



SMARTER PROTECTION MATTERS

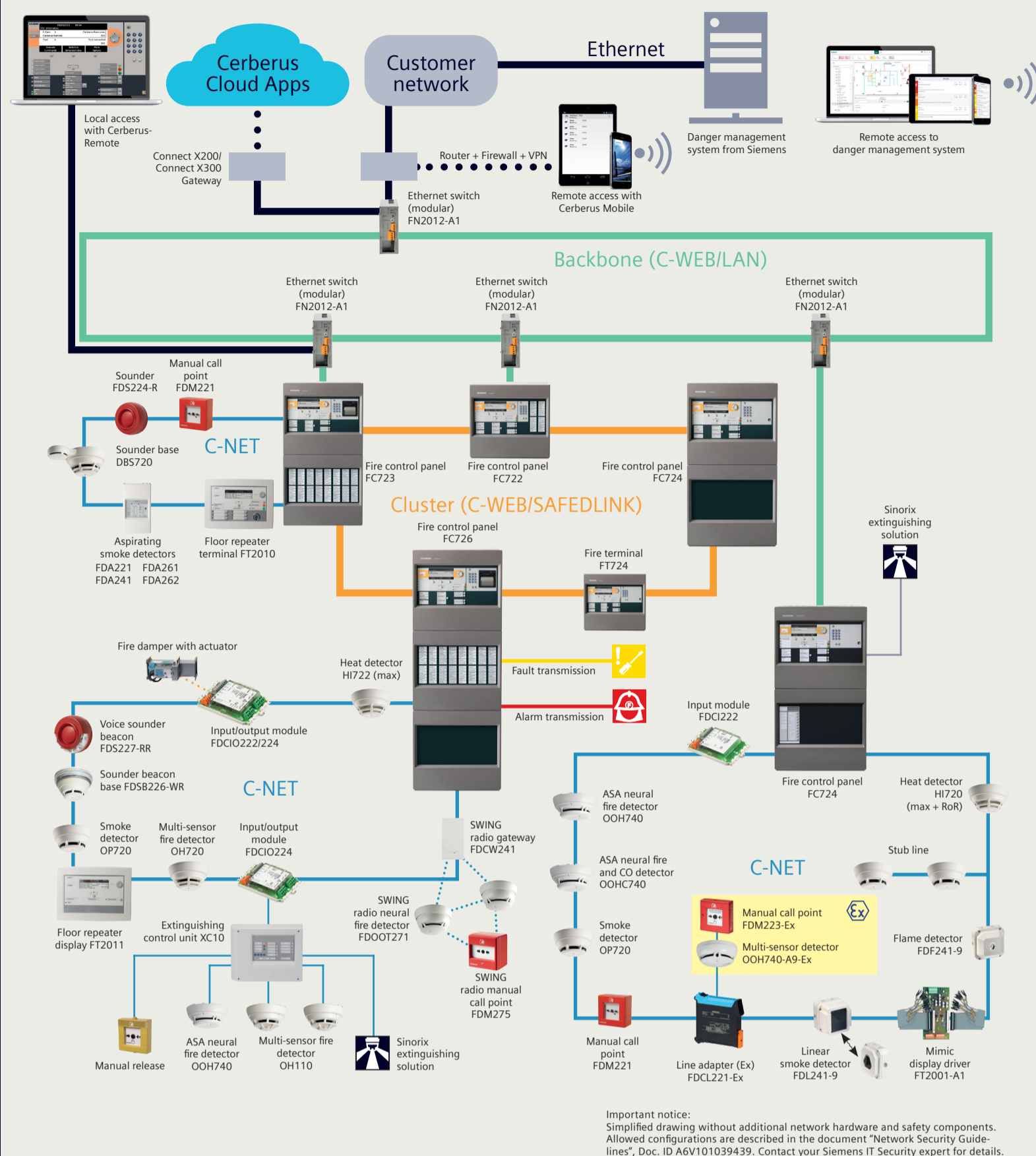
Cerberus PRO Panels, network and accessories



Planing Tool

Cerberus PRO – Because smarter protection matters

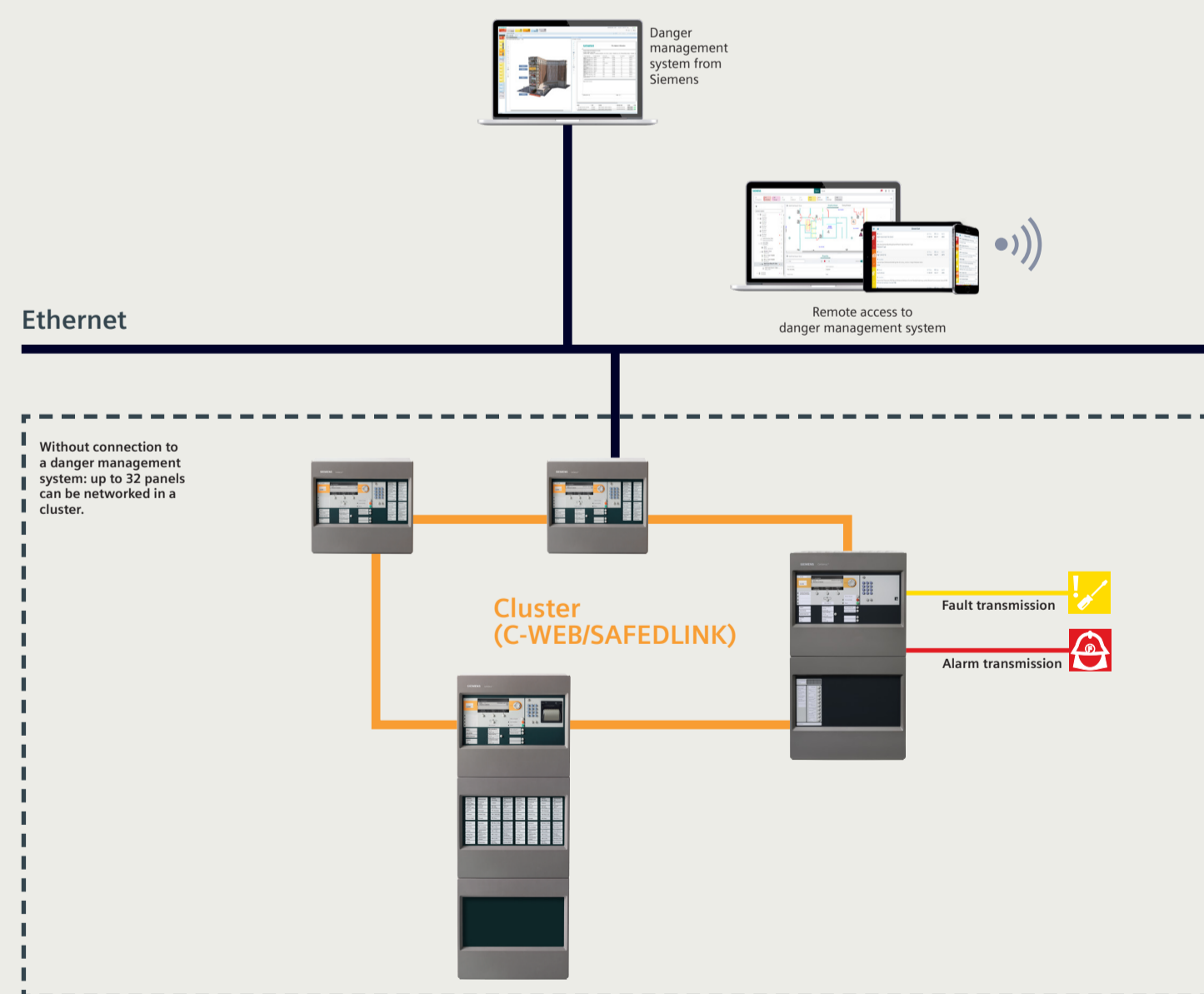
IoT-enabled fire control panels, clever fire detectors, smart peripheral devices: Our products & solutions allow you to protect your building and its occupants all year-round, connect with it anytime from anywhere via the Cerberus Cloud Apps, and sustain undisturbed places all day, every day for peace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



Important notice:
Simplified drawing without additional network hardware and safety components. Allowed configurations are described in the document "Network Security Guidelines", Doc. ID: A6V101039439. Contact your Siemens IT Security expert for details.

Topology 1

Up to 16 panels can be networked in a cluster (C-WEB/SAFEDLINK) – if connected to a danger management system. Without a danger management system, even up to 32 panels can be networked.



Important notice:
Simplified drawing without additional network hardware and safety components. Allowed configurations are described in the document "Network Security Guidelines", Doc. ID: A6V101039439. Contact your Siemens IT Security expert for details.

Characteristics of topology example

- Easy networking of panels
- Operation of panels as standalone solution or networked with a total length of up to 1,280 km
- Data rate can be adapted to line quality

Key data

- Max. number of networkable panels: 32
- Max. number of networkable panels if connected to a danger management system: 16
- Max. distance between panels with copper cable:
 - without repeater: 1 km
 - with repeater: 2 km
- Max. distance between panels with fiber-optic cable:
 - multi mode: 4 km
 - single mode: 40 km
- Max. number of panels with system-wide view: 5

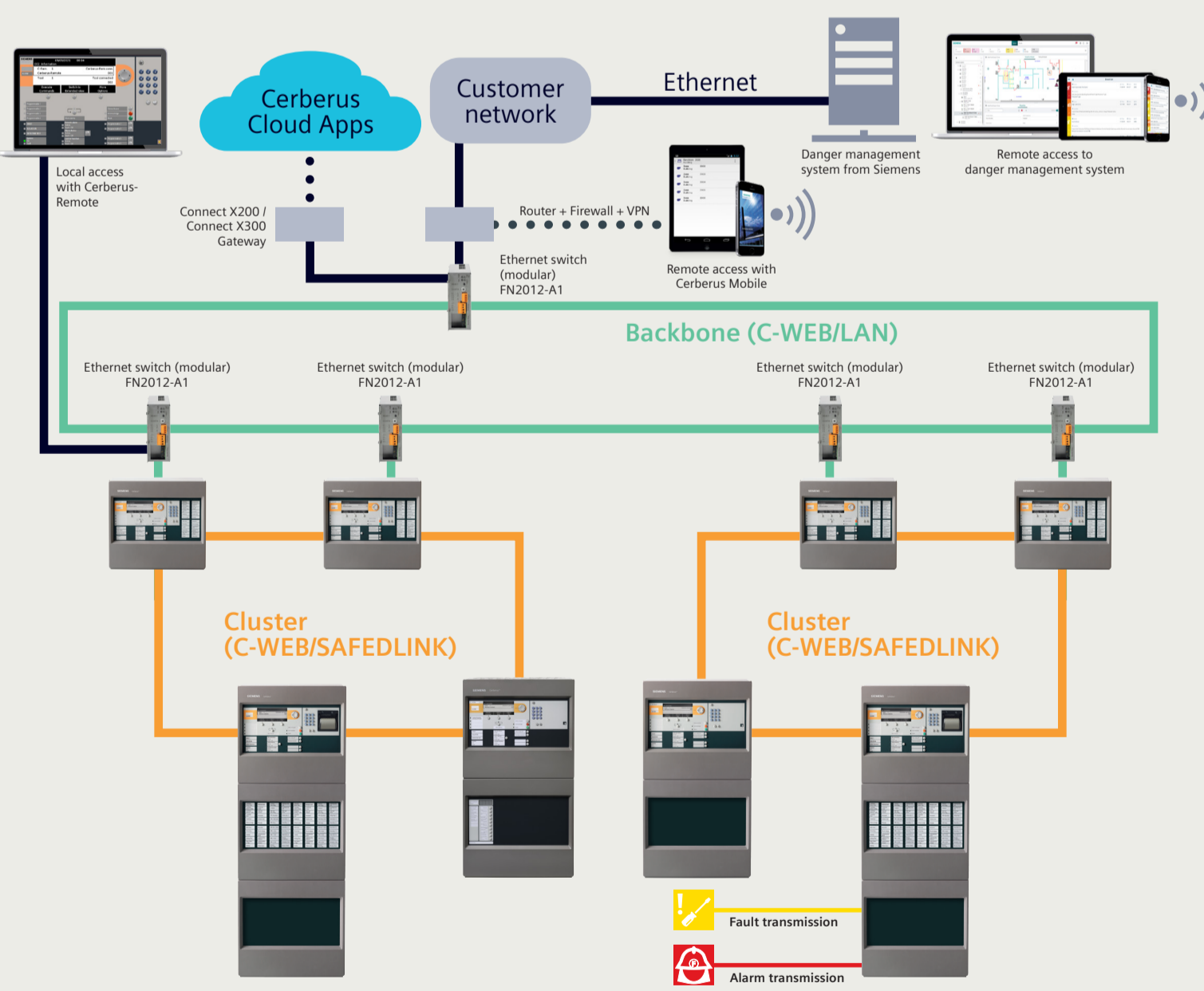
Panel overview compact

| | FC721-ZZ1-YZ | FC722-ZZ1-YZ | FC722-ZAI-ZE | FC724-ZAI-ZE | FT724-ZZ |
|--|--|-------------------------------------|-------------------------------------|-------------------------------------|------------------------|
| Housing | Housing Eco | Housing Standard | Housing Comfort | Housing Comfort | Housing Eco |
| Mains voltage | – AC 97...127 V – AC 196...253 V | – AC 97...127 V – AC 196...253 V | – AC 97...127 V – AC 196...253 V | – AC 97...127 V – AC 196...253 V | – |
| Power supply | 70 W | 70 W | 150 W | 150 W | option PSU 70 W |
| Operating voltage | DC 21...28.6 V | DC 21...28.6 V | DC 21...28.4 V | DC 21...28.4 V | DC 21...28.4 V |
| Operating current | max. 2.5 A | max. 2.5 A | max. 5 A | max. 5 A | 125 mA |
| Battery capacity | 2x 12 V, 7 Ah | 2x 12 V, 7...12 Ah | 2x 12 V, 26 Ah | 2x 12 V, 26 Ah | option 2x 12 V, 7 Ah |
| Emergency power supply | up to 72 h ¹⁾ | up to 72 h ¹⁾ | up to 72 h | up to 72 h | up to 72 h |
| Connectable detector series | Cerberus PRO FD720 (C-NET) | Cerberus PRO FD720 (C-NET) | Cerberus PRO FD720 (C-NET) | Cerberus PRO FD720 (C-NET) | – |
| Number of lines | 1 | 2 (4) | 2 (4) | 4 (8) | – |
| – C-NET integrated (with loop extension) | 2 | 4 (8) | 4 (8) | 8 (16) | – |
| – Stub lines | – | – | – | – | – |
| Number of addresses | max. 126 | max. 252 | max. 252 | max. 504 | – |
| Networkable | – | ✓ | ✓ | ✓ | – |
| Integrated inputs/outputs | – Relay outputs • RT alarm • RT fault – Monitored outputs • Alarm • Fault • Horn | 1 1 1 1 1 1 | 1 1 1 1 1 1 | 1 1 1 2 12 | – |
| – Freely programmable inputs/outputs | 4 | 8 | 8 | 12 | – |
| Operating unit | integrated | integrated | integrated | integrated | integrated |
| Display groups integrated, each with one red, green and yellow LED | –/up to 24 | –/up to 24 | –/up to 48 | –/up to 48 | – |
| Display groups optional, each with one red, green and yellow LED | up to 96 ¹⁾ – | up to 96 ¹⁾ – | up to 96/up to 96 | up to 96/up to 96 | up to 96 ¹⁾ |
| Plug-in position for RS232, RS485 serial ports | 1 | 2 | 2 | 2 | 2 |
| Ethernet connection RJ45 | 1 | 1 | 1 | 1 | 1 |
| Dimensions (WxHxD) | 430x398x80 mm | 430x398x160 mm | 430x796x160 mm | 430x796x160 mm | 430x398x80 mm |
| Approvals | – CPR – VdS – LPCB | 0786-CPR-20721 G209076 126bn | 0786-CPR-20721 G209076 126bn | 0786-CPR-20722 G209077 126bn | – G209078 126bn |

¹⁾ with additional housing and power supply, ²⁾ with extra housing

Topology 2

Up to 64 panels in one EN 54-conform system with different combinations of clusters and backbone – and with connection to a danger management system via a customer network.



Important notice:
Simplified drawing without additional network hardware and safety components. Allowed configurations are described in the document "Network Security Guidelines", Doc. ID: A6V101039439. Contact your Siemens IT Security expert for details.

Characteristics of topology example

- EN 54-conform networking of up to 64 panels via backbone
- Very large networks spanning long distances
- Highest system availability thanks to system-wide redundancy
- Panels on different clusters can communicate with each other
- Only one remote transmission to fire brigade over entire system necessary
- Distributed building complexes can be ideally protected
- Backbone is realized with fiber-optic cable

Key data

- Max. number of networkable panels incl. clusters (EN 54-conform): 64
- Max. number of clusters: 14
- Max. number of networkable panels per cluster: 16
- Number of panels with system-wide view: 5

Panel overview modular

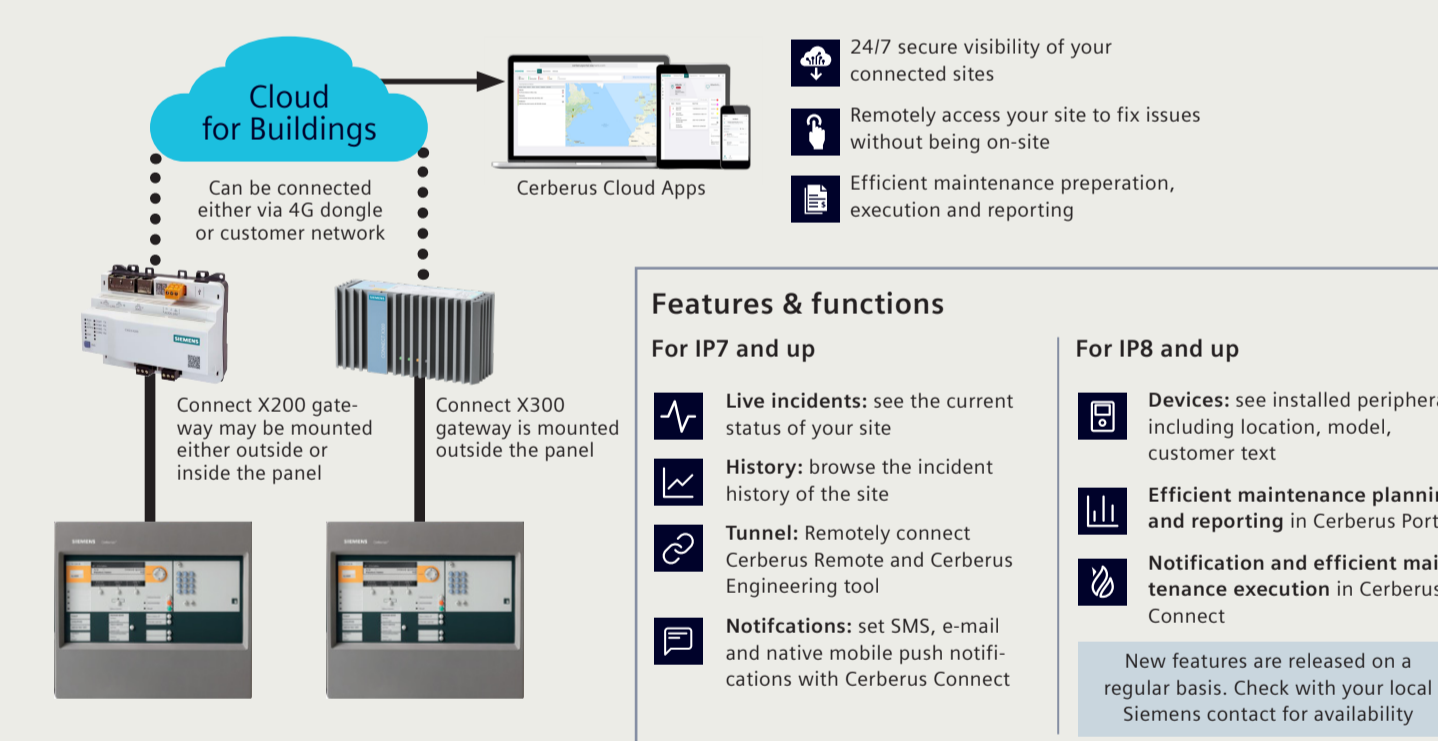
| | FC723-ZA | FC726-ZA |
|--|--|-------------------------------------|
| Housing | Housing Comfort | Housing Large |
| Mains voltage | – AC 98...127 V – AC 196...253 V | – AC 98...127 V – AC 196...253 V |
| Power supply | 150 W | 150 W |
| Operating voltage | DC 21...28.4 V | DC 21...28.4 V |
| Operating current | max. 5 A | max. 5 A |
| Battery capacity | 2x 12 V, 26 Ah | 2x 12 V, 26 Ah |
| Emergency power supply | up to 72 h | up to 72 h |
| Connectable detector series | Cerberus PRO FD720 (C-NET) | Cerberus PRO FD720 (C-NET) |
| Number of lines | 2 (4) | 4 (8) |
| – C-NET integrated (with loop extension) | 4 (8) | 8 (16) |
| – C-NET ext. (4 per line card) | max. 8 | max. 20 |
| Number of addresses | max. 756 | max. 1,512 |
| Networkable | ✓ | ✓ |
| Integrated inputs/outputs | – Relay outputs • RT alarm • RT fault – Monitored outputs • Alarm • Fault • Horn | 1 1 1 1 1 1 |
| – Freely programmable inputs/outputs | 8 | 12 (72) ¹⁾ |
| Operating unit | integrated | integrated |
| Display groups integrated, each with one red, green and yellow LED | – | – |
| Display groups optional, each with one red, green and yellow LED | up to 96 | up to 96 |
| Plug-in position for RS232, RS485 serial ports | 2 | 2 |
| Ethernet connection RJ45 | 1 | 1 |
| Dimensions (WxHxD) | 430x796x160 mm | 430x796x260 mm |
| Approvals | – CPD – VdS – LPCB | 0786-CPD-21328 G214021 126bn |

¹⁾ with additional input/output cards FC12008-A1

Single-sector extinguishing panel

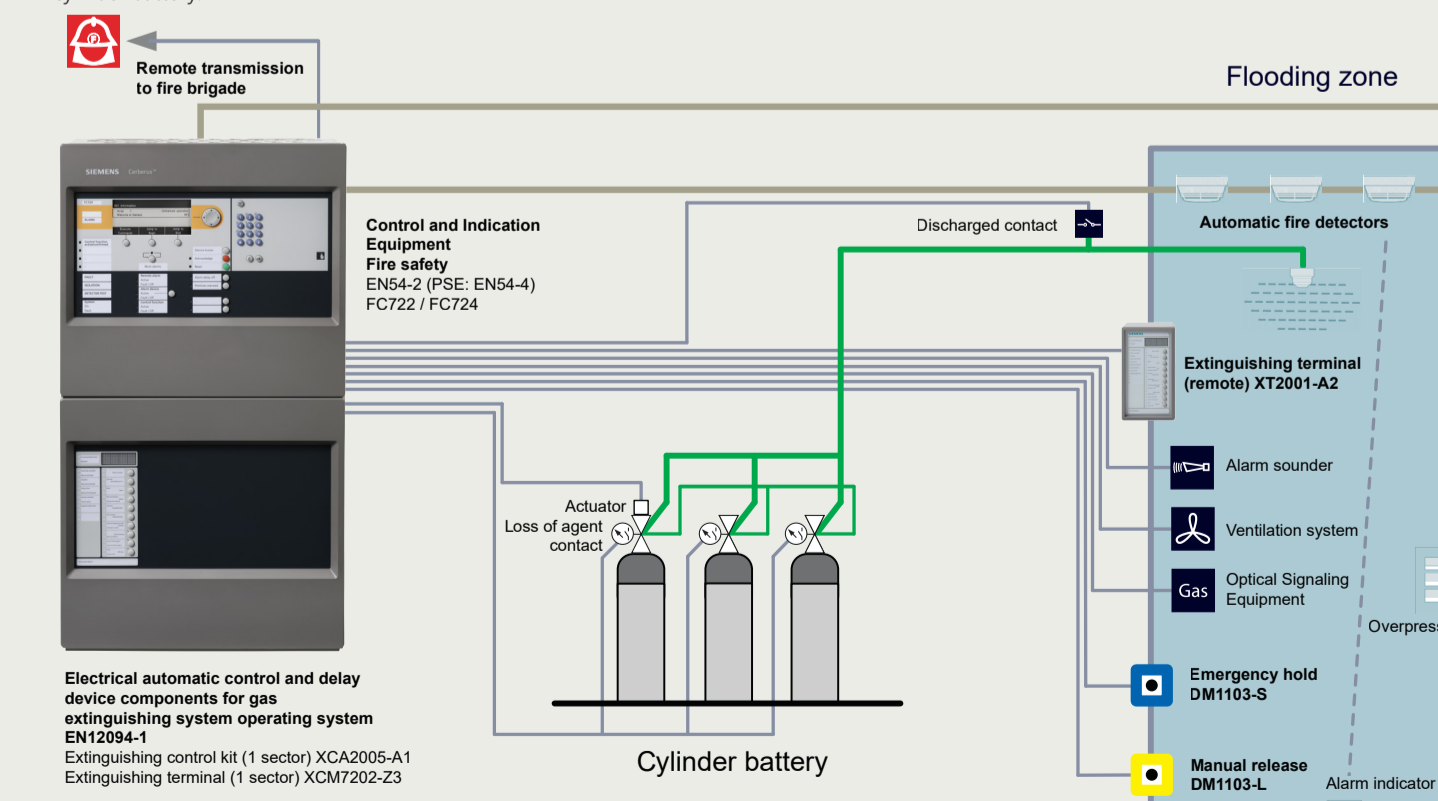
| | Combined fire and ext. control panel |
|---------------------------------------|---|
| Consisting of: | – Fire control panel – Extinguishing control kit – Extinguishing terminal Optional: – Extinguishing terminal |
| Techn. data FC72x | See FC722-ZA, FC724-ZA |
| Monitored collective inputs | max. 4 (e.g. Manual release and Emergency hold (all points)) max. 8, collective |
| Monitored inputs | max. 6 (e.g. Loss of agent, Discharged contact...) If collective inputs not used: 10 max. 64 (parallel, normally opened) |
| Non-monitored driver outputs | max. 6 Circuit Open drain, Short-circuit-proof 40 mA |
| Technical data extinguishing terminal | valve, standard, and inverse outputs, max. 10 max. 2 A max. 80 Ω, both conductors ground fault, leakage current, open line |
| Number of participants per sector | primary 1, secondary max. 5 |
| Cable length | primary max. 10 m, secondary max. 1200 m |
| Supply input | DC 21...30 V |
| Operating current per terminal | 25 mA typical @DC 24 V |
| Indication LEDs | 34 LEDs |
| Indication Display | 4 digits 5x7 dot matrix |
| Data sheet | A6V11480005 |

Cerberus Cloud Apps offering



Integrated Extinguishing control planning

Single-sector extinguishing
Combined fire detection and extinguishing control panel FC20 operating as a single-sector extinguishing system. FC20 works with most types of extinguishing systems for room or object protection. A single-sector installation consists of a single flooding zone and cylinder bank. In case of a fire, the extinguishing agent flows through the manifolds to the flooding zone and is distributed there by the nozzles. The system can be optionally configured with a reserve cylinder battery.



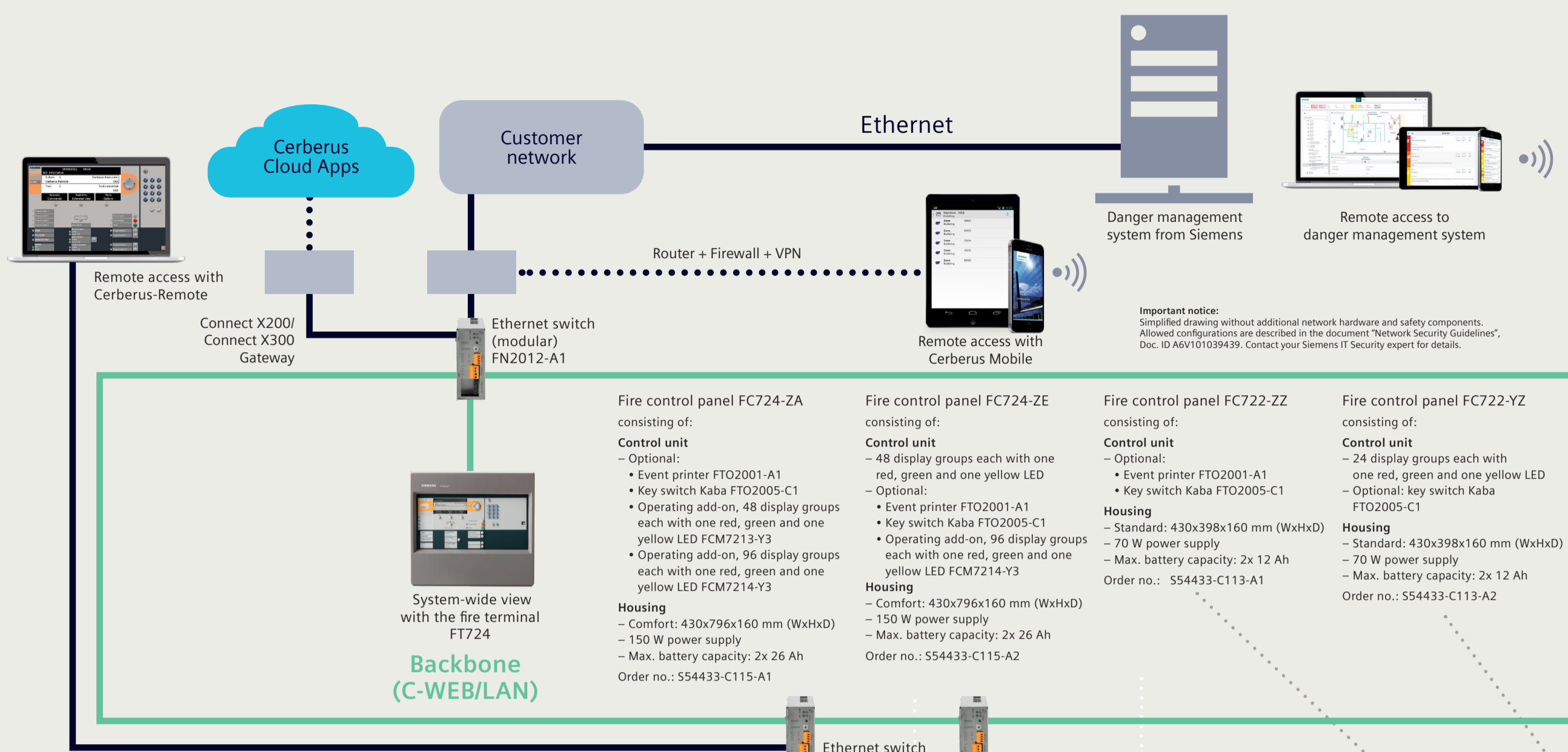
Caption:
– C-NET
– Electrical line
– Manifold (distribution pipe)
– Control pipe

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.
siemens.com/smart-infrastructure

Published by
Siemens Switzerland Ltd 2021
Building Technologies Division
Innovation Headquarters
Thalstrasse 18
6900 Zug
Switzerland
Tel +41 58 724 24 24
Article no. 8T_0149_EN (Status 10/2021)
Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.
© Siemens Switzerland Ltd, 2021

Cerberus PRO Planning Tool Panels, network and accessories

To enable remote operation with Cerberus-Remote, the PC has to be connected to an Ethernet switch of the backbone. Access to a certain panel in a cluster will be granted by installing an S1 license key into this panel.



Backbone (C-WEB/LAN)

Clusters can be networked via an Ethernet backbone, using industrial LAN technology. Siemens is the first manufacturer offering this as an EN 54-approved solution. With standard IT architecture, building structures and organizational processes can be ideally represented.

- Characteristics of networking via backbone
- Ethernet switch to connect a cluster to the backbone
- Redundant transmission thanks to circular wiring
- Redundant connection possible due to two Ethernet switches
- Increased EMC protection thanks to fiber-optic cabling
- Easily programmable, EN 54-compliant system-wide control
- Configurable view of each panel
- All panels can be used as a router panel (for further information on FC726, please see separate documentation).

- Key data
- Max. number of panels in EN 54 system: 64
- Max. number of panels in a cluster: 16
- Max. number of networkable clusters: 14
- Number of panels placed directly on backbone: 4*
- Number of panels with system-wide view: 5*

* and more with relevant system topology
The following guidelines must be observed
- To fulfill the EN 54 norm, only 1 Ethernet switch is required to connect control panels with less than 512 fire detectors to the backbone.



Cluster (C-WEB/SAFEDLINK)

Via the powerful cluster, up to 32 panels can be networked (fire control panels and fire terminals).

- Characteristics of networking via the system bus
- Wiring with two wires
- Redundant transmission thanks to circular wiring
- Increased safety due to degrade mode using a second network module
- No additional cabling necessary for degrade mode; even for systems with more than 512 fire detectors
- Configurable view of individual panels

- Key data
- Max. number of networkable panels: 32
- Max. number of networkable clusters: 14
- Max. number of panels in a cluster: 16
- Max. distance between panels with copper cable
- without repeater: 1 km
- with repeater: 2 km
- Max. distance between panels with fiber-optic cable
- multi mode: 4 km
- single mode: 40 km
- Max. number of panels with system-wide view: 5

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 of networking via the detector bus
- Use of all cable types (shielded or unshielded)
- Integration of star-shaped cable networks without modifications to cable network
- No shielding necessary
- 2-wire loop
- Power supply to all bus elements via the C-NET (except transponder FDO2023, FDO723, LaserFOCUS, extinguishing control unit XC10 and ASD FDA241, FDA241)

- Key data
- 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

Legend for the interfaces and networks:

- Serial interfaces
- Backbone (C-WEB/LAN)
- Cluster (C-WEB/SAFEDLINK)
- C-NET
- C-NET-Ex
One optional RS232 and/or one RS485 interface (also freely combinable) per panel or fire terminal
Network for connecting clusters
Network for connecting panels
Network for connecting Cerberus PRO addressable devices
Network for connecting Cerberus PRO addressable Ex devices

Fire control panel FC724 (4-loop)

Description
The FC724 is a compact 4-loop fire control panel. It has the following features:
- 4 C-NET loops with 1.5 A line driver
- 5 slots for additional module bus cards
- Integrated inputs/outputs for peripherals
- Integrated control unit
- Integrated power supply
- Automatic configuration
- Networkability via backbone (C-WEB/LAN), cluster (C-WEB/SAFEDLINK) or Ethernet

Fire terminal FT724

Description
The FT724 has the following features:
- Integrated control unit
- Separate DC 24 V supply input possible
- Redundant DC 24 V supply input
- Networkability via C-WEB/SAFEDLINK or Ethernet

Fire control panel FC722 (2-loop)

Description
The FC722 is a compact 2-loop fire control panel. It has the following features:
- 2 C-NET loops with 1.5 A line driver
- Integrated inputs/outputs for peripherals
- Integrated control unit
- Integrated power supply
- Automatic configuration
- Networkability via backbone (C-WEB/LAN), cluster (C-WEB/SAFEDLINK) or Ethernet

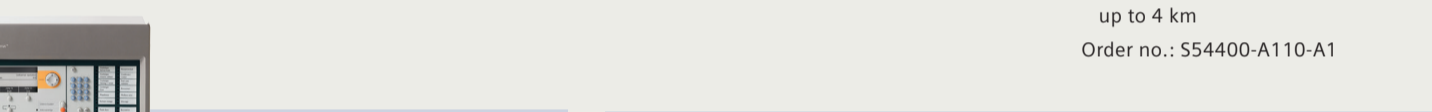
Fire control panel with extinguishing control

Description
The FC722-2ZG consists of:
- Event printer FTO2001-A1
- Key switch Kaba FTO2005-C1
- Operating add-on, 48 display groups each with one red, green and one yellow LED FCM7213-Y3
- Operating add-on, 96 display groups each with one red, green and one yellow LED FCM7214-Y3

Network components

- Backbone
Ethernet switch (modular) FN2012-A1
Ethernet module (electric) VN2001-A1
Ethernet module (MM) VN2002-A1
Ethernet module (SM) VN2003-A1
Connection module (MoNet) FCA2031-A1
Cluster
Network module (SAFEDLINK) FN2001-A1
Connect X300 Gateway CKG3.X300
Connect X200 Gateway CKG3.X200

Table with license keys: Cerberus DMS, Cerberus-Remote and BACnet 3-party provider, BACnet 3-party provider, BACnet 3rd-party provider, Cerberus Mobile.



Fire control panel FC721 (1-loop)

Description
The FC721 is a compact fire control panel. It has the following features:
- 1 C-NET loop
- Integrated inputs/outputs for peripherals
- Integrated control unit
- Integrated power supply
- Automatic configuration
- Networkability via backbone (C-WEB/LAN), cluster (C-WEB/SAFEDLINK) or Ethernet

Fire control panel FC721-ZZ

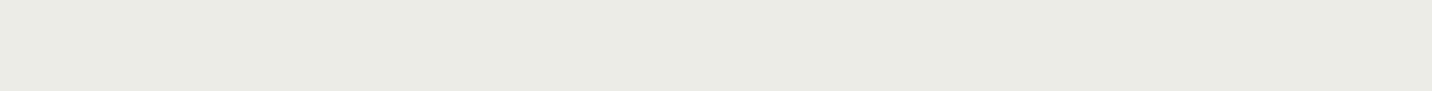
Description
The FC721-ZZ consists of:
- Event printer FTO2001-A1
- Key switch Kaba FTO2005-C1
- Operating add-on, 48 display groups each with one red, green and one yellow LED FCM7213-Y3
- Operating add-on, 96 display groups each with one red, green and one yellow LED FCM7214-Y3

Fire control panel FC722-ZZ

Description
The FC722-ZZ consists of:
- Event printer FTO2001-A1
- Key switch Kaba FTO2005-C1
- Operating add-on, 48 display groups each with one red, green and one yellow LED FCM7213-Y3
- Operating add-on, 96 display groups each with one red, green and one yellow LED FCM7214-Y3

Fire control panel FC722-ZE

Description
The FC722-ZE consists of:
- Event printer FTO2001-A1
- Key switch Kaba FTO2005-C1
- Operating add-on, 48 display groups each with one red, green and one yellow LED FCM7213-Y3
- Operating add-on, 96 display groups each with one red, green and one yellow LED FCM7214-Y3



Housings

- Housing (Eco) FH7201-Z3
Housing (Standard) FH7202-Z3
Housing (Comfort) FH7203-Z3
Housing (Large Extension) FH7204-Z3
Housing (Large) FH7205-Z3
Housing (Eco) FH7206-Z3
Housing (Standard) FH7207-Z3
Housing (Comfort) FH7208-Z3
Housing (Large Extension) FH7209-Z3
Housing (Large) FH7210-Z3

Expansion options

- Loop extension (C-NET, P) FCI2025-A1
RS232 module (isolated) FCA2001-A1
RS485 module (isolated) FCA2002-A1
Sounder module FCA2005-A1
Operating add-on (2x LED-ind.) FCM7213-Y3
Operating add-on (4x LED-ind.) FCM7214-Y3

Operating add-ons

- Operating add-on (2x LED-ind.) FCM7213-Y3
Operating add-on (4x LED-ind.) FCM7214-Y3
Flush mounting bezel one HU FHA2017-A1
Flush mounting bezel two HU FHA2018-A1
Key switch Kaba FTO2005-C1
Key switch Nordic FTO2006-B1
Event printer FTO2001-A1
Mounting kit (marine) FHA2035-A1
19" mounting kit FHA2016-A1

Extinguishing equipment

- Extinguishing control kit (1 sector) XCA2005-A1
Extinguishing terminal (1 sector) XCM7202-Z3
Extinguishing key switch Kaba XTO2002-C1
Extinguishing key switch (Nordic) XTO2003-B1

Module bus cards for FC723 / FC726

- Line card (FDnet/CNET, P) FCL2008-A1
Line card (SynoLOOP) FCL7201-Z3
I/O card (RT) FCI2007-A1
I/O card (programmable) FCI2008-A1
I/O card (horn/monitored) FCI2009-A1

Power supply

- Power supply kit A (70 W) FP120-Z1
Power supply kit A (150 W) FP2004-A1
Power supply kit B (70 W) FP2015-A1
Power supply kit B (150 W) FP2005-A1