire Engineering & Investigations Division

ALO-V ANALOG PHOTOELECTRIC SMOKE DETECTOR

STANDARD FEATURES

- UL 268 7th Edition Listed
- Designed to resist unwanted alarms from cooking and other nuisance alarm sources
- Advanced multi-criteria smoke detection
- Optical particulate identification
- Early fire smoke detection
- 360° view of detector status LED
- Programmable non-polling LED
- Vandal resistant security locking feature

PRODUCT LISTINGS

APPROVED
455802

California State Fire Marshal
7272-0410:0510

APPLICATION

The ALO-V (UL 268 7th edition listed) is a reliable, high quality multi-criteria Photoelectric Smoke Detector. It can be used in all open areas where Photoelectric Smoke Detectors are required. This detector is also suitable for monitoring smoke in HVAC ducts. The newly developed “multi-spectrum smoke categorization technology” detects smoldering and flaming fires fueled by traditional materials and polyurethane while reducing nuisance alarms.

The ASB7, ASBL7, SCI-B47, SCI-B67, YBN-NSA-47, and HSB-NSA-67 bases are compatible with the ALO-V.

OPERATION

The construction of the new chamber enhances the smoke entry for early fire smoke detection. The detection chamber utilizes light from IR and Blue LED sources. In the event of fire, particles of smoke enter the chamber and scatter light in proportion to the smoke density, resulting in an increased analog smoke measurement. The chamber contains a unique baffle design which allows smoke to enter the chamber while preventing external light from affecting the photodiode detector.

When the smoke density exceeds the programmed sensitivity threshold, the detector transmits an interrupt to the fire alarm control panel indicating a fire condition. The fire alarm control panel automatically adjusts the detector threshold to compensate for contamination.

Up to 127 devices are permitted on each SLC loop. The detector address is set by using a model AP7 hand-held programmer. The detector can mount to a variety of bases including electronics-free 4 and 6 inch bases, relay bases, and sounder bases. The detector’s status LED is viewable on the main face of the detector from all directions.

DETECTOR SPACING

Smoke detector spacing shall be in compliance with NFPA 72. For smooth ceilings and in the absence of specific performance-based design criteria, the distance between smoke detectors shall not exceed a nominal spacing of 30 ft. (9.1m) **or** all points on the ceiling shall have a detector within a distance equal to or less than 0.7 times the nominal 30 ft. (9.1m) spacing. Detectors shall be located within a distance of one-half the nominal spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height. For additional instructions see NFPA 72.

Specifications subject to change without notice.

Hochiki America Corporation
7051 Village Drive, Suite 100, Buena Park, CA 90621-2268
Phone: 714-522-2246 Fax: 714-522-2268
Technical Support: (714) 670-3229 or technicalsupport@hochiki.com

ISO 9001:2015 CERTIFIED

ALO-V ANALOG PHOTOELECTRIC SMOKE DETECTOR

ALO-V Intelligent Multi-Criteria Photoelectric Smoke Detector

Supply Voltage	Operating Voltage Range (High Signal)	24 - 41 VDC
	Signal Voltage (Peak to Peak)[1]	7 - 9 VDC
Current Consumption	Normal Standby Current	340µA
	Alarm Current (LED Off)[2]	340µA
	Alarm Current (LED On)[2]	8.5mA
	Remote Indicator Current[3]	9.2mA
	Polling Current[4]	6.75mA
Smoke Density Range	1.40 – 3.30%/ft @0 - 300 FPM Open Area	
	1.40 – 2.75%/ft @300 FPM In Duct	
	1.40 – 4.00%/ft @1000 FPM In Duct	
	1.40 – 4.00%/ft @2000 FPM In Duct	
	1.40 – 2.37%/ft @3000 FPM In Duct	
	1.40 – 4.00%/ft @4000 FPM In Duct	
Compatible Bases	YBN-NSA-47, HSB-NSA-67, SCI-B47, SCI-B67, ASB7, ASBL7	
Operating Temperature Range	32°F ~ 120°F	
UL Listed Ambient Temperature	32°F ~ 120°F	
Storage Temperature Range	-22F ~ +140F (104F or less at 95%RH, 140F or less at 80%RH)	
Operating Humidity Limit	<95%RH at 104F, <80%RH at 120F	
Dimension	3.94" diameter x 1.68" tall	
Color	Ivory	
Weight	3.4 oz.	

Notes

1. Measured during FACP transmission. 17V Minimum Voltage (Operating Voltage less Signal Voltage).
2. When the total number of active alarm LEDs is limited by the FACP, additional detectors in Alarm will consume the Alarm Current (LED Off) current.
3. RI is current limited by the detector not to exceed 9.2mA. Actual RI current is equal to the load current for loads less than 9.2mA.
4. Polling Current should be added to sum-total Normal Standby Current for each SLC loop. Voltage drop calculations do not need to include Polling Current.

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OFFICE OF THE STATE FIRE MARSHAL
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BUILDING MATERIALS LISTING PROGRAM

LISTING SERVICE

LISTING No.:	7272-0410:0510
CATEGORY:	7272 - SMOKE DETECTOR-SYSTEM TYPE-PHOTOELECTRIC
LISTEE:	Hochiki America Corporation 7051 Village Drive, Ste. 100, Buena Park, CA, 90621 Contact: Hem, Ravi (800) 403-7029 Email: rhem@hochiki.com
DESIGN:	Models ALO-V and ALO-V(WHT) Multi-criteria Photoelectric Smoke Detector. The product is intended to detect an abnormal amount of smoke density, in the area in which they are installed and to signal a Listed compatible fire alarm control panel during this condition. Model ALO-V employs an enclosure that is ivory in color and the Model ALO-V (WHT) employs an enclosure that is white in color. Refer to listee's data sheet for additional detailed product description and operational considerations.
RATING:	17-41 VDC Standby Current: 400 uA Alarm Current: 9.10 mA
INSTALLATION:	In accordance with listee's printed installation instructions, NFPA 72, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
MARKING:	Listee's name, model number, rating, and UL label.

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LISTING SERVICE

APPROVAL:	Listed as photoelectric smoke detector for use with listee's separately listed compatible detector bases and listee's separately listed compatible fire alarm control units. Acceptable for duct application with air velocities from 0-4000 ft/min. Refer to listee's Installation Instruction Manual for details. Models complies with the applicable requirements in UL 268, 7th Edition and UL 268A, 4th Edition. Compatible Detector Bases: Model ASBL7 (CSFM Listing No. 7300-0410:0210) Models YBN-NSA-47, HSB-NSA-67 (CSFM Listing No. 7300-0410:0132) Model ASB7 (CSFM Listing No. 7300-0410:0161) Models SCI-B47, SCI-B67 (CSFM Listing No. 7300-0410:0186) Compatible Fire Alarm Control Unit: Model L@titude Fire Alarm Control Unit UL 1204 (CSFM Listing No. 7165-0410:0506) Model FireNet Plus 1127 Series (CSFM Listing No. 7165-0410:0180)
NOTES:	

8-11-23 VWW

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Date Issued: 05/12/2025

Listing Expires: 06/30/2026

Authorized By: **Michael Huang**, Program Coordinator
Fire Engineering & Investigations Division

ANALOG SENSOR BASES

YBN-NSA-47

HSB-NSA-67

APPLICATION

The HOCHIKI America YBN-NSA-47 and the HSB-NSA -67 mounting bases are electronics free and contain a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can only be removed using a small diameter screw driver.

OPERATION

The YBN-NSA-47 and HSB-NSA-67 are designed specifically for use with the Hochiki NS Analog models ALO-V, ACA-V, ACD-V, ACC-V, ATJ-EA, ATG-EA, ALN-V, ALK-D, ALK-V, ALG-V, and AIE-EA.

The YBN-NSA-47 and HSB-NSA-67 common mounting bases allows for complete compatibility for all of the Hochiki NS Series Analog sensors. The bases are lightweight and very thin, providing a low profile once installed. The solder-less screw terminals enable quick and easy wiring connections.

STANDARD FEATURES

- UL Listed
- Designed for use with all NS analog sensors
- Available in 4 and 6 inch models
- Contains a security locking tab for tamper protection

SPECIFICATIONS

Security Feature	Plastic Tamper-lock
Color	Bone PC / ABS Blend
Dimensions	HSB-NSA-67: 6 inches YBN-NSA-47: 4 inches
Mounting Box	HSB-NSA-67: 3” & 4” Octagon & Square YBN-NSA-47: 3” Octagon
Compatible Detectors	ALO-V, ACA-V, ACD-V, ACC-V, ATJ-EA, ATG-EA, ALN-V, ALK-D, ALK-V, ALG-V, and AIE-EA

PRODUCT LISTINGS

UL CERTIFIED SAFETY SIGNALING US S1383 — FM APPROVED 455802 — California State Fire Marshal 7490-0410:0132

Specifications subject to change without notice.

Continued on back.

Hochiki America Corporation
7051 Village Drive, Suite 100, Buena Park, CA 90621-2268
Phone: 714-522-2246 Fax: 714-522-2268
Technical Support: 714-670-3229 or technicalsupport@hochiki.com

ISO 9001:2015 CERTIFIED — Assembled in the USA

ANALOG SENSOR BASES

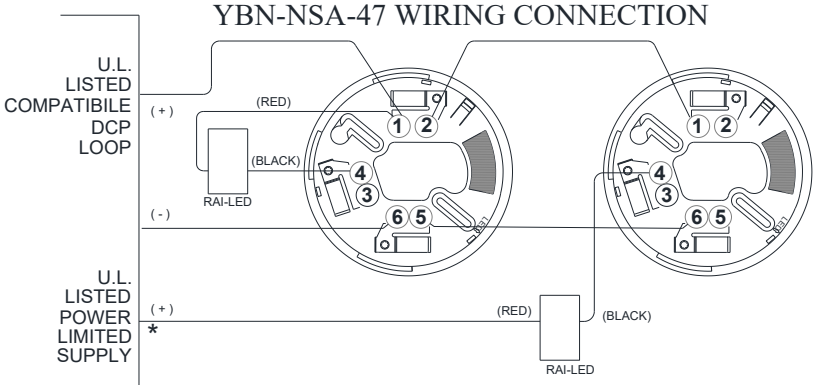
ENGINEERING SPECIFICATIONS

The YBN-NSA-47 and HSB-NSA-67 are designed specifically for use with the Hochiki NS Analog models ALO-V, ACA-V, ACD-V, ACC-V, ATJ-EA, ATG-EA, ALN-V, ALK-D, ALK-V, ALG-V, and AIE-EA.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be optional and can be implemented when required.

TYPICAL WIRING DIAGRAMS

YBN-NSA-47 WIRING CONNECTION

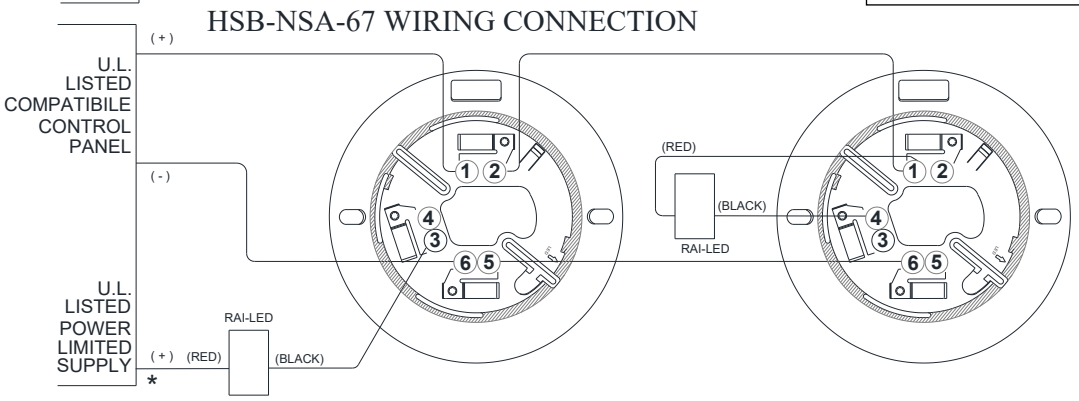


ATTENTION
TOTAL WIRING RESISTANCE
LESS THAN 50Ω (14-18AWG)

ADDRESS DETECTORS PRIOR TO INSTALLATION,
REFER TO TECHNICAL BULLETIN HA-06-433.

REMOVE THE DUST COVER PRIOR TO OPERATION.

HSB-NSA-67 WIRING CONNECTION



* OPTIONAL WIRING CONFIGURATIONS FOR REMOTE ALARM INDICATOR LED, 9.6mA max output

*- OPTIONAL WIRING CONFIGURATIONS FOR REMOTE OUTPUT

NOTE: Fire alarm control panel compatibility is required for DCP products.
State-of-the-art communications protocol, DCP, allows system components (DCP sensors ALO-V, ACA-V, ACD-V, ACC-V, ATJ-EA, ATG-EA, ALN-V, ALK-D, ALK-V, ALG-V, and AIE-EA bases and modules), to be used concurrently in a system's signaling line circuit.

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BUILDING MATERIALS LISTING PROGRAM

LISTING SERVICE

LISTING No.:	7300-0410:0132
CATEGORY:	7300 - FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES
LISTEE:	Hochiki America Corporation 7051 Village Drive, Ste. 100, Buena Park, CA, 90621 Contact: Hem, Ravi (800) 403-7029 Email: rhem@hochiki.com
DESIGN:	Detector bases (2 and 4-wire). Unit is intended for use with a separately listed compatible detector head. Refer to listee's data sheet for detailed product description and operational considerations. Models listed below. HA-4W tttHA-4W1 ttHA-4WX ttHA-2 HA-SL tttHA-SR tttHA-SLR ttHA-RA2 HA-NRA2 ttHA-L12R ttHA-2R tttHA-22R HA-L2 tttHA-L2A ttHA-L2R ttHA-L22 HA-L22A ttHA-L22F ttHA-L22R ttHA-L22S HA-LA2 ttHA-LRA ttHA-LRA2 ttHA-LNA2 HA-LNRA2 HS-2 tttHS-2L tttHS-2D tttHS-21 HS-21L ttHS-21D ttHS-22 tttHS-22L HS-22D ttHS-100 ttHS-200D ttHS-220 HS-220L ttHS-220D ttHS-221 ttHS-221L HS-221D ttHS-221X ttHS-221XL ttHS-221XD HS-224 ttHS-224L ttHS-224D ttHS-225 HS-225L ttHS-225D ttHS-2RB ttHS-21RB HS-220RB ttHS-221RB ttHS-224RB ttHS-2RB4 HSB-2 tttHSB-2N ttHSB-12-1 ttHSB-12-1N

	HSB-12-4 ttHSB-12-4N tHSB-21 ttHSB-21N HSB-100 ttHSB-200 ttHSB-200N ttHSB-220 HSB-220N ttHSB-221 ttHSB-221N ttHSB-221S HSB-224 ttHSB-224N ttHSB-225 ttHSB-225N HSC-4R ttHSC-21L ttHSC-220L ttHSC-220R HSC-221L ttHSC-221R ttHSC-224RA tHSC-224L HSC-224R ttHSC-225L ttHSB-DCP-6 tHSB-NSA-6 HSC-4R12 YBA-M2 ttYBA-M21 ttYBA-M22 ttYBA-M220 YBA-M221 ttYBA-M224 ttYBA-M225 ttYBA-M100 YBA-MAP ttYBA-R3 ttYBA-RL/4 ttYBA-RL/4-1 YBA-RL/4-2 tYBA-RL/4-RA tYBC-RL/12 ttYBC-RL/12-1 YBC-RL/12-2 tYBC-RL/12-4 tYBC-RL/4-RA tYBC-RL/2NC YBC-RL/2NBE tYBJ-RL/2ND tYBN-R/2NA tYBN-NSA-4 NS4-100 ttNS4-220 ttNS4-221 ttNS4-224 NS6-100 ttNS6-220 ttNS6-221 ttNS6-224 FFO-4BASEtFFO-6BASEtFFO-SBASE *YBN-NSA-47t*HSB-NSA-67 Models may or may not come with suffix -W.
RATING:	Refer to the detector base's data sheet.
INSTALLATION:	In accordance with listee's printed installation instructions, applicable codes and ordinances, and in a manner acceptable to the authority having jurisdiction.
MARKING:	Listee's name, model number, electrical rating, and UL label.

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APPROVAL:	Listed as bases for use with listee's separately listed compatible smoke and heat detectors. Refer to heat or smoke detector listings for compatibility. Models HA-2R, HA-SLR, HA-LRA2 and HSC Series w/ suffix R are also suitable for releasing device service. Model YBA-R3 is intended for use with thermostat detector only. Models HSC-220R, HSC-221R, HSC-224R, HSC-4R, HSC-4R12, *YBN-NSA-47, and *HSB-NSA-67 complies with the applicable requirements in UL 268, 7th Edition.
NOTES:	Formerly 7300-0410:0100, 0106, 0115, 0124, 0125, 0126, 0130, 0131 & 0133

*Rev. 10-25-23
DAL

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Authorized By: **Michael Huang**, Program Coordinator
Fire Engineering & Investigations Division