

## Electrical Signaling

Electrical protective signaling systems are configurations of components used to produce alarm signals indicative of fire, smoke, sprinkler waterflow or other emergency and to produce supervisory signals indicative of conditions needing attention with respect to protection equipment or watch service. System configurations are classified according to where and how the signals are received. The categories are commonly designated as local, municipal, remote station, proprietary, emergency voice/alarm communication, emergency communication, and central station. Auxiliary systems are either local or proprietary systems interconnected with a municipal system.

This category presents the major system component categories and the integrated system configurations. The selection of components to form a hybrid system should be made only by those skilled in system design. Also, the suitability of any system application should be judged on the basis of the hazard(s) being protected.

## Local Protective Signaling

Local systems produce alarm and/or supervisory signals within the protected property, which may not be constantly attended. The systems are electrically supervised, include a secondary power supply having sufficient capacity to operate the system for 24 hours under maximum normal load and often are primarily for the purpose of providing occupant evacuation signals. Some local systems also provide for signaling to a constantly attended remote location.

The heart of a signaling system consists of a control unit to which are connected the initiating and signal indicating circuits. The control unit is usually in a separate enclosure, provides power to its external circuits, and often is of modular design to enable flexibility in obtaining multiple functions. In a coded signaling system, transmitters may be either separate from or integral to a control; they transmit to the control or from a control to remote receiving equipment. The equipment listed below, in conjunction with peripheral devices, may be used to form a complete system or a portion of a multizone system.

## Model Oasis analog addressable

### Model Oasis analog addressable fire alarm control panel with Software UL-1204-01 or greater

Models	Description
Oasis	Fire alarm Control; With an 5.25A Power Supply (S406): 120/240VAC input power, 0.915A AC (240VAC), 1.83A AC (120V) input power; With an 10.25A Power Supply (S408): 120/240VAC input power, 1.25A AC (240VAC), 2.5A AC (120V) input power; Maximum Standby Current: S406 PSU - 1.9A; S408 PSU - 3.4A; Maximum Alarm Current: S406 PSU - 4A; S408 PSU - 8A

### Oasis Basic System Components and Modules are:

Main Back Board (S722)	Minimum functions: Provides slots for required and optional panel modules, as well as for field wiring and power supply terminations. Minimum functions of the Oasis Fire Alarm Control Panel are provided when Slot A of the Main Back Board contains System A Panel Module, Slot B contains System B Panel Module, and Slots C, D, E, or F contain a Dual Loop Panel Module. Two addressable loops are provided by the Dual Loop Panel Module in this configuration. Modules can be added, configured, and replaced without altering field wiring connections. This modularity allows each Oasis Fire Alarm Control Panel to be customized for a specific operation. Required modules for minimum operation of an addressable Oasis Fire Alarm Control Panel include System A Panel Module (S769); System B Panel Module (S770), Dual Loop Panel Module (S758); Other functions: - NAC terminals 1 to 4 provide 24 VDC @ 2.5 A. In the default state, these circuits can be connected as four Class B supervised outputs. However, they can be configured as two Class A or two Class B and one Class A output. - 5 configurable Relay outputs (Trouble, Fire, Supervisory and two programmable by default)
System A Panel Module (S769)	Its functions: - NAC 1 and NAC 2 Class A or two Class B. Default Class B. - NAC 3 and NAC 4 Class A or two Class B. Default Class B. - 2.5A per Channel (Max 5A combined) - PSU monitor Battery disconnected, power failure, battery low, PSU ground trouble, charger trouble. - Power fail input A connection of - Ground trouble
	Its functions: - AUX 24 Output 1 24V DC output @ 900mA - AUX 24 Output 2 24V DC output @ 900mA - Fire Routing Output 2 0V output in standby, switches to 24V when activated, requires End-of-Line (EOL) diode - Fire Routing Input Supervised input, requires 3.3K Ohm EOL resistor - Trouble Routing Output 24V output in standby, switches to 0V when activated, requires 3.3K Ohm EOL resistor

System B Panel Module (S770)	<ul style="list-style-type: none"> <li>- Trouble Routing Input Supervised input, requires 3.3K Ohm EOL resistor</li> <li>- Prog Routing Output Volt-free output measures 3.3K Ohms in standby, switches to 680 Ohms when activated</li> <li>- Prog Routing Input 1 Supervised input, requires 3.3K Ohm EOL resistor</li> <li>- Prog Routing Input 2 Supervised input, requires 3.3K Ohm EOL resistor</li> <li>- Fire Relay Volt-free contact rated at 30V DC, 1A, Resistive</li> <li>- Trouble Relay Volt-free contact rated at 30V DC, 1A, Resistive</li> <li>- Superv Relay Volt-free contact rated at 30V DC, 1A, Resistive</li> <li>- Programmable Relay 1 Volt-free contact rated at 30V DC, 1A, Resistive</li> <li>- Programmable Relay 2 Volt-free contact rated at 30V DC, 1A, Resistive</li> </ul>
LCD Main Processor Board (S721)	Provides the touch display (Full color 800 x 480 LCD with resistive touch screen and automatic backlight dimming), central processing, and memory for the Oasis Fire Alarm Control Panel. The LCD Main Processor Board mounts to the fascia of the Oasis Fire Alarm Control Panel and includes hardware features such as connectors, ports, switches, LED indicators, and the internal buzzer
Dual Loop Panel Module (S758)	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. The Dual Loop Panel Modules can be connected in any available slot (C-K) on the Main Back Board to provide this operating function SLC Loops rating (in/out)-- 36 VDC@400mA
Housings	4 Slot Standard Cabinet - 420mm (W) x 590mm (H) x 153mm (D), approximately 16.5in (W) x 23.2in (H) x 6in (D) 8 Slot Standard Cabinet - 540mm (W) x 720mm (H) x 160mm (D), approximately 21.3in (W) x 28.3in (H) x 6.3in
Standby Batteries with S406 PSU	Two 12 VDC, rechargeable, valve regulated, lead-acid, 60 AH Maximum
Standby Batteries with S408 PSU	Two 12 VDC, rechargeable, valve regulated, lead-acid, 100 AH maximum
Optional Modules below:	
Network Module (S723)	Provides supervised, enhanced high-speed communication for networking up to a maximum of 128 fire control panels. The network provided by this module can support combinations of Oasis Fire Alarm Control Panels and Oasis Vision Annunciators.
Printer (S768)	Printer is an optional feature for printing fire system events as they occur
Zone LED Module (S771)	The Zone LED module contains 48 LEDs and is connected to the LCD Main Processor Board of the Oasis Fire Alarm Control Panel. A maximum of three Zone LED modules can be connected to provide the fascia with 144 Zone LED indicators
16 Channel I/O Interface Card (S560)	Provides additional input and output capabilities to the Oasis Fire Alarm Control Panel for life safety control signals. Inputs and outputs can be selected for up to 16 individual channels. All inputs and outputs 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.
Vision Unit (S787)	The Oasis Network Vision Annunciator is a display and control unit which duplicates the indications and primary controls of Oasis Fire Alarm Control Panels connected to the same network. The Annunciator connects via the network interface, and any number of repeaters can be connected up to the maximum number of nodes allowed by the network. Comes in the following configurations: OVC00NC-10 (Red), OVC00NC-40 (Gray), OVC00NC-60 (Black)
Media Gateway™ Panel Module (S788)	Provides supervised connectivity to a remote monitoring center via Sur-Gard Fibro or dial-up. SIA is the recommended format for usage, but Contact ID is also supported. Transmission can be made through one or two telephone lines, and/or IP through Ethernet
8 Channel Relay Panel Module (S791)	The 8 Channel Relay Panel Modules have 8 voltage-free, unsupervised changeover relay contacts, each of which can be individually programmed
Extension Board (S786)	Provides connections for 4 additional modules to be used with the Oasis Fire Alarm Control Panel. In this type of configuration, the extension board is installed to the right of the Main Back Board on the back plate. Can only be used with the Eight slot cabinet models
NAC 4 Channel Panel Module	Class A Circuit (1 and 2 or 3 and 4); Class B (separate); 2.5A per channel (maximum 5A combined)

## Compatible SLC Devices are:

<i>Description</i>	<i>Hochiki part #</i>	<i>Avenger part #</i>
Ionization Smoke Detector	AIE-EA	
Photoelectric Smoke Detector	ALG-V	
Heat Detector	ATG-EA	AS2003-00
Heat Detector, Fixed Temp, Rate of Rise	ATJ-EA	AS2010-00
Base, 4"	YBN-NSA-4	AS7001-00
Short Circuit Isolator Base 4"	SCI-B4	AS7003-00
Base, 6"	HSB-NSA-6	AS7002-00
Short Circuit Isolator Base 6"	SCI-B6	AS7004-00
Dual Input Monitor Module	DCP-DIMM	AS6007-00
Fast Response Contact Module w/ Pigtails	DCP-FRCME-P	AS6013-00
Fast Response Contact Module w/ screw terminals	FRCME-S	AS6002-00
Fast Response Contact Module, 4" sq box.	FRCME-4	AS6013-00
Fast Response Contact Module w/ Terminals, Miniature	DCP-FRCME-M	AS6024-10
Analog Addressable Duct Detector	DH-98A	AS5001-00
Analog Addressable Duct Detector w/ relay	DH-98AR	AS5002-00
Short Circuit Isolator	DCP-SCI	AS6003-00
Dual Relay Module	R2M	AS6005-00
Analog Sounder Base, Aux Power	ASB	AS7008-00
Analog Sounder Base, Low Frequency, Aux Power	ASBL	AS7005-00
Supervised Output Module	SOM	AS6004-00
Conventional Zone Module	DCP-CZM	AS6011-00
Fast Response Contact Module, Class A	DCP-FRCMA	AS6020-00
Fast Response Contact Module, Class A w/ Short Circuit Isolators	DCP-FRCMA-I	AS6021-00
Fast Response Contact Module, Class A w/ Pigtails	FRCMA-P	AS6022-00
Fast Response Contact Module, Class A w/ Pigtails & Short Circuit Isolators	FRCMA-PI	AS6023-00
Dual Relay Module, 1 Amp	DCP-R2ML	AS6052-00
Dual Relay Module, 8 Amp	DCP-R2MH	AS6054-00
Dual Relay Module, 1 Amp w/ Short Circuit Isolators	DCP-R2ML-I	AS6053-00
Dual Relay Module, 8 Amp w/ Short Circuit Isolators	DCP-R2MH-I	AS6035-00
Supervised Output Module, Class A	DCP-SOM-A	AS6040-00
Supervised Output Module, Class A w/ Short Circuit Isolators	DCP-SOM-AI	AS6041-00
Supervised Output Module Release w/ Disable Keyswitch	DCP-SOM-R	AS6043-00
Addressable Manual Pull Station, Single Action w/ Cat 30 Key	DCP-AMS-KL	AS3032-10
Addressable Manual Pull Station, Single Action w/ Hex key	DCP-AMS	AS3031-10
Addressable Manual Pull Station, Dual Action w/ Cat 30 Key	DCP-AMS-KL-LP	AS3029-10
Addressable Manual Pull Station, Dual Action w/ Hex Key	DCP-AMS-LP	AS3030-10
Pull Station, Addressable, Single-Action	SG-32BK2-VG-B	AS3001-00
Pull Station, Addressable, Dual-Action	SG-32BK1-VG-B	AS3002-00

Analog Photoelectric Smoke Sensor	ALK-V	AS2005-00
Multi-Sensor	ACD-V	AS2014-00
Multi-Criteria Heat, Photo Sensor	ACC-V	AS2012-00
Multi-Criteria Heat, Photo Sensor	ACA-V	AS2008-00
Smoke Detector, Duct, Photoelectric	ALG-DH	AS2004-00
Smoke Detector, Duct, ALK	DH-99-A	AS5013-00
Smoke Detector, Duct, Relays, ALK	DH-99-AR	AS5014-00
Photoelectric Smoke Detector	ALN-V	AS2011-00
Remote Test Station for Duct Detectors – Alarm LED	MS-RA	AS5020-00
Remote Test Station for Duct Detectors – Alarm LED w/ Reset Button	MS-RA/R	AS5021-00
Remote Test Station for Duct Detectors – Alarm LED w/ Reset Key Switch	MS-KA/R	AS5023-00

(See also CENTRAL STATION SIGNALING SYSTEMS.)

<b>Company Name:</b>	Avenger Systems, LLC
<b>Company Address:</b>	11586 Zagarolo Lane, Las Vegas, Nevada 89141, USA
<b>Company Website:</b>	<a href="http://www.avengersystems.com">http://www.avengersystems.com</a>
<b>New/Updated Product Listing:</b>	Yes
<b>Listing Country:</b>	United States of America
<b>Certification Type:</b>	FM Approved
<b>Class of Work:</b>	3010-Fire Alarm Systems