



SMARTER PROTECTION MATTERS

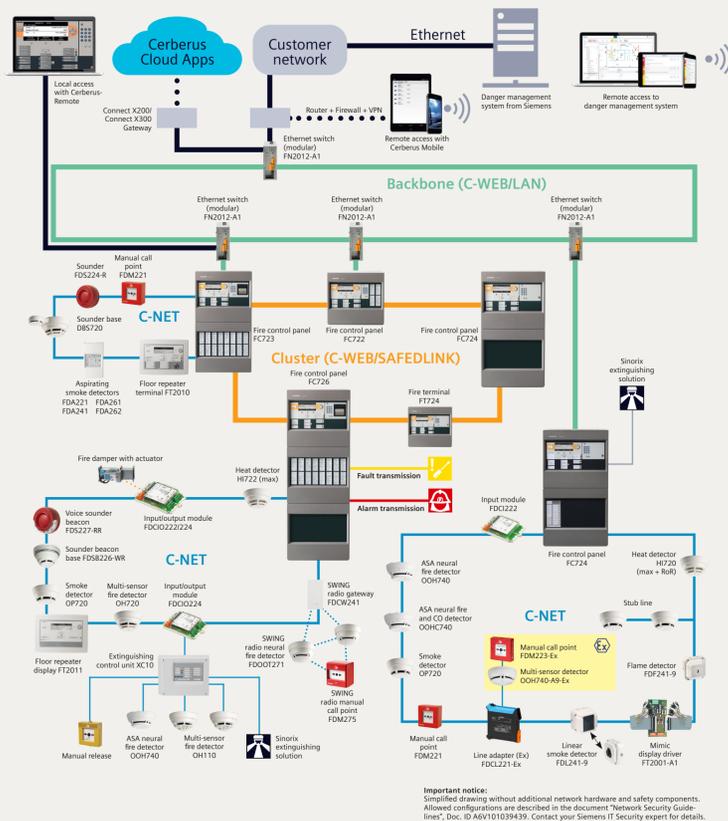
# Cerberus PRO C-Net devices



Planning Tool

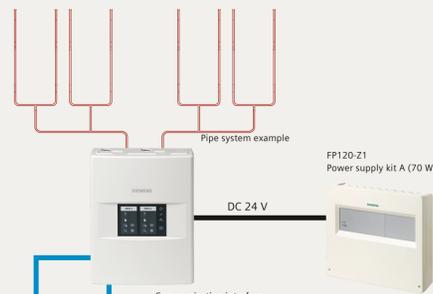
## Cerberus PRO – Because smarter protection matters

IoT-enabled fire control panels, clever fire detectors, smart peripheral devices: Our products & solutions allow you to protect your building and its occupants all year-round, connect with it anytime from anywhere via the Cerberus Cloud Apps, and sustain undisturbed places all day, every day for peace of mind. The overview below demonstrated the most important components.

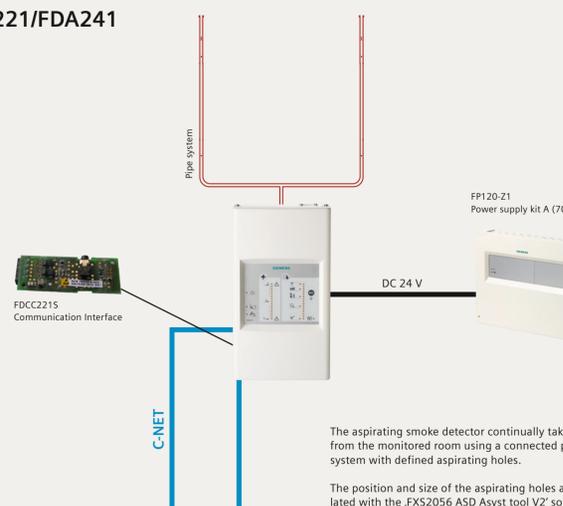


## Aspirating smoke detection

FDA261/262



FDA221/FDA241



The aspirating smoke detector continually takes air from the monitored room using a connected pipe system with defined aspirating holes.

The position and size of the aspirating holes are calculated with the 'FXS2056 ASD Assyt tool V2' software.

## Highlights for alarming

In the event of a fire it is essential to alert and evacuate people as fast as possible. A wide product portfolio range offers alarm devices for acoustic and optical alarming. All devices are loop powered and constantly monitored.

**Sounder**

The sounder creates an acoustic alarm signal in case of an event. All devices offers a broad range of tone patterns. The acoustic perception is outstanding because all tones are synchronized.

- Certified for acoustic alarming according EN 54-3
- 3 different sound levels are selectable (minimum / medium / maximum)
- 16 integrated tone patterns

**Voice**

The devices with voice messages are able to play a precise voice instruction for different events in the building. With help of a voice message, the evacuation process is faster and the building occupants receive clear instructions. A voice message can be emitted in one or two languages with an attention tone:

Tone | Voice message | Voice message (optional)

Language 1 | Language 2

**Languages (15 integrated, 2 customizable)**

- English
- German
- French
- Italian
- Spanish
- English UK
- Dutch
- Sweden
- Norwegian
- Finnish
- Danish
- Polish
- Portuguese
- Turkish
- Russian
- Custom language 1
- Custom language 2

**Message categories (5 predefined, 2 customizable)**

- EVAC FIRE
- EVAC EMERGENCY
- ALERT
- TEST
- ALL CLEAR
- Custom message 1
- Custom message 2

**Customer-specific voice message**

1. Order the service "Conversion of voice message FDSS227" to create a customer-specific audio library
2. Order customer-specific devices (-C) with custom audio library ID

**Example for Voice messages in English**

- EVAC FIRE: Attention please, this is a fire alarm! Please leave the building immediately by the marked available exits.
- EVAC EMERGENCY: Attention please, this is an emergency. Please leave the building by the marked available exits.
- ALERT: Attention, an incident has been reported in the building, please await further instructions. This is a test message, no action is required.
- TEST: Attention please! All clear! The building alert has been resolved. All clear!
- ALL-CLEAR

**Beacon**

Addressing two senses – an optical and an acoustical signal – speeds up the alert and evacuation process. We increase the awareness of the optical signal with a high flash intensity and a very short pulse length. The device has multiple options for brightness which can be adjusted according to the room size.

- Certified for optical alarming according EN 54-23
- Additional light intensity setting (supplementary optical indication) designed for system extensions or migration.

**Wall devices**

**Ceiling devices**

**Category W – wall mounting**

- White LED: High: W-2-3-10, Mid: W-2-4-7.5, Low: O-2-6-2
- Red LED: High: W-2-8-8.8, Mid: W-2-4-7.5, Low: O-2-6-2

**Category C – ceiling mounting**

- White LED: High: C-3-12, Mid: C-3-10, Low: O-2-5-6.5
- Red LED: High: C-3-12, Mid: C-3-10, Low: O-2-5-6.5

O – Open category: Wall mounted, cubic coverage as category W; Ceiling mounted, cylindrical coverage as category C

## Robust or sensitive? Configuration depends on the application.

High Suppression (PS8)	Suppression (PS5)	Suppression CO (PS12)	High Compensation (PS7)	Robust (PS2)	Balanced (PS4)	Balanced CO (PS10)	Fast Response (PS6)	High Sensitive Fast (PS9)	Super Sensitive (PS11)
Robust					Sensitive				
<p><b>Application area</b></p> <p>For operating conditions susceptible to heavy optical deceptive phenomena. Examples include dance floors in discotheques (deceptive phenomena: dry ice) or churches during special services (deceptive phenomena: frankincense).</p>	<p><b>Application area</b></p> <p>Difficult environments subject to heavy deceptive phenomena. Application examples include canteen kitchens or manufacturing areas with operational-related deceptive aerosols.</p>	<p><b>Application area</b></p> <p>Difficult environments subject to heavy deceptive phenomena. Application examples include manufacturing areas with operational-related separate CO toxic gas detection and environmental monitoring.</p>	<p><b>Application area</b></p> <p>Applications with deposits resulting from excessive dust or dirt over a long-time period. Here, optical detectors usually reach their limit quickly, resulting in a reduced operational lifetime.</p>	<p><b>Application area</b></p> <p>Difficult environmental conditions. Examples are event locations or underground garages with moderate deceptive phenomena and risks to individuals.</p>	<p><b>Application area</b></p> <p>Standard applications. Rooms with moderate deceptive phenomena.</p>	<p><b>Application area</b></p> <p>Rooms where an increased CO concentration in the event of a fire is possible. Moderate deceptive phenomena.</p>	<p><b>Application area</b></p> <p>Rooms in which sensitive and quick detection is essential such as rooms with high ceilings, warehouses with flammable material (increased risk of fire) and application areas where the detectors trigger an extinguishing system.</p>	<p><b>Application area</b></p> <p>Rooms in which an especially high sensitivity to smoldering and open fires is required. Examples include museums with high ceilings, clean production halls or applications where adequate life protection can only be ensured by the fastest possible detection. Due to special thermal algorithms, usage at low temperatures is also possible.</p>	<p><b>Application area</b></p> <p>Applications in clean environments like data centers or clean rooms, where the fastest and most sensitive detection of smoldering and open fires is required to ensure business continuity.</p>
<p><b>Application examples</b></p> <p>Multi-purpose halls, theater stages, churches, dance floors in discotheques</p>	<p><b>Application examples</b></p> <p>Canteen kitchens, production areas with operational-related deceptive phenomena</p>	<p><b>Application examples</b></p> <p>Production areas with operational-related deceptive phenomena</p>	<p><b>Application examples</b></p> <p>Paper mills, carpenter's workshops, textile production, recycling plants</p>	<p><b>Application examples</b></p> <p>Event locations, conference rooms, smoking rooms, gastronomy, industry, production, underground garages</p>	<p><b>Application examples</b></p> <p>Offices, open-plan offices, hallways, hotel rooms, out of hours use in harsh environment areas</p>	<p><b>Application examples</b></p> <p>Same as for "Balanced", but with increased sensitivity to smoldering fires creating CO gas</p>	<p><b>Application examples</b></p> <p>High-ceilinged rooms, storage rooms/warehouses with flammable material, IT rooms and control of extinguishing systems</p>	<p><b>Application examples</b></p> <p>Hospital rooms, museums, operating rooms, cold storage, high-ceilinged rooms, when highly sensitive detection is of great importance</p>	<p><b>Application examples</b></p> <p>Clean rooms, data centers, museums, hospital rooms, operating rooms, cold storage, high-ceilinged rooms, when highly sensitive detection is of great importance</p>
Complies with the norm:	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7, EN 54-29	Complies with the norm EN 54-7

**Expert advice**

"High Suppression" has clear advantages over traditional concepts where smoke detection is turned off completely and replaced by thermal detection during events where dry ice is used. This parameter set allows much faster detection than switching to purely thermal detection. This enhances safety at critical times where visibility is reduced and large numbers of people are in attendance. Further options include the ability to switch between parameter sets so that a more sensitive detection mode can be used when no dry ice is likely. The detector complies with the norm EN 54-5 and in some jurisdictions heat detector spacing may be applicable.

**Expert advice**

The high thermal influence from open fires transports the dark smoke particles that are typical for this kind of fire quickly to the ceiling. Due to the backward scattering and the "Fast Response" setting, the detector is sensitive. This makes the detector a perfect replacement in situations where ionization detectors would normally have been considered optimal.

## Detectors and alarm devices with digital features

Remotely monitor fire systems with Cerberus Cloud Apps. Our alarm devices and detectors conduct 24/7 disturbance-free function tests (DFTTechnology) without disturbing building occupants and without compromising the uptime of the system. Additionally, detector soiling level and danger level statistics are extracted to enable smart decision making and recommend actions to optimize the system.

**Digital use cases for alarm devices**

- Daily disturbance-free function tests (DFTTechnology) of OOH740
- Automatic sounder test
- Automatic beacon test
- Automatic electric circuit test

**Silent load-test to...**

- ... check if system extensions are possible.
- ... find faults on the loop.

**Digital use cases for detectors\***

- Daily disturbance-free function test (DFTTechnology) of OOH740
- Hardware components
- Correct software operation
- Communication to the fire control panel
- Detector soiling level monitoring of OOH740, OOH740, OOH740, OOH740, OOH740
- Danger level statistics for all automatic point detectors for data based parameter set optimization

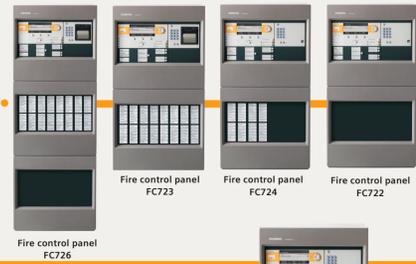
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Smart infrastructure intelligently connects energy systems, buildings and industries to adapt and evolve the way we live and work.  
 We work together with customers and partners to create an ecosystem that intuitively responds to the needs of people and helps customers to better use resources.  
 It helps our customers to thrive, communities to progress and supports sustainable development.  
 Creating environments that care.  
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# Cerberus PRO Planning Tool C-NET devices

## Cerberus PRO fire control panels



### Cluster (C-WEB/SAFEDLINK)

**Shared properties FT2010 and FT2011:**  
 - Backlit display with plain text (6 lines of 40 characters each)  
 - Power supply and communication (individual addressing) via C-NET, additional DC 24 V feed possible - 282x207x79 mm (WxHxD)  
 - Max. 8 FT2010/FT2011 per FC723/FC722  
 - Max. 16 FT2010/FT2011 per FC724  
 - Max. 50 FT2010/FT2011 per FC726

**Floor repeater terminal FT2010-A1**  
 Order no.: ASQ0001404

**Fire control panel FC722**

**Floor repeater display FT2011-A1**  
 Order no.: ASQ00017706

**Flat rear FHA2013-A1**  
 Reduction of housing depth to 46 mm with FT2010/2011, when a flat installation is required with flush-mounted cabling.  
 Order no.: ASQ00016552

**Mimic display driver FT2001-A1**  
 Order no.: ASQ00014417

**LED flat cable 24 LEDs F50FA10**  
 Order no.: BPZ:5291410001

**Line separator FDCL221**  
 Only required to separate 2 adjacent stubs  
 Order no.: ASQ00004011

**Multi-line separator module FDCL221-M**  
 The multi-line separator has altogether nine integrated line separators with one individual addressing each and one LED indicator per separator. It can be connected to two separate C-NET loops.  
 Order no.: S54312-F6-A1

**Extinguishing panel standard XC1001-A**  
 The XC10 combined extinguishing and detection panel can be fully integrated into all Cerberus PRO systems via the FDCIO222 as an independent unit. All relevant incidents are forwarded to the connected control panels. The extinguishing control unit XC10 and the connected extinguishing valves must have separate power supply. For XC10 variants please see separate XC10 Planning Tool.  
 Order no.: S54390-C1-A1

## C-NET

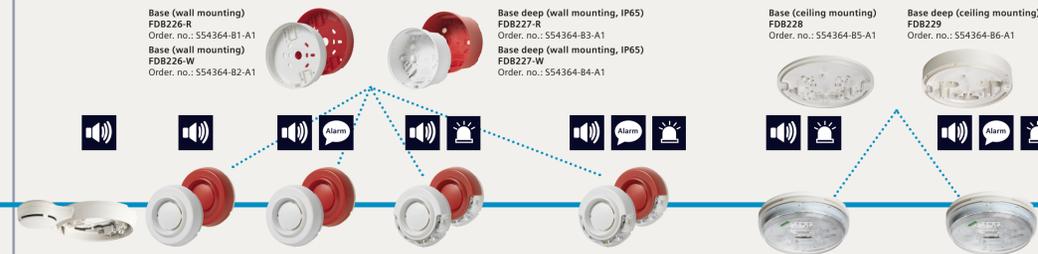
The C-NET is a modern, multi-purpose bus system. It allows rapid, fail-safe communication between the Cerberus PRO bus elements and the fire control panel.

- Characteristics:**
- Use of all cable types (shielded or unshielded)
  - Integration of star-shaped cable networks without modifications to cable network
  - Acoustic and visual signaling on the loop
  - Up to 40 T-taps
  - Up to 252 bus elements on one loop
  - Cable lengths up to 3.3 km with up to 252 bus elements
  - 2-wire loop
  - Power supply to all bus elements via the C-NET (except transponder FDCI723, FDCIO223, LaserFOCUS, extinguishing control unit XC10, ASD FDC221, FDA241)
  - Integrated turbo isolator in every loop participant

### Detailed planning information

Detailed information for planning of the system are available in the planning document, Doc. ID A6V10210362.

## Alarm equipment for audible and visible alarming with DFTtechnology



**Sounder base DBS720**  
 Sound level: 88 dBA/1 m  
 Order no.: S54319-F5-A1

**Sounder FDS224-R**  
 Housing red  
 Order no.: S54364-F1-A1

**Voice sounder FDS225-R**  
 Housing red  
 Order no.: S54364-F3-A1

**Sounder beacon FDS226-WW**  
 Housing red / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F1-A1

**Standard voice messages**  
**Voice sounder beacon FDS227-RR-C**  
 Housing red / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F1-A1

**Customized voice messages**  
**Voice sounder beacon FDS227-RR-C**  
 Housing red / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F1-A1

**Sounder beacon FDS226-WW**  
 LED white  
 O-2.5-6.5 / C-3-10 / C-3-12  
 Order no.: S54364-F15-A1

**Standard voice messages**  
**Voice sounder beacon base FDS227-WW**  
 LED red  
 O-2.5-6.5 / C-3-10 / C-3-12  
 Order no.: S54364-F15-A1

**Customized Voice Messages**  
**Voice sounder beacon base FDS227-WW-C**  
 LED red  
 O-2.5-6.5 / C-3-10 / C-3-12  
 Order no.: S54364-F15-A2

**Shared characteristics**

- Up to 13 different tones, incl. "evacuate" as specified in DIN 33404-3
- Different volume and sound for prealarm and main alarm
- Without additional power supply
- Integrated line separator

**Sounder beacon FDS226-WW**  
 Housing white / LED white  
 O-2.6.2 / W-2.4-7.5 / W-3.2-10  
 Order no.: S54364-F6-A1

**Sounder beacon FDS226-WR**  
 Housing white / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F7-A1

**Sounder beacon FDS227-WW**  
 Housing white / LED white  
 O-2.6.2 / W-2.4-7.5 / W-3.2-10  
 Order no.: S54364-F8-A1

**Voice sounder beacon FDS227-RR-C**  
 Housing white / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F11-A1

**Voice sounder beacon FDS227-WW-C**  
 Housing white / LED white  
 O-2.6.2 / W-2.4-7.5 / W-3.2-10  
 Order no.: S54364-F12-A2

**Voice sounder beacon FDS227-WR-C**  
 Housing white / LED red  
 O-2.6.2 / W-2.4-7.5 / W-2.8-8.8  
 Order no.: S54364-F11-A2

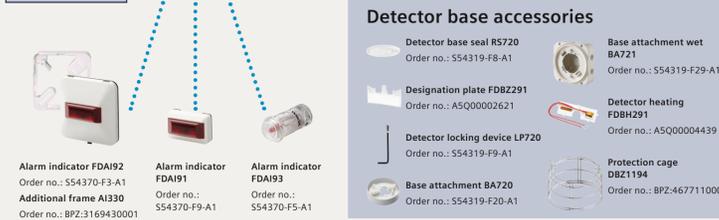
**Voice sounder beacon base FDS227-WW**  
 Housing white / LED white  
 O-2.6.2 / W-2.4-7.5 / W-3.2-10  
 Order no.: S54364-F11-A2

### Mounting example



**Conversion of voice message FDS227**  
 Service to convert custom audio message text  
 Order no.: L54364-Y1-A1

## Cerberus PRO fire detectors



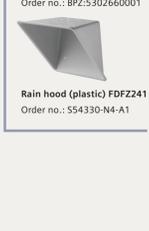
### Test equipment



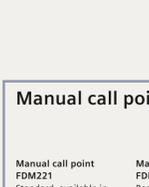
## Flame detector base FDFB291



### Flame detector FDF241-9



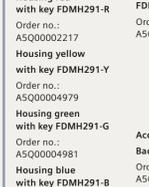
### Rain hood DFZ1190



### Rain hood (plastic) FDFZ241



### Detector heating DLH1191A



### Detector heating DLH1191A



## Linear smoke detector base FDM291



### Short-distance filter DLF1191-AA



### Short-distance filter DLF1191-AB



### Short-distance reflector DLH1193



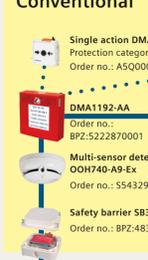
### Short-distance reflector DLH1193



### Short-distance reflector DLH1193



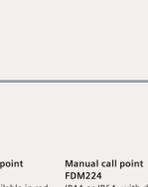
## Conventional



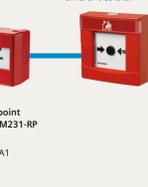
### Long-distance reflector DLR1192



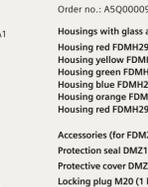
### Mid-distance reflector DLR1192



### Short-distance reflector DLH1193



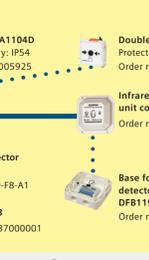
### Power supply kit FP120-21



### Housing FDC221-IP65



## Addressable



### Relay board FDC221S



### Interface board FDC221S



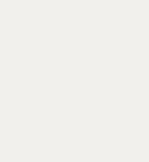
### Power supply kit FP120-21



### Housing FDC221-IP65



### Conventional line FDCIO223



## Ex zone



### Relay board FDC221S



### Interface board FDC221S



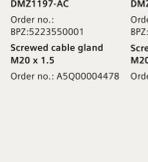
### Power supply kit FP120-21



### Housing FDC221-IP65



### Conventional line FDCIO223



- Legend for the designation of fire detectors:**
- Backbone (C-WEB/LAN) Network for connecting clusters
  - Cluster (C-WEB/SAFEDLINK) Network for connecting panels
  - C-NET Network for connecting Cerberus PRO addressable devices
  - C-NET-Ex Network for connecting Cerberus PRO addressable Ex devices

