



2021-22 PRODUCT GUIDE



VES was founded with one mission: to give dealers a comprehensive, cost-effective means of providing fire detection networks for corporate, educational, government, and retail campuses of any size using 21st century technologies.

Building on our success in the Engineered Systems Market, we continue to expand our range of fire detection products including the all new L@titude control panel. This enables Dealers to compete in the small and medium systems market, without compromising on features or expandability. Rest easy, knowing that our systems will grow with you, from a simple 32 point system to a 32,000 point system. No matter what the scope of your installation, all of the VES panels program with easy-to-use software or soft keys.

Our state-of-the-art line of sensors and modules are easy to install. Our panels have been designed with the ability to apply company specific professional branding plates. Your installation will be with state-of-the-art products both in performance and appearance. Whether you need a single product line to satisfy small installations or the ability to offer larger system solutions including multi-panel networking, VES has the product range. Remember all VES panels program with easy-to-use, easy-to-learn configuration software.

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L@TITUDE | Analog Addressable Fire Alarm Control Panels



Single Aperture



**Double Aperture
Includes Zone LED Module and Printer**

Standard Features

- ◆ UL Listed (Tenth Edition) and FM Approved
- ◆ 2 to 8 loop or 2 to 16 loop versions
- ◆ 400mA loop current
- ◆ 4 programmable NACs; Class B or 2 Class A with internal synchronization
- ◆ 5.25 A or 10.25 A power supply options
- ◆ 3 programmable inputs and 5 programmable relay outputs
- ◆ 7 inch, full-color resistive touch screen with intuitive user interface
- ◆ Up to 24 programmable soft "function keys"
- ◆ Up to 64 user login accounts
- ◆ Hard-wired fire and trouble routing inputs and outputs
- ◆ Modular and expandable electronics
- ◆ 400 subaddress points per loop (800 per loop module)
- ◆ Option to "invert" inputs and outputs
- ◆ 5000 programmable cause and effects; over 50,000 inputs and outputs
- ◆ Can be networked with programmable functionality
- ◆ Programming via USB port to PC or memory stick
- ◆ L@ti-View Graphical PC User Interface



Technical Specifications





2 to 8 LOOP (4 SLOT) ENCLOSURE

Size	Standard Cabinet - 420mm (W) x 590mm (H) x 153mm (D), or 16.5in (W) x 23.2in (H) x 6in (D) Deep Cabinet - 420mm (W) x 590mm (H) x 203mm (D), or 16.5in (W) x 23.2in (H) x 8in (D)
Construction	Mild sheet steel enclosure, 1.5 mm
Cable Entry	Standard Cabinet - 28 knockouts top, 19 knockouts back, 1 knockout each side, 2 knockouts bottom Deep - 38 knockouts top, 19 knockouts back, 1 knockout each side, 2 knockouts bottom
Optional Semi-Flush Mounting Kit	Semi-Flush Mounting Collar Kit KM5FCRD - Red KM5FCGY - Gray KM5FCBS - Black
Battery Capacity	Standard Cabinet - Up to 28 Ah (Power Sonic PS-12280) Deep Cabinet - Up to 40 Ah (Power Sonic PS-12400)

2 to 16 LOOP (8 SLOT) ENCLOSURE

Size	Standard Cabinet - 540mm (W) x 720mm (H) x 160mm (D), or 21.3in (W) x 28.3in (H) x 6.3in (D) Deep Cabinet - 540mm (W) x 720mm (H) x 212mm (D), or 21.3in (W) x 28.3in (H) x 8.3in (D)
Construction	Mild sheet steel enclosure, 1.5 mm
Cable Entry	Standard Cabinet - 38 knockouts top, 25 knockouts back, 2 knockouts each side, 2 knockouts bottom Deep Cabinet - 50 knockouts top, 25 knockouts back, 2 knockouts each side, 2 knockouts bottom
Battery Capacity	Standard Cabinet - Up to 28 Ah (Power Sonic PS-12280) Deep Cabinet - Up to 40 Ah (Power Sonic PS-12400)

ALL MODELS

Finish	Epoxy powder coated
Color	Enclosure  Red (RAL3002)  Gray (BS 00 A 05)  Black (RAL9005) Fascia  Signal White (RAL9003)
Power supply voltage	120 VAC or 240 VAC
Power supply rating at 24V DC	5.25A (charges up to 60Ah) 10.25A (charges up to 100Ah)
Display	Full-color 800 x 480 LCD with resistive touch screen and automatic backlight dimming
Software zones	2000
Software groups	5000
Cause and Effects	5000
Event log	10,000 events, 1 second resolution. Filterable and printable.
Detection loops	2 to 16 added 2 at a time (S758 dual loop cards)
Detection loop current	400mA each
AUX 24V Output	2; each rated at 900mA
NACs	4; each rated at 2.5 A. Class B or 2 Class A.
Programmable Relay Outputs	5; 30 V DC 1 Amp
Programmable Inputs	3; designed to be activated by voltage-free contacts
Network Connection	Optional network card provides communication for networking 127 fire control panels
NAC Synchronization	Internal Support of System Sensor, Wheelock, Gentex, and Amseco protocols
Printer (OPTIONAL)	40 column, front-loading thermal
Zone LED Indicators (OPTIONAL)	Up to 3 banks of 48 (144) as standard
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	to 95% (non condensing)

Product Overview

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

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

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

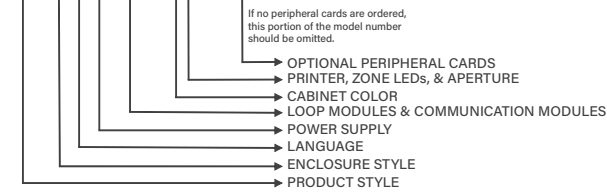


Optional Panel Peripherals

- ◆ **Lati-View Graphics**
L@ti-View enables the creation of a 2D map of any site or building to monitor fire safety and detection, and automatically switches to an area where a fire device has been activated to allow immediate viewing and investigation of an event.
- ◆ **Dual Loop Panel Module (S758)**
The Dual Loop Panel Module monitors loop device status and provides status to the panel processor. It holds device configurations and operates in a standalone manner when catastrophic failures occur.
- ◆ **16 Channel I/O Interface Card (S560)**
The 16 Channel I/O Interface enhances the versatility of the alarm system by providing additional input and output capabilities to the L@titude Fire Alarm Control Panel. Inputs or outputs can be selected for up to 16 individual channels, and are configured in the same way as devices connected to addressable loops of the panel. The 16 Channel I/O Interface can be configured to contribute or act upon cause and effect logic.
- ◆ **8 Channel Relay Panel Module (S791)**
The 8 Channel Relay Panel Module has 8 voltage-free changeover relay contacts, each of which can be individually programmed. All outputs are configurable in the same way as devices connected to the loops and all may be acted upon by cause and effect logic. These boards are typically used in applications which require more than the five standard relay outputs, such as signaling to other systems or plant control.
- ◆ **Network Module (S723)**
The L@titude Network Module provides enhanced high-speed communication for networking fire control panels. The network provided by this module can support combinations of L@titude Fire Alarm Control Panels and L@titude Vision units. L@titude Fire Alarm Control Panels can receive events from other panels in the network. The Class X networking used in conjunction with the Network Module provides tolerance against open and short circuit trouble conditions.
- ◆ **Media Gateway™ Panel Module (S788)**
The Media Gateway Panel Module provides connectivity to monitoring centers using IP (Sur-Gard), or dial-up connectivity. The Media Gateway may also be used to meet integration application requirements.
- ◆ **Printer (S768)**
The L@titude Printer is an optional feature for printing fire system events as they occur. The printer is located on the fascia, below the Zone LEDs (if present). It is a thermal printer and never requires replacement ink. Printing is performed on heat-sensitive paper rolls. A trouble message is reported when the paper runs out. The printer includes a front-loading feature for replacing paper rolls.
- ◆ **Zone LED Module (S771)**
The Zone LED module contains 48 LEDs and is connected to the LCD Main Processor Board of the L@titude Fire Alarm Control Panel. A maximum of three Zone LED modules can be connected to provide the fascia with 144 Zone LED indicators.
- ◆ **4 Channel NAC Panel Module (S793)**
Additional NAC output capability can be added to by using 4 Channel NAC Modules. These boards have 4 supervised NAC outputs, each of which can be individually programmed. The circuits can be configured for class A or B operation. These circuits can be configured to act upon cause and effect logic.
- ◆ **8 Channel Conventional Zone Panel Module (S792)**
The 8 Channel Conventional Zone Panel Module has 8 supervised detection circuits (Class B). Each circuit can support up to 20 conventional detectors and approved devices. Individual circuits may be configured for trigger resistor or short circuit activation. These circuits may be used for any of the standard input actions and can be configured to contribute to cause and effect logic. Each pair of circuits (e.g., 1 and 2, 3 and 4, etc.) can be joined to form a single Class A configuration.
- ◆ **16 Channel I/O Interface Panel Module (S772)**
The 16 Channel I/O Interface Panel Module will provide the same functionality as the 16 Channel I/O Interface Card, with the convenience of a plug-in-module.

Panel Model Numbers

LV 1 0 3 H# -14 (abcd)



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

ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
APPLIANCES

MISCELLANEOUS



Standard Features

- ◆ UL Listed (Tenth Edition) and FM Approved
- ◆ Supports Hochiki and Apollo Protocols
- ◆ 2 to 8 loop or 2 to 16 loop versions
- ◆ 400mA loop current
- ◆ 4 programmable NACs; Class B or 2 Class A with internal synchronization
- ◆ 5.25 A or 10.25 A power supply options
- ◆ 3 programmable inputs and 5 programmable relay outputs
- ◆ 7 inch, full-color resistive touch screen with intuitive user interface
- ◆ Up to 24 programmable soft “function keys”
- ◆ Up to 64 user login accounts
- ◆ Hard-wired fire and trouble routing inputs and outputs
- ◆ Modular and expandable electronics
- ◆ 400 sub-address points per loop (800 per loop module)
- ◆ Option to “invert” inputs and outputs
- ◆ 5000 programmable cause and effects; over 50,000 inputs and outputs
- ◆ Can be networked with programmable functionality
- ◆ Programming via USB port to PC or memory stick
- ◆ L@ti-View Graphical PC User Interface

Product Overview

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

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

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



Technical Specifications





2 to 8 LOOP (4 SLOT) ENCLOSURE

Size	Standard Cabinet - 420mm (W) x 590mm (H) x 153mm (D), or 16.5in (W) x 23.2in (H) x 6in (D) Deep Cabinet - 420mm (W) x 590mm (H) x 203mm (D), or 16.5in (W) x 23.2in (H) x 8in (D)
Construction	Mild sheet steel enclosure, 1.5 mm
Cable Entry	Standard Cabinet - 28 knockouts top, 19 knockouts back, 1 knockout each side, 2 knockouts bottom Deep - 38 knockouts top, 19 knockouts back, 1 knockout each side, 2 knockouts bottom
Optional Semi-Flush Mounting Kit	Semi-Flush Mounting Collar Kit KM5FCRD - Red KM5FCGY - Gray KM5FCBS - Black
Battery Capacity	Standard Cabinet - Up to 28 Ah (Power Sonic PS-12280) Deep Cabinet - Up to 40 Ah (Power Sonic PS-12400)

2 to 16 LOOP (8 SLOT) ENCLOSURE

Size	Standard Cabinet - 540mm (W) x 720mm (H) x 160mm (D), or 21.3in (W) x 28.3in (H) x 6.3in (D) Deep Cabinet - 540mm (W) x 720mm (H) x 212mm (D), or 21.3in (W) x 28.3in (H) x 8.3in (D)
Construction	Mild sheet steel enclosure, 1.5 mm
Cable Entry	Standard Cabinet - 38 knockouts top, 25 knockouts back, 2 knockouts each side, 2 knockouts bottom Deep Cabinet - 50 knockouts top, 25 knockouts back, 2 knockouts each side, 2 knockouts bottom
Battery Capacity	Standard Cabinet - Up to 28Ah (Power Sonic PS-12280) Deep Cabinet - Up to 40Ah (Power Sonic PS-12400)

ALL MODELS

Finish	Epoxy powder coated
Color	Enclosure  Red (RAL3002)  Gray (BS 00 A 05)  Black (RAL9005) Fascia  Pantone 532 C
Power supply voltage	115 VAC or 230 VAC
Power supply rating at 24V DC	5.25A (charges up to 60Ah) 10.25A (charges up to 100Ah)
Display	Full-color 800 x 480 LCD with resistive touch screen and automatic backlight dimming
Software zones	2000
Software groups	5000
Cause and Effects	5000
Event log	10,000 events, 1 second resolution. Filterable and printable.
Detection loops	2 to 16 added 2 at a time (S758 dual loop cards)
Detection loop current	400mA each
AUX 24V Output	2; each rated at 900mA
NACs	4; each rated at 2.5 A. Class B or 2 Class A.
Programmable Relay Outputs	5; 30 VDC 1A
Programmable Inputs	3; designed to be activated by voltage-free contacts
Network Connection	Optional network card provides communication for networking 127 fire control panels
NAC Synchronization	Internal Support of System Sensor, Wheelock, Gentex, and Amseco protocols
Printer (OPTIONAL)	40 column, front-loading thermal
Zone LED Indicators (OPTIONAL)	Up to 3 banks of 48 (144) as standard
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	to 95% (non condensing)

Optional Panel Peripherals

◆ **Lati-View Graphics**

L@ti-View enables the creation of a 2D map of any site or building to monitor fire safety and detection, and automatically switches to an area where a fire device has been activated to allow immediate viewing and investigation of an event.

◆ **Dual Loop Panel Module (S758)**

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

◆ **16 Channel I/O Interface Card (S560)**

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

◆ **Media Gateway™ Panel Module (S788)**

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

◆ **8 Channel Relay Panel Module (S791)**

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

◆ **Network Module (S723)**

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

◆ **Printer (S768)**

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

◆ **Zone LED Module (S771)**

The Zone LED module contains 48 LEDs and is connected to the LCD Main Processor Board of the Compas Fire Alarm Control Panel. A maximum of three Zone LED modules can be connected to provide the fascia with 144 Zone LED indicators.

◆ **4 Channel NAC Panel Module (S793)**

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

◆ **8 Channel Conventional Zone Panel Module (S792)**

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

◆ **16 Channel I/O Interface Panel Module (S772)**

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

Panel Model Numbers

CV 1 0 3 A# -14 (abcd)

If no peripheral cards are ordered, this portion of the model number should be omitted.

- OPTIONAL PERIPHERAL CARDS
- PRINTER, ZONE LEDs, & APERTURE
- CABINET COLOR
- LOOP MODULES & COMMUNICATION MODULES
- POWER SUPPLY
- LANGUAGE
- ENCLOSURE STYLE
- PRODUCT STYLE

Panel Options	Valid Entries	Description
Product Style	CV	Compas Fire Alarm Control Panel
	CR	Compas Network Vision Annunciator
Enclosure Style	1	4 Slot Standard Enclosure
	2	4 Slot Standard Plex-Door Enclosure
	3	4 Slot Deep Enclosure
	4	4 Slot Deep Plex-Door Enclosure
	5	4 Slot Extra Deep Guard Station Enclosure - FUTURE ENHANCEMENT
	6	4 Slot 19" Rack Mount Enclosure
	7	8 Slot Standard Enclosure - 16 Loop
	8	8 Slot Standard Plex-Door Enclosure - 16 Loop
	9	8 Slot Deep Enclosure - 16 Loop
	A	8 Slot Deep Plex-Door Enclosure - 16 Loop
	C	Annunciator
Language	0	English
	1	Portuguese
	2	Spanish
	3	Taiwanese
Power Supply	0	None
	1	5.25A 115V
	2	5.25A 230V
	3	10.25A (auto-voltage sensing)
Loop Modules & Communication Modules	00	Not Fitted
	NC	Network Module only (Network Vision Annunciator)
	A#	2-Loop Panel Module, Apollo Protocol
	L#	2-Loop Panel Module, Apollo Protocol, and Media Gateway
	M#	2-Loop Panel Module, Apollo Protocol, and Network Module
	N#	2-Loop Panel Module, Apollo Protocol, Network Module, and Media Gateway
Cabinet Color	1	● Red (RAL3002)
	4	● Gray (BS 00 A 05)
	6	● Black (RAL9005)
Printer, Zone LEDs & Aperture	0	No Printer / No Zone LEDs
	1	No Printer / No Zone LEDs, Blank 2nd Aperture
	3	Printer / No Zone LEDs
	4	Printer / 48 Zone LEDs
	5	No Printer / 48 Zone LEDs
	6	No Printer / 96 Zone LEDs
	7	No Printer / 144 Zone LEDs
Optional Peripheral Cards	a	16 Channel I/O Panel Module (S772)
	b	8 Channel Relay Panel Module (S791)
	c	8 Channel Conventional Zone Module (S792)
	d	4 Channel NAC Module (S793)

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L@TITUDE NETWORK VISION ANNUNCIATOR

LR00NC-10 (RED), LR00NC-40 (GRAY), AND LR00NC-60 (BLACK)



Standard Features

- ◆ Full-color 7" (800 x 480 pixel) interface
- ◆ Replicates information displayed at the FACP
- ◆ Automatic display brightness adjustment
- ◆ Internal buzzer
- ◆ Connects via control panel network terminals
- ◆ Low current, 24V DC powered
- ◆ Configurable functionality
- ◆ Enable key-switch
- ◆ Sheet steel enclosure
- ◆ Surface or semi-flush enclosure options available

Product Overview

The L@titude Network Vision Annunciator is the most qualified annunciator on the market. It is a full-color graphical display and touchscreen. It represents the most versatile annunciator for life safety systems available today. The Annunciator is a full-function fire alarm repeater that is configurable and application-flexible for use in applications such as hospital nursing stations and elevator alarms.

L@titude Network Vision Annunciators can be configured to fully replicate fire control panel functionality, or to operate as simple, display-only devices for applications where access to fire alarm controls are inappropriate.

Technical Specifications

Supply Voltage Range	21 - 30V DC
Quiescent Current during Power Failure	216mA typical (buzzer off @ 24V DC) 246mA typical (buzzer on @ 24V DC) 341mA max (buzzer on @ 21V DC)
Maximum Number of Units on a Network	31 Annunciators
Size	9.25" x 6.7" x 2.2" (235 mm x 170 mm x 55 mm)
Display	Full color 800 x 480 LCD with resistive touch screen and automatic back-light dimming
Construction	18 SWG, 1.2 mm mild sheet steel
Cable Entry	2 x 20 mm knockouts on top & bottom 4 x 20 mm and 2 x 28 mm knockouts in back
Vision Annunciator Electronics Only	S787
Finish	Epoxy powder coated
Color	Enclosure <input checked="" type="radio"/> Red (RAL3002) <input type="radio"/> Gray (BS 00 A 05) <input type="radio"/> Black (RAL9005) Fascia <input type="radio"/> Signal White (RAL9003)
Optional Semi-Flush Mounting Collar Kit	KM1098RD - Red KM1098GY - Gray KM1098BS - Black
Weight	4.4 lbs (2 kg) maximum
IP Rating	IP30



COMPAS NETWORK VISION ANNUNCIATOR

CRCO0NC-10 (RED), CRCO0NC-40 (GRAY), AND CRCO0NC-60 (BLACK)



Standard Features

- ◆ Full-color 7" (800 x 480 pixel) interface
- ◆ Replicates information displayed at the FACP
- ◆ Automatic display brightness adjustment
- ◆ Internal buzzer
- ◆ Connects via control panel network terminals
- ◆ Low current, 24V DC powered
- ◆ Configurable functionality
- ◆ Enable key-switch
- ◆ Sheet steel enclosure
- ◆ Surface or semi-flush enclosure options available

Technical Specifications

Supply Voltage Range	21 - 30V DC
Quiescent Current during Power Failure	216mA typical (buzzer off @ 24V DC) 246mA typical (buzzer on @ 24V DC) 341mA max (buzzer on @ 21V DC)
Maximum Number of Units on a Network	31 Annunciators
Size	9.25" x 6.7" x 2.2" (235 mm x 170 mm x 55 mm)
Display	Full color 800 x 480 LCD with resistive touch screen and automatic back-light dimming
Construction	18 SWG, 1.2 mm mild sheet steel
Cable Entry	2 x 20 mm knockouts on top & bottom 4 x 20 mm and 2 x 28 mm knockouts in back
Vision Annunciator Electronics Only	S787
Finish	Epoxy powder coated
Color	Enclosure ● Red (RAL3002) ● Gray (BS 00 A 05) ● Black (RAL9005) Fascia ● Pantone 532 C
Optional Semi-Flush Mounting Collar Kit	KM1098RD - Red KM1098GY - Gray KM1098BS - Black
Weight	4.4 lbs (2 kg) maximum
IP Rating	IP30

Product Overview

The Compas Network Vision Annunciator is the most qualified annunciator on the market. It is a full-color graphical display and touchscreen. It represents the most versatile annunciator for life safety systems available today. The Annunciator is a full-function fire alarm repeater that is configurable and application-flexible for use in applications such as hospital nursing stations and elevator alarms.

Compas Network Vision Annunciators can be configured to fully replicate fire control panel functionality, or to operate as simple, display-only devices for applications where access to fire alarm controls are inappropriate.



4 CHANNEL NAC PANEL MODULE

S793



Standard Features

- ◆ Simple plug-in connection to the L@titude or Compas Fire Alarm Control Panels
- ◆ 4 NAC outputs
- ◆ Fault and operated LED on-board indicators
- ◆ Decals provided to redesignate terminals

Product Overview

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

Technical Specifications

Supply Voltage Range	21 - 30V DC
Quiescent Current Consumption	30mA
Maximum Current Consumption	50mA
Current per Output	2.3 A per channel
Maximum Line Impedance	4V loss (load-dependent)
Output Contact Rating	30 VDC 1 Amp
Dimensions	9.25" x 2.5" (234.6mm x 62.8mm)
Cable Capacity	2.5mm per terminal
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	up to 95% (non-condensing)



8 CHANNEL RELAY PANEL MODULE

S791



Standard Features

- ◆ Simple 'plug-in' connection to the L@titude or Compas Fire Alarm Control Panels
- ◆ 8 volt free changeover relay contacts (1 Amp 30V DC)
- ◆ Relay operated indications
- ◆ All outputs programmable for cause and effects
- ◆ Decals provided to redesignate terminals

Product Overview

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

Technical Specifications

Supply Voltage Range	24V DC
Quiescent Current Consumption	10mA
Maximum Current Consumption	160mA (all relays on)
Output Contact Rating	30 VDC 1 Amp
Dimensions	9.25" x 2.5" (234.6mm x 62.8mm)
Cable Capacity	2.5mm per terminal
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	up to 95% (non condensing)

8 CHANNEL CONVENTIONAL ZONE PANEL MODULE

S792



Standard Features

- ◆ Simple 'plug-in' connection to the L@titude or Compas Fire Alarm Control Panels
- ◆ 8 monitored, conventional, detection zone inputs
- ◆ Decals provided to redesignate terminals

Product Overview

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

Technical Specifications

Supply Voltage Range	21 - 30V DC
Quiescent Current Consumption	70mA
Maximum Current Consumption	210mA
Maximum Line Impedance	101 Ohms
Dimensions	9.25" x 2.5" (234.6mm x 62.8mm)
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	up to 95% (non-condensing)



16 CHANNEL I/O INTERFACE

S560 (BOARD) AND S772 (PANEL MODULE)



Standard Features

- ◆ Simple 'plug-in' connection
- ◆ Total of 16 channels per board
- ◆ Each channel configurable as input or output
- ◆ Up to 4 boards supported per 2-8 loop panel (maximum of 64 input/output channels)
- ◆ Up to 8 boards supported per 2-16 loop panel (maximum of 128 input/output channels)
- ◆ Inputs opto-isolated
- ◆ Outputs open collector transistor
- ◆ Inputs and outputs configurable as per field devices
- ◆ Full cause and effects on all inputs and outputs
- ◆ Decals provided to redesignate terminals

Product Overview

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

Input points of this device are not supervised and therefore shall not be used for life safety initiation within a UL listed system. In a UL application this module must be housed in the panel or a listed enclosure connected to the panel by metal conduit. Power must also be provided by a UL listed power supply.

Technical Specifications

	Board (S560)	Panel Module (S772)
Supply Voltage	24V DC	24V DC
Quiescent Current Consumption	20mA	20mA
Current per Input	3mA (maximum)	3mA
Current per Output	100mA or 500mA across bank of 8 outputs	100mA per output OR 400mA across bank of 8 outputs
Dimensions	7.5" x 2.5"	9.25" x 2.5" (234.6mm x 62.8mm)
Cable Capacity	2.5mm per terminal	2.5mm per terminal
Operating Temperature	2°F - 122°F (0°C - 50°C)	23°F - 120°F (-5°C - 49°C)
Operating Humidity	up to 95% (non-condensing)	up to 95% (non-condensing)

A small ancillary cabinet (see below to determine model number) is required for mounting the 16 Channel I/O Interface Board. The ancillary cabinet should be mounted near the L@titude or Compas panel. Provide a metal enclosed wiring pathway (such as conduit) between the panel and the cabinet.

Cabinet w/ Lid and Mounting Plate: VF0770-<A>, where A designates color (1 = red, 4 = gray) and B designates the number of cards (up to 3) to be installed.



MEDIA GATEWAY™ PANEL MODULE

S788



Standard Features

- ◆ Simple 'plug-in' connection to the L@titude or Compas Fire Alarm Control Panels
- ◆ Dual Line Dialer Capability (SIA or Contact ID)
- ◆ IP Capable (Sur-Gard Fibro)
- ◆ Programmable to report via point or zone
- ◆ Programmable for back-up reporting
- ◆ Reporting codes can be customized by user

Product Overview

The Media Gateway™ is a communication panel module for the L@titude Fire Alarm Control Panel.

The Media Gateway Panel Module provides connectivity to a remote monitoring center via Sur-Gard Fibro or dial-up. SIA is the recommended format for usage, but Contact ID is also supported. Transmission can be made through one or two telephone lines, and/or IP through Ethernet. Standard reporting codes have been pre-defined, although the user may customize these codes through the Loop Explorer 2 programming application.

The Media Gateway can provide connectivity to third-party networks (please consult a VES applications engineer for further information), and our new graphics system, L@ti-View.

Technical Specifications

Supply Voltage	24V DC
Quiescent Current Consumption	114mA
Maximum Current Consumption	114mA
Dimensions	9.25" x 2.5" (234.6mm x 62.8mm)
Operating Temperature	23°F - 120°F (-5°C - 49°C)
Operating Humidity	up to 95% (non condensing)

ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
APPLIANCES

MISCELLANEOUS



ELITE RS

Analog Addressable Fire Control Panels

VF0810-XX (1 LOOP)

VF0820-XX (2 LOOP)

WHERE XX=10 FOR RED AND XX=40 FOR GRAY



Standard Features

- ◆ One full SLC circuit expandable to two 3 programmable relays
- ◆ 5.25A power supply
- ◆ Large graphic display
- ◆ Real time clock
- ◆ Compatible with eMATRIX graphics annunciator
- ◆ Powerful, network wide cause and effects (500 total)
- ◆ Fully user programmable by point or zone
- ◆ Can be networked with additional RS and/ or Elite control panels
- ◆ Compatible with eVIEW Annunciator
- ◆ Programmable through a PC connection to the panel
- ◆ Same look and feel as Elite range
- ◆ Stores 1000 last events in history log
- ◆ Model ranges include with or without a Dual-Line internal DACT
- ◆ Compact, stylish enclosure
- ◆ Available in Red or Gray
- ◆ 2 Programmable NAC circuits with internal synchronization support

Product Overview

Elite RS is a versatile range of open protocol fire alarm control panels compatible with existing Elite fire alarm panel technology.

Available with one or two detection loops for a total of 254 primary SLC points or up to 800 points using addresses and subaddresses. Elite RS uses leading edge microprocessor based electronics to provide a flexible control system with high reliability and integrity.

Suitable for all small to medium sized fire detection systems, Elite RS control panels can be expanded and networked to become part of much larger systems if the need arises, therefore providing a future proof solution for any installation.

With its large graphical display and ergonomic button and indicator layout, the Elite RS control panel is simple and straightforward to understand for installers, commissioning engineers, and end users alike.



Manufactured by Kentec Electronics Ltd.
Dartford, DA11 9J, United Kingdom

Technical Specifications

Construction	16AWG sheet steel
Dimensions	14.5"(W) x 18.9"(H) x 4.25" (D)
Weight (without batteries)	20lb
Finish (lid and box)	RAL3002 (Red) BS 00 A 05 (Gray)
Finish (product labels)	BS 00 A 05 (Gray)
AC Voltage Supply	115 or 230V AC, 50 or 60 Hz (specify when ordering, default is 115V)
AC Supply Fuse	1.6A 250V
DC Power Supply Rating	24V 5.25A
AUX 24V Supply	Fused at 500mA
Battery (24 hour standby)	9Ah 12V (2 per panel, non-networked)
Fault Contact Rating	30V DC 1 Amp
Fire Contact Rating	30V DC 1 Amp
Alarm Contact Rating	30V DC 1 Amp
NAC Output Rating	2.3A each, 3.1A total
Detection Loop	250mA output
Serial Expansion Port	Serial RS485
PC Port	Serial RS232
Network Connection	Optional network cards allow the use of eNet networking
NAC Synchronization	Internal Support
NAC Protocols	System Sensor, Wheelock, Gentex, Amseco

Optional Features

Elite RS with Internal Modem/DACT (VF0816-xx/VF0826-xx)

- ◆ Dual line digital communicator and modem
- ◆ Central Station reporting; SIA and Contact ID
- ◆ On-board loop start terminal connections for both primary and secondary telecommunication lines

Elite RS with Internal Modem/DACT and eNet (VF0817-xx/VF0827-xx)

- ◆ Dual line digital communicator and modem
- ◆ Central Station reporting; SIA and Contact ID
- ◆ On-board loop start terminal connections for both primary and secondary telecommunication lines
- ◆ eNet networking card pre-installed (one required per node)

Elite RS and eNet (VF0815-xx/VF0825-xx)

- ◆ eNet networking card pre-installed (one required per node)

Panel Peripherals Available

- ◆ eNET Networking Card (VF1170-00)
- ◆ 1 Loop Expansion Board (VF1054-00)
- ◆ Trim Ring (VF1071-xx)

ELITE DEMO CASE

VF1062-10 (RED)
VF1062-40 (GRAY)



- ◆ Portable Sales Demonstration Case
- ◆ Permanently mounted in a bi-fold case on wheels
- ◆ Case incorporates Elite RS, eView Serial Annunciator, Addressable Pull Station, Addressable Heat Detector, Addressable Optical Detector, Addressable IO Module, Strobe
- ◆ Elite RS panel has a selectable voltage, 115V or 230V
- ◆ Allows full demo of features

ELITE

Analog Addressable Fire Control Panels

VF1420-XX (2 LOOP)

VF1440-XX (4 LOOP)

WHERE XX=10 FOR RED AND XX=40 FOR GRAY



Product Overview

The VF1420 and VF1440 analog addressable FACP with networked releasing, supports 2 or 4 SLC loops for a total of 500 primary points and up to 800 points using sub-points. SLC loop communications uses standard twisted pair cabling, shielded cable is not necessary.

The panel may be configured with various communication cards; Communications options support remote programming, central station monitoring, Virtual Panel, and networking.

The Panel can be configured as a stand-alone panel with just a few devices for a small building; it can also operate as the building system and can be part of a network with a total of 64 nodes serving a multiple building campus or a very large facility.

Autolearn capability provides a convenient method to troubleshoot new installations before final programming is loaded.

Standard Features

- ◆ UL 864 9th Edition listed
- ◆ Multi-Loop 2 Analog Addressable Loops Field upgradable to 4
- ◆ 127 primary points per loop
- ◆ Powerful, network wide cause and effects (500 total) Fully user-programmable by point or zone
- ◆ Up to 800 points per panel when using devices and sub-points
- ◆ Up to 10,000 feet wiring length on SLC loop
- ◆ 64 Panels on a network
- ◆ Programmable through a PC connection to the panel, or through keypad
- ◆ Programmable outputs on SLC loop
- ◆ Programmable Function button on front display
- ◆ Fire Drill button on front display
- ◆ Day and night sensitivity settings (user programmable)
- ◆ LCD Display: 8x40
- ◆ Zonal Mode: Annunciation by zone without individual relationships
- ◆ Panel Ring Modes: Common, Zonal, Stage 2
- ◆ NAC Outputs programmable as Continuous, March, Temporal
- ◆ Program Cause and Effects AND, OR, or Any Two (Cross Zone)
- ◆ Battery size: Up to 17 Ah in standard enclosure; up to 52 Ah with external cabinet
- ◆ Access levels: 3
- ◆ Access keyswitch: Yes
- ◆ Recognized for use in High Rise
- ◆ One man walk test – Fire Test Mode
- ◆ Available with semi flush trim ring
- ◆ Available in Red or Gray



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

Added Features

Elite with eNET (VF1425-xx/VF1445-xx)

- ◆ Network uses standard RS485 cabling
- ◆ Up to 2,000 ft. between adjacent panels
- ◆ 115 kbps constant network speed
- ◆ Secure, fault tolerant communication
- ◆ Up to 64 nodes

Elite with DACT (VF1424-xx/VF1444-xx)

- ◆ Dual line digital communicator and modem
- ◆ Contact ID and SIA reporting
- ◆ UL 864 9th edition listed
- ◆ Zone or point reporting
- ◆ Backup and duplicate reporting

Also Available

- ◆ 2 loop expansion board (VF1053-00)
- ◆ Trim ring (VF1070-xx)
- ◆ Elite Panel with Internal Printer



All parts available in Red or Gray, with or without an internal printer. When ordering specify - CP,

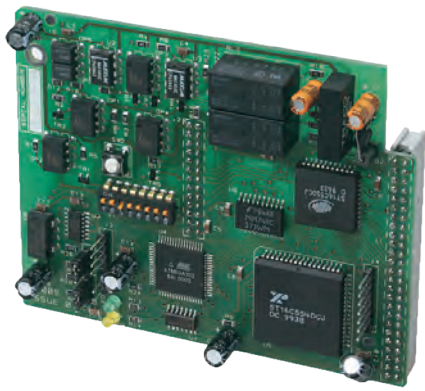
- ◆ where C = 1 for Red or 4 for Gray and
- ◆ where P = 0 for No internal printer or 3 for Internal printer

Technical Specifications

Primary AC	120VAC @ 2A 60hz (Optional 240 VAC 50hz)
Output DC	24VDC @ 4A
Power Supply	5.25A regulated and integrated
Charger Current	1.25A max.
Dimensions	14.5"(W) x 24"(H) x 5"(D)
Weight	25 lbs. (without batteries)
Color	Red (optional gray)
Display	8 line x 40 character LCD (320 characters total)
Zones	500 Zones per network
SLC Loops	2 or 4 (class A or B)
Devices per Loop	127 sensors and modules (800 addresses + sub-addresses max. per panel)
NAC Outputs	(4) 1.6 Amp @ 24VDC (class B)
Relay Outputs	(5) Form C 1A @ 30VDC
Voltage Outputs	(3) 500mA @ 24VDC, reverse polarity supervised
Aux Power	500mA @ 24VDC
Aux Inputs	(3) digital pull downs
Current Consumption	VF1420 355 mA Standby 650 mA Alarm VF1440 455 mA Standby 765 mA Alarm

ENET | Elite Networking

VF1170-00



Standard Features

- ◆ Up to 64 nodes
- ◆ High integrity protocol when wired Class A
- ◆ Fully secure against short or open circuit faults
- ◆ Simple two-wire loop connection
- ◆ Supports open ended networks for retrofit applications
- ◆ Network wide test and disablement functions
- ◆ Network wide cause and effect logic
- ◆ Flexible configuration options
- ◆ Panels configurable to act on network events or not as required

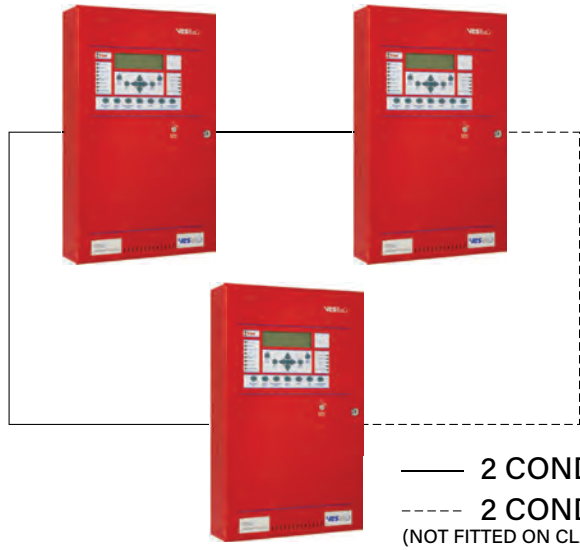
Product Overview

The flexibility of the Elite system can be further enhanced by connecting control panels and repeaters together using a high integrity network. A simple two-wire connection between each panel allows events to be transmitted to other parts of the system to provide indication or control on a system wide basis.

Using the Loop Explorer configuration software, up to 64 nodes can be programmed to respond in a variety of ways to any system events as required.

This flexibility extends the comprehensive cause and effect programming capability of Elite control panels to the entire network allowing actions, test modes or disablements to be started from any point. The fault tolerance of the network is such that any single open or short circuit fault will not result in any loss of information. Multiple faults are isolated and the network breaks into smaller networks which continue to work autonomously.

Two conductor loop wiring ensures network integrity by providing full isolation of faulty wiring segments.



Technical Specifications

Protocol	RS485
Connection	Two-wire loop
Current Consumption	40mA
Integrity	Full isolation of faulty nodes or wiring segments
Indicators	Data In and Data Out communications status
Cable Length	3900ft to adjacent nodes (subject to cable type, see technical manual)
Cable Type	Belden 9271, Belden 9860, FP200 Gold
Compatible Panels	Elite / Elite RS (required for networking)





Standard Features

- ◆ Supports dual screens
- ◆ Reports configuration mismatch errors
- ◆ Powerful event log filtering and reporting
- ◆ Manages the state of the fire system
- ◆ Programmable macro buttons to perform panel control operations
- ◆ Full map navigation
- ◆ Device analog value reporting
- ◆ Performs device and zone disablements / enablements

Ordering Codes

LEUS2004	L@ti-View - Elite / FireNET 4 Panel License
LEUS2016	L@ti-View - Elite / FireNET 16 Panel License
LEUS2064	L@ti-View - Elite / FireNET 64 Panel License
LVUS2004	L@ti-View - Compas / L@titude 4 Panel License
LVUS2016	L@ti-View - Compas / L@titude 16 Panel License
LVUS2128	L@ti-View - Compas / L@titude 128 Panel License

Product Overview

L@ti-View can automatically switch to the area on the site map where a fire has been activated to quickly view an event and begin immediate investigation. With L@ti-View, operators and users are alerted to an event as soon as it occurs and are directed to the location of the event.

L@ti-View also provides dedicated functions for a fire alarm system's maintenance team. A comprehensive list of all fire devices along with their statuses, cause and effect rules, and integration settings allows operators to quickly view a device, make changes, and disable devices all from one workstation. For all fire devices on the site, a log shows operators and engineers a view of all recorded maintenance activities, previous faults and status histories to help speed up maintenance procedures and device checks.

Permissions

L@ti-View enables permissions to be given to different levels of users. There are four default user accounts configured upon installation.

Additional accounts can be created by the administrator. These user accounts use default permissions groups, but user accounts and groups can be cloned and edited per site requirements. The default accounts are:

- ◆ **Operator** – Ordinary users of the system.
- ◆ **Manager** – Users who supervise the operators and as such have additional permissions and access. 2D GUI editing permitted.
- ◆ **Maintainer** – Users who maintain the system. Allows analog value polling, control of outputs, fire panel operations, fire zone testing and additional maintenance facilities.
- ◆ **Administrator** – Users who are permitted to administer the system. Full system access permitted.

eVIEW

Analog Addressable Serial Annunciator

VF1172-XX

WHERE XX=10 FOR RED AND XX=40 FOR GRAY



RED MODEL - 10



GRAY MODEL - 40

Standard Features

- ◆ Available in Red or Gray
- ◆ Up to 15 annunciators can be connected to each Elite or Elite RS fire control panel
- ◆ Large liquid crystal display (240 x 64 pixels)
- ◆ High brightness LED indications
- ◆ Internal sounder
- ◆ Replicates all panel controls (Elite)
- ◆ Simple, two-wire serial connection
- ◆ Small, Elite style enclosure
- ◆ Removable electronics for easy installation
- ◆ 24V DC powered
- ◆ Low power consumption
- ◆ Multi-language options
- ◆ Connection supervised by Elite fire control panel
- ◆ Recess mounting using optional VF1173 kit

Product Overview

Designed and manufactured to the highest standards in a quality controlled environment the eVIEW fire alarm annunciator provides a simple and convenient method of extending the controls and indications of the Elite fire alarm control panel to other locations.

The large, graphic LCD and high brightness LED indicators duplicate the indications on the Elite fire alarm control panel at up to 15 additional locations via a simple, two-wire serial data connection.

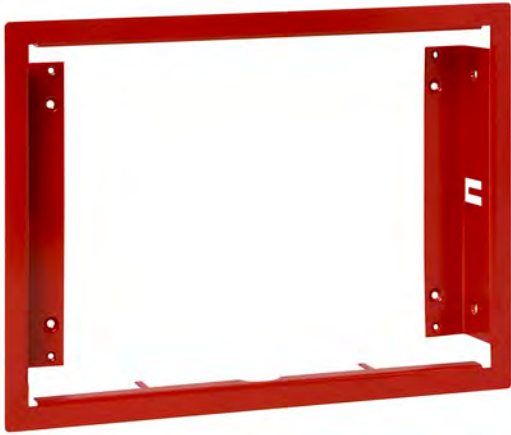
The eVIEW is powered by 24V DC (which can be via an additional 2 conductors from the control panel or local 24V DC listed supply).

eVIEW is housed in a small enclosure which is styled similarly to the Elite control panel and is ideal for installations where a large control panel would be detrimental to decor such as entrance halls.

Up to 15 eVIEW annunciators can be connected to each control panel on the Elite network making eVIEW ideal where multiple points of indication and/or control are required, such as nurses stations or shop units.



Manufactured by Kentec Electronics Ltd.
Dartford, DA11 3JQ, United Kingdom



The VES trim ring allows the eVIEW annunciator to easily be recess mounted. VES trim rings provides placement tabs that fold behind dry wall. Traditional screw mounting is available by 2 openings in each of the vertical frames. Conduit entry is not blocked by trim ring.

Trim Ring Specifications

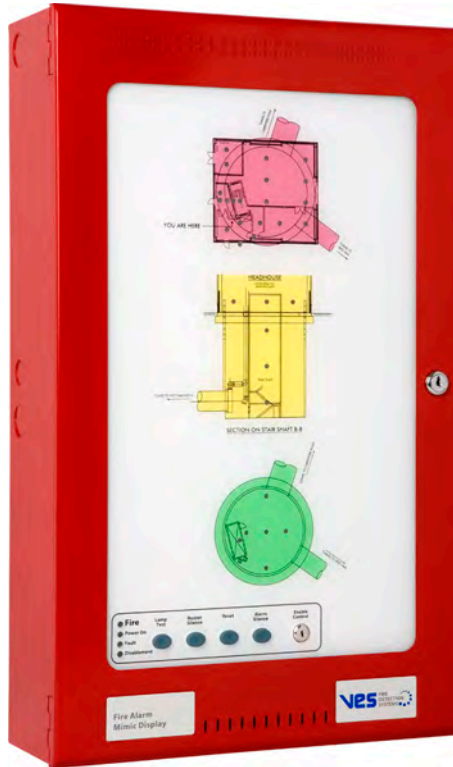
Part Number	VF1173-xx
Outer Dimensions	11.3"(W) x 8.6"(H) x 1.3"(D)
Inner Dimensions	10.3"(W) x 7.4"(H)
Color	Red (VF1173-10) Gray (VF1173-40)

Technical Specifications

Construction	18AWG sheet steel
Cable Entry	4 knockouts in back of box, 1 in left side, and 1 in right side
Dimensions	10.4"(W) x 7.5"(H) x 1.6"(D)
Weight	3.5 lbs.
Finish	RAL3002 (Red) BS 00 A 05 (Gray)
24V Supply	21 - 30V DC
Maximum Ripple Current	200 millivolts
Quiescent Current of Panel in AC Fail	0.03A
Serial Data Connection	2 core RS485 (Up to 3937 feet total cable length)
Maximum Terminal Capacity	12AWG

EMATRIX

Configurable Floor Plan Mimic Annunciator



Standard Features

- ◆ Available in Red or Gray
- ◆ Up to 504 LEDs can be controlled from any Elite panel
- ◆ Select up to 12 printed colors (not including background and building outline)
- ◆ Available in a range of standard enclosures to suit any application
- ◆ Custom sized units can be made upon request
- ◆ Choice of Red, Green or Yellow LEDs
- ◆ eMATRIX can easily be upgraded on site with minimal cost and effort
- ◆ UL 864 9th edition listed

Product Overview

The eMATRIX system uses flexible, optic light guides to illuminate areas on a floor plan, laid over a high resolution grid. This unique system dispenses completely with wiring and enables indicators to be moved, removed or added on site without the need for any wiring.

All indicators can be configured to operate upon any event type and at point, zone or group level via the powerful and intuitive Loop Explorer configuration. eMATRIX can be supplied with or without LEDs and controls. Optional LEDs indicate Power on, Fire, Trouble and Disablement and optional controls are for Alarm silence, Buzzer silence, Lamp test and Reset.

Housed in attractive, slimline enclosures to match Elite fire alarm panels and with high quality, full color floor plans, eMATRIX provides a clear, geographical indication of fire alarm activation enabling speedy identification of the source of an alarm.

Model Numbers

- ◆ VF130X-YYY X can be the number 1 or 2, which denotes color of enclosure.
- ◆ VF132X-YYY YYY can be the number 1, 3, or 6, which denotes the number of LED extension boards.
- ◆ VF133X-YYY

NOTE Please contact VES for assistance with any configuration options.



Battery Life

Number of LEDs	Standby Current	Full Alarm Current	Batteries for 24 Hours	Batteries for 48 Hours
40	0.026	0.09	0.88Ah	1.76Ah
72	0.052	0.18	1.75Ah	3.5Ah
88	0.078	0.36	2.8Ah	5.2Ah



MIMIC MOUNTED ON INNER DOOR



LED GRID



INTERNAL LAYOUT

Technical Specifications

Operating Voltage	21 - 30V DC
Terminal Capacity	12 - 22 AWG solid or stranded wire
Construction	16 gauge mild steel
Finish	Epoxy Powder Coat
Mimic	3mm Clear Anti-Glare Acrylic
Cabinet Locks	CAT30 key
Communication Interface	RS485 – Elite serial I/O bus protocol
Maximum Distance from Control Panel	4000 feet using RS485 data cable
IP Rating	IP30
Operating Temperature	20°F - 120°F
Number of Indicators (Standard Models)	AM2 - up to 40 LEDs AM3 - up to 72 LEDs AM4 - up to 88 LEDs

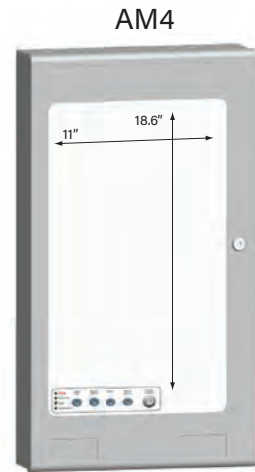
Enclosure Size Options (Available in Red or Gray)



AM2
14.5" W x 12.2" H x 3.5" D
Max. number of LEDs - 40
Will house 1 x 8 Red LED driver PCB
and 2 x 16 LED extension PCBs
(Red, Green or Yellow)



AM3
14.5" W x 18.9" H x 4.25" D
Max. number of LEDs - 72
Will house 1 x 8 Red LED driver PCB
and 4 x 16 LED extension PCBs
(Red, Green or Yellow)



AM4
14.5" W x 24" H x 5" D
Max. number of LEDs - 88
Will house 1 x 8 Red LED driver PCB
and 5 x 16 LED extension PCBs
(Red, Green or Yellow)

SINGLE ACTION ADDRESSABLE PULL STATION

VF3001-10

DUAL ACTION ADDRESSABLE PULL STATION

VF3002-10



Standard Features

- ◆ Single or Dual Action
- ◆ Wire head Connections
- ◆ Gold Plated Alarm Contacts
- ◆ Surface or Weatherproof Backbox
- ◆ Optional Auxiliary Alarm Contacts
- ◆ Optional Station Colors
- ◆ Combined with the VF6024-00 to provide an addressable interface to the Elite SLC loop

Ordering Codes

VF3001-10	Single action addressable pull station
VF3001-10	Dual action addressable pull station
VF3007-10	Interior surface sheet metal backbox - red
VF3008-10	Weatherproof surface die cast metal backbox and gasket assembly - red
VF3009-00	Scored plastic (acrylic) breakrods (1 dozen per pack)
VF6024-00	Fast response contact module

NOTE All models are supplied with one key and one scored, acrylic breakrod.

Product Overview

The VF3001 and VF3002 pull stations are operated by pulling the handle marked "PULL" on the front of the station as far down as it will go. At that point, the station will lock in place and is easily visible from up to 50 feet. The activation handle is reset by opening the station with the key, placing the handle in the normal upright position and relocking the station.

On the dual action, the push bar rotates inward allowing the "PULL" handle to be grasped and operated by a single hand. When used with the VF6024-00 Fast Response Contact Module, each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address.

Up to 127 devices can be placed on the Elite SLC loop. The module supervises the wiring to the contact with an End Of Line (EOL) resistor. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status is sensed by the fast response contact module, it sends an interrupt to the control panel indicating that an alarm has occurred.

After addressing, Manual Pull Stations are fully configurable through Loop Explorer programming software.



Technical Specifications

Rated Voltage DCP Powered Loop	17 - 41 VDC
Average Consumption	350µA
Transmission	DCP - Digital Communication Protocol
Maximum Humidity	90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 100°F
Operating Temperature Range	14°F - 122°F
Color	Red

Application

The VF3001 and VF3002 are versatile, high-quality, metal Fire Alarm Pull Stations designed to meet any installation demand.

Available in both single (VF3001) and dual action (VF3002) configurations. VF3001 and VF3002 pull stations are integrated with the VF6024-00 contact module to provide a simple-to-install addressable pull station. The normally open contact of each station, which closes when the pull station is activated, is rated for 1A, 30VDC. The contacts are gold plated to avoid risk of corrosion.

All models have been listed by UL and found in compliance to the latest requirements of the Americans With Disabilities Act (ADA). VF3001 / VF3002 stations from VES are equipped with key reset. All models mount on a standard, single gang backbox, VES VF3007-10 interior surface metal backbox or model VF3008-10 weatherproof interior surface metal backbox.

AMS MANUAL PULL STATION

VF3031-10, VF3032-10, AND VF3029-10



VF3031-10



VF3032-10



VF3029-10

Standard Features

- ◆ Addressable integrated design
- ◆ All metal construction
- ◆ Single and dual action models available
- ◆ Extremely easy to operate
- ◆ Bi-colored status LED indicates Standby and Alarm conditions
- ◆ Address is programmable in EEPROM
- ◆ Address can be programmed when installed
- ◆ Key lock or hex key lock models available
- ◆ Enclosed switch with glass rod (included)
- ◆ Terminals accept up to 14AWG wire
- ◆ Surface mount back box available

Ordering Codes

VF3031-10	Single action with Hex Screw Lock
VF3032-10	Single action with Hex Key Lock
VF3029-10	Dual action with Key Lock

Product Overview

The AMS series of addressable manual pull stations provide a fast and practical means of manually initiating a fire alarm signal. Both single action and dual action manual pull stations are available. Resetting of the pull station requires either a CAT 30 key or a 1/8" hex key (depending upon the model used).

An alarm condition is actuated by pulling down on the handle of the VF3031-10 and VF3032-10 single action models. On the dual action model VF3029-10, the Lift and Pull cover must be lifted before pulling down on the pull station handle. Once the pull station is activated, the handle cannot be put back into a normal standby condition without using the key operated reset feature.

The AMS series is electronically addressable and includes a bi-colored status LED. The LED blinks green indicating normal communication with the DCP compatible SLC loop. When an alarm condition is actuated by pulling the handle, the LED will latch Red to indicate the alarm condition.



Engineering Specification

Manual pull stations shall be VES addressable AMS series single or dual action models, VF3031-10, VF3032-10, or VF3029-10. Models shall be made of 14 AWG CRS and painted with Red enamel. The words Fire Alarm shall be in a contrasting color and be embossed text 1/2" tall. The electronics shall be fully integrated into the manual pull station requiring only connection to the SLC loop of the control panel. Programming of the manual pull station address must be possible with the manual pull station fully installed.

Manual pull stations shall be Underwriters Laboratories Inc. Listed and be installed within the limits defined in the Americans With Disabilities Act.

Technical Specifications

Operating Voltage	17 - 41 VDC
Average Consumption	550µA (Standby) 660µA (Alarm)
Ambient Temperature	32°F - 120°F
Maximum Humidity	90% non-condensing
Dimensions	3.4"(W) x 4.8"(H) x 2.0"(D)
Mounting	Single gang or 4" square electrical box

FIXED TEMP / RATE OF RISE HEAT SENSOR

VF2010-00



Standard Features

- ◆ Low Profile - Only 2.0" high, including base
- ◆ Simple and reliable device addressing method
- ◆ Uses the noise immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- ◆ Rate of Rise temperature threshold = 15°F / Min (determined by panel)
- ◆ Adjustable threshold temperature = 135°F - 190°F (determined by panel)

NOTE Bases are not included with detectors, please order separately.

Ordering Codes

VF2010-00	Fixed Temp / Rate of Rise Heat Sensor
VF7001-00	4" Mounting Base
VF7002-00	6" Mounting Base
VF7008-00	6" Sounder Base
VF7005-00	6" Low Frequency Sounder Base

Technical Specifications

Operating Voltage	24 - 41 VDC
Standby Current	350µA
Alarm Current	500µA
Transmission Method	DCP—Digital Communication Protocol
Rate of Rise	15°F Minimum
Maximum Humidity	up to 95% non-condensing
UL Temperature Range	135°F - 190°F
Operating Temperature Range	14°F - 122°F
UL Maximum Spacing	70 feet
Color and Case Material	Bone / White - ABS Blend
Weight	3.2 oz. (4.9 oz with 4" base)

Operation

The VF2010 incorporates a highly linear thermistor circuit. The specially designed cover protects the thermistor while allowing maximum air flow. The thermistor circuit produces a voltage proportional to the temperature; this information is transmitted to the control panel as a digital value. When the ambient temperature exceeds a preprogrammed threshold (fixed temp or rate of rise), the sensor transmits an interrupt to the control panel indicating a fire alarm. The fire alarm control panel can adjust the sensor's fixed temperature threshold for different installation requirements.

Up to 127 devices may be installed on each SLC loop. The sensor address may be set by a hand-held programming unit. The sensor mounts to an electronics-free base and incorporates a locking mechanism for security. The base provides mounting slots, terminals for field wiring and a third terminal for a remote indicator/ LED. The sensor has dual LEDs for easy viewing of the sensor status.



Application

The VF2010 Fixed Temperature / Rate of Rise sensors provide accurate temperature measurement data to the fire alarm control panel. These sensors are well-suited for environments where dust, cooking fumes or other factors make the use of smoke sensors impractical.

Engineering Specification

Heat sensors are installed in accordance with NFPA (National Fire Protection Association) 72, the UL Listed Spacing Requirements and the rules and regulations set forth by the local authorities having jurisdiction.

The contractor shall furnish and install, where indicated on the plans, Fixed Temp / Rate of Rise Automatic heat sensors. The Sensor and Base shall be UL listed as compatible with the fire alarm control panel (FACP). The base shall permit direct interchange with the VES VF2002, VF2005, and VF2011 photoelectric smoke sensor, VF2001 ionization type smoke sensor, VF2003 and VF2010 heat sensor, and the VF2008, VF2012, and VF2014 Multi-Criteria sensor.

The locking feature shall be optional and can be implemented when required. It shall be possible for the control panel to perform a functional test of the sensor without heat. The test method shall simulate the effects of heat on the device to insure testing of internal circuitry.

Bases

The VF7001 and the VF7002 mounting bases are electronics free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screw driver.

PHOTOELECTRIC SMOKE SENSOR

VF2011-00



Standard Features

- ◆ Low Profile - Only 2.0" high, including base
- ◆ Simple and reliable device addressing
- ◆ Automatic compensation for sensor contamination
- ◆ Built-in fire test feature
- ◆ Uses the noise-immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- ◆ Two built-in power/alarm LEDs
- ◆ Programmable non-polling LEDs
- ◆ Non-directional smoke chamber
- ◆ Vandal resistant security locking feature
- ◆ Removable smoke labyrinth for cleaning or replacement

Ordering Codes

VF2011-00	Photoelectric Smoke Detector
VF7001-00	4" Mounting Base
VF7002-00	6" Mounting Base
VF7008-00	6" Sounder Base
VF7005-00	6" Low Frequency Sounder Base

NOTE Bases are not included with detectors, please order separately.

Operation

The detection chamber consists of a light-emitting diode (LED) and photodiode arrangement. The chamber is designed such that light emitted by the LED cannot normally reach the photodiode. In the event of fire, particles of smoke enter the chamber and scatter the light. As the smoke level increases, the scattering effect increases, causing more light to hit the photodiode. The chamber contains a unique baffle design which allows smoke to enter the chamber while preventing external light from affecting the photodiode. The photodiode input level is sampled to sense smoke density.

When the smoke density exceeds a preset threshold the sensor transmits an interrupt to the fire control panel indicating a fire condition. The fire alarm control panel can adjust the sensor threshold to compensate for contamination.

Up to 127 devices are permitted on each SLC loop. A sensor address is set by a hand-held programming unit. The sensor mounts to an electronics-free base and incorporates a locking mechanism for secure installation. The base provides mounting slots, terminals for field wiring and a third contact for a remote indicator/LED. The sensor incorporates dual LEDs for easy viewing of sensor status.



Application

The VF2011 Photoelectric Smoke Sensor is particularly suited to detecting optically dense smoke typical of fires involving materials such as soft furnishings, plastic, foam or other similar materials which tend to smolder and produce large visible smoke particles. VES's unique design allows fast response to flaming fires as well as smoldering fires while preventing false alarms.

Engineering Specification

The contractor shall furnish and install where indicated on the plans, photoelectric sensors VES Model VF2005. The combination sensor head and twist lock base shall be UL listed compatible with a UL listed fire alarm control panel.

The Sensor and Base shall be UL listed as compatible with the fire alarm control panel (FACP). The base shall permit direct interchange with the VES, VF2002, VF2005, and VF2011 photoelectric smoke sensor, VF2001 ionization type smoke sensor, VF2003 and VF2010 heat sensor, and the VF2008, VF2012 and VF2014 Multi-Criteria sensor.

The sensitivity of the sensor shall be capable of being measured by the control panel.

Bases

The VF7001 and VF7002 mounting bases are electronics free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screw driver.

Technical Specifications

Operating Voltage	24 - 41 VDC
Standby Current	450µA
Alarm Current	540µA
Transmission Method	DCP Digital Communication Protocol
Maximum Humidity	up to 95% non-condensing
Operating Temperature	32°F - 120°F (0°C - 49°C)
Sensitivity Range	0.7 - 4.0% / FT @ 300 FPM 0.7 - 3.86% / FT @ 2000 FPM 0.7 - 2.65% / FT @ 4000 FPM
Air Velocity Range	0-4000 fpm
Color and Case Material	Bone / White - ABS Blend
Weight	3.4 oz. (5.1 oz with 4" base)

MULTI-CRITERIA SENSOR - SMOKE & HEAT

VF2012-00



Standard Features

- ◆ Low Profile - Only 2.00" high, including base
 - ◆ Simple and reliable device addressing
 - ◆ Automatic compensation for sensor contamination
 - ◆ Built-in fire test feature
 - ◆ Uses the noise-immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
 - ◆ Two built-in power/alarm LEDs
 - ◆ Programmable non-polling LEDs
 - ◆ Non-directional smoke chamber
 - ◆ Vandal-resistant, security-locking feature
 - ◆ Removable smoke labyrinth for cleaning or replacement
- NOTE** Bases are not included with detectors, please order separately.

Ordering Codes

VF2012-00	Multi-Criteria Sensor
VF7001-00	4" Mounting Base
VF7002-00	6" Mounting Base
VF7008-00	6" Sounder Base
VF7005-00	6" Low Frequency Sounder Base

Operation

The VF2012 chamber consists of a light-emitting diode (LED) and photodiode arrangement. The chamber is designed such that light emitted by the LED cannot normally reach the photodiode. In the event of fire, particles of smoke enter the chamber and scatter the light. As the smoke level increases, the scattering effect increases, causing more light to hit the photodiode. The chamber contains a unique design which allows smoke to enter the chamber while preventing external light from affecting the photodiode. The photodiode input level is sampled to sense smoke density. When the smoke density exceeds a preset threshold the sensor transmits an interrupt to the fire control panel indicating a fire condition. The fire alarm control panel can adjust the sensor threshold to compensate for contamination.

The VF2012 Heat portion incorporates a highly linear thermistor circuit, with two thermistors mounted externally. The specially designed cover protects the thermistors while allowing maximum air flow. The thermistor circuit produces a voltage proportional to temperature which is scaled, and transmitted as a digitally encoded value to the control panel. When the ambient temperature exceeds a preprogrammed threshold (fixed temperature), the sensor transmits an interrupt to the control panel indicating a fire alarm. The fire alarm control panel can adjust the sensor threshold for different standard's requirements.

Up to 127 devices are permitted on each SLC loop. A sensor address can be set by a hand-held programming unit. The sensor mounts to an electronics-free base and incorporates a locking mechanism for secure installation. The base provides mounting slots, terminals for field wiring and a third contact for a remote indicator/LED. The sensor incorporates dual LEDs for easy viewing of sensor status.



Application

The VF2012 Multi-Criteria Sensor is particularly suited for detecting smoke produced by a wide range of combustibles found in various applications. Temperature monitoring is achieved by a thermistor placed for optimum sensitivity. This unique design allows fast response to flaming fires as well as smoldering fires while minimizing false alarms.

Engineering Specification

The contractor shall furnish and install where indicated on the plans, photoelectric sensors VES Model VF2005. The combination sensor head and twist lock base shall be UL listed compatible with a UL listed fire alarm control panel.

The Sensor and Base shall be UL listed as compatible with the fire alarm control panel (FACP). The base shall permit direct interchange with the VES VF2002, VF2005, and VF2011 photoelectric smoke sensor, VF2001 ionization type smoke sensor, VF2003 and VF2010 heat sensor, and the VF2008, VF2012, and VF2014 Multi-Criteria sensor.

The sensitivity of the sensor shall be capable of being measured by the control panel. The locking feature shall be optional and can be implemented when required.

Bases

The VF7001 and VF7002 mounting bases are electronics free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screw driver.

Technical Specifications

Operating Voltage	24 - 41 VDC
Standby Current	450 μ A
Alarm Current	540 μ A
Transmission Method	DCP—Digital Communication Protocol
Maximum Humidity	up to 93% non-condensing
UL Temperature Range	135°F - 150°F
Operating Temperature Range	14°F - 122°F
Sensitivity Range	0.7 - 4.0% / FT @ 300 FPM 0.7 - 3.86% / FT @ 2000 FPM 0.7 - 2.65% / FT @ 4000 FPM
Air Velocity Range	0-4000 fpm
Color and Case Material	Bone / White - ABS Blend
Weight	4.2 oz (5.9 oz with 4" base)
Dimensions	3.9"(D) x 1.8"(H)

MULTI-CRITERIA SENSOR - CO, COHB, SMOKE, HEAT

VF2014-00



Standard Features

- ◆ 16 Programmable Modes of Operation, based upon 9 different detection factors allow extreme application flexibility
- ◆ Compatible with VF7005 Low Frequency Sounder base to provide a prioritized Temporal 3 Signal in case of Fire or Temporal 4 Signal in case of CO
- ◆ Simple and reliable device addressing method
- ◆ Automatic compensation for sensor contamination
- ◆ Built-in fire test feature
- ◆ Uses the noise immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- ◆ Dual programmable LEDs provide visual alarm / power indications.
- ◆ Non-directional smoke chamber
- ◆ Pre-Alarm Function
- ◆ 10 year life span on CO sensor

Ordering Codes

VF2014-00	Multi-Criteria Sensor
VF7001-00	4" Mounting Base
VF7002-00	6" Mounting Base
VF7005-00	6" Low Frequency Sounder Base

Operation

The VF2014 smoke detection chamber consists of a light-emitting diode (LED) and photodiode arrangement. The chamber is designed such that light emitted by the LED cannot normally reach the photodiode. In the event of fire, particles of smoke enter the chamber and scatter the light. As the smoke level increases, the scattering effect increases, causing more light to hit the photodiode. The chamber contains a unique design which allows smoke to enter the chamber while preventing external light from affecting the photodiode. The photodiode input level is sampled to sense smoke density. When the smoke density exceeds a preset threshold the sensor transmits an interrupt to the fire control panel indicating a fire condition. The fire alarm control panel can adjust the sensor threshold to compensate for contamination.

The VF2014 heat portion incorporates a highly linear thermistor circuit, with two thermistors mounted externally. The specially designed cover protects the thermistor while allowing maximum air flow. The thermistor circuit produces a voltage proportional to temperature which is scaled, and transmitted as a digitally encoded value to the control panel. When the ambient temperature exceeds a preprogrammed threshold (fixed temperature), the sensor transmits an interrupt to the control panel indicating a fire alarm. The fire alarm control panel can adjust the sensor threshold for different requirements.

The VF2014 CO sensing cell serves a dual purpose of supplementing smoke detection in combination with the photodiode arrangement and monitoring colorless, odorless, and deadly CO levels. When the carbon monoxide exceeds the poisonous levels, the sensor transmits an interrupt to the control panel indicating a CO alarm.



Application

The VF2014 Multi-Criteria Sensor is particularly suited for detecting smoke produced by a wide range of combustibles found in various applications. Temperature monitoring is achieved by a thermistor placed for optimum sensitivity. The sensor is also suited for detecting deadly levels of CO.

The sensors unique design allows fast response to flaming/smoldering fires and carbon monoxide levels while minimizing nuisance alarms.

Engineering Specification

The contractor shall furnish and install VF2014 (Multi-Criteria Sensor) and VF7005 (Low Frequency Sounder Base) as indicated on the plans. The Multi-Criteria Sensor head and Low Frequency Sounder Base shall be UL listed and compatible with the UL listed fire alarm control panel.

The Sensor and Base shall be UL listed as compatible with the fire alarm control panel.

The base shall permit direct interchange with the VES, VF2002, VF2005, and VF2011 photoelectric smoke sensor, VF2001 ionization type smoke sensor, VF2003 and VF2010 heat sensor, and the VF2008, VF2012, and VF2014 Multi-Criteria sensor.

The sensitivity of the sensor shall be capable of being measured by the control panel.

Technical Specifications

Operating Voltage	17 - 41 VDC
Standby Current	450µA
Alarm Current	7.2 mA
Transmission Method	DCP—Digital Communication Protocol
Maximum Humidity	up to 95% non-condensing
UL Temperature Range	32°F - 120°F
Operating Temperature Range	14°F - 122°F
Sensitivity Range	0.7 - 4.0% / FT @ 300FPM 0.7 - 3.86% / FT @ 2000FPM 0.7 - 2.65% / FT @ 4000FPM
Air Velocity Range	0 - 4000 fpm
Dimensions	3.9"(W) x 1.8"(H)
Color / Case Material	Bone / ABS Blend
Weight	4.2 oz (5.9 oz with 4" base)

ANALOG SMOKE DETECTOR

VF2015-00



Standard Features

- ◆ UL 268 7th Edition Listed
- ◆ False alarm resistant
- ◆ Non-directional smoke chamber
- ◆ Advanced multi-criteria smoke / smoke & heat detection
- ◆ Optical particulate identification sensor
- ◆ Early fire smoke detection
- ◆ Low standby current 400uA
- ◆ 360° view of detector status LED

Product Overview

The VF2015 is a multi-criteria Photoelectric Smoke Detector. It can be used in all open areas where Photoelectric Smoke Detectors are required. This detector is also suitable for monitoring smoke in HVAC ducts. The newly developed multi-spectrum smoke categorization technology detects smoldering and flaming fires fueled by traditional materials and polyurethane while reducing nuisance alarms.

Technical Specifications

Supply Voltage	<i>Voltage Range (High Signal)</i>	24-41VDC
Current Consumption	<i>Standby Current</i>	400µA
	<i>Remote Indicator Current</i>	8.0mA (Internally Limited)
	<i>Alarm Current</i>	9.1mA
Compatible Bases	VF7001-00, VF7002-00, VF7003-00, VF7004-00, VF7008-00, VF7005-00	
Heat Sensitivity Range	NA	
Operating Temperature Range	32°F to 120°F	
UL Listed Ambient Temperature	32°F to 120°F	
Storage Temperature Range	-22°F to +140°F (15% to 90% RH at 95°F to 122°F at 90 days or less)	
Operating Humidity Limit	<95%RH at 104°F, <80%RH at 120°F	
Dimension	3.94" diameter x 1.77" tall	
Color	Ivory	
Weight	3.5 oz	

NOTE An average of 6.75mA (communication current) per SLC loop should be added to battery backup calculations. Active alarm LEDs are panel-limited to 5 devices at a time.



ANALOG SMOKE & HEAT DETECTOR

VF2016-00



Standard Features

- ◆ UL 268 7th Edition Listed
- ◆ False alarm resistant
- ◆ Non-directional smoke chamber
- ◆ Advanced multi-criteria smoke & heat detection
- ◆ Optical particulate identification sensor
- ◆ Early fire smoke detection
- ◆ Low standby current 400uA
- ◆ 360° view of detector status LED

Product Overview

The VF2016 is a multi-criteria Photoelectric Smoke and Heat Detector. It can be used in all open areas where Photoelectric Smoke Detectors are required. This detector is also suitable for monitoring smoke in HVAC ducts. The newly developed multi-spectrum smoke categorization technology detects smoldering and flaming fires fueled by traditional materials and polyurethane while reducing nuisance alarms.

This detector contains a heat sensing element to also detect 20°F/minute rate of temperature rise or 135°F temperature, whichever occurs first.

Technical Specifications

Supply Voltage	<i>Voltage Range</i>	17-41VDC
Current Consumption	<i>Standby Current</i>	400µA
	<i>Remote Indicator Current</i>	8.0mA (Internally Limited)
	<i>Alarm Current</i>	9.1mA
Compatible Bases	VF7001-00, VF7002-00, VF7003-00, VF7004-00, VF7008-00, VF7005-00	
Heat Sensitivity Range	135°F or 20°F/ min rise (whichever occurs first)	
Operating Temperature Range	32°F to 117°F	
UL Listed Ambient Temperature	32°F to 117°F	
Storage Temperature Range	-22°F to +140°F	
Operating Humidity Limit	<95%RH at 104°F, <80%RH at 120°F	
Dimension	3.94" diameter x 2.17" tall	
Color	Ivory	
Weight	3.5 oz	



ANALOG DUCT SENSORS

VF5013-00 AND VF5014-00 (WITH RELAYS)



Standard Features

- ◆ Detects and limits the spread of smoke throughout building HVAC ducts
- ◆ Compatible with building automation and fire alarm systems
- ◆ Installs quickly and easily
- ◆ No screens or filters to clean
- ◆ Rugged gray steel back box with clear cover
- ◆ Accessories - Remote LED alarm indication capability
- ◆ Meets UL 268A Requirements

Operation

The VF5013 and VF5014 are designed and built to meet all local requirements, as well as the NFPA regulations regarding duct smoke sensors.

Output terminals are provided for remote accessories such as a horn, strobe, remote status indicators and reset key switches or push buttons. Air sampling is accomplished by two tubes which protrude into the duct. An exhaust tube of one standard length (7.5") is supplied in the installation kit with the smoke duct unit. Once the duct width has been determined the air intake sampling tubes must be ordered. Sampling tubes are supplied in three standard lengths 3 ft., 5 ft. and 10 ft. and cut to size to fit the duct.

Mounting the duct smoke unit is accomplished by the use of a template and 4 sheet metal screws, which are provided. Mounting can be achieved without the removal of the clear cover which is secured by 4 capture screws.

The compact VF5014 contains 2 sets of form "C" contacts rated at 10 amps.

The pilot and alarm visual indicators, provided on the front of the VF5014 duct unit, signal the operating status of the device. A manual test/ reset switch is located alongside the visual indicators.

After addressing, Analog Duct Sensors are fully configurable through Loop Explorer Software.



Application

The VES VF5013 and VF5014 Analog Photoelectric Duct Smoke Sensor provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial, Industrial, and Residential applications.

The Analog Photoelectric Duct Smoke Sensor is designed to prevent the recirculation of smoke in areas by the air handling systems, fans and blowers. Complete systems may be shut down in the event of smoke detection.

The VES VF5013 and VF5014 operate on a DCP powered loop (24 VDC source required for VF5014).

Engineering Specification

The Dealer shall furnish and install where indicated on the plans, the VES VF5013 or VF5014 Analog Photoelectric Duct Sensors. The modules shall be UL listed compatible with VES Digital Communications Protocol (DCP) supporting Elite control panel loops. The sensors shall be listed by Underwriters Laboratories per UL 268A.

The sensors shall operate at air velocities from 300 feet per minute to 4,000 feet per minute. The duct detector housings shall be of metal construction and complete mechanical installation may be performed without removal of detector cover. The duct sensor shall not require additional filters or screens which must be maintained. The housing shall contain a base which will accept an analog photoelectric sensor head. Terminal connections shall be of the screw type and be a minimum of #6 screw. For installations requiring relay function, terminals shall be provided for remote pilot, remote alarm indication, strobe/ horn and remote key switch. For installation not requiring relay function, visual indication of alarm and power must be provided on detector front.

A manual reset switch shall be located on front of the device. All wiring must comply with local codes and regulations.

State-of-the-art communications protocol, DCP, allows multiple system component types to be used concurrently in a system's Signaling Line Circuit.

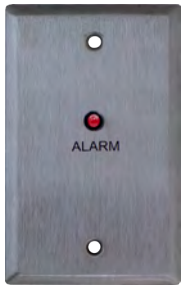
Technical Specifications

	VF5013	VF5014
Average Current Consumption (on S-SC Line)	2mA	10mA
Sensor Type	Addressable Photoelectric	Addressable Photoelectric
Input Voltage	DCP Powered Loop	DCP Powered Loop / 24 VDC
Sensitivity Test Method	Control Panel	Control Panel
Contacts	N/A	2 form C rated 10A @ 250VAC
Standby Current	390µA	390µA
Alarm Current	540µA	540µA
Operating Temperature Range	32°F - 100°F	32°F - 100°F
Relative Humidity	10-85%, non-condensing	10-85%, non-condensing
Air Velocity	300 to 4000 ft/min	300 to 4000 ft/min
Sampling Tubes	2.5ft., 5ft., 10ft.	2.5ft., 5ft., 10ft.
Housing	18 G.A. steel backbox, clear plastic cover	18 G.A. steel backbox, clear plastic cover
Dimensions	9 1/8"(L) x 7 1/4"(W) x 2 1/4"(D)	9 1/8"(L) x 7 1/4"(W) x 2 1/4"(D)
Weight	3lbs.	3lbs.
Finish	Gray Paint	Gray Paint
Remote Indication	Alarm	Alarm, Pilot

ANALOG DUCT SENSOR REMOTE ACCESSORIES

Product Overview

The Remote Accessories are designed to be used with the analog Duct Sensors to provide audible and visual indication as well as remote test/ reset functions. These devices are constructed of attractive, yet durable brushed stainless steel and mount on a standard single or double gang electrical backbox.



VF5020-00

Remote Alarm LED



VF5040-00

Remote Controls - Pilot and Alarm



VF5021-00

Remote Push Button Test Switch



VF5039-00

Remote Controls - Pilot, Alarm and Test/Reset Push Button



VF5038-00

Remote Controls - Pilot and Trouble



VF5037-00

Remote Controls - Pilot, Trouble, Test/Reset Push Button



VF5023-00

Key Op Test Switch for Duct Smoke Single LED



VF5036-00

Remote Controls - Pilot, Alarm and Key Operated



VF5035-00

Remote Controls - Pilot, Trouble and Key Operated



VF5034-00

Remote Controls - Alarm Only



VF5033-00

Remote Controls - Trouble Only



VF5032-00

Remote Controls - Horn, Pilot and Alarm



VF5022-00

Key Op Test Switch for Duct Smoke Dual LED



VF5031-00

Remote Controls - Double Gang, Horn, Key Operated Reset, Trouble, Alarm and Pilot



VF5030-00

Remote Controls - Horn Only

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION APPLIANCES

MISCELLANEOUS

Technical Specifications

Power Requirements	Alarm LED	15mA @ 24V DC
	Trouble LED	15mA @ 24V DC
	Pilot LED	15mA @ 24V DC
	Alarm Horn	20mA @ 24V DC
Sound Pressure (Alarm Horn)	278db @ 10ft	
Dimensions	Single Gang	4 ½"(H) x 2 ¾"(W)
	Double Gang	4 ½"(H) x 4 ½"(W)
Wiring	LEDs/ Horn	6" / 24 SWG pigtails
	Switches	6" / 22 SWG pigtails

	Pilot LED (Green)	Alarm LED (Red)	Fault / Trouble LED (Yellow)	Push Button Test/Reset	Key Operated Test / Reset	Horn	Single Gang	Double Gang
VF5020-00		●					●	
VF5040-00	●	●					●	
VF5021-00		●		●			●	
VF5039-00	●	●		●			●	
VF5038-00	●		●				●	
VF5037-00	●		●	●			●	
VF5023-00		●			●		●	
VF5036-00	●	●			●		●	
VF5035-00	●		●		●		●	
VF5034-00		●					●	
VF5033-00			●				●	
VF5032-00	●	●				●	●	
VF5022-00	●	●			●	●		●
VF5031-00	●	●	●		●	●		●
VF5030-00						●	●	

ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
APPLIANCES

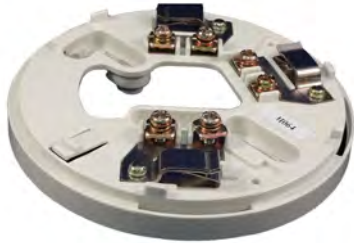
MISCELLANEOUS

4" SENSOR BASE

VF7001-00

6" SENSOR BASE

VF7002-00



Technical Specifications

VF7001-00	4" Sensor Base
VF7002-00	6" Sensor Base
Security	Plastic tamper lock
Color / Case Material	Bone PC / ABS Blend
Compatible Sensors	VF2001, VF2002, VF2005, VF2003, VF2008, VF2010, VF2011 and VF2012

Engineering Specifications

The Dealer shall furnish and install where indicated on the plans, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor and VF2008 and VF2012 Multi-Criteria Sensors. The selected sensor shall be attached to the VF7001 or VF7002 base and permit direct interchange between the listed sensors.

NOTE SLC maximum resistance is 50 ohms.

Standard Features

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

Operation

The VF7001 (4" base) and VF7002 (6" base) are designed specifically for use with the VES Analog sensors, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor and VF2008 and VF2012 Multi-Criteria Sensors.

The VF7001 and VF7002 common mounting bases allow for complete compatibility for all of the VES Analog sensors.

The bases are lightweight and very thin, providing a low profile once installed. The solderless screw terminals enable quick and easy wiring connections.

Application

Each base is connected to a Signaling Line Circuit (SLC) and provides easy replacement of sensors, without disturbing the wiring.

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



4" SENSOR BASE WITH BUILT-IN ISOLATOR

VF7003-00

6" SENSOR BASE WITH BUILT-IN ISOLATOR

VF7004-00



Technical Specifications

Operating Voltage	17 - 41 VDC
VF7003-00	4" Sensor Base
VF7004-00	6" Sensor Base
Current Consumption	Normal 160µA Active 10mA
Security	Plastic tamper lock
Color / Case Material	Bone PC / ABS Blend
Compatible Sensors	VF2001, VF2002, VF2005, VF2003, VF2008, VF2010, VF2011, VF2012, and VF2014

Engineering Specifications

The selected sensor shall be attached to the VF7003 or VF7004 base and permit direct interchange between the listed sensors.

NOTE SLC maximum resistance is 50 ohms.

Standard Features

- ◆ UL Listed
- ◆ Designed for use with all DCP analog sensors
- ◆ Built in LED indication upon short circuit condition
- ◆ Available in 4 and 6 inch models.
- ◆ Contains a security locking tab for tamper protection.

Operation

The VF7003 4" isolator base and VF7004 6" isolator base are designed specifically for use with the VES Analog sensors, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor, and VF2008, VF2012, and VF2014 Multi-Criteria Sensors.

The VF7003 and VF7004 common mounting bases allow for complete compatibility for all of the VES Analog sensors.

Application

Each isolator base is connected to a Signaling Line Circuit (SLC) and provides easy replacement of sensors, without disturbing the wiring.

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



6" ANALOG LOW FREQUENCY SOUNDER BASE

VF7005-00



Standard Features

- ◆ UL268 and UL464 listed
- ◆ 520Hz low frequency alarm signal meets NFPA requirements for sleeping areas
- ◆ Base learns the sensor address and assumes an upper range address (128-254)
- ◆ Can be alarmed or reset by zone or by individual address
- ◆ Programmable evacuation codes - Continuous, March, ANSI Temporal 3 and 4 patterns
- ◆ High sound pressure level (85dB SPL at 10 feet)
- ◆ Support for Temporal 4 when used with VF2014 CO detector

Operation

The VF7005 base is designed specifically for use with the VES Analog sensors, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor, and VF2008, VF2012, and VF2014 Multi-Criteria Sensors.

The VF7005 Low Frequency sounder base allows for complete compatibility for all of the VES Analog sensors.

Addressing is automatically provided by the attached Sensor. The device is configurable through Loop Explorer Programming Software.

Application

Each addressable base is to be connected to a VES DCP Signaling Line Circuit (SLC). The VF7005 provides a Low Frequency audible alarm in the immediate vicinity. Typical applications are use in hotels, apartments, and hospitals.

The VF7005 has a highly configurable programming algorithm that allows the user to setup groups of bases for synchronization of modulation tones.



Engineering Specifications

The Dealer shall furnish and install where indicated on the plans, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor and VF20078, VF2012, and VF2014 Multi-Criteria Sensors.

The base shall permit direct interchange with the models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor and VF2008, VF2012, and VF2014 Multi-Criteria Sensors.

Technical Specifications

Operating Voltage	17 - 41 VDC
SLC Current Consumption	154µA (Standby and Alarm)
Auxiliary Power	16 - 31 VDC
Auxiliary Current Consumption (Standby)	2.8 mA
Auxiliary Current Consumption (Alarm)	72 mA @ 33VDC 95 mA @ 24VDC 140 mA @ 16VDC
Maximum Humidity	up to 93%, non-condensing
UL Ambient Installation Temperature Range	32°F - 100°F
Operating Temperature Range	32°F - 122°F
Sound Pressure Level	85 dB @ 10'
Color and Case Material	Bone PC / ABS Blend
Maximum Quantity Per Loop	127
Dimensions	6.6" (Diameter), 3.1" (Height)

Optional Trim Ring

For installations that extend beyond the mounting surface or do not have sufficient mounting box depth, an optional trim ring is available. Insert the VF7005 into the trim ring prior to mounting to the electrical box.



↑
OPTIONAL TRIM RING
VF7006

6" ANALOG SOUNDER BASE

VF7008-00



Standard Features

- ◆ Programmable evacuation codes - Continuous, March, ANSI Temporal patterns
- ◆ Base learns the sensor address and assumes an upper range address (128 - 254)
- ◆ Can be alarmed or reset by zone or by individual address
- ◆ High sound pressure level (85dB SPL at 10 feet)

Number of Bases Permitted

# Bases in Alarm	Max. Auxiliary 24VDC Power Wire Resistance (Total Run Length)
10	18.3 Ohm
15	12.2 Ohm
20	9.1 Ohm
30	6.1 Ohm
50	3.6 Ohm
60	3.0 Ohm
75	2.4 Ohm
127	1.4 Ohm

NOTE SLC maximum resistance is 50 ohms.

Operation

The VF7008 base is designed specifically for use with the VES Analog sensors, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor, and VF2008, and VF2012 Multi-Criteria Sensors.

The VF7008 sounder base allows for complete compatibility for all of the VES Analog sensors.

The bases are lightweight and very thin, providing a low profile once installed. The solderless screw terminals enable quick and easy wiring connections.

Addressing is automatically provided by the attached Sensor. The device is configurable through Loop Explorer Programming Software.

Application

Each addressable base is to be connected to a VES DCP Signaling Line Circuit (SLC). The VF7008 provides an audible alarm in the immediate vicinity. Typical applications are use in hotels, apartments, and hospitals.

The VF7008 has a highly configurable programming algorithm that allows the user to setup groups of bases for synchronization of modulation tones. Each device has 16 states that are programmed with the desired output pattern to be used (e.g., "Temporal" or "March") for each state.



Engineering Specifications

The Dealer shall furnish and install where indicated on the plans, models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor, and VF2008 and VF2012 Multi-Criteria Sensors.

The base shall permit direct interchange with the models VF2001 Ionization Smoke Sensor, VF2002, VF2005, and VF2011 Photoelectric Smoke Sensor, VF2003 and VF2010 Heat Sensor, and VF2008 and VF2012 Multi-Criteria Sensors.

Technical Specifications

Operating Voltage	17 - 41 VDC
SLC Current Consumption	110 μ A (Standby and Alarm)
Auxiliary Supply Voltage	16-31 VDC
Auxiliary Current Consumption	550 μ A (Standby) 18mA (Alarm)
Maximum Humidity	up to 93%, non-condensing
UL Ambient Installation Temperature Range	32°F - 100°F
Operating Temperature Range	32°F - 122°F
Sound Pressure Level	85 dB @ 10'
Maximum Quantity per Loop	127
Color and Case Material	Bone PC / ABS Blend
Weight	0.455 lb
Dimensions	5.9" (Diameter), 1.3" (Height)

FAST RESPONSE CONTACT MONITORING MODULE

VF6002-00



Standard Features

- ◆ Fast, reliable contact monitoring utilizing the VES DCP (Digital Communications Protocol)
- ◆ Two different mounting configurations
- ◆ 127 devices can be used per DCP loop
- ◆ Bi-colored indicating LED provides module status
- ◆ Yellow LED indicates a short circuit condition
- ◆ Single input contact monitor
- ◆ Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts
- ◆ Operates on Class A or Class B SLC loop

Technical Specifications

Operating Voltage DCP Powered Loop	25.3 - 39 VDC
Average Current Consumption	630 μ A (Standby) 6.3mA (Alarm)
SCI on Resistance	40m Ohm Max (Normal Condition)
SCI Fault Detection Threshold	12V (Typical)
SCI Isolation Current (Short Circuit Condition)	10mA (Typical)
Maximum Quantity per Loop	127
Maximum Humidity	up to 90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 120°F (0°C - 49°C)
Mounting	4" square electrical box
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)

Application

The VES Fast Response Contact Monitoring Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact alarm initiating devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. Two different mounting configurations are provided to meet a wide range of applications. The contact monitoring module does not require a separate 24 VDC power source.

Each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address. The device address is electrically programmable and stored on on-board EEPROM. Up to 127 devices can be placed on the VES DCP SLC loop. The module supervises the wiring to the contact with an End Of Line (EOL) resistor in Class B mode. It can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status (contact changes state) is sensed by the contact module, it sends an interrupt to the Fire Alarm Control Panel indicating that an alarm has occurred. The VF6021 version has built-in integrated SCI circuitry. In the event of a short on the S-SC line, the SCI circuit will activate and its yellow LED indicator will be turned on steady and the module will report the short circuit condition to the Fire Control Panel.



FAST RESPONSE CONTACT MODULE

VF6013-00



VF6013

Standard Features

- ◆ Fast, reliable contact monitoring utilizing the VES DCP (Digital Communications Protocol)
- ◆ 127 devices can be used per DCP loop
- ◆ Single input contact monitor
- ◆ Can be programmed to monitor Normally Open (NO) or Normally closed (NC) contacts
- ◆ Operates on Class A or Class B SLC loop

Technical Specifications

Supply Voltage (S-SC)	25.3 - 39 VDC
Average Current Consumption	550 μ A (Standby) 660 μ A (Alarm)
Programmable Input	Monitoring Inputs
EOL Device	10K Ohms Resistor
Maximum Quantity per Loop	127
Maximum Humidity	up to 90%, non-condensing
Operating Temperature	32°F - 120°F (0°C - 49°C)
Mounting	Single gang electrical box
Dimensions	3.0"(W) x 1.9"(H) x 0.5"(D)

Application

The Fast Response Contact Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The contact monitoring module does not require a separate 24 VDC power source.

Each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address. The device address is electrically programmable and stored in on-board EEPROM. Up to 127 devices can be placed on the DCP SLC loop. The module supervises the wiring to the contact with an End Of Line (EOL) resistor. It can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status (contact changes state) is sensed by the module, it sends an interrupt to the control panel indicating that an alarm has occurred.



FAST RESPONSE CONTACT MODULE (CLASS A WIRING)

VF6020-00

VF6021-00 (WITH SHORT CIRCUIT ISOLATOR)



Standard Features

- ◆ Single input contact monitor
- ◆ Fast, reliable contact monitoring utilizing the DCP (Digital Communications Protocol)
- ◆ Two different mounting configurations
- ◆ 127 devices can be used per DCP loop
- ◆ Bi-colored indicating LED provides module status (Both Models)
- ◆ Yellow LED indicates a short circuit condition (VF6021-00 only)
- ◆ Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts in Class B
- ◆ Operates on Class A or Class B SLC loop
- ◆ Accepts up to 14 AWG wire

Operation

The VES VF6020 and VF6021 Fast Response Contact Monitoring Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact alarm initiating devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. Two different mounting configurations are provided to meet a wide range of applications. The VF6020 and VF6021 contact monitoring modules does not require a separate 24 VDC power source.

Each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address. The device address is electrically programmable and stored on on-board EEPROM. Up to 127 devices can be placed on the DCP SLC loop. The module supervises the wiring to the contact with an End Of Line (EOL) resistor in Class B mode. It can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status (contact changes state) is sensed by the VF6020 and VF6021, it sends an interrupt to the Fire Alarm Control Panel indicating that an alarm has occurred. VF6021-00 version has built-in integrated SCI circuitry. In the event of a short on the S-SC line, the SCI circuit will activate and its yellow LED indicator will be turned on steady and the module will report the short circuit condition to the Fire Control Panel.



Technical Specifications

Supply Voltage Nominal	25.3 - 39 VDC
Average Current Consumption	630 μ A (Standby) 6.3mA (Alarm)
SCI on Resistance	40 Ohm Max (normal condition)
SCI Fault Detection Threshold	12V (typical)
SCI Isolation Current (Short Circuit Condition)	10mA (typical)
Maximum Quantity per Loop	127
Mounting	4" Square Electrical Box
Maximum Humidity	up to 90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable contact monitoring modules VF6020 and VF6021. The modules shall be UL listed and compatible with the Fire alarm control panel. The device address shall be electrically programmable and stored in EEPROM.

The VF6021 shall be supplied with a plastic face plate and shall be suitable for mounting to a 4" square or double-gang electrical back box. The VF6021 shall provide a monitor LED that is visible through the face plate. VF6021 shall provide a SCI LED that is visible through the face plate.

FAST RESPONSE CONTACT MODULE

VF6024-00



Standard Features

- ◆ Single input contact monitor
- ◆ Fast, reliable contact monitoring utilizing the DCP (Digital Communications Protocol)
- ◆ 127 devices can be used per DCP loop
- ◆ Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts
- ◆ Operates on Class A or Class B SLC loop
- ◆ Accepts up to 12 AWG wire

Technical Specifications

Supply Voltage (S-SC)	25.3 - 39 VDC
Average Current Consumption	339 μ A (Standby) 358 μ A (Alarm)
Programmable Input	1 Monitoring Input
EOL Device	10K Ohms Resistor
Maximum Quantity per Loop	127
Mounting	2" Electrical Box
Maximum Humidity	90%, non-condensing
Operating Temperature	32°F - 120°F (0°C - 49°C)
Dimensions	1.75"(W) x 2.37"(H) x 0.5"(D)

Operation

The VF6024 Fast Response Contact Monitoring Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The VF6024 contact monitoring module does not require a separate 24 VDC power source.

Each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address. The device address is electrically programmable and stored in on-board EEPROM. Up to 127 devices can be placed on the DCP SLC loop. The module supervises the wiring to the contact with an End Of Line (EOL) resistor. It can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status (contact changes state) is sensed by the VF6024 it sends an interrupt to the control panel indicating that an alarm has occurred.



SHORT CIRCUIT ISOLATOR

VF6003-00



Standard Features

- ◆ Can be placed at any location on SLC loop
- ◆ Checks the line for short circuit at power up; if the line is normal, the relay will be returned on. If a line short is detected, the relay remains open.
- ◆ Indication of short circuit by a yellow LED

Application

The VES VF6003 Short Circuit Isolator provides the capability of allowing NFPA SLC Style 7 installations.

Operation

Class A Configuration Wiring - The VF6003 Short Circuit Isolator should be located between any devices on the SLC loop. In the event of a short on the SLC loop, the two adjacent isolators (closest isolators to the left and right of the shorted section) will activate and their respective LED indicators will be turned on. All devices between the active short circuit isolators will be dead. This will prevent an entire loop failure. Upon removal of the short condition, the VF6003 devices will automatically restore the entire loop to the normal operating state.

Class B Configuration Wiring - The VF6003 Short Circuit Isolator should be located between any devices on the SLC loop. In the event of a short on the SLC loop, an isolator closest to the shorted section will activate and the LED will be turned on. All the devices beyond the shorted section will be disabled. Upon removal of the short condition, the VF6003 will automatically restore the entire loop to the normal operating state. **For the best performance, use class A configuration.**

Technical Specifications

Supply Voltage (S-SC)	33 - 41 VDC
Normal Current Consumption	270 μ A (Standby)
Average Current Consumption (Short Circuit Condition)	10mA
Visual Indicator (Yellow Status LED)	Normal Off Active On
Weight	1.4 oz
Maximum Humidity	up to 90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)



SUPERVISED OUTPUT MODULE

VF6004-00



VF6004

Standard Features

- ◆ Flexible application
- ◆ Quick response to emergency conditions
- ◆ Operation parameters are maintained by the module, and individual communication with the control system during emergency conditions is not required
- ◆ Contacts are rated 2A @ 30VDC
- ◆ Programming is highly flexible providing 16 priority states plus zoning capability
- ◆ Program status: LED will flash red or green
- ◆ Programmed device output is turned off, silenced, or programmed to modulate pattern

Application

The Supervised Output Module, VF6004, has been designed to provide application flexibility and quick response to emergency conditions. Flexibility is provided by a wide range of operating modes, including supporting multi-zone operations, and/or functions, up to 16 different modulation patterns and multi-state programming.

The operating parameters for the VF6004 are maintained by the module and do not require individual communication with the control system during emergency conditions to operate. The control panel simply broadcasts system conditions on the Signaling Line Circuit (SLC) and the VF6004s do the rest based upon the custom configuration.

Operation

The VES Supervised Output Module, VF6004 is designed for use on the Elite analog addressable system. Up to 127 devices can be placed on a single SLC loop. The device address is uniquely stored on an on-board EEPROM. The module allows the panel to control and monitor for circuit integrity and output functions as defined.

The interrupt driven Digital Communication Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The module has a single bi-colored LED to indicate device status. It fits into a standard 4" square or double gang electrical back box. After addressing, Supervised Output Modules are fully configurable through Loop Explorer programming software.

Technical Specifications

Operating Voltage	17 - 41 VDC
Average Current Consumption	220 μ A (Standby) 300 μ A (Alarm)
Auxiliary Supply Voltage Nominal	18 - 30 V
Current Consumption on Auxiliary Power Lines	18 - 30 V
Mounting	4" Square Electrical Box
Maximum Humidity	up to 90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)



SUPERVISED OUTPUT MODULES (CLASS A WIRING)

VF6040-00

VF6041-00 (WITH SHORT CIRCUIT ISOLATOR)



VF6040

VF6041

Operation

The Class A Supervised Output Modules have been designed to provide application flexibility and quick response to emergency conditions.

Flexibility is provided by a wide range of operating modes, including supporting multi-zone operations, and/or functions, up to 16 different modulation patterns and multi-state programming. The operating parameters are maintained by the module and do not require individual communication with the control system during emergency conditions to operate.

The control panel simply broadcasts system conditions on the Signaling Line Circuit (SLC) and the modules do the rest based upon the custom configuration. Each module provides a single Class B or Class A circuit rated for 2A @ 24 VDC. Each module also requires a 24 VDC power source in addition to the SLC.

Standard Features

- ◆ Built-in SCI circuitry (VF6041-00 only)
- ◆ Flexible application
- ◆ Quick response to emergency conditions
- ◆ Operation parameters are maintained by the module, and individual communication with the control system during emergency conditions is not required
- ◆ Contacts are rated 2A @ 24VDC
- ◆ Programming is highly flexible providing 16 priority states plus zoning capability
- ◆ Programmed device output is turned off, silenced, or programmed to output the selected pattern

Technical Specifications

Supply Voltage (S-SC)	25.3 - 39 VDC
Auxiliary Supply Voltage	24 VDC
Average Current Consumption (S-SC)	VF6040 420µA (Standby) VF6041 220µA (Standby)
Maximum Current Consumption	6mA (Alarm)
Current Consumption on Auxiliary Power Lines	50µA (Standby)
SCI on Resistance	40 Ohm max
SCI Fault Detection Threshold	12V
SCI Isolation Current (Short Circuit Condition)	10mA
Maximum Quantity per Loop	127
Mounting	4" Square Electrical Box
Maximum Output Current	2A @ 24 VDC power limited
Maximum Humidity	up to 90%, non-condensing
UL Ambient Installation Temperature Range	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)



DUAL RELAY MODULES

VF6052-00 (LOW VOLTAGE)

VF6053-00 (LOW VOLTAGE W/ ISOLATOR)

VF6054-00 (HIGH VOLTAGE)

VF6055-00 (HIGH VOLTAGE W/ ISOLATOR)



VF6052

VF6053

Technical Specifications

Supply Voltage Nominal	25.3 - 39 VDC
Average Current Consumption	350 μ A (Standby) 405 μ A (Alarm)
Contacts	2 Independently Controlled Form C VF6052 2A @ 30VDC VF6053 0.5A @ 120VAC VF6054 8A @ 30VDC VF6055 4.8A @ 250VAC
SCI on Resistance	40 Ohm max (normal condition)
SCI Fault Detection Threshold	12V (typical)
SCI Isolation Current (Short Circuit Condition)	10mA (typical)
Maximum Quantity per Loop	127
Mounting	4" Square Electrical Box
Maximum Humidity	90%, non-condensing
Ambient Temperature	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)

Standard Features

- ◆ Provides two independently configurable Form C contacts per address
- ◆ Contacts are rated as follow:
- ◆ Up to 127 devices can be used on each SLC loop
- ◆ Visible Bi-colored LED is software controlled and can be programmed to blink red or green when polled. The LED can be latched on when activated. (For All Models)
- ◆ Yellow LED indicates a short circuit condition (VF6053 and VF6055 only)
- ◆ Programming is highly flexible providing 16 priority states plus zoning capability
- ◆ Operates on Class A or Class B SLC loop

Operation

The Dual Relay Modules have been designed to provide flexible and quick response to emergency conditions. The VES Series allows independent control of two form C contacts for a variety of normally open and normally closed contact applications such as fan operation, elevator recall, door closure, and auxiliary notification.

Each VES Series module provides independent control of two Form C contacts while utilizing one SLC (Signaling Line Circuit) address. The modules have a highly configurable programming algorithm that allows the user to set up groups of devices (zoning) for simultaneous operation of multiple VF6052, VF6053, VF6054, VF6055 modules. The operating parameters are maintained by the module and do not require individual communication with the control panel during the emergency condition to operate. The control panel broadcasts the control command on the SLC loop and the VES Series modules do the rest based on their custom configuration. Since mechanically latching relays are used within the VES Series modules, a separate 24VDC power source is not required.



DUAL INPUT MONITOR MODULE

VF6007-00



VF6007

Technical Specifications

Operating Voltage	25.3 - 39 VDC
Average Current Consumption	600 μ A (Standby) 720 μ A (Alarm)
Programmable Inputs	2 Independents Monitoring Inputs
EOL Device	22K Ohms resistor
Maximum Quantity per Loop	127
Mounting	4" Square Electrical Box
Maximum Humidity	90%, non-condensing
Operating Temperature	32°F - 120°F (0°C - 49°C)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)

Operation

The VES Dual Monitor Module (VF6007) is designed for use on the Elite analog addressable system. It provides two independent contact monitoring circuits while only utilizing one address on the SLC loop.

Up to 127 devices can be placed on a single SLC loop. The device address is uniquely stored on an on-board EEPROM. The module can be programmed to monitor normally open (NO) or normally closed (NC) contact fire alarm and supervisory devices.

The interrupt driven Digital Communication Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions.

The module has a single bi-colored LED to indicate device status. It fits into a standard 4" square or double gang electrical back box.

Standard Features

- ◆ Fast, reliable contact monitoring utilizing the VES DCP (Digital Communications Protocol)
- ◆ 127 devices can be used per DCP loop
- ◆ Bi-colored indicating LED provides module status
- ◆ Dual input contact monitor
- ◆ Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts
- ◆ Operates on Class A or Class B SLC loop
- ◆ Accepts up to 14 AWG wire
- ◆ Mounts to 4" square gang box

Application

The VES VF6007 provides installing dealers an economical approach to monitor devices in the same proximity, such as water flow and valve supervision on the same interface device.

This capability when coupled with VES's SIA DACT transmission provides sub-point reporting for complete annunciation and accurate reporting to responders and users.

VES's reporting approach is superior in that the capability to accurately report dissimilar inputs, such as alarm and supervisory are present.



CONVENTIONAL ZONE MODULE

VF6011-00



VF6011

Standard Features

- ◆ Provides an address point for a zone of up to 25 conventional smoke detectors
- ◆ Blinks green when polled. Latched on red (controlled by panel) when activated
- ◆ Device address can also be programmed with a handheld programmer. Device address ranges from 1 to 127.
- ◆ Compatible with Class B (Style B) and Class A (Style D) wiring
- ◆ Auxiliary power source provides power for the zone of detectors
- ◆ Compatible with conventional VES detectors

Technical Specifications

Supply Voltage (S, SC)	25.3 - 39 VDC
Auxiliary Supply Voltage	18.8 - 27.2 V
Average Current Consumption (S, SC)	670 μ A
2-Wire Detector Loop Current Standby Detector Load	1mA
From Auxiliary Supply	60mA Max
End-of-Line Device	4.7K Ohms
Maximum Quantity per Loop	127
Alarm Threshold Level	<1.5K Ohms
Wiring Threshold Level	>2.5K Ohms & <6K Ohms
Open Circuit Threshold Level	>10K Ohms
Max. 2-Wire Conventional Detector (Loop Resistance)	50 Ohms (total wire length)
Dimensions	4.2"(W) x 4.7"(H) x 1.4"(D)
Operating Temperature	32°F - 120°F (0°C - 49°C)
Mounting	4" Square Electrical Box
Relative Humidity	up to 90%, non-condensing

Operation

The VF6011 is designed for use on the Elite analog addressable system. Up to 127 devices can be placed on a single SLC loop. The device address is uniquely stored on an on-board EEPROM.

The module allows the panel to interface and monitor two-wire conventional detectors. Each VF6011 transmits the status of one zone of devices (25 maximum per zone) back to the panel.

The VF6011 supervises the power supply as well as the entire zone of devices. Status conditions are reported as normal, open or alarm. All 2-wire smoke detectors must be UL listed as compatible to be interfaced with the VF6011.

The interrupt driven Digital Communication Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. The module has a single bi-colored LED to indicate device status. It fits into a standard 4" square or double gang electrical back box. After addressing, Conventional Zone Modules are fully configurable through Loop Explorer Programming Software.

Application

The VF6011 provides installing dealers with the ability to upgrade locations on a phased approach or monitor a zone of conventional detectors.

This capability is key to satisfying customer needs for a system upgrade over time, and allows a best case application of technology to match the upgrade with the customer's budget.

All sensors may be monitored by the same Elite Panel during the upgrade, reducing the potential confusion of "old and new" panel alarms.



HANDHELD PROGRAMMER

VF9000-00



Technical Specifications

Rated Voltage	9VDC
Battery	9VDC
Weight	0.34 lbs.
Length	6 1/4"
Color	White

Display Messages

bAt	On upon power up (battery check). Also on when battery is low. Low battery good for up to 3,000 address setting operation.
E0	Attempting to set an address beyond 127
E1	Attempting to program an address with no device connected
E2	Cannot find device after power up
E3	Invalid sensor response
E4	Cannot find the device program
E5	Device read error
E6	Fail during analog value reading

Standard Features

- ◆ Compact unit
- ◆ Easy to use
- ◆ Provides address setting and reading
- ◆ Can be used on both sensors and modules
- ◆ Has the diagnostic ability to display the analog value
- ◆ Over 8000 address settings from one battery

Application

The Hand Held Programmer is designed for use with all analog sensors and modules.

Address Setting

1. Install sensor onto programmer, ensuring that sensor protrusions align with programmer grooves.
2. Press the left gray button to switch programmer on. A battery check message will appear followed by the device's address (Unprogrammed sensors will read address 127).
3. Set the required address by incrementing the left and right gray buttons (the display will show three red flashing dots if the address being programmed is different from the device's current address).
4. When the desired address is present, press the blue button to store that address. The three red dots on the display will no longer be present.

Programming Buttons

Left Gray Button - Power on. Automatically reads the address of a sensor. Subsequent operations will advance the device address by ten.

Right Gray Button - Power off. Advances the device address by one.

Red (newer models will be Blue) Button - Stores the displayed address to the device and is used to read sensor analog levels.

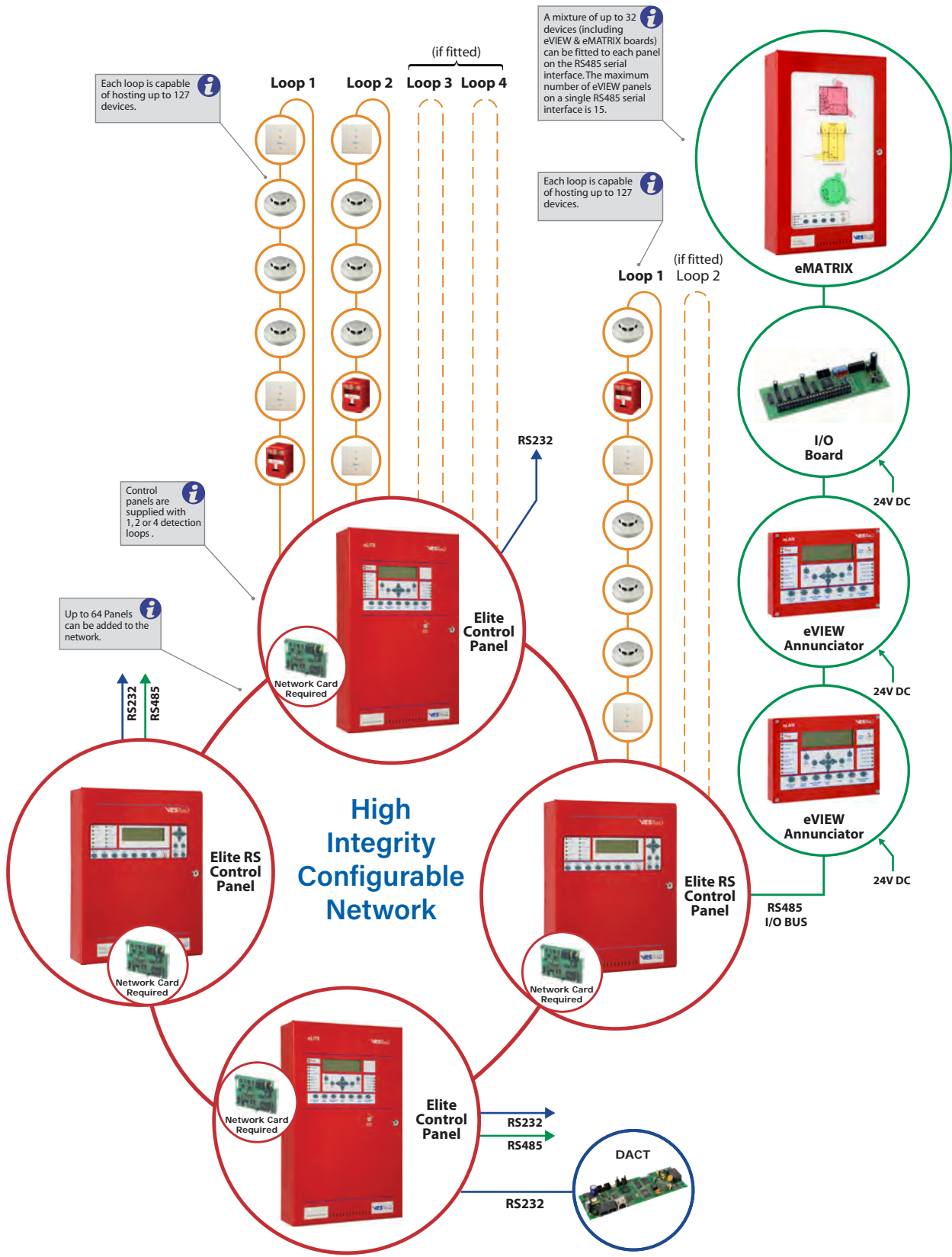
Testing a Sensor

NOTE Ionization sensors require a 30 second stabilization period before analog value reading should be taken.

1. Install the sensor and power up programmer.
2. Press the Red / Blue button. An "A" will appear on the display followed by the analog value. The value will be continuously updated for three minutes.
3. The photoelectric sensor should have a value displayed of between 56-63. The ionization sensor should have a value displayed of between 52-73. Values out of these ranges indicate that the sensor chamber has become contaminated.



ELITE NETWORK SYSTEM SCHEMATIC



RELEASING FIRE ALARM CONTROL PANELS

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ELITE XT

Releasing Fire Control Panels



Ordering Codes

VF1810-10	Elite XT - Red 120V
VF1810-11	Elite XT - Red 240V
VF1810-40	Elite XT - Gray 120V
VF1810-41	Elite XT - Gray 240V

Standard Features

- ◆ UL 864 and FM approved
- ◆ Three detection zones as standard
- ◆ Any single zone or any combinations of zones can be configured to release
- ◆ Configurable first stage NAC delays
- ◆ Configurable detection delays
- ◆ Zero time delay upon manual release option
- ◆ Non-latching zone input option to receive signals from other systems such as aspirating equipment
- ◆ Configurable releasing delays up to 60 seconds in 5 second steps
- ◆ Configurable releasing duration up to 5 minutes in 5 second steps
- ◆ Countdown timer shows time remaining until release
- ◆ Supports up to seven, four wire status indicators
- ◆ Built in Extract Fan control
- ◆ Compatible with conventional detectors from Apollo, Hochiki America, and System Sensor

Product Overview

Designed and manufactured to the highest standards in a quality controlled environment and with UL and FM approvals, the Elite XT releasing panel offers outstanding value and performance for all small to medium fixed firefighting installations. With three detection zones as standard, release can be configured to activate from any combination of detection zone inputs to allow (among other combinations) any two from three type activations such as would be required for detection in ceiling void, room and floor void applications.

The extensive configuration options of the Elite XT allow the functionality of the system to be extensively modified. The panel contains a large LED display to enable easy configuration and control which also displays the time remaining until release for added user safety. The countdown timer is duplicated on up to seven remote status units to provide local indication of the system status.

With all of the electronics mounted on a single, easily removable, steel plate Elite XT panels are both robust and easy to install. Elite XT is supplied in an enclosure that matches the design and color of the Elite CP range and is available in standard red or optional gray.



Technical Specifications

AC Supply	120V or 240V
AC Supply Fuse	3.15A (F3.15A L250V)
Finish	Epoxy powder coated
Color	Red (optional gray)
Power Supply Rating	3 Amps total including battery charge 28V ± 2V
Maximum Ripple Voltage	200 millivolts
Battery Type	Two 12 Volt 7Ah sealed lead acid in series
Battery Charge Voltage	27.6VDC nominal (temperature-compensated)
Battery Charge Current	0.7A maximum
Battery Fuse	20mm, 3.15A glass Sloblow
Maximum Current Draw from Batteries	3A
Quiescent Current of Panel in Power Failure	0.095A
AUX 24V Output	Fused at 500mA with electronic fuse
NAC Outputs	24V Fused at 500mA with electronic fuse
Trouble Relay Contact Rating	30VDC 1A Amp maximum
Fire Relay Contact Rating	30VDC 1A Amp maximum
Local Fire Relay Contact Rating	30VDC 1A Amp maximum
First Stage Contact Rating	30VDC 1A Amp maximum
Second Stage Contact Rating	30VDC 1A Amp maximum
Extract Contact Rating	30VDC 1A Amp maximum
Zone Quiescent Current	2mA maximum
Terminal Capacity	12 AWG
No. of detectors per zone	Dependent on type (maximum 32)
Detection circuit end of line	6K8 5% ½ Watt resistor
Supervised input end of line	6K8 5% ½ Watt resistor
Extinguishant output EOL	1N4004 Diode
No. of detection circuits	3
No. of sounder circuits	2 x 1st Stage, 1 x 2nd Stage
Extinguishant release output	Rated at 1 Amp
Extinguishant release delay	Adjustable 0 to 60 seconds (in 5 second steps)
Extinguishant release duration	Adjustable 60 to 300 seconds (in 5 second steps)
Normal Zone Impedance (EOL)	6.8K
Detector Alarm Impedance	470 Ohms
Pull Station Alarm Impedance	270 Ohms
Short circuit threshold	Short circuit Impedance 99 Ohms
Supervised Inputs Normal Impedance (EOL)	6.8K
Supervised Inputs Alarm Impedance	470 Ohms
Supervised inputs Short circuit threshold	99 Ohms
Status unit/Ancillary board connection	Two wire RS485 connection
Status unit power output	Rated at 500mA with electronic fuse

Programmable Functions

Access Level 2

- ◆ Test Zones 1 to 3
- ◆ Disable Zones 1 to 3
- ◆ Disable 1st Stage Alarms
- ◆ Disable Pre-activated 1st Stage Relay
- ◆ Disable Pre-activated 2nd Stage Relay
- ◆ Disable Extract Fan Output
- ◆ Disable Manual Release Input
- ◆ Disable Releasing Sub System
- ◆ Activate Extract Fan Output
- ◆ Activate Alarm Delays

Access Level 3

- ◆ Sounder Delay
- ◆ Coincidence Detection
- ◆ Disable Panel Features
- ◆ Zone Alarm Delays (Detectors)
- ◆ Zone Alarm Delay (Call stations)
- ◆ Configure Zone for I.S Barrier Use
- ◆ Zone Short Circuit Alarm
- ◆ Zone Non Latching
- ◆ Zone Inputs Delay
- ◆ Extinguishant Release Time Delay
- ◆ Extinguishant Release Duration Timer
- ◆ Extinguishant Reset Delay Timer

XT+ | Multi-Area Addressable Releasing Control Units

NOTE THIS UNIT MUST BE CONNECTED TO AN ELITE RS PANEL.



Releasing Module Cabinets

VF0891-10	1 Area, Red
VF0891-40	1 Area, Gray
VF0892-10	2 Area, Red
VF0892-40	2 Area, Gray

All cabinets are equipped with a 5.25A Power Supply.

Standard Features

- ◆ UL 864 10th Edition Listed
- ◆ Up to 2 releasing areas / hazards per XT+ unit
- ◆ Dual releasing outputs for each area (configurable as Main/Reserve)
- ◆ First and second stage NAC outputs for each area
- ◆ First and second stage volt free changeover relays for each area
- ◆ Released volt-free relay per area
- ◆ Trouble volt-free relay per area
- ◆ Programmable releasing delays
- ◆ Programmable output duration
- ◆ Countdown indicator shows time until release in seconds
- ◆ Mode select and manual release controls per area
- ◆ Monitored remote manual release input
- ◆ Monitored remote abort input
- ◆ Monitored remote mode select input
- ◆ Monitored remote released pressure switch input
- ◆ Serial connections for status units and ancillary boards

Product Overview

XT+ control panels are multi-area releasing control modules complying with UL 864 10th Edition.

Up to 15 releasing modules may be connected to a master fire alarm control panel. Each releasing module can accommodate a separate hazard defined by two specific zone.

Each XT+ unit is equipped with a 5.25 A power supply (120 VAC or 240 VAC) to power releasing modules and attached solenoids / actuators.

Each releasing area has a comprehensive set of inputs and outputs and is configurable via a simple programming interface. All releasing areas may have up to 7 serially-connected status indication and control units or ancillary relay boards.



TECHNICAL SPECIFICATIONS

Construction	1.2mm mild sheet steel
IP Rating	IP30
Finish	Epoxy powder coated
Color	Lid & Box Gray - BS 00 A 05 Red - RAL 3002 Fascia RAL 7016
Weight	17.6 lbs (Standard Configuration)
Cabling	FP200 or equivalent (max capacitance 1uF max inductance 1 mH)
Power Supply	1.83A Max @ 120 V, 50/60 Hz 0.915A Max @ 240 V, 50/60 Hz
Power Supply Fuse	3A
Power Supply Rating	1 and 2 Area Units: Regulated 24V DC @ 4A
Maximum Ripple Current	1V Maximum
Battery Charge Voltage	27.6VDC nominal (temperature compensated)
Battery Fuse	10A 3AG
Current Draw in Power Fail Condition	54mA per releasing module
Max Current Draw from Batteries	4A
Ground Fault Impedance Value	100 Ohms
Temperature Range	32°F - 120°F (0°C - 49°C)
Relative Humidity	up to 93%, non-condensing
Releasing Delay	Adjustable 0 to 60 seconds (+/- 10%)
Releasing Duration	Adjustable 60 to 300 seconds

TOP TERMINALS

24V Power	24V Regulated, continuous (power input)
Aux 24V	24V Regulated @ 850mA Max, Power-limited
Trouble	Volt-free contact rated at 30V DC, 1A, Resistive
1st Stage	Volt-free contact rated at 30V DC, 1A, Resistive
2nd Stage	Volt-free contact rated at 30V DC, 1A, Resistive
3rd Stage (Released)	Volt-free contact rated at 30V DC, 1A, Resistive
Supv. / Abort	Volt-free contact rated at 30V DC, 1A, Resistive
Extract	Volt-free contact rated at 30V DC, 1A, Resistive
3rd Stage Alarm	24V Regulated @ 850mA Max, Power-limited
2nd Stage Alarm	24V Regulated @ 850mA Max, Power-limited
Exting. 1 (Main)	24V Regulated @ 1A Max, Power-limited
Exting. 2 (Reserve)	24V Regulated @ 1A Max, Power-limited

BOTTOM TERMINALS

Man. Rel	Class B
Abort	Supervised for opens, shorts, and grounds
Disable	End-of-Line device: 6.8K Ohm resistor (S2027)
Mode	Activation device: 470 Ohm resistor (S2051)
Rel P. Sw	Maximum Voltage / Current: 24V DC / 50mA
Low Press.	Maximum Wiring Impedance for Each Circuit: 50 Ohms Power-limited
CIE Serial	Two wire, RS485 connection, Data 3.3 V, current-limited, Class B, supervised
Status Serial	Two wire, RS485 connection, Data 3.3 V, current-limited, Class B, supervised
Status Pow.	24V Regulated @ 850mA Max, Power-limited

RELEASING SYSTEM PERIPHERALS

STATUS INDICATORS, ANCILLARY PCB, ABORT SWITCH, DISABLEMENT SWITCH



Status Indicators
VF1821-13



Ancillary PCB
VF1822-x0



Abort Switch
VF1823-10



Disablement Switch
VF1832-10

Standard Features

Elite Status Indicators

- ◆ UL 864 and FM approved
- ◆ High brightness LEDs
- ◆ Detailed indication of the status of the control panel
- ◆ Supervised data connection
- ◆ Countdown timer shows time remaining until release
- ◆ Manual only and Automatic & Manual mode select keyswitch option
- ◆ Four wire connection (data and power)
- ◆ Robust, high quality enclosure
- ◆ Easy access to terminals
- ◆ Remote Abort input (supervised)
- ◆ Internal trouble diagnosis indicators

Ancillary PCB

- ◆ Two wire serial connection
- ◆ Up to 7 per system
- ◆ Volt free relay outputs for fire and releasing system status
- ◆ Relay operated LED indicators

Disablement Switch

- ◆ Key removable in either position
- ◆ Both sides of solenoid circuit are mechanically disabled during activation
- ◆ Disablement illuminated at panel when active

Ordering Codes

VF1821-11	6 lamp status indicator surface mount - red
VF1821-41	6 lamp status indicator surface mount - gray
VF1821-12	6 lamp status indicator flush mount - red
VF1821-42	6 lamp status indicator flush mount - gray
VF1821-13	6 lamp status indicator w/ mode select keyswitch surface mount - red
VF1821-43	6 lamp status indicator w/ mode select keyswitch surface mount - gray
VF1821-14	6 lamp status indicator w/ mode select keyswitch flush mount - red
VF1821-44	6 lamp status indicator w/ mode select keyswitch flush mount - gray
VF1822-00	Elite Ancillary Board
VF1822-10	Elite Ancillary Board with cabinet - red
VF1822-40	Elite Ancillary Board with cabinet - gray
VF1823-10	Elite Extinguishing Abort switch surface mount - red
VF1823-40	Elite Extinguishing Abort switch surface mount - gray
VF1832-10/-40	Disablement Switch (red/ gray)



Product Overview

Elite Status Indicators

The Elite Status Indicators range of status indicators provide detailed status information for Elite XT releasing control equipment.

All models provide high brightness, LED indication of Manual Only, Automatic and Manual, Abort operated, Disabled, Imminent and Released conditions.

For systems where local control of the Automatic/Manual mode control are required, units are available with these controls fitted. All models have supervised inputs for the remote connection of abort switches. All units contain a large, LED display which shows a countdown of the time remaining until release in seconds.

Ancillary PCB

The Elite XT Ancillary Board is compatible with all Elite XT control panels. The board provides volt free normally open contacts allowing control of sub-systems and plant remotely from the main panel over a two wire data bus. Ancillary boards require only a two core data cable from the main control panel and a two core power cable from the main panel.

Up to 7 Ancillary boards can be connected to a control panel and each is allocated an address from 1 to 7 using a binary coded DIL switch. The total length of the data cable from the main panel to the last Ancillary board must not exceed 4000 feet.

A mixture of status units and Ancillary boards, up to a maximum of 7 of each type, can be connected to the serial data bus.

Abort Switch

The Elite Abort switch connects to the Abort terminals of the Elite XT releasing panel. Any number of Elite Abort switches may be connected to the circuit. The last switch must have the end of line device from the Abort circuit terminals of the Elite XT releasing panel fitted across its connections to provide open and short circuit supervision.

The unit is supplied mounted to a rugged steel enclosure but may also be flush mounted to a single gang electrical box.

Ancillary PCB Technical Specifications

Size	6.1" (W) x 5.35" (H)
Size with Box	15.1" (W) x 12.2" (H) x 3.54" (D)
Construction (Boxed)	18 AWG mild steel
Supply Voltage	20-30 VDC
Contact Ratings	30V DC 1A
Cable Capacity	12 AWG
Operating Temperature	22°F - 122°F
Operating Humidity	up to 95%, non-condensing

Abort Switch Technical Specifications

Size	3.81" (W) x 3.81" (H) x 2.32" (D)
Color	Standard red or gray
Switch Rating	1A at 30V
Trigger Resistor	470R 1W
End-of-Line Resistor	6K8 1/2 W

Elite Status Indicators Technical Specifications

Size	7.3" (W) x 5.2" (H) x 1.9" (D)
Power Supply	21 to 30 V
Maximum Current Draw	0.07A
Maximum Number of Status Units	7
Quiescent Current	0.033A
Cable Capacity	12 AWG
Supervised Inputs End-of-Line Resistor	6K8 0.5W Resistor
Supervised Inputs Normal Impedance	6.8K
Supervised Inputs Trigger Impedance	470 Ohms
Supervised Inputs Short Circuit Threshold	99 Ohms to 0 Ohms
Data connection	Two wire RS485 connection (max 4000 feet)



CONVENTIONAL FIRE ALARM CONTROL PANELS

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ELITE CP

Conventional Fire Control Panels



Standard Features

- ◆ UL864 approved
- ◆ Two, four, or eight initiating circuits
- ◆ Initiating circuits individually configurable as Fire, or Supervisory
- ◆ Two 2.5A Notification Appliance Circuits
- ◆ 4.0 Amps total NAC power available
- ◆ Selectable NAC sync protocols
- ◆ 5 Amp power supply
- ◆ Alarm verification selectable by zone
- ◆ Resettable AUX power output rated at 0.3A
- ◆ AUX power configurable to power off or on
- ◆ Fire condition
- ◆ Fire, Trouble and Supervisory relays
- ◆ Single person walk test function
- ◆ Many advanced configuration options
- ◆ 24 hour standby with 7Ah batteries
- ◆ Maximum battery size 12Ah
- ◆ Optional DACT (SIA or Contact ID allowing user definable reporting codes)

Ordering Codes

VF1842-10/11	2 Zone Panel - Red 120V / 240V
VF1842-40/41	2 Zone Panel - Gray 120V / 240V
VF1844-10/11	4 Zone Panel - Red 120V / 240V
VF1844-40/41	4 Zone Panel - Gray 120V / 240V
VF1848-10/11	8 Zone Panel - Red 120V / 240V
VF1848-40/41	8 Zone Panel - Gray 120V / 240V
VF1852-10/11	2 Zone Panel with Dialer - Red 120V / 240V
VF1852-40/41	2 Zone Panel with Dialer - Gray 120V / 240V
VF1854-10/11	4 Zone Panel with Dialer - Red 120V / 240V
VF1854-40/41	4 Zone Panel with Dialer - Gray 120V / 240V
VF1858-10/11	8 Zone Panel with Dialer - Red 120V / 240V
VF1858-40/41	8 Zone Panel with Dialer - Gray 120V / 240V
VF1850-00	8 reporting zone DACT
VF1841-00	DACT Configuration Software

Product Overview

The Elite CP range of conventional fire control panels with optional built in communicator are available with 2, 4, or 8 initiating circuits which may be extensively configured via a simple front panel operated programming method.

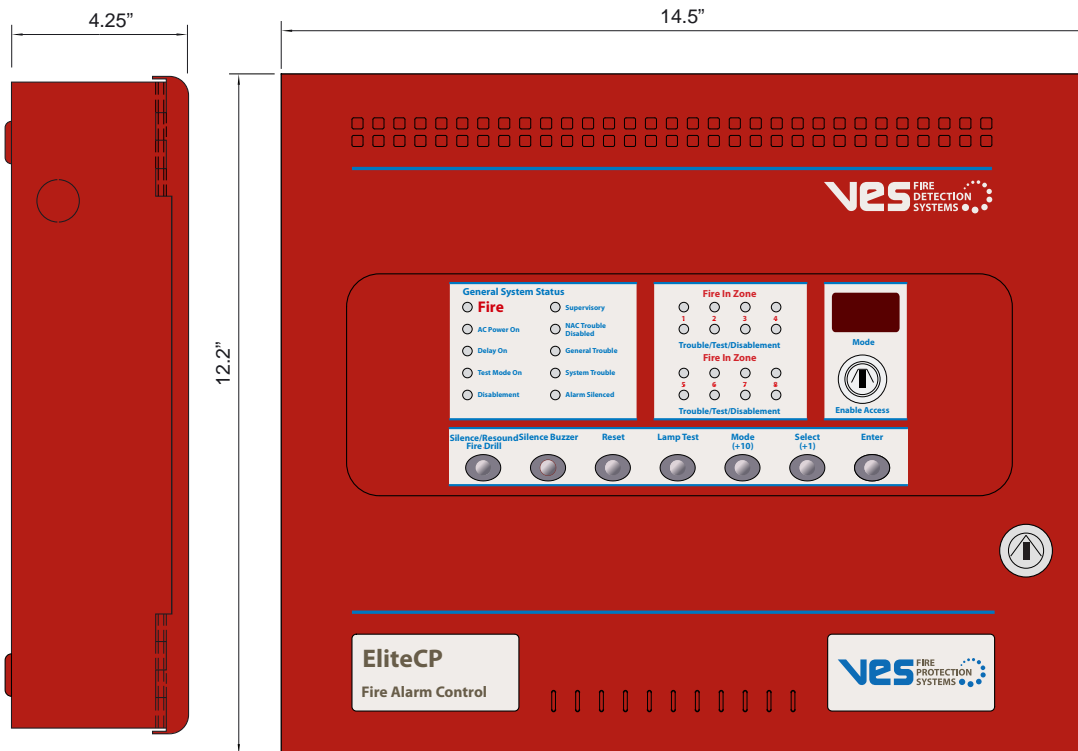
The low standby power requirements and cost effective small batteries allow the panel to be mounted in a small discrete enclosure which is available in standard red or optionally in an attractive gray color. A simple programming method using just 3 front panel buttons allows an extensive list of configuration options to be set and reviewed. Single board construction which allows easy removal of all electronic parts and ample provision of cable entry knockouts simplify installation.

4 Amp notification appliance power and built in selectable sync protocols provide ample power and control for a wide range of standard notification appliances. The optional DACT allows dual line reporting to central stations and provides a 500 event history buffer.



Technical Specifications

Size	14.5"(W) x 12.2"(H) x 4.25"(D)
Construction	18AWG mild steel
Finish	Epoxy powder coated
Color	Red (optional gray)
Supply Voltage	120VAC or 240VAC
AC Supply Fuse	5A 250V 20mm
Power Supply DC Rating	24V 5A
Maximum Battery Size	12Ah 12V (2 per panel)
Trouble Contact Rating	30V DC 1A
Supervisory Contact Rating	30V DC 1A
Fire Contact Rating	30V DC 1A
NAC Rating	2.5A per circuit 4A Total
Detection Zone Current	1.6mA
Detection Zone EOL Resistor	6k8 5%
NAC EOL Resistor	10k 5%
Cable Capacity	14 AWG
Operating Temperature	23°F - 122°F
Operating Humidity	up to 95%, non-condensing



ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
APPLIANCES

MISCELLANEOUS

ELITE CP ANNUNCIATOR



Standard Features

- ◆ UL 864 Approved
- ◆ Red or Gray
- ◆ Available for 2, 4, or 8 zone models
- ◆ Fire, Trouble, and Supervisory annunciation
- ◆ Internal Buzzer
- ◆ Internal Trouble diagnosis indicators
- ◆ Easy access to terminals
- ◆ Four wire connection (data and power)
- ◆ Supervised data connection
- ◆ Up to 7 annunciators per systems
- ◆ Compatible with flush mount collar (VF1821-X0)

Ordering Codes

VF1885-12	2 Zone Panel - Red
VF1885-42	2 Zone Panel - Gray
VF1885-14	4 Zone Panel - Red
VF1885-44	4 Zone Panel - Gray
VF1885-18	8 Zone Panel - Red
VF1885-48	8 Zone Panel - Gray

Product Overview

The Elite CP Annunciator provides remote status indications of the Elite CP Fire Control Panel for fire, trouble and supervisory conditions. Status indications of the annunciator are reported for 2, 4 or 8 zones. Zone LED indicators and Status LED indicators are synchronized to light at identical rates.

The Elite CP Annunciator includes an internal sounder and an automatic control for adjusting the lamp intensity of the Power and Trouble LEDs on the fascia of the unit.

The annunciator provides connections for 24 VDC power and RS 485 communication. The RS 485 Bus supports maximum of 7 Elite CP Annunciators. The Elite CP Annunciator includes a dip switch for addressing and an End Of Line Resistor (EOLR). LEDs are included inside the annunciator for monitoring heart beat, error, transmit and receive conditions. The fascia and back- box of the Elite CP Annunciator is provided in colors of gray or red. The user can write specific zone description on the labels to the right of the zone LEDs.



Technical Specifications

Size	7 1/3"(W) x 5 1/5"(H) x 2 1/5"(D)
Construction	18AWG mild steel
Finish	Epoxy powder coated
Color	Red (optional gray)
Weight	2 lbs.
Input Voltage	24VDC
Alarm Current	40mA max @ 24 VDC
Standby Current	14mA max @ 24 VDC
Maximum Number of Units	Maximum of 7 Annunciators on the AUX 24V output and the RS-485 Serial Bus
Connector Terminals	14 - 24 AWG
RS-485 Serial Bus	RS485 two-wire Maximum distance from control panel - 3900 feet (1200 meters) Belden 9271 cable
Operating Temperature	32°F - 120°F
Operating Humidity	up to 93%, non-condensing

ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
APPLIANCES

MISCELLANEOUS

CONVENTIONAL PHOTOELECTRIC SMOKE DETECTOR

VF2042-00, VF2043-00, AND VF2044-00



Standard Features

- ◆ UL Listed
- ◆ Computer-designed non-directional smoke chamber
- ◆ 360° view of detector status LED
- ◆ Low profile, 2" high (with base)
- ◆ 2 wire base compatibility.
- ◆ Highly stable operation, RF/Transient protection
- ◆ Low standby current, 59µA at 24VDC
- ◆ One built-in power/sensitivity supervision/alarm LED
- ◆ Automatic Sensitivity window verification function meets outlined requirements in NFPA 72, Chapter 2 and 7, Inspection, Testing and Maintenance

NOTE Bases are not included with detectors, please order separately.

Ordering Codes

VF2042-00	Photoelectric / Heat Smoke Detector - Ivory Color
VF2043-00	Photoelectric / Heat Smoke Detector - White Color
VF2044-00	Photoelectric / Heat Smoke Detector without magnetic test feature - Ivory Color
VF2050-00	4" Mounting Base
VF2051-00	6" Mounting Base

Operation

The VF2042, VF2043, and VF2044 photoelectric smoke detector(s) utilizes one bi-colored LED for indication of status. In a normal standby condition the LED flash Green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window the LED will flash Red every 3 seconds. When the detector senses smoke and goes into alarm the status LED will latch on Red.

The detector utilizes an infrared LED light source and silicon photo diode receiving element in the smoke chamber. In a normal standby condition, the receiving element receives no light from the pulsing LED light source. In the event of a fire, smoke enters the detector smoke chamber and light is reflected from the smoke particles to the receiving element. The light received is converted into an electronic signal.

Fire Judgment signals are processed and compared to a reference level, and when five consecutive signals exceeding the reference level are received within a specified period of time, the time delay circuit triggers the SCR switch to activate the alarm signal. The status LED light continuously during the alarm period.



Application

The VF2042, 43, and 44 are a reliable, high quality Photoelectric Smoke Detector(s). These detectors can be used in all application areas where Photoelectric Smoke Detectors are required. The computer-designed smoke chamber makes the VF2042, 43, and 44 well suited for detecting smoldering fires as well as fast-flaming fires.

VF2050-00 and VF2051-00 bases may be used with the VF2042, VF2043, and VF2044.

Engineering Specification

The contractor shall furnish and install where indicated on the plans, VES Fire Detection Systems Model VF2042, VF2043, and VF2044 photoelectric smoke detectors. The combination detector head and twist-lock base shall be UL listed compatible with a UL listed fire alarm panel. The base shall permit direct interchange with VES Fire Detection Systems VF2042, VF2043, and VF2044 photoelectric smoke detector. The base shall be appropriate twist-lock base NS-4 Series, NS-6 Series, HSC-4R, or HSC-R. In the event of partial or complete retrofit, the VF2042, VF2043, and VF2044 maybe used in conjunction with, or as a replacement for, VES Fire Detection Systems detectors (VF5026 and the VF2041) on most VF2050 and VF2051 base applications.

The smoke detector shall have two flashing status LEDs for visual supervision. When the detector is in standby condition the LEDs will flash Green. When the detector is outside the UL listed sensitivity window the LEDs will flash Red. When the detector is actuated, the flashing LEDs will latch on Red. The detector may be reset by actuating the control panel reset switch. The sensitivity of the detector shall be capable of being measured. The sensitivity of the detector shall be monitored automatically and continuously to verify that it is operating within the listed sensitivity range.

To facilitate installation, the detector shall be non-polarized. Voltage and RF transient suppression techniques shall be employed to minimize false alarm potential.

Technical Specifications

Rated Voltage	12 or 24VDC
Working Voltage	8 - 35VDC
Maximum Voltage	42VDC
Light Source	GaAIAs Infrared Emitting Diode
Standby Current	59µA @ 24VDC
Surge Current	160µA max. @ 24V DC
Alarm Current	150mA max. @ 24V DC
Air Velocity Range	0 - 4000 fpm
Ambient Temperature	32°F - 120°F
Color / Case Material	Bone PC / ABS Blend
Sensitivity Test Feature	Automatic Sensitivity window verification test

Sensitivity Test Feature

The VF2042, VF2043, and VF2044 Photoelectric Smoke Detector has a built-in automatic sensitivity test feature.

1. In normal condition, both LEDs flash green.
2. When the sensitivity drifts outside of its sensitivity limits, both LEDs flash red.
3. In the alarm state both LEDs are red continuously.
4. When the sensitivity drifts outside of its sensitivity limits and both LEDs flash red, the device needs to be cleaned or returned to the factory for cleaning or calibration.

PHOTOELECTRIC SMOKE / SMOKE & HEAT DETECTOR

VF2045-00 / VF2046-00



VF2045

VF2046

Standard Features

- ◆ High signal-to-noise ratio and sensitivity stability effective in a wide range of environmental conditions
- ◆ Wide viewing angle alarm indicators
- ◆ Automatic drift compensation and maintenance indication
- ◆ Built-in magnetic test feature
- ◆ Break-away, hidden locking feature for use with NS bases
- ◆ Optimized reduction to false alarms and enhanced reaction time to real fires

Product Overview

The VF2045 and VF2046 are multi-criteria Photoelectric Smoke Detectors. They can be used in all open areas where Photoelectric Smoke Detectors are required. The newly developed multi-spectrum smoke categorization technology detects smoldering and flaming fires fueled by traditional materials and polyurethane while reducing nuisance alarms.

The detector utilizes a green/red LED for indication of status. In a normal standby condition, the LED flashes green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window, the LED will flash Red every 3 seconds. When the detector senses smoke and goes into alarm status, the LED will latch on Red.

The detector utilizes an IR-LED and Blue LED to distinguish smoke characteristics.

The VF2046 adds a heat sensing element to also detect 20°F/minute rate of temperature rise or 135°F temperature, whichever occurs first.



Technical Specifications

VF2045

VF2046

Sensing Element		Smoke (IR LED, Blue LED, Photodiode)	Smoke (IR LED, Blue LED, Photodiode) Heat (Thermistor)
Supply Voltage	<i>Operating Voltage Range</i>	8-35 VDC	
	<i>Absolute Max Voltage</i>	42 VDC	
	<i>Maximum Voltage Ripple</i>	8200mVAC	
	<i>Maximum Input Capacitance</i>	0.01uF	
Current Consumption	<i>Standby Current</i>	59µA	
	<i>Remote Indicator Current</i>	8.0mA (Internally Limited)	
	<i>Minimum Allowable Alarm Current</i>	5mA	
	<i>Maximum Allowable Alarm Current</i>	150mA	
Startup	<i>Time</i>	25s (Max)	
	<i>Current</i>	160A (Max)	
Reset	<i>Time</i>	100ms (Min)	
	<i>Voltage</i>	2.5V (Min)	
Smoke Density Range		1.82 - 4.55%/ft @ 300 FPM Open Area	1.8 - 4.55%/ft @ 300 FPM Open Area
		1.82 - 3.96%/ft @ 1000 FPM In Duct	1.8 - 3.96%/ft @ 1000 FPM In Duct
		1.82 - 4.19%/ft @ 2000 FPM In Duct	1.8 - 4.19%/ft @ 2000 FPM In Duct
		1.82 - 4.07%/ft @ 3000 FPM In Duct	1.8 - 4.07%/ft @ 3000 FPM In Duct
		1.82 - 4.20%/ft @ 4000 FPM In Duct	1.8 - 4.20%/ft @ 4000 FPM In Duct
Compatible Bases	VF2050-00 and VF2051-00		
Heat Sensitivity Range	NA	135°F or 20°F/ min rise (whichever occurs first)	
Operating Temperature Range	32°F to 120°F		
UL Listed Ambient Temperature	32°F to 120°F		
Storage Temperature Range	-22°F to +140°F		
Operating Humidity Limit	<95%RH at 104°F, <80%RH at 120°F		
Dimension	3.94" diameter x 1.77" tall	3.94" diameter x 2.18" tall	
Color	Ivory		
Weight	3.4 oz		

ANALOG
ADDRESSABLE

RELEASING

CONVENTIONAL

VOICEALERT

NOTIFICATION
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MISCELLANEOUS

FIXED TEMPERATURE HEAT DETECTOR

VF2020-00 AND VF2021-00



Standard Features

- ◆ Choice of fixed temperature/rate-of-rise 135°F or 190°F heat detector
- ◆ UL Listed spacing up to 60' by 60'
- ◆ 2 or 4 wire base compatibility, relay bases available
- ◆ Highly stable operation, RF/Transient protection
- ◆ Low standby current, 35µA nominal
- ◆ Two built-in power/alarm LEDs for 360° viewing
- ◆ Fully electronic operation
- ◆ Power/alarm LEDs confirm detector status
- ◆ Compatible with VES detectors and their bases

NOTE Bases are not included with detectors, please order separately.

Technical Specifications

Response	VF2020	135° ± 7.5°F
	VF2021	190° ± 7.5°F
Supply Voltage	17.7 - 30.0 VDC (4 Wire)	
Supervisory Current	40µA @ 24V	
Surge Current	160µA max. @ 24V	
Alarm Current	150mA max. @ 24V	
Contact Rating N/O Contacts	150mA max. @ 24 V	
Ambient Temperature	32°F - 120°F	
Color / Case Material	Bone PC / ABS Blend	

Application

The VF2020 and VF2021 fixed temperature/rate-of-rise heat detector are suited for installation where high heat output fires are expected or in areas where ambient conditions would not allow use of other detection methods. Heat detectors are intended for protection of property. Do not rely on heat detectors for life safety protection. Where life safety is a concern, smoke detectors must also be used. A UL listed fire alarm panel must electronically supervise the VF2020 and VF2021 heat detectors.

All conventional devices are mechanically compatible with VES bases. Please check individual panel listings for appropriate listed bases.

Operation

The VF2020 and VF2021 fixed temperature/rate-of-rise heat detectors are suited to detect in the presence of slow or fast rising temperatures due to burning combustibles.

The construction of these models incorporate a thermistor heat element protected from damage by the built-in, durable plastic guard. These electronic heat detectors incorporate two power/alarm LEDs for 360° indication of status. In standby condition the power LEDs flash Green. In an alarm condition the LEDs latch on Red. The VF2020 and VF2021 electronic heat detection circuitry performs the same function as a Mechanical Device but with Electronic Precision. If the heat rise is less than 12°/minute the detector will not alarm until it reaches its alarm temperature (135° or 190° ± 7.5°F). If the heat rise is greater than 12°/minute the detector will alarm immediately giving an early warning signal and latching the Red alarm LEDs on.



4" AND 6" CONVENTIONAL BASE

VF2050-00 AND VF2051-00



VF2050-00



VF2051-00

Standard Features

- ◆ Designed for use with all VES conventional sensors
- ◆ Available in 4 and 6 inch models
- ◆ Contains a security locking tab for tamper protection

Operation

The VF2050 and VF2051 Series is designed specifically for use with VES Conventional Models VF2032 Photoelectric Smoke Detector, VF2041 Photoelectric with Heat Smoke Detector, VF2030 Photoelectric Smoke Detector, VF2040 Photoelectric Smoke Detector w/heat, or VF2020 and VF2021 Fixed Temperature/Rate-of-Rise Heat Detector.

The Base is an electronics free 6" base featuring a plastic tamper-lock lug. Each base is equipped with a resistor. Refer to the chart (below) for additional specifications. The VF2050 base is a 4" version of the VF2051 6" base.

Technical Specifications

Alarm Current	93mA (136mA @ 33V max.)
SLC Loop Idle Current	110
Compatibility Identifier	HB-3



CONVENTIONAL MANUAL PULL STATIONS



Standard Features

- ◆ Single or Dual Action
- ◆ Enclosed switch with glass rod (included)
- ◆ 10 A @ 120 VAC Snap Action Switch
- ◆ Made in USA

Product Overview

Conventional Manual Pull Stations are available in a number of configurations supporting Fire Alarm & Fire Suppression Systems. Each model is constructed of a solid die cast housing and comes in glossy red. The back switch plate is plated steel. The electrical switch is rated for 10A @ 120 VDC normally open contact rating. Most models are connected via terminal block connections.



Technical Specifications

Contact Rating	10A @ 120 VAC
UL Ambient Installation Temperature Range	30°F - 150°F

Ordering Codes

VF3045-10	Conventional Pull Station for Fire Suppression Release - Red SPST
VF3045-16	Conventional Pull Station for Fire Suppression Release - Red DPST
VF3045-50	Conventional Pull Station for Fire Suppression Release - Yellow SPST
VF3045-56	Conventional Pull Station for Fire Suppression Release - Yellow DPST
VF3046-10	Conventional Pull Station, Single Action, Red, Hex Key SPST
VF3046-16	Conventional Pull Station, Single Action, Red, Hex Key DPST
VF3048-10	Conventional Pull Station, Single Action, Red, Cat 30 Key SPST
VF3048-16	Conventional Pull Station, Single Action, Red, Cat 30 Key DPST
VF3049-10	Conventional Pull Station, Dual Action, Red, Hex Key SPST
VF3049-16	Conventional Pull Station, Dual Action, Red, Hex Key DPST
VF3051-10	Conventional Pull Station, Dual Action, Red, Cat 30 Key SPST
VF3051-16	Conventional Pull Station, Dual Action, Red, Cat 30 Key DPST
VF3052-10	Conventional Pull Station, Single Action, Weatherproof, Red, Hex Key SPST, Pig Tails
VF3053-10	Conventional Pull Station, Single Action, Weatherproof, Red, Cat 30 Key, SPST
VF3053-16	Conventional Pull Station, Single Action, Weatherproof, Red, Cat 30 Key, DPST
VF3054-16	Conventional Pull Station, Single Action, Explosion Proof, Red, Hex Key, DPST

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VOICEALERT

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VOICEALERT VOICE EVACUATION SYSTEMS

VOICEALERT (MASTER AND DISTRIBUTED PANEL)

VF97XX-XO (MASTER PANEL)

VF97XX-XO (DISTRIBUTED PANEL)



VF9700
Master Panel

Standard Features

- ◆ True Multiplex 6 Channel Distributed Audio
- ◆ Integrated Fire Phone, Area of Rescue, and Fan and Damper Control capability
- ◆ Modular System - components added as needed
- ◆ Integrated 2-Channel Digital Message Repeater
- ◆ Live Microphone Page to any Zone
- ◆ Fast RS-485 Communication Protocol
- ◆ Easy Installation and Operation
- ◆ Natural Sound Voice Recordings
- ◆ Built-in Alarm and Alert Signals
- ◆ Up to 4 Minute Message Capacity
- ◆ Works with 12VDC or 24VDC Fire Alarm Panel
- ◆ Listed with for use with the Elite FACP
- ◆ 3 Minute Message Restart on Microphone Key
- ◆ Fully Supervised

Operation

(Basic System Includes)

- ◆ Master Mic Control
- ◆ 16 Switch Control Points
- ◆ Dual-channel DMR
- ◆ High-speed Communication Loop

Distributed Panel(s)* (VF97XX)

- ◆ 4 Output Zones (may be configured for 8)
- ◆ Dual-channel Audio Interface
- ◆ Dual-channel Amplification

Optional

- ◆ Integrated Fire Phone
- ◆ Area-of-Rescue
- ◆ Fan and Damper System Control

Maximum System Configuration

- ◆ Up to 256 Distributed Panels (VF97XX)
- ◆ Up to 2028 monitor and control points

*Number of distributed panels to be determined by building specifications

Product Overview

The VES VoiceAlert High Rise Evacuation System operates in conjunction with the Elite Fire Alarm Control Panel (FACP) in a building to provide automatic response to life safety emergencies. The VoiceAlert system includes all necessary features to provide an effective voice evacuation system. The VoiceAlert can be custom configured to satisfy the needs of any high rise application.

Fire department authorities can easily take command of evacuation or relocation procedures and emergencies. Building management and fire brigades can monitor and control emergency response even before the professionals arrive. The VoiceAlert system includes capacity for 6 Channels of simultaneous audio. This provides for evacuation, stay-in-place, or other public address announcements and automatic messages.

Firefighter Phones or Warden Stations may be included as required. Area-of-Rescue stations can reassure handicapped occupants that help is on the way. Smoke control, stair pressurization, and HVAC shutdown can be completely automatic, unless controlled manually by management or fire authorities.

Military Emergency VoiceAlert Systems - DOD Compliant

The U.S. Department of Defense is requiring mass notification systems in inhabited buildings. The ability to quickly broadcast pre-recorded and live warnings to all personnel is considered essential in reducing casualties in the event of attack on DOD facilities. The VoiceAlert VMX supervised emergency voice alert system meets or exceeds DOD Minimum Anti-terrorism Standards for Buildings, UFC 4-010-01. It is also compliant with UFC 4-021-01, Design and O & M Mass Notification Systems.



Fire Phone accessories give the VMX system two-way communication capability. Fire Phone jacks are mounted on a single-gang plate. Fixed telephone and warden stations are available in surface / semi-flush mount cabinet with a thumb-turn latch.

Voice Alert Panel Options

VF9520-00	Mother Board
VF9521-00	Fire Phone Input Card
VF9522-00	Fire Phone Output Card
VF9535-00	Extended Input Interface
VF9558-00	Class A Return Module
VF9720-10	Master Panel, 16 Zone, Red
VF9722-10	Master Panel, 32 Zone, Red
VF9724-10	Master Panel, 48 Zone, Red
VF9726-10	Master Panel, 64 Zone, Red
VF9728-10	Master Panel, 80 Zone, Red
VF9730-10	Master Panel, 96 Zone, Red
VF9740-10	Master Panel, 16 Zone, w/Phone, Red
VF9742-10	Master Panel, 32 Zone, w/Phone, Red
VF9744-10	Master Panel, 48 Zone, w/Phone, Red
VF9746-10	Master Panel, 64 Zone, w/Phone, Red
VF9748-10	Master Panel, 80 Zone, w/Phone, Red
VF9750-10	Master Panel, 96 Zone, w/Phone, Red
VF9760-10	Distributed Panel, Single, 25W, Red
VF9762-10	Distributed Panel, Single, 50W, Red
VF9764-10	Distributed Panel, Single, 100W, Red
VF9768-10	Distributed Panel, Single, 50W, w/Phone, Red
VF9770-10	Distributed Panel, Single, 100W, w/Phone, Red
VF9774-10	Distributed Panel, Dual, 50W, Red
VF9776-10	Distributed Panel, Dual, 100W, Red
VF9778-10	Distributed Panel, Single, 25W, w/Phone, Red
VF9780-10	Distributed Panel, Dual, 50W, w/Phone, Red
VF9782-10	Distributed Panel, Dual, 100W, w/Phone, Red
VF9793-10	Distributed Panel, Dual, 200W, w/Phone, Red
VF4020-10	Speaker, Wall or Ceiling 4 Watt Red
VF4022-10	Speaker / Strobe, Wall or Ceiling 4 Watt Red
VF9512-00	Telephone Jack
VF9511-10	Portable Handset, Red
VF9514-10	Fire Phone Station, Red
VF9524-10	Warden Station, Red
VF9510-10	Telephone Cabinet, Red



VF97XX Distributed Panel



VF9512 - Telephone Jack

- ◆ Brushed Stainless Steel
- ◆ Single Gang Plate

VF9511 - Portable Handset

- ◆ Color - Red
- ◆ 6 mount in VF9510 cabinet
- ◆ Can be used with telephone jack plate (VF9512)

VF9510 - Telephone Cabinet

- ◆ Holds 6 VF9511
- ◆ Available in Red or Gray
- ◆ Size: 27"(H) x 14 1/2"(W) x 4"(D)
- ◆ Surface / Semi-Flush Mount / Key Lock

VF9514 - Fire Phone Station

- ◆ Coil Cord / Thumb Turn Latch
- ◆ Available in Red or Gray
- ◆ Size: 12 3/4" (H) x 7 1/4" (W) x 3 3/4" (D)
- ◆ Surface / Semi-Flush Mount

VF9524 - Warden Station

- ◆ Armored Cable / Thumb Turn Latch
- ◆ Available in Red or Gray
- ◆ Size: 12 3/4" (H) x 7 1/4" (W) x 3 3/4" (D)
- ◆ Surface / Semi-Flush Mount

VOICEALERT (50 & 100 WATT)

VF922X* / VF924X*



Standard Features

- ◆ Clean Dead-front Construction
- ◆ Digitally Recorded Automatic Evacuation Message (Up to 4 Minutes of Message Capacity)
- ◆ 50/ 100 Watt High Efficiency Digital Amplifier (VF922x / VF924x)
- ◆ 25 or 70 VRMS Field-Selectable
- ◆ 120 VAC Power Supply and Battery Charger
- ◆ Live Microphone Override of Message and Tone
- ◆ Analog Addressable Compatible
- ◆ High Reliability, No Maintenance
- ◆ Fully Supervised
- ◆ Easy Installation and Operation
- ◆ Natural Sound Recordings
- ◆ Built in Alarm and Alert Signals
- ◆ Works with 12VDC or 24VDC Fire Alarm Panels
- ◆ Works with Analog/Addressable and Microprocessor based Fire Alarm Panels
- ◆ 3 Minute Message Restart on Microphone Key
- ◆ 24 Hour Backup with two 12V 7Ah Batteries

Product Overview

The VF922x and VF924x range in the Voice Evacuation System provides 50 Watts and 100 Watts of speaker power respectively.

The VF922x and VF924x panels include all necessary features to provide an effective voice evacuation system. With the addition of zone splitters, remote microphone panels and expander modules, both ranges can be custom configured to satisfy the needs of most applications.

The panels have their own power supply and battery charger. Panels must be wired with 120 VAC and standby batteries connected. A digital message repeater (DMR) is built into the panels. The selection of alarm tone and automatic message repeats, as well as the 6 Hour delay of the AC power failure reporting feature are all field-configurable.

The paging microphone is an integral component. Removal of the microphone from the panel will cause a Trouble condition, which will be reported locally, as well as through the FACP.

The VF922x and VF924x panels are housed in an attractive surface or semi-flush mounted backbox, with a hinged and key-locked door.



Ordering Codes

VF9220	50W Voice Evacuation System with Power Supply / Battery Charger Paging Microphone
VF9221	50W Voice Evacuation System with 4 Speaker Zones
VF9222	50W Voice Evacuation System with 8 Speaker Zones
VF9223	50W Voice Evacuation System with 12 Speaker Zones
VF9224	50W Voice Evacuation System with 16 Speaker Zones
VF9240	100W Voice Evacuation System with Power Supply / Battery Charger Paging Microphone
VF9241	100W Voice Evacuation System with 4 Speaker Zones
VF9242	100W Voice Evacuation System with 8 Speaker Zones
VF9243	100W Voice Evacuation System with 12 Speaker Zones
VF9244	100W Voice Evacuation System with 16 Speaker Zones

Color - VFXXXX-10 for Red, VFXXXX-20 for Charcoal

Technical Specifications

	50W	100W
Primary Power	120VAC @ .6A	120VAC @ 2A
24 VDC Battery Power	Standby 130 μ A Alarm 1A	Standby 180 μ A Alarm 2.5A
Output	25 / 70 VRMS tone and voice	25 / 70 VRMS tone and voice
Backbox Dimensions	14.5"(W) x 18"(H) x 4"(D)	14.5"(W) x 18"(H) x 4"(D)
Color	Red / Charcoal Gray	Red / Charcoal Gray

VOICEALERT (150 & 200 WATT)

VF926X* / VF928X*



Standard Features

- ◆ Dead-front Construction
- ◆ Digitally Recorded Automatic Evacuation Message (Up to 4 Minutes of Message Capacity)
- ◆ 150 / 200 Watt Amplifier (VF926x / VF928x)
- ◆ 25 or 70 VRMS Field Selectable
- ◆ 120 VAC Power Supply and Battery Charger
- ◆ Live Microphone Override of Message and Tone
- ◆ Analog Addressable Compatible
- ◆ High Reliability
- ◆ Fully Supervised
- ◆ Easy Installation and Operation
- ◆ Natural Sound Recordings
- ◆ Built in Alarm and Alert Signals
- ◆ Works with 12VDC or 24VDC Fire Alarm Panel
- ◆ Works with Analog/Addressable and Microprocessor based Fire Alarm Panels

Product Overview

The VF926x and VF928x range of panels provide 150 Watts and 200 Watts of speaker power respectively. Speaker zones can be configured for general alarm or alarm by zone operation as required.

The panels include all necessary features to provide an effective voice evacuation system. With the addition of zone splitters, remote microphone panels, and expander modules, the panels can be custom configured to satisfy the needs of most applications.

The VF926x and VF928x have their own power supply and battery charger. Panels must be wired with 120 VAC and standby batteries connected. A digital message repeater (DMR) is built into the panel. The selection of alarm tone and automatic message repeats, as well as the 6 Hour delay of the AC power failure reporting feature are all field-configurable. The paging microphone is an integral component. Removal of the microphone from the panel will cause a "Trouble" condition which will be reported locally, as well as through the FACP.

The panel is housed in an attractive surface or semi-flush mounted backbox, with a hinged and key locked door.



Ordering Codes

VF9260	150W Voice Evacuation System with 2 Speaker Circuits, 1 - 100W, 1 - 50W Power Supply / Battery Charger, Paging Microphone, Digital Message Repeater
VF9261	150W Voice Evacuation System with 8 Speaker Zones, 100W/ 4Z, 50W / 4Z
VF9262	150W Voice Evacuation System with 12 Speaker Zones, 100W/ 8Z, 50W / 4Z
VF9263	150W Voice Evacuation System with 16 Speaker Zones, 100W/8Z, 50W / 8Z
VF9280	200W Voice Evacuation System with 2 Speaker Circuits, 1 - 100W, 1 - 50W Power Supply / Battery Charger, Paging Microphone, Digital Message Repeater
VF9281	200W Voice Evacuation System with 8 Speaker Zones, 100W/ 4Z, 50W / 4Z
VF9282	200W Voice Evacuation System with 12 Speaker Zones, 100W/ 8Z, 50W / 4Z
VF9283	200W Voice Evacuation System with 16 Speaker Zones, 100W/8Z, 50W /8Z

Color - VFXXXX-10 for Red, VFXXXX-20 for Charcoal

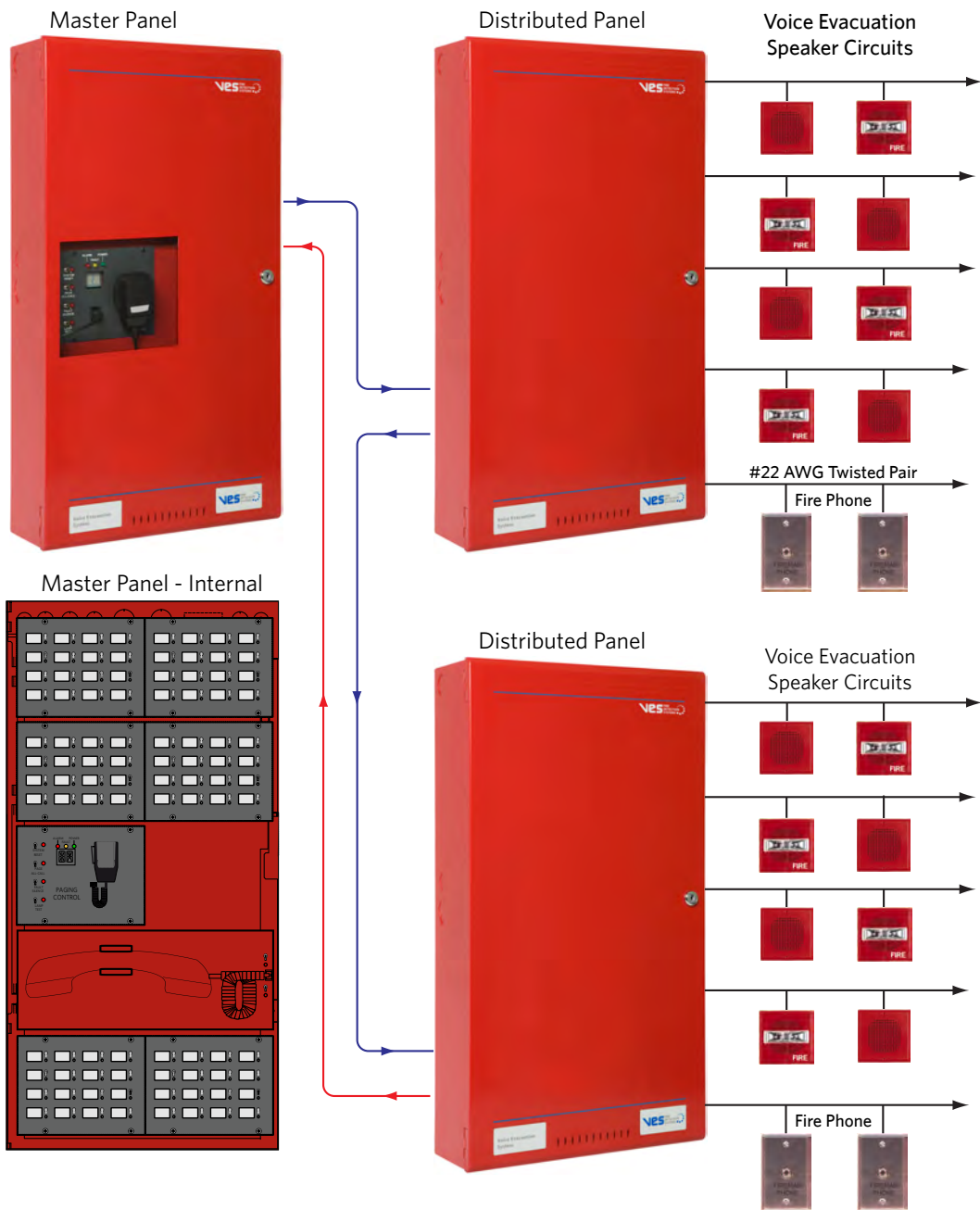
Technical Specifications

	Each 50 W module is rated at:	Each 100W module is rated at:
Primary Power	120VAC @ .6A	120VAC @ 2A
24 VDC Battery Power	Standby 130µA Alarm 1A	Standby 180µA Alarm 2.5A
Output	25 / 70 VRMS tone and voice	25 / 70 VRMS tone and voice
Backbox Dimensions	14.5"(W) x 27"(H) x 4"(D)	14.5"(W) x 27"(H) x 4"(D)
Color	Red / Charcoal Gray	Red / Charcoal Gray

VOICEALERT VOICE EVACUATION SYSTEM SCHEMATIC

Standard Features

- ◆ Unshielded Twisted Pair (Low cap.)
- ◆ 4,000 Feet max between panels
- ◆ Data and 6 Audio Channels simultaneously
- ◆ High Speed RS-485 Communications
- ◆ Switch plates can be added or removed in banks of 16
- ◆ Giving up to 128 switches (or 96, if telephone is used)
- ◆ Telephone can be added or removed. This takes up two plate areas



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24V LOW CURRENT MINI-HORN, TEMPORAL TONE

VF4027-X0



Standard Features

- ◆ Nominal Voltage 12VDC and 24VDC
- ◆ UL 464 Listed
- ◆ Unit Dimensions: 4.48" (H) x 2.84" (W) x 0.5" (D)
- ◆ Jumper Selectable Temporal 3 or Continuous Tone on the VF4027
- ◆ Horn Frequency is 3100Hz
- ◆ Terminal Blocks (12 AWG to 18 AWG)
- ◆ Low Current Consumption
- ◆ Variety of Mounting Options for New Construction and Retrofit Applications
- ◆ To Synchronize the VF4027, use the VES VF4009 Series Control Module
- ◆ Textured Finish High Impact Plastic
- ◆ Faceplate available in Red or Off-White

Ordering Codes

VF4027-10 24V Low Current Mini Horn, Temporal Tone - Red Faceplate

VF4027-30 24V Low Current Mini Horn, Temporal Tone - Off-White Faceplate

Product Overview

The VF4027 Series mini-horn is a high-quality, remote-signaling appliance that offers dependable remote annunciation. The VF4027 is listed for use with both filtered and unfiltered power.

With the VF4027 a jumper is provided to select either the continuous tone or the temporal 3 evacuation tone.

The VF4027 can be used on the same sync circuit (VF4009 Series Control Module) as other VES signals. The VF4027 appliances are UL 464 listed for use with fire protective systems and are warranted for three years from the date of purchase.

NOTES Operating temperature - Indoor Use Only. Indoor: 32°F - 120°F (0°C - 49°C). The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.



Architect and Engineer Specifications

The alarm horns shall be VES Model VF4027. The appliance shall be listed with Underwriters Laboratories for use with Fire Protective Signaling Systems and produce a peak sound output of 90dBA or greater as measured in an anechoic chamber. The appliance shall be of solid-state construction and be polarized to operate from 8-33VDC with a 22mA current drain at 24VDC. The appliance shall be provided with 2 terminals, and mount to a variety of single-gang back boxes.

VF4027 Current Ratings

24 VDC	20 mA
24 VDC UL Max ¹	18 mA
12 VDC	17 mA
12 VDC UL Max ¹	13 mA

¹RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range 16-33VDC for 24VDC units. For strobes the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles, the max current is usually at the maximum listed voltage.

Horn Mode	Minimum dBA @ 10ft. per UL464 @ 24V	Reverberant dBA @ 10ft per UL464 @ 12V
Temporal 3	81	78
Continuous	86	83

WALL MOUNT HORN, HORN / STROBES

VF4000-XO (LOW PROFILE EVACUATION HORN)

VF4001-XO (LOW PROFILE EVACUATION STROBE)

VF4002-XO (LOW PROFILE EVACUATION HORN / STROBE)



VF4000/ VF4001/VF4002 Product Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd	110cd
24 VDC	30 mA	35 mA	66 mA	80 mA	103 mA
UL Max ¹	42 mA	60 mA	97 mA	116 mA	157 mA

Standard Features

- ◆ FM Approved, UL 464, UL 1971 Listed
- ◆ Nominal voltage 24VDC
- ◆ Units have field selectable candela options of 15, 30, 60, 75, and 110 candela
- ◆ Super-Slide™ Bracket - Ease of Supervision Testing
- ◆ Checkmate™ - Instant Voltage Verification
- ◆ Unit Dimensions: 5" (H) x 4.5" (W) x 2.5" (D)
- ◆ Synchronize strobe and/or horn with VES Series Control Module
- ◆ Prewire entire system, then install signals
- ◆ Lower installation and operating costs
- ◆ Input terminals 12 to 18 AWG
- ◆ Switch selection for high or low dBA
- ◆ Switch for chime, whoop, mechanical and 2400Hz tone
- ◆ Tamperproof re-entrant grill
- ◆ Switch for continuous or temporal 3 (not available on whoop tone)
- ◆ Surface mount with the VF4005 (VES Surface Mount Box)
- ◆ Silence horn while strobes remain flashing
- ◆ Wide voltage range 16 - 33VDC or FWR

Ordering Codes

Part No.	Description	Reverberant dBA @ 10ft. Per UL 464 ¹	In Anechoic Room dBA @ 10ft.
VF4000-10	24V Low Profile Evacuation Horn Red Faceplate	62-82	100
VF4000-30	24V Low Profile Evacuation Horn Off-White Faceplate	62-82	100
VF4001-10	24V Selectable Candela Low Profile Evacuation Strobe Wall Mount, Red Faceplate	62-82	100
VF4001-30	24V Selectable Candela Low Profile Evacuation Strobe Wall Mount, Off-White Faceplate	62-82	100
VF4002-10	24V Selectable Candela Low Profile Evacuation Horn/ Strobe Wall Mount, Red Faceplate	62-82	100
VF4002-30	24V Selectable Candela Low Profile Evacuation Horn/ Strobe Wall Mount, Off-White Faceplate	62-82	100

¹RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range 16 - 33VDC for 24VDC units. For strobes the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.



Operation

The VES Signal Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the lowest current available. The VES Series 24VDC offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela. The VES Series horn offers a continuous or synchable temporal three in 2400Hz and mechanical tone, a chime and whoop tone. All tones are easy for the professional to change in the field by using switches.

The VES Series has a minimal operation current and has a minimum flash rate of 1Hz regardless of input voltage. The VES Series is shipped with the standard 4" metal mounting plate which incorporates the popular Super-Slide™ feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The appliance also features the Checkmate™ - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint. The VES Series appliances are UL 464 and UL 1971, listed for use with fire protective systems and are warranted for three years from date of purchase.

Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Reverberant dBA @ 10ft per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	78	71*	28
Temp 3 Mechanical	76	70*	25
Temp 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechanical	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

*Operating the horn in this mode at this voltage will result in not meeting the minimum UL reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode.

NOTES To obtain the horn/strobe current draw, add the strobe current draw and the horn current draw. Operating temperature: 32°F - 120°F (0°C - 49° C). The VES Series is not listed for outdoor use. The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode. For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual. VES does not recommend using a coded or pulsing signaling circuit with any of our strobe products.

CEILING MOUNT HORN, HORN / STROBES

VF4003-X0 (24V STROBE)

VF4004-X0 (24V HORN/ STROBE)



Standard Features

- ◆ FM Approved, UL 464, UL 1971 Listed
- ◆ Nominal Voltage 24 VDC
- ◆ Tamperproof Field Selectable Candela options of 15, 30, 75, 95, 115, and 150
- ◆ Super-Slide™ Bracket - Ease of Supervision Testing
- ◆ Checkmate™ - Instant Voltage Verification
- ◆ Unit Dimensions: 6" x 2.6"
- ◆ Synchronize VF4003 Series by using VES Series Control Module
- ◆ Prewire Entire System, then Install Your Signals
- ◆ Input Terminals 12 to 18 AWG
- ◆ Switch Selection for High or Low dBA
- ◆ Switch Selection for 2400Hz or Mechanical Tone
- ◆ Switch Selection for Continuous or Temporal 3
- ◆ Tamperproof Re-entrant Grill
- ◆ Surface Mount with the Ceiling Surface Mount Box
- ◆ Silence Horn While Strobes Remain Flashing
- ◆ Wide Voltage Range 16 - 33 VDC or FWR
- ◆ Faceplate available in Red or Off-White
- ◆ Wide voltage range 16 - 33VDC or FWR

Product Overview

The VF4003/VF4004 Series is a ceiling mount strobe or horn/strobe combination that offers dependable audible and visual alarms and the lowest current available. The VF4003/VF4004 offers tamperproof field selectable candela options of 15, 30, 75, 95, 115 and 150 candela. The VF4004 horn offers a continuous or synchable temporal three in 2400Hz or mechanical tone. These tones are easy for the professional to change in the field by using switches. The models are shipped from the factory in the temporal three alarm mode.

The VES Series has a minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage. This Series comes standard with the 4" mounting plate which incorporates the popular Super-Slide™ feature that allows the installer to easily test for supervision. The VF4003/VF4004 Series also features the Checkmate™ - Instant Voltage Verification feature which allows the installer to check the voltage without removing the signal.

The VES Series appliances are UL 464 and UL 1971 listed for use with fire protective systems and are warranted for three years from the date of purchase.



VF4003 Ordering Codes

Part No.	Description
VF4003-10	24V Ceiling Mount Selectable Strobe - Red Faceplate
VF4003-30	24V Ceiling Mount Selectable Strobe - Off-White Faceplate

VF4004 Ordering Codes

Part No.	Description	Reverberant dBA @ 10ft. Per UL 464 ¹	In Anechoic Room dBA @ 10ft.
VF4004-10	24V Ceiling Mount Selectable Horn/ Strobe - Red Faceplate	81-86	90
VF4004-30	24V Ceiling Mount Selectable Horn/ Strobe - Off-White Faceplate	81-86	90

NOTES The VES Series is not listed for outdoor use. Operating temperature: 32°F - 120°F (0°C - 49° C)
For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power.

VES does not recommend using a coded or pulsing signaling circuit with any of our strobe products.

VF4003 / VF4004 Product Strobe Current Ratings

Candela	15cd	30cd	75cd	95cd	115cd	150cd
24 VDC	97 mA	97 mA	143 mA	148 mA	201 mA	205 mA
UL Max ²	120 mA	120 mA	200 mA	220 mA	290 mA	321 mA

Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Reverberant dBA @ 10ft per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	83	75	23
Temp 3 Mechanical	81	73*	22
Continuous 2400Hz	86	78	23
Continuous Mechanical	84	76	22

*Operating the horn in this mode at this voltage will result in not meeting the minimum UL reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application.

NOTES The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode. To obtain the horn/strobe current draw, add the strobe current draw and the horn current draw.

¹The listed horn current draws are for the Continuous Tone mode. The Temporal 3 Tone has a reverberant dBA @ 10ft. per UL 464 is 77 - 83 with a horn current draw of 34mA.

²RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range 16 - 33VDC for 24VDC units. For strobes the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

WEATHERPROOF DEVICES

VF4029-X0 (24V LOW PROFILE EVACUATION HORN),
VF4006-X0 (24V LOW PROFILE EVACUATION OUTDOOR STROBE),
VF4007-X0 (24V LOW PROFILE EVACUATION OUTDOOR HORN / STROBE)



Standard Features

- ◆ Nominal Voltage 24VDC
- ◆ Unit is Shipped with UL1638 listed VF4006 Candela Strobe or VF4007 Candela Horn/Strobe
- ◆ Unit Dimensions: VF4008 5.75"(H) x 4.75"(W) x 4.18"(D)
- ◆ To Obtain Outdoor Horn, Must Order VF4029 and VF4008 Separately
- ◆ Super-Slide™ - Ease of Supervision Testing
- ◆ Checkmate™ - Instant Voltage Verification
- ◆ Lower Installation and Operating Costs
- ◆ Switch Selection for High dBA
- ◆ Switch for Mechanical and 2400Hz Tone
- ◆ Switch for Continuous Tone
- ◆ Tamperproof Re-entrant Grill
- ◆ Wide Voltage Range 16-33 VDC or FWR
- ◆ Separate Horn and Strobe Functions
- ◆ Synchronize Strobe and/or Horn by Using VES Synchronization Control Module
- ◆ Listed for UL1638 when used with the VF4008 enclosure
- ◆ VF4008 Made of Clear Lexan - Provides Maximum Visibility and Reliability for effective Visible Signaling - Allowing Full 75cd Output
- ◆ Input Terminals 12 to 18 AWG
- ◆ Faceplate available in Red or Off-White

Product Overview

The Outdoor VES Series offers dependable visible and/or audible alarms for all outdoor needs. Included with the VES Series is the VF4008 outdoor enclosure. The enclosure is made of high quality Lexan material, providing protection from weather related conditions and allowing the necessary full candela output. This highly constructed enclosure meets various installation requirements including deterring moisture from entering the enclosures.

The Outdoor Series is equipped with the 4" mounting plate which incorporates the Super-Slide™ feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing. The VES Series also features the Checkmate™ - Instant Voltage Verification feature which allows the installer to check the voltage without removing the signal. The VES Series strobe has a minimal operation current and has a minimum flash rate of 1Hz and can vary up to 2Hz regardless of input voltage.

The VES Series appliances are UL 464 and UL 1638 listed for use with fire protective systems and are warranted for three years from date of purchase.



VF4004 Ordering Codes

Part No.	Description	Reverberant dBA @ 10ft. Per UL 464	In Anechoic Room dBA @ 10ft.
VF4029-10	24V Low Profile Evacuation Horn - Red Faceplate	70-82	100
VF4029-30	24V Low Profile Evacuation Horn - Off-White Faceplate	70-82	100
VF4006-10	24V Low Profile Evacuation Outdoor Strobe - Wall Mount, Red Faceplate	N/A	N/A
VF4006-30	24V Low Profile Evacuation Outdoor Strobe - Wall Mount, Off-White Faceplate	N/A	N/A
VF4007-10	24V Low Profile Evacuation Outdoor Horn/ Strobe - Wall Mount, Red Faceplate	70-82	100
VF4007-30	24V Low Profile Evacuation Outdoor Horn/ Strobe - Wall Mount, Off-White Faceplate	70-82	100
VF4008-00	Outdoor Enclosure	N/A	N/A

NOTES The VES Outdoor Series is listed for outdoor use. Indoor Operating Temperature: 32°F - 120°F (0°C - 49°C). Outdoor Operating Temperature: -31°F - 150°F (-35°C - 66°C). For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual.

VES does not recommend using a coded or pulsing signaling circuit with any of our strobe products

VES Outdoor Product Strobe Current Ratings

Candela	75cd
24 VDC	112 mA
UL Max ¹	180 mA

¹RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range 16-33VDC for 24VDC units. For strobes, the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

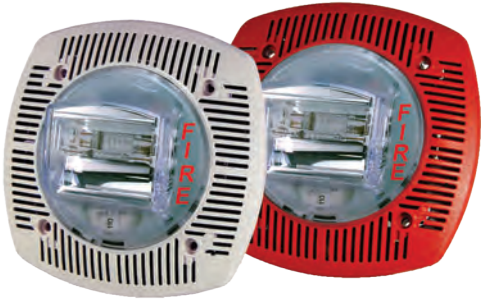
Horn Mode	Minimum dBA @ 10ft. per UL464 (HIGH)	Reverberant dBA @ 10ft per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	78	71*	28
Temp 3 Mechanical	76	70*	25
Temp 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechanical	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

*Operating the horn in this mode at this voltage will result in not meeting the minimum UL reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

NOTES The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode. To obtain the horn/strobe current draw, add the strobe current draw and the horn current draw.

WALL MOUNT SPEAKER / STROBES

VF4022-XO (LOW PROFILE SELECTABLE CANDELA SPEAKER / STROBE)
VF4032-XO (LOW PROFILE FIXED CANDELA SPEAKER / STROBE)



Standard Features

- ◆ FM Approved, UL 1480/UL 1971/UL 2043 Listed
- ◆ 24VDC Tamperproof Selectable Candela Selections of 15, 30, 60, 75 and 110
- ◆ 24VDC Fixed 15/75 Candela
- ◆ Unit Dimension: 6.1" (Square) X 1.88" (Deep)
- ◆ Wall Mounting to a standard 4" (Square) X 2-1/8" (Deep) Back Box
- ◆ High Quality dBA Output (Intelligible)
- ◆ Frequency Range 400-4000Hz
- ◆ Screw Terminals, Separate In/Out Wiring (12 - 18 Gauge)
- ◆ Field Selectable Power Taps: 1/8W, 1/4W, 1/2W, 1W, 2W, 4W
- ◆ Speaker Voltage 25 or 70.7 VRMS Standard, Field Selectable
- ◆ To Synchronize Use the VES Synchronization Control Module
- ◆ Tamperproof Grill
- ◆ Xenon Strobe Maintains Constant Flash Rate (1Hz) Regardless of Input Voltage
- ◆ Faceplate available in Red or Off-White

Product Overview

The VES VF4022 and VF4032 Series are wall mount, selectable candela speaker/strobes designed to meet code requirements for audio, visual and voice communications. The VF4022 and VF4032 Series are quality speaker products that offer both dependable evacuation signaling and visual alarms, or a combination of both. The high output tamperproof candela selections are 15, 30, 60, 75, 110. A fixed 15/75 candela unit is also available.

The VES series can be mounted in a 4" square x 2 1/8" deep back box, an extension ring is not needed. The VF4022 and VF4032 Series provides a 25 or 70.7 VRMS speaker with field selectable power taps of 1/8W, 1/4W, 1/2W, 1W, 2W or 4W. The VES strobes can be synchronized by using the VES Synchronization Control Module, FACPs or power supplies that include the VES Synchronization Protocol.

The VF4022 and VF4032 Series grills are constructed of high impact textured plastic. The VF4022 and VF4032 are warranted for 3 years from the date of purchase. The VES devices are UL listed for fire protective services per UL 1480, the selectable candela strobe unit is listed to UL 1971 and the 15/75 unit is listed to UL 1638 and UL 1971.

Ordering Codes

VF4022-10	Low Profile Selectable Candela Wall Mount Speaker/ Strobe - Red Faceplate
VF4022-30	Low Profile Selectable Candela Wall Mount Speaker/ Strobe - Off-White Faceplate
VF4032-10	Low Profile Fixed Candela (15/75) Wall Mount Speaker/ Strobe - Red Faceplate
VF4032-30	Low Profile Fixed Candela (15/75) Wall Mount Speaker/ Strobe - Off-White Faceplate

NOTES The VF4022 and VF4032 Series is not listed for outdoor use. Operating temperature: 32°F - 120°F (0°C - 49°C).

VES does not recommend using a coded or pulsing signaling circuit with any of our strobe products.



Architect and Engineer Specifications

The fire alarm speaker shall be VES VF4022/ VF4032 or equivalent. The speaker shall be capable of producing alarm tones or voice on all 25 or 70.7 VRMS audio systems. The speaker shall provide incremental tap settings of 1/8, 1/4, 1/2, 1, 2 or 4 watts. Minimum dBA ratings at 1/4 watt shall be 76.7dBA and at 4 watts 87.9dBA. Tap settings shall be adjustable with field selectable jumper pins. The speaker shall also have an optional visual signal capability. The visual signal shall have a 1Hz flash rate regardless of input voltage. All field wiring connections shall be made via separate in-out terminal connections and the speaker or speaker strobe shall be UL, CSFM and BS&A/MEA listed and comply with all local, state and federal fire alarm codes/standards.

Wall Mount Strobe Current Ratings

Candela	15cd	30cd	60cd	75cd	110cd	15 / 75cd
24 VDC	33 mA	63 mA	88 mA	112 mA	136 mA	63 mA
UL Max ¹	78 mA	96 mA	137 mA	180 mA	224 mA	96 mA

¹RMS current ratings are per UL average RMS method. UL maximum current rating is the maximum RMS current within the listed voltage range 16-33VDC for 24VDC units. For strobes the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles the maximum current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

Speaker dBA @ 10ft.

Input Watts	25 Volts	70.7 Volts
1/8	74.6 dBA	73.7 dBA
1/4	77.7 dBA	76.7 dBA
1/2	80.5 dBA	79.6 dBA
1	83.1 dBA	82.6 dBA
2	85.6 dBA	85.4 dBA
4	87.9 dBA	87.9 dBA

CEILING MOUNT SPEAKER / STROBES

VF4020-X0 (LOW PROFILE SPEAKER)

VF4024-X0 (LOW PROFILE SPEAKER / STROBE)



Standard Features

- ◆ UL 1480/UL 1971/UL 2043 Listed
- ◆ 24VDC Tamperproof Selectable Candela Selections of 15, 30, 75, 95, and 115
- ◆ Unit Dimension: 6.1" (Square) x 1.88" (Deep)
- ◆ VF4024 Ceiling Mounting to a standard 4" (Square) x 2-1/8" (Deep) Back Box
- ◆ VF4020 Ceiling or Wall Mounting to a standard 4" (Square) x 2 1/8" (Deep) Back Box
- ◆ High Quality dBA Output (Intelligible)
- ◆ Frequency Range 400-4000Hz
- ◆ Screw Terminals, Separate In/Out Wiring (12-18 Gauge)
- ◆ Field Selectable Power Taps: 1/8W, 1/4W, 1/2W, 1W, 2W, 4W
- ◆ Speaker Voltage 25 or 70.7 VRMS Standard, Field Selectable
- ◆ To Synchronize Use the VES Synchronization Control Module
- ◆ Tamperproof Grill
- ◆ Xenon Strobe Maintains Constant Flash Rate (1Hz) Regardless of Input Voltage
- ◆ Faceplate available in Red or Off-White

Product Overview

The VES VF4024 is a ceiling mount, selectable candela speaker/strobe and the VF4020 is a ceiling or wall mount speaker designed to meet code requirements for audio, visual and voice communications. The VF4020 and VF4024 Series are quality speaker products that offer both dependable evacuation signaling and visual alarms, or a combination of both. The VF4024 has high output tamperproof candela selections are 15, 30, 75, 95, and 115.

The VF4020 and VF4024 Series can be mounted in a 4" square x 2-1/8" deep back box, an extension ring is not needed. The VF4020 and VF4024 Series provides a 25 or 70.7 VRMS speaker with field selectable power taps of 1/8W, 1/4W, 1/2W, 1W, 2W, or 4W. The VF4024 strobes can be synchronized by using the VES Synchronization Control Module, FACP's or power supplies that include the VES Synchronization Protocol.

The VF4020 and VF4024 Series grills are constructed of high impact textured plastic. The VF4020 and VF4024 are warranted for 3 years from the date of purchase. The VF4020 and VF4024 devices are UL 1971 listed for use with fire protective signaling systems.

Ordering Codes

VF4020-10	Low Profile Ceiling and Wall Mount Speaker/ Strobe - Red Faceplate
VF4020-30	Low Profile Ceiling and Wall Mount Speaker/ Strobe - Off-White Faceplate
VF4024-10	Low Profile Ceiling Mount Speaker/ Strobe - Red Faceplate
VF4024-30	Low Profile Ceiling Mount Speaker/ Strobe - Off-White Faceplate

NOTES The VF4020 / VF4024 Series is not listed for outdoor use. Operating temperature: 32°F - 120°F (0°C - 49° C). VES does not recommend using a coded or pulsing signaling circuit with any of our strobe products.



Architect and Engineer Specifications

The fire alarm speaker shall be VES VF4020 / VF4024 or equivalent. The speaker shall be capable of producing alarm tones or voice on all 25 or 70.7 VRMS audio systems. The speaker shall provide incremental tap settings of 1/8, 1/4, 1/2, 1, 2 or 4 watts. Minimum dBA ratings at 1/4 watt shall be 76.7dBA and at 4 watts 87.9dBA. Tap settings shall be adjustable with field selectable jumper pins. The speaker shall also have an optional visual signal capability.

The visual signal shall have a 1Hz flash rate regardless of input voltage. All field wiring connections shall be made via separate in-out terminal connections and the speaker or speaker strobe shall be UL, CSFM and BS&A/MEA listed and comply with all local, state and federal fire alarm codes/standards.

VF4024 Ceiling Mount Strobe Current Ratings

Candela	15cd	30cd	75cd	95cd	115cd
24 VDC	72 mA	88 mA	176 mA	200 mA	214 mA
UL Max ¹	120 mA	130 mA	272 mA	318 mA	360 mA

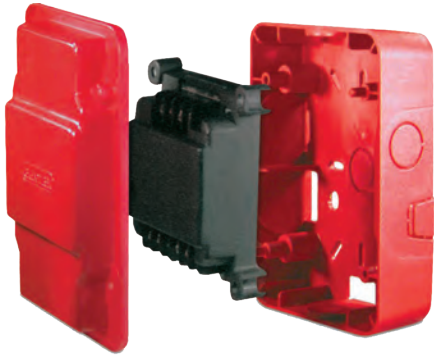
¹RMS current ratings are per UL average RMS method. UL maximum current rating is the maximum RMS current within the listed voltage range 16-33VDC for 24VDC units. For strobes the UL max current is usually at the minimum listed voltage 16VDC for 24VDC units. For audibles the maximum current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

Speaker dBA @ 10ft.

Input Watts	25 Volts	70.7 Volts
1/8	74.6 dBA	73.7 dBA
1/4	77.7 dBA	76.7 dBA
1/2	80.5 dBA	79.6 dBA
1	83.1 dBA	82.6 dBA
2	85.6 dBA	85.4 dBA
4	87.9 dBA	87.9 dBA

GANGABLE SYNCHRONIZATION CONTROL MODULE

VF4009-X0



Standard Features

- ◆ UL 464 and UL 1971 Listed
- ◆ Synchronize horn and strobe with the use of only two wires
- ◆ Easy to install
- ◆ Module is rated for 3 Amps
- ◆ Continuous current and 5 Amps surge or inrush current
- ◆ Synchronizes to 1Hz flash rate
- ◆ Operates 1 class 'A' Circuit or 2 Class 'B' circuits at 3 Amps per circuit
- ◆ Dual synchronization module only when using the 2 class 'B' circuits
- ◆ A Green LED status indicator to signal operation of module
- ◆ Option to silence the horn while strobes continue to flash when using temporal 3 mode
- ◆ VF4009 Operates the VF4003 / VF4004, VF4000/ VF4001 / VF4002, VF4022 / VF3032, VF4020 / VF4024 and VF4027 Series
- ◆ Three year warranty from date of purchase

Product Overview

The VES VF4009 control modules are designed to provide an easy way to synchronize multiple horns as well as strobe light flashes using only two wires in instances where a synchronized flash is required.

When the module is in temporal 3 mode, it has the capability to synchronize multiple horn signals and the ability to silence the horn while allowing the strobes to continue to flash. In unison mode, the horn cannot be silenced while maintaining strobe operation.

By incorporating the control module, the control module will control the power to the horns to produce the synchronized operation. The VF4009 Control Modules are warranted for three years from date of purchase.

Ordering Codes

VF4009-10	Gangable Synchronization Control Module - Red
VF4009-30	Gangable Synchronization Control Module - Off-White

NOTES The VF4009 Modules come with own back box and cover plate.

Dimensions of Module: 3.85" (H) x 3.82" (W) x 1.32" (D)

Dimensions of Box: 5.57"(H) x 4.55" (W) x 2.39" (D)

A green LED status indicator will flash once every four seconds if zone 1 is operational. The LED will flash twice every four seconds if zones 1 and 2 are operational.

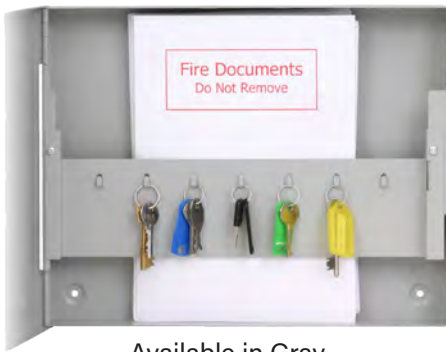


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MISCELLANEOUS

FIRE DOCUMENT ENCLOSURE

VF071X-X0



Available in Gray

Panel Options

VF0710-xx	Standard
VF0711-xx	Deep
VF0712-xx	Standard w/ Tamper
VF0713-xx	Deep w/ Tamper

xx = 10 (Red) or 40 (Gray)

Standard Features

- ◆ Matches design and color scheme for standard Elite control panel ranges
- ◆ Easy to install
- ◆ Key Lockable
- ◆ Designed for versatility
- ◆ Choice of small or large capacity enclosure

Product Overview

Another addition to the VES range, the document box is designed to complement the design and color of the Elite range of control panels. The standard version Document Box will hold up to 50 A4 sheets of information on the Fire Detection or other security systems within a premises. The deep version will hold up to 100 sheets.

The Document Box also doubles up as a Key Box providing 7 easily accessible formed key hooks inside the enclosure.

Technical Specifications

Construction	18AWG sheet steel	
Dimensions	VF0711 / VF0713	14.5" (W) x 12.2" (H) x 3.4" (D)
	VF0710 / VF0712	14.5" (W) x 12.2" (H) x 2.5" (D)
Weight	6.6lb	
Finish (lid and box)	RAL3002 (Red) or BS 00 A 05 (Gray)	
Finish (product labels)	BS 00 A 05 (Gray)	

ANCILLARY ENCLOSURE

VF073X-X0



Standard Features

- ◆ Matches design and color scheme for standard Elite control panel ranges
- ◆ Easy to install
- ◆ Key Lockable
- ◆ Designed for versatility
- ◆ Three sizes of enclosure to choose from

Product Overview

The Ancillary enclosure is designed to provide an organized and secure mounting enclosure for I/O cards and SLC devices. The Ancillary enclosure is manufactured in three different sizes, two different colors, and with a tamper option.

The Ancillary Enclosure is customized with mounting requirements and multiple conduit entries to fit module configurations depicted in the table below.

Panel Options (Modules sold separately)

Part No.	Enclosure Size	I/O Modules	SLC Modules
VF0730-xx*	14.5"(W) x 12.2"(H) x 3.4"(D)	0	2
		1	2
		2	0
VF0731-xx*	14.5"(W) x 18.9"(H) x 4.25"(D)	0	6
		1	4
		2	2
		3	0
VF0732-xx*	14.5"(W) x 24"(H) x 5"(D)	0	8
		1	6
		2	4
		3	2
		4	0

xx = 10 (Red) or 40 (Gray)

Technical Specifications

Construction	VF0730	18AWG sheet steel
	VF0731	16AWG sheet steel
	VF0732	16AWG sheet steel
Dimensions	VF0730	14.5"(W) x 12.2"(H) x 3.4" (D)
	VF0731	14.5"(W) x 18.9"(H) x 4.25" (D)
	VF0732	14.5"(W) x 24"(H) x 5" (D)
Finish (lid and box)	RAL3002 (Red) or BS 00 A 05 (Gray)	
Finish (product labels)	BS 00 A 05 (Gray)	

DISABLEMENT SWITCH ENCLOSURE

VF0716-X0

WHERE XX=10 FOR RED AND XX=40 FOR GRAY



Standard Features

- ◆ Matches design and color scheme for standard Elite control panel ranges
- ◆ Easy to install
- ◆ Key Lockable
- ◆ Designed for versatility
- ◆ 5-Individual keyswitches for activation of pre-programmed disablements

Technical Specifications

Construction	18AWG sheet steel
Dimensions	14.5"(W) x 12.2"(H) x 3.4"(D)
Weight	6.6lb
Finish (lid and box)	RAL3002 (Red) BS 00 A 05 (Gray)
Finish (product labels)	BS 00 A 05 (Gray)

Product Overview

Another addition to the VES range, the disablement switch enclosure provides a controlled and organized method for the activation of the pre-programmed disablements or other functions. A terminal strip behind each key switch provides for easy connections.

AUDIO VISUAL INDICATOR UNITS

VF191X-40



Technical Specifications

Construction	18AWG sheet steel
Dimensions	3.8"(W) x 3.8"(H) x 1.9"(D)
Voltage	18 - 30 VDC
Color (lid and box)	BS 00 A 05 (Gray)
Power Consumption	25mA @ 24 V
Operating Temperature	23°F - 122°F
Operating Humidity	95%, non-condensing

Standard Features

- ◆ Available with red or yellow high brightness, flashing LED indicators
- ◆ Can be used for Fire alarm warning, activated by a sounder circuit or to indicate and initiate an active isolation
- ◆ Optional silence buzzer keyswitch
- ◆ Disable buzzer option via internal jumper link
- ◆ Optional keyswitch to perform isolation
- ◆ Terminations for incoming and outgoing wiring
- ◆ Surface mounting box supplied

Product Overview

A range of indicator units with either red or yellow indicators to provide audible and visual status of alarms, isolations or other functions associated with the fire alarm or other systems.

These units are available with a keyswitch to silence the internal buzzer or a keyswitch to illuminate the indicator and buzzer and provide a volt-free contact for ancillary control functions when the keyswitch is operated.

All units can mount to standard surface or flush single gang mounting boxes.

Ordering Codes

VF1910-40	Red Fire alarm indicator
VF1911-40	Red Fire alarm indicator with buzzer silence keyswitch
VF1912-40	Yellow alarm indicator
VF1913-40	Yellow alarm indicator with control keyswitch
VF1914-00	Flush Mounting Collar (will fit single gang deep flush back box)

10.25 AMP POWER SUPPLY

VF8140 AND VF8141 SERIES



Standard Features

- ◆ Continuous 8A load output while charging fully depleted batteries
- ◆ Charges up to 40Ah batteries
- ◆ Listed to UL 1481 & 864
- ◆ 120V to 240V AC input
- ◆ AC fail monitoring with LED indication and output
- ◆ Battery disconnection monitoring with LED indication and output
- ◆ Low battery monitoring with LED indication and output
- ◆ Dynamic Earth fault monitoring with LED indication and output
- ◆ Deep-Discharge Prevention
- ◆ Temperature compensated battery charging
- ◆ Battery Boost Circuitry

Options

VF8140-xx Standard Cabinet, up to 18Ah Batteries

VF8141-xx Deep Cabinet, up to 40Ah Batteries

xx = 10 (Red) or 40 (Gray)

Product Overview

The VF8140 and VF8141 is a UL listed, universal input switching power supply capable of delivering a full 192W of continuous power for fire alarm systems.

Suitable for charging a range of sealed lead acid batteries from 7Ah to 40Ah, the VF8140 and VF8141 power supply features complete monitoring of primary and secondary power sources with fully temperature-compensated battery charging and battery high impedance monitoring.

Technical Specifications

Construction	18AWG sheet steel
Dimensions	Standard 14.41"(W) x 18.72"(H) x 4.25" (D) Deep 14.41"(W) x 18.72"(H) x 7.75"(D)
Operating Temperature	32°F - 120°F
Operating Humidity	up to 93%, non-condensing
Input Voltage	120 to 240V AC 50/60Hz
Output Voltage	24V DC
Total Output Current	10.25A
Battery Charge Current	2.5A
Load Current	8.0A (with flat battery)
Trouble Outputs Rating	30 VDC 1A Max
Fuse	5A 20mm HRC
Load Fuses	10A (self-resetting)
Finish (lid and box)	RAL3002 (Red) or BS 00 A 05 (Gray)
Finish (product labels)	BS 00 A 05 (Gray)



VOLTAGE-REGULATED REMOTE NAC POWER EXTENDERS

PE-6SN AND PE-10SN



Panel Options

PE-6SN 6A NAC Power Extender

PE-10SN 10A NAC Power Extender

Technical Specifications

Dimensions 16 3/4"(H) x 16 1/8"(W) x 3 1/2"(D)

6 AMP MODEL (PE-6SN)

Voltage 24VDC Rated @ 6A Max

Outputs Two (2) Class A or Four (4) Class B

10 AMP MODEL (PE-10SN)

Voltage 24VDC Rated @ 10 A Max

Outputs Three (3) Class A or Six (6) Class B

Standard Features

- ◆ 120/240 VAC 50/60 Hz Input
- ◆ Two (2) Trouble Relays
- ◆ Two (2) Class A or B trigger circuit
- ◆ One (1) Programmable AUX Power-Rated @ 3A
- ◆ Quadrasync provides panel wide synchronization of the same or multiple brands
- ◆ Pass Thru mode allows the Outputs to match the Input Signal
- ◆ Signal Circuit Trouble Memory - Facilitates quickly locating intermittent system trouble and eliminates costly and unnecessary service calls. LEDs indicate a prior fault (short, open, ground) has occurred on one or more signaling circuit outputs.
- ◆ Horn/Strobe sync protocols include: Gentex, System Sensor, Wheelock and Amseco/Potter.
- ◆ Temporal Code 3 Mode
- ◆ Configurable output circuits (DIP switch sets options for each circuit)
- ◆ Supports 7 - 55Ah batteries
- ◆ Accommodates up to two (2) 12VDC/12Ah batteries
- ◆ AC fail, battery presence and low battery monitoring
- ◆ Configurable output circuits (DIP switch sets options for each circuit)

Product Overview

The PE-6SN and PE-10SN are voltage regulated remote NAC Power Extenders. They may be connected to any 24VDC Fire Alarm Control Panel (FACP). Primary applications include Notification Appliance Circuit (NAC) expansion (supports ADA requirements) and will provide auxiliary power to support system accessories. The Power Extender offers an industry leading Quadrasync function that allows for multiple strobe circuits of different brands to be synchronized to flash at the same time. The panel can have four different brands each connected to its own circuit and all of the strobes flash together in addition to the horns.



REMOTE INDICATOR UNIT

VF8201 (ROUND) AND VF8202 (SQUARE)



Ordering Codes

VF8201-00	Round Remote Indicator
VF8202-00	Square Remote Indicator
VF8201-01	Ceiling Mounting Clip (fits Round Remote Indicator only)

Technical Specifications

Construction	mild sheet steel
Dimensions	3.4"(W) x 3.4(H) x 1.18"(D)
IP Rating	IP40
Finish	Epoxy powder coated
Color	White
Current Consumption	20mA max @ 24 VDC
Operating Temperature	23°F - 122°F
Operating Humidity	< 95%, non-condensing
Voltage	15 - 30 VDC

Standard Features

- ◆ High brightness red LED indicators for reliability and low power consumption
- ◆ Wide viewing angle
- ◆ LEDs flash alternately to easily attract attention
- ◆ Units to fit to standard gang or round electrical back boxes
- ◆ Compatible with conventional and addressable detectors
- ◆ Printed with "FIRE ALARM IN CONCEALED SPACE" as standard
- ◆ Custom printing and languages available on request

Product Overview

The Remote Indicator LED Units allow the LED associated with a fire detector to be extended to a visible location in areas where the detector itself is concealed. Two bright, alternately flashing LED indicators with wide angle diffusers ensure that the indicators are immediately visible in any sized room.

Special ceiling mounting clip available. Fixing screws supplied with each unit.

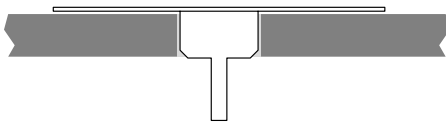
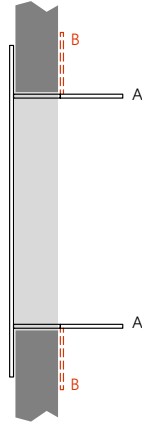
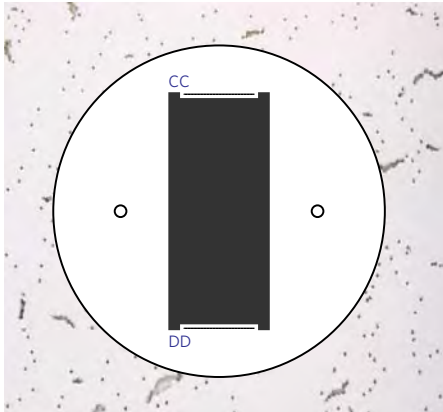
The round version fits into a BESA box and the square version fits into a standard electrical single gang back box. Connections for both conventional and addressable detectors.

Connection Details

Always refer to the manufacturer's detector base instructions before connecting the Remote Indicator Unit and only use the connections described. Remote indicators that are not connected as per the instructions may cause the detector to be inoperative.

CEILING MOUNTING CLIP

VF8201-01



* Fits Round Remote Indicator Only (VF8201-00)

Product Overview

This mounting clip provides fast and secure fixing of our round Remote Indicator unit to ceilings. Particularly good for fragile ceilings such as suspended ceilings.

Installation

1. Make a hole in the ceiling using the most suitable method below:
 - ◆ Using a standard 2.5" diameter hole saw.
 - ◆ Use an open ended saw to cut a 2.4" x 1.1" slot.
 - ◆ If fixing to a ceiling tile, gently push the clip through the tile and use a knife to cut between points C and D (both sides).
2. Fold back the two tabs marked A into position B, locking the ceiling clip into position.
3. Use the 2 self tapping screws provided to fit the Remote Lamp plate.



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