SIEMENS
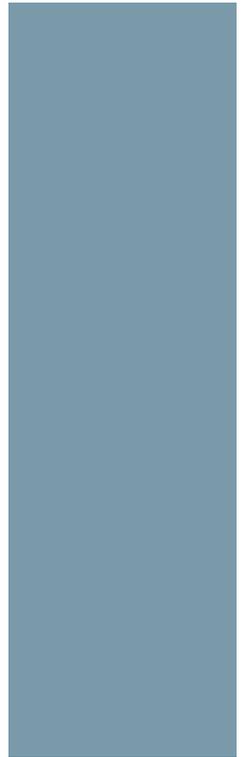
Cerberus PRO – enjoy protecting

A comprehensive fire protection system.

Answers for infrastructure.

Cerberus PRO – enjoy protecting

Protecting people and assets. Securing business processes and continuity. This is what fire protection is all about. Cerberus® PRO is a powerful fire protection system for fast, reliable fire detection, alarm signaling, and control. Its wide portfolio of innovative products provides clever technology with extensive safety features for small to very large applications. So you can be sure to meet your application with confidence.

Moreover, detectors with our unique **ASA***technology*™ offer advanced signal analysis and selectable parameter sets. As a result, they ensure very fast and highly reliable detection of the fire criteria smoke, heat, and carbon monoxide even in the most demanding application areas – from data centers to industrial production facilities. For you this means maximum safety and optimal protection of people and assets, without false alarms.

Meeting your requirements

■ **Protecting people and assets reliably with products from Siemens**

The Cerberus PRO family comprises different control panels, fire detectors, peripheral devices, and accessories. They all have one thing in common: smart, unique safety features.

■ **Maximizing safety through earliest detection**

A detector for any type of fire as well as for carbon monoxide concentrations. Thanks to our unique **ASA***technology*, Cerberus PRO provides detectors with excellent detection reliability and protection against false alarms – even in highly demanding environments. The clou: selectable parameter sets and dynamic algorithms that interpret signals in real time.

■ **Creating networks in various sizes**

Cerberus PRO is a straightforward fire protection system. It offers all from standalone to networkable control panels. The uniform hardware concept of the control panels facilitates the planning process. Even large, campus-wide networks can be easily realized with little additional planning. The industrial LAN technology also enables you to optimally adapt Cerberus PRO to any building or process structure. In addition, Cerberus PRO can be integrated into your existing IT network. Commissioning of the system is safe and easy thanks to auto-configuration. This function enables instant fire protection during the construction phase, supporting on-time hand-over of buildings.

Moreover, Cerberus PRO can be integrated into the danger management system from Siemens. You can integrate fire protection with other security-related subsystems such as access control or intrusion detection from Siemens. Your benefit: All solutions follow the same philosophy, as all come from one source.

■ **Planning and commissioning made easy and cost-efficient**

Whatever the project size or requirements, with Cerberus PRO they can be easily realized with little additional planning effort. For example the floor repeater terminals are loop-powered which results in less planning regarding connection and power supply. The networkable control panels allow easy network expansion at a later point in time.

Enhanced remote operating functions are available for system diagnosis and monitoring. They reduce on-site visits and thus save valuable time.

■ **Relying on experience**

Siemens is known for innovation power, technology leadership, and high quality. We were the first manufacturer to offer automatic fire detectors. Our products are backed by decades of experience and know-how. We will continue to further extend our Cerberus PRO product portfolio. Compatibility of all future add-ons is a matter of course – making Cerberus PRO a safe investment.

Highlights

■ Unique detection reliability and protection against false alarms – thanks to **ASA***technology*

■ Smart, unique safety features – such as built-in isolators and integrated degrade mode

■ Safe and easy commissioning – thanks to auto-configuration

■ Integration into the danger management system from Siemens possible

■ Extended network possibilities for widely distributed or complex buildings

■ Easy planning – even for campus-wide networks

■ Cerberus PRO portfolio – reliable, high-quality products from Siemens

– Audible alarm only
– Any alarm causes the whole building to evacuate
– Programming may be limited to customer texts only

– Simple audible alarm
– Fire brigade communication concept
– Verification mode when system is manned
– Pre-configured

Ensuring comprehensive safety with powerful panels

Cerberus PRO fire control panels combine high security standards with the latest technology. Competitive for simple applications, yet powerful enough for every application – they are the ideal choice whatever the size and complexity of your project.

■ Protecting the smart way
Cerberus PRO protects people and assets right from the start. Thanks to auto-configuration even during the construction phase. How does it work? The control panels automatically configure and import data from all connected detectors and peripheral devices. They also automatically assign them to zones.

In addition, all control panels have an integrated degrade mode. This means that even in case of processor failure, the detector communicates an alarm to the panel, setting off all connected sounders including loop sounders. It also activates the remote transmission to the fire brigade and sets the I/O to the predefined status.

Control panels and fire terminals also offer a standby functionality. In case the connection to the management station or to another station should fail, they take over display and operation functionality.

Thanks to the integrated short circuit isolator in every fire detector, sounder, I/O, other peripheral devices, and even in floor repeater terminals, open or short circuits can be easily located. So you see, Cerberus PRO offers smart safety features for very high safety.

■ Realizing solutions simply and quickly
Cerberus PRO provides a competitive range of control panels. They all offer unique features aimed at putting a system into operation quickly and safely from one access point. If parameter sets of detectors in certain rooms or areas have to be adjusted, this can be easily done manually at the control panel thanks to smart assignments. The neat plug-and-play system allows on-time hand-over.

■ Creating very large and complex networks
With Cerberus PRO, you can protect very large and complex campus facilities. Powerful cause and effect programming allows solutions with the added benefit of full EN 54 compliance. This enables you to protect people and assets in a fully automated way and with a specific timing pattern – for example phased evacuation within shopping centers or the integration of smoke and fire damper controls within high-rise buildings.

In addition, Cerberus PRO offers an EN 54-approved, industrial LAN technology – also called backbone (C-WEB/LAN). Up to 14 clusters can be connected to a backbone and up to 64 panels can be networked. Cerberus PRO can be optimally adapted to any building or process structure, and campus-wide solutions can be easily realized. Over-voltage-immune fiber-optic cables ensure highest possible system availability and make the backbone a cost-efficient solution. Moreover, one central access point is sufficient to connect the entire system to a remote transmission to the fire brigade, pager, and a danger management system.

Plant control

- Plant control shuts off, ventilation systems shut down, doors controlled, and lifts returned
- Some plants may only be shut down after a time delay or if fire is detected in a particular area
- Basic cause and effect programming required

Phased evacuation

- Areas most at risk are evacuated first, followed by adjacent areas
- Phases can be preset via timing functions
- They can also be manually overridden by security staff or fire brigade
- Sophisticated cause and effect programming required

Smoke and fire damper control

- Smoke control systems and fire dampers are activated
- Dampers, smoke controls, ventilation motors etc. are monitored to warn user of any critical device that has failed
- Intensive programming from a complex cause and effect matrix required

■ **Operating control panels intuitively for greater comfort**

Emergency situations are stressful situations. However, quick and reliable action is essential to save people and assets. This is why Cerberus PRO control panels and fire terminals are easy and intuitive to operate. They display the required information in a comprehensible way – centrally or locally on floor level. In the event of an alarm, customized intervention texts facilitate correct actions.

Remote operation via Ethernet allows control of your system from any location, for example if you want to isolate a zone for maintenance work. You can also evaluate the system status remotely and initiate appropriate actions if necessary. All this can be done with a standard PC. And less on-site visits increase cost efficiency.

■ **Integrating Cerberus PRO into the danger management system from Siemens**

All Cerberus PRO networkable control panels can be easily integrated into the danger management system from Siemens. The benefits are many, including guided alarm treatment, navigation on floor plans or with menu trees, a history database for further analysis, and integration with other security-related systems.

Highlights

■ Protect people and assets from the start – with auto-configuration

■ Panels have integrated degrade mode – to communicate alarms even in case of a failure

■ Remote access via Ethernet – to operate systems from any location

■ Realize campus-wide networks – redundant and EN 54-approved

■ Integration into the danger management system from Siemens

Providing fast, reliable detection with patented technology

Data centers, office buildings or industrial production facilities – Cerberus PRO offers a detector for any application area. So you can answer all requirements from standard to demanding with confidence.

■ **Relying on detection without deception**

Demanding applications like data centers or industrial production facilities require exceptional detection technology. Cerberus PRO detectors with our unique ASA*technology* (ASA = advanced signal analysis) offer a very fast and highly reliable detection response. Being immune to deceptive phenomena such as steam, dust or gas, they prevent unnecessary downtimes and costs caused by false alarms.

From sensitive to robust, you can choose from different preprogrammed parameter sets to meet the expected environmental condition of your application. Using special algorithms, the sensor converts the recorded signals into mathematical components. These are then compared with the data of the preprogrammed parameter set and interpreted in real time. As a result, the selected parameter dynamically adapts itself to the present situation. This means that in case of a real fire, the detector reacts more sensitively – and in case of deceptive phenomena, the detector is more robust.

■ **Detecting carbon monoxide**

Cerberus PRO also provides a detector for all fire criteria: smoke, heat, and carbon monoxide (CO). The additional CO sensor ensures earliest detection of all CO generating fires. It can also detect CO independently from fire thanks to its autonomous CO alarm channel. Moreover, the CO parameter sets, which comply to Life Safety norms, can be set separately from the ASA parameter sets.

■ **Choosing from a broad portfolio**

Siemens has 160 years experience in fire safety. All Cerberus PRO detectors are backed by the application know-how we have gained with projects around the world – and with more than 60 million detectors installed worldwide. The point detector range comprises detectors for standard as well as for demanding applications.

Standard applications have a low risk of fire as well as few deceptive phenomena. They thus present little risk to life and property. These applications include offices, conference rooms, corridors, and stairwells.

Point detectors with ASA*technology* are especially suitable for demanding applications with a high risk of fire and many deceptive phenomena. Applications include hotel rooms where the detector must be mounted close to the bathroom door, multi-purpose halls, and large conference rooms.

Highlights

■ Broad detector portfolio – meet all requirements from sensitive to robust

■ ASA*technology* with different parameter sets – set detector to specific environmental conditions

■ Unsurpassed detection technology – immune to deceptive phenomena

■ Evaluation of the fire criteria – smoke, heat, and carbon monoxide

■ Siemens has 160 years experience in fire safety – more than 60 million detectors installed worldwide

Offering a wide range of special detectors

The detector portfolio of Cerberus PRO includes a broad range of special detectors. Meeting your needs, from hazardous areas to high bay warehouses.

■ Linear smoke detector

In areas with limited access such as in high bay warehouses or atria point type detectors can prove impractical. Here, linear smoke detectors are the ideal choice. Cerberus PRO linear smoke detectors work on a reflection principle. This means that they only have to be connected at one end, saving cables and installation costs.

■ Flame detection

Areas containing highly flammable materials, such as engine test beds or flammable stores, are better covered with flame detectors. The Cerberus PRO flame detector range includes both single-channel IR for simple applications as well as 3-channel IR for areas with deceptive phenomena such as halogen lamps, bright sunlight or welding.

■ Ex detectors

Cerberus PRO offers a complete range of detectors and other peripheral devices that can be used to protect areas subject to explosion hazards such as oil refineries, flour mills or battery rooms.

■ Aspirating smoke detection

These detectors are ideal for areas that require very high sensitivity such as computer suites or for areas that have limited accessibility or a complex structure such as high bay automated storage facilities. With LaserFOCUS, Cerberus PRO offers an integrated solution.

Highlights

- ■ Broad range of special detectors – to cover your application

- ■ Linear smoke detector – for high ceiling areas with limited accessibility

- ■ Flame detection – for areas with highly flammable materials

- ■ Ex detectors – for areas subject to explosion hazards

- ■ Aspirating smoke detection – for areas requiring high sensitivity

Connecting smart peripherals
to the detection loop

A wide variety of peripheral devices rounds off our Cerberus PRO family. Whether for detection, evacuation control or display – all devices are connected on the C-NET.

■ **Sounders**
Loop-powered sounders are available as wall-mounted devices in red or white. They all have an adjustable sound output of up to 99 dBA and 11 selectable tones. Any two tones can be selected to provide escalation from alert to evacuation.

■ **Sounder beacons**
The FDS229 sounder beacons provide all the features of the loop-powered sounders mentioned above – plus an additional integrated flashing beacon. They are available in red and orange and are very light intense (max. 3.2 cd).

■ **Sounder base**
Cerberus PRO detectors can be used with the DBS720 sounder base, providing a neat detector/sounder combination as a single unit. The sounder base has the same features as the wall sounders and a maximum sound output of 88 dBA.

■ **Loop-powered floor repeater terminals and mimic displays**
A unique feature of Cerberus PRO is the repeat panel indication via loop-powered floor repeater terminals. This enables you to add important information in a most cost-efficient and secure way. Future additions can be incorporated by simply tapping off the nearest detector, call point, sounder etc. The floor repeater terminals come in two models: The FT2011 gives a detailed overview of all alarms and messages. In addition, the FT2010 offers the same main operating functions as the control panel. A loop-powered mimic display allows mimic diagrams to be added to the system as well.
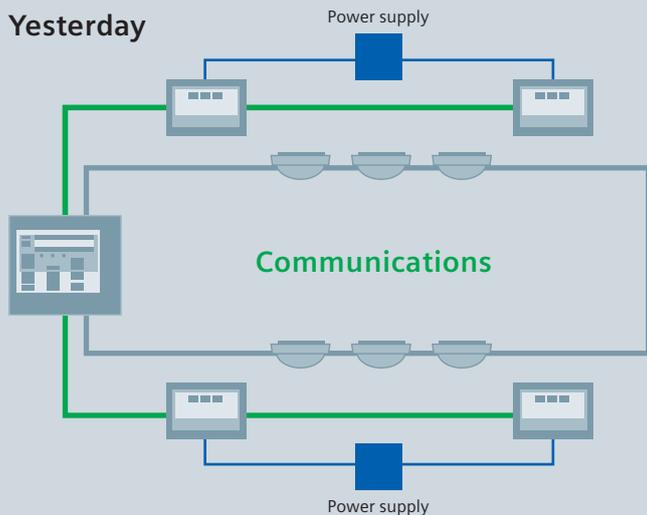
■ **Input/output modules**
The Cerberus PRO system allows connection of the full range of Siemens modules including: single input module, single input and output module, four way input module, four way input/output module (incl. AC 230 V rated contacts) as well as a dual conventional zone or dual sounder circuit controller (requires DC 24 V supply).
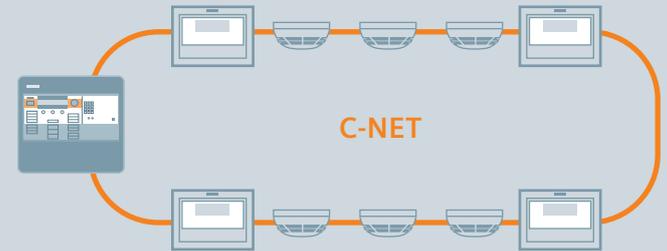
Highlights

■ A wide portfolio of peripheral devices – all connected via C-NET

■ Loop-powered sounders – with 11 different tones

■ Loop-powered sounder beacons – for visual warning

■ Sounder base – combines a detector with a sounder powered by the C-NET

■ Loop-powered floor repeater terminals – to safely display information where needed

Yesterday

Power supply

Communications

Power supply

Today

C-NET

Benefiting from the many advantages of smart technology

Cerberus PRO is a powerful system that provides advanced technology for increased fire safety. Numerous features make it a cost-efficient solution for your requirement.

■ **Connecting the clever way with C-NET**

All fire detectors and peripherals communicate via and are powered by the C-NET, reducing wiring costs. Additionally, distributed intelligence enables the use of unshielded cables – substantially reducing cabling and costs. Cerberus PRO devices can also be easily integrated into existing installations thanks to the free topology wiring of the C-NET detector loop.

The maximum loop wiring length of 3.3 km with up to 126 peripherals helps reduce the number of loops, making system designs more compact and straightforward. In addition, you can split one loop into two separate loops with the loop extension card.

■ **Increasing cost efficiency through fast installation**

Cerberus PRO fire detectors stand for clever fire protection. However, they offer more than that. Short installation time, less cabling, and minimal operating costs are also a big plus – making Cerberus PRO an attractive solution.

■ **Enhancing security with intelligent safety features**

Every Cerberus PRO fire detector has an integrated short circuit isolator to easily spot open or short circuits. The C-NET increases safety even further because it is installed as a loop. In case a short circuit occurs, the defective part is detected and isolated. Alarms, however, will still be transmitted. Because if the line is interrupted at one point, information is redirected from the other end to the control panels and floor repeater terminals. This also results in faster fault finding, thereby reducing repair costs.

Highlights

■ Less wiring needed – as all detectors and peripheral devices are connected via C-NET

■ Cost-efficient solution – thanks to short installation time, minimal cabling, and minimal operating costs

■ Increased safety – because C-NET is installed as a loop and all peripherals are equipped with turbo isolators

Cerberus PRO – enjoy protecting

Powerful control panels, clever fire detectors, and smart peripheral devices.
This is what our comprehensive Cerberus PRO family offers. The brief overview
below demonstrates the most important system components.

Benefits

Unique safety features
Cerberus PRO provides a great number of safety features for earliest detection of fire, heat, and smoke as well as fast reaction in case of an event. Moreover, the detector range covers all applications from standard to sophisticated and ensures reliable detection with no false alarms. This translates for you into ensured business continuity and peace of mind.

Cost efficiency
Cerberus PRO also stands for less costs. First of all, ensured business continuity results in both cost and time savings, as you will have no process interruptions. Moreover, Cerberus PRO is a future-proof investment that lets you benefit from reduced planning efforts as well as low life cycle costs.

Available through Siemens-approved partners
Cerberus PRO is available through Siemens-approved partners who also offer reliable support. Whether sophisticated fire safety technology or comprehensive service – you receive everything from a single source.

Fire control panels

Cerberus PRO fire control panels process all messages generated by the system and trigger alarm signals. They also provide an extremely simple user interface with customized user prompting texts to support the correct action in case of an event. And because we know requirements vary from simple to network-wide solutions, our Cerberus PRO family offers four models: FC721, FC722, FC724, and FC726.

Fire detectors

Whether smoke, heat or carbon monoxide. Cerberus PRO fire detectors with our unique **ASA***technology*, special algorithms, and selectable parameter sets meet any requirement – from sensitive to robust. They communicate via and are powered by the C-NET. Special detectors such as linear smoke detectors, aspirating smoke detectors as well as devices for explosion-protected zones complete the detector portfolio.

Floor repeater terminals and displays

The floor repeater terminals and displays FT2010 and FT2011 display system status and events at floor level. They enhance user convenience, as visibility can be configured individually. Floor repeater terminals and displays are connected directly on the C-NET loop, saving cabling and installation costs. And FT2010 and FT2011 enhance safety because they remain functional even in case of an open or short circuit.

Alarming devices

Increase safety with the sounder FDS221 for acoustic signaling, the alarm sounder beacon FDS229 for acoustic and optic signaling, and with the sounder base DBS720 that is integrated in the fire detector.
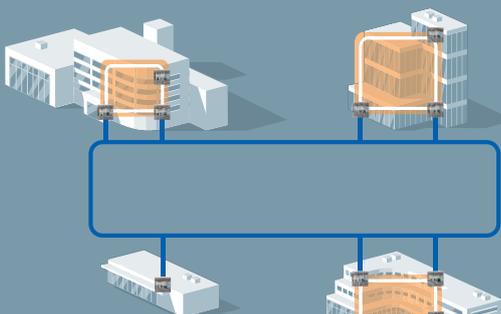
Mimic display driver

Customer-specific floor plan displays are possible thanks to the C-NET-powered mimic display driver FT2001-A1.

Input/output modules

Input/output modules further increase safety and security. With the input modules FDCI221/FDCI222, you can monitor the status of doors, ventilation or sprinklers. The input/output modules FDCIO221/FDCIO222 enable decentralized control of fire doors and plant. The "transponder" FDCIO223 enables a monitored connection of conventional detector lines, alarm signaling devices, and devices in explosion-protected zones.

Backbone

The backbone is an innovative, EN 54-approved industrial LAN network that offers increased planning flexibility. It enables you to network up to 64 panels, optimally adapt Cerberus PRO to any building or process structure, and realize campus-wide solutions. Two independent, EN 54-approved Ethernet switches are all you need to connect one cluster with up to 16 panels to a fiber-optic backbone. Up to 14 clusters can be connected to a backbone. Since they are then seen as one network, one central access point is sufficient to connect the remote transmission to the fire brigade, pager, and a danger management system.

The Cerberus PRO network can be integrated into a danger management system from Siemens, needing only one Ethernet switch. Additional security equipment, such as a firewall, is needed to integrate a danger management system via a customer network.

— Backbone (C-WEB/LAN)
— Cluster (C-WEB/SAFEDLINK)

Answers for infrastructure.

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."

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