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Submittal Guide

EST3

Emergency Communications Platform

Life Safety and Incident Management Solutions

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Project: _____

Contact: _____

Date: _____

Thank you for giving us the opportunity to provide this submittal for an EST3 Life Safety Control Platform. EST3 represents some of the most technologically advanced innovations the life safety industry has ever seen – innovations that will make your building and its occupants safe and secure.

This guide provides a summary of these innovations and includes a presentation of related system components and devices. Products we are submitting for your consideration are indicated by a checkmark in the margins of the pages that follow.

More detailed information can be found in individual data sheets dedicated to each product. All these sheets, along with guide specifications and other useful product information, are available electronically at www.edwardsfiresafety.com.

Thank you for giving us the opportunity to provide this submittal. Please do not hesitate to contact us should you require further information.

_____

Submittal Guide

EST3 Emergency Communications Platform

Life Safety and Incident Management Solutions

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Intelligent control for large and medium sized applications

8985 Town Center Pkwy, Bradenton, FL 34202

85010-0099

Wiring diagrams provided herein are for information and reference only and are not to be used for installation purposes. Consult the appropriate installation documents for wiring and configuration details.

This guidebook is for information only and is not intended as a substitute for verbatim legislated requirements. For authoritative specifications regarding the application of life safety, security, and access control systems, consult current editions of applicable codes and standards. For authoritative interpretation of those codes and standards, consult your local authority having jurisdiction.

While every effort has been made to ensure the accuracy and completeness of this guidebook, the authors and publishers assume no responsibility for errors, inaccuracies, omissions, or any inconsistencies herein.

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EST3: Innovation geared to your needs.

A lot can be said about EST3, but when it comes to performance, price, installation ease and flexibility, this remarkable life safety system speaks for itself.

For example, a glance at the contents on this page reveals just how few components are needed to configure even the most sophisticated and elaborate life safety, security, and access control network. EST3's modular design means you only get the features you need, and its simple configuration ensures trouble-free installation every time.

And when it comes to connected devices, nothing beats EST3. In fact, the Signature Series line of intelligent analog detectors has been singled out by Underwriters Laboratories as the first such devices on the market that do not require a calibration sensitivity test in order to comply with NFPA72.

Quality and reliability are built into every EST3 component, from the simplest control switch to the system's main processor. This is not just a corporate mandate: it's a proven fact supported by our commitment to ISO 9000 international quality standards. EST3 is certified under ISO, for manufacturing. This ensures that your North American built and designed EST3 network will provide extremely reliable service from the day it's brought online and well into the future.


See what's
possible now.
EDWARDS
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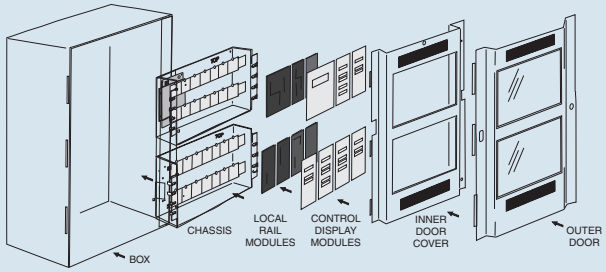
Detection & Alarm Since 1872.
Mass Notification • Smoke Detection • Graphical Monitoring and Control • Instant Messaging • Aspirating Smoke Detectors • Industrial Signaling • Voice Evacuation • Smoke Control • Fire Suppression • Intercom • Timekeeping • CO Detection • Heat Detection • Audible & Visible Signaling • Voicemail Messaging • Duct Smoke Detection • Giant Voice • Electronic Signage • Area of Rescue

EST3 Network

EST3 is a modular system uniquely designed to easily meet the needs of standalone single node systems or multi-node networks. Fire alarm, security, and audio functions use the same fundamental components, simplifying system layouts. A powerful System Definition Utility program helps define system operations in a fraction of the time required by previous methods. Virtually all EST3 operating features are software controlled. This gives EST3 great site flexibility and ensures operational changes and upgrades will be possible years after the initial installation.

Highly Flexible Applications

EST3 is a superbly adaptable life safety system, lending itself to medium and large building applications. Cabinets are available with room for system batteries up to 65 Amp hours. With EST3, one 24-volt battery supports up to four power supplies. Each supply will support up to 7 Amp load. With four supplies, 28 Amps of current is available — all backed up by a common battery.



System components arrange in layers starting with the wallbox system and ending with inner and outer doors.

Fully-listed User Interfaces

The user interface layer is made up of a Liquid Crystal Display module and a system of generic modules designed to maximize design flexibility for custom systems.

In addition to front panel control and annunciation, EST3's powerful FireWorks color graphics package provides desktop control and messaging in the familiar Windows environment. Fireworks' unique four-quadrant display gives the user access to all EST3 functions including fire alarm, security, and CCTV – in one simple and intuitive interface. And because FireWorks is an integral part of the EST3 network, it is listed by UL not only under fire alarm standards, but under local burglar, and proprietary monitoring standards as well.

Powerful Networking

EST3 operates on a multi priority peer-to-peer network. The multi-priority token ring gives EST3 exceptional response. Response time for all functions, including fire and security, is less than three seconds across the network regardless of the total number of nodes. EST3 token ring network configuration also permits vast distances between nodes. The allowable distance between three nodes on #18AWG (0.75mm^2) is 5,000ft (1,523m). With 64 nodes supported on a network, the total network length is in excess of 300,000 ft (91,400m), or nearly 60 miles! A single node supports up to 10 Signature loop controllers with 250 devices per loop, (2,500 points total per node).

EST3 also makes field wiring easy with building wiring terminations that use removable terminal blocks on local rail modules.

Eight-channel Audio

EST3 audio design provides the emergency user with a communication package that minimizes switch selections. This facilitates simple, accurate and fast evacuation control announcements. EST3 provides simple paging controls. Pressing All Call selects all paging zones for message delivery. Pressing Page To Evacuation automatically selects all areas in evacuation. Similarly, the user can Page To Alert. Zoned paging requires the user to simply select zone paging switches.

Taking full advantage of digital technology, up to eight channels of audio sources can be sent over a single twisted pair of wires between nodes. Coupling the inherent reliability and performance of zoned amplifiers with EST3 simplified user interfaces makes audio system design and operation both easy and dependable.

EST3 is the right choice for any medium to large application. Its multiplex functions are second to none in the industry today.

Mass Notification

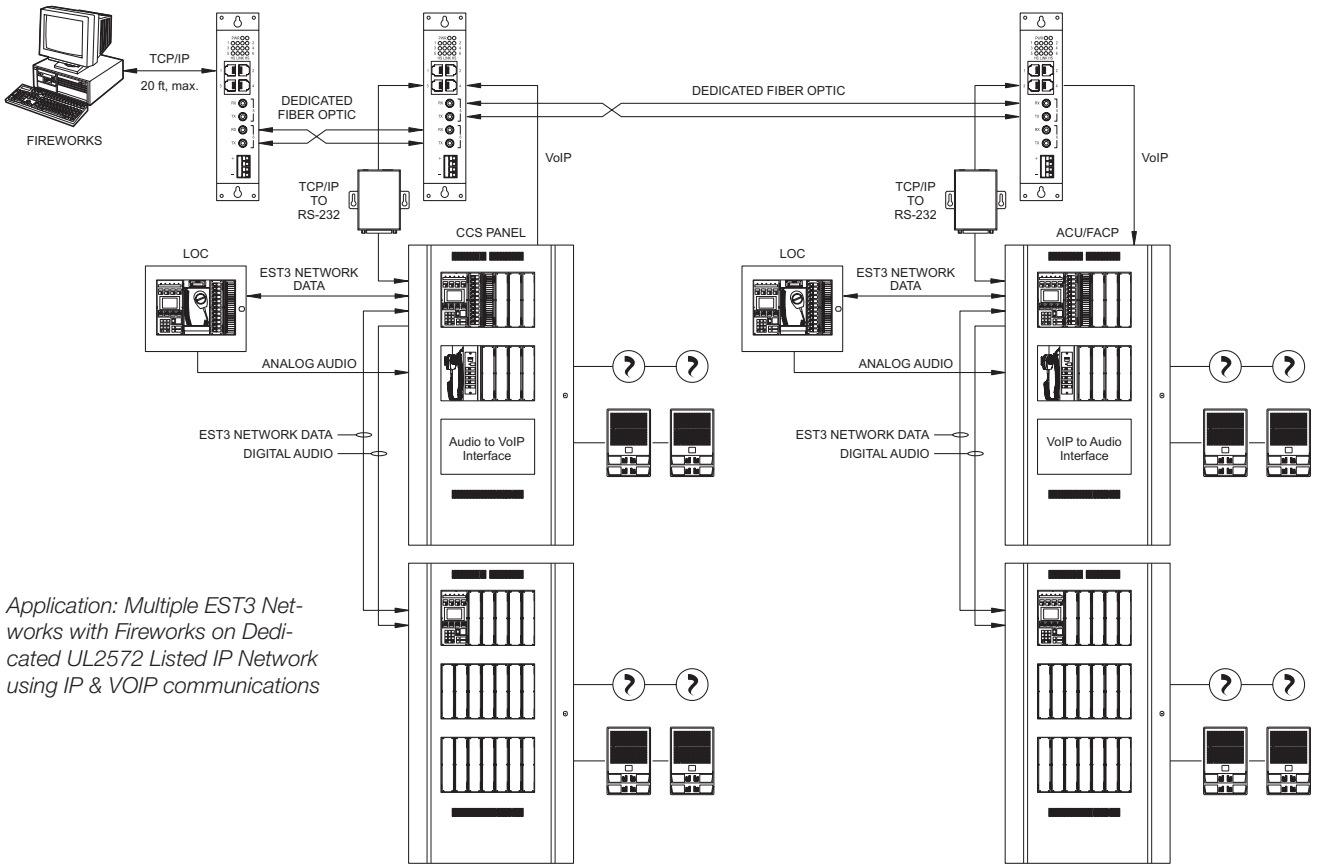
UL 2572 Listed Mass Notification and UL 864 Listed Fire Alarm

Fire alarm and mass notification: no matter what the configuration, EST3 provides a total life safety system. With fire alarm providing the communications backbone, EST3 is UL2572 Listed for mass notification operations, while retaining its UL864 listing as a fire alarm control system. This unique standing ensures that mass notification functions are in perfect harmony with other life safety operations.

EST3 ensures that mass notification retains priority over fire alarm events and that mass motification will not affect the network response speed of fire reporting mandated by codes and standards.

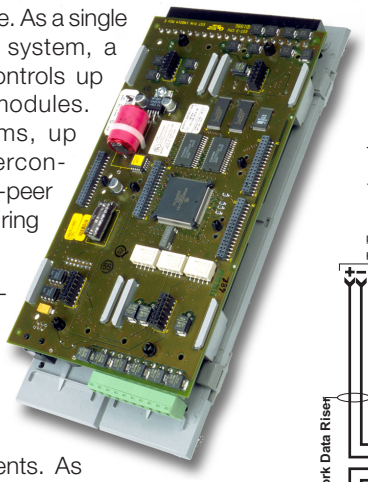
The benefits of this method are many. Mass notification now benefits from the survivability and reliability mandated by the fire codes and life safety standards. Costs are reduced because system resources are shared. Installation of a single unified system is vastly more efficient than installing multiple interconnected systems. There is no finger pointing, patchwork protocols or gateways that combine one system with another. Just the simple elegance of a single system unencumbered by needless redundancy. EST3 achieves true operational unity with single-system responsibility.

See Page 12 for mass notification equipment.



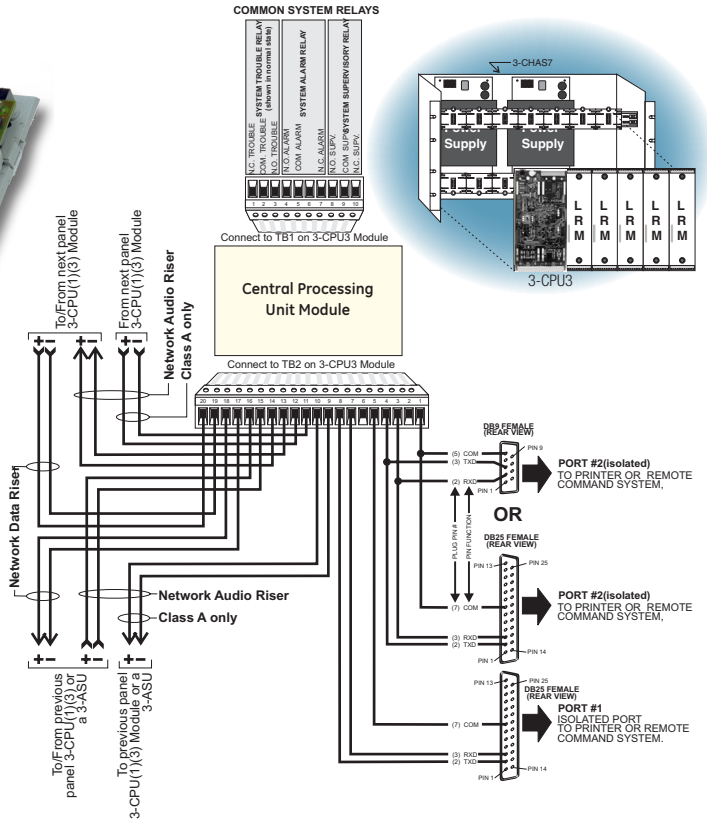
Application: Multiple EST3 Networks with Fireworks on Dedicated UL2572 Listed IP Network using IP & VOIP communications

Central Processor Unit



The central processor unit is the heart of the EST3 network node. As a single node standalone system, a single 3-CPU3 controls up to 19 local rail modules. For larger systems, up to 64 nodes interconnect on a peer-to-peer multi-priority token ring protocol network.

The central processor unit controls all local panel responses to automatic, user initiated, or network reported events. As a network node, it is an equal among peers: there is no master on the network. Multi-priority token ring means that a node with a new alarm has priority on the network. This gives exceptional response times over the network — less than three seconds.



Each central processor unit provides connectors for mounting network, RS-232, and memory expansion cards. Removable terminal blocks on the central processor unit support connection of network and audio data wiring. On-board common relays also terminate at the central processor unit terminals. To aid in troubleshooting and service, status LEDs monitor local rail, network, RS232 and audio data communications.

3-CPU3	Central Processor Unit Module	Data Sheet E85010-0133

Network Communication Card

The Network Communications card mounts to the back of the Central Processor Unit. The 3-RS485A card provides a Class A or Class B circuit for network communications signals and two additional circuits for Class A digitized audio signals. The 3-RS485B card provides a Class B circuit for network communications signals and a second Class B circuit for the digitized audio signals. Network messages received by the Network Communications card are re-transmitted to the next network node.

3-RS485A	Network Communications Card, Class A or Class X.	Data Sheet E85010-0133
3-RS485B	One Class A,X/B network data circuit and one Class B audio data circuit.	Data Sheet E85010-0133

RS-232 Communication Card

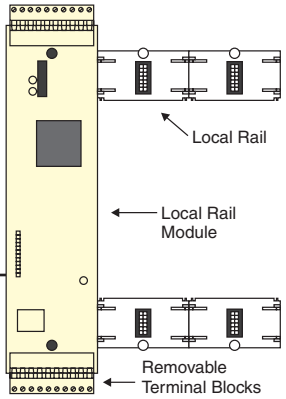
The 3-RS232 Communication Card mounts to the back of the 3-CPU3. The 3-RS232 has two optically-isolated RS-232 ports. The ports support connection of a printer and/or an external command center.

3-RS232	RS-232 Communication Card	Data Sheet E85010-0133

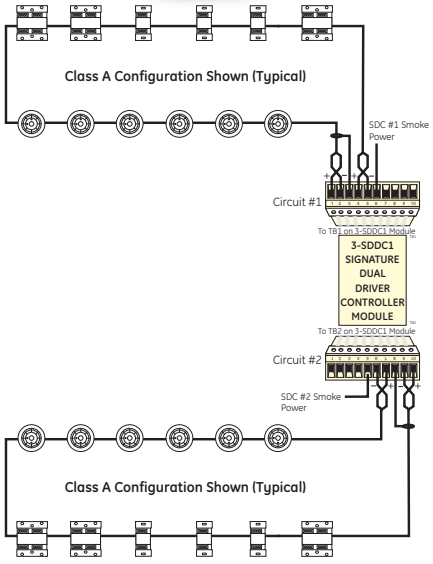
SUBMIT

Local Rail Modules

Local Rail Modules (LRMs) conveniently mount to the EST3 inner chassis, away from high voltages. Each module features removable terminal blocks and simple plug-in connectors. LRMs include Zoned Amplifiers, Signature Loop Controllers, Conventional Hardwired Modules, Off Premise Signaling Modules, as well as the main CPU module. Control Display Modules can be mounted on any LRM.



Signature Driver Controller Modules



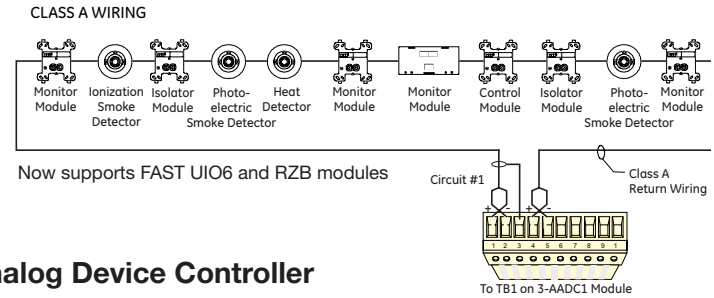
The 3-SSDC1 and 3-SDDC1 Signature Driver Controller modules provide an intelligent interface between the 3-CPU(1.3) module and Signature Series devices. Each module contains its own microprocessor used to coordinate, process and interpret information received from and sent to Signature devices. Power and communications is received directly from the control panel rail assembly. The 3-SSDC1 Single Signature Driver Controller module supports one Signature Data circuit, while the 3-SDDC1 Signature Dual Driver Controller module supports two Signature circuits. Both modules occupy one rail space in the fire alarm control cabinet and provide removable field wiring terminals to aid installation.

Innovative design gives the 3-SSDC1/3-SDDC1 and Signature devices truly “distributed intelligence”. Signature detectors and modules have their own on-board microprocessor communicating with the loop controller in a fully digital communication format. This increases the accuracy of the information coming to and from the loop controller by reducing the effects of capacitance and noise.

With decentralized intelligence much of the decision making moves from the loop controller to the devices. Advanced fire detection algorithms processed within the Signature devices effectively end unwanted alarms. Environmental compensation and multiple sensing element decision making operations are resident in the devices. Intelligent devices allow the Signature Controllers to execute communication and system functions with greater speed and low baud rates, increasing the accuracy of information transmitted between the loop controller and devices.

To enhance survivability of the system the 3-SSDC1/3-SDDC1 supports a standalone mode for Signature devices. Two catastrophic failure modes are supported. If the 3-CPU(1/3) fails, the loop controller will continue to poll its devices. If an alarm is detected it will be sent on the local rail communication bus and received by other local rail modules. A common alarm condition throughout the panel will result. If the local rail module (3-SSDC1/3-SDDC1) fails, and a device (smoke or module) detects an alarm, specialized circuitry will make the node aware of the alarm condition. The 3-CPU(1/3) will communicate the alarm condition to the rest of the network. Having multiple redundant modes is paramount in a life safety system.

☐	3-SSDC1	Single Signature Driver Controller, c/w one 3-SDC1	Data Sheet E85010-0129
☐	3-SDDC1	Dual Signature Driver Controller, c/w two 3-SDC1s	Data Sheet E85010-0129
☐	3-SDC1	Signature Device Card - upgrades a 3-SSDC1 to a 3-SDDC1	Data Sheet E85010-0129

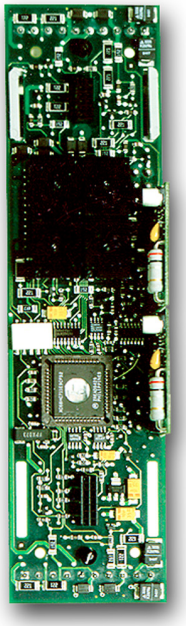


Addressable Analog Device Controller

The 3-AADC1 Addressable Analog Circuit Module is a local rail module used on the EST3 system. The module requires one connection on the rail chassis. The module can support 99 addressable analog sensors and 99 addressable modules. The controller also features a hinged front panel for a Control Display Module, available in a variety of LED and/or switch configurations.

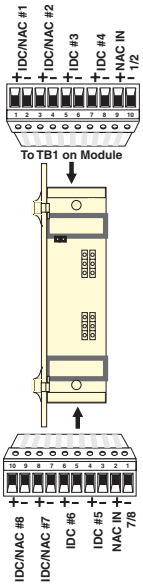
3-AADC1	Addressable Analog Module	Data Sheet E85010-0128

Initiating Device Circuit (Hardwired) Module



The 3-IDC8/4 is ideal for retrofit projects where existing wiring, smoke detectors and signals may not need replacing.

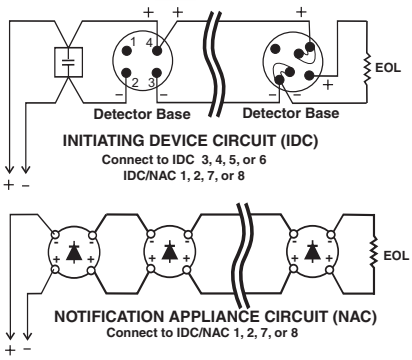
Flexibility built right into the IDC module allows connection of normally open contact devices, and traditional 2-wire smoke detectors.



The 3-IDC8/4 also configures for use with N.O. contacts and supports supervised supervisory and monitor circuits with latching or non-latching operations. When the monitor operation is used with the non-latching function, the circuit serves as a supervised event follower. This efficiently covers critical fan and damper operations. Circuits can annunciate on the 3-LCD, control display modules, or at any other display device on the network.

All circuits may be programmed for non-verified or verified smoke operation. Ranges include open circuit, shorted condition, and high and low impedance (relative to the main impedance setting). This allows the use of various detectors of similar impedance, as well as 4-state European alarm circuit operation.

Four of the eight 3-IDC8/4 circuits are convertible to Class B notification appliance circuits. The circuits employ traditional reversing polarity operation for polarized bells, horns, and strobes.

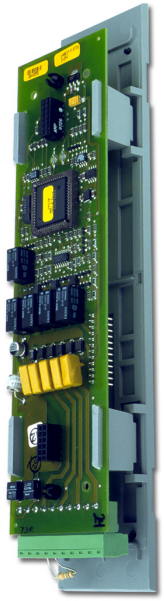


Notification appliance circuits are arranged in pairs. Each pair distributes 3.5 Amps at 24 Vdc from the local rail or a single riser. Riser sources supported include 24 V @ 3.5 A, which can be pulsed (temporal pattern) for audible signals, or up to 70 Vrms @ 100W audio source for speakers. For Regulated signals, the IDC supports one NAC pair to distribute up to 1 Amp from the 3-PPS primary power supply through the local rail.

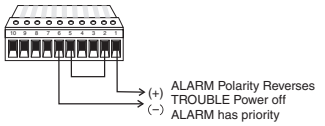
3-IDC8/4	Initiating Device Circuit Module	Data Sheet E85010-0061

Off Premise Signaling Module

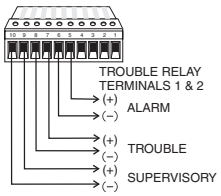
The 3-OPS supports three separate off premises signaling modes of operation:



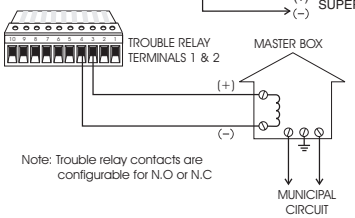
'Old' style reverse polarity operation has only a single reversed polarity output. In the normal state the output is 24 Vdc current limited to 6 mA. In the alarm state the polarity reverses. Should the EST3 panel go into trouble from the normal state, the voltage is removed from the output terminals of the 3-OPS. This change will be detected by the central station as a trouble. Alarm always has priority over trouble. Trouble relay contacts must be configured for normally-closed operation.



'New' style reverse polarity operation allows the 3-OPS to output three independent reversing polarity signals. These are alarm, supervisory, and trouble. In each case an active condition causes the terminal output voltage to reverse. Should the central station detect a loss of voltage, the condition is due to line failure. When configured for "new" style operation, a set of trouble contacts is available.

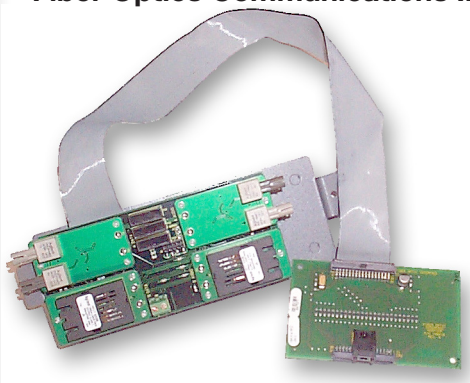


City Tie connection. In this configuration the 3-OPS has terminals for a local energy master fire alarm box. The module operates into a 14 ohm coil and supervises the city tie connection for open conditions. Trouble relay contacts are configurable for normally-open or normally-closed.



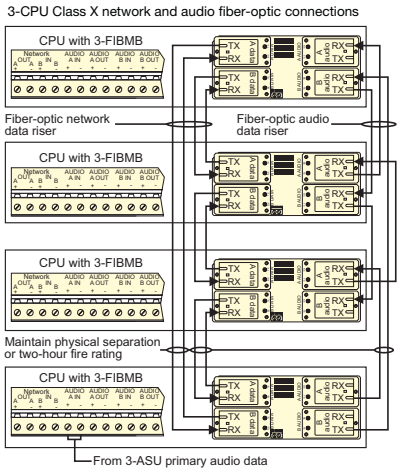
☐	3-OPS	Off Premise Signaling Module	Data Sheet E85010-0075

Fiber Optics Communications Interface



Fiber optic communications provide a high level of immunity from electrical noise. Circuits are power limited and suitable for use through hazardous atmospheres. Fiber optic circuits also provide a high level of security and are resistant to the effects of moisture.

EST3 networks easily configure to single or multi mode fiber optic or combination fiber optic/copper networks using the 3-FIBMB2 Fiber Optic Communications Interface and the appropriate fiber optic transceivers.

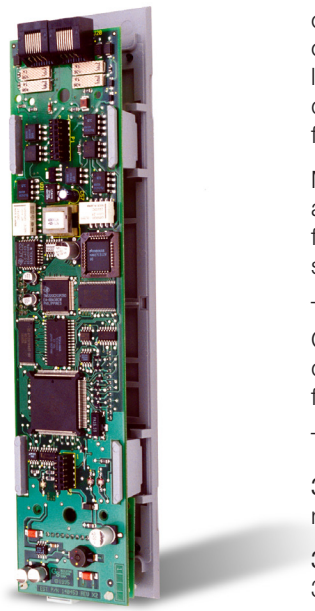


The 3-FIBMB2 electronics card plugs right into the CPU. A ribbon cable connects the 3-CPU directly to the 3-FIBMB2 fiber interface card. The interface card mounts in the ½ footprint space in a 3-CHAS7 chassis or 3-CAB5 enclosure.

The 3-FIBMB2 supports from one to four single or multi mode transceivers. The SMXLO2 standard output single mode transceiver is suitable for distances up to approximately 8.7 miles (14km). The SMXHI2 high output single mode transceiver is available to span distances up to approximately 24 miles (40km). For multi mode applications, the MMXVR transceiver is suitable for distances up to approximately 8,000ft (2,400m).

☐	3-FIBMB2	Fiber Optic Communications Interface c/w 3-CHAS7/3-CAB5 mounting brackets	Data Sheet E85010-0131
☐	SMXLO2	Plug-In standard output single mode transceiver for 3-FIBMB2	Data Sheet E85010-0131
☐	SMXHI2	Plug-In high output single mode transceiver for 3-FIBMB2	Data Sheet E85010-0131
☐	MMXVR	Plug-In standard output multi mode transceiver for 3-FIBMB2	Data Sheet E85010-0131

Modem Communicator



The Modem Communicator is a two-way local rail module that performs a variety of off-premise communications functions for the EST3 system unavailable on any other system. The module has provisions for supervising two loop-start telephone lines. It features a modular jack for telephone line connections, as well as database download from a PC. The Modcom's configuration and firmware can also be updated from any network node.

Modcom series modules occupy a single local rail space and can be mounted in any node on the network. Any EST3 Control/Display module can be mounted on the face of a Modcom series module. Power for the Modcom is supplied by the EST3 system supply.

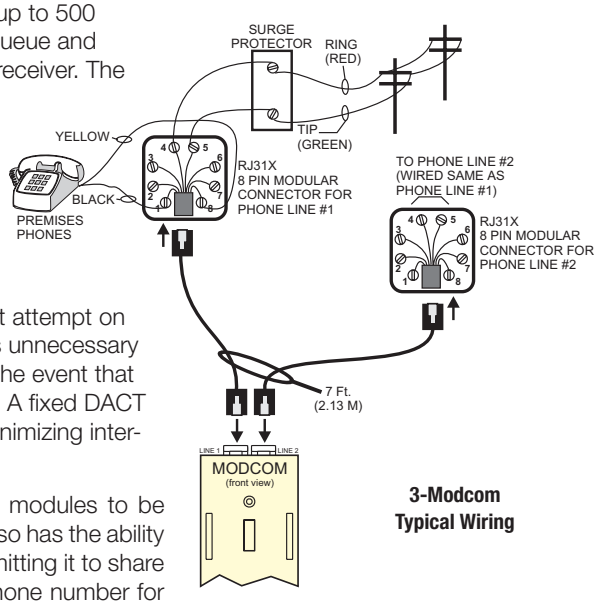
The Modcom provides an enhanced level of survivability in the event of a network CPU failure by notifying the Central Monitoring Station of the failure and entering a degraded mode of operation. In degraded mode, the Modcom can transmit a default fire alarm message during a fire alarm condition.

Two versions of the Modcom are available:

3-MODCOM - This internal modem is a V.32bis 14.4K baud full duplex modem. The modem permits the remote upload and download of system data via a telephone line.

3-MODCOMP – In addition to all modem and dialer (DACT) functions of the 3-MODCOM, the 3-MODCOMP can dial directly into paging systems using Telelocator Alphanumeric Protocol (TAP). Alphanumeric system data can be sent to a single pager or groups of pagers. Some pager services can forward messages via e-mail and Fax.

Each Modcom can buffer up to 500 events in its event queue. It reviews all active events in the queue and identifies the highest priority event and dials the associated receiver. The Modcom then identifies all other events in the queue that are destined to the same receiver as the highest priority event. All event information for that receiver is then transmitted. The next high priority event is identified and the process repeated.



3-Modcom Typical Wiring

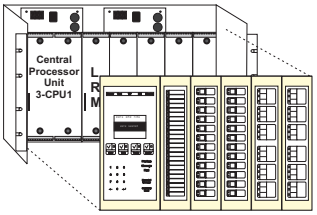
The Modcom series has been designed for installation on the same phone lines with other devices such as faxes and answering machines. The module makes its first dial out attempt on either of the two phone lines that is not in use. This prevents unnecessary interruption of calls in progress by the line seizure relays. In the event that both lines are busy, the module seizes one of the busy lines. A fixed DACT testing time can be set at an off-hour, e.g. 2:00am, again minimizing interruptions.

The answering machine override feature permits Modcom modules to be installed on a standard telephone line. The Modcom series also has the ability to detect Type 2 and Type 3 distinctive ringing patterns, permitting it to share its phone lines with other devices and still have a unique phone number for incoming calls.

3-MODCOM	Modem/Dialer (DACT) version	Data Sheet E85010-0107
3-MODCOMP	Modem/Dialer (DACT) w/TAP Protocol	Data Sheet E85010-0107

SUBMIT

Control, Display & Annunciation



Liquid Crystal Display Modules

LCD display modules provide system control and annunciation from any network node location at which they are installed. Modules feature backlit high-contrast supertwist graphical displays and mount to the local rail over the node's central processing unit (3-CPU3). Simple-to-understand LEDs and switches help the emergency user display information and execute system commands with confidence.

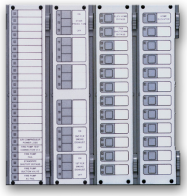
3-LCDXL1 modules feature large screens that support 24 lines of text 40 characters in length – enough space to display eight events simulaneously. It occupies four local rail module spaces.

3-LCD modules support eight lines of text 21 characters in length. They occupy two local rail module spaces.

EST3 networks can support any combination of 3-LCDXL and 3-LCD display modules.

3-LCDXL1	21 Line Liquid Crystal Display Module	Data Sheet E85010-0135
3-LCD	8 Line Liquid Crystal Display Module	Data Sheet E85010-0071

Control Display Modules



EST3 Control Display modules provide the emergency user with the simplest of interfaces: lights and switch controls. Control Display Modules install over local rail modules. There are five types of modules available.

The first module supports simple zone annunciation; the second, zone annunciation with zone disable; the third, alarm and trouble zone annunciation; the fourth, alarm and trouble zone annunciation with zone disable. Typically, alarm zone annunciation appears on any of these module types.

The fifth module is very adaptable to system requirements for audio or remote equipment control. Each contains 18 LEDs and 18 switches. And each group of three switches has a latching-interlock to support operations that must be kept separated. The interlock is under software control so only one switch is active at a given time.

3-LDSM	LED Display Support Module	Data Sheet E85010-0055
3-24R	Display Module: 24 red LED	Data Sheet E85010-0055
3-24Y	Display Module: 24 yellow LED	Data Sheet E85010-0055
3-24G	Display Module: 24 green LED	Data Sheet E85010-0055
3-12SR	Display/Control Module: 12 switches with 12 red LEDs	Data Sheet E85010-0055
3-12SY	Display/Control Module: 12 switches with 12 yellow LEDs	Data Sheet E85010-0055
3-12SG	Display/Control Module: 12 switches with 12 green LEDs	Data Sheet E85010-0055
3-12RY	Display Module: 12 red LEDs and 12 yellow LEDs	Data Sheet E85010-0055
3-12/2Y	Display Module: 12 groups of 2 yellow LEDs	Data Sheet E85010-0055
3-12/RY	Display Module: 12 groups of 1 red and 1 yellow LED	Data Sheet E85010-0055
3-12/S1GY	Display/Control Module: 12 switches with 1 green and 1 yellow LED per switch	Data Sheet E85010-0055
3-12/S1RY	Display/Control Module: 12 switches with 1 red and 1 yellow LED per switch	Data Sheet E85010-0055
3-12/S2Y	Display/Control Module: 12 switches with 2 yellow LEDs per switch	Data Sheet E85010-0055
3-6/3S1G2Y	Display/Control Module: 6 groups of 3 switches, 1 LED each: green, yellow, yellow	Data Sheet E85010-0055
3-6/3S1GYR	Display/Control Module: 6 groups of 3 switches, one LED each: green, yellow, red	Data Sheet E85010-0055
3-4/3SGYWR	Display/Control Module: 6 groups of 3 switches, one LED each: green, yellow, white/red	Data Sheet E85010-0055

SUBMIT

FireWorks

FireWorks is an incident management command and control platform that comprises hardware, software, and networking components that together provide a powerful and cohesive Mass Notification and Life Safety solution. Sophisticated networking technology allows it to integrate seamlessly with EDWARDS life safety solutions, yet FireWorks remains fully interoperable with third-party equipment, making it ideal for system upgrades or new installations alike.

FireWorks can automatically trigger programmed responses to facility events, or it can act as an operator interface for manual control. The FireWorks user interface provides a clear, concise, and coordinated view of any situation by presenting information strategically.

Five configurable graphical viewports offer simultaneous insight into different aspects of an incident, while the underlying software dynamically manages content in each viewport based on real-time events and user interaction. Facility maps, live video feeds, audio channels, protocol information, and fingertip control over vital equipment all come together instantly within view of an operator facing events that require solid information and split second timing.

For more information please refer to Data Sheet E85006-0068.

Supporting every FireWorks workstation is a sophisticated network backbone – strong enough to handle coordinated critical control functions from as many as fifty client workstations and many other devices, yet flexible enough to manage integration with third-party mass notification systems.

Redundant server options eliminate risk of communications breakdowns by providing alternate data paths that regenerate communications in the event of signal loss. FireWorks can operate on an existing local area network, or provide facility access from anywhere in the world via secured Virtual Private Network (VPN) connections.

Servers and Workstations

FW-UL6S	Server/Workstation. Xeon processor, 128 GB RAM, RAID1 500GB array, dual power supplies.	☐
FW-UL6W	Workstation. i7 Intel processor, 32 GB RAM, RAID1 500GB SSDs. Single power supply.	☐

Sofware

FW-CGS	Standalone package. Allows full 5 viewport display. Includes FW-FIREKEYUSB. No common control.	☐
FW-CGSUL	Standalone package. Allows full 5 viewport display. Includes FW-FIREKEYUSB. With common control.	☐
Non-Redundant Servers:	☐FW-NSZ5FP, 5 seat. ☐FW-NS15FP, 15 seat.	☐
Redundant Servers:	☐FW-RSZ5FP, 5 seat. ☐FW-RS15FP, 15 seat. ☐FW-RS25FP, 25 seat. ☐FW-RS50FP, 50 seat.	☐
FW-NCZZFP	Non-Redundant Server Client license.	☐
FW-RCZZFP	Redundant Server Client license.	☐

Software options

85012-0019	FireWorks Software DVD only.	☐
WebClients:	☐FW-1S, One seat. ☐FW-4S, Four seats (Requires FW-1S). ☐FW-10S, (Requires FW-1S & FW-4S).	☐
FW-DARCOM	Sofware for Communication to DACRs and/or IPMON1000.	☐
FW-FAST	FAST AutoCAD® reader and panel building sofware for FireWorks Server or Standalone system.	☐
FW-HSSD5	VESDA HLI Interface for up to 5 nodes. Each server must have its own FW-HSSX1.	☐
FW-HSSD20	VESDA HLI Interface for up to 20 nodes. Each server must have its own FW-HSSX1.	☐
FW-IPMON1000	Interface for up to 1,000 connections to iO Series panels. Requires FW-DARCOM software option.	☐

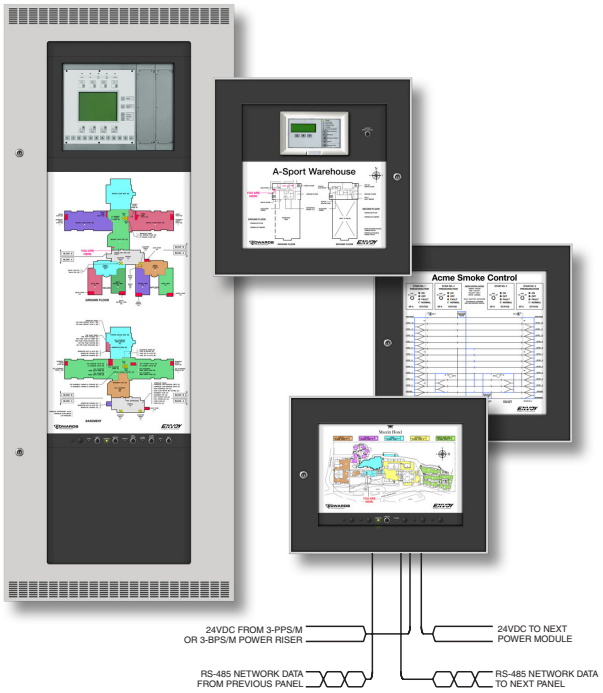
Monitors

FW-22LCDWTS	22-inch 16:9 LCD 115 Vac 1680x1050 resolution capacitive touch screen with integral speakers.	☐
FW-42LCDWTS	42-inch 16:9 LCD 115 Vac 1920x1080 resolution surface acoustic wave touch screen.	☐

See Data Sheet E85006-0068 for complete FireWorks ordering information.

SUBMIT

Graphic Annunciation



Graphic annunciators and smoke control panels are custom designed to present complex status and control information in an easy to understand package. The design of the annunciator permits users to rapidly determine system status and easily operate associated system controls.

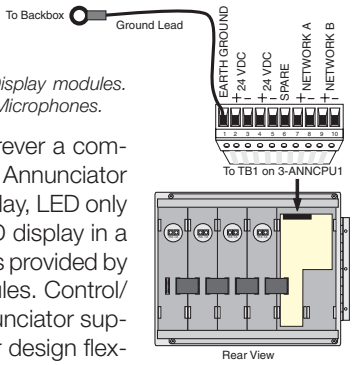
3-EVDVRA driver module assemblies connect the EST3 control panel to the display panel of an LED based graphic annunciator. Each driver card supports up to 24 LEDs and 12 switches on the graphic panel display. Attached to a plastic mounting rail, the driver boards fit easily into custom Graphic annunciators. The annunciator driver communicates with the EST3 control panel on the RS 485 network. This can be configured for Class A or Class B communication.

National and local installation and approvals should always be adhered to when selecting a graphic panel supplier.

3-EVDVRA	LED/SWITCH Driver Module Assembly.
3-EVDVRX	Plastic mounting extrusion. Mounts up to three 3-EVDVRA modules.
3-EVPWRA	Power Supply Assembly. Assembled version of 3-EVPWR. Used for third party graphics.
3-ANNCPU3	Annunciator CPU. One Required per graphic annunciator.

SUBMIT

Remote Annunciators



See Page 8 for Control Display modules.
See Page 14 for Remote Microphones.

Use EST3 remote annunciators wherever a compact system status display is needed. Annunciator configurations include: LCD only display, LED only display, or combination LED and LCD display in a single enclosure. Display and control is provided by the 3-LCD and Control Display Modules. Control/Display modules install over any annunciator support module, maximizing annunciator design flexibility. A lamp test feature can program to any spare control switch. If a 3-LCD display is installed in the annunciator, simply operate the Alarm Silence and Trouble Silence switches simultaneously to lamp test all LEDs. 3-REMICA remote microphones can also be installed in annunciator cabinets.

3-LCDANN	Remote LCD Command Module Annunciator		Data Sheet E85010-0069 ☐
3-4ANN	Four Position Base Annunciator		Data Sheet E85010-0069 ☐
3-6ANN	Six-position Base Annunciator		Data Sheet E85010-0069 ☐
3-10ANN	Ten-position Base Annunciator		Data Sheet E85010-0069 ☐
3-ANNCPU3	Annunciator CPU		Data Sheet E85010-0069 ☐
3-ANNSM	Annunciator Support Module		Data Sheet E85010-0069 ☐
3-LCD	Liquid Crystal Display Module		Data Sheet E85010-0069 ☐
3-LCDXL1	Liquid Crystal Display Module, 40 lines		Data Sheet E85010-0069 ☐
3-REMICA	Remote microphone for use in 3-ANN series annunciator cabinets		Data Sheet E85010-0069 ☐
3-ANNBF	Blank Filler Plate		Data Sheet E85010-0069 ☐
3-EVDVRA	LED/Switch Driver Module Assembly for Third-party Graphics		Data Sheet E85010-0069 ☐
3-EVPWRA	Power Supply Assembly with 19” rail mounting chassis assembly		Data Sheet E85010-0069 ☐
3-EVDVRX	Plastic mounting extrusion 19-inch mounting		Data Sheet E85010-0069 ☐

Remote Annunciator Cabinets

Remote LCD Command module Wallbox	☐RLCM/B (flush)	☐RLCM/B-S (Surface)	Data Sheet E85010-0069 ☐
6-position LED/LCD Wallbox	☐6ANN/B (flush)	☐6ANN/B-S (Surface)	Data Sheet E85010-0069 ☐
10-position LED/LCD Wallbox	☐10ANN/B (flush)	☐10ANN/B-S (Surface)	Data Sheet E85010-0069 ☐
4-position LED/LCD Wallbox	☐4ANN/B (flush)	☐4ANN/B-S (Surface)	Data Sheet E85010-0069 ☐

Local Operations Consoles

EST3 remote annunciation and control equipment is ideally suited for mass notification purposes. LCD display modules, remote microphones, and control and display modules configured for mass notification operation provide everything that’s needed for annunciation, control, and paging operations. In these applications, annunciators are configured to operate as Local Operation Consoles (LOCs), from which mass notification is initiated and controlled.

See Data Sheet E85010-0148 for more information.

SUBMIT

Mass Notification

VoIP Encoder/Decoder

Edwards Voice over Internet Protocol (VoIP) encoder/decoder units allow for the use of Transmission Control Protocol/Internet Protocol (TCP/IP) to transmit supervised digital audio for mass notification and life safety applications.

MN-FVPN	MN-FVPN VoIP Encoder/Decoder.	Data Sheet E85010-0143

Mass Notification Serial Communications/LAN interface

The MN-COM1S is a TCP/IP to RS-232 interface with one RJ-45 port and one RS-232 port. It is used in mass notification settings to connect a FireWorks workstation to an EST3 control panel.

MN-COM1S	FireWorks Communications Ethernet Port, Command & Control.	Data Sheet E85010-0144

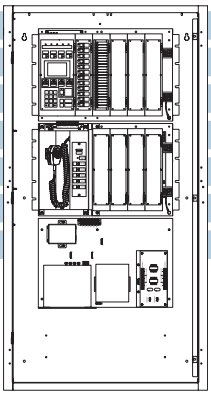
Ethernet Network I/O Module

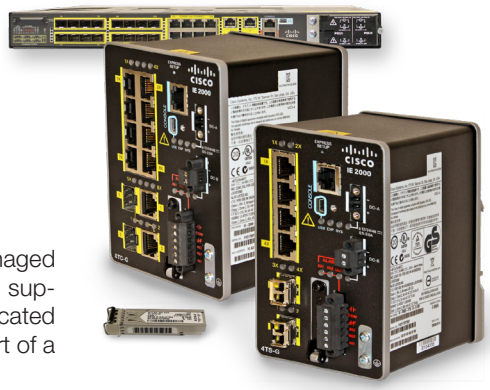
The Edwards MN-NETLRY4 Network Relay provides four unsupervised input zones and four normally-open relays to and from FireWorks V1.6 or greater over an Ethernet (TCP/IP) network. This module is particularly well-suited for mass notification, life safety applications, and other monitoring or output applications. It is also ideal for interfacing to third-party systems.

MN-NETRLY4	Ethernet controllable multi I/O unit, 4 input 4 relay outputs	Data Sheet E85010-0149

Related Equipment (Data Sheet E85010-0144)

MN-BRKT1	MN-FVP mounting bracket for EST3 enclosures
MN-BRKT3	MN-FVP mounting bracket for APS-(6)(10)A power supplies
MN-FVPB1	Polymer mounting bracket for MN-FVPN
MN-FVPN	Fire VoIP encoder/decoder, includes power and audio cables
MN-PASM2	MN-FVPN preamp signal supervisory booster module
SIGA -RM1/MRM1	Riser Supervision Module
MN-ABPM	Audio Bridge (Panel mount 3-ATPINT)



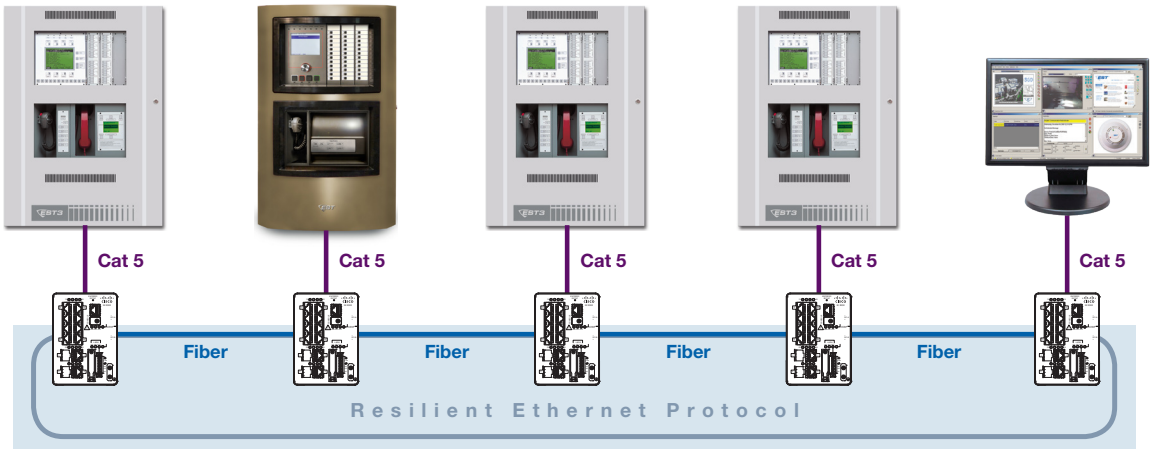


Managed Ethernet Switches

The MN-FNS Series managed Ethernet switches are advanced managed switch solutions that provide for a fully scalable Ethernet network to support virtually any life safety application. These networks may be dedicated for use by mass notification systems or where permitted, may be part of a non-dedicated facility network.

MN-FNS switches are field-tested and designed for use with EST *FireWorks*® Computer Platforms, EST3, EST3X and other EDWARDS panels and panel networks. They may also interface to non-dedicated facility networks, and even to competing control panels through existing network infrastructure. This makes them ideal for many retrofit applications. MN-FNS Ethernet switches may be interconnected to build spoke format networks, as well as Class B, Class X, Mesh, and Hybrid systems. MN-FNS Series Ethernet switches are powered by *Cisco*® Technologies and are listed to UL 864 and ULC S527.

Dedicated Class X



Ethernet Switches & Power Supplies

MN-FNS4C2F3	4 Fast Ethernet (RJ45), 2 GB SFP, Layer 3 Lite. 24 VDC.	Data Sheet E85010-0153
MN-FNS8C18F2	Rack-mount, 8 Fast Ethernet (RJ45), 16 FE SFP, 2 GB, Layer 2.	Data Sheet E85010-0153
MN-FNS8C18FAC	100-250 VAC/VDC power supply module, primary or backup.	Data Sheet E85010-0153
MN-FNS8C18FDC	24 VDC power supply module, primary or backup.	Data Sheet E85010-0153
MN-FNS8C2F3	8 Fast Ethernet (RJ45), 2 GB, SFP/RJ45, Layer 3 Lite, 24 VDC.	Data Sheet E85010-0153

Ethernet Switch Mounting Hardware

MN-BRKT1F	Switch mounting bracket for EST3 enclosures	Data Sheet E85010-0153
MN-BRKT3F	Switch mounting bracket for APS6A/10A Series power supplies.	Data Sheet E85010-0153
MN-BRKT8C18F	EST3 cabinet mounting bracket .	Data Sheet E85010-0153
MN-FNSRMK1	MN-FNS8C18F Series switch installation kit.	Data Sheet E85010-0153
MN-FNS4HDK1	MN-FNS4 Series switch holder bracket.	Data Sheet E85010-0153
MN-FNS8HDK1	MN-FNS8 Series switch holder bracket.	Data Sheet E85010-0153

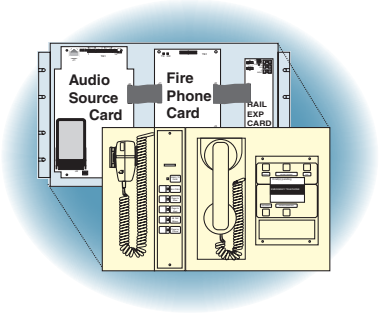
Tranceiver Modules (Dual filament, LC Connectors)

MN-FNSFEDSM10K	Single mode fiber, , FE, 0m to 10km, 9.5 dB fiber budget, 1310nm.	Data Sheet E85010-0153
MN-FNSFEMM2K	Multimode fiber, FE, 0m to 2km, 9 dB fiber budget, 1310nm.	Data Sheet E85010-0153
MN-FNSGBDSM70K	Single mode fiber, GB, 10m to 70km, 17.2 dB fiber budget, 1550nm.	Data Sheet E85010-0153

SUBMIT

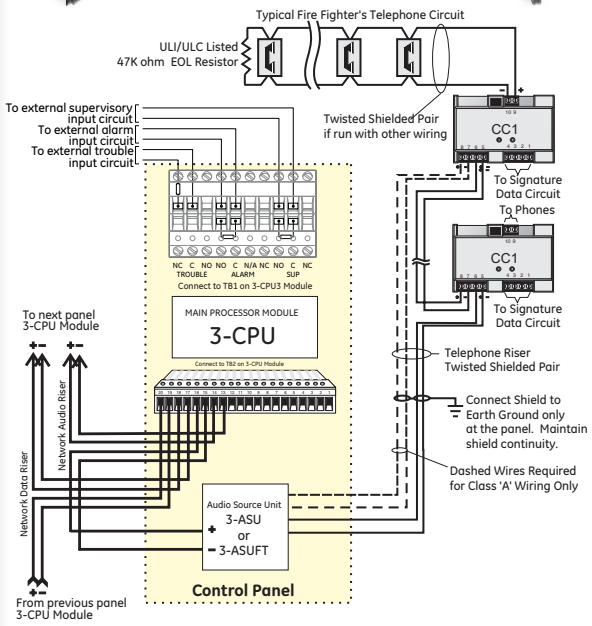
Network Audio

Configuring EST3 audio is a matter of selecting components for installation in standard fire alarm cabinet assemblies. EST3 uses zoned amplifiers. This reduces wire runs and space needs at a central location. Audio control equipment and zoned amplifiers use the same system power supplies as fire alarm components. All these components are supported by a common standby battery. Where multiple nodes make up the system, a single pair of wires carries eight channels of digital audio between nodes.



Audio and Telephone Masters

The Audio Source Unit converts analog signals to digital signals. Sampling the analog signal 9600 times per second provides high quality reproduction of audio sources. On-board audio memory stores signal tones and/or alarm-alert verbal messages. The ASU comes standard with two minutes of memory for tone and message storage. The ASU comes standard with two minutes of memory for tone and message storage. Available message memory expands easily to 100 minutes with the optional 3-ASUMX/100 memory expansion card. The ASU supports 3 and 4 state operation per UL864 10th edition.



Audio Source Units support connection of a local microphone, remote microphone, telephone voice line, and auxiliary audio input. With eight audio channels, combinations of paging, alert, evacuation signaling and automatic messages are available for simultaneous delivery to different parts of a building.

When the system requires paging, only the 3-ASU or 3-ASU/4 Audio Source Units provide a master paging microphone with common controls. Switch labeling makes the operation intuitive. Six LEDs and five switches cover paging operations.

Audio Source Units mount in one chassis space of a EST3 Lobby Enclosure. In addition to the paging microphone, the 3-ASU/4 has mounting space for up to four local rail modules, including 20, 40, and 95 watt zone amplifiers, and up to four Control Display modules. This increases layout flexibility. The 3-ASU provides the same functionality as the 3-ASU/4 but is supplied with an inner door filler plate and no local rail module spaces.

The 3-FTCU contains the master telephone handset that provides an analog telephone riser for two-way communications between the fire command station and firefighter's telephone stations installed in the facility. The 3-FTCU features an alphanumeric display that indicates both incoming and connected calls. Up to five remote telephones may be connected to the riser simultaneously. The fire command center operator can also use the telephone circuit as a page source, permitting paging via the telephone system.

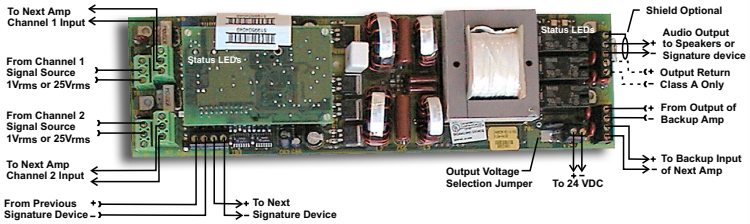
☐	3-ASU/FT*	Audio Source Unit with local microphone and firefighters' telephone	Data Sheet E85010-0063
☐	3-ASU/4*	Audio Source Unit with local microphone (provides four local rail spaces)	Data Sheet E85010-0063
☐	3-ASU*	Audio Source Unit with local microphone and inner door filler plate	Data Sheet E85010-0063
☐	3-FTCU*	Firefighters' Telephone Control Unit with inner door filler plate	Data Sheet E85010-0063
☐	3-ASUMX/100*	Audio Source Unit Memory Expansion (100 minutes of message time)	Data Sheet E85010-0063
☐	3-CCI	City of Chicago Interface	

** Add "-CC" for City of Chicago approved equipment*

SUBMIT

Intelligent Audio Amplifiers

Signature Series amplifiers are high-efficiency switch mode audio amplifiers available in 30 and 50 watt sizes. Amplifiers have two input channels supporting dual channel or single channel audio applications. Signature amplifiers are ideally suited for distributed audio applications and small centrally banked applications. The audio output is configurable as 25VRMS or 70VRMS in Class B or Class A wiring configurations.

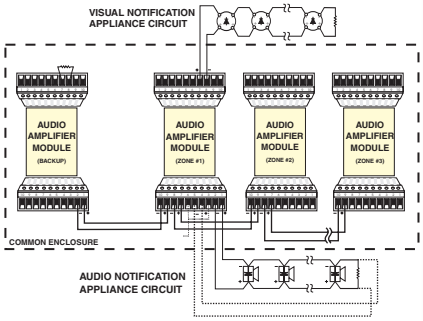


SIGA-AA30	30 Watt Intelligent Audio Amplifier	Data Sheet E85010-0089
SIGA-AA50	50 Watt Intelligent Audio Amplifier	Data Sheet E85010-0089

Audio Amplifiers (Zoned)

EST3 audio amplifiers decode and re-expand the eight multiplexed audio signals on the network audio riser. Under command of the network, one of the available eight signals is selected to be distributed over the speaker circuit. Command and control signals for the amplifier are sent and received via the network data riser in response to programming.

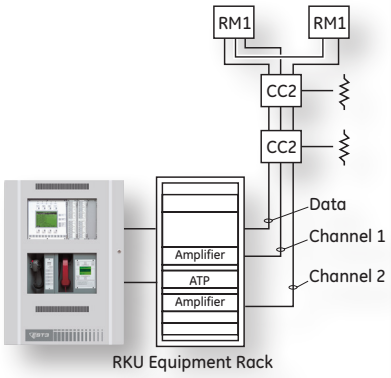
Amplifiers are available in 20, 40 or 95 watt versions, with supervised, power limited 25 Vrms or 70VRMS outputs. The amplifier output is wired to a single speaker zone. Each amplifier has a 1 KHz temporal tone generator used as evacuation signal in the event of a fault with the network audio circuit.



3-ZA20A	20 Watt Zoned Amplifier w/Class A/B Audio & Class A/B 24 VDC outputs	Data Sheet E85010-0057
3-ZA20B	20 Watt Zoned Amplifier w/Class B Audio & Class B 24 VDC outputs	Data Sheet E85010-0057
3-ZA40A	40 Watt Zoned Amplifier w/Class A/B Audio & Class A/B 24 VDC outputs	Data Sheet E85010-0057
3-ZA40B	40 Watt Zoned Amplifier w/Class B Audio & Class B 24 VDC outputs	Data Sheet E85010-0057
3-ZA95	95 Watt Zoned Amplifier w/Class A/B Audio output	Data Sheet E85010-0057

Audio Amplifiers (Banked)

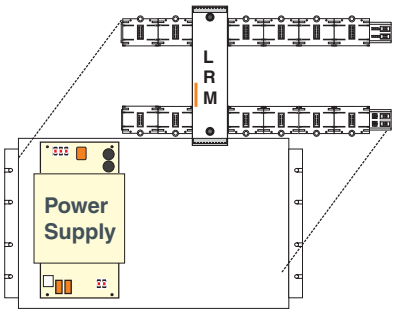
Banked Amplifiers provide EST3 with economy audio configurations for single and some dual channel applications. Model 3-ZA20A/B Zoned Amplifiers at the EST3 control panel provide channel sources for banked amplifiers. 3-ZA20A/B amplifiers can select any of EST3's eight audio channels as a signal source. A special interface module, the 3-ATPINT, accepts analog audio signals at 25 or 70VRMS from EST3's Zoned Amplifiers and passes these signals to the 1B3125 and 1B3250 Audio Power Amplifiers. The 3-ATPINT mounts in the ATP. The ATP Audio Terminal Panel interfaces one or two audio power amplifiers and monitors utility power, charges and supervises standby batteries, and provides switch-over to standby. The amplifier bank is monitored and controlled through Signature Series modules.



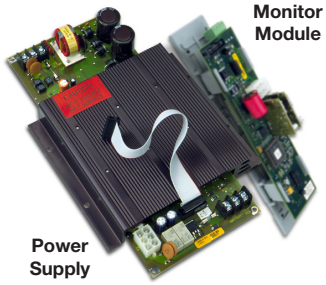
EST3	Central Banked Amplifiers	Data Sheet E85010-0085
1B3125	Audio Power Amplifier — 125 Watts	Data Sheet E85010-0011
1B3250	Audio Power Amplifier — 250 Watts	Data Sheet E85010-0013
ATP	Amplifier Terminal Panel	Data Sheet E85300-02741
3-ATPINT	ATP Interface Module	Data Sheet E85010-0085
SIGA-RM1/MRM1	Riser Monitor Module	Data Sheet E85001-0535
RKU	19-inch Equipment Rack	Data Sheet E85300-02738

Power Supplies

EST3 power supplies use a unique paralleling arrangement that ensures optimization of each supply's full capacity. Each power supply supports up to a 7 amp load. With four supplies, 28 Amps of current is available per cabinet as is battery charging capacity of up to 260 Amp-Hours.

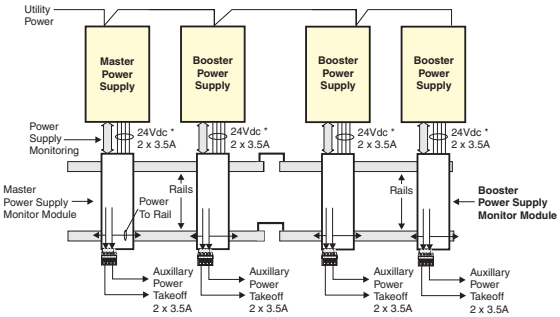


Main Panel Power Supplies



EST3 Power supplies consist of two assemblies, a high efficiency switch mode power supply card and a power supply monitor module. Up to four power supplies may be combined in a single enclosure to provide up to 28 amps of available current. Battery backup is provided using from one to four sets of batteries, depending on standby power requirements to support up to 260 AH batteries

The power supply comes in two styles: a primary supply and a booster supply. Each power supply produces 7 amps of filtered and regulated 24 VDC. The primary power supply provides the system with battery charging and voltage regulation. The booster supplies work in concert with the primary supply are available with or without battery charging capability. Software configuration configures the battery changing circuits for either 10-24 AH batteries or 30 – 65 AH batteries and controls the high/low charge rate.

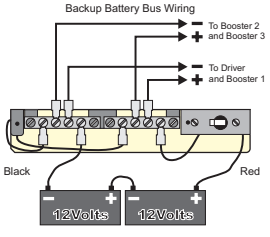


EST3 power supplies individually monitor batteries for load deficiencies, short circuits, and insufficient voltage levels and report trouble back to the 3-CPU3. The 3-LCD displays any troubles and the power supply's address, a specific trouble code, and a text message describing the specific trouble.

☐	3-PPS/M	Primary Power Supply w/ local rail module 120V 50/60 Hz	Data Sheet E85010-0059
☐	3-BPS/M	Booster Power Supply w/ local rail module 120V 50/60 Hz	Data Sheet E85010-0059
☐	3-PPS/M-230	Primary Power Supply w/ local rail module 230V 50/60 Hz	Data Sheet E85010-0059
☐	3-BPS/M-230	Booster Power Supply w/ local rail module 230V 50/60 Hz	Data Sheet E85010-0059
☐	3-PPS/M-230-E	Primary Power Supply w/local rail module 230V 50 Hz, EN-54 Cert., CE	Data Sheet E85010-0059
☐	3-BPS/M-230-E	Booster Power Supply w/local rail module 230V 50 Hz, EN-54 Cert., CE	Data Sheet E85010-0059
☐	3-BBC/M	Booster/Charger Supply w/local rail module 120V 50/60Hz	Data Sheet E85010-0059
☐	3-BBC/M-230	Booster/Charger Supply w/local rail module 230V 50/60Hz	Data Sheet E85010-0059
☐	3-BBCMON	Booster/Charger Monitor Module with charger capability	Data Sheet E85010-0059

Battery Distribution Unit

The 3-BTSEN consists of a circuit breaker and copper bus bars mounted on a sheet metal bracket. The unit provides a backup battery bus for supplying backup power to multiple power supplies fed by a common battery. The 3-BTSEN features a 50 Amp circuit breaker to protect the backup battery. The 3-BTSEN mounts in the BC-1 Battery cabinet or any EST3 "RCC" series enclosure.



☐	3-BTSEN	Battery Distribution Unit	Data Sheet E85010-0111

SUBMIT

Remote Booster Power Supply

The Remote Booster Power Supply is a self-contained 24 Vdc power supply designed to augment fire alarm audible and visual power requirements as well as provide power for auxiliary and security applications. The booster contains all of the necessary circuits to monitor and charge batteries, control and supervise four Class B or two Class A NAC circuits and monitor two controlling inputs from external sources. It also provides the ability to synchronize Genesis series strobes to UL 1971 requirements, and offers independent horn control over two wires.

For comprehensive configuration and wiring details, refer to the BPS Application Guide, 85001-0582.

BPS6A	6.5 Amp Booster Power Supply	Data Sheet E85005-0125 ☐
BPS6A/230	6.5 Amp Booster Power Supply (220V)	Data Sheet E85005-0125 ☐
BPS10A	10 Amp Booster Power Supply	Data Sheet E85005-0125 ☐
BPS10A/230	10 Amp Booster Power Supply (220V)	Data Sheet E85005-0125 ☐
3-TAMP	Tamper switch	Data Sheet E85005-0125 ☐
BPSEQ	Seismic battery hold-down. Supports up to two 6.5 or 10 Ah batteries.	Data Sheet E85005-0125 ☐

Auxiliary Power Supplies

The Auxiliary Power Supply offers the same advantages as the BPS above, but is supplied with its own extra large enclosure providing space for up to two 24 Ah batteries and additional option modules in a number of mounting configurations. Option modules can be installed on the mounting brackets inside the enclosure or on an MP2L mounting plate at the top of the enclosure. The SIGA-REL, and SIGA-UIO2/6/6R can also be mounted at the top of the enclosure.

APS6A	6.5 Amp Auxiliary Power Supply	Data Sheet E85005-0127 ☐
APS6A/230	6.5 Amp Auxiliary Power Supply (220V)	Data Sheet E85005-0127 ☐
APS10A	10 Amp Auxiliary Power Supply	Data Sheet E85005-0127 ☐
APS10A/230	10 Amp Auxiliary Power Supply (220V)	Data Sheet E85005-0127 ☐
APSEQ	Seismic battery hold-down. Supports up to two 10 - 24 Ah batteries.	Data Sheet E85005-0127 ☐

Batteries and Battery Cabinets

Data Sheet E85010-0127

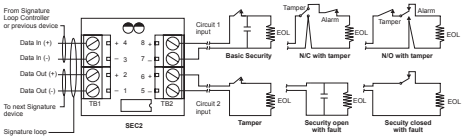
12 Volt Batteries	☐12V4A (4.5 Ah)	☐12V6A5 (7.2 Ah)	☐12V10A (11 Ah)	☐12V17A (18 Ah) ☐
☐12V1A2 (1.2 Ah)	☐12V24A (26 Ah)	☐12V40A (40 Ah)	☐12V50A (50 Ah)	☐12V65A (65 Ah)
6 Volt Batteries	☐6V8A (8 Ah)	☐6V10A (12 Ah)		☐
Battery Cabinets	☐BC-1 (holds up to two 40 Ah batteries) ☐ 3-RCC used as large battery enclosure.		☐BC-2 (holds up to two 17 Ah batteries)	☐
BC-1EQ	Seismic battery hold-down for BC-1. Supports up to two 40 Ah batteries. Data Sheet E85010-0067			☐

SUBMIT

Security

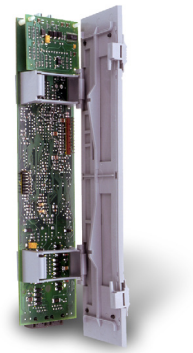
As a true multiplex life safety system, EST3 supports fire alarm as well as security functions. The capacity for this additional functionality is built right into every EST3 panel. All that's needed to take advantage of it is a handful of specialized components.

Dual Input Security Module

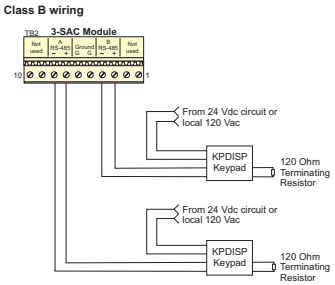


The SIGA-SEC2 is an intelligent analog addressable device used to connect one or two normally-open or normally-closed dry contact security circuits. The actual function of this module is determined by the "personality code" selected by the installer. This code is downloaded to the module from the Signature loop controller during system configuration.

☐	SIGA-SEC2	Dual Input Security Module	Data Sheet E85001-0527



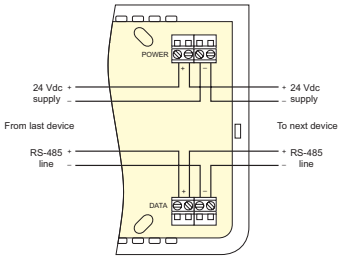
Security/Annunciator Control Module



The 3-SAC Security/Annunciator Control Module is a key component that blends security functions into the EST3 multiplex life safety system. The 3-SAC is the demarcation point between fire and security functions. All security devices that connect to a 3-SAC are designed, tested and listed to strict fire alarm standards. The 3-SAC is used in combination with the Modcom Modem Communicator. The Modcom's dialer (DACT) function transmits alarms to one or more central monitoring stations and/or paging terminals.

☐	3-SAC	Security/Annunciator Control Module	Data Sheet E85010-0109

Keypad/Display



The KPDISP transmits and receives information from/to the 3-SAC Security/Annunciator Control module installed in the EST3 system. Communication between the KPDISP and the 3-SAC is supervised, providing unprecedented reliability. Credential holder information is encrypted to provide an additional level of security. KPDISP data is stored in non-volatile memory. Power to the KPDISP is provided by the EST3, ensuring a reliable, supervised and backed-up power source.

☐	KPDISP	Keypad/Display	Data Sheet E85006-0046

SUBMIT

Network Accessories

EST3 to BMS Communications Bridges

The EST3 Communication Bridges are ancillary devices that provide protocol translation between EST3 serial data and the serial or Ethernet input of an external device controller. Signal flow is typically one way — from the EST3 network to the building automation system.

FSB-PC2	EST3 to BMS Communications Bridge.	Data Sheet E85010-0150
FSB-PCLW	EST3 to BMS Communications Bridge.	Data Sheet E85010-0150
FSB-BRKT2	MFC-A or Chass7 mounting bracket for FSB-PC2 or FSB-PCLW.	Data Sheet E85010-0150
MFC-A	Multifunction Fire Alarm Cabinet, red.	Data Sheet E85010-0150

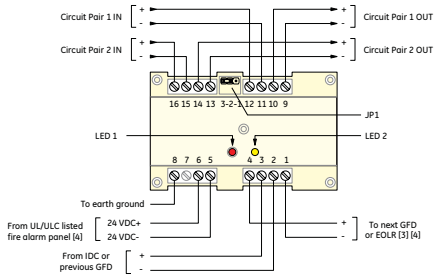
Network Short Haul Modem

EST3 networks easily configure for use over existing copper telephone lines using the 3-NSHM Short Haul Modem Communications Interface. The 3-NSHM electronics card, plugs right into the 3-CPU3. A ribbon cable connects the 3-CPU3 directly to the modem interface card. The interface card mounts on the right rear of a 3-CHAS7 chassis. No local rail space is used. The 3-NSHMs the 3-MPFIB mounting bracket for 3-CAB5 enclosure mounting.

3-NSHM1	Network Short Haul Modem, single modem connection	Data Sheet E85010-0113
3-NSHM2	Network Short Haul Modem, two modem connections	Data Sheet E85010-0113

Ground Fault Detection Module

The GFD module is designed to detect ground fault conditions on either of two independent power or data circuits. Each circuit must be balanced with respect to ground. The module will detect when the resistance between any of the monitored conductors and earth ground drops below 10 K Ohms. Two LEDs are provided to indicate the conductor with the ground condition. A normally energized Trouble/ Ground Fault relay is provided with NO/NC relay contacts for interfacing with monitoring systems.



GFD	Ground Fault Detection Module	Data Sheet E85010-0115

SUBMIT

Cabinets & Chassis

EST3 offers a wide selection of cabinets allowing the greatest use of its flexible modular design. From the elegant contoured door design of the Lobby Enclosure through to the standard design of Remote Closet Cabinets, both aesthetics and function are easily addressed.

Lobby Enclosures

EST3 lobby enclosures provide space for control, monitoring and display modules. Ideal for mounting in lobbies where appearance is important, maximum mounting flexibility is provided with doors that will mount for right- or left-hand opening. Lobby enclosures come in several sizes housing one to three chassis and batteries. Lobby enclosure doors have viewing windows and are available in gray baked enamel or red baked enamel finishes.

3-CAB5(R)	Cabinet with Wallbox and door — five LRM spaces	Data Sheet E85010-0067
3-CAB7B	Wallbox only — one chassis	Data Sheet E85010-0067
3-CAB7D(R)	Inner and outer doors for 3-CAB7B	Data Sheet E85010-0067
3-CAB14B	Wallbox only — two chassis	Data Sheet E85010-0067
3-CAB14D(R)	Inner and outer doors for 3-CAB14B	Data Sheet E85010-0067
3-CAB21B	Wallbox only — three chassis	Data Sheet E85010-0067
3-CAB21D(R)	Inner and outer doors for 3-CAB21B	Data Sheet E85010-0067

Remote Closet Enclosures

Remote Closet Cabinets provide an economical way of installing equipment in locations where aesthetics are not paramount, such as electrical closets. Optional display modules used for system diagnostics display can be mounted behind the front door. Remote Closet Cabinets are surface mounted and come in sizes providing space for one to three chassis, with room for standby batteries. Remote Closet Cabinets have left hand hinged doors and are available with red finish only. RCC cabinets can also be used as remote battery cabinets.

3-RCC7R	Red wallbox and door (one chassis)	Data Sheet E85010-0067
3-RCC14R	Red wallbox and door (two chassis)	Data Sheet E85010-0067
3-RCC21R	Red wallbox and door (three chassis)	Data Sheet E85010-0067

Chassis Assemblies

3-CHASS4	Provides space for 3-REMICA and four local rail modules	Data Sheet E85010-0067
3-CHAS7	Provides space for seven local rail modules	Data Sheet E85010-0067

Cabinet Accessories

3-BATS	Battery Shelf for RCC Enclosures. Room for up to one 65 AH battery.	Data Sheet E85010-0067
3-TAMP	Tamper switch for 3-CAB7, 3-CAB14 and 3-CAB21 cabinets	Data Sheet E85010-0067
3-TAMP5	Tamper switch for 3-CAB5	Data Sheet E85010-0067
3-TAMPRCC	3-TAMPRCC Tamper Switch for RCC series cabinets.	Data Sheet E85010-0067
ATCK	Attack rated door for 3-RCC7R	Data Sheet E85010-0067
3-RCCEQ50	Seismic battery hold-down for 3-RCC1XXR series.	Data Sheet E85010-0067
3-RCCEQ65	Seismic battery hold-down. Supports two 65 Ah batteries.	Data Sheet E85010-0067
3-FTEQ	Seismic hardening kit for 3-ASU/FT or 3-FTCU telephone handset.	Data Sheet E85010-0067
3-CABEQ	Seismic battery hold-down for 3-CAB 7, 14 or 21.	Data Sheet E85010-0067

Signature Series

Intelligent Analog Initiating Devices

EST3's Signature Series intelligent analog-addressable system is an entire family of life safety detectors as well as mounting bases, multiple-function input and output modules, and user-friendly maintenance and service tools.

Signature Series detectors continually monitor the protected space with their on-board sensors, which are finely tuned to detect the characteristic properties of combustion. Detection data is gathered and run through sophisticated algorithms that track the sensor readings over time to known signatures of fires. Only when a match is found will an alarm condition occur. This means that a Signature Series detector can distinguish between a harmless puff of dust and a wisp of smoke; between hot, humid weather and a serious life safety condition.

On-board processing and distributed intelligence also results in advanced features that save time and money...

Self-diagnostics and History Log – Signature Series devices constantly run self-checks to provide important maintenance information. The results of these checks are automatically updated and permanently stored in the device's non-volatile memory.

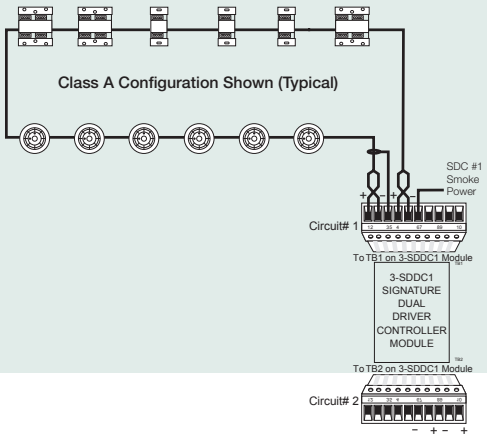
Automatic Device Mapping – The Signature Loop Controller learns where each device's serial number address is installed relative to other devices on the circuit. This mapping function is invaluable for tracking down unexpected or missing device addresses, or finding changes to wiring. The System Definition Utility program also uses this mapping feature to produce system layout or As-Built drawings showing such details as banch wiring (T-taps), device types and their addresses.

Fast Stable Communication – Built-in intelligence means less information needs to be sent between the device and the Signature Loop Controller, making the circuit less sensitive to noise and wire characteristics. This renders shielded wiring unnecessary. In fact, existing wiring can be used by Signature Series devices in most retrofit situations.

Testing & Maintenance – Each detector automatically identifies when it is dirty or defective and causes a "dirty detector" message. The detector's sensitivity measurement can also be transmitted to the loop controller. A sensitivity report may be printed to satisfy NFPA sensitivity measurements. The user-friendly maintenance program shows the current state of each detector and other pertinent messages. When the CO sensor's electrochemical cell reaches its end of life, the detector signals a trouble condition to the control panel.

Signature Driver Controllers

3-SSDC1 and 3-SDDC1 Signature Driver Controller modules provide an intelligent interface between the 3-CPU3 module and Signature Series devices. The 3-SSDC1 Single Signature Driver Controller module supports one Signature Data circuit, while the 3-SDDC1 Signature Dual Driver Controller module supports two Signature circuits. Both modules occupy one rail space in the fire alarm control cabinet and provide removable field wiring terminals to aid installation. Class B, Class A and Class X wiring are supported. Loop distances over 11,000 feet (3300m) are possible.



SUBMIT

Carbon Monoxide and Fire Detectors

In addition to integrated smoke and heat sensors, Signature Series combination life safety devices include electrochemical carbon dioxide sensors. CO detection has rapidly become a standard part of life safety strategies. Monitored CO detection is becoming mandated with increasing frequency in all types of commercial applications, but particularly in occupancies such as hotels, rooming houses, dormitories, day care facilities, schools, hospitals, assisted living facilities, and nursing homes. In fact, more than half of the U.S. population already lives in states requiring the installation of CO detectors in some commercial occupancies. Carbon monoxide is the leading cause of accidental poisoning deaths in America. Known as the "Silent Killer," CO is odorless, tasteless, and colorless. It annually claims nearly 500 lives, and results in more than 15,000 hospital visits.

Intelligent Carbon Monoxide (CO) Detector

The SIGA-COD detects carbon monoxide from any source of combustion and analyzes the sensor data to determine when to initiate a CO-related life safety event.

☐	SIGA-COD	Intelligent Carbon Monoxide Detector	Data Sheet E85001-0648

Intelligent Multi-criteria Optical Smoke Detector with CO Sensor

Includes an a multi-criteria optical smoke sensor and a carbon monoxide sensor. The detector analyzes the smoke sensor independently from the CO sensor, and can report a smoke/fire alarm separate from a CO-related life safety alarm.

☐	SIGA-OSCD	Intelligent Multi-criteria Smoke and CO Detector	Data Sheet E85001-1002

Intelligent Multi-criteria Optical Smoke Detector with Heat and CO Sensors

Includes a multi-criteria optical smoke sensor, a fixed-temperature heat sensor, and a carbon monoxide sensor. The detector analyzes the smoke and heat sensors independently from the CO sensor, and can report a smoke/fire alarm separate from a CO-related life safety alarm.

☐	SIGA-OSHCD	Intelligent Multi-criteria Smoke, Heat, and CO Detector	Data Sheet E85001-1004
☐	SIGA-OSHCDB	Intelligent Multi-criteria smoke, heat and CO detector (Black)	Data Sheet E85001-1004

SUBMIT

Fire Detectors

Intelligent Multi-criteria Optical Smoke Detector

The workhorse of modern fire alarm systems, this devices includes a multi-criteria optical smoke sensor to detect smoke.

SIGA-OSD	Intelligent Optical Smoke Detector	Data Sheet E85001-1001 ☐

Intelligent Rate-of-rise and Fixed Temperature Heat Detector

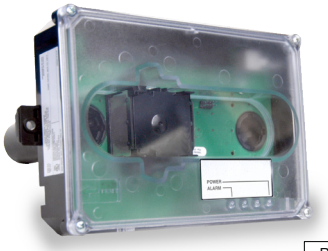
Includes a rate-of-rise and a fixed-temperature sensor to detect heat from fire.

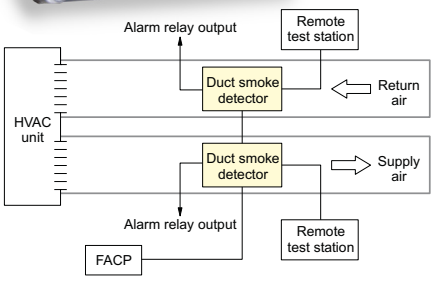
SIGA-HRD	Intelligent fixed temperature/Rate-of-rise heat detector	Data Sheet E85001-0647 ☐
SIGA-HFD	Intelligent fixed temperature heat detector	Data Sheet E85001-0647 ☐
SIGA-HCD	Intelligent ROR/fixed heat and CO detector	Data Sheet E85001-0647 ☐

Intelligent Multi-criteria Optical Smoke and Heat Detector

Contains a fixed-temperature heat sensor to detect heat from fire and a multi-criteria optical smoke sensor to detect smoke. Unlike simple multi-criteria detectors, the SIGA-OSHD can report the heat and photo elements as separate event types — or together. This permits the photo element of the detector to report, for example, a supervisory event during the day, and an alarm event at night – while the heat element always reports an alarm.

SIGA-OSHD	Intelligent Multi-criteria Smoke and Heat Detector	Data Sheet E85001-1003 ☐
SIGA-OSHDB	Intelligent Multi-criteria Smoke and Heat Detector (Black)	Data Sheet E85001-1003 ☐





Duct Smoke Detectors

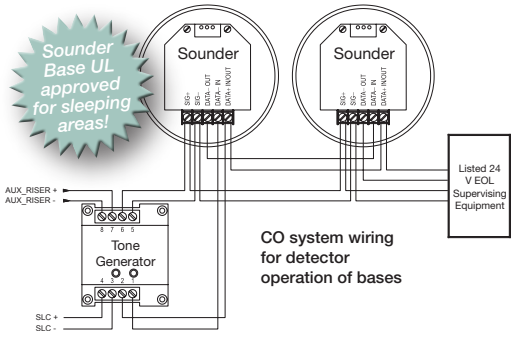
SuperDuct Detectors

Less than two inches deep, SuperDuct intelligent smoke detectors are ideal for installation in ductwork, where space is always at a premium. Offering the most advanced and most reliable performance in its class, SuperDuct represents the perfect balance of practical design and advanced technology.

SuperDuct detectors feature a unique design that speeds installation and simplifies maintenance. Removable dust filters, conformally coated circuit boards, and optional water-resistant gaskets keep contaminants away from components, ensuring years of trouble-free service. When cleaning is required, the assemblies come apart easily and snap back together in seconds.

SIGA-SD	Intelligent SuperDuct Detector			Data Sheet E85001-0584 ☐
SD-PH	Protective housing for high humidity environments			Data Sheet E85001-0584 ☐
Sampling Tubes	☐SD-T8 (8”)	☐SD-T18 (18”)	☐SD-T24 (24”)	☐SD-T36 (36”) ☐
	☐SD-T42 (42”)	☐SD-T60 (60”)	☐SD-T78 (78”)	☐SD-T120 (120”)
Remote Test Stations	☐SD-TRM (magnetic)	☐SD-TRM (keyed)	☐SIGA-LED (Remote alarm LED)	☐
Accessories	☐SD-GSK (cover gasket kit)	☐SD-MAG (Test magnet kit)		☐
	☐SD-VTK (Air velocity test kit, stoppers only)		☐SIGA-SDPCB (PCB/Signature sensor kit)	

Detector Bases



CO system wiring for detector operation of bases

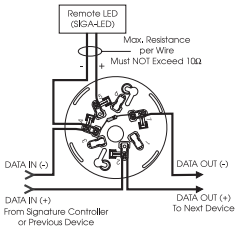
Audible (Sounder) Bases

Signature Series Sounder Bases add audible output functions to Signature Series smoke and CO detectors. Bases can operate as independent local alarms, or as part of a zone or system alarm with synchronized audible output. The SIGA-AB4G-LF is UL listed for sleeping areas and other applications requiring 520 Hz low frequency audible tones.

☐	SIGA-AB4G-LF	Low Frequency Audible (Sounder) Base for CO and Fire Detectors	Data Sheet E85001-0640
☐	SIGA-AB4GT	Audible (Sounder) Base for CO and Fire Detectors	Data Sheet E85001-0640
☐	SIGA-TCDR	Temporal Pattern Generator for SIGA-AB4GT, SIGA-AB4G-LF	Data Sheet E85001-0640
☐	SIGA-AB4G	Audible (Sounder) Base	Data Sheet E85001-0640
☐	AB4G-SB	Surface Box for Audible Bases	Data Sheet E85001-0640

Standard Detector Bases

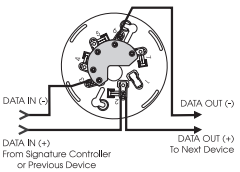
Standard detector bases provide roomside wiring terminals. They mount to North American one-gang box, 3½ or 4-inch octagon boxes, or 4-inch square electric box. Bases for 4-inch square boxes include the SIGA-TS4 Trim Skirt to conceal the electric box and provide a finished appearance.



☐	☐SIGA-SB	☐SIGA-SB4 (with trim skirt)	Standard Detector Base	Data Sheet E85001-0245

Isolator Detector Base

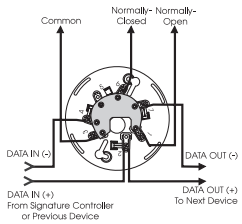
Isolator detector bases provide room-side wiring terminals and includes a built-in line fault isolator. Models with integral switches allow the detector to be removed from its base without causing the isolator to operate. Mounts to North American one-gang box, 3½ or 4-inch octagon boxes, or 4-inch square electrical boxes. Bases for 4-inch square boxes include the SIGA-TS4 Trim Skirt to conceal the electrical box and provide a finished appearance.



☐	☐SIGA-IB	☐SIGA-IB4 (with trim skirt)	Isolator Detector Base	Data Sheet E85001-0245

Relay Detector Base

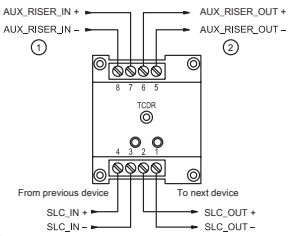
This base includes a relay. Normally-open or closed operation is selected during installation. The dry contact is rated for 1 amp (pilot duty) @ 30 Vdc. The relay's position is supervised to avoid accidentally jarring it out of position. The relay base does not support the SIGA-LED remote LED. It mounts to North American one-gang boxes, 3½ or 4-inch octagon boxes, or 4-inch square electrical boxes. Bases for 4-inch square boxes include the SIGA-TS4 Trim Skirt to conceal the electrical box and provide a finished appearance.



☐	☐SIGA-RB	☐SIGA-RB4 (with trim skirt)	Relay Detector Base	Data Sheet E85001-0245

SUBMIT

Detector Accessories

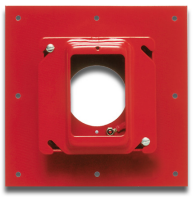


SIGA-TCDR Temporal Pattern Generator

The SIGA-TCDR Temporal Pattern Generator is an addressable device that generates sound patterns for carbon monoxide (CO) and fire signals for the AB4GT and AB4G-LF sounder base. The control panel sends synchronization and channel commands to the SIGA-TCDR; the channel selection determines the pattern.

SIGA-TCDR	Temporal Pattern Generator for AB4GT Sounder Base	Data Sheet E85001-0623

Detector Mounting Plate



The SIGA-DMP Detector Mounting Plate is a 7-inch (178mm) square mounting plate designed to provide convenient mounting of Signature Series intelligent smoke detectors in raised floor or plenum applications. The detector mounting plate may also be installed in low velocity ducts that have a maximum width of up to 36-inches (915mm) and a maximum height of up to 36-inches (915mm).

SIGA-DMP	Detector Mounting Plate	Data Sheet E85001-0255

Remote LED

The remote LED connects to the SIGA-SB or SIGA-SB4 Standard Base. It features a North American size one-gang plastic faceplate with a white finish and red alarm LED.

SIGA-LED	Remote Alarm LED	Data Sheet E85001-0245

Trim Skirt

Use the SIGA-TS Trim Skirt to give Signature detectors a finished look and hide surface imperfections around the detector's base. Supplied with all four-inch detector bases, the SIGA-TS4 can also be ordered separately. Use the black model with SIGA-IPHSB.

SIGA-TS	Detector Trim Skirt (white)	Data Sheet E85001-0245
SIGA-TSB	Detector Trim Skirt (black)	Data Sheet E85001-0245
SIGA-TS4	Detector Trim Skirt (white) – for 4-inch box	Data Sheet E85001-0245

Detector Guard

Constructed of sturdy 16-guage steel, the SIGA-GRD Smoke Detector Guard is designed for preventing smoke detectors from damage or tampering. The advanced louver system allows smoke detectors to be installed at their listed spacing and has no effect on operating sensitivity.

SIGA-GRD	Smoke Detector Guard	Data Sheet E85001-1005
SIGA-DGSB	Detector Guard Surface Mount Accessory	Data Sheet E85001-1005

Signature Series

Input/Output Modules

Plug-in UIOs with motherboard

Standard two-gang mount

Signature Series input/output modules are extremely flexible and powerful devices that gather analog information from the slave devices connected to them and convert this data into digital signals. They are available in models that mount in standard one- or two-gang electrical boxes, as well as versions that plug into UIO motherboards.

The actual function of each module is determined by its installer-selected personality code. This is downloaded to the module from the Signature Loop Controller during system configuration. Because they are intelligent devices, all decisions are made at the module. This allows lower communication speed but very fast control panel response time and less sensitivity to line noise and loop wiring properties. As a result, twisted or shielded wire is not required.

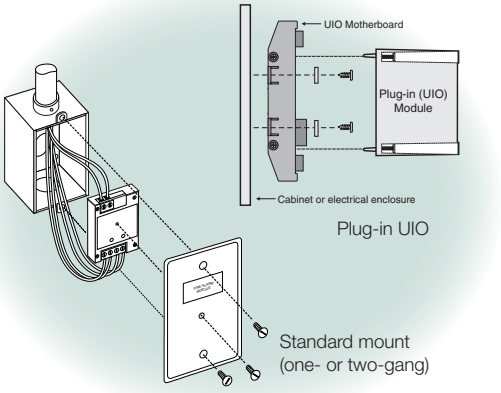
Application	Module
Voice messages	Digital Messaging Module
Waterflow Switches	Waterflow/Tamper Module
Class A indicating and initiating circuits, two-wire smoke detectors	Universal Class A/B Module
Class B Initiating Circuits: Door Closers, Fans, Dampers	Class B Input Module
	Monitor Module
	Control Relay Module
Telephone Power and Audible/Visual Signal Power Selector, Strobe Synchronization	Signal Module
Sounder Base power	Reversal Relay Module
Fire Suppression	Releasing Module
Fault detection	Isolator Module

Signature Series intelligent input/output modules feature multiple user-set personality codes that define the module's behavior.

Module mounting and installation options

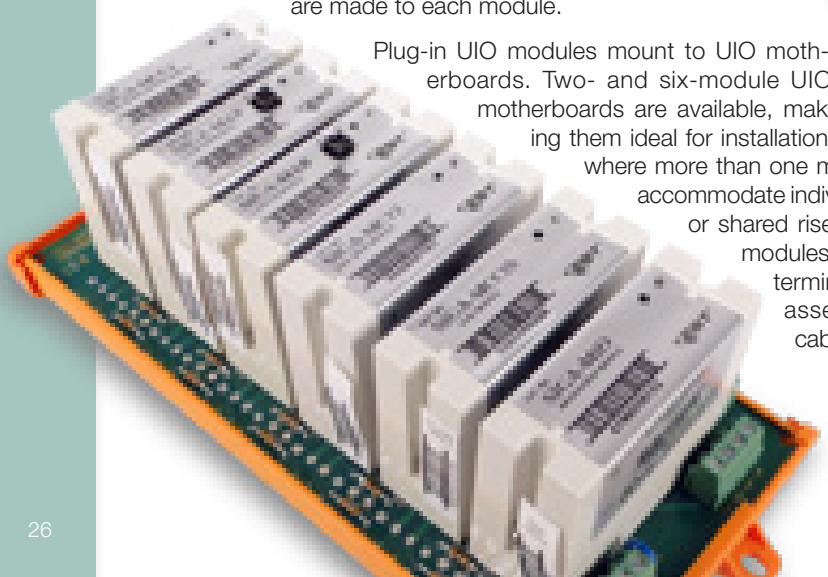
Signature Series input/output modules are available in models that feature two mounting options: standard mount and plug-in.

Standard mount models are installed to North American two-gang or one-gang electrical boxes, making them ideal for locations where only one module is required. Separate I/O and data loop connections are made to each module.



Plug-in UIO

Standard mount (one- or two-gang)



Plug-in UIO modules mount to UIO motherboards. Two- and six-module UIO motherboards are available, making them ideal for installations where more than one module is required. Motherboards can accommodate individual risers for each on-board module, or shared risers in any combination with their UIO modules. All wiring connections are made to terminal blocks on the motherboard. UIO assemblies may be mounted in either cabinets, or standard electrical enclosures.

SUBMIT

Universal Class A/B Module

The Universal Class A/B Module is used to connect initiating, appliance, or two-wire smoke circuits in either Class A or Class B configurations. The plug-in version can also be used as a Class A dry contact initiating device circuit. The actual function of this module is determined by the "personality code" selected by the installer. Up to fifteen personalities are available.

SIGA-UM	Universal Class A/B Module (Two-gang standard mount)	Data Sheet E85001-0275
SIGA-MAB	Universal Class A/B UIO (Plug-in) Module	Data Sheet E85001-0275

Class B Input Module

The Class B Input Module is used to connect Class B normally-open Alarm, Supervisory, or Monitor type dry contact initiating device circuits. The standard-mount version is available with either one or two input connections. The plug-in version accepts two input connections. The actual function of this module is determined by the "personality code" selected by the installer. A total of four personalities are available.

SIGA-CT1	Single Input Module (One-gang standard mount)	Data Sheet E85001-0241
SIGA-CT1HT	Single Input Module, high temperature rating (One-gang standard mount)	Data Sheet E85001-0241
SIGA-CT2	Dual Input Module (One-gang standard mount)	Data Sheet E85001-0241
SIGA-MCT2	Dual Input UIO (Plug-in) Module	Data Sheet E85001-0241

Signal Module

The Signal Module is used to connect, upon command from the loop controller, supervised Class B signal or telephone circuits to their respective power inputs. Models are available with one or two power inputs. These may be either polarized 24 Vdc to operate audible and visual signal appliances, or 25 and 70V$_{RMS}$ to operate audio evacuation speakers and firefighter's telephones. The actual function of this module is determined by the "personality code" selected by the installer. A total of three personalities are available.

☐	SIGA-CC1	Single Input Signal Module (Two-gang standard mount)	Data Sheet E85001-0237
☐	SIGA-MCC1	Single Input Signal UIO (Plug-in) Module	Data Sheet E85001-0237
☐	SIGA-CC2	Dual Input Signal Module (Two-gang standard mount)	Data Sheet E85001-0237
☐	SIGA-MCC2	Dual Input Signal UIO (Plug-in) Module	Data Sheet E85001-0237
☐	SIGA-CC2A	Dual Input Signal Module with Class A Operation (Two-gang mount)	Data Sheet E85001-0609
☐	SIGA-MCC2A	Dual Input Signal UIO with Class A Operation (Plug-in) Module	Data Sheet E85001-0609

Control Relay Module

The Control Relay Module provides a Form C dry relay contact to control external appliances such as door closers, fans, dampers etc. This device does not provide supervision of the state of the relay contact. Instead, the on-board microprocessor ensures that the relay is in the proper ON/OFF state. Upon command from the loop controller, the relay activates the normally open or normally-closed contact. This module supports only one personality: no user configuration is required.

☐	SIGA-CR	Control Relay Module (One-gang standard mount)	Data Sheet E85001-0239
☐	SIGA-MCR	Control Relay UIO (Plug-in) Module	Data Sheet E85001-0239
☐	SIGA-CRH	High Power Control Relay Module	Data Sheet E85001-0644

Polarity Reversal Relay Module

The Polarity Reversal Relay Module provides a Form C dry relay contact to power and activate a series of SIGA-AB4 Audible Sounder Bases. Upon command from the Signature loop controller, the SIGA-CRR reverses the polarity of its 24 Vdc output, thus activating all Sounder Bases on the data loop. This module supports only one personality: no user configuration is required.

☐	SIGA-CRR	Polarity Reversal Relay Module (One-gang standard mount)	Data Sheet E85001-0239
☐	SIGA-MCRR	Polarity Reversal Relay UIO (Plug-in) Module	Data Sheet E85001-0239

Riser Monitor Module

The SIGA-RM1 Riser Monitor Module is an intelligent device that monitors the integrity of 24 Vdc, 25 Vac, and 70 Vac circuits, as well as telephone riser signals. Upon the loss of a signal, the Riser Monitor Module causes the fire alarm control panel to indicate an alert status. Personality codes downloaded to the Riser Monitor Module during system configuration determine its function.

☐	SIGA-RM1	Riser Monitor Module (One-gang standard mount)	Data Sheet E85001-0535
☐	SIGA-MRM1	Riser UIO (Plug-in) Module	Data Sheet E85001-0535

SUBMIT

Synchronization Output Module

The Synchronization Output Module is an intelligent device that connects a supervised output circuit to a 24 Vdc riser. The output wiring is monitored for open circuits and short circuits. A short circuit will cause the fire alarm control panel to inhibit the activation of the audible/visual signal circuit so the riser is not connected to the wiring fault. Upon command from the Signature loop controller, the Auto-Sync Output Module connects the output circuit to the riser input. The output circuit operates polarized audible and visual appliances that have an adjustable resynchronizing feature.

SIGA-CC1S	Synchronization Output Module (One-gang standard mount)	Data Sheet E85001-0543
SIGA-MCC1S	Synchronization Output UIO (Plug-in) Module	Data Sheet E85001-0543

Input/Output Module

The Input/Output Module is an intelligent device that provides the following modes of operation:

- Output with monitor input
- Input/programmable output
- Input/direct output

SIGA-IO	Input/Output Module (One-gang standard mount)	Data Sheet E85001-0533
SIGA-MIO	Input/Output UIO (Plug-in) Module	Data Sheet E85001-0533

Waterflow/Tamper Module

The SIGA-WTM Waterflow/Tamper Module is a two circuit intelligent module. Circuit 1 is for Class B normally-open waterflow alarm switches. When the input contact is closed for approximately 16 seconds, an “alarm” signal is sent to the loop controller. Circuit 2 is for Class B normally open dry contact supervisory and tamper switches. When the input contact is closed, an “active” signal is sent to the loop controller. Conditions on both circuits are latched at the module.

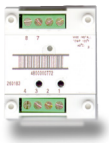
SIGA-WTM	Waterflow/Tamper Module (One-gang standard mount)	Data Sheet E85001-0297

Isolator Module

The SIGA-IM Isolator Module is an intelligent device that allows part of the Signature data loop to continue operating in the event of a short circuit. The module can be wired into a Class A data loop at any point. A maximum of 96 isolator modules can be installed on one circuit. If a fault occurs, the isolator cuts power to all devices beyond the isolator on the loop. Once activated, the line fault isolator continuously checks the faulted side of the loop to determine if the short still exists. When the fault is cleared, the module automatically restores the entire data loop to its normal condition.

SIGA-IM	Fault Isolator Module (Two-gang standard mount)	Data Sheet E85001-0271

Monitor Module

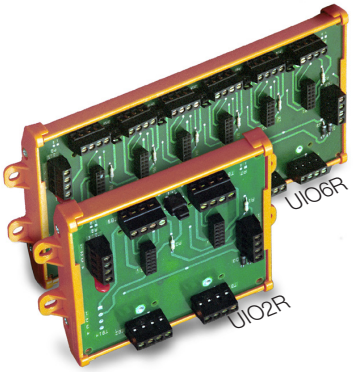


The SIGA-MM1 is a single-circuit intelligent module that includes a Class B normally-open dry contact. This is used for monitoring input from devices such as fans, dampers, and doors. When the input contact is closed, an “active” signal is sent to the loop controller. The active condition is not latched at the module.

SIGA-MM1	Monitor Module (One-gang standard mount)	Data Sheet E85001-0297

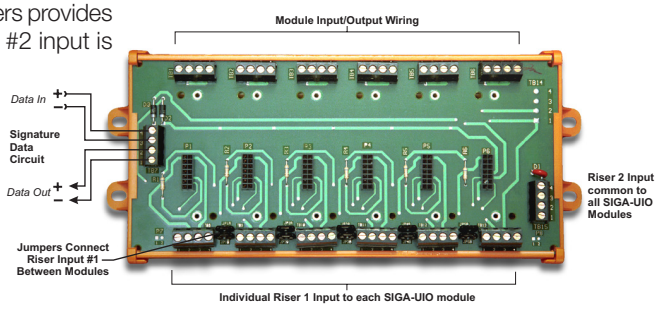
SUBMIT

Universal Input/Output (UIO) Motherboards



Signature Series Universal Input/Output Module Motherboards provide mounting and wiring terminations for up to six Signature Series plug-in UIO (SIGA-"M" series) modules. UIO motherboards snap into a rigid extruded track (included) with mounting pads for convenient mounting into a variety of equipment enclosures. UIO modules plug into the board and are held securely in place with captive machine screws. All field wiring connects to terminal blocks on the motherboard, which permits rapid removal and replacement of modules for troubleshooting.

The SIGA-UIO2R provides mounting and wiring terminations for up to two UIO modules, and the SIGA-UIO6R provides mounting and wiring terminations for up to six UIO modules. Both motherboards feature a riser #1 input and a riser #2 input bus. Jumpers on riser #1 input (between modules), facilitate sharing a single riser among more than one module. This significantly reduces wiring requirements. Removing the jumpers provides separate riser inputs to each adjacent module. Riser #2 input is fixed to each module position and cannot be split.



The SIGA-UIO6 provides mounting and wiring terminations for up to six UIO modules. This motherboard provides two riser inputs that are common to all modules.

UIO motherboards mount inside the MFC-A cabinet or other suitable UL-listed electrical enclosure. Each MFC-A will hold one UIO2R motherboard or one UIO6 or UIO6R motherboard complete with their full complement of modules.

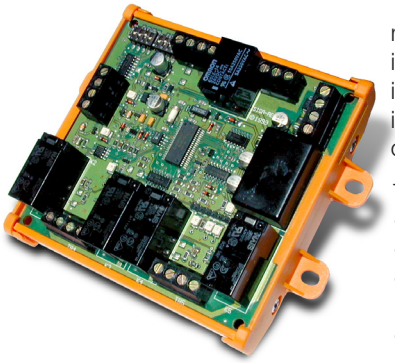
SIGA-UIO2R	Universal Input/Output Module Board with Riser Inputs — 2 Module Positions	Data Sheet E85001-0365
SIGA-UIO6R	Universal Input/Output Module Board with Riser Inputs — 6 Module Positions	Data Sheet E85001-0365
SIGA-UIO6	Universal Input/Output Module Board — 6 Module Positions	Data Sheet E85001-0365

Related Equipment

MFC-A	Multi-function Cabinet (for UIO and Releasing modules)
27193-11	Surface Mount Box - Red, One-gang
27193-16	Surface Mount Box - White, One-gang
27193-21	Surface Mount Box - Red, Two-gang
27193-26	Surface Mount Box - White, Two-gang
235196P	Bi-polar Transient Protector (use with all Signal Modules)
SIGA-MP1	Signature Module Mounting Plate, 1 footprint
SIGA-MP2	Signature Module Mounting Plate, 1/2 footprint
SIGA-MP2L	Signature Module Mounting Plate, 1/2 extended footprint

SUBMIT

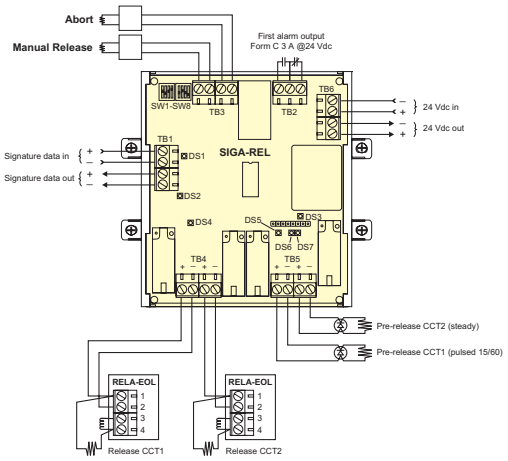
Releasing Module



The Signature Series Releasing Module (SIGA-REL) is an analog addressable module that works with fire suppression systems designed to release extinguishing gas. Its primary function is the control of sprinkler pre-action routines and the initiation of suppression system deluge functions. The module is easily configured in the field and offers a wide range of options that prevent the unnecessary release of extinguishing agent.

The SIGA-REL is a network component consisting of:

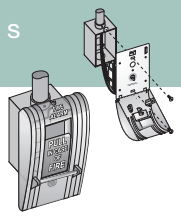
- Two supervised release circuits
- Two supervised pre-release circuits
- One supervised manual release input circuit
- One supervised abort circuit for N/O abort switch
- One first alarm output relay (Form C Contact)



The releasing module includes a built-in timer that inhibits the deluge function during the pre-action routine. One of four pre-action routines, may be selected by means of dip-switches on the module. The duration of automatic and manual time delays, as well as the abort time settings are also selectable with dip-switches. The SIGA-REL mounts inside an MFC-A cabinet or other suitable UL-listed electrical enclosure. Each MFC-A will hold one SIGA-REL.

Available releasing module accessories include dedicated pull stations, abort switches and service switches. Together with the SIGA-REL, they comprise a complete fire suppression package.

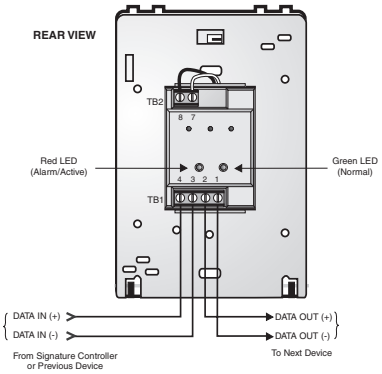
SIGA-REL	Analog addressable releasing module	Data Sheet E85001-0531
RELA-ABT	Abort station	Data Sheet E85001-0531
RELA-SRV	Service disconnect station	Data Sheet E85001-0531
276A-REL	Manual releasing station (single-action)	Data Sheet E85001-0531
278A-REL	Manual releasing station (double-action)	Data Sheet E85001-0531
RELA-EOL	Polarized end-of-line relay	Data Sheet E85001-0531



Manual Pull Stations

Single Action Pull Stations

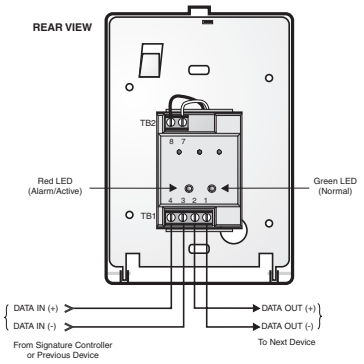
SIGA-270 series manual pull stations are made from die-cast zinc and finished with red epoxy powder-coat paint. With positive pull-lever operation, one pull on the station handle breaks the rod and turns in a positive alarm. Where two-stage operation is required, SIGA-270P pre-signal models are equipped with a general alarm (GA) keyswitch.



☐	SIGA-270	One Stage Fire Alarm Station, English Markings	Data Sheet E85001-0279
☐	SIGA-270P	Two Stage (Pre-signal) Fire Alarm Station, English Markings	Data Sheet E85001-0279
☐	276-K2	GA Key — for pre-signal station	Data Sheet E85001-0279
☐	270-GLR	20 Break-rods — for SIGA-270 series	Data Sheet E85001-0279
☐	276B-RSB	Surface Mount Box, Red — for SIGA-270 series	Data Sheet E85001-0279

Double Action Pull Stations

The double action, single stage SIGA-278 station is a contemporary style manual station made from durable red LEXAN. To initiate an alarm, first lift the upper door, then pull the alarm handle.



☐	SIGA-278	Double Action (One Stage) Fire Alarm Station, English Markings	Data Sheet E85001-0279
☐	276B-RSB	Surface Mount Box, Red — for SIGA-278 series	Data Sheet E85001-0279
☐	276-GLR	20 Break-rods — for SIGA-278 series	Data Sheet E85001-0279

Manual Station Relocator

The Manual Station Relocator is designed to lower the height of a fire alarm pull station to meet ADA requirements. Most existing pull stations are mounted 60 inches (1524mm) or higher above the floor. The Relocator lowers the height to 48 inches (1220mm) without the need for pulling new wires or moving the existing electrical box.

☐	RR-32RL	Pull Station Relocator	Data Sheet E85001-0351

Stopper II

This unique device helps prevent false alarms without restricting legitimate ones. It consists of a tamper-proof clear LEXAN polycarbonate shield and frame that fits easily over manual pull stations. When lifted, it sounds a piercing warning horn.

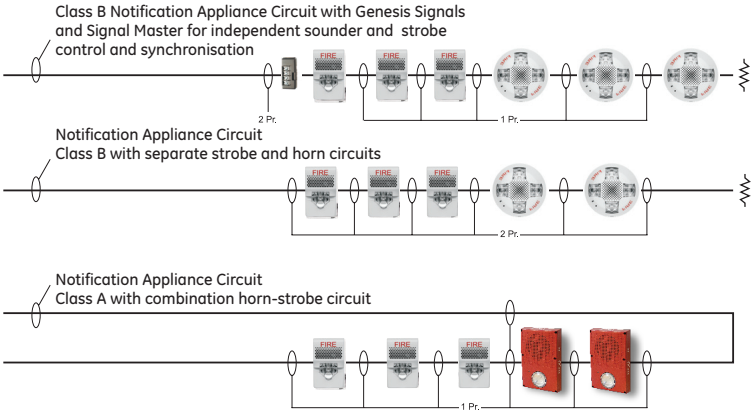
☐	☐ STI-1100 (Flush)	☐ STI-1130 (Surface)	Stopper II with Horn	Data Sheet E85001-0491
☐	☐ STI-1200 (Flush)	☐ STI-1230 (Surface)	Stopper II without Horn	Data Sheet E85001-0491
☐	☐ STI-3100 (2" Spacer)	☐ STI-3004 (Conduit Insert)	Spacers	Data Sheet E85001-0491
☐	☐ STI-3002 (Gasket)	☐ STI-3003 (Conduit Gasket)	Weatherproofing	Data Sheet E85001-0491

Notification Appliances

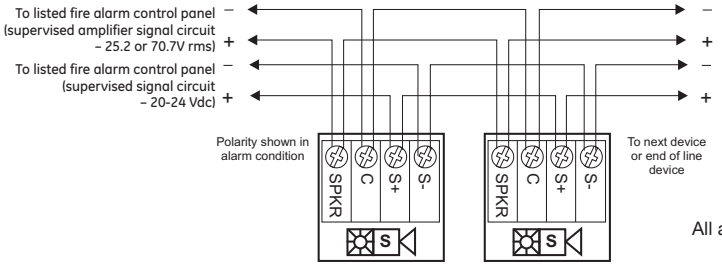
EDWARDS notification appliances are high-performance devices finely tuned to deliver maximum output in exchange for the lowest possible current draw. Covering the entire spectrum of life safety applications, these devices are durable, dependable, and virtually maintenance-free. And they support a wide range of mounting options that make them ideal for new construction and retrofit applications alike.

Field Wiring

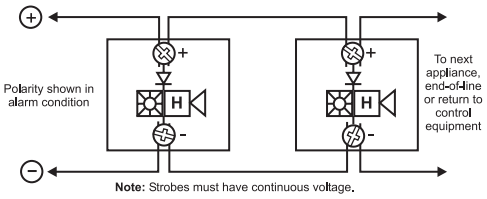
Notification appliances may be configured for Class A or Class B wiring. Genesis combination horn-strobes, when used with the innovative Signal Master Module, support independent horn control over a single pair of wires and precision synchronization that exceeds UL requirements. This reduces wiring time while meeting the requirements of even the most demanding application.



Device Wiring, Speaker-strobes



Device Wiring, Horn-strobes



All appliances feature #18 - #12 AWG terminals – ideal for long runs, existing wiring

Strobe Synchronization

On a common circuit, strobes flash once per second (1 fps) within 10 milliseconds over a two-hour time period. A synchronization source is required to comply with UL 1971 synchronization standards. Temporal setting (private mode only): synchronized to temporal output on the same circuit. Genesis LED strobes are synchronized, backwards compatible, and can be used in the same field of view as Genesis xenon strobes.

Synchronization Sources

The following control panels, power supplies, and modules provide synchronization sources that enable Genesis strobe devices to comply with UL 1971 synchronization standards: SIGA-CC1S, SIGA-MCC1S, SIGA-CC2A, SIGA-MCC2A, G1M-RM, BPS6A, BPS10A, APS6A, APS10A, EST3X, iO Series, Fireshield Plus.

Genesis Visual & Audible Signals

A complete line engineered to deliver innovative features and superb output.

LED Compact Strobes, Horns, Horn-Strobes, p. 35

LED Wall Strobes, Horns, Horn-Strobes . p.36

LED Ceiling Strobes, Horns, Horn-Strobes p. 37

Low Frequency Horns and Horn-Strobes, p. 38

Outdoor Horns, Horn-Strobes, p. 39

Wall Speakers and Speaker-strobes, p. 40

Ceiling Speakers, Speaker-strobes, p. 41

Outdoor Speakers, Speaker-Strobes, p. 42

The award-winning Genesis line of products represents excellence in fire alarm notification with looks, features, and performance benefits designed with your project in mind. Wall strobes, horns, and chimes about the size of a deck of playing cards offer a discreet alternative to bulky devices, while speakers and ceiling models with clean modern lines blend inconspicuously with their surroundings.

Signaling on-demand

Though designed for discretion, Genesis signals are also engineered to command attention. Wall-penetrating high dB output and patented strobe technology immerse the protected area with levels of light and sound that simply can't be ignored – all in exchange for the lowest current demands of any device in their class.

Genesis brings on-demand signaling to every application with an unparalleled range of field-configurable options: horns and chimes with high/low dB output settings; speakers with multiple wattage tap selections; and strobes with selectable candela output and flash rate – options that put you in the driver's seat when time is short, budgets slim, and manpower at a premium. It also means fewer parts to stock, less inventory to worry about, and the flexibility to meet changing demands – on the fly – without having to reinstall equipment or order more parts!

Application flexibility

Whether you're designing for a new landmark structure, or simply retrofitting a local strip mall, competitively-priced Genesis signals bring value, good looks, and installation flexibility to every application. Contact Edwards today to learn how your signal solutions can be the model of discretion.

Genesis LED Series Compact Wall Models

LED Strobes, Horns & Horn-Strobes

Genesis LED G1 Series horns and LED strobes feature a sleek, low-profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High-performance LEDs and patented electronics allow for more devices per loop and fewer booster power supplies.

Genesis strobes offer 15 to 75 candela output, which is selectable with a conveniently located switch on the side of the device. The current is only 24mA VDC and 32mA VFWR for all light output settings. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. *(Data Sheet E85001-0667)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	White housing ↓ with "ALERT"
☐ G1VWN	☐ G1VWF	☐ G1VRN	☐ G1VRF	☐ G1VWA

Genesis Horns reach output levels as high as 92 dB and feature a unique multiple-frequency tone that results in excellent wall penetration and an unmistakable warning of danger. Horns may be configured for either constant or temporal 3 output and high or low dB output with a conveniently located switch under the cover. No more cutting jumpers. Horns operate at 13mA VDC and 15mA VFWR on Low dB output and 23mA VDC and 29mA VFWR on High dB output. *(Data Sheet E85001-0667)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ G1AWN	☐ G1AWF	☐ G1ARN	☐ G1ARF

Genesis Horn-strobes provide a low-profile design with horn output reaching as high as 92 dBA and as low as 80 dBA and have strobes that offer 15 to 75 candela output. Both the horn and strobe can be field configured with a switch, which is conveniently located on the side of the device. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. Horns may be configured for either constant or temporal 3 output and high or low dB output. Horn-Strobes operate at 35mA VDC and 43mA VFWR on Low dB output and 45mA VDC and 55mA VFWR on High dB output for all light output settings. *(Data Sheet E85001-0667)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ G1AVWN	☐ G1AVWF	☐ G1AVRN	☐ G1AVRF

Trim plates for wall horns, horn-strobes, and strobes are ideal for covering openings left behind during retrofits.

White plate ↓ no marking	Red plate ↓ no marking	Trim Plates
☐ G1TW	☐ G1TR	Trim plate for 2-gang or 4" boxes

Replacement covers are available for all models. When ordering add -CVR to the model number.

Model Number Syntax, Appliances

Genesis LED Series
G1 = Wall-mount appliances

Housing Color
R = Red
W = White

G1AVRF

Housing Marking
N = None
F-FR = FEU
F-SP = FUEGO
F = FIRE
A = ALERT*

Functions
A = Horn only
V = Strobe only
AV = Horn-Strobe

* ALERT marking available on white strobe model with clear lens only. See replacement covers for more options.

Model Number Syntax, Replacement Covers

Genesis LED Series
G1 = Wall-mount appliances

Housing Color
R = Red
W = White

G1AVRF-CVR

Cover Designation

Cover Marking
N = None
F-FR = FEU
F-SP = FUEGO
F = FIRE
A = ALERT

Functions
A = Horn only
V = Strobe only
AV = Horn-Strobe

SUBMIT

Genesis LED Series Wall Models

LED Strobes, Horns & Horn-Strobes

Genesis LED G4 Series horns and LED strobes feature a sleek, low-profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High-performance LEDs and patented electronics allow for more devices per loop and fewer booster power supplies. Genesis LED G4 devices mount to the required GP10 room side wiring plate for installation. The GP10 mounting plate is ordered separately from the G4 device in packs of 10 for convenient pre-installing and pre-wiring.

Genesis strobes offer 15 to 110 candela output, which is selectable with a conveniently located switch on the side of the device. The current is only 28mA VDC and 36mA VFWR for all light output settings. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. *(Data Sheet E85001-0668)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	White housing ↓ with "ALERT"
☐ G4VWN	☐ G4VWF	☐ G4VRN	☐ G4VRF	☐ G4VWA

Genesis Horns reach output levels as high as 92 dB and feature a unique multiple-frequency tone that results in excellent wall penetration and an unmistakable warning of danger. Horns may be configured for either constant or temporal 3 output and high or low dB output with a conveniently located switch under the cover. No more cutting jumpers. Horns operate at 18mA VDC and 22mA VFWR on Low dB output and 28mA VDC and 38mA VFWR on High dB output. *(Data Sheet E85001-0668)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ G4AWN	☐ G4AWF	☐ G4ARN	☐ G4ARF

Genesis Horn-strobes provide a low-profile design with horn output reaching as high as 92 dBA and as low as 80 dBA and have strobes that offer 15 to 110 candela output. Both the horn and strobe can be field configured with a switch, which is conveniently located on the side of the device. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. Horns may be configured for either constant or temporal 3 output and high or low dB output. Horn-Strobes operate at 40mA VDC and 48mA VFWR on Low dB output and 50mA VDC and 60mA VFWR on High dB output for all light output settings. *(Data Sheet E85001-0668)*

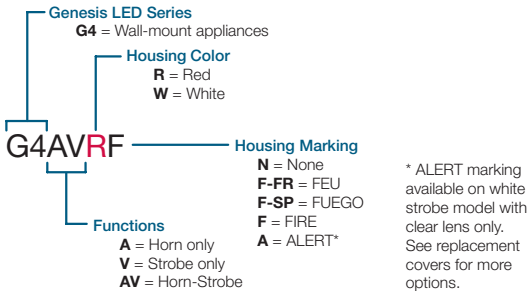
White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ G4AVWN	☐ G4AVWF	☐ G4AVRN	☐ G4AVRF

Accessories including required room side wiring plate and trim plates ideal for openings left behind during retrofits.

White plate ↓ no marking	Red plate ↓ no marking	Room Side Wiring Plate ↓ (Required)
☐ G4TW	☐ G4TR	☐ GP10

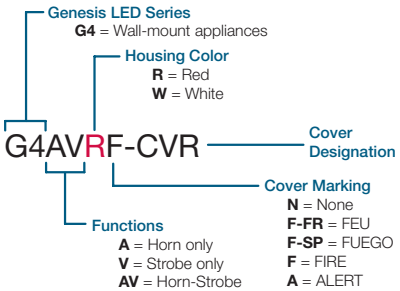
Replacement covers are available for all models. When ordering add -CVR to the model number.

Model Number Syntax, Appliances



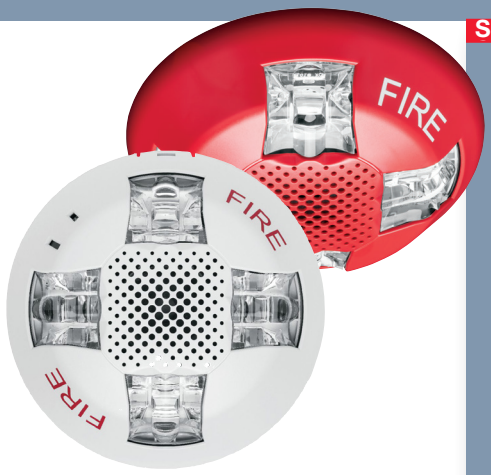
* ALERT marking available on white strobe model with clear lens only. See replacement covers for more options.

Model Number Syntax, Replacement Covers



Genesis LED Series Ceiling Models

LED Strobes, Horns & Horn-Strobes



Genesis LED GC Series horns and LED strobes feature a sleek, low-profile design and energy-efficient technology that makes them less expensive to install and operate by reducing overhead. High-performance LEDs and patented electronics allow for more devices per loop and fewer booster power supplies. Genesis LED GC devices mount to the required GP10 room side wiring plate for installation. The GP10 mounting plate is ordered separately from the GC device in packs of 10 for convenient pre-installing and pre-wiring.

Genesis strobes offer 15 to 115 candela output, which is selectable with a conveniently located switch on the side of the device. The current is only 35mA VDC and 45mA VFWR for all light output settings. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. *(Data Sheet E85001-1021)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ GCVWN	☐ GCVWF	☐ GCVRN	☐ GCVRF

Genesis Horns reach output levels as high as 92 dB and feature a unique multiple-frequency tone that results in excellent wall penetration and an unmistakable warning of danger. Horns may be configured for either constant or temporal 3 output and high or low dB output with a conveniently located switch under the cover. No more cutting jumpers. Horns operate at 20mA VDC and 25mA VFWR on Low dB output and 30mA VDC and 40mA VFWR on High dB output. *(Data Sheet E85001-1021)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ GCAWN	☐ GCAWF	☐ GCARN	☐ GCARF

Genesis Horn-strobes provide a low-profile design with horn output reaching as high as 92 dBA and as low as 80 dBA and have strobes that offer 15 to 115 candela output. Both the horn and strobe can be field configured with a switch, which is conveniently located on the side of the device. The candela output setting remains clearly visible even after final installation, yet it stays locked in place to prevent unauthorized tampering. Horns may be configured for either constant or temporal 3 output and high or low dB output. Horn-Strobes operate at 50mA VDC and 60mA VFWR on Low dB output and 60mA VDC and 75mA VFWR on High dB output for all light output settings. *(Data Sheet E85001-1021)*

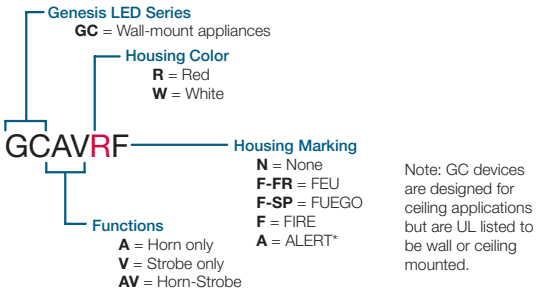
White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"
☐ GCAVWN	☐ GCAVWF	☐ GCAVRN	☐ GCAVRF

Accessories including required room side wiring plate and trim plates ideal for openings left behind during retrofits.

White plate ↓ no marking	Red plate ↓ no marking	Room Side Wiring Plate ↓ (Required)
☐ GCTW	☐ GCTR	☐ GP10

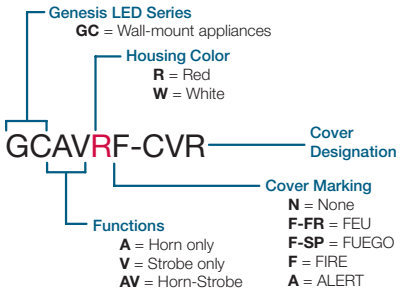
Replacement covers are available for all models. When ordering add -CVR to the model number.

Model Number Syntax, Appliances



Note: GC devices are designed for ceiling applications but are UL listed to be wall or ceiling mounted.

Model Number Syntax, Replacement Covers



Genesis G4LF Series Wall Models

Low Frequency (520 Hz) Horns and Horn-Strobes

G4LF Series notification appliances provide the benefits of Genesis life safety signals with output suitable for sleeping areas and other applications requiring low frequency audible tones. These high-performance appliances generate a crisp 520 Hz tone in the standard 3-3 temporal pattern. An optional setting configures the appliance for continuous audible output — a critical feature for notification appliance circuits that are coded with a CDR-3 coder module. All G4LF appliances feature field-configurable high and low dB output settings. Horn-Strobe models feature field-selectable 15, 30, 75 or 110 cd output settings.

☐	G4LFWN-HVM	Horn-Strobe, 520 Hz, White Housing, No Marking, 15/30/75 /110 cd	Data Sheet E85001-0639
☐	G4LFWF-HVM	Horn-Strobe, 520 Hz, White Housing, FIRE Marking, 15/30/75 /110 cd	Data Sheet E85001-0639
☐	G4LFRN-HVM	Horn-Strobe, 520 Hz, Red Housing, No Marking, 15/30/75 /110 cd	Data Sheet E85001-0639
☐	G4LFRF-HVM	Horn-Strobe, 520 Hz, Red Housing, FIRE Marking, 15/30/75 /110 cd	Data Sheet E85001-0639
☐	G4LFWN-H	Horn, 520 Hz, White Housing, No Marking	Data Sheet E85001-0639
☐	G4LFWF-H	Horn, 520 Hz, White Housing, FIRE Marking	Data Sheet E85001-0639
☐	G4LFRN-H	Horn, 520 Hz, Red Housing, No Marking	Data Sheet E85001-0639
☐	G4LFRF-H	Horn, 520 Hz, Red Housing, FIRE Marking	Data Sheet E85001-0639

SUBMIT

Genesis WG4 Series Wall Models

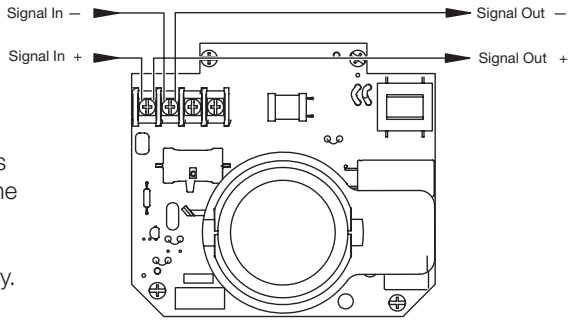
Weatherproof Horns and Horn-Strobes

Genesis WG4 Series horns and horn-strobes are among the most versatile emergency signals of their kind. Rated for indoor or outdoor use, they are suitable for a wide range of wet and harsh environments with a listed operating temperature range of as low as -31°F to as high as 151°F (-35°C to 66°C).

Refer to Data Sheet E85001-0628 -- Genesis Outdoor Horns and Strobes for details.

Field Configuration

Genesis WG4 strobes feature four selectable light output settings. Cd selections are changed by removing the cover and simply sliding the switches to the desired setting, which remains visible through a small window on the front of the device after the cover is replaced. Genesis Horn-strobes may also be configured for high or low dB output and temporal flash. This battery-saving feature is intended for private mode signaling only.



–/+ designations indicate the signal polarity required to activate the device.

Light Output

Standard Candela Horn-strobes

Standard/rating		Strobe Switch Position			
		D	C	B	A
UL 1971	Indoor	15 cd	29 cd	70 cd	87 cd
UL 1638	Outdoor @ -35°C	6 cd	12 cd	28 cd	35 cd
CAN/ULC-S526	Outdoor @ -40°C	1 cd	3 cd	8 cd	10 cd

High Candela Horn-strobes

Standard/rating		Strobe Switch Position			
		D	C	B	A
UL 1971	Indoor	102cd	123cd	147cd	161cd
UL 1638	Outdoor @ -35°C	41cd	50 cd	60 cd	65 cd
CAN/ULC-S526	Outdoor @ -40°C	11 cd	14 cd	17 cd	18 cd

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	Outdoor Fire Alarm Appliances	
☐ WG4WN-H	☐ WG4WF-H	☐ WG4RN-H	☐ WG4RF-H	Horn Only	☐
☐ WG4WN-HVMC	☐ WG4WF-HVMC	☐ WG4RN-HVMC	☐ WG4RF-HVMC	Horn-Strobe, standard cd output	☐
☐ WG4WN-HVMHC	☐ WG4WF-HVMHC	☐ WG4RN-HVMHC	☐ WG4RF-HVMHC	Horn Only, high cd output	☐

WG4 Mounting Accessories

☐ WG4WTS (white)	☐ WG4RTS (red)	Surface Skirt for Genesis WG4 Appliances	☐
☐ 74347U (white)	☐ 449 (red)	Surface mount box, outdoor rated	☐
WG4GSKT		Genesis WG4 Full Body Mounting Gasket for Smooth Surfaces	☐

For Audible Sounder Bases, see *Intelligent Initiating Devices*.

SUBMIT

Genesis G4 Series Wall Models

Speakers and Speaker-strobes

Candela and wattage settings remain clearly visible even after final installation.

Genesis speakers combine high performance output with a low profile design to deliver a life safety audio solution that's as versatile as it is effective. Protruding no more than one inch from the wall, these appliances blend inconspicuously with any decor. All speakers feature selectable ¼, ½, 1, or 2 watt operation.

Speaker-strobes feature field-configurable candela output, selectable with a conveniently-located switch on the bottom of the device.

Genesis high fidelity Speakers are can generate UL compliant low frequency signals now required for sleeping areas!

The ingenious Genesis G4E Mass Notification Expander provides a separate, independently-controlled strobe that fits behind a Genesis G4 Series speaker or speaker-strobe. (Data Sheet E85001-0610)

High fidelity speakers and speaker-strobes meet new standards for audible tones in sleeping areas and produce crisp, clear voice audio output that is highly intelligible over large areas. *(Data Sheet E85001-0642)*

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	Fire Alarm Speakers (no "Running Man" icon)
☐ G4HFN-S2	☐ G4HFWF-S2	☐ G4HFRN-S2	☐ G4HFRF-S2	25 V Speaker
☐ G4HFN-S7	☐ G4HFWF-S7	☐ G4HFRN-S7	☐ G4HFRF-S7	70 V Speaker
☐ G4HFN-S2VM	☐ G4HFWF-S2VM	☐ G4HFRN-S2VM	☐ G4HFRF-S2VM	25 V Speaker-strobe (15/30/75/110 cd settings)
☐ G4HFN-S7VM	☐ G4HFWF-S7VM	☐ G4HFRN-S7VM	☐ G4HFRF-S7VM	70 V Speaker-strobe (15/30/75/110 cd settings)

High fidelity mass notification speakers and speaker-strobes feature optional amber lenses and "ALERT" lettering on white housings, and meet new standards for audible tones in sleeping areas. *(Data Sheet E85001-0642)*

Clear lens ↓ "ALERT"	Amber lens ↓ no marking	Amber lens ↓ "ALERT"	High Fidelity Mass Notification Speakers — white housing, no "Running Man icon"
☐ G4HFWA-S2VMC	☐ G4HFWN-S2VMA	☐ G4HFWA-S2VMA	25 V Speaker-strobe (A/B/C/D cd settings)
☐ G4HFWA-S7VMC	☐ G4HFWN-S7VMA	☐ G4HFWA-S7VMA	70 V Speaker-strobe (A/B/C/D cd settings)

Speaker only models:	☐ G4HFWA-S2 (25 V, "ALERT" marking)	☐ G4HFWA-S7 (70 V, "ALERT" marking)	

Genesis GC Series Ceiling Models

Speakers and Speaker-Strobes

The Genesis line of multi-candela and multi-wattage ceiling signals feature all the hallmarks that have made Genesis products a big hit with designers, engineers, building owners, and installers everywhere. Precision timing electronics, and low current draw bring the benefits of the popular Genesis wall-mount models to ceiling applications. These signals are 30 percent slimmer than comparable signals on the market. They are compatible with standard 4-inch (10 cm) square electrical boxes and don't require extension rings or trim plates.

Genesis high fidelity Speakers are also UL compliant low frequency signals for sleeping areas!

Select 15/30/75/95 and 95/115/150/177 candela output!

Select ¼, ½, 1, or 2 watt operation!

Data Sheet E85001-0641

SUBMIT

High Fidelity Fire Alarm Speakers and Speaker-Strobes

White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	All fire alarm appliances come with the "Running Man" Icon	
☐ GCHFWN-S2VMC	☐ GCHFWF-S2VMC	☐ GCHFRN-S2VMC	☐ GCHFRF-S2VMC	25 V Spkr + 15/30/75/110 cd strobe	☐
☐ GCHFWN-S2VMCH	☐ GCHFWF-S2VMCH	☐ GCHFRN-S2VMCH	☐ GCHFRF-S2VMCH	25 V Spkr + 95/115/150/177 cd strobe	☐
☐ GCHFWN-S7VMC	☐ GCHFWF-S7VMC	☐ GCHFRN-S7VMC	☐ GCHFRF-S7VMC	70 V Spkr + 15/30/75/110 cd strobe	☐
☐ GCHFWN-S7VMCH	☐ GCHFWF-S7VMCH	☐ GCHFRN-S7VMCH	☐ GCHFRF-S7VMCH	70 V Spkr + 95/115/150/177 cd strobe	☐
☐ GCHFWN-S2	☐ GCHFWF-S2	☐ GCHFRN-S2	☐ GCHFRF-S2	Speaker-only models, 25 V	☐
☐ GCHFWN-S7	☐ GCHFWF-S7	☐ GCHFRN-S7	☐ GCHFRF-S7	Speaker-only models, 70 V	☐

High Fidelity Mass Notification Speakers and Speaker-strobes

Clear lens ↓ with "ALERT"	Amber lens ↓ no marking	Amber lens ↓ with "ALERT"	White housings No "Running Man" Icon	
☐ GCHFWA-S2VMC	☐ GCHFWN-S2VMA	☐ GCHFWA-S2VMA	25 V Speaker, four standard cd settings	☐
☐ GCHFWA-S2VMCH	☐ GCHFWN-S2VMAH	☐ GCHFWA-S2VMAH	25 V Speaker, four high cd settings	☐
☐ GCHFWA-S7VMC	☐ GCHFWN-S7VMA	☐ GCHFWA-S7VMA	70 V Speaker, four standard cd settings	☐
☐ GCHFWA-S7VMCH	☐ GCHFWN-S7VMAH	☐ GCHFWA-S7VMAH	70 V Speaker, four high cd settings	☐
☐ GCHFWA-S2 (25 V, "ALERT" marking)		☐ GCHFWA-S7 (70 V, "ALERT" marking)	Speaker-only models	☐

SUBM

Genesis WG4 Series Wall Models

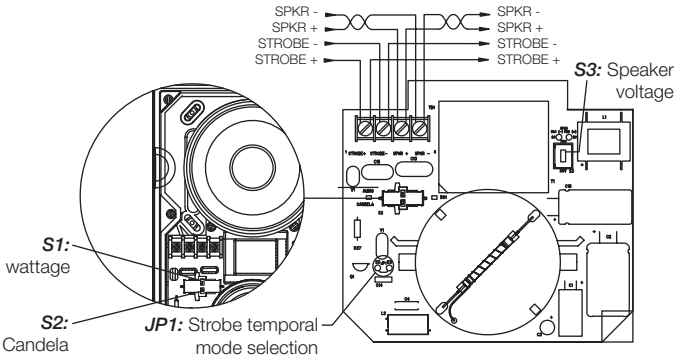
Weatherproof Speakers and Speaker-Strobes

Genesis WG4 Series speakers and speaker-strobes are among the most versatile emergency signals of their kind. Rated for indoor or outdoor use, they are suitable for a wide range of wet and harsh environments with a listed operating temperature range of as low as -31°F to as high as 151°F (-35°C to 66°C).

Refer to Data Sheet E85001-0626 -- Genesis Outdoor Speakers and Strobes for details.

Field Configuration

Genesis WG4 speakers may be set 70- or 25-Volt operation, and for ¼, ½, 1, or 2 watt operation. Strobe models feature four selectable light output settings. Wattage and cd selections are changed by removing the cover and simply sliding the switches to the desired settings, which remain visible through a small window on the front of the device after the cover is replaced. Genesis speaker-strobes may also be configured for temporal flash. This battery-saving feature is intended for private mode signaling only. To set the device for temporal flash, snip the jumper at JP1.



White housing ↓ no marking	White housing ↓ with "FIRE"	Red housing ↓ no marking	Red housing ↓ with "FIRE"	Fire Alarm Speakers
☐ WG4WN-S	☐ WG4WF-S	☐ WG4RN-S	☐ WG4RF-S	25/70 V Speaker
☐ WG4WN-SVMC	☐ WG4WF-SVMC	☐ WG4RN-SVMC	☐ WG4RF-SVMC	25/70 V Speaker-strobe (15/29/70/87 cd)
	☐ WG4WF-SVMHC	☐ WG4RN-SVMHC	☐ WG4RF-SVMHC	25/70 V Speaker-strobe (102/123/147/161 cd)

Genesis mass notification speakers and speaker-strobes bring the same high-performance fire alarm features and unobtrusive design to mass notification applications. Available with amber lenses and optional "ALERT" lettering, they are ideal for applications that require differentiation between fire alarm and mass notification alerts.

White housing ↓ no marking	White housing ↓ "ALERT"	Mass Notification Speakers — white housing, no "Running Man" icon
☐ WG4WN-SVMA	☐ WG4WA-SVMA	25/70 V Speaker-strobe, amber lens (13/25/5962 cd output)
☐ WG4WN-SVMHA	☐ WG4WA-SVMHA	25/70 V Speaker-strobe, amber lens (84/101/125/130 cd output)
	☐ WG4WA-SVMC	25/70 V Speaker-strobe, clear lens (15/29/70/87 cd output)
☐ WG4WN-SVMHC	☐ WG4WA-SVMHC	25/70 V Speaker-strobe, clear lens (102/123/147/161 cd output)
	☐ WG4WA-S	25/70 V Speaker

Trim skirts

☐ WG4WTS (white)	☐ WG4RTS (red)	Surface Skirt for Genesis WG4 appliance family.

SUBMIT

Mass Notification

High Power Speaker Arrays

Hyperspike High Power Speaker Arrays (HPSA) employ exclusive technology that delivers lightweight and acoustically sophisticated solutions for outdoor mass notification installations. These rugged units are among the industry's smallest in physical size, yet they reproduce some of the clearest (up to 0.91 STI, source-dependant) and loudest (up to 126 dBA Fast @ 1m) audio signals available. Loudspeaker heads are as small as 13.2" (33.5 cm) in diameter and 24.7" (62.7 cm) in height. A single panel unit weighs as little as 16 lb (7.3 kg).

Hyperspike assemblies are AC powered with DC backup. They come with a lockable NEMA 4 Electronics Control Cabinet (ECC) that holds the amplifier and battery charger, and a lockable NEMA 4 battery enclosure. Loudspeakers come pre-assembled with an eight foot (2.4 meter) ¾-inch liquid-tight flexible conduit whip and wire leads. Batteries and battery enclosures are ordered separately.

Color: Tan	Color: Gray	HPSA Assemblies		
1600 Watt Class				
☐ MN-HSHT16P5N	☐ MN-HSHG16P5N	1600 Watts, 360° Dispersion, 5 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT16P3N	☐ MN-HSHG16P3N	960 Watts, 230° Dispersion, 3 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT16P2N	☐ MN-HSHG16P2N	640 Watts, 185° Dispersion, 2 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT16P1N	☐ MN-HSHG16P1N	320 Watts, 120° Dispersion, 1 Active Panel	Data Sheet E85001-0637	☐
3200 Watt Class				
☐ MN-HSHT32P5N	☐ MN-HSHG32P5N	3200 Watts, 360° Dispersion, 5 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT32P3N	☐ MN-HSHG32P3N	1920 Watts, 230° Dispersion, 3 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT32P2N	☐ MN-HSHG32P2N	1280 Watts, 185° Dispersion, 2 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT32P1N	☐ MN-HSHG32P1N	640 Watts, 120° Dispersion, 1 Active Panel	Data Sheet E85001-0637	☐
6400 Watt Class				
☐ MN-HSHT64P5N	☐ MN-HSHG64P5N	6400 Watts, 360° Dispersion, 5 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT64P3N	☐ MN-HSHG64P3N	3840 Watts, 230° Dispersion, 3 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT64P2N	☐ MN-HSHG64P2N	2560 Watts, 185° Dispersion, 2 Active Panels	Data Sheet E85001-0637	☐
☐ MN-HSHT64P1N	☐ MN-HSHG64P1N	1280 Watts, 120° Dispersion, 1 Active Panel	Data Sheet E85001-0637	☐

Medium Power Speaker Arrays

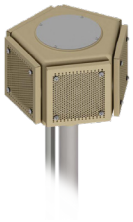
The EDWARDS HyperSpike® Series TCPA-10 is intended for indoor and outdoor audio signaling and notification. Its best-in-class acoustic coverage allows for fewer units to be installed in large indoor and outdoor areas, lowering installation and long-term maintenance costs, while also improving intelligibility and aesthetics.

	Color:	MPSA Assemblies		
☐ 90215A-801-01-L	☐ Black	UL 1480 listed C1D2 certified TCPA-10 Distributed Audio Speaker with 5 selectable power taps that run off of 25V, 70V and 100 VRMS audio systems	Data Sheet E85001-0669	☐
☐ 90215A-801-04-L	☐ Gray	UL 1480 listed C1D2 certified TCPA-10 Distributed Audio Speaker with 5 selectable power taps that run off of 25V, 70V and 100 VRMS audio systems	Data Sheet E85001-0669	☐
☐ 90215A-801-05-L	☐ Red	UL 1480 listed C1D2 certified TCPA-10 Distributed Audio Speaker with 5 selectable power taps that run off of 25V, 70V and 100 VRMS audio systems	Data Sheet E85001-0669	☐
☐ 90215A-801-06-L	☐ White	UL 1480 listed C1D2 certified TCPA-10 Distributed Audio Speaker with 5 selectable power taps that run off of 25V, 70V and 100 VRMS audio systems	Data Sheet E85001-0669	☐

Mass Notification

Medium Power Speaker Arrays

EDWARDS brand Hyperspike Series Medium Power loudspeakers employ exclusive HyperSpike technology to deliver lightweight and acoustically sophisticated solutions for large indoor and smaller outdoor mass notification installations.



UL Listed 250-Watt Medium Power Speaker Arrays

EDWARDS brand Model 250 Hyperspike Series UL Listed Medium Power loudspeakers employ HyperSpike® technology to deliver lightweight and acoustically sophisticated solutions for large indoor and smaller outdoor mass notification installations. These UL Listed units are omni-directional loudspeakers that produce 360 degrees of acoustic energy. The high fidelity output remains intelligible over up to a quarter mile from the device. It is rated for indoor or outdoor use. The include four wattage taps: 40 W, 90 W, 125 W, and 250 W.

☐	MN-HSMT25P5N	250-Watt Medium Power Speaker Array, tan housing.	Data Sheet E85001-0652
☐	MN-HSMG25P5N	250-Watt Medium Power Speaker Array, gray housing.	Data Sheet E85001-0652
☐	MN-HSMR25P5N	250-Watt Medium Power Speaker Array, red housing.	Data Sheet E85001-0652

Omnidirectional 650-Watt Loudspeakers

The MN-HSMP650 Series has a 360° omnidirectional sound dispersion pattern and can handle 650 Watts of crystal-clear audio power. It is rated for indoor and outdoor use and hangs from eyebolts or is mounted to a two-inch OD mast.

☐	MN-HSMP650G	Loudspeaker assembly, 650 Watt, Gray Housing.	Data Sheet E85001-0638
☐	MN-HSMP650P5T	Loudspeaker assembly, 650 Watt, Tan Housing.	Data Sheet E85001-0638

Omnidirectional Indoor-rated 300-Watt Loudspeakers

The MN-HSMP300DF is a grey indoor-rated omnidirectional unit rated for 300 Watts of continuous audio power. These units are eyebolt-mounted.

☐	MN-HSMP300DF1	Omnidirectional Loudspeaker, 300 Watt.	Data Sheet E85001-0638
☐	MN-HSMP300DF170	Omnidirectional Loudspeaker, 300 Watt with 70.7 VRMS transformer.	Data Sheet E85001-0638

Directional 200-Watt Loudspeakers

The MN-HSMP200D is a directional loudspeaker that handles 200 Watts of continuous audio. Units feature 60° x 30° sound dispersion and are suitable for indoor or outdoor applications. They come complete with mounting bracket.

☐	MN-HSMP200D1	Directional Loudspeaker, 200 Watt.	Data Sheet E85001-0638
☐	MN-HSMP200D170	Directional Loudspeaker, 200 Watt with 70.7 VRMS transformer.	Data Sheet E85001-0638

Portable Loudspeaker System

The MN-HSPB is a self-contained, portable loudspeaker system that weighs a mere 15 lbs. Despite its light weight, the MN-HSPB packs a peak acoustic output of 144dB for an intelligible communication range of more than 2,450 feet (750 m).

☐	MN-HSPB-S	HS Series Portable Handheld Speaker - Standard Output	Data Sheet E85001-0653
☐	MN-HSPB-H	HS Series Portable Handheld Speaker - High Output	Data Sheet E85001-0653

SUBMIT

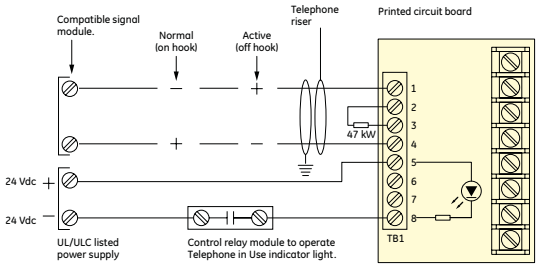
Firefighters' Telephones

Firefighters' telephones are typically installed in corridors, lobbies, mechanical rooms, stairways, or other stategic locations. When lifted from its cradle, or plugged into a suitable wall jack, the handset activates audible and visible signals at the EST3 control panel.

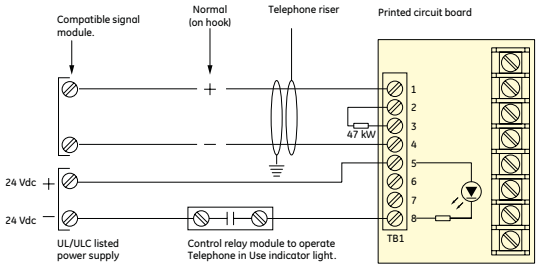
Edwards fire alarm telephones are rugged communications devices for emergency use. Enclosed keylocked telephone stations comprise three separately ordered components: the handset assembly, the frontplate, and the wallbox. Depending on how the phones are wired, they are supervised for three or four state operation. Frontplates are available with either metal or break glass inserts.

MEA approved warden stations feature doors with magnetic latches and one-state handsets with armoured cords. Warden stations mount to 6832-1 wallboxes. Portable handsets plug into one-gang receptacles. Handsets are available in black or red. The TCS-6 cabinet provides storage for up to six handsets.

Four-state operation



Three-state operation



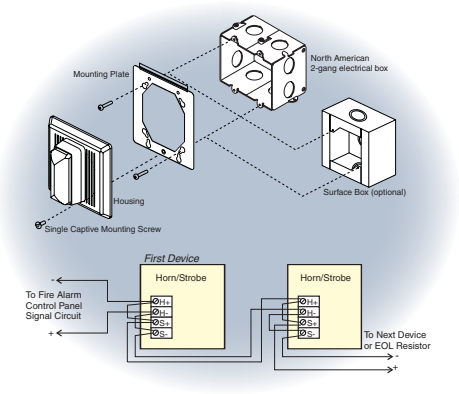
6830-NY-S4 | 6831-1 | 6831-4 | 6832-1 | 6830-4 | 6833-4 | 6830-3

Firefighters' Telephones

6830-NY-F4	Four-state Remote Telephone Warden Station - Flush. Armored armored cord.
6830-NY-S4	Four-state Remote Telephone Warden Station - Surface. Armored armored cord.
6830-5A-4	Four-state Telephone Handset Assembly - Red, 60" (1500mm) Coiled Cord, Push-to-talk button.
6830-6A-4	Four-state Telephone Handset Assembly - Red, 60" (1500mm) Armored Cord, Push-to-talk button.
6830-4	Four-state Telephone Handset Assembly - Red, 60" (1500mm) Coiled Cord.
6830-5A-4	Three-state Telephone Handset Assembly - Red, 60" (1500mm) Coiled Cord, Push-to-talk button.
6830-6A-4	Three-state Telephone Handset Assembly - Red, 60" (1500mm) Armored Cord, Push-to-talk button.
6833-4	Four-state Portable Telephone Handset Receptacle, 1-gang Stainless-steel Faceplate.
6830-3	Portable Telephone Handset - Black c/w 60" (1500mm) Coiled Cord.
6700-0061	Portable Telephone Handset - Red c/w 60" (1500mm) Coiled Cord.
6831-1	Frontplate - Flush Mount, Red Finish, Break Glass Type c/w 2 keys.
6831-2	Frontplate - Flush Mount, Red Finish, Non-Break Glass Type c/w 2 keys.
6831-3	Frontplate - Surface Mount Red Finish, Break Glass Type c/w 2 keys.
6831-4	Frontplate - Surface Mounting Red Finish, Non-Break Glass Type c/w 2 keys.
6832-1	Wallbox - Flush or Surface mount, Red finish. 14" (356mm) H x 8-1/2" (216mm) W x 3½" (89mm) D.
TCS-6	Portable handset storage cabinet. Surface mount c/w keylock. Red finish with white lettering.

Enhanced Integrity Series

Harsh Environment Signals



All Enhanced Integrity devices are UL 1971 listed for both wall and ceiling orientation. Enhanced Integrity strobes meet the latest UL1971 synchronization requirements when used with the G1M Signal Master. Integrity devices are shipped with wall mount style "FIRE" lens markings. Other lens markings are available.

Re-Entrant Speakers and Speaker-Strobes

Re-entrant speakers feature a sealed, high efficiency compression driver that's both weatherproof and vermin proof. This makes them ideal for public places and outdoor areas such as parking garages and transport terminals. All Integrity speakers include a DC Blocking Capacitor that permits electrical supervision of the audio distribution circuit. Models for 25VRMS and 70VRMS circuits are available.

Fire Alarm Appliances, clear lenses, Data Sheet E85001-0317

15/75 cd	30 cd	110 cd	Speaker only	
☐ 757-7A-RS25	☐ 757-3A-RS25	☐ 757-8A-RS25	☐ 757-1A-R25	Speaker-strobe, 25 V, red housing
☐ 757-7A-RS25W	☐ 757-3A-RS25W	☐ 757-8A-RS25W	☐ 757-1A-R25W	Speaker-strobe, 25 V, white housing
☐ 757-7A-RS70	☐ 757-3A-RS70	☐ 757-8A-RS70	☐ 757-1A-R70	Speaker-strobe, 70 V, red housing
☐ 757-7A-RS70W	☐ 757-3A-RS70W	☐ 757-8A-RS70W	☐ 757-1A-R70W	Speaker-strobe, 70 V, white housing

Mass Notification Appliances, amber lenses, Data Sheet E85001-0317

☐ 757-7A-RS25WA (12/75 cd)	☐ 757-8A-RS25WA (88 cd)	Speaker-strobe, 25 V, white housing
☐ 757-7A-RS70WA (12/75 cd)	☐ 757-8A-RS70WA (88 cd)	Speaker-strobe, 70 V, white housing

Temporal Horns and Horn-Strobes

During installation, the Horn is configured for steady or temporal tone signal. When temporal output is selected, all Horns on a common two-wire circuit are self-synchronized. Integrity Series Horns emit a low frequency "growling" tone that demands attention. Horns can be configured for either high output (98 dBA) or low output (94 dBA); and are listed for outdoor use.

☐ 757-1A-T (Red)	☐ 757-1A-TW (White)	Temporal Horn	Data Sheet E85001-0341
☐ 757-7A-T (Red)	☐ 757-7A-TW (White)	Temporal Horn-Strobe, 15/75cd	Data Sheet E85001-0341
☐ 757-4A-T (Red)	☐ 757-4A-TW (White)	Temporal Horn-Strobe, 75cd	Data Sheet E85001-0341
☐ 757-8A-T (Red)	☐ 757-8A-TW (White)	Temporal Horn-Strobe, 110cd	Data Sheet E85001-0341

4" Square Box Mount Strobes

405 Series strobes are self-synchronized to flash at one fps across their full operating voltage range. UL 1971 synchronization requirements are achieved when used with the G1M Signal Master. Strobes must be connected to signal circuits that output a constant (not pulsed) voltage. A diode is used to allow full signal circuit supervision. 405 Series strobes are suitable for outdoor use and installed to a standard four-inch square electrical box.

☐ 405-5A-T (Red)	☐ 405-5A-TW (White)	Strobe - 15 cd	Data Sheet E85001-0305
☐ 405-7A-T (Red)	☐ 405-7A-TW (White)	Strobe - 15/75	Data Sheet E85001-0305
☐ 405-3A-T (Red)	☐ 405-3A-TW (White)	Strobe - 30 cd	Data Sheet E85001-0305
☐ 405-6A-T (Red)	☐ 405-6A-TW (White)	Strobe - 60 cd	Data Sheet E85001-0305
☐ 405-8A-T (Red)	☐ 405-8A-TW (White)	Strobe - 110 cd	Data Sheet E85001-0305
☐ CS-405-7A-T (15/75 cd)	☐ CS-405-8A-T (110 cd)	Strobe - Weatherproof (red)	Data Sheet E85001-0305

SUBMIT

Audible Signals

Fire Alarm Bells

Edwards fire alarm bells are of the underdome type with heavy-duty mechanisms. Gongs are made of selected alloy steel to generate the loud, resonant tones. For weatherproof application, optional surface weatherproof backboxes are available.

☐323D-10AW (Grey)	☐323D-10AW-R (Red)	10-inch Single Stroke, Diode — 20-24Vdc	Data Sheet E85001-0333 ☐
☐ 439D-6AW (Grey)	☐439D-6AW-R (Red)	6-inch Vibrating, Diode — 20-24Vdc	Data Sheet E85001-0333 ☐
☐439D-10AW (Grey)	☐439D-10AW-R (Red)	10-inch Vibrating, Diode — 20-24Vdc	Data Sheet E85001-0333 ☐

Multiple Tone Signal

The 5530MD-24AW is a weatherproof heavy-duty industrial, tone-selectable, signaling device capable of producing volume-controlled, high-decibel tones. It uses a microprocessor circuit to create 27 distinctive tones. A single tone may be selected by setting a miniature dip switch within the unit.

5530MD-24AW	27-Tone Selectable Signal — 24Vdc	Data Sheet E85001-0415 ☐

Multi-purpose Loudspeaker

The HPSA15 loudspeaker is a high-efficiency double re-entrant loudspeaker that operates within a nominal frequency response range of 400-14,000 Hz, and provides audible output of 120 dB (peak at one meter) at the rated power level. It includes a versatile, three-way, 25/70.7 V line transformer that meets a variety of distributed system needs. The transformer is adjustable by means of a convenient seven-position, watts/impedance selection switch.

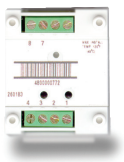
HPSA15R2570	15-watt loudspeaker, red	Data Sheet E85001-0591 ☐
HPSA15G2570	15-watt loudspeaker, gray	Data Sheet E85001-0591 ☐

Accessories

Signal Master

The Signal Master is a simple-to-use accessory that adds enhanced features to Genesis and Integrity strobes and Horn-Strobes. It is a dual-purpose module that provides UL 1971 required precision synchronization for connected Integrity and Genesis strobes, and independent control for connected Genesis Horns over a single pair of wires. Two methods of Horn control are available: traditional Horn silence; or, normally-closed contact. Both methods may be used to silence Horns without turning off strobes on the same circuit. Two models are available. The Genesis "piggyback" model doesn't require a separate electrical box. It simply snaps to the back of the first G1 signal on the circuit. The remote mount model mounts in a North American 2½ inch (64 mm) deep one-gang box.

Snap-on (piggyback) model



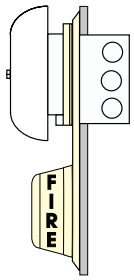
Remote 1-gang mount model

G1M	Genesis Signal Master – Snap-on (piggyback)	Data Sheet E85001-0545 ☐
G1M-RM	Genesis Signal Master – Remote 1-Gang Mount	Data Sheet E85001-0545 ☐

Accessories

Bell/Strobe Plate

The bell/strobe plate is ideal for renovation and retrofit projects, and new construction. It is equipped with an Edwards self-synchronizing strobe and is designed to allow on-site mounting of the 439 series Vibrating Bell, providing instant conversion to Bell/Strobe audible/visual signal appliances. The strobe is designed for 20 to 24Vdc operation and must be connected to signal circuits which output a constant (not pulsed) voltage. A diode is used to allow full signal circuit supervision.



☐ 403-5A-R (15 cd) ☐ 403-7A-R (15/75 cd) ☐ 403-3A-R (30 cd) ☐ 403-8A-R (110 cd) Data Sheet E85001-0441

Integrity Lens Marking Kits

Integrity strobes are shipped with wall mount style “FIRE” lens markings. Where ceiling mount, other languages or different lens markings are required, optional LKW and LKC series Lens Marking Kits are available. Lens marking sleeves snap right over the strobe lens providing a quick, easy, change.

☐ LKW-1R (Wall orientation) “FIRE” (Red)

☐ LKW-1 (Wall orientation) ☐ LKC-1 (Ceiling orientation) “FIRE”

☐ LKW-2 (Wall orientation) ☐ LKC-2 (Ceiling orientation) “FEU”

☐ LKW-3 (Wall orientation) ☐ LKC-3 (Ceiling orientation) “FIRE/FEU”

☐ LKW-4 (Wall orientation) ☐ LKC-4 (Ceiling orientation) “SMOKE”

☐ LKW-5 (Wall orientation) ☐ LKC-5 (Ceiling orientation) “HALON”

☐ LKW-6 (Wall orientation) ☐ LKC-6 (Ceiling orientation) “CO2”

☐ LKW-7 (Wall orientation) ☐ LKC-7 (Ceiling orientation) “EMERGENCY”

☐ LKW-8 (Wall orientation) ☐ LKC-8 (Ceiling orientation) “ALARM”

☐ LKW-9 (Wall orientation) ☐ LKC-9 (Ceiling orientation) “FUEGO”

☐ LKW-10 (Wall orientation) ☐ LKC-10 (Ceiling orientation) “ALERT”

Mounting Accessories

Integrity Temporal Horn, Horn/strobe
- ❑ 757A-SB Surface Box, Red, Indoor
- ❑ 757A-SBW Surface Box, White, Indoor
- ❑ 757A-WB Weatherproof Box, Red, Surface
- ❑ 757A-WBW Weatherproof Box, White, Surface

Integrity Speakers, Speaker/strobes
- ❑ 960A-4SF Flush Box, Indoor
- ❑ 757A-SB Surface Box, Red, Indoor
- ❑ 757A-SBW Surface Box, White, Indoor

Integrity Re-entrant speakers, Speaker/strobes
- ❑ 960A-4SF Flush Box, Indoor
- ❑ 757A-SB Surface Box, Red, Indoor
- ❑ 757A-SBW Surface Box, White, Indoor
- ❑ 757A-WB Weatherproof Box, Red, Surface
- ❑ 757A-WBW Weatherproof Box, White, Surface

Integrity Chimes, Chime/strobes
- ❑ 757A-SB Surface Box, Red, Indoor
- ❑ 757A-SBW Surface Box, White, Indoor

Genesis Signals
- ❑ 27193-11 Horn-strobe Surface Box, Red, Indoor
- ❑ 27193-16 Horn-strobe Surface Box, White, Indoor
- ❑ G4RB Speaker Surface Box, Red, Indoor
- ❑ G4B Speaker Surface Box, White, Indoor
- ❑ G4ERB G4 Dual-strobe Format Surface box, Red
- ❑ G4EWB G4 Dual-strobe Format Surface box, White

Horn/siren Combination
- ❑ 349 Weatherproof Backbox

Fire Alarm Bells and CS-405 Series
- ❑ 449 Weatherproof Backbox

Genesis G4B Speaker Surface Box

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Notification Appliances p. 51

Hazardous Location Devices

Edwards hazardous location devices provide reliable life safety protection and emergency signaling in areas where atmospheres could become harsh or explosive. All hazardous location devices are UL rated under the full range of classifications set out in the National Electrical Code.

The following classification definitions are an interpretive summary based on the latest edition of the National Electrical Code (NEC, NFPA 70). Refer to the latest editions of NFPA 497M, NFPA 70 and the UL Hazardous Location Equipment Directory for current and more detailed information. For more information on NEMA classifications, refer to NEMA Standards Publication No. 250.

Hazardous Location Classifications

Classes

Class I - Hazardous Gases. Class I locations are areas in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Typical Class I Hazardous Areas
- Spray painting and finishing areas
- Utility gas plants
- Petroleum refining production plants
- Petroleum dispensing locations
- Dry cleaning facilities
- Dip tanks containing combustibles or flammable liquids
- Plant facilities extracting solvents
- Inhalation anesthetics areas
- Process facilities manufacturing pyroxylin type plastics

Class II - Hazardous Dusts. Class II locations represent areas that are hazardous due to the presence of combustible dust.

Typical Class II Hazardous Areas
- Flour mills
- Feed mills
- Grain elevators and grain handling facilities
- Aluminum manufacturing and storage areas
- Magnesium manufacturing and storage areas
- Coal preparation and handling facilities
- Starch manufacturing and storage areas
- Confectionery plants
- Pulverizer sugar and cocoa manufacturing, and storage plants
- Spice grinding and storage plants

Class III - Hazardous Fibers. Class III locations have easily ignitable fibers or flyings present, but not likely to be suspended in air in quantities sufficient to produce ignitable mixtures in the atmosphere.

Typical Class III Hazardous Areas
- Textile mills
- Woodworking plants*
- Furniture manufacturers*
- Cotton gins
- Cotton seed milling plants
- Flax plants
- Carpet manufacturers

** Except if wood flour (dust), which is Class II Group G, is present*

Divisions

The Location Classes are broken down by the NFPA into Divisions 1 and 2, defining different levels of risk. In general, the risk of there being a hazardous presence of flammable/combustible/ignitable materials is higher for Division 1 than for Division 2. The specifics differ between the three classes (I, II and III). Equipment suitable for Division 1 is also suitable for Division 2 locations.

Groups

Class I and II locations are divided by the NFPA into Group designations identifying specific gases, vapors and dusts by characteristic similarities that relate to specific equipment construction requirements. Class III locations are not divided into separate group designations.

Class I Groups

Group A. Atmospheres containing acetylene.

Group B. Atmospheres containing hydrogen, fuel and combustible process gases containing more than 30 percent hydrogen by volume, or gases or vapors of equivalent hazard such as butadiene, ethylene oxide, propylene oxide, and acrolein.

Group C. Atmospheres such as ethyl ether, ethylene, or other gases or vapors of equivalent hazard.

Group D. Atmospheres containing acetone, ammonia, benzene, butane, cyclopropane, ethanol, gasoline, hexane, methanol, methane, natural gas, naphtha (petroleum), propane, or gases or vapors of equivalent hazard.

Class II Groups

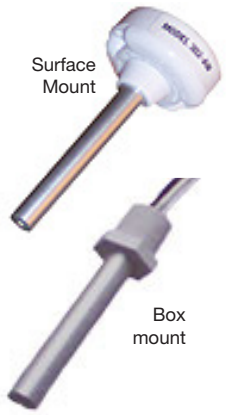
Group E. Atmospheres containing combustible metal dusts, including aluminum, magnesium, and their commercial alloys, or other combustible dusts whose particle size, abrasiveness and conductivity present similar hazards in the use of electrical equipment.

Group F. Atmospheres containing combustible carbonaceous dusts, including carbon black, charcoal, coal, or dusts that have been sensitized by other materials so that they present an explosion hazard.

Group G. Atmospheres containing combustible dusts not included in Group E or F, including flour, grain, wood, plastic, and chemicals.

Initiating Devices

Rate Compensation Heat Detectors



Series 302 heat detectors are designed for use in normal environments as well as environments where the detectors are subject to weather, moisture (internal condensation), and explosive atmospheres. They are normally-open devices designed to close an electrical circuit upon activation. All models feature rate compensation and are available with either 135 °F (57.2 °C) or 194 °F (90 °C) ratings. They are self restoring, hermetically sealed, shock and corrosion resistant, and are tamperproof.

Sensor's Rated Temperature	Minimum Ambient Air Temperature	Maximum Ceiling Temperature
135 °F (57.2 °C)	-40 °F (-40 °C)	100 °F (38 °C)
194 °F (90 °C)	-40 °F (-40 °C)	150 °F (66 °C)

The sensor's aluminum tube acts as a heat collector when sources of heat radiate directly on the tube. Install these sensors out of direct sunlight and away from radiating heat sources including the direct flow from heaters and heat ducts.

302-AW-135	All-weather Heat Detector - Vertical Mounting FM & UL, 135 °F (57.2 °C)	Data Sheet E85001-0589
302-AW-194	All-weather Heat Detector - Vertical Mounting FM & UL, 194°F (90 °C)	Data Sheet E85001-0589
302-ET-135	All-weather Heat Detector - Vertical, Box Mount (½" NPT), FM & UL, 135 °F (57.2 °C)	Data Sheet E85001-0589
302-ET-194	All-weather Heat Detector - Vertical, Box Mount (½" NPT), FM & UL, 194°F (90 °C)	Data Sheet E85001-0589
302-EPM-135	Heat Detector - Explosionproof Mounting UL (Not FM approved), 135 °F (57.2 °C)	Data Sheet E85001-0589
302-EPM-194	Heat Detector - Explosionproof Mounting UL (not FM approved), 194°F (90 °C)	Data Sheet E85001-0589
AP-P	Adaptor plate for mounting 302 and 302-AW to any 3" box or 4" octagon outlet box	Data Sheet E85001-0589
JALX11	Explosion proof outlet body with cover - Killark	Data Sheet E85001-0589

Explosionproof/weatherproof Manual Stations

MPSR Series explosionproof/weatherproof manual pull stations are noncoded fire alarm stations solidly constructed of die-cast material. They are rated for Class I Group B (hydrogen) C & D, Class II Groups E. F, G, Class III environments, and are rated NEMA 4X for outdoor use. Key and screw reset models feature terminal connections and come complete with backbox.

Hex Screw Reset	Cat 45 Key Reset	Manual Stations	Data Sheet E85001-0588
☐ MPSR1-DHTWX-GE	☐ MPSR1-D45WX-GE	Explosionproof Single-action, SPST with backbox.	
☐ MPSR1-SHTW-GE	☐ MPSR1-S45W-GE	Weatherproof Single-action, SPST with backbox.	
☐ MPSR1-DHTW-GE	☐ MPSR1-D45W-GE	Weatherproof Single-action, DPDT with backbox.	
☐ MPSR2-SHTW-GE	☐ MPSR2-S45W-GE	Weatherproof Double-action, SPST with backbox.	
☐ MPSR2-DHTW-GE	☐ MPSR2-D45W-GE	Weatherproof Double-action, DPDT with backbox.	
☐ MPSR2-SHTW-GE-NYW	☐ MPSR2-S45W-GE-NYW	Weatherproof Double-action, SPST with backbox, NYC white stripe.	

For French markings add *-F* to the suffix of the model number. For bilinguial French/English markings add *-B* to the suffix of the model number.

MPSR-LP	Double action cover for explosionproof manual stations
MPSRGR10	Replacement glass rods for MPSR stations (10 pack).
276-K1	Cat 45 Key (each)

SUBMIT

Explosionproof Smoke Detector

Model 30-3013 detectors are high performance smoke detectors built for use in hazardous locations. They are corrosion-resistant and feature a non-conducting aluminum alloy retaining ring that protects the detector sensor against the effects of explosions and other catastrophic events. The retaining ring mounts securely to a companion junction box, which offers several common port configurations for conduit connection. Together, the ring and box provide a sturdy protective shell for the detector head.

30-3013A1N12F	Explosionproof Smoke Detector	Data Sheet E85001-0645

Notification Appliances

Hazardous Location Strobes

- Class I, II, or III locations

116DEGEX-FJ hazardous location strobes are life safety signaling appliances designed for installation in hazardous environments. State-of-the-art technology provide for high visual output and low maintenance. The 116DEGEX-FJ has negligible in-rush current. When pendant, wall or ceiling mounted, the 116DEGEX-FJ meets or exceeds the requirements of UL 1971 Signaling Appliance for the Hearing Impaired.

116DEGEX-FJ	Explosionproof Strobe, Diode Polarized	Data Sheet E85001-0624
116EX-B	Wall bracket mounting elbow (required for wall mount applications)	Data Sheet K85001-0624
116EX-C	Ceiling/wall mounting module (required for wall mount applications)	Data Sheet K85001-0624
116EX-P	Pendant mounting module - 3/4” (19 mm) NPT	Data Sheet E85001-0624
116-GRD	Lens Guard	Data Sheet E85001-0624

Hazardous Location Bells

- Class I groups B, C and D locations
- Class II groups E, F and G locations
- Class III hazardous locations, for Divisions 1 and 2

430D series of hazardous location bells are diode-polarized, heavy duty fire bells for use in life safety applications where a diode supervised signal is required. They can be mounted to any solid surface using two 3/8 inch (10 mm) bolts and the supplied mounting brackets or to a rigid conduit. The integral explosion-proof housing is mechanically terminated to accept a standard 3/4 inch -14 National Pipe Taper (NPT) nipple.

☐ 439DEX-6AW (6”)	☐ 439DEX-8AW (8”)	☐ 439DEX-10AW (10”)	Bell – 24 Vdc, Red	Data Sheet K85001-0399
☐ 439DEX-6AW-R (6”)	☐ 439DEX-8AW-R (8”)	☐ 439DEX-10AW-R (10”)	Bell – 24 Vdc, Grey	Data Sheet K85001-0399

Hazardous Location Horns

- Class I groups B, C and D locations
- Class II groups E, F and G locations
- Class III hazardous locations, for Divisions 1 and 2

888D and 889D hazardous location horns are diode-polarized, heavy duty, high decibel vibrating horns intended for use in life safety systems in hazardous (classified) locations. These horns may be mounted to any solid surface using two bolts. Each unit is supplied with a sealing fitting for a 3/4 inch -14 National Pipe Taper (NPT) nipple, and wire leads for the electrical connection to the life safety system notification appliance circuit.

☐ 888D-N5 (120 Vac)	☐ 889D-AW (24 Vdc)	Horn – 120 Vac	Catalog Sheet: 85001-0397

SUBMIT

Door Holders

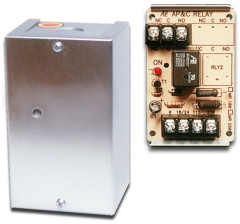
24 Vac 60 Hz
24 Vdc
120 Vac 60 Hz

Electromagnetic Door Holders

Electromagnetic door holders keep doors open until signaled by the fire alarm system, a heat detector, a smoke detector, or an electrical switch. Door holders should be installed wherever doors may be effectively used to confine smoke and fire, or where the release of a self-closing door from a remote location is required. Fail-safe operation is an inherent feature of these door holders. If power fails, doors are released automatically, but may be opened or closed manually at any time. All units are free of moving parts, are self-contained, and require no maintenance. Door holders have a holding force of approximately 15-25 Lbf (66-111N).

☐	☐1501-AQN5 (Single Door)	☐1502-AQN5 (Double Door)	Floor Mounted	Data Sheet E85001-0421
☐	☐1504-AQN5 (Long Catch Plate)	☐1505-AQN5 (Short Catch Plate)	Flush Wall Mounted	Data Sheet E85001-0421
☐	☐1508-AQN5 (Surface)	☐1505-AQN9 (Completely flush)	Wall Mounted	Data Sheet E85001-0421
☐	☐1500-1 (1.5” Extension)	☐1500-2 (2.5” Extension)	Catch Plate	Data Sheet E85001-0421
☐	☐1500-7 (5.25 to 7.5” Extension)	☐1500-12 (7.5 to 12” Extension)	Catch Plate	Data Sheet E85001-0421
☐	☐CS2595-5 (short)	☐CS2598-5 (long)	Replacement Armature	Data Sheet E85001-0421

Relays



Four-Voltage SPDT/DPDT Control Relays

MR Series multi-voltage control relays are ideal for applications where local contacts are required for system status, remote contacts, or for control of electrical loads and general purpose switching. They are suitable for use with HVAC temperature control, fire alarm, security, energy management, and lighting control systems. Relays provide 10-Amp contacts, which may be operated by one of four input control voltages. Each relay position contains a red LED that indicates the relay coil is energized. Relays may be snapped apart from a standard four-module assembly and used independently.

☐	☐MR-101/T (with mounting hardware)	☐MR-101/C (in metal enclosure)	Single SPDT relay	Data Sheet E85300-02762
☐	☐MR-104/T (with mounting hardware)	☐MR-104/C (in metal enclosure)	4-position SPDT relay	Data Sheet E85300-02762
☐	☐MR-201/T (with mounting hardware)	☐MR-201/C (in metal enclosure)	Single DPDT relay	Data Sheet E85300-02762
☐	☐MR-204/T (with mounting hardware)	☐MR-204/C (in metal enclosure)	4-position DPDT relay	Data Sheet E85300-02762

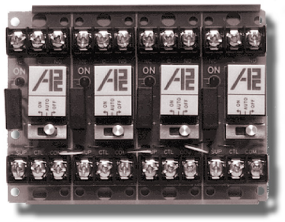
Heavy Duty DPDT Power Relays

MR-199 heavy duty power relays are designed for control applications where 30-Amp DPDT contacts are required. Two models are available: a 115Vac coil and a 24Vdc coil, each of which may be mounted in a rugged steel enclosure.

☐	☐MR-199X-13 (relay only)	☐MR-199X-13/C (in metal enclosure)	Power Relay — 24 VDC	Data Sheet E85300-02765
☐	☐MR-199AX-14 (relay only)	☐MR-199AX-14/C (in metal enclosure)	Power Relay — 120 VDC	Data Sheet E85300-02765

SUBMIT

SPDT Relays



Single-pull/double-throw relays are ideal for applications where local or remote contacts are required for control of electrical loads. They are suitable for use with HVAC, temperature control, fire alarm, security, energy management, and lighting control systems. Each relay position contains a high-intensity LED which, when illuminated, indicates the relay coil is energized. Individual relay circuits may be snapped apart from standard four- or eight-position modules, and are also available in a single-circuit configuration. The common power to each relay position is bussed on the printed wiring board, which permits power to be connected only once per multi-position module.

Single-Voltage Manual Override Relays

MR-600 series relays provide SPDT, 10-Amp contacts with manual override capability by means of an ON-AUTO-OFF switch. The relay requires a 24Vac or 24Vdc power source supplied by the controlling system. With the switch in the ON position the power relay is energized. With the switch in the AUTO position the relay is allowed to operate as signaled by the controlling system. With the switch in the OFF position the relay cannot be energized.

☐MR-601/T (with mounting track)	☐MR-601/S (with mounting spacers)	Single SPDT relay	Data Sheet E85300-02761	☐
☐MR-604/T (with mounting track)	☐MR-604/S (with mounting spacers)	4-position SPDT relay	Data Sheet E85300-02761	☐
☐MR-608/T (with mounting track)	☐MR-608/S (with mounting spacers)	8-position SPDT relay	Data Sheet E85300-02761	☐

Three-Voltage Control Relays

MR-800 Series relays provide SPDT 10-Amp contacts that may be operated by one of three input control voltages: 24Vdc, 24Vac or 115Vac.

☐MR-801/T (with mounting track)	☐MR-801/S (with mounting spacers)	Single SPDT relay	Data Sheet E85300-02763	☐
☐MR-804/T (with mounting track)	☐MR-804/S (with mounting spacers)	4-position SPDT relay	Data Sheet E85300-02763	☐
☐MR-808/T (with mounting track)	☐MR-808/S (with mounting spacers)	8-position SPDT relay	Data Sheet E85300-02763	☐

Four-Voltage Control Relays

MR-700 Series relays provide SPDT 10-Amp contacts that may be operated by one of four input control voltages: 12Vdc, 12Vac, 24Vdc, or 24Vac.

☐MR-701/T (with mounting track)	☐MR-701/S (with mounting spacers)	Single SPDT relay	Data Sheet E85300-02764	☐
☐MR-704/T (with mounting track)	☐MR-704/S (with mounting spacers)	4-position SPDT relay	Data Sheet E85300-02764	☐
☐MR-708/T (with mounting track)	☐MR-708/S (with mounting spacers)	8-position SPDT relay	Data Sheet E85300-02764	☐

Three-Voltage Encapsulated Control Relays

PAM-1 relays provide 10-Amp Form C contacts. The relay may be energized by one of three input voltages: 24Vac, 24Vdc, or 115Vac. The PAM-1 may be mounted with double-sided adhesive tape, a self-tapping screw, or loosely placed in a backbox.

PAM-1	Encapsulated SPDT relay	Data Sheet E85300-02766	☐

EDWARDS

United Technologies

Proven leadership. Proud heritage. Shared vision.

In 1872 when Robert Edwards installed an electrically-operated gas lamp igniter in a New York City church, he began a tradition of innovation that would chart the course of building safety and security for the next 140 years. Today the company that bears his name draws on this rich legacy of inventiveness, and benefits from fresh new alliances established with one underlying goal: uncompromised excellence.

Today EDWARDS meets this goal with quality products and an exceptional sensitivity to the needs of our customers. Now we have access to the resources, talent, and experience that is already setting a coordinated plan for excellence into action. The result is a unique synergy sustained by a strong organization with a well-defined vision of the future.

That vision of excellence is why EDWARDS is among the fastest growing building systems providers today. It's also why, with more than a century of solid growth behind us, you can put your trust in EDWARDS.

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Innovation, leadership, and a rich tradition of excellence...

Whether EDWARDS life safety systems are protecting the lives and livelihoods of the people who make businesses run, or the lives entrusted to the care of public institutions; whether they're charged with protecting the guests of the world's finest hotels, or preserving irreplaceable artifacts that bring history to life; EDWARDS stands alone as the brand closely associated with some of the most important and far-reaching developments in the life safety industry today.

Our strength is in our Strategic Partners — the people and organizations we entrust with the technology that has charted the course of life safety protection for decades. Strategic Partners are not middlemen or go-betweens. They are independent contractors who add value to the EDWARDS life safety solution. As insiders, they enjoy exclusive access to products, custom design innovations, and factory training. Yet as successful independent contractors, they are adept at ensuring that each submittal is strong and competitive, and that each bid is locally relevant to your installation. As local businesses they not only have to earn your trust — they have to keep it.

Together these strengths set EDWARDS installations apart, and have earned this brand a special place among life safety and security solutions available today. Perhaps that's why many of the world's most cherished landmarks are protected by EDWARDS products. From the Bibliotheca Alexandrina Museum in Egypt, to the modern-day sphinx at the Luxor Hotel in Las Vegas, professionals who design, own and occupy the world's most impressive structures have chosen the EDWARDS solution.

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