

Intelligent fire detection for large or complex applications

The Cerberus PRO Modular system adds many new innovative features and capabilities available for the Cerberus PRO fire portfolio including I/O modules with built-in isolation and addressable notification appliance booster (PAD-5). The modular system is programmed, operated, and configured in the exact same manner as the FireFinder XLS and offers seamless migration for MXL. These are just some of the advances in the long-term plan of uniting large and mid-size Cerberus PRO panels on the same platform.

Key Benefits:

- Class X Isolation I/O Modules with improved performance and reduced power consumption
- PAD-5 with expanded flexibility in designing multi-floor systems and features like isolator device capability, all NACs have Siemens patented Boost Technology
- 8-Channel audio system supporting 300 digital messages that exceed government and Mass Notification System (MNS) specifications
- High-level interface with VESDA Detection
- Compatible with the full line of detectors and peripherals that meet the latest codes & standards including a 520Hz model Low Frequency detector audible base suitable for sleeping areas







Key Benefits for Universities

- Flexible network configurations
- · Conventional and intelligent release options

Detection & Suppression:

- ASAtechnology provides a no false alarm guarantee
- CO detectors keep students safe where they live

Evolves with Facility:

- Developed to network with other buildings/ panels
- Changes detectors by type or setting according to space utilization



Key Benefits for High Rises

- Send targeted and varied messages simultaneously
- Upgrade fire alarm software without taking system offline

Multi-Criteria Detection:

- Add value to residential areas with combination fire/CO detector
- ASAtechnology detectors eliminate false alarms caused by cigarette smoke or burnt food

Centralized Control:

- · Integrate building systems for simplified building management
- · Management station allows customization of views and control

Premier Life Safety:

• 300 custom messages enable precise announcements by floor



Key Benefits for Hospitals

- Cerberus PRO Modular anchors multimodal life safety system
- Multicriteria detectors support area-specific detection; CO detection for patient room
- Life safety management station provides centralized control of networked systems

Control & Communicate:

- Fire panel supports 300 custom messages providing event specific information to emergency responders
- Management station provides integrated cameras for live visual event confirmation

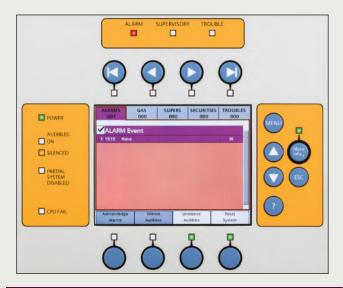
Rey Benefits for Data Centers

- A complete solution for early detection, alarm and suppression protection at the highest levels
- Building and life safety management systems give real time, customized views of networked systems
- Industry leading flexibility for fire detection

Very Early Warning Fire Detection:

- Highly sensitive ASAtechnology detection from Siemens that complies with NFPA 720, NFPA 76 (Telco), and UL 2075
- Cerberus PRO Modular provides a cost efficient and high level interface with most VESDA Net devices

Designed with advanced features and options



High-Performance Full-Color Operator Interface

6" touchscreen provides a central point of annunciation and control for networked Cerberus PRO Modular and MXL panels.

- Displays, reports, and responds to alarm signals, trouble alerts, diagnostics, security signals, hazardous or dangerous conditions, and other system information
- Full-color LED display efficiently and visually communicates a wide range of alarm types or system conditions to facility staff and first responders
- The screen is color-coded according to the event type and is customizable by user preference
- Event types support include typical fire events, as well as mass notification, gas and maintenance events
- Touch-sensitive keys are physically responsive, helping users confirm their entries through tactile feedback.
 Every signal offers a deep "drill-down" path to report many levels of detail about the signal or event
- Can be programmed to display messages in multiple languages including traditional Chinese, Korean, Spanish, Portuguese, French and Hebrew

Advanced Features

XDLC Loop Card

- Full Line of Detection and Peripherals
- I/O Modules with built-in Isolation
- Addressable PAD-5 NAC Extender
- · PAD-5 remote releasing capability
- PAD-5 Conventional zone inputs

Hardware and Software Compatibility

Industry leading data connection options for faster, more versatile data transfer and management options.

- USB connections make programming, data transfer, and database management tools convenient and easily accessible for authorized personnel
- High-speed Ethernet port
- SD slot, backup SD card slot, and SD card that remains with panel and keeps critical system and configuration information at hand
- Hot swap SD card file transfer without powering down the system

External References

Coordinate increasingly complex end-to-end life safety functions into one single system by accommodating up to 2,500 functions in a single node.

- Supports up to 1,000 external references, or signals from networked panels and devices
- Cerberus PRO Modular can activate and manage a complex smoke control for Mass Notification System functions and other external panel and facility control responses to fire system alarms or events

XDMC Digital Message Card

300 message capacity allows 100 minutes of recording time and enables multi-layered and pinpoint specific messaging.

- Supports MP3 and WAV files
- Can broadcast two different messages simultaneously
- Includes a complete phrase library for building custom phrases by linking single message components together into a full sentence or paragraph for specific conditions or locations
- Expanded messaging functions support all types of emergency communications, such as fire, acts of terrorism, weather events, and other emergency conditions

Composer Configuration Laptop Tool

300 message capacity meets your immediate needs and supports future expansion, including Mass Notification Systems (MNS) messaging capability.

Create up to 300 different voice or audio messages with a total of 100 minutes of message time.

 Allows recording, editing, and integration of customized messages using standard recording and audio applications like Microsoft's Voice Recorder

Advanced Detection Support

Supports a full range of Siemens detector technologies, from cost-competitive single-function optical and thermal only detectors to sophisticated multi-criteria and variable setting detectors.

- High performance multi-criteria ASAtechnology detectors with or without optional CO detection
- Audible signal patterns for carbon monoxide life safety events, such as the Temporal Four coded signal
- Very Early Warning Fire Detectors (VEWFD) comply with NFPA 76 (Telecommunication Standard), UL 2075, and NFPA 720

MXL Loop Card (MLC)

Allows customers to upgrade their system to take advantage of the faster processor and advanced features in the Cerberus PRO Modular while keeping their investment in existing MXL devices.

- Upgrade a system loop without requiring a completely new installation, saving time and money
- Preserve investment in wiring and devices

Network Ring Card

Creates a true ring topology and replaces redundant pairs to lower the cost of installation and provide a higher degree of survivability in system communications.

- Provides a true ring topology by simply connecting the last panel to the first in the network
- No more double conduit runs from separate directions
- · Mix copper and fiber in segments



Full Integration with VESDA / High-Level Interface Support

Reads a full range of VESDA alarm and status signals for highly sensitive smoke detection and pinpoint diagnostics – all are fully compliant with NFPA 76 standards and work in concert with all system devices.

- Full integration with VESDA aspiration detectors eliminates the need for separate relays and bulky, extra wiring
- Recognizes and reports on four alarm levels per detector
- Specific trouble signals provide key information of the type of trouble condition rather a general "fail" signal
- Reports alarms and system status at the panel
- Reset the VESDA detectors right from the Cerberus PRO Modular

Offering innovation, excellence, partnership, and customer choice

Siemens provides decision makers with effective solutions, products, and service provider options for their fire & life safety needs – now or in the future! Our approach to market through a dual brand strategy provides the most comprehensive market coverage to meet your needs.

Our Commitment

Siemens market approach provides world class customer choice. No matter the project scope or need – we offer the right solutions, products, and service provider choice for the entire lifecycle of your fire & life safety system.

Our nationwide network of Siemens offices and solution partners are Siemens fire technology certified to service and support any Siemens fire system.

Cerberus PRO

Cerberus PRO is the complete dedicated portfolio for the Siemens Solution Partners in the UL Fire & Life Safety market. The brand was introduced in 2011 to offer a comprehensive portfolio of fire panels, detection and management stations which meet the needs of small-to-large or simple-to-complex applications. Cerberus PRO is supported by 280+ Solution Partners across the United States.





Contact customer service to find the right Solution Partner in your region!

To start your next fire & life safety project, and learn about which solution is best for your needs, contact Siemens Customer Service today. Call us at (800) 262-7976, or email inquiries to fpkcustomerservice.industry@siemens.com.



Siemens Industry, Inc. 8 Fernwood Road Florham Park, NJ 07932, USA Tel (973) 593-2600

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract. The document contains a general product overview. Availability can vary by country. For detailed product information, please contact the company office or authorized partners.

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Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming, and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

"We are the preferred partner for energy-efficient, safe, and secure buildings and infrastructure."

Siemens UL Fire Portfolio Overview

Cerberus PRO - From Small to Large Applications





Overview

Siemens History and Legacy in Fire Life Safety

Siemens Go To Market Approach

Siemens **UL Fire Portfolio**

Recent Innovations in Siemens Fire Safety Portfolio

Resources and **Tools** for Engineers

Key Takeaways



Siemens History of Innovating Fire Detection and Safety Systems

1942

2021

1942

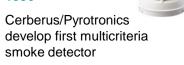
Cerberus invents first ion smoke detector

1982



Pyrotronics introduces first addressable smoke detection system

1996



2011

Siemens introduces the next advancement in smart detection: **ASA***technology*TM

2021

FDA241 Li-ion Battery
Energy Storage Off-Gas
detector introduced

1954

Cerberus achieves the first UL Listed smoke detector

1988

Pyrotronics acquired by Cerberus



1998

Siemens acquires Ceberus Pyrotronics

SIEMENS

2020

ISO technology[™] built-in class X on all devices and UL-268 7th Edition



From the industries first ionization smoke detector in 1942, through the first multicriteria smoke detector, and ISO*technology*TM to our newest Li-ion battery off-gas detector ...

Siemens has a long history of innovating to increase the intelligence and performance of smoke and fire detection in buildings to protect the people and assets within them.



Siemens UL Fire SafetySmarter Protection Matters



Connecting technology with purpose

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Cloud-based solutions help you work more efficiently with enhanced serviceability, live monitoring and time-independent access to your customers' fire safety system anytime, anywhere.

Sustaining undisturbed spaces

ASAtechnology with no false alarm guarantee enables you to create undisturbed spaces and have the peace of mind that everything is under control.

Protecting all year round

All elements of protection from detection, alarming and evacuation, extinguishing to danger management and cloud come together in one system which performs health checks while providing ongoing monitoring.



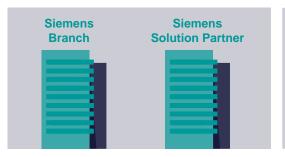
Protecting all year-round | Connecting with purpose | Sustaining undisturbed spaces



Siemens UL Fire Go To Market Approach



In all UL markets, no matter the project scope or need, we offer the right solutions, products, and factory certified service provider choice for the entire lifecycle of your fire & life safety system.



Siemens sells fire & life safety through Siemens branches and Siemens Solution Partner channels.



Each channel has their own product portfolio but with customer choice, the end-customer always has the choice of which channel can service their systems.

Siemens UL Fire Portfolios



Desigo® Fire Safety – Siemens Branch UL Fire Portfolio

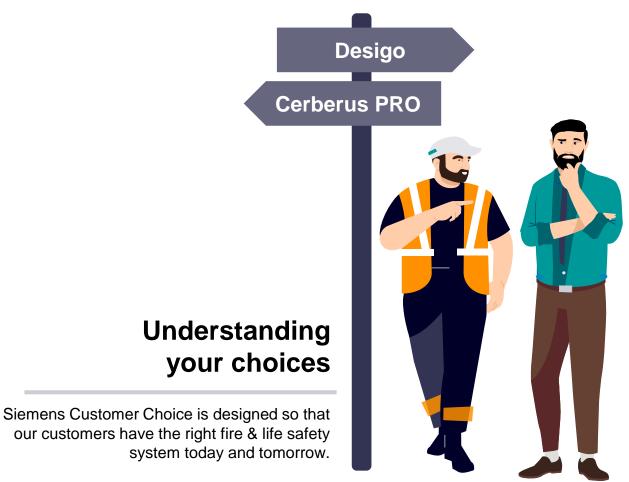


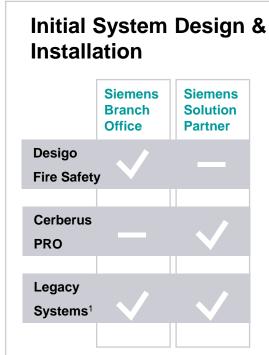
Cerberus® PRO – Siemens UL Fire Solution Partner Portfolio

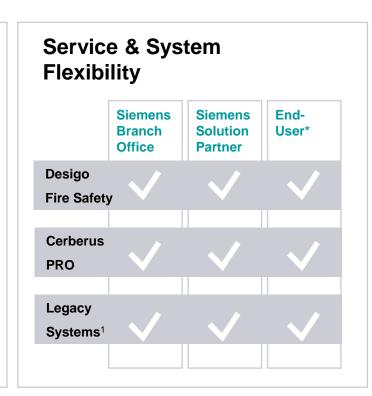


Siemens Customer Choice

A Powerful Non-Proprietary Approach for Customers

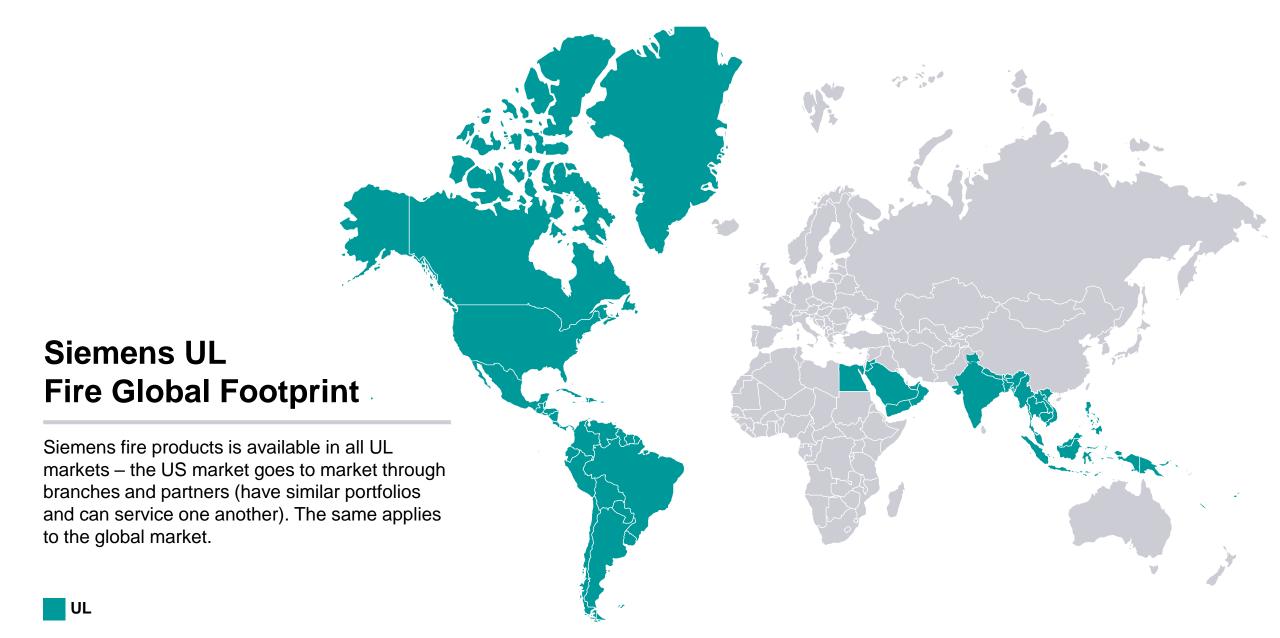






¹ Legacy Systems - including: FireFinder XLS & MXL

^{*} Factory trained end users capable of owning their own software license, servicing, and supporting their own system



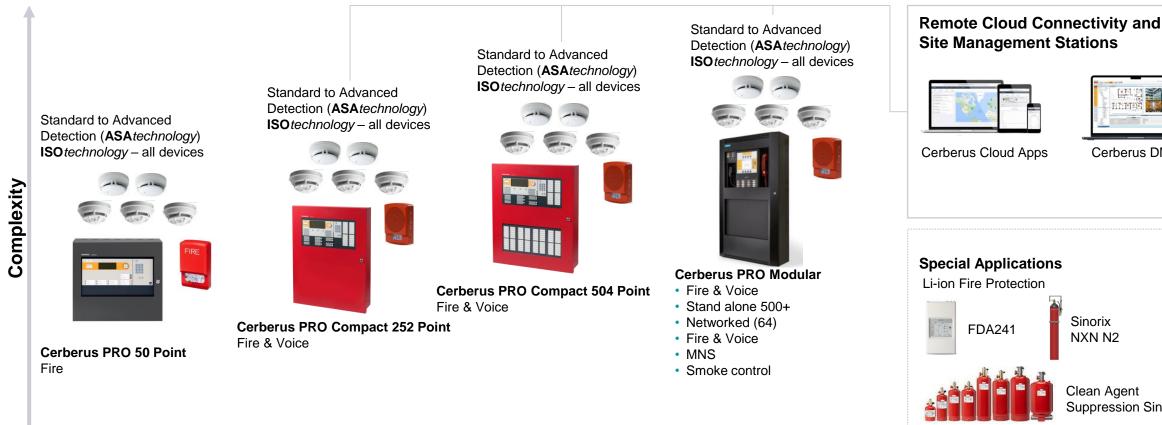
Siemens UL Fire Portfolio

Cerberus PRO - Systems & Devices





Complete portfolio for Solution Partner (Cerberus PRO) to support any project from simple to sophisticated



Site Management Stations



Cerberus DMS

Sinorix NXN N2



Clean Agent Suppression Sinorix

System Size and Performance

Complete Cerberus PRO portfolio serving all key vertical markets

System Size & Performance

Modular System



- Fire Detection
- Voice Evacuation
- ISO technology (Class X)
- Smoke Control
- Fire Fighters Telephone
- Mass Notification
- Stand alone or Network
- Cloud/Remote Connectivity



ASAtechnology w/CO



Optical | Heat | Optical +Heat

Primary Markets













Healthcare

Higher Education

Multi-tenant High Rise

Federal Government

Battery Energy Storage

Data Centers

Compact System



252 point Fire & Voice



504 Points

- Fire Detection
- Voice Evacuation
- Smoke Control
- · Mass Notification
- · Stand Alone or Network
- ISO technology (Class X)
- Fire & Voice Cloud Connectivity



ASAtechnology w/CO



Optical | Heat | Optical +Heat



Office Building & Mixed Use



K-12 Schools



Hospitality



Office Campus

50 Point System



50 point Fire

- Fire Detection
- Stand Alone
- · Releasing (PAD-5)
- ISO technology (Class X)



ASAtechnology ASAtechnology w/CO



Optical | Heat | Optical +Heat



Strip malls/ Stores



Retail



Medical Clinics



Banks



Restaurants

<u>Click here</u> to visit Cerberus PRO Virtual Sales Demo

Cerberus PRO 50 Point System

Ideal solution for small and mid-sized applications



Cerberus PRO FC901

- Up to 50 addressable devices per panel
- Non-networkable
- Fire Only
- Built-in Digital Alarm Communication Transmitter (DACT)
- Supports Carbon Monoxide Alarms
- Low-cost solution for small buildings
- ISOtechnology Standard Built-in Class X



Cost effective

Small and efficient panel that's easy to install and program but packed with powerful features.



Small and powerful

Advanced and innovative features including the latest technology and addressable devices as well as a full line of detectors and notification.



Easy operation

User friendly and intuitive fire safety controls.



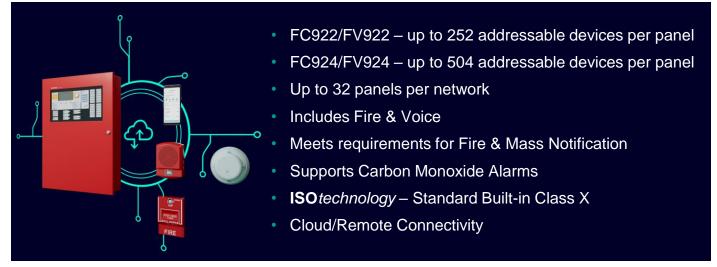
Cerberus PRO Compact – 252/504 Point System Ideal solution for medium and varied applications



Cerberus PRO Compact FC922 & FC924



Cerberus PRO
Compact with
Intelligent Voice
FV922 & FV924





Networkable

Networkable control panels for applications of various sizes. Up to 252/500 points and up to 32 panels.



Ease of installation

without any computer configuration needed and Fire and Voice are networked using the same copper or fiber connection making for simpler installation.

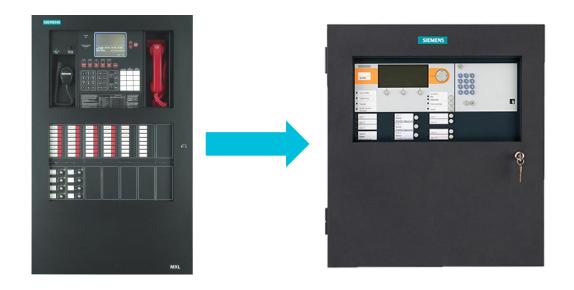


Remote Access

Cloud/Remote connectivity provides greater serviceability and faster response.



Why Migrate to Cerberus PRO Compact?



- As MXL and other Siemens systems have reached the end of their life, replacement parts are no longer available, and repairs can be costly.
 - A migration plan will help your business reduce the costs associated with downtime and maintenance fees.
- When migrating to Cerberus PRO Compact Siemens uses your existing system wiring and infrastructure for additional savings
 - 75% savings versus a full system replacement!



Bring your building into the future with the latest technology

Modernizing your system means connecting it to our new digitalized world with the newest technology which includes Cloud Connectivity and ISO technology – standard built-in Class X



Decrease repair time with new technology

Downtime of the system by taking the panel offline to make repairs can be costly especially on an older system where parts are scarce. Migration allows you to connect to the cloud and access your system remotely for faster and more efficient service.



Keep system infrastructure to decrease cost

Use the existing system infrastructure and even the back box to eliminate total system replacement saving time and money.

Cerberus PRO Modular

Ideal solution for large and sophisticated applications





- Up to 2500 addressable devices per panel
- Up to 64 panels per network
- Includes Fire, Voice, Firefighters Telephones, Smoke Control
- Support for VESDA High Level Interface
- Meets requirements for Fire & Mass Notification
- Supports Carbon Monoxide Alarms
- ISOtechnology Standard Built-in Class X
- Cloud/Remote Connectivity



Cutting Edge Detection and Communication

Standard to advanced detection combined with powerful emergency voice communication.



Scalability/Flexibility

Most customizable system that can scale to a network of 64 panels and 2500 addressable point in each panel.



Innovative Voice System

8 digital channels & 300 message capacity allow multilayer and pinpoint messaging.



Why Migrate to Cerberus PRO Modular?

FireFinder XLS Or MXL/MXLV







- As MXL and other Siemens systems have reached the end of their life, replacement parts are no longer available, and repairs can be costly.
 - A migration plan will help your business reduce the costs associated with downtime and maintenance fees.
- Intelligent fire detection for large or complex applications. The systems' design is scalable to meet your evolving needs and customizable for the most cost-effective system for any large or complex facility



Bring your building into the future with the latest technology

Modernizing your system means connecting it to our new digitalized world with the newest technology which includes Cloud Connectivity and ISO technology – standard built-in Class X



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Cerberus DMS (Danger Management Station)



- Management Station for fire events
- Connects with Modular, 250 point, & 500 point panels
- Includes graphical display of events on multiple levels
- Includes event list by event type
- Can be used to control the system (acknowledge, silence, reset)
- Can be used for maintenance (arm/disarm, generate reports)



Systems integrated with one user interface

Single building operating system that simplifies centralized monitoring and supervision of fire safety, access control, and video surveillance systems.



Fast and Effective Operation

Simple, guided treatment of events and alarms enable fast and reliable emergency response under stressful conditions.



Customized User Views

Simple to sophisticated user views can be customized to allow for most efficient and effective navigation and control.



Cerberus PRO Peripherals







Advanced-Line



Multicriteria dual optical + dual thermal detector OOH941



Multicriteria dual optical+ dual thermal detector/CO OOHC941

No False Alarm Guarantee

Standard-Line



Heat detector HI921



Photo/heat detector OH921



Photo/smoke detector OP921

Manual Stations & Peripherals



FDCIO422







Input/output XTRI- Series module



HCP







DB2-HR Relay Base



ABHW-4 Audible Base



No False Alarm Guarantee for ASA*technology*TM **Detectors**

Siemens is proud to offer its No False Alarm Guarantee for Cerberus™ PRO Advanced Detectors with **ASA***technology* (models OOH941 & OOHC941). Our sophisticated and dependable detection technology can identify a fire emergency quickly, without being impacted by deceptive phenomena.

No False Alarm Guarantee Policy

We are so confident of our intelligent, multi-criteria detector technology that we guarantee its accuracy. Siemens will pay any fines associated with a false alarm at your site that is triggered by Cerberus PRO models OOH941 or OOHC941 if the following factors are met:

- the detector was purchased from an authorized Siemens distributor
- · the detector's applications settings were appropriate for the environment; and
- the detector has been properly tested and maintained per NFPA 72 by an authorized Siemens distributor

For more information, please contact your local authorized Siemens sales outlet.

Brian O'Mahoney

Senior Director,

Siemens Smart Infrastructure Building Products – Fire Safety







Specialty Detection











Siemens Li-ion battery off-gassing particle detection – FDA241



3rd Party Flame Detection



3rd Party Beam Detection















Signals

- Used to alert building occupants of emergency conditions
- Can be audible (horn or speaker), visual (strobe) or both
- Multiple versions available red/white, wall/ceiling mount, markings ("Fire" vs. "Alert", etc.), different languages, different audible tones, different speaker quality/size, different candela output
- LED devices with lower current draw provide energy efficiency and savings



Clean Agent Suppression

Sinorix Clean Agent

Novec 1230



Sinorix NXN Nitrogen (Pre-Engineered)









Recent Innovations in the Siemens UL Fire Portfolio



Cloud Apps



- Cloud-based portal and tools
- Connects with Compact, Modular, 250 point, & 500 point panels
- For both Desigo Fire Safety and Cerberus PRO panels
- Uses X300 external gateway for connection



Save time and money

Cloud Connectivity will reduce business disruption and wasted travel time to investigate issues, therefore increasing response time to quickly address site issues.



Maximize Site Uptime

Increased serviceability for monitoring installations to prevent site downtime, even providing remote trouble shooting to resolve issues quicker.



Peace of Mind

Peace of Mind – Ability for authorized users to monitor 24/7 a permanent status view of all sites to ensure business continuity and peace of mind!



ISOtechnology™



Siemens is the first and only manufacturer with **ISO** technologyTM on all major devices at no extra cost.



Save time and resources on design

Save time and resources on design because you can decide now or later to use the isolation feature. Siemens built-in isolation does not require additional isolators to be specified.



Overall system savings

Siemens is the only manufacturer with built-in addressable isolators on all major devices.

Standard built-in isolation comes standard at no extra cost. Plus, there is less installed cost.



Superior survivability

A short in one zone won't affect other zones or shut off the system. With detailed reports there is less system downtime. More efficient maintenance, quicker troubleshooting plus seamless integration.

<u>Click here</u> to watch Siemens **ISO**technology video



Fire Protection for Lithium-ion Batteries FDA241 and Sinorix NXN



Sinorix NXN, when used in conjunction with the FDA241 early warning detector, has been shown to be able to stop the cascading effect of thermal runaway.

Click here to watch Siemens Lithium-ion Battery video

Combine early detection with Sinorix NXN N2 for total Lithium-ion protection.



Very early detection

 FDA241 aspirating smoke detector detects Liion electrolyte vapor (aka off-gas particles) early, as much as 5 times faster than competitive detection technology, and reliably thanks to its patented dual-wavelength optical detection technology



Nitrogen suppression

- The Sinorix NXN pre-engineered nitrogen suppression system is the latest generation of inert gas extinguishing technology from Siemens.
- Nitrogen is the ideal solution for lithium-ion suppression – to permeate hidden or covered spaces, like a battery rack, gaseous solutions, such as nitrogen, are most suitable. Liquids and powders must be avoided.



Siemens and the Engineering Community

Tools & Resources



Fire Safety Resources for Engineers

Siemens **Engineering Advantage** Program



Siemens SpecWriter



Virtual A&E

Download all Siemens UL Fire Data Sheets



Visit the Fire Safety Resources Page

www.usa.siemens.com/resources-for-engineers





Key Takeaways



From small to simple, to large and sophisticated, we cover all building sizes and complexities.

Cerberus PRO



Siemens Customer Choice is a non-proprietary approach, allowing customers to choose their preferred service provider.



Recent innovations

- ISOtechnology, built-in Class-X
- Remote Connectivity with Cloud Apps
- Li-ion battery protection (FDA241 + Sinorix NXN)



Siemens gives you the support and resources you need to design and specify fire & life safety systems.



For more resources on Siemens UL Fire Portfolio visit: www.siemens.com/fire



Visit www.usa.siemens.com/hot-topics to learn about upcoming Hot Topics for Engineers Webinars.



Learn more about Siemens fire portfolio at our USA website www.usa.siemens.com/fire



SIEMENS

Cerberus® PRO Modular System

Advanced | Addressable Fire Alarm Control Panel

Architect and Engineer Specifications

- ☐ Standard / 2500-point-capacity addressable fire-alarm control panel (FACP)
- ☐ Ability to network with other Cerberus PRO Modular (Cerberus PRO Modular) systems
- ☐ Powerful, easy-to-use programming capabilities
 - Multiple levels of password protection
- ☐ Fully programmable through use of a Windows operating system
- ☐ 6-inch (15.2 cm.), backlit liquidcrystal display (LCD)
 - Multi-language display
- □ User-friendly system interface
 - Useful diagnostic light-emitting diodes (LEDs) on all cards
- ☐ Touch screen for maintenance operations and function keys
- □ Menu-driven operator commands
 - End-user HELP screens
- □ 32-character custom messages
 - 40 programmable macro and function buttons (e.g.
 - Holiday schedule)
- ☐ Global annunciation and control capability
- ☐ `Alarm' | `Trouble' | `Programmable', etc. relay commands
- ☐ Alarm verification by device, zone
 - Pre-alarm operation
- ☐ SureWireŁ addressable-loop technology:
 - Patented polarity-insensitive detection circuits
- ☐ Supports FirePrint® application-specific detection, and single-person `Walk Test'
- □ Coded outputs
- □ Seismic certified
- □ Modular assembly
- □ Distributed processing
- □ UUKL Listed for smoke control

- ☐ Universal AC power input:
 - 120VAC 240VAC @ 50 / 60Hz
 - 12A of basic system power; expandable to 48A
- ☐ Supported by all Cerberus® DMS Management Stations
- ☐ Automatic environmental compensation for smoke detectors
- ☐ Peripheral interface to remote printers
 - connected to the communication bus from any NIC-C output in an enclosure
 - Class B (Style 4) or Class A (Style 7) wiring
- □ Security-device monitoring
 - UL1076 Listed
- ☐ Mounts in one (1) electrical back box
 - Optional 4–11/16 inch [12 cm.] and 5-inch [12.7 cm.] square back boxes
- ☐ Supports pre-action | deluge | agent releasing
 - sprinkler supervision
- □ NEC 760 power-limited circuits
- 200 notification-appliance-circuits (NACs) capacity
 - Up to 3A @ 24VDC per NAC
 - Built-in strobe synchronization protocol
- □ UL 864 10th Edition and UL 2572 Listed, ULC-S527 3rd Edition Listed; FM, CSFM Approved

System Overview

Sold as part of the product line of Siemens – Fire Safety products, Cerberus PRO Modular (Cerberus PRO Modular) is a microprocessorbased, reliable and advanced fire-safety system. Each of these addressable panels uses a contemporary operating unit that functions as an operator interface and as a central microprocessor.

Cerberus PRO Modular is ideally suited for commercial, institutional and industrial intelligent detection and notification-appliance applications.

System Overview (cont.)

Each panel complies with the requirements of NFPA Standard 72, and is listed by Underwriters Laboratories under their UL 864 standard and is FM Approved.

Underwriters Laboratories Canada also lists Cerberus PRO Modular panels under ULC-5527

Each panel is additionally UL Listed under the category `UUKL for Smoke Control.'

When it comes to Siemens Sinorix® cleanagent systems, Cerberus PRO Modular panels are UL | ULC Listed, which includes for use in foam or water applications. Each panel is also listed as a Fireman's Smoke Control Station (in high-rise office buildings | malls | other large structures.



Cerberus PRO Modular panel (with mounted FCM2041-U3 Operating Unit)

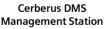
System Components

A basic Cerberus PRO Modular firealarm control panel (FACP) consists of one (1) of the following parts: Operator Interface; power supply (PSC-12M); Class X Device Loop Card (XDLC); Zone Indicating Card (ZIC-4A); five-slot card cage (CC-5); Inner Door Blank Single Plate (ID-SP), and a CAB1, CAB2 or CAB3 system enclosures.

Optional modules that can be installed on a Cerberus PRO Modular FACP include: Card Cage (Model CC-2): Network Interface Card (Model NIC-C); 8-Circuit Zone Indicating Card (Models ZIC-8B / ZIC-2C): Output Control Module (Model OCM-16); Switch Control Module (Model SCM-8); LED Control Module (Model LCM-8); Fan Control Module (Model FCM-6); Supervised Input Module (Model SIM-16); Power Supply Extender (Model PSX-12M); Remote Network Interface (Model RNI); Remote Printer Module (Model RPM); System Status Display (Model SSD); Digital Alarm Communicator (Model FCA2015-U1) Multi-Point Digital Alarm Communicator (Model MDACT): Two-Module Remote **Enclosure** (Model REMBOX2), and the Four-Module Remote Enclosure (Model REMBOX4).

Additionally, Cerberus PRO Modular panels are compatible with all of the advanced Siemens field devices in signaling appliances and intelligent, addressable detection.







Cerberus PRO Modular

Cerberus DMS Management Stations compatible with Cerberus PRO Modular

Cerberus PRO Modular panels are compatible with Siemens Fire Safety Management Stations, which provide integrated and reliable FACP monitoring and control of system events – including: `Alarm' | `Trouble' | `Security'| `Supervisory' commands.

Cerberus DMS management stations include PC-based, color-graphics software designed for use with the XNET network, offering full control and annunciation. An extensive history log of all system events, as well as extensive report-generation capabilities, is easily maintained. There are also user-programmable electronic buttons that allow for site-specific control functions.



Operator Interface used on Cerberus PRO Modular FACPs

FCM2041-U3 Operator Interface

The Operator Interface is the primary user interface and central microprocessor for Cerberus PRO Modular panel.

Enhancements to the most current version of the Cerberus PRO Modular Operator Interface include go-to-beginning, go-to-end queue buttons; a front-end command screen with `Alarm' | `Supervisory' | `Trouble' light-emitting diodes (LEDs), and three (3) types of alternate-language overlays all orderable under one (1) part.

See: Details for Ordering section in this document for more info.

Cerberus PRO Modular panels are controlled and operated from the Operator Interface, which uses large, lighted control buttons to prompt the end-user to the next available, correct system operation shown on the front-end screen. Additionally, the system Operator Interface provides a 6" (15.2 cm.) front-end touch screen comprised of system-status LEDs as well as a liquid-crystal display (LCD) of 1200 –x–800.

There are language overlays that provide naming in alternate languages for visual indicators found on the front of each Operator Interface. Each overlay is assigned on the outer assembly, respectively, when affixed to the frontend display on the user interface.

The Operator Interface contains the site-specific program configuration in the software too, Zeus-C.

ZIC-4A - Zone Indicating Card

The Zone Indicating Card (Model ZIC-4A) provides four (4) fully supervised, programmable output circuits for use on each Modular FACP. circuits, power limited to 3.0A, maximum, per circuit.



Model ZIC-4A supplies four (4). `Class B' (Style Y) or `Class A' (Style Z)-type output circuits, power limited to 3.0A, maximum, per circuit.

Each circuit can be independently programmed for use with agency listed/approved audible or visual notification appliances; emergency audio speakers; municipal-tie boxes; leased lines, or as optional releasing circuits. Model ZIC-4A plugs into one (1) slot in the Model CC-5 or CC-2 card cage, and has on-board LEDs for system status and troubleshooting.

Indication of power, communication, internal operation and ground-fault conditions are provided, as well as indication of circuit activation or `Trouble' conditions.





Model ZIC-2C

Model ZIC-8B

ZIC-8B - Zone Indicating Card (with Model ZIC-2C)

Another Zone Indicating Card (Model ZIC-8B) provides eight (8) fully supervised, programmable output circuits for use on Modular panels. Model ZIC-8B contains eight (8) `Class B' (Style Y)-type output circuits, power limited to 2.0A, max., per circuit. Each circuit can be independently programmed for use with agency-listed/approved audible or visual notification appliances, or emergency audio speakers. Model ZIC-8B plugs into one (1) slot in the Model CC-5 or CC-2 card cage, and has on-board LEDs for system status.

A Model ZIC-2C mounts directly on Model ZIC-8B, and allows each Model ZIC-8B output circuit to be used for two-channel voice applications. Indication of power, communication, internal operation, and ground-fault conditions are provided, as well as indication of circuit activation or `Trouble' conditions.

System Components

XDLC - Device Loop Card

The `Class X' Device Loop Card (Model XDLC) is the interface used for connecting Siemens addressable, intelligent `X' as well as `H'-series devices.



A Model XDLC operates and maintains all devices residing on up to four (4) `Class A', eight (8) `Class B' addressable circuits. Additionally, Model XDLC has 16 LEDs for diagnostic purposes, and provides ground-fault detection and zone-isolation circuitry.

NIC-C - Network Interface Card

The Network Interface Card (Model NIC-C) provides HNET or XNET network communications between enclosures.

In addition to HNET or XNET communication, Model NIC-C provides CAN network communication within an enclosure or external to the enclosure.



HNET or XNET communication can be wired Style 4 or Style 7, but the CAN network can be wired Style 4 only.

When used for HNET communications, Model NIC-C provides contact between enclosures on a single system. When NIC-C is used for NXET communications, Model NIC-C provides communication between systems. The maximum of NIC-C cards on a single-panel XNET is one (1) for a total 64 NIC-C cards on a peer-to-peer XNET network.

Model NIC-C has diagnostic LEDs that indicate: `Card Fail', `CAN Fail', `HNET Fail', `XNET Fail', `Ground Fault', `Loop 'A' Fail' and `Loop `B' Fail'. This card also has LEDs to indicate `Power', `Style' and `Active Networks'.

Intelligent Control Point Module

Model HCP is designed to be used with the Siemens – Fire Safety Alarm Signaling Devices product line.



Model HCP can be set as an independent, remotely located telephone zone, speaker zone or notification-appliance circuit. Model HCP communicates through analog loop of Model DLC.

Model HCP can be wired either `Class B' (Style Y) or `Class A' (Style Z). The 24 Volts DC power input is from either the control panel or from any UL Listed power-limited, auxiliary power supply.

NRC - Network Ring Card, 2nd Generation

Model NRC is a network ring card that transmits single-mode or multi-mode network communication via fiber-optic or copper lines. Each NRC uses a `Class A' (Style 7) ring configuration with a Cerberus PRO Modular panel.



One (1) Model NRC (per system node) provides XNET, peer-to-peer network communication between panels, allowing 64 (max.), Cerberus PRO Modular panels to be networked simultaneously. Model NRC takes one (1) card slot, and mounts in a Model CC-2 or CC-5 card cage inside a CAB1, CAB2, or CAB3 enclosure.



PSC-12M - Power Supply Charger Module

The Power Supply Charger Module (Model PSC-12M) is an addressable-intelligent, microprocessor-controlled module that communicates its status to the system-operator interface. Additionally, PSC-12M is a high-current power supply that provides primary, regulated (at 24VDC) system power.

Model PSC-12M is rated at 12Amps (`Alarm') / 5Amps (Standby), and has a built-in battery charger, capable of charging up to 100 AH batteries.

PSX-12M - Power Supply Charger Module

The Power Supply Extender (Model PSX-12M) is a high-current, auxiliary power supply that expands the main Model PSC-12M power supply and battery charger to an additional 24VDC of system power. Model PSX-12M is rated at 12 Amps.





PSFA - Power Supply Filter Assembly

Each Model PSC-12M comes packaged with a module known as the Power Supply Filter Assembly (Model PSFA). Model PSFA is required for operation with Model PSC-12M. Model PSFA filters the power from the incoming AC mains, and distributes it to the Model PSC-12M power supply and the optional Model PSX-12M power-supply extender.

Model PSFA has an optional connector that can be used during system installation, commissioning, and service to provide the technician with a place to plug in their laptop PC, if required. Model AC-ADPT is an optional accessory cable that allows connection on one side to Model PSFA, via a keyed connector and on the other end directly into to the laptop's transformer.

Most laptop-computer external power transformers have removable AC power cords, which can be replaced by the optional Model AC-ADPT to temporarily provide an AC power source for laptop-PC usage during system installation, service and maintenance calls when needed.

SNU-ASSY - Single-Node Upload (SNU) Module



Typical mounting set-up of a SNU module

The Single-Node Upload (SNU) is an optional system module that provides a solution for having data configuration done remotely.

SNU can easily transmit data from a PC running the custom-configuration tool, *Zeus-C*, to a maximum 64 central processors.

Each SNU module has three (3) connectors: Power, Ethernet and USB. The data transported between the Zeus-C tool and SNU is made through a direct 128-bit, Secure Sockets Layer (SSL) connection.



DACT - Digital Alarm Communications

The Digital Alarm Communications Transmitter (Model FCA2015-U1) optionally provides a means for communication between either a Cerberus PRO Modular system; one (1) Fire Terminal (Model FT2050), and with either a central or remote monitoring station.

Available communication protocols include: SIA DCS 8 | SIA DCS 20 | Ademco Contact ID. Additionally, each DACT can sync with IP and GSM communication technology.

XDACT-ASSY - XDACT Assembly

The XDACT Assembly (Model XDACT-ASSY) is the blank plate used for holding the optional Digital Alarm Communication Transmitter (DACT), Model FCA2015-U1 on Cerberus PRO Modular systems. Model XDACT-ASSY can be mounted on all CAB-series enclosures. Each assembly must be located in the Global Operator Interface cabinet for global configurations.



Model SSD-C

SSD - Series System Status Display

The System Status Display (SSD-series model displays) is a remote LED / LCD display that shows the local status of a Cerberus PRO Modular system. An LED illuminates when `Alarm' | `Supervisory' | `Trouble', and `Security' events occur on the system. A (4) four-line liquid-crystal display (LCD) will give details of the event in alphanumeric form.

The display can be toggled to display additional events. Optional remote system control capabilities are available. Models SSD-C, SSD-C-INT, and Model SSD-C-REM have three (3) additional control buttons to acknowledge events; silence audible circuits, and reset the system.

Models SSD-C and SSD-C-INT have an integral key-switch that enables these control buttons to operate. Model SSD-C-REM is located within a locked cabinet. So, no additional key-switch is required for manual activation of the control buttons.

RPM - Remote Printer Module

The Remote Printer Module (Model RPM) provides a means of connecting a Cerberus PRO Modular system to a printer, such as Model PAL-1, for creating a hard copy of system status and configuration reports.



Concurrently, Model RPM provides an output port that can be configured to communicate with external systems.



VNTPC - Virtual Network Tunnel

The Virtual Network Tunnel (VNT) is an efficient means for real-time communication, as well as providing support to HNET | XNET and DNET monitoring and supervision – when used as part of a Fire Command Center or a Building network. Each Model VNTPC is a fanless, headless industrial computer, receiving its operating power from a Cerberus PRO Modular panel.





Model SIM-16

Model OCM-16

SIM-16 - Supervised Input Module

The Supervised Input Module (Model SIM-16) is a remotely located, general-purpose input module. Model SIM-16 provides 16 input circuits for remote system monitoring.

Each input can be individually programmed as supervised (dry-contact only) or unsupervised (general-purpose input.) Model SIM-16 has two (2) `Form C' relays. The relays and inputs are programmed using the system software-programming tool, Zeus-C.

OCM-16 - Output Control Module

The Output Control Module (Model OCM-16) is a remotely located, general-purpose output module that provides 16 open-collector outputs to drive LEDs, incandescent lamps or external relays. There is an additional output for a local audible and two (2) inputs for momentary lamp test, as well as local, audible silence switches.

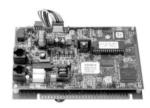
Model OCM-16 is mounted in a separate enclosure from the main control panel.



C900V2 - Dialer-Capture Ethernet
Module

The Dialer-Capture Ethernet Module (Model C900V2) links the data output of Model MDACT from the Cerberus PRO Modular FACP to an Ethernet connection — on a local-area network (LAN) or wide-area network (WAN) — for communication to a central station over the Internet.

Model C900V2 also allows Model MDACT to be optionally linked to the public switched telephone network (PSTN) for communication to a central station, via telephone lines.



MDACT - Multi-Point Digital Alarm Communicator Transmitter

Multi-Point Digital Alarm Communicator Transmitter (Model MDACT) is used in Cerberus PRO systems Modular where point identification of system events is required at Central or Remote Receiving Stations. An intelligent RS-485 communications protocol transmits all system information to Model MDACT.

The installer selects the specific event or groups of events that are set to transmit from Model MDACT over phone lines to listed receiving station equipment.

In turn, Model MDACT can transmit point information, via the Ademco Contact ID and the SIA protocol. A mounting plate (Model MOM2-XMP), MOM-2 card cage, and an XMI Interface Card are required for installation.



Model CC-2

Model CC-5

CC-5 / CC-2 Card Cages

The Model CC-5 / CC-2 card cages provide the physical mounting location and all wiring connection points for all fire-and-voice system options cards to each Cerberus PRO Modular system. Model CC-5 has five (5) slots, while Model CC-2 has two (2) slots.

All cards plugged into each CC-5 / CC-2 card cage communicate with other Cerberus PRO Modular system modules via a common data bus. Connectors are provided on the left and right side of the CC-5 to connect a 60-pin cable for communications with the Cerberus PRO Modular operator interface, power supplies and amplifiers modules.

Field wiring to devices and circuits terminates on the Models CC-5 / CC-2 card cages. All cards designed for use with the Models CC-5 / CC-2 route their field wiring terminations to the 'top' of the Model CC-5 / CC-2 card cages. These connections are all power limited. Internal wiring connections distribute 24VDC to cards or high-level audio signals (depending application used) connect to the 'bottom' of the Model CC-5 / CC-2 card cages. These connections are all nonpower limited.

All wiring connections to the Model CC-5 / CC-2 card cages are to removable terminal blocks. Terminal blocks are rated for use with wire sized 12 American Wire Gauge (AWG) to 24AWG. Each connector is numbered to make wiring terminations to the correct position on the terminal block simple in order to reduce potential system-wiring errors.



Model SCM-8

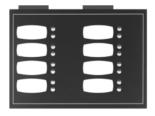
SCM-8 - Switch Control Module

The Switch Control Module (Model SCM-8) is a Cerberus PRO Modular system option module that provides manual control of the Emergency Voice Evacuation System or manual fire system control. Each Model SCM-8 module has eight (8) momentary push-button switches and 16 LEDs to indicate their status. Each switch is assigned two (2) LEDs and a label to indicate the Model SCM-8 switch is in use.

The label slides behind a clear, protective covering, and one of the LEDs assigned to each switch is a dual-color LED used to indicate what type of signal is active. Each Model SCM-8 and switch is fully programmable, and may be used to control speaker circuits and a wide range of general-system functions such as: `All Call' | `All Evac' | `Speaker' | etc.

Any number of circuits may be grouped and controlled by a single switch. Switch usage and zone groupings are assigned using the Cerberus PRO Modular system-programming tool, *Zeus-C*.

Model SCM-8 is mounted on a hinged panel, as part of the Cerberus PRO Modular Command Console (C.C.) enclosure.



LCM-8 LED Control Module

The LED Control Module (Model LCM-8) is a Cerberus PRO Modular system option module that provides LED annunciation for system activity. Each Model LCM-8 module contains eight (8) groups of two (2) LEDs – each of which can be assigned to desired outputs, via the Modular system-programming tool, *Zeus-C*.

Eight (8) LEDs are dual-color capable of emitting either in RED or GREEN — `Flashing' or `Steady'. The remaining LEDs are AMBER — `Flashing' or `Steady'. There is a space provided for labeling of LED functions. The label slides behind a clear, protective membrane.

Model LCM-8 dimensions are identical to Model SCM-8, and the LED control module is mounted on the same hinged panel, as part of the Cerberus PRO Modular C.C. enclosure.



FCM-6 - Fan Control Module

The Fan | Motor | Dampers Control Module (Model FCM-6) is a Cerberus PRO Modular system command-console option module that provides manual control of the fans, motors, and dampers used in building heating | ventilation | air-conditioning (HVAC) systems.

Each Model FCM-6 module provides six (6) sets of three (3) push-button switches for manual-system control. Each switch has three (3), associated LEDs to indicate Fan / Damper / Motor status: OFF (RED LED); ON (GREEN LED), `Trouble' (YELLOW LED). When manually switched to the ON position, the GREEN LED will flash, indicating the output circuit used to turn on the Fan / Damper has activated. The GREEN LED will light to a steady green to indicate positive feedback of the Fan / Damper actually turning on (via a monitored input.)



IIC - Interface Isolation Card

The Interface Isolation Card (Model IIC) is designed to isolate network signals when used with a Cerberus PRO Modular Command Console (C.C.) ring configuration, via the network-ring card, Model NRC. Model IIC executes the aforementioned isolation by removing the backplane network signals from each Model CC-2 card cage. Model IIC also provides one (1) end of CAN termination on each side of Model CC-2.

Two (2) 60-pin interfaces are contained in each Model IIC: the male-ribbon-cable receptacle accepts the data from the cable of the previous Model CC-2 card cage, and the female-ribbon-cable receptacle plugs into the 60-pin receptacle of the next-in-line Model CC-2 cardcage.



CAB1 Single Row Enclosure

Model CAB1, the smallest of the Cerberus PRO Modular system enclosures, can house a single Model CAB-MP cabinet mounting plate for mounting card cages, power supplies, and bulk amplifiers. Model CAB1 also has four (4) mounting slots on the inner door for mounting the Cerberus PRO Modular Operator Interface and Model ID-MP switch module brackets.

Model CAB1 comes complete with a **black** back box; **black** inner and outer doors; a single lock and key set on the outer door; a single, installed cabinet mounting plate (Model CAB-MP), and a single, installed outer door lens plate (Model OD-LP). A **red** version (Model CAB1R) is also available.

<u>Approximate size:</u> 27" (68.6cm.) high; 26" (66cm.) wide, and 8" (20.3cm.) deep.



CAB2 Two-Row Enclosure

The Two-Row Enclosure (Model CAB2) is the mid-sized Cerberus PRO Modular system enclosure capable of housing up to two (2) Model CAB-MP cabinet mounting plates. The inner door has two (2) rows of four (4) mounting slots.

The outer door has space for mounting two (2) outer door plates (Models OD-LP, OD-BP or OD-GP), and can be configured to open from either side. Model CAB2 consists of the **black** Model CAB2-BB back box, the Model CAB2-BD **black** inner and outer door package, and one (1) Model OD-LP lens plate. The outer door has a single lock and key set installed. A red version (Model CAB2R) is also available, and a CAB2-RB back box is used with Model CAB2R.

<u>Approximate size:</u> 45" (114.3cm.) high, 26" (66cm.) wide, and 8" (20.3cm.) deep.



CAB3 Three-Row Enclosure

Model CAB3, the largest Cerberus PRO Modular system enclosure available, can house a maximum three (3) Model CAB-MP cabinet mounting plates in the enclosure, and three (3) rows of inner-door mounting slots.

The outer door can be configured to open from either side. Model CAB3 consists of the Model CAB3-BB back box, the Model CAB3-BD **black** inner and outer door package, and one (1) Model OD-LP lens plate. The outer door has two (2) locks and key sets installed. A red version (Model CAB3R) is also available.

<u>Approximate size:</u> 63" (160cm.) high, 26" (66.4cm.) wide, and 8" (20.3cm.) deep.

REMBOX Remote System Enclosures

Models REMBOX2 and REMBOX4 are Cerberus PRO Modular system enclosures that are used for remotely mounting inner-door modules, which include: the Cerberus PRO Modular Operator Interface and switch-control modules (Model SCM series).

Models REMBOX2 and REMBOX4 are thinner than regular Model CAB-series of enclosures – just 5" (12.7cm.) deep overall, and are perfect for mounting in limited-space areas (e.g. – office-complex lobbies or behind a receptionist's desk).

No card cages, power supplies or bulk amplifiers can be mounted in a given Model REMBOX-series enclosure due to their smaller depth. However, the Cerberus Modular Operator Interface and some modules (e.g. – the remote network interface module [Model RNI]; the output control module [Model OCM-16], and the supervised input module [Model SIM-16]) can be mounted in a given Model REMBOX-series enclosure.

Due to the depth of Models LVM and FMT, no Model OCM-16 or Model SIM-16 modules can be used simultaneously with Model LVM or Model FMT. Model REMBOX2 and Model REMBOX4 are designed for flush mounting with no trim kit required. Both enclosures also come with a clear lens plate on the cover.



REMBOX2 Two-Module Remote Enclosures

Model REMBOX2 has two (2) inner-door module spaces, and can hold a single Cerberus PRO Modular Operator Interface, as well as up to two (2) switch-module brackets.

Model REMBOX2 can also mount a single RNI remote network interface on a bracket included in the backbox. A bracket, known as Model REMBOX2-MP, can be used to mount up to four (4) Model OCM-16 output control modules or SIM-16 supervised input modules.

A Model REMBOX2-MP must be purchased separately.

<u>Approximate size:</u> 18-1/2" (47cm.) high; 14-1/2" (36.8cm.) wide, & 5" (12.7cm.) deep.



REMBOX4 Four-Module Remote Enclosures

Model REMBOX4 has space for mounting four (4) inner-door modules. Any combination of an operator interface (two-module spaces); switch module brackets; Model LVM, or Model FMT (one-module space each) can be used. Unused module spaces can be covered with Model ID-SP blank plates. Model REMBOX4 can also mount a single, remote network interface (Model RNI) on a bracket included in the backbox.

A separately orderable bracket known as Model REMBOX4-MP can be used to mount up to eight (8) output control modules (Model OCM-16) or supervised input modules (SIM-16).

<u>Approximate size:</u> 24" (61cm.) wide, 18-1/2" (47cm.) high and 5" (12.7cm.) deep.

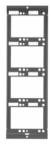
System Enclosures and Equipment – (continued)



CAB-MP - Cabinet Mounting Plate

The cabinet-mounting plate for Cerberus PRO Modular systems, Model CAB-MP, provides mounting for a single row of system modules housed in a Cerberus PRO Modular system enclosure. Up to four (4) module spaces are available on one (1) Model CAB-MP plate.

Each of these mounting plates is used to mount the Model CC-5 Card Cage; the Model CC-2 Card Cage; the Model PSC-12M power supply, and the Model PSX-12M power-supply extender for Cerberus PRO Modular fire-only systems.



ID-MP Inner Door Mounting Plate

The inner-door mounting plate (Model ID-MP) is mounted on the inner door of any given Model CAB-series enclosure. Each Model ID-MP plate is used to mount switch-control modules (Model SCM-8); LED control modules (Model LCM-8), or fan-control modules (FCM-6).

Four (4) mounting plates are included with one (1) order of Model ID-MP. Each mounting plate has four (4) spaces for control modules, and can hold either four (4) Model SCM-8 modules: one (1) control-module space for each actual module, or two (2) fan-control modules: two (2) module spaces per each Model FCM-6.

Mounting combinations are possible. Blank spaces found in Model ID-MP plates can be covered using the blank-control module plate (Model BCM). Up to four (4) modules can be mounted on a single row of the inner door.



BCM - Blank Control Module Plate

Blank Control Module Plates (Model BCM) can be mounted on a single ID-MP. Four (4) blank module plates are included with each order of Model BCM.



ID-SP - Inner Door, Single (blank) Plate

The inner door, single blank plate (Model ID-SP) is used to cover any single-module blank spaces within the inner door where no Cerberus PRO Modular Operator Interface or Model ID-MP is being used. Up to four (4) Model ID-SP modules can be mounted in a single row on the inner door. Two (2) blank plates are included with each order of Model ID-SP.

OD-LP - Outer Door Lens Plate



The outer-door lens plate (Model OD-LP) is a clear, plastic lens plate mounted on the outer door of a system cabinet. Model OD-LP is used to allow operators to see the system interface and controls mounted on the inner door, but restricts access to unauthorized users. The plate covers an entire row on the outer door. One (1) single lens plate is included with each order of Model OD-LP



OD-GP Outer Door Grill Plate

The outer-door grill plate (Model OD-GP) covers an entire row on the outer door of a system cabinet, but has four (4) rows of ventilation louvers on it. Model OD-GP is mounted in front of system bulk amplifiers, card amplifiers, or other modules that generate heat. Using Model OD-GP will permit airflow across these modules to aid in heat dissipation. One (1) grill plate is included with each order of Model OG-GP.



OD-BP - Outer Door Blank Plate

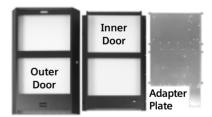
The outer-door blank plate (Model OD-BP), which mounts on the outer door of a Cerberus PRO Modular enclosure, entirely covers an unused row found on a Cerberus PRO Modular system cabinet.



XLS-MSE2/R-ADPT Enclosure Adapter

Model XLS-MSE2-ADPT, which must be used in conjunction with Model CAB-MP plates, is an adapter that allows Cerberus PRO Modular cards to be mounted in older-generation MXL Model MSE-2—series small black enclosures.

Model XLS-MSE2R-ADPT, which must be used in conjunction with Model CAB-MP plates, is an adapter that allows Cerberus PRO Modular cards to be mounted in older-generation MXL Model MSE-2R small red enclosures.

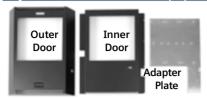


XLS-MME3/R-ADPT Enclosure Adapter

Model XLS-MME3-ADPT, which must be used in conjunction with Model CAB-MP plates, is an adapter that allows Cerberus PRO Modular cards to be mounted in older-generation MXL Model MME-3—series or Model MBR-2 medium **black** enclosures.

Model XLS-MME3R-ADPT, which must be used in conjunction with Model CAB-MP plates, is an adapter that allows Cerberus PRO Modular cards to be mounted in older-generation MXL Model MME-3R medium red enclosures.

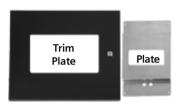
System Enclosures and Equipment – (continued)



XLS-MSE3/R-ADPT Enclosure Adapters

Model XLS-MSE3-ADPT is an adapter that allows Cerberus PRO Modular cards to be mounted in oldergeneration MXL-IQ Model MSE-3L or Model MSE-3M **black** enclosure.

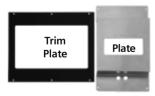
Model XLS-MSE3R-ADPT is an adapter that allows Cerberus PRO Modular cards to be mounted in older-generation MXL-IQ Model MSE-3LR or Model MSE-3MR red enclosure.



XLS-RCC13F/R-ADPT Enclosure Adapter

Model XLS-RCC13F-ADPT is an adapter that allows the Cerberus PRO Modular Model SSD/-C series remote annunciator to be mounted in oldergeneration Model RCC-1F or Model RCC-3F black, flush-mount enclosure.

Model XLS-RCC13FR-ADPT is an adapter that allows the Model SSD/-C series to be mounted in older-generation RCC-1FR and RCC-3FR, red flush-mount enclosure.



XLS-RCC-1-ADPT Enclosure Adapter

Model XLS-RCC1-ADPT is an adapter that allows the Cerberus PRO Modular Model SSD/-C series remote annunciator to be mounted in oldergeneration Model RCC-1 surfacemount enclosure.



CAB2-XBD Remote Transponders

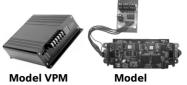
Cerberus PRO Modular systems can use remote transponders for mounting additional modules such as amplifiers without requiring a Cerberus PRO Modular Operator Interface or any control switches. Special doors are available for systems using Model CAB-2 or Model CAB-3 remote transponders. These doors (Models CAB2-XBD and CAB3-XBD) omit the unused inner door, and come complete with ventilation louvers built into the door.

Model CAB2-XBD fits into Model CAB2-BB, and Model CAB3-XBD fits into Model CAB3-BB. Model CAB2-XBD and CAB3-XBD are supplied in **black**. Red versions (Models CAB2-XRD and CAB3-XRD) are also available. Complete box and door kits are available, Models CAB2-X and CAB3-X.

Enclosure Trim Kits

Trim kits are available for all Cerberus PRO Modular system enclosures for semiflush mounting applications. Model CAB1-TK (for black enclosures) and the Model CAB1R-TK (for red enclosures) fit inside the Models CAB1 and CAB1-R enclosures. Similarly, Models CAB2-TK and CAB-2R-TK fit inside the Model CAB-2 enclosure, while Models CAB3-TK and CAB3R-TK fit the Model CAB-3 enclosure.

Voice-Related Components



VESDA-HLI-KIT

VESDA High Level Interface

The Very Early Smoke Detection Aspiration (VESDA) Peripheral Module (Model VPM) and the VESDA High-Level Interface Kit (Model VESDA-HLI-KIT) are optional system modules that work in conjunction to provide bi-directional communication between the Modular FACP and multiple VESDA detection networks for the following types of VESDA detectors:

- LaserCOMPACT
- LaserFOCUS
- LaserPLUS
- LaserSCANNER

Model VPM allows each Cerberus PRO Modular FACP to annunciate 'Alert,' 'Action,' 'Fire 1,' and 'Fire 2' levels, as well as provide 'faults' from any zone on a connected VESDA network.

The VPM Mounting plate (Model VPM-MP) allows mounting one (1) Model VPM and two (2) of Model VESDAHLI-KIT inside a standard Model CAB1, Model CAB2 or Model CAB3 enclosure.

Model VPM-MP utilizes two (2) module spaces on a single row of each enclosure.



Model FT-GLS

FT-GLS - Replacement Glass

Additional replacement glass for Model FC300S is orderable as Model FT-GLS.



XDMC - Digital Message Card

The Digital Message Card (Model XDMC) provides the capability of programming and sounding custom voice messages for Evacuation, Alert, Tornado Warning, System Testing and other emergency and non-emergency building notifications.

Model XDMC, which serves as a Cerberus PRO Modular option module, plugs into an available expansion slot in the Model CC-2 / CC-5 card cage. Up to two (2) Model XDMC modules can be supported on a single Cerberus PRO Modular panel. Each Model XDMC can be programmed for up to 300 different custom messages.



ALCC - Audio Level Conversion Card

The Audio Level Conversion Card (Model ALCC) provides the capability of conducting a global-emergency page across multiple, remote Cerberus PRO Modular panels with each audio riser holding a maximum of 63 nodes.

The emergency page originates at a Cerberus PRO Modular global paging station, where it is broadcast at 70VRMS over an audio riser, in conjunction with the 40W Amplifier Card, Model ZAC-40.

Remote Telephone Stations

Remote telephone stations for the emergency telephone system consist of a handset-with-hook assembly; a wall-mounted back box, and a locked door with a breakable glass panel.

Models FTS | FTS-P | FTS-C | FTS-CL | FTS-PLC - Remote Telephone Stations consist of a handset; a black plate; handset cradle with magnetic switch mounted to the back plate, and a connection cable from the handset to the back plate.

Model FTS-P

The **-P** designates that a momentary, push-to-talk button is included in the handset. The **-C** designates that an armored cable is used in place of a coiled, retractable cord between the handset and the back plate. The **-L** designates that a LED is mounted to the back plate to indicate two-way contact is established between the telephone and Model FMT.

The remote telephone station must be used with either remote telephone-station back box, Models FB-300 or FB-301S. Model FB-300 is used for flush-mount configurations, and Model FB-301S is used for surface-mount configurations.

The remote station / back-box assembly also requires the Model FC-300S cover with key-lock door and breakable glass.



Model FJ-303

Remote Telephone Jacks

Remote Telephone Jacks, (Models FJ-303 | FJ-303SS | FJ-304 | FJ-304SS) are connected to the emergency telephone system. The jacks are wired to the telephone zone circuits, via the Model TZC-8B Telephone Zone Card located in the Cerberus PRO Modular system enclosure.

There is no limit to the number of remote telephone jacks that can be connected to a single telephone zone circuit. The remote telephone jacks are mounted to a single-gang electrical box. Models FJ-303 and FJ-303SS have flying leads connected to the phone jack, while Models FJ-304 and FJ-304SS have screw terminals.

Models FJ-303 and FJ-304 have a red-baked, enamel finish with a white silk-screened telephone handset icon, and Models FJ303SS and FJ-303SS have a brushed, stainless-steel finish with the handset icon.



Model PFT-P

Portable Firefighters' Telephones

Portable Firefighters' Telephones (Models PFT and PFT-P) are available for field connection to the emergency telephone system. Each phone consists of a rugged, high-impact plastic handset with a red, coiled phone cord attached to the PFT. A ¹/₄" (0.64 cm.) phone-plug assembly is attached to the end of the phone cord for connection to the field-mounted phone jacks.

Model PFT-P includes a momentary spring-action, push-to-talk switch mounted in the handset. The push-to-talk switch subsequently allows users to depress the button to activate the mouthpiece of the handset when speaking.

The Model MTE-2 Telephone Enclosure includes the enclosure and door with clear lens, and can be used to store a maximum six (6) PFT or PFT-P telephone handsets in a locked cabinet.



AIC - Audio Input Card

The Audio Input Card (Model AIC) provides two (2) external, isolated analog inputs to the Cerberus PRO Modular fire-with-voice systems. Model AIC also provides two (2) drycontact inputs, used to separately activate the two (2) audio inputs.

The two (2) external, isolated analog inputs connect to the panel for functionality of external sources that use a TRS connector (e.g. – external handheld audio players | receivers; portable compact-disc players).



TZC-8B - Firefighters' Telephone Zone Card

The firefighters' telephone zone card provides a way for emergency-response personnel located throughout a building to speak to one another during emergency situations.

Model TZC-8B is a Cerberus PRO Modular option module that plugs into a Model CC-2 or CC-5 card cage, providing eight (8) firefighters telephone zones. The zones have an off-hook `acknowledge' tone, as well as a command-console `busy' tone.

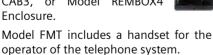
Each telephone zone uses a single pair of wires, and is individually supervised in a 'Class B' type mode. Field wires are connected to one or more phone jacks or stations. Zones are also individually power limited, per NEC 760, and each zone also contains transient protection.

A maximum five (5) telephone stations may be off-hook simultaneously in a conferencing-line mode with no loss of audio quality.

FMT Replacement Glass

Model FMT provides firefighters with an emergency telephone system for communication with remote locations.

Model FMT mounts to the rear of the inner door of a Model CAB 1, Model CAB2, Model CAB3, or Model REMBOX4 Enclosure.



The firefighters' telephone unit is designed for maximum performance in communication. The circuitry for Model FMT allows the master telephone and at least five (5) telephone stations to be off-hook simultaneously with no degradation of audio quality.

Model FMT also supports a 'warden's page' function, which allows live voice announcements from any remote telephone. Telephone zone call-ins are annunciated on the appropriate Model SCM-8 switch module.

Remote stations receive an 'Acknowledge' tone when dialing into the command center prior to the call being answered, indicating a call-in in progress and a 'busy' tone if calling into the command center and another telephone zone is already online.

Diagnostic LEDs are located on the back of Model FMT in order to simultaneously indicate power has been applied to the module, as well as failure of the card, CAN communication or telephone.



ZAC-40 - Zone Amplifier Card (40 Watt)

Model ZAC-40 is a combination 40-Watt, amplifier / speaker zone for use with Cerberus PRO Modular. Style 'Y', 'Z' or 'A' / 'B' speaker-zone wiring configurations are supported. Model ZAC-40 is power limited, and can be configured to provide 40 Watts of audio at 25VRMS or 70VRMS. Model ZAC-40 is a plug-in card that mounts in a Model CC-5 or CC-2 card cage.

Model ZAC-40 is capable of amplifying any of the eight (8) digital audio channels that are transmitted from Model DAC-NET, via the Audio Serial Interface, Model ASI.

Model ZAC-40 is supervised for functionality, and provides a single, 40-Watt speaker zone that supports two (2) speaker circuits. Model ZAC-40 can be used for (1) one-to-eight (8) channel applications, or as a bulk amplifier for (1) one-or-two (2) channel applications — feeding high-level audio to Models ZIC-4A and ZIC-8B. Model ZAC-40 can also be used for single-channel applications feeding high-level audio to Model HCP.

ZAM-180 - Zone Amplifier Module (180 Watt)

Model ZAM-180 is a combination 180-Watt, amplifier / speaker zone for use with Cerberus PRO Modular. Style `Y', `Z' speaker-zone wiring is supported, as well as splitzone or (`A'/`B') speaker-zone-wiring configuration on Style `Y'.



Model ZAM-180 can be configured to provide 150 Watts of audio at 25VRMS or 180 Watts of audio at 70VRMS. Model ZAM-180 mounts in one (1) module space directly on the back box or optional Model CAB-MP mounting plate.

Model ZAM-180 is capable of amplifying any one (1) of the eight (8) digital-audio channels that are transmitted from Model DAC-NET (Digital Audio Card), via the digital audio bus: Model ASI (Audio Serial Interface). Model ZAM-180 amplifier is supervised for functionality. Model ZAM-180 can be used as a single 180 Watt speaker zone for (1) one-to-eight (8) channel applications or as a bulk amplifier for (1) one-or-two (2) channel applications feeding high-level audio to Model ZIC-4A or Model ZIC-8B.



LPB - Local Page Board

The Local Page Board (Model LPB) is used to connect the microphone — mounted inside the Live Voice Module (Model LVM) — and the voice-internal telephone system. Model LPB is a plug-on board to Model DAC-NET, and converts the two (2) analog input signals into the system's internal digital format.

Up to five (5) Model LVMs can be connected to Model LPB. Additionally, Model LPB provides one (1) analog output to connect to the monitor speaker, which is mounted inside Model LVM. The one (1) analog output is one (1) of eight (8) voice-internal audio channels selectable at the Modular panel.

Voice-Related Components – (continued)

DAC-NET - Digital Audio Card



Model DAC-NET provides the audio source for the Cerberus PRO Modular Voice Evacuation System, as well as D-NET network communication to and from the Cerberus PRO Modular Operator Interface and between enclosures.

Model DAC-NET transmits eight (8) digital channels of audio, via two (2) pairs of wire. One (1) Model DAC-NET is required in each Cerberus PRO Modular enclosure.

A maximum 32 Model DAC-NET cards are allowed on a single Cerberus PRO Modular panel. Model DAC-NET can be wired 'Class A' (Style 7) (four [4] pairs of wires) or 'Class B' (Style 4) (two [2] pairs of wires). Model DAC-NET card plugs into one (1) slot in the Model CC-5 or CC-2 card cage, and has on-board LEDs for system status and troubleshooting.

Indication of power, communication, internal operation, ground fault, and trouble conditions are provided. Model DAC-NET Card contains an on-board microprocessor that provides communication with switch modules, LED modules, microphone, telephone zone cards, and zone amplifiers across the Control Area Network CAN Bus.

Model DAC-NET can supervise up to 99 CAN address modules, and contains onboard tones and pre-recorded EVAC and ALERT messages. Custom messages or tones can also be downloaded to Model DAC-NET using the Cerberus PRO Modular software tool, *Zeus-C*, for a total of five minutes of storage memory.

LVM - Live Voice Module

Model LVM provides a supervised, high-quality and dynamic microphone as a means of sending live voice messages to specified audio zones. Model LVM mounts on the inner door of a Model CAB1, Model CAB2, Model CAB3 or remote lobby enclosure.



Model LVM includes a microphone with a push-to-talk switch and retractable coiled cord. The microphone and push-to-talk switch are fully supervised.

Model LVM also provides a green preannounce LED that indicates the preannounce signal is active at the selected zones and a green ready to page LED, which indicates selected zones are ready to be paged.

The pre-announce signal can be programmed as a tone or message and the duration is adjustable from 0 to 10 seconds in one-second increments.

A built-in speaker with volume control allows the monitoring of the audio channels.

The front panel of Model LVM contains six (6) switches and six (6) pairs of LEDs. Each pair contains one (1) dual-color (RED / GREEN) and LED. These switches can be programmed for manual voice functions as well as for generic system commands. When the switches are used as generic switches, all LEDs can be programmed for ON | OFF or FLASHING.

Details for Ordering		
MODEL OR TYPE	PART NUMBER	PRODUCT
AC-ADPT	500-633992	Technician Laptop-Power Connector
AIC	500-035300	Audio-Input Card
ALCC	500-650127	Audio-Level Conversion Card
ВСМ	500-033320	Blank Control Module Plate [Four (4) per package]
C900V2	S54430-C13- A2	Dialer-Capture Ethernet Module
CAB1	500-633007	Complete Single-Row Cabinet, black
CAB1R	500-633728	Complete Single-Row Cabinet, red
CAB1-TK	500-633013	Single-Row Trim-kit Cabinet, black
CAB1R-TK	500-633729	Single-Row Trim-kit Cabinet, red
CAB2-BB	500-633009	Two-Row Back Box, black
CAB2-RB	500-634941	Two-Row Back Box, red
CAB2-BD	500-633008	Two-Row Inner & Outer Door Set, black
CAB2-RD	500-633755	Two-Row Inner & Outer Door Set, red

Details for Ordering		
MODEL OR TYPE	PART NUMBER	PRODUCT
CAB2-TK	500-633014	Two-Row Trim-kit Cabinet, black
CAB2R-TK	500-633753	Two-Row Trim-kit Cabinet, red
CAB2-XBD	500-633768	CAB2 Transponder Door
CAB2-XRD	500-633792	Medium-Enclosure Transponder Door [Mounts to Model CAB2-RB]
CAB3-BB	500-633011	Three-Row Back Box, black
CAB3-RB	500-634942	Three-Row Back Box, red
CAB3-BD	500-633010	Three-Row Inner & Outer Door Set, black
CAB3-RD	500-633757	Three-Row Inner & Outer Door Set, red
CAB3-TK	500-633015	Three-Row Trim-kit Cabinet, black
CAB3R-TK	500-633754	Three-Row Trim-kit Cabinet, red
CAB3-XBD	500-633769	CAB3 Transponder Door
CAB3-XRD	500-633793	Large-Enclosure Transponder Door [Mounts to Model CAB3-R]
CAB-MP	500-633012	Back Box Module Mounting Plate
CAB-55- BRKT	S54430-B1- A1	Bracket to hold down 55AH batteries in CAB-BATT enclosure
CAB-100- BRKT	S54430-B2- A1	Bracket to hold down 100AH batteries in CAB-BATT enclosure
CCL	599-634214	CAN Cable 3 ft. (91.4 cm.) Length required for: SCM / LCM / FCM modules from Models CC-5 / CC-2 Inner Doors, and from row-to-row on Model CAB-series Inner Doors
CC-2	500-633440	Two-Slot Card Cage
CC-5	500-633037	Five-Slot Card Cage
CDC-4	500-034200	Conventional Detector Card
COM-BRK	S54430-B7- A1	Communications Bracket
CRC-6	500-033250	Controllable Relay Card
CSB	500-033150	CAN Sounder Board
DAC-NET	500-035100	Digital Audio Card
DCT-P	500-699291	MDACT Programmer
ENCL-01	S54465-C63- A1	SNU Enclosure (w/ key-lock)
FB-300	500-680587	Remote Telephone Stations
FCM-6	500-033140	Fan-Control Module Switches [ON OFF AUTO]
FCM2041 -U3	S54430-C18- A1	Operator Interface for Cerberus PRO Modular
FJ-304	500-692670	Remote Telephone Jacks
FMT	500-034100	Fireman's Main Telephone

Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
GPMI-3	S54430-C25-A1	Global Operator Interface (V3)
GPMI-HW- KEY	S54430-C22-A1	Hardware key for Modular Global Operation
HCP	500-034860	Intelligent Control Point
HLIM	500-033170	Line Isolator Module
ID-MP	500-633027	Inner-Door Enclosure Mounting Plate [four (4) per package]
ID-SP	500-633028	Single-Door Inner-Door Enclosure Mounting Plate [two (2) per package]
IIC	500-850328	Interface Isolation Card
LCM-8	500-033100	LED Annunciator Module [ON OFF AUTO]
LPB	500-035200	Local Page Board
LVM	500-034090	Live Voice Module
MDACT	500-699254	Multi-Point Digital Alarm Communication Transmitter
MLC	S54431-B4-A1	MXL Addressable- Device Line Card
NIC-C	500-033240	Network Interface Card
NRC	S54430-A2-A1	Network Ring Card: 2 nd Generation
PMI-1 UPLD-CBL	S54430-A4-A1	Serial Adapter Cable for USB-to-serial- converter connection between single-node upload assemblies and 1st - version central processors
PS-5A	500-492369	Aux (5V) Power Module
PSC-12M	S54430-C26-A1	Power Supply Charge
PSC-IS0- CBL	S54430-K4-A1	Optional Cable Extender (for use with two [2] Model PSC-

Details		ing – (continue
MODEL OR TYPE	PART NUMBER	PRODUCT
PSX-12M	S54430-C27-A1	12A Pwr. Supply Extender
PSFA	S54430-A13-A1	Power Supply Filter Assy
SCM-8	500-033040	Switch Module (Eight [8] switches)
SIM-16	500-034060	Supervised Input Module
SNU-ASSY	S54430-A3-A1	SNU Processor with USB cables (w/ SNU IOM)
SNU-KIT	S54430-C19-A1	Single-Node Upload (SNU) Kit
SSD	500-034170	System-Status Display
SSD-C	500-648733	System-Status Display with control
SSD-INT	500-034740	System-Status Display [w/ multi-lingual overlays]
SSD-C-INT	500-034750	System-Status Display with control [w/ multi-lingual overlays]
SSD-C-REM	500-634773	System-Status Display w/ control [for remote lobby enclosure]
TZC-8B	500-034110	Firefighter's Telephone Zone Card
VESDA-HLI- KIT	S54430-F99-A2	VESDA High-Level Interface Kit
VNTPC	500-650490	Virtual Network Tunnel
VPM	S54430-F93-A2	VESDA Peripheral Module
VPM-MP	S54430-F95-A2	Mounting Plate for the VESDA Peripheral Module
ZAC-40	500-035400	40W Zone-Amplifier Card
ZAM-180	500-035600	180W Zone-Amp. Card
XDACT-ASSY	S54430-A5-A1	XDACT Mounting Plate (with cable)
XDLC	S54430-B8-A1	Device Loop Card
XDMC	S54430-B5-A1	Digital Message Card

Details for Ordering – (continued)

MODEL OR TYPE	PART NUMBER	PRODUCT
XLS-EXT-CABLE- PKG	S54430-K1-A1	5 ft. (1.5m) 60-pin cable 5 ft. (1.5m) CAN cable Long ground-strap cable
XLS-MLE6-ADPT	S54430-C9-A1	MLE-6 Enclosure Adapter, black
XLS-MLE6R-ADPT	S54430-C9-A2	MLE-6R Enclosure Adapter, red
XLS-MME3-ADPT	S54430-C8-A1	MME-3 and MBR-2 enclosure adapters, black
XLS-MME3R- ADPT	S54430-C8-A2	MME-3 and MBR-2 encl. adapters, red
XLS-MSE2-ADPT	S54430-C7-A1	MSE-2 enclosure adapter, black
XLS-MSE2R- ADPT	S54430-C7-A2	MSE-2 enclosure adapter, red
XLS-MSE3-ADPT	S54430-C14-A1	MXL-IQ MSE-3L & MSE- 3M enclosure adapters, black
XLS-MSE3R- ADPT	S54430-C14-A2	MXL-IQ MSE-3L & MSE- 3M enclosure adapters, red
XLS-RCC1-ADPT	S54430-Z14-A1	RCC-1 enclosure adapter, black
XLS-RCC13F- ADPT	S54430-Z13-A1	RCC-1F RCC-3F enclosure adapter, black
XLS-RCC13FR- ADPT	S54430-Z13-A2	RCC-1F RCC-3F enclosure adapter, red
ZIC-2C	500-648671	Two-Channel Adapter Card (via Model ZIC-8B)
ZIC-4A	500-033050	Four-Circuit-Zone Indicating Card
ZIC-8B	500-648670	Eight-Circuit-Zone Indicating Card

NOTICE -

The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice.

The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data,

are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

12Ms)



Cerberus® PRO

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February - 2023
(Rev. 7)



Cerberus® PRO **Detectors and Peripherals**

Photoelectric Smoke Detector [with **ISOtechnology**™]

Model OP921

Architect & Engineer Specifications

- ☐ UL 268 7th Edition Listed
- ☐ Built-in ISOtechnology™
- ☐ 252 Isolation devices per SLC
- ☐ Each detector is self-testing:
 - Self-monitored for sensitivity with UL **Listed limits**
 - complete diagnostics performed every 10 seconds
- ☐ Compatible with `H'-series devices on the same loop (with Cerberus PRO series fire-alarm control panels)
- ☐ Compatible with Model 8720 | DPU (device programmer / loop tester)
- ☐ Polarity insensitive via SureWire™ technology
- ☐ Functions with Model DB-11-series mounting bases
- ☐ Tri-color detector-status light-emitting diode (LED) with 360 ° view
- ☐ Field-selectable application-sensitivity
- ☐ Remote sensitivity-measurement capability
- ☐ Utilizes advanced, microprocessor-based signal processing
- ☐ Supports Alarm Verification (AV) feature
- ☐ Automatic environment compensation
- ☐ Superior electromagnetic interference (EMI) and radio-frequency interference (RFI) immunity
- ☐ Restriction of Hazardous Substances (RoHS compliant)
- ☐ UL Listed | FM, CSFM Approved
 - UL 268: `Open Area Smoke Detection'
 - UL 268A (Duct) \In-duct housing' use
 - UL 268A (Duct) `Direct-in-Duct' use
 - ULC-S529: 'System Smoke Detector'
 - ULC-S530: 'Heat Actuated Fire Detection'

 - CSFM | File: 7272-0067:0258

Product Overview

Photoelectric Smoke Detector (Model OP921) uses microcontroller circuitry and surface-mount technology for maximum reliability. Model OP921 incorporates an optical sensor using a light-scattering detection principle. The device utilizes advanced software algorithms to analyze the signals providing highly stable and accurate smoke detection.

Model OP921 is UL 268 7th edition listed incorporating advanced built-in ISOtechnologyTM - True Class-X SLC operation (use is optional) greatly improving system reliability and circuit integrity while providing advanced addressable fault finding.

Each detector fits into one (1) wall-or-ceiling footprint, and only occupies one (1) address on the signal-line circuit (SLC)

Model OP921 is a plug-in, two-wire, addressable photoelectric smoke detector whose value is increased with built-in ISOtechnology feature. Model OP921 is Underwriters' Laboratories Listed [UL268A Listed for direct in-air duct usage].

Each detector utilizes a dust-resistant photoelectric smoke chamber and microprocessor-based electronics with a low-profile plastic housing. Every Model OP921 fire detector is shipped with a protective dust cover.

Operation

Model OP921 is a wide-spectrum, photoelectric smoke detector that incorporates an infrared light-emitting diode (IRLED), as well as a light-sensing photodiode. Under normal conditions, light transmitted by the LED is directed away from the photodiode and scattered through the smoke chamber in a controlled pattern.

The smoke chamber is designed to manage light dissipation and extraneous reflections from dust particles or other non-smoke, airborne contaminants in such a way as to maintain stable, consistent operation. When smoke enters the detector chamber, light emitted from the IRLED is scattered by the smoke particles and is received by the photodiode (see: images on page 2).



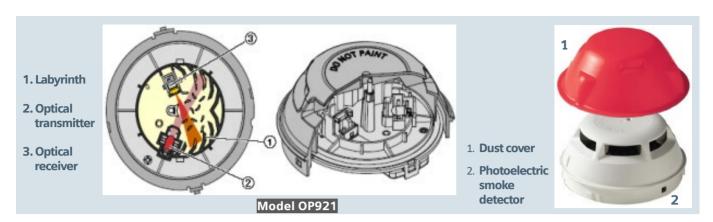
Model OP921 **Photoelectric Smoke Detector**











Sensitivity Settings

Application Parameter Sets

Model OP921 provides two (2) pre-programmed sensitivity parameter sets that can be selected by the Siemens fire-alarm control panel in order to match the expected application or environmental conditions:

- Standard
- Air-Duct

Standard: This application parameter set, which is ideal for normal office | hotel-lobby-type applications, is the default setting.

Air-Duct: This application parameter set is used when the detector is used a UL268A (DI) compliant, direct in-air duct application without a duct housing.

Model OP921 does not require a field sensitivity test. Model OP921 is UL Listed as a self-testing device and complies with NFPA 72 as a self-monitoring detector and control-panel arrangement. This parameter set is also used when Model OP921 is used in air-duct housings (Models FDBZ492 and FDBZ492-HR).

A quick visual inspection is sufficient to indicate the condition of Model OP921 at any time. If more detailed information is required, a printed report can be provided from the compatible FACP, indicating the status and settings assigned to each individual detector. When Model OP921 moves to `Alarm' mode, the detector will flash RED and continue flashing until the system is reset at the FACP.

At that same time, any user-defined, system-alarm functions programmed into the system are activated.

Model OP921 contains a tri-color LED indicator, capable of flashing any one (1) of three (3) distinct colors: GREEN | YELLOW | RED.

During each flash interval, the microprocessor-based detector monitors the following scenarios:

- Smoke sensitivity is within the range indicated on the nameplate label
- Smoke in its sensing chamber
- Internal sensors and electronics are functional

Based on the results of the monitoring, the LED indicator flashes the following:

FLASH COLOR	CONDITION	FLASH INTERVAL [in seconds]
GREEN*:	Normal supervisory operation. Smoke sensitivity is within rated limits.	10
YELLOW:	Detector is in trouble and needs replacement.	4
RED:	`Alarm' condition	1
NO FLASH:	Detector is not powered.	-

^{*} denotes LED can be turned OFF
Please follow the corresponding description of the panel used.

Installation

All Model OP921 intelligent, addressable detectors use a surface-mounting base (Model DB-11 or DB-11E), which mounts on a 4-inch (10.2 cm.) octagonal, square or single-gang electrical back box. The base utilizes screw-clamp contacts for electrical connections and self-wiping contacts for increased reliability.

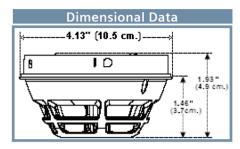
The Model DB-11 detector base can be used with the optional Siemens Model LK-11 detector locking kit, which contains 50 detector locks and an installation tool to prevent unauthorized removal of the detector head. Model DB-11 has aesthetically conducive plugs to cover the outer mounting-screw holes.

Model OP921 may be installed on the same initiating circuit with the Siemens Model `H'-series detectors [when used with Cerberus PRO Modular | FireFinder XLS/V | FC/FV9–series FACPs] –

- XTRI series interface modules
- HFP-11, HFPT-11 detection devices
- HTRI series interface modules
- HCP output-control module
- HMS & XMS series manual stations
- HZM conventional zone module

Each detector, which is shipped with a protective dust cover, consists of the following:

- Built-in **ISOtechnology** for True-Class-X SLC performance
- Dust-resistant photoelectric chamber
- Microprocessor-based electronics with a low-profile plastic housing



All Model OP921 intelligent, addressable detectors are approved for operation with the Underwriters' Laboratories-specified temperature range of 32° to 100°F (0° to 38°C). (See: installation manual P/N—A6V10323928 for further details)

Application Data

Installation of Model OP921 smoke detectors require a two-wire circuit. In many retrofit cases, existing wiring may be used. `T-tapping' is permitted only for Style 4 (Class B) wiring. Model OP921 is polarity insensitive, which can greatly reduce installation and debugging times. When operating in NFPA 72 Class-X applications SLC polarity must be maintained to support up to 252 isolation ready devices per loop. When used in mixed mode a maximum of 30 non-isolated devices between isolation devices (wired in polarity-insensitive mode). See control panel install document for further details.

Model OP921 detectors can be applied within the maximum 30-feet center spacing (900 sq. ft. areas) as referenced in NFPA 72. This application guideline is based on ideal conditions – specifically, smooth ceiling surfaces, minimal air movement, and no physical obstructions between potential fire sources and the actual detector. Do not mount detectors in close proximity to ventilation or heating and air conditioning outlets. Exposed joists or beamed ceilings may also affect safe spacing limitations for detectors. For challenging site applications, use of the alarm verification feature should be considered. Consult the associated control panel engineering tool for details on implementation.

Should questions arise regarding detector placement, observe NFPA 72 guidelines. Good fire-protection-system engineering and common sense dictate how and when fire detectors are installed and used. Contact your local Siemens – Fire Safety distributor or sales office whenever you need assistance applying Model OP921 in unusual applications. Be sure to follow NFPA guidelines and UL Listed / ULC Listed installation instructions – included with every Siemens – Fire Safety detector – and local codes as for all fire protection equipment.

Field-Device Programmer / Test Unit

Model OP921 is compatible with the Siemens field-device programmer / test unit (Model 8720 | DPU), which is a compact, portable menu-driven accessory for electronically programming and testing these addressable detectors promptly and reliably. For instance, the field technician selects the accessory's program mode, and enters the desired address.

Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods (e.g. – dials and rotary switches), and reduces installation and service costs by electronically programming and testing the detector prior to installation. When set in `test' mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

Each field-device programmer / test unit operates on AC power or rechargeable batteries, providing flexibility and convenience in the programming / testing of fire-safety equipment from practically any location. Additionally, with the use of a Model DPU unit, there is no longer a cause for concern with any vibration, corrosion and other deteriorating conditions that can accompany the vitality of electro-mechanical-addressing mechanisms.

Each detector fits into one (1) wall-or-ceiling footprint, and only occupies one (1) address on the signal-line circuit (SLC).

Technical Data		
OPERATING TEMPERATURE:	+32° - +100°F (0° - +38°C)	
RELATIVE HUMIDITY:	0 - 95% (non-condensing)	
AIR PRESSURE:	No effect	
AIR VELOCITY:	0 - 4,000 feet-per-minute (fpm) (0 - 20 meters-per-second)	
INPUT VOLTAGE RANGE:	16VDC – 30VDC	
`ALARM' CURRENT, MAX.:	410μΑ	
`STANDBY' CURRENT, MAX.:	250μΑ	
MAXIMUM SPACING:	30-ft. centers (900 sq. ft.), per NFPA 72	
DETECTOR WEIGHT:	0.317 Lbs. (0.144 kg.)	
MECHANICAL PROTECTION GUARD:	UL and ULC Listed (with STI Guard Model STI-9604)	
SENSITIVITY RANGE:	1.41 - 3.76 % ft obs. (Nominal 2.0% / ft. obs.)	

Panel Compatibilities		
MODEL OR TYPE	DATA SHEET	PANEL
XLS	6300	FireFinder® (fire)
XLSV	6340	FireFinder (fire w/ voice)
Cerberus PRO Modular	8300	System Overview
FC901	9813	Cerberus PRO 50-point addressable
FC922	9815	Cerberus PRO 252-pt. addressable (fire)
FC924		Cerberus PRO 504-pt. addressable (fire)
FV922	9821	Cerberus PRO 252-point addressable (fire w/ Intelligent Voice Communication [IVC])
FV924		504-pt. addressable (fire w/ Intelligent Voice Communication [IVC])

Details for Ordering		
MODEL OR TYPE		
OP921	S54320-F4-A2	Photoelectric Smoke Detector

Compatible Devices:

MODEL OR TYPE	PART NUMBER	PRODUCT
ABHW-4B	S54320-F13-A1	Buzzer Version Audible Base (standard 3,000 Hz tone)
ABHW-4BZ	S54320-F13-A2	Audible Base
ABHW-4S	S54320-F14-A1	Sleeping Room Version,520 Hz Low Frequency Audible Base
ABHW-4SZ	S54320-F14-A2	Audible Base
DB-11	500-094151	Detector Mounting Base
DB-11E	500-094151E	Detector Base, small
DB2-HR	S54370-F12-A1	Detector Mounting Base with Relay
RL-HC	500-033230	Remote Alarm Indicator: 4" (10.2 cm) octagon-box mount, red
RL-HW	500-033310	Remote Alarm Indicator: single- gang box mount, red
FDBZ492	S54319-B22-A1	Addressable Air-Duct Housing
FDBZ492-HR	S54319-B23-A1	Addressable Air- Duct Detector with Relay
LK-11	500-695350	Base Locking Kit

See: www.STI-USA.com for further details on ordering Model STI-9604

In Canada order:

MODEL OR TYPE	PART NUMBER	PRODUCT
DB-11C	500-095687	Detector Mounting Base, ULC Listed

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Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.



Cerberus® PRO

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August - 2024 (Rev. 15)



FibroLaser™

Two-channel Linear Heat Detector ots30xx(s)-sc



Fiber-optic linear heat detector, XX = 01, 02, 04, 06, 10

- Linear temperature measurement for quick fire detection and precise localization of the fire source
- Two independent optical measuring channels
- Maximum length of the maintenance free sensor cable = 20 km (2x 10 km)
- Signal processing with OFDR-Technology (Optical Frequency Domain Reflectometry)
- 1000 free programmable zones
- Selectable alarm criteria
- High spatial resolution up 0.25 m
- Information regarding the direction of the fire spread
- Redundant sensor system is possible
- Suitable for wind speeds of up to 10 m/s
- Laser product class 1M according to DIN EN 60825-1: 2014



Measuring principle

The FibroLaser is based on a laser beam being sent through a fiber-optic cable. The fiber-optic cable scatters a small part of the laser radiation at any point, back to the source. The backscatter is measured by the controller.

Two independent sensor cables can be connected to a two-channel linear heat detector.

The near-infrared electromagnetic LED laser light radiation emitted is scattered in different ways by the fiber-optic cable:

- Rayleigh scattering
- Stokes scattering
- Anti-Stokes scattering

The Rayleigh scattered light has the same wavelength as the laser beam, the Stokes scattering has a slightly higher and the anti-Stokes scattering a slightly lower wavelength. The two Stokes scattering types are also referred to as Raman scattering. While Stokes scattering is not so temperature-dependent, anti-Stokes scattering is affected by the thermal energy of the fiber-optic cable's local temperature: The intensity increases with the temperature. The temperature of the fiberoptic cable is thus calculated from the intensity ratio between Stokes and anti-Stokes scattering.

Controller

Transmitter

The Transmitter contains the laser and its control.

Receiver

- The Receiver contains the entire optical system.
- Coupling of the laser light generated in the transmitter to the sensor cable.
- Converting the back scatter light returned from the sensor fiber from an optical into an electrical signal and processes the electrical signal.

Digital unit

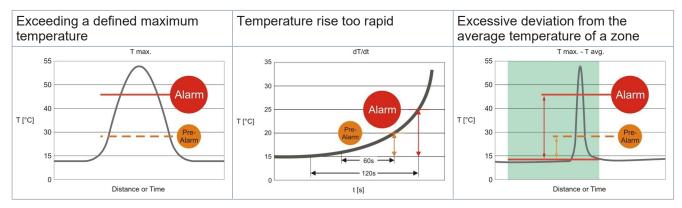
- This module controls the entire device and the measurement process.
- Calculates the temperature profile along the sensor cable based on the received measurement data.
- Manages the 4 integrated inputs (optional 40), which are used for resetting and forwarding external alarms or monitoring functions.
- Controls the 12 outputs (optionally 106) which are used to forward alarms and malfunction reports to a fire alarm control panel.
- The USB or Ethernet interface is used for commissioning. As an option a PC can be connected to the interface to display zones and/or the temperature profile (visualization software FibroManager).
- Protocols of previous generation Controllers are supported (OTS-100, OTS-X).

Power supply

- The power supply supplies all components of the controller with the necessary operating voltages.
- Controller selectable as DC 24 V (standard) or AC 115/230 V (optional).

Alarm criteria

The FibroLaser allows three different alarm criteria.



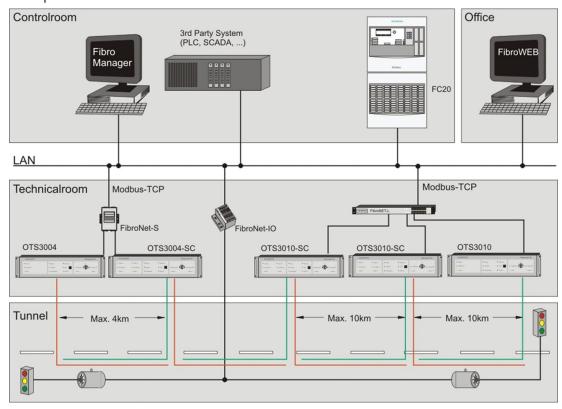
Use

Linear heat detectors are mainly used for applications in road tunnels and railway tunnels. The FibroLaser is also suitable for the monitoring of:

- Conveyor belts
- Underground mining transport systems
- Parking garages
- Industrial production facilities
- Theaters and operas
- Cable trays und cable ducts
- Escalators in subways and shopping centers
- Potentially explosive areas in refineries (Ex version)
- Power plants to monitor radioactively contaminated areas (interim storage, pump sump

Planning

Example:



Mechanical data

Controller	19" Rack, 3 units of height
Dimensions (H x W x D)	13.1 x 48.3 x 33.8 cm
Color	grey
Weight	13 kg
Transportation box, dimensions (H x W x D)	Wood, 62 x 43 x 61 cm
Weight (with Controller and Installation set)	35 kg

Electrical data

Operating voltage 24VDC controller (EN 54-22)	DC 1248 V
Mains voltage 115/230VAC controller	AC 100240 V
Maximum power consumption	<25 W (max. 45 W at 60 °C)
Programmable inputs	4 (optional 40)
Programmable outputs (potential-free)	12 (optional 106)
Communication interface	FibroNET (TCP/IP, Modbus TCP/RTU, RS485, RS232)

Optical data

Laser wavelength	1064 nm
Optical connector	E2000 APC / 8°
Laser classification (OTS evaluation unit)	Laser class 1M according to EN60825-1: 2014
Max. measuring distance (OTS30XXS-SC: XX = 01, 02, 04 per measuring channel)	2, 4, 8 km

Laser wavelength	1550 nm
Optical connector	E2000 APC / 8°
Laser classification (OTS evaluation unit)	Laser class 1M according to EN60825-1: 2014
Max. measuring distance (OTS30XX-SC: XX = 01, 02, 04, 06, 10 per measuring channel)	2, 4, 8, 12, 20 km

Ambient conditions

Storage temperature	-35+75 °C
Operating temperature	-10+60 °C
Humidity (no condensation allowed)	≤95 % rel.
Protection category (IEC 60529 / UL50E)	IP41, type 2

Approval

VdS (EN 54-22)	G211076	
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Disposal



The device is considered an electronic device for disposal in accordance with European Directive and may not be disposed of as domestic waste.

- Use only designated channels for disposing the devices.
- Comply with all local and currently applicable laws and regulations.

Smart Infrastructure A6V10323452_f_en

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Technical specifications and availability subject to change without notice.

 Document ID
 A6V10323452_f_en

 Edition
 2022-01-25



Peripheral and Detection Initiating Devices

XMS-Series Manual Pull Stations Addressable & Conventional Models

Architect & Engineer Specifications

- ☐ Single & Dual-Action models
- ☐ Built-in ISOtechnology™
 - Complies with NFPA 72 Class X (Style 7) survivability requirements.
 - Supports up to 252 X-Series isolation peripherals per SLC / DLC
 - Supports up to 30 addressable devices between isolator devices
- ☐ Compatible with current Siemens Fire Alarm Control Units (FACU's)
- □ Low current draw
- ☐ Polarity insensitive (in non-isolation mode) via SureWire technology
- □ Multi-color status LED
- ☐ T-45 reset key
- ☐ Model XMS-2S:
 - Two stage operation via unique activation key
 - o T-45 reset key for device reset
- Minimal mounting depth allowing compatibility with standard single gang electrical boxes in retrofit sites
- ☐ Trouble indication during service and maintenance
- ☐ Single action, Dual-action, and metal versions available
- ☐ French, Portuguese, and Spanish versions available
- □ UL38 Listed
- □ ULC-S528 Listed
- □ RoHS compliant

Product Overview

The XMS-Series of manual pull stations are a complete addressable and conventional pull station portfolio including single action, dual-action, 2-Stage, and metal versions. The addressable versions feature built-in Class X (Style 7) isolation capability for increased system survivability. All models feature a T-45 reset key to match the fire alarm panel enclosure. Addressable models also feature a tri-color status LED to indicate normal, alarm, and trouble status. All models utilize one address.

The manual stations can be commissioned to operate in non-isolation (polarity insensitive) or isolation with Class X mode of operation.

Specifications

Models XMS-S, XMS-D, XMS-DA, XMS-2S, and XMS-M are compatible with Siemens FACPs. The Model XMS-S is a single action pull station in a plastic housing that requires one action by the user to initiate the alarm. Models XMS-D, XMS-2S, and XMS-DA are dual-action pull stations in a plastic housing that require two actions by the user to initiate an alarm. The Model XMS-M is a single action pull station in a metal housing that requires one action by the user to initiate the alarm. These models are field installed addressable devices containing advanced control panel communication technology.

The XMS-Series manual pull stations feature a "maintenance trouble" that places the fire alarm panel into a trouble condition if an XMS is accidentally left in an armed status when the cover is removed for maintenance work.

This technology provides bi-directional communication with the connected control panel. To reset the stations, insert the Siemens T-45 key provided into the key lock and turn the key 10-15 degrees counterclockwise as the arrow shows. The cover will move upward to the normal position. Rotate the key clockwise and remove key from the lock. At Normal position the top of the Cover is flush with the top surface of the Base. Reset the Fire Alarm Control Panel to clear the alarm.

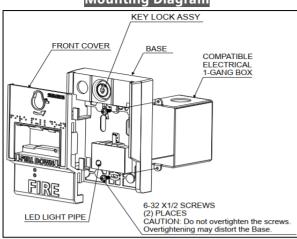
The addressable XMS pull station variants are compatible with all current models of Desigo Fire Safety & Cerberus PRO commercial fire alarm control panels. These devices can be wired in either Isolation Mode or Polarity Insensitive Mode Wiring.



The XMS-S & XMS-M manual station front cover has a recess pocket to pull down and locks in position after the alarm is initiated. The XMS-D, XMS-DA & XMS-2S manual stations have an additional lever labeled "PUSH HERE THEN" to get access to the front cover pocket to initiate the alarm.



Mounting Diagram



Technical Data	
Operating Voltage Range	13 - 32VDC
Max Average Operating Current @ 24v:	500µA
Operating Temperature Range	32° — 120°F (0° — 49°C)
Operating Humidity Range	0 — 95%, RH

Physical Properties	
Construction:	High impact polycarbonate plastic
	Aluminum
Shipping Weight:	1.0 lbs
Dimensions:	5.50" H x 4.0" W x 1.250" D
Compliance:	ADA
Compatible Electrical Boxes:	2-1/2" deep 1-gang box





Order Details		
Model or Type	Part Number	Description
XMS-S	S54321-F7-A1	Addressable Single Action Manual Pull Station with Isolation
XMS-D	S54321-F8-A1	Addressable Dual-Action Manual Pull Station with Isolation
XMS-M	S54321-F19-A1	Addressable Single Action Metal Pull Station with Isolation
XMS-SP	S54321-F9-A1	Addressable Single Action Manual Pull Station with Isolation - Portuguese Text
XMS-DP	S54321-F10-A1	Addressable Dual-Action Manual Pull Station with Isolation - Portuguese Text
XMS-SE	S54321-F11-A1	Addressable Single Action Manual Pull Station with Isolation - Spanish Text
XMS-DE	S54321-F12-A1	Addressable Dual-Action Manual Pull Station with Isolation - Spanish Text
XMH-501	S54321-F18-A1	Conventional Dual-Action Manual Pull Station for Agent Release
XMS-501	S54321-F16-A1	Conventional Dual-Action Manual Pull Station
XMS-51	S54321-F15-A1	Conventional Single Action Manual Station with Auxiliary Relay and Key Switch
SMBOX-XMP	S54321-F20-A1	Surface Mounting Backbox for X-Series Manual Stations
APLT-XMP	S54321-F21-A1	Adapter Plate for X-Series Manual Stations to Legacy Surface Backboxes
4DGBOX- XMP	S54321-F22-A1	Adapter Plate for X-Series Manual Stations to 4" and Double-Gang Backboxes

Specific Details for Canadian Orders

Model or Type	Part Number	Description
XMS-DA	S54321-F13-A1	Addressable Dual-Action Manual Pull Station with Isolation and Auxiliary contact – French Text
XMS-2S	S54321-F14-A1	Addressable 2-Stage Dual-Action Manual Pull Station with Isolation and Auxiliary contact – French Text
XMS-51C	S54321-F23-A1	Conventional Dual-Action Pull Station with Auxiliary contact – French Text

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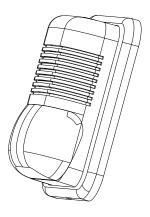
Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

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une - 2023 (Rev. 2)

SIEMENS



FDS183C-EN Audible and visual fire alarm User manual

Overview

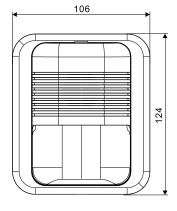
The audible and visual fire alarm FDS183C-EN can send audible and visual alarm signals when connected with a DC 24 V power supply. It can be used with bus fire alarm controller via I/O module, and also can be combined with gas fire alarm to create a gas fire alarm system. When an accident occurs, the I/O module receives the start signal from the controller and drives the audible and visual alarm to send dazzling flashing signals and harsh audible alarm signals that alert the field personnel to quickly understand the occurrence of a fire on site and take measures for evacuation as soon as possible, thus avoiding major accidents.

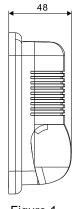
FDS183C-EN is designed for audible and visual alarm at the scene of accident, and can be used in public space, hotels, entertainment venues, factories, shopping malls, hospitals, schools, office buildings, stock exchanges and other places, especially the locations with low visibility or smoke production.

Features

- Top cover and base structure for easy design, installation, commissioning and maintenance
- Loud and clear alarm sound able to alert field personnel at distance
- Several ultra-bright white light-emitting diodes as the light source for striking optical display, long lifetime and low power consumption

Product appearance and dimensions (mm)





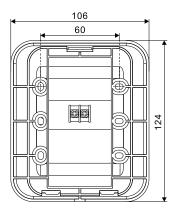
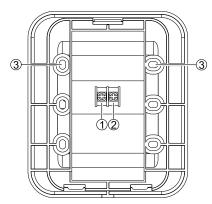


Figure 1

Installation and Commissioning

FDS183C-EN is mounted on a special base, as shown in Figure 1, and has dimensions of $106 (L) \times 124 (W) \times 48 (D)$ mm. It adopts the two-wire system for connection. The 24 V and 0 V terminals are connected with terminal 1 and terminal 2 respectively, the output of which is controlled by the I/O module. The terminals and their connection modes are shown below:



Item	Name	Description
1	24 V	Connect with power line
2	0 V	Connect with power line
3	Mounting holes	Any 2 of the 6 mounting holes can be selected for installation

Figure 2

- 1. Specific installation and commissioning method: As indicated in the construction drawings, use two M4 screws to run through the mounting holes as shown in Figure 2 (optional horizontal or vertical installation mode; any 2 of the 6 mounting holes can be selected), fix the supporting base to the specified position, and confirm that the base has been firmly installed.
- 2. Power off the controller and connect all bases correctly according to the construction drawings. **Note:** When there are many audible and visual alarms in the system, the carrying capacity of the controller should be considered. In this case, external DC 24 V auxiliary power source may be required, which is subject to the construction design drawings.
- 3. Check whether the type of audible and visual alarm matches the type indicated on the construction drawings; and connect the audible and visual alarm with the I/O module.
- 4. After the installation of all audible and visual alarms completed and confirmed, power on the controller.
- 5. When receiving action signals, the audible and visual alarm sends audible and visual alarm signals; and when the system is reset, the audible and visual alarm will stop to output audible and visual alarm signals.

Maintenance and testing

In accordance with GB 50166-2019 Standard for Installation and Acceptance of Automatic Fire Alarm System, the audible and visual alarm shall be tested at least once a quarter.

Fault analysis and troubleshooting

Fault	Causes	Action
Failure to send audible and visual alarm	Wiring error	Check whether the wiring is correct
signals	Internal circuit failure	Return to the factory for repair

Technical data

Standard	GB 26851 – 2011
Operating voltage	DC 24 V (Allowance range: 20 V28 V)
Operating current	Alarm current ≤ 35 mA @ DC 24 V
Working conditions	Temperature: 0 °C+55 °C, Relative humidity: ≤95% (40 °C, no condensing)
Flash rate	1.0 Hz2.0 Hz
SPL	75 dB120 dB
Modulation cycle	1.0 s2.6 s
Wire	Two-wire system, power lines (24 V, 0 V)
Connection mode	Connect with fire alarm controller via I/O module

Beijing Siemens Cerberus Electronics Limited No.1,Fengzhidonglu, Xibeiwang, HaiDian District, Beijing, 100094, China

Tel: +10 6476 8806 Fax: +10 6476 8899 © Beijing Siemens Cerberus Electronics Ltd. 2021 Data and design subject to change without notice.

SIEMENS

Peripheral and Detection Devices Initiating Device

Intelligent Device Interface Modules Model XTRI-D | XTRI-R | XTRI-S

Architect & Engineer Specifications Product Overview

- □ Siemens ISOtechnology™
 - Provides "True Class-X" operation meeting NFPA 72 SLC field wiring requirements
 - Supports 252 ISOtechnology ready devices per loop, and in mixed mode up to 30 devices between isolated devices
- Dual input on Model XTRI-D, via a single address
- Integral single-pole, double-throw (SPDT) relay on Model XTRI-R:
 - Up to 4 Amps.
- Low current draw
- Polarity insensitive (in non-isolation mode) via SureWire™ technology:
 - Modern technology supports comprehensive system and interface communication
- Multi-color light-emitting diode (LED) indicates system status: GREEN | AMBER | RED
- Mounts in a 4-inch (10.2 cm.) square, 2-1/4" (5.7 cm.) deep single-gang or doublegang back box
- Non-obstructive front-end access to programming port and wiring terminals
- Device Programmer | Test Unit programs and verifies address, as well as tests device functionality
- **Restriction of Hazardous Substances** (RoHS) compliant
- UL864 | UL2572 | UL2017 Listed; CAN/ULC-S527 & CAN/ULC-S576 Listed
 - File S24304, Vol. 3
- FM Approved

The Siemens – Fire Safety XTRI-series Intelligent Interface Modules are designed to provide the means of interfacing direct shorting devices to the fire-alarm control panel (FACP) SLC. All modules take up one (1) address on the loop.

Each XTRI-series interface module provides the "built-in" ISOtechnology feature intelligent dual isolation meeting NFPA 72 Class X (Style 7) wiring requirements. Up to 252 isolators per loop and up to 30 devices between isolators (wired in polarity-insensitive mode). Additionally, the devices between isolators can either be 'H'-series or the more contemporary 'X'-series detection devices.

Specifications

The Siemens – Fire Safety XTRI-series Intelligent Interface Modules are available in three (3) individual types:

- One (1) Dual-Input: XTRI-D
- Two (2) Single-Inputs: XTRI-R (with relay) | XTRI-S
 - The single-input versions are each designed to monitor a normally open (N.O) or (N.C) normally closed dry contact

XTRI-D | XTRI-R | XTRI-S incorporates ISOtechnology – the configurable, built-in dual isolator function. Additionally, an XTRI-series interface module supports NFPA 72 Class X (Style 7) survivability requirements for shorts while providing reliable alarm communication to the Siemens FACP. The isolation feature found on the XTRI-series Intelligent Interface Modules gives information as to the location of the fault. When a short occurs, the panel can identify the fault automatically, and the module recognizes the short location (in front of the device or behind the device). Overall, the built-in isolators improve the diagnostics and location of the problem, including a short.

The modules are configurable by a Siemens compatible FACP (or panels) in an isolator (polarity sensitive) or non-isolator (polarity insensitive) mode. When a XTRI-series interface module is configured as an isolator, that module has the capacity of functioning as both an in/out device, as well as an isolator.

Advanced troubleshooting is provided by compatible panels by identifying when a XTRI-series interface module is configured as an isolator, but is wired incorrectly in a polarity-insensitive mode.

Each Model XTRI-series device has a multi-color LED that flashes when GREEN operating in Normal mode; AMBER if the unit is in a `Trouble' condition, and RED to indicate a change of status.

Model XTRI-S

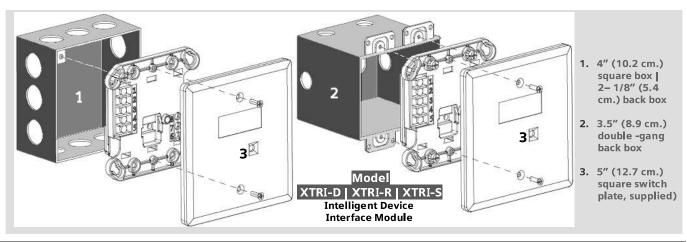
This single-input interface module can only monitor and report the status of a N.O. or N.C. contact.



XTRI-D | XTRI-R | XTRI-S Intelligent Device **Interface Module**

Data Sheet 6167

RoHS ROHS (C)



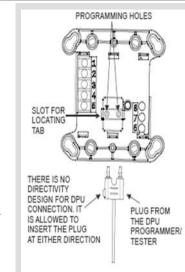
Specifications (cont.)

Model XTRI-R

Through the use of an addressable 'Form C' relay, the Model XTRI-R relay and contact device input are controlled at the same address. The relay and input contact can be controlled as a separate function from a Siemens compatible FACP. The relay is typically used where control or shunting of external equipment is required.

Model XTRI-D

Model XTRI-D is a dual-input module that is designed to supervise and monitor two (2) sets of dry contacts. Model XTRI-D only requires one (1) address, but responds independently to each input. Model XTRI-D is ideal for monitoring a water-flow switch and its respective valve tamper switch.



NOTES:

Each interface module mounts directly to a user-supplied switchbox.

The electrical boxes, seen above, are supplied-by-others (BO).

Models XTRI-D, XTRI-R and XTRI-S mount directly onto a 4-inch (10.2 cm.) square, 2 ¼" (5.7 cm.)—deep box back box, or to a user-supplied double-gang 3 ½" deep back box.

A 5" (12.7 cm.) square, off-white faceplate is included in each shipment of a Siemens Model XTRI-series module.

Operation

Field-Device Programmer / Test Unit

Siemens – Fire Safety innovative technology allows Model XTRI-series intelligent interface modules to be programmed via the Siemens field-device programmer / test unit (Model DPU), which is a compact, portable and menu-driven accessory for electronically programming and testing Siemens peripheral modules and devices promptly and reliably. For instance, the field technician selects the accessory's program mode, and enters the desired address.

Model XTRI-series interface module is connected to Model DPU with the programming cable provided with the tester.

NOTE: Since the XTRI-series of interface modules are advanced initiating devices, the latest Model DPU firmware update is required.

Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods (e.g. – dials and rotary switches), and reduces installation and service costs by electronically programming and testing the module prior to installation. When set in `test' mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the module is operating properly.

Each field-device programmer / test unit operates on AC power or rechargeable batteries, providing flexibility and convenience in the programming / testing of fire-safety equipment from practically any location. Additionally, with the use of a Model DPU unit, there is no longer a cause for concern with any vibration, corrosion and other deteriorating conditions that could negatively affect any electro-mechanical-addressing mechanism.

Compatibilities

Siemens `X' modules may be used along with Model `H'-series intelligent detectors; Model `HMS'-series addressable manual stations, or any other `H'-series addressable intelligent module (e.g. Model HZM or Model HCP). Additionally, the X-series modules are compatible with all Design and Cerberus Pro detectors and peripherals of the same circuit.

Interspersing `X' & `H'-series devices on the same loop is mostly permitted, but there are exceptions: Models HLIM (isolation module) and SBGA-34 (audible base) cannot be used with `X' devices on the same loop.

Temperature and Humidity Range

Models XTRI-D | XTRI-R | XTRI-S intelligent interface modules are UL Listed | ULC Listed. Environmental operating conditions for each interface module is 32°F (0°C) to 120°F (49°C) with a relative humidity of no greater than 95%, non-condensing.

LED Iindicators

FLASH COLOR	CONDITION	FLASH INTERVALS [in seconds]
GREEN*:	Normal supervisory operation	10
YELLOW:	Device is in trouble and needs to be replaced	4
RED:	Locate `Alarm'	1
KED:	Output Device (XTRI-R only)	10
NO FLASH:	Power is not being received / Replacement is needed	-

Technical Data				
OPERATING VOLTAGE RANGE:	13VDC – 32VDC			
RELATIVE HUMIDITY:	0 – 95% (non-condensing)			
`ACTIVE' OR `STANDBY' CURRENT, MAX.:	500μΑ			
LINE SIZES AMERICAN WIRE GAUGE (AWG)	14 AWG, max. 18 AWG, min.			
	XTRI-S	650µA		
CURRENT DRAW MAX AVG.	XTRI-R	750µA		
MAX AVG.	XTRI-D	950µA		
11-2711 13	RELAY RATINGS: (for Model XTRI-R)			
DECICEIVE.	4 Amps 125 VAC			
RESISTIVE:	4 Amps 30 VDC			
	3.5A, 120 VAC (0.6 pF)			
	3.0A, 30 VDC (0.6 pF)			
INDUCTIVE:	2.0A, 120 VAC (0.4 pF)			
	2.0A, 120 VAC (0.35 pF)			

Details for Ordering			
MODEL OR TYPE	PART NUMBER	PRODUCT	
XTRI-S	S54370-B3-A1	Single Input Module	
XTRI-R	S54370-B1-A1	Single Input Module (with relay)	
XTRI-D	S54370-B2-A1	Dual Input Module	
DPU	500-033260	Device Programmer / Test Unit	

<u>NOTE</u>: Refer to installation manual: P/N – A6V101055479 to ensure Model XTRI-D | XTRI-R | XTRI-S compatibility with the Siemens FACPs intended for use in the given application.

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice.

The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

2.0A, 30 VDC (0.35 pF)

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

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October - 2023 (Rev. 5)





Sinteso™ / Cerberus™ PRO

ASD Aspirating smoke detector

FDA261, FDA262



Siemens aspirating smoke detector (ASD) for the addressed FDnet/C-NET detector line or for standalone operation

- Patented technology
- Early detection of a wider spectrum of particle sizes in the air
- Two independent detection chambers
- Configuration via a wireless interface using an app
- 'ASD Asyst Tool' software to assist with pipework configuration
- Intuitive front indicator for airflow and smoke value
- Cloud-enabled
- Modular design
- Different event protocols
- Offline/online configuration supported
- Slots for additional relay and 4...20mA cards



- Extended optical detection thanks to dual wavelengths (blue and infrared): The aspirating smoke detectors FDA26x use dual-wavelength technology to trigger an alarm at the earliest possible moment. They are designed to protect a huge range of equipment for monitoring areas of up to 6700 m².
- The detectors continually suck in air through a pipe system via their aspirating holes. The air is fed into a patented detection chamber, in which tiny smoke particles are detected by scattered light.
- Lower mounting and service costs: The aspirating smoke detectors FDA26x can be used on an FDnet/C-NET detector line.
- The aspirating smoke detectors FDA26x are configured via a wireless interface or a USB interface using an app. All detector configurations, maintenance work, and alarm and fault management processes can be carried out on the device directly.
- 'Out-of-the-box' mounting and commissioning: Installation is simple thanks to combined functions for normalizing smoke values and airflow, as well as appropriate presettings for alarm and fault thresholds.
- ASD filter box FDAZ292 available as an accessory: Dust and other dirt is filtered out of the aspirated air and does not get into the aspirating smoke detector. The filters in the ASD filter box are easy to replace.
- Detection chambers and aspirators are replaceable.
- The display can be rotated by 180° for mounting.

Use

Using aspirating smoke detectors

Aspirating smoke detectors are used for early detection of smoke-generating fires in rooms and equipment. They are suited to applications in which point detectors are pushed to their limits, cannot be used or can only be used with restrictions.

The aspirating smoke detector continually removes air from the room being monitored through the connected pipe systems via defined aspirating holes. The air is supplied to the detection chambers, where detectors analyze it for smoke particles. The sensitivity of the detectors can be adjusted.

The 'FXS2056 ASD Asyst-Tool V3' software calculates the position and size of the aspirating holes. The calculation ensures that the air passes from the aspirating hole to the detector in the time specified and with the calculated sensitivity.

Examples of use

- · Cavities such as false ceilings or false floors
- Clean rooms
- Rooms the height of which is greater than that permitted for point detectors
- Rooms with electromagnetic fields which influence the function of point detectors
- Large rooms such as storehouses or factory halls
- Separate monitoring of control cabinets and electronics cabinets
- Data centers
- Telecommunication centers
- Assembly lines
- Cable tunnels
- Conveyor belts

Applications with a filter box

- Rooms with polluted air in which the pollution has impaired the performance of optical point detectors
- Assembly lines
- Recycling facilities
- Cement factories
- Mining industry

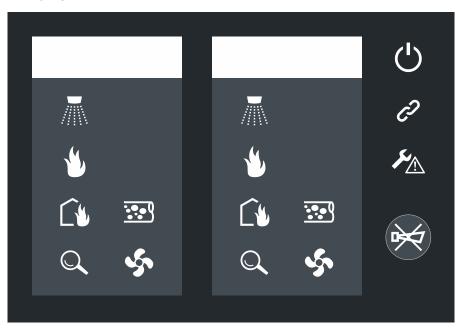
- Subway stations
- Agricultural operations
- All other applications with visible dust load

Functions

Front indicator

The front indicator shows device statuses.

- Alarm level
- Dust
- Airflow
- Label field
- Operation
- Connection
- Fault
- Buzzer



Status indicators

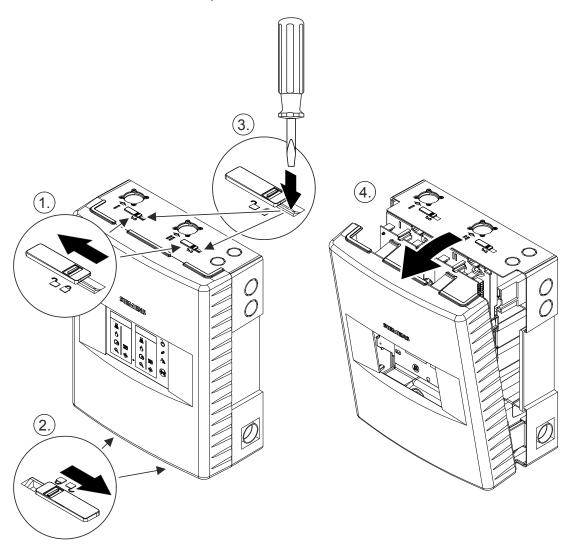
		Label fie	ld		
/#\\	Fire 2			(h)	Operation
4	Fire 1			C ²	Connection
	Pre-alarm	***	Dust	F	Fault
Q	Early warning	Ş	Airflow		Service button

Opening the aspirating smoke detector

Open the housing to access the service area:

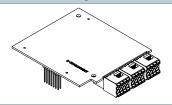
- Move two sliders at the top and bottom into the \times position.
- Push in the two lugs at the top with a screwdriver.

Tilt the cover forward at the top and remove.



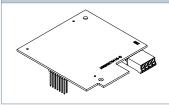
Accessories

FDAZ295 relay card



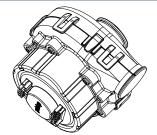
- Accessory for the aspirating smoke detectors FDA261, FDA262
- Extension card with 6 relay outputs

FDAZ296 4...20mA card



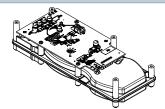
- Accessory for the aspirating smoke detectors FDA261, FDA262
- Extension card with two 4...20 mA outputs

FDAS292 aspirator (FDA261, FDA262)



- Spare part for the aspirating smoke detectors FDA261, FDA262
- Brushless DC motor (with ball bearing)

FDAS291 detection chamber (FDA261, FDA262)



- Spare part for the aspirating smoke detectors FDA261, FDA262
- Calibrated detection chamber for replacement on-site

Power supply kit FP120-Z1



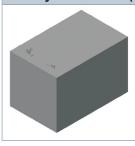
- Standalone power supply (70 W)
- Supply to external devices and components as per EN 54-4 and VdS
- With operating and fault indicator, shown via a green and a yellow LED
- With potential-free relay contacts for fault messages
- Additional installation of an I/O module possible
- Uninterruptible power supply with battery charging
- Batteries: max. 17 Ah
- Dimensions: (W x H x D) 430 x 399 x 124 mm

Battery FA2003-A1 (12 V, 7 Ah, VdS)



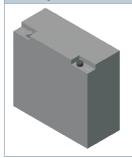
- For supplying power to fire control panels and aspirating smoke detectors
- Compatible with:
 - Fire control panels for the 'Sinteso' and 'Cerberus PRO' product lines
 - External power units for the aspirating smoke detectors

Battery FA2004-A1 (12 V, 12 Ah, VdS)



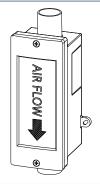
- For supplying power to fire control panels and aspirating smoke detectors
- Compatible with:
 - Fire control panels for the 'Sinteso' and 'Cerberus PRO' product lines
 - External power units for the aspirating smoke detectors

Battery FA2005-A1 (12 V, 17 Ah, VdS)



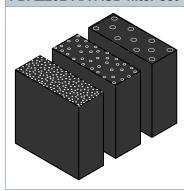
- For supplying power to fire control panels and aspirating smoke detectors
- Compatible with:
 - Fire control panels for the 'Sinteso' and 'Cerberus PRO' product lines
 - External power units for the aspirating smoke detectors

FDAZ292 ASD filter box



- Filter box for installation in the pipe system for aspirating smoke detectors
- Filters dust and other dirt out of the air aspirated by the aspirating smoke detector
- Minimizes internal contamination of the aspirating smoke detector
- Contains filter set FDAZ292-AA with three filters, coarse, medium, fine
- Compatible with the aspirating smoke detectors
- You will find more information in document A6V10877841

FDAZ292-AA ASD filter set



- Spare part for the ASD filter box FDAZ292
- Filter set contains one coarse filter, one medium filter, and one fine filter

Type Overview

Туре	Designation	Order number	Weight [kg]	
FDA261	Aspirating smoke detector	S54333-F101-A1	2.625	
FDA262	Aspirating smoke detector	S54333-F102-A1	2.625	
Accessories				
FDAZ295	Relay card	S54333-B105-A1	0.045	
FDAZ296	420mA card	S54333-B106-A1	0.025	
FP120-Z1	Power supply kit A (70 W)	S54400-S122-A1	3.920	
FA2003-A1	Battery (12 V, 7 Ah, VdS)	A5Q00019353	2.450	
FA2004-A1	Battery (12 V, 12 Ah, VdS)	A5Q00019354	3.930	
FA2005-A1	Battery (12 V, 17 Ah, VdS)	A5Q00019677	5.640	
FDAZ292	ASD filter box	S54333-C92-A1	0.220	
Spare parts				
FDAZ292-AA	ASD filter set	S54333-S91-A1	0.009	
FDAS292	Aspirator	S54333-B12-A1	0.120	
FDAS291	Detection chamber	S54333-B11-A1	0.230	

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Product documentation

Document ID	Title
008331	List of compatibility (for 'Sinteso™' product line)
A6V10229261	List of compatibility (for 'Cerberus™ PRO' product line)
A6V10393194	Technical manual Power supply kit A 70 W FP120-Z1
A6V11783043	Technical manual Aspirating smoke detector FDA261, FDA262
A6V11783970	Mounting, Installation Aspirating smoke detector FDA261, FDA262
A6V11783979	Planning, Installation ASD Pipe system
A6V11783989	Configuration Aspirating smoke detector FDA261, FDA262
A6V11784000	User Manual 'ASD Asyst Tool V3 FXS2056'

Related documents such as the environmental declarations, CE declarations, etc., can be downloaded from the following Internet address:

www.siemens.com/bt/download

Notes

Disposal



This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation.

For additional details, refer to Siemens information on disposal.

Technical data

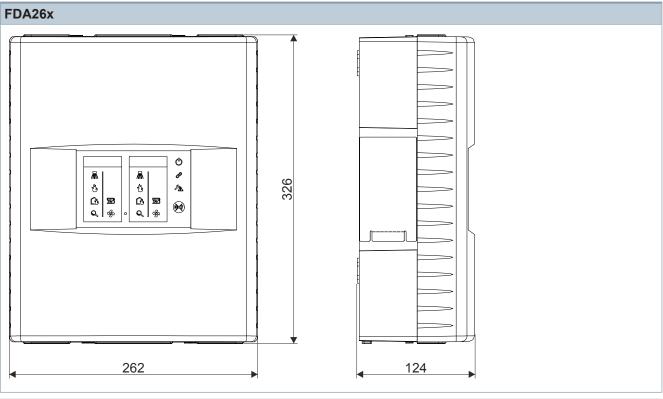
	FDA261	FDA262
Operating voltage	DC 1930 V	DC 1930 V
Typical operating current: Typical pipe system Aspirator set to 'Medium'	Normal operation: 230 mA Alarm: 250 mA	Normal operation: 280 mA Alarm: 300 mA
Operating voltage DC 24 VBrightness set to		
'Medium'		
Operating temperature	-20+60 °C	-20+60 °C
Air humidity	595 % (no moisture condensation)	595 % (no moisture condensation)
Monitoring area (in accordance with local specifications and standards)	3600 m ² Class A: 2000 m ²	6700 m ² Class A: 3000 m ²
Alarm ranges for detection:	0.00420 %/m obs	0.00320 %/m obs
Maximum pipe lengthSingle pipe (per air inlet)	150 m	250 m
Entire pipe system	800 m	1200 m
Maximum number of aspirating holes	2 × 60	2 × 125
Maximum altitude	4000 m above sea level	4000 m above sea level
Protection category	IP30	IP30
Installation position	Vertically upward, vertically downward	Vertically upward, vertically downward
Dimensions (W x H x D)	262 x 326 x 124 mm	262 x 326 x 124 mm
Air intake pipe, exhaust pipe	Outer Ø 25 mm Inner Ø 21 mm	Outer Ø 25 mm Inner Ø 21 mm
Options for aspirating holes	Prefabricated option or maximum pipe length corresponding to the calculation made using 'FXS2056 ASD Asyst-Tool V3'	Prefabricated option or maximum pipe length corresponding to the calculation made using 'FXS2056 ASD Asyst-Tool V3'
Sound power level ¹ depending on the aspirator level	'High': 43 dBA 'Medium': 38 dBA 'Low': 34 dBA	'Extreme': 51 dBA 'High': 47 dBA 'Medium': 41 dBA 'Low': 37 dBA 'Silent': 36 dBA
Cable inlet	Rear, top, side	Rear, top, side
System compatibility Communication	FC20xx/FC72x (FS20/FS720) FDnet/C-NET	FC20xx/FC72x (FS20/FS720) FDnet/C-NET
3 relay alarm outputs	Can be selected with/without self-retention Nominal current 2.0 A at DC 30 V Can be selected: normally open contact/normally closed contact (NO/NC)	Can be selected with/without self-retention Nominal current 2.0 A at DC 30 V Can be selected: normally open contact/normally closed contact (NO/NC)
1 fault relay	Nominal current 2.0 A at DC 30 V Normally closed contact (NC)	Nominal current 2.0 A at DC 30 V Normally closed contact (NC)

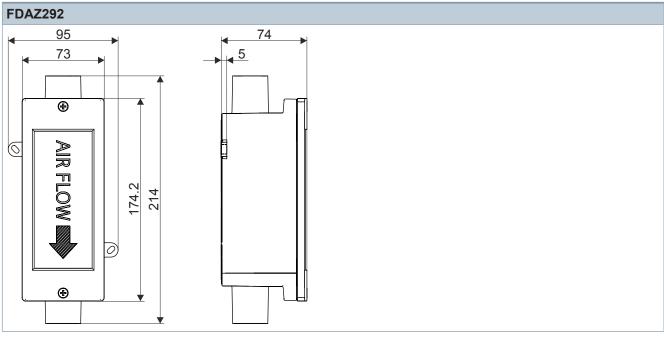
8 Smart Infrastructure A6V11783944_en--_b

	FDA261	FDA262
GPI: Connection of	Can be selected: inverted/not inverted	Can be selected: inverted/not inverted
external pushbuttons 3 inputs	Can be selected: with/without monitoring for open line or open line and short-circuit	Can be selected: with/without monitoring for open line or open line and short-circuit
	Monitoring voltage DC 3 V	Monitoring voltage DC 3 V
	Max. line resistance 20 Ω	Max. line resistance 20 Ω
Terminals	Push-in connector	Push-in connector
Cable cross section:		
 Power supply 	0.22.5 mm ² flexible (AWG 1230)	0.22.5 mm ² flexible (AWG 1230)
ED VONET	0.21.5 mm ² rigid	0.21.5 mm ² rigid
 FDnet/C-NET, relay, GPI 	0.21.5 mm² flexible/rigid	0.21.5 mm ² flexible/rigid
Interface (accessories)	Relay card with 6 outputs	Relay card with 6 outputs
FDAZ295	Can be selected with/without self- retention	Can be selected with/without self- retention
	 Nominal current 2.0 A at DC 30 V 	Nominal current 2.0 A at DC 30 V
	Can be selected: normally open contact/normally closed contact (NO/NC)	Can be selected: normally open contact/normally closed contact (NO/NC)
Interface (accessories)	420mA card with 2 outputs	420mA card with 2 outputs
FDAZ296	Polarity invariant	Polarity invariant
	Electrically isolated	Electrically isolated
	• DC 1030 V	• DC 1030 V
Dust indicator	Yes	Yes
Indication	4x alarm status indicator	4x alarm status indicator
	Faults	Faults
	Dust	Dust
	Connection status	Connection status
Service area	'Status OK' LED	'Status OK' LED
	USB-C	USB-C
	Settings: reset function	Settings: reset function
	Settings: smoke density, airflow	Settings: smoke density, airflow
Normalization: smoke value, airflow	Settings: threshold values for smoke alarms and faults	Settings: threshold values for smoke alarms and faults
	Settings: smoke density and airflow	Settings: smoke density and airflow
	During normalization: preset values are retained.	During normalization: preset values are retained.
Event log: time and date	Non-volatile internal event memory:	Non-volatile internal event memory:
specified (max. 40000 entries)	smoke density, airflow, detector status, faults	smoke density, airflow, detector status, faults
Warranty period	2 years	2 years
Standards	EN 54-20 A, B, C	EN 54-20 A, B, C
	EN 54-17	EN 54-17
Approvals		
• VdS	G222039	G222039

A-weighted sound power level [dB] as per DIN EN ISO 3744-2010. Measured values are typical values, measured with a pipe piece at the air inlet and at the air outlet.

Dimensional drawings





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