

SIEMENS



# Cerberus PRO – enjoy protecting

A comprehensive fire protection system

Answers for infrastructure and cities.



## 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 **ASAt<sup>SM</sup> 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 reliable detection

A detector for any type of fire as well as for carbon monoxide concentrations.

Thanks to our unique **ASAt technology**, Cerberus PRO provides detectors with excellent detection reliability and protection against false alarms – even in highly demanding environments.

## Creating networks in various sizes

Cerberus PRO is a straightforward fire protection system. It offers all from stand-alone to networkable control panels. 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 handover 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.

## 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.

## 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.

Around the world, selected Solution Partners offer our innovative products and systems. Only the best companies are certified by Siemens as Solution Partners and receive the Solution Partner logo as a quality seal. Numerous realized projects and highly satisfied customers worldwide are proof of these successful collaborations.

## Highlights

- Unique detection reliability and protection against false alarms – thanks to **ASAt 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







#### Very simple systems



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

#### Fire brigade calling systems



- Simple audible alarm
- Fire brigade communication concept
- Verification mode when system is manned
- Preconfigured

## 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 integrated safety functions like the degrade mode. It ensures that even in case of a processor failure, a 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.

#### Realizing solutions simply and quickly

Cerberus PRO provides a competitive range of control panels. They are the perfect choice for a variety of applications, from small and simple to large and complex. Each panel offers unique features aimed at putting a system into operation quickly and safely from one access point.

#### 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.

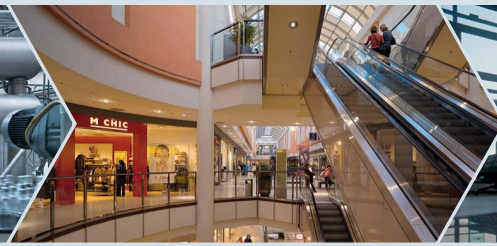
In addition, Cerberus PRO offers an EN 54-approved, industrial LAN technology – also called backbone (C-WEB/LAN). The backbone connects up to 14 clusters and networks up to 64 panels. It also allows to optimally adapt Cerberus PRO to any building or process structure, and to easily realize campus-wide solutions.

### Plant control



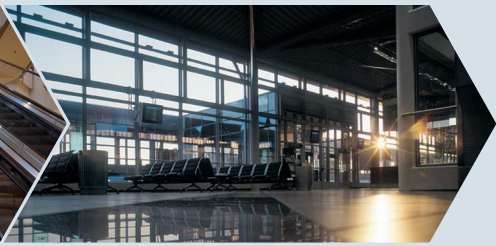
- Plant control shuts off, ventilation systems shut down, doors controlled and lifts returned
- Some plants may only be shut down after a time delay or if fire is detected in a particular area
- Basic cause and effect programming required

### 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.

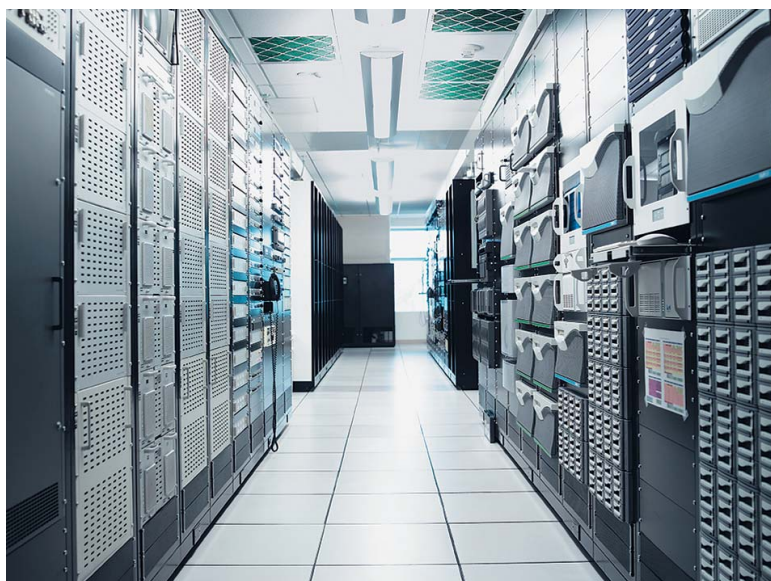
Remote operation via Ethernet allows control of your system from any location, for example if you want to isolate a zone for maintenance work. You can also evaluate the system status remotely and initiate appropriate actions if necessary. All this can be done with a standard PC. And less on-site visits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

## Relying on detection without deception

Demanding applications require exceptional detection technology. Cerberus PRO detectors with our unique **ASAt**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. This means that in case of a 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.

## Choosing from a broad portfolio

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 **ASAt**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
- **ASAt**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

### 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. Aspirating smoke detectors from Siemens have an optical dual-wavelength detection technology that quickly and reliably differentiates between smoke and deceptive phenomena.

### Radio fire detection

As wireless devices can be quickly and freely positioned and repositioned, they are ideal for rooms or buildings of historical value, with aesthetic or architectural restrictions or for temporary installations. With SWING, Siemens sets new safety standards by combining the highly reliable mesh technology for safe wireless transmission with the unique **ASAtechnology** for high detection reliability.

### 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 detectors – for demanding applications that require very early fire detection
- Radio fire detection – for areas where cabling is difficult or not suitable due to structural/aesthetic reasons





## Connecting smart peripherals to the detection loop

### 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.

### Sounders with supplementary optical indication

The FDS229 alarm sounders with supplementary optical indication provide all the features of the loop-powered sounders mentioned above – plus an additional integrated flashing optical indication. 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

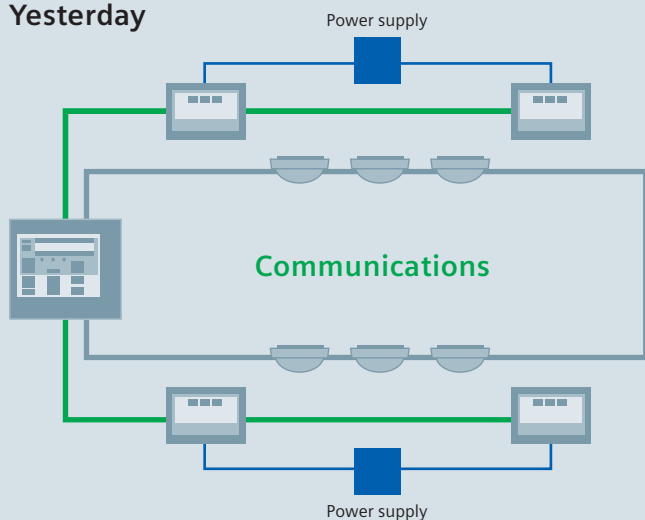
The Cerberus PRO system allows connection of the full range of modules from Siemens including: single input module, single input and output module, four way input module, four way input/output module (incl. AC 230 V rated contacts) as well as a dual conventional zone or dual sounder circuit controller (requires DC 24 V supply).

### Highlights

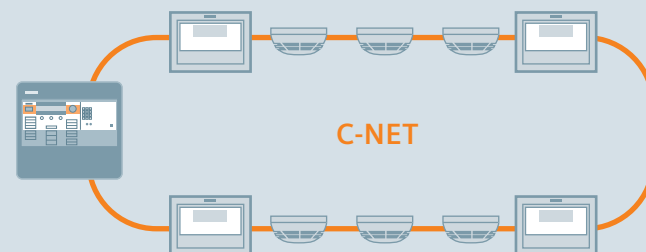
- A wide portfolio of peripheral devices – all connected via C-NET
- Loop-powered sounders – with 11 different tones
- Loop-powered alarm sounders with supplementary optical indication – for visual warning
- Sounder base – combines a detector with a sounder powered by the C-NET
- Loop-powered floor repeater terminals – to safely display information where needed



## Yesterday



## Today



# Benefiting from the many advantages of smart technology

## 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 integrated into existing installations thanks to the free topology wiring of the C-NET detector loop.

## 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 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. The result: faster fault finding and reduced repair costs.

## Modernizing existing fire detection systems – step by step

There are many reasons for modernizing an old fire detection system: new safety requirements, increased maintenance effort, false alarms or conditions within a company change.

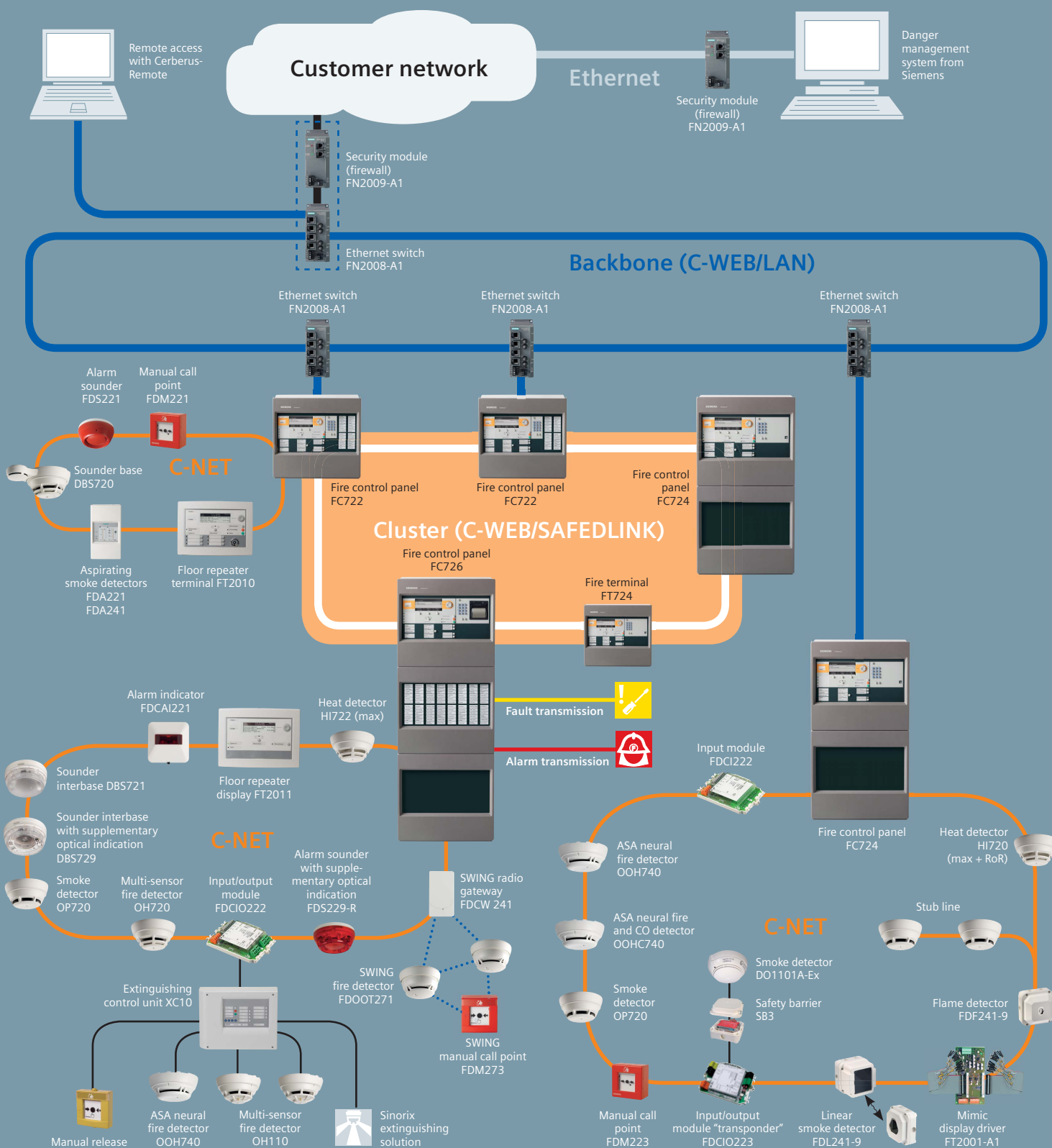
With the Cerberus PRO modernization solution, you can introduce the latest technology into your fire safety – in two phases. First, the existing conventional detectors are replaced with either conventional Cerberus detectors or the addressable Cerberus PRO OOH740. Then, the panels are exchanged. As both phases can be completed in several steps, maximum system availability and minimum interruption of business processes is ensured. Furthermore, phased migration means you can modernize at your own pace – according to your budget and fire safety needs.

## 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
- Modernization in two phases – long-term investment protection thanks to latest technology and plannable investment costs

# 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 **ASATECHNOLOGY**, 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 with supplementary optical indication FDS229 for acoustic and optic signaling and with the sounder base DBS720 that is integrated in the fire detector.

## Mimic display driver



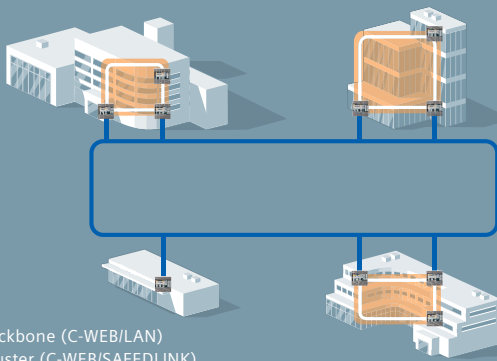
Customer-specific floor plan displays are possible thanks to the C-NET-powered mimic display driver FT2001-A1.

## 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.



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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.

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#### Answers for infrastructure and cities.

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 trusted technology partner for energy-efficient, safe and secure buildings and infrastructure.”**

Solution  
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Building  
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**SIEMENS**