



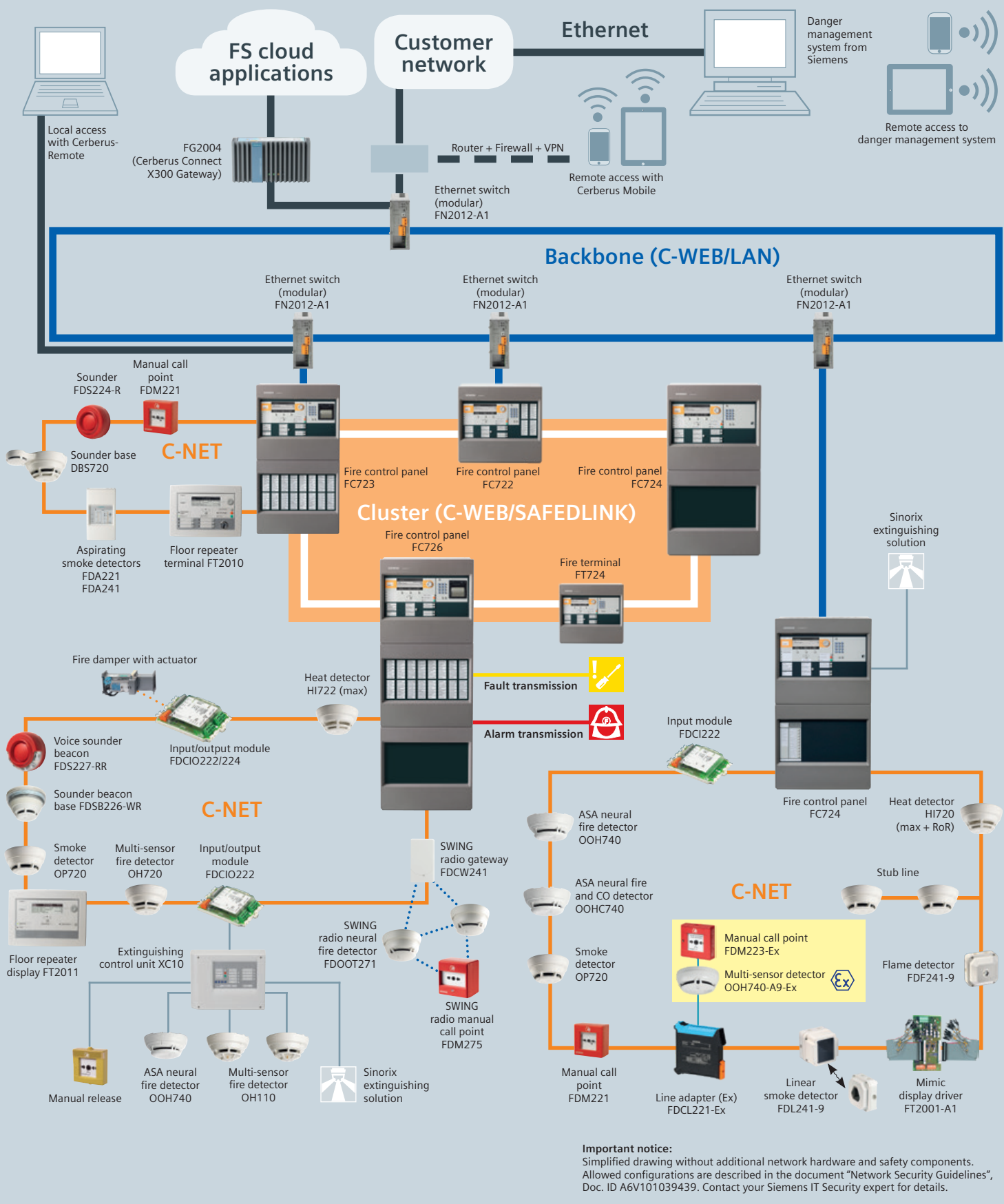
Cerberus PRO – panels, network and accessories

Planning Tool






siemens.com/cerberus

Cerberus PRO – enjoy protecting

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





Panel overview compact

	FC721-ZZ1-YZ	FC722-ZZ1-YZ	FC722-ZA1-ZE	FC724-ZA1-ZE	FT724-ZZ
					
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	1	1	1	1	–
• RT alarm	1	1	1	1	–
– Monitored outputs	1	1	1	1	–
• Alarm	1	1	1	1	–
• Fault	1	1	1	1	–
• Horn	1	1	2	2	–
– 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 ²⁾ –	up to 96 ²⁾ –	up to 96/up to 96	up to 96/up to 96	up to 96 ³⁾
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	0786-CPR-20767	0786-CPR-20721	0786-CPR-20721	0786-CPR-20722	–
– VdS	–	G209076	G209076	G209077	G209078
– LPCB	126bn	126bn	126bn	126bn	126bn


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

Panel overview modular

	FC723-ZA	FC726-ZA
		
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, 45 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)
– Stub lines	max. 8	max. 20
– C-NET ext. (4 per line card)	–	–
Number of addresses	max. 756	max. 1,512
Networkable	✓	✓
Integrated inputs/outputs		
– Relay outputs	1	1
• RT alarm	1	1
– Monitored outputs	1	1
• Alarm	1	1
• Fault	1	1
• Horn	1	2
– 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		
– CPR	0786-CPD-21328	0786-CPD-20983
– VdS	G214021	G210084
– LPCB	126bn	126bn

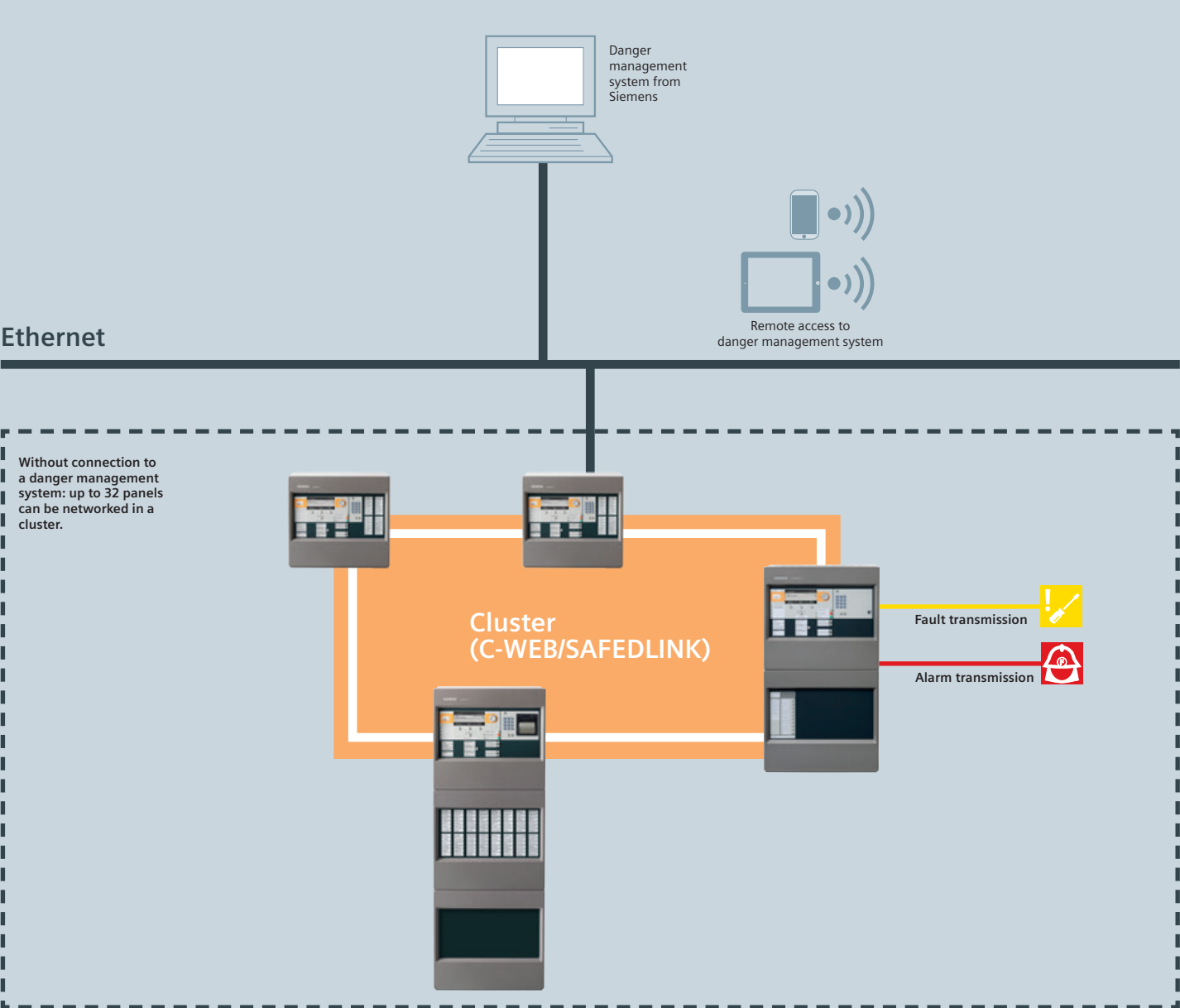
¹⁾ with additional input/output cards FC12008-A1

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
Technical data extinguishing card	
Monitored outputs	valve, standard, and inverse outputs, max. 10
– Output voltage	max. DC 25.8 V
– Output current	max. 2 A
– Line resistance	max. 80 Ω, both conductors
– Monitored for	ground fault, leakage current, open line
Monitored collective inputs	max. 4 (e.g. Manual release and Emergency hold call points)
– Number of devices per input	max. 8, collective
Monitored inputs	max. 6 (e.g. Loss of agent, Discharged contact ...)
– Number of devices per input	If collective inputs not used: 10 max. 64 (parallel, normally opened)
Non-monitored driver outputs	max. 6 Circuit Open driver, Short-circuit-proof
– Current limiting	40 mA
Technical data extinguishing terminal	
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
Approvals	– CPR – VdS
	pending pending

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.



Characteristics of topology example

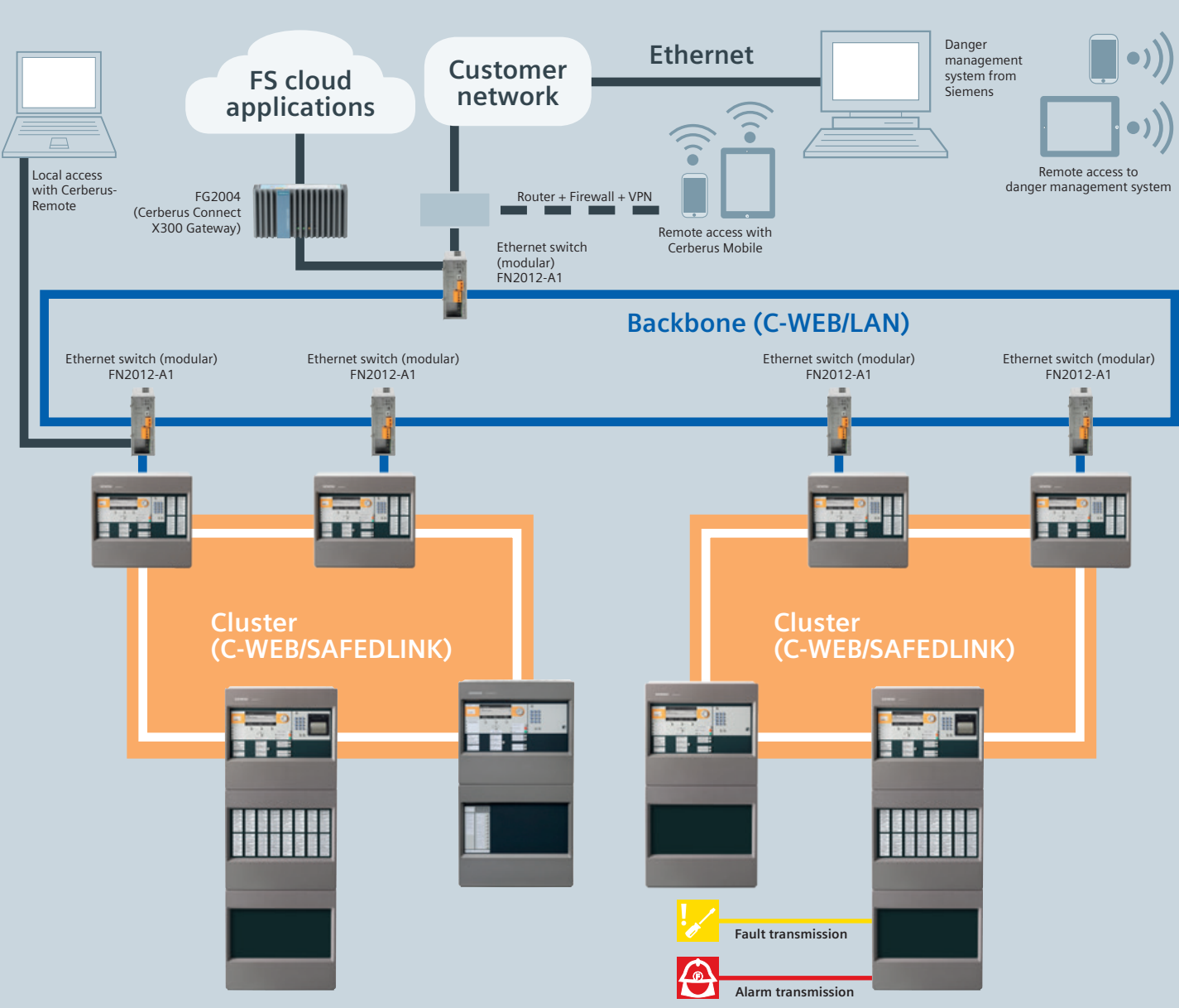
- Easy networking of panels
- Operation of panels as standalone solution or networked with a total length of up to 1,280 km
- Data rate can be adapted to line quality

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

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.



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

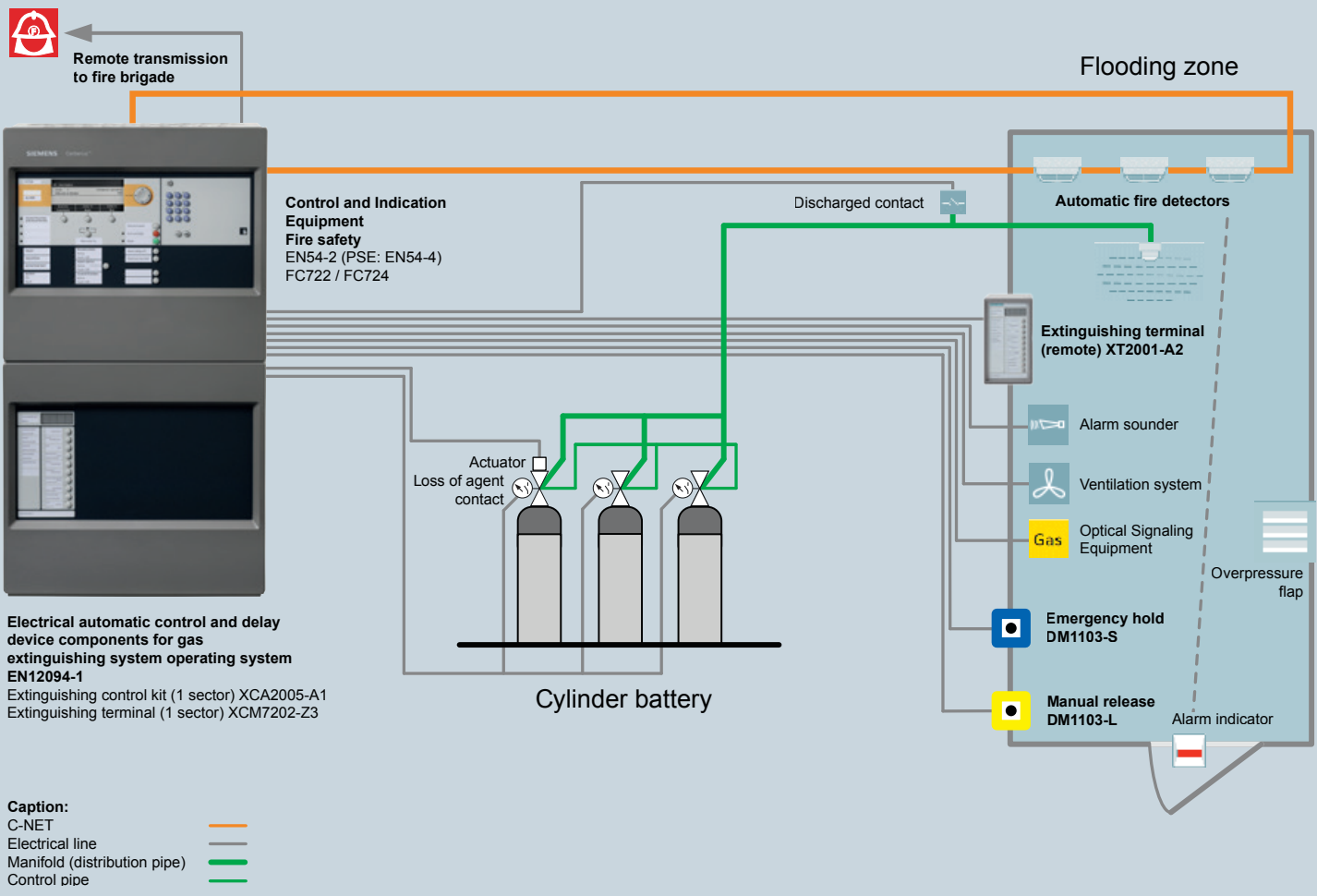
Key data

– 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

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.

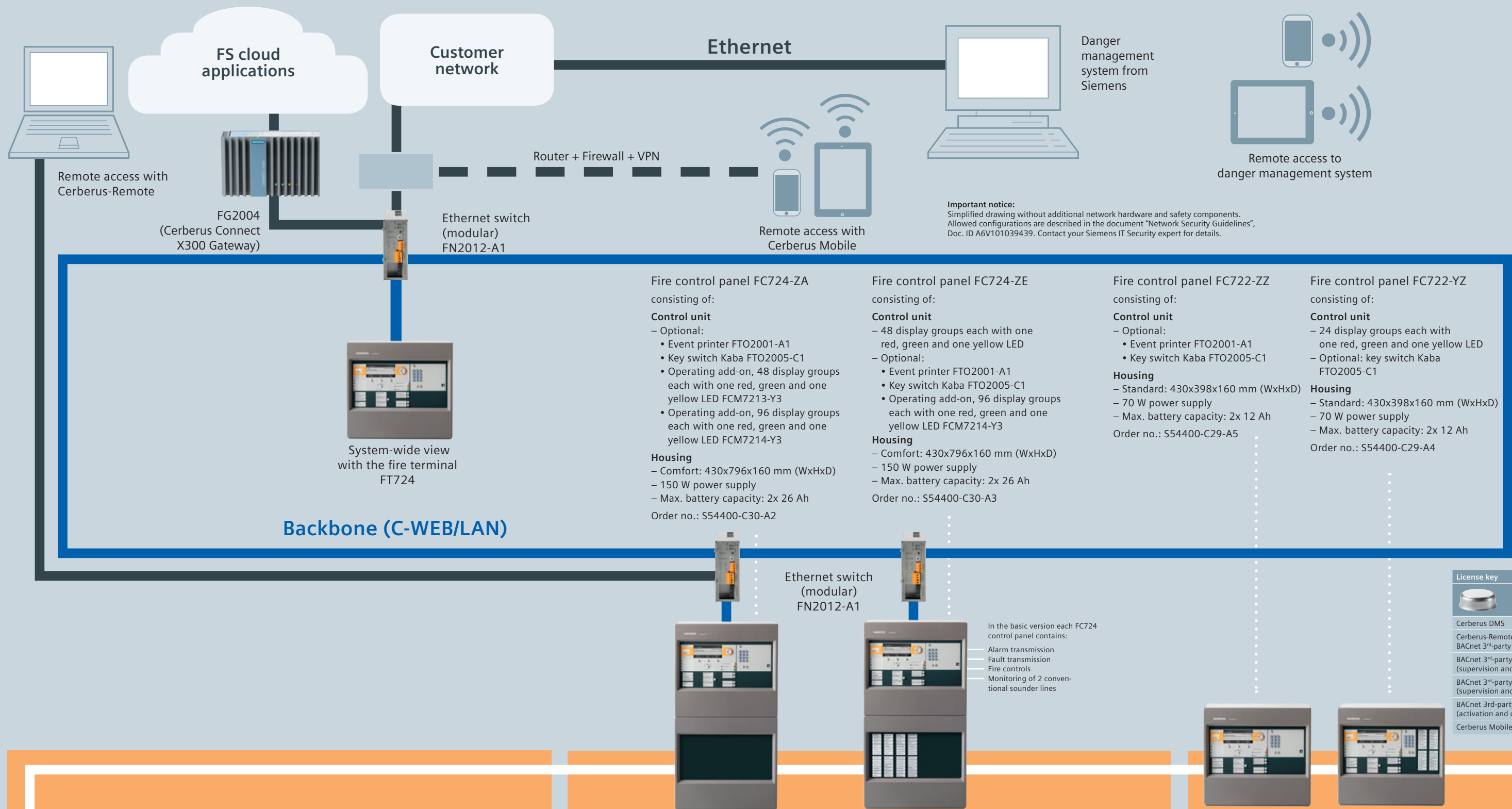


Cerberus PRO Planning Tool

Panels, network and accessories

SIEMENS

To enable remote operation via 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*
- Max. distance between clusters: 4 km
- Fiber optic multi mode: 40 km
- Fiber optic single mode: 40 km

* 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 panels if connected to a danger management system: 16
- Max. distance between panels with copper cable: 1 km
- Max. distance between panels with fiber-optic cable: 2 km
- 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 FDO223, FDO723, LaserFOCUS, extinguishing control unit XC10 and ASD FDA221, 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

- 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

Detailed planning information

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

C-NET

(For further details see also the Cerberus PRO Planning Tool – C-NET devices)



Network components

Backbone

Ethernet switch (modular) FN2012-A1
Order no.: S54400-B152-A1

Cluster

Ethernet module (electriCATS) VN2001-A1
Order no.: S54400-A42-A1

Ethernet module (MM) VN2002-A1

Order no.: S54400-A43-A1

Ethernet module (SM) VN2003-A1

Order no.: S54400-A44-A1

Connection module (MoNet) FCA2031-A1

Order no.: S54400-A153-A1

License key	Without license key	S1 (FCA2031-A1) Order no.: S54400-P154-A1	S2 (FCA2031-A1) Order no.: S54400-P155-A1	S3 (FCA2031-A1) Order no.: S54400-P156-A1	S4 (FCA2031-A1) Order no.: S54400-P157-A1
Cerberus DMS	✓	✓	✓	✓	✓
Cerberus-Remote and BACnet 3rd-party provider (supervision)	–	✓	✓	✓	✓
BACnet 3rd-party provider (supervision and basic commands)	–	✓	✓	✓	✓
BACnet 3rd-party provider (supervision and extended commands)	–	–	–	✓	✓
BACnet 3rd-party provider (deactivation and deactivation commands)	–	–	–	–	✓
Cerberus Mobile	–	–	–	–	✓

Cluster

Network module (SAFEDLINK) FN2001-A1

With this module, the station can be networked via the cluster. For this purpose it is necessary to install a network module. In case of additional requirements in terms of the degrade mode function, 2 network modules can be installed.

For example for:

- Networked panels with more than 512 C-NET devices
- Networked panels with connection to remote transmission and with more than 512 C-NET devices

Order no.: ASQ00012851

Optical fiber networking modules

FN2006-A1 (SM) and FN2007-A1 (MM)

With these optical fiber networking modules, Cerberus PRO stations can be linked to the C-WEB/SAFEDLINK system bus over great distances by glass fiber cable. The redundant feed allows EN 54-compliant networking even if the networking module is remote.

Characteristics:

- Two independent, galvanically separated channels
- SC connections for optical cables
- Two redundant, monitored power feeds EN 54-approved
- Earth fault monitoring
- Installation in the station or remote
- Can be installed upright or horizontally on a DIN rail
- FN2006-A1: single-mode transmission up to 40 km
- FN2007-A1: multi-mode transmission up to 4 km
- Order no.: S54400-A110-A1

Order no.: S54400-A109-A1

Order no.: S54400-A110-A1

Order no.: S54400-A110-A1

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Order no.: S54400-A110-A1

Order no.: S54400-A110-A1

Housings

Housing (Eco) FH7201-Z3

– Max. battery capacity: 2x 7 Ah

– 430x398x80 mm (WxHxD)

– Optional:

- Power supply kit (70 W) FP2015-A1
- Event printer FT02001-A1
- Operating add-on (2x LED-ind.) FCM7213-Y3
- Operating add-on (4x LED-ind.) FCM7214-Y3

Order no.: S54400-B72-A1

Housing (Standard) FH7202-Z3

– Max. battery capacity: 2x 26 Ah

– 430x398x160 mm (WxHxD)

– Optional:

- Power supply kit (70 W) FP2015-A1 or
- Power supply kit (150 W) FP2004-A1 or
- additional power supply (150 W) FP2005-A1
- Event printer FT02001-A1
- Operating add-on (2x LED-ind.) FCM7213-Y3
- Operating add-on (4x LED-ind.) FCM7214-Y3

Order no.: S54400-B70-A1

Housing (Comfort) FH7203-Z3

– Max. battery capacity: 2x 26 Ah

– 430x796x160 mm (WxHxD)

– Optional:

- Power supply kit (70 W) FP2015-A1 or
- Power supply kit (150 W) FP2004-A1 or
- additional power supply (150 W) FP2005-A1
- Event printer FT02001-A1
- Operating add-on (2x LED-ind.) FCM7213-Y3
- Operating add-on (4x LED-ind.) FCM7214-Y3

Order no.: S54400-B71-A1

Housing (Large) FH7205-Z3

– Max. battery capacity: 2x 100 Ah

– 430x796x260 mm (WxHxD)

– Optional:

- Power supply kit (70 W) FP2015-A1
- Power supply kit (150 W) FP2004-A1
- Event printer FT02001-A1
- Operating add-on (2x LED-ind.) FCM7213-Y3
- Operating add-on (4x LED-ind.) FCM7214-Y3

Order no.: S54400-B89-A1

Flush mounting bezel one HU FHA2017-A1

Optional bezel for flush mounting installation for all fire control panels and FT224 fire terminal; 530x500 mm (WxH)

Order no.: ASQ00024719

Flush mounting bezel two HU FHA2015-A1

Optional bezel for flush mounting installation for all fire control panels and FT224 fire terminal; 530x886 mm (WxH)

Order no.: ASQ00024621

Mounting kit (marine) FHA2035-A1

Mounting kit to fasten a fire control panel in a housing (Comfort) to a wall without vibrations and to shield against EMC influences; 430x796x37 mm (WxHxD)

Order no.: S54400-S111-A1

19" mounting kit FHA2016-A1

Enables all fire control panels and fire terminals to be mounted in a 19" frame; 430x100x324 mm (WxHxD)

Order no.: ASQ00020719

Module bus cards for FC723 / FC726

Line card (C-NET) FCL2001-A1

For 252 C-NET devices on 4 loops or 8 stubs.

Order no.: ASQ00009875

Line card (SynoLOOP) FCL7201-Z3

For 128 devices per loop or 4 stubs.

Order no.: S54400-H116-A1

I/O card (RT) FCI2007-A1

For alarm and fault transmission.

Order no.: S54400-A20-A1

I/O card (programmable) FCI2008-A1

12 programmable inputs/outputs with defined behavior in degrade mode.

Order no.: S54400-A6-A1

I/O card (horn/monitor) FCI2009-A1

8 monitored horn lines or monitored outputs.

Order no.: S54400-A21-A1

Power supply

Power supply kit A (70 W) FP120-Z1

The standalone power supply converts the mains voltage to system voltage and charges the batteries.

Order no.: S54400-S122-A1

Power supply (70 W) FP2015-A1

For the independent power supply of fire terminals such as FT224-Z2.

Order no.: S54400-B121-A1

Power supply kit (150 W) FP2005-A1

Power supply can be connected in the housing directly after FP2004-A1.

Order no.: ASQ00018779

Power supply kit (150 W) FP2004-A1

Power supply for installation in empty housings. Optional: additional power supply with FP2005-A1 is possible.

Order no.: ASQ00020825

Power supply kit (150 W) FP2005-A1

Power supply can be connected in the housing directly after FP2004-A1.

Order no.: ASQ00018779

Expansion options

Loop extension (C-NET) FCI2003-A1

This module is needed, for example, for operating the number of loops (e.g. from 2 loops to 4 loops or from 4 loops to 8 loops) while retaining a constant total number of addresses on the C-NET line card (e.g. 2 loops with 126 addresses each or 4 loops with 63 addresses each).

Order no.: ASQ000010136

RS232 module (isolated) FCA2001-A1

This module is needed, for example, for operating an event printer. It is plugged into the FMI main-board. The RS232 module is not contained in the set for the event printer.

Order no.: ASQ00005327

RS485 module (isolated) FCA2002-A1

This is needed, for example, for operating the following modules:

- Fire department display panel with integrated fire department operating panel (FAT and FBR) [DE and CZ]
- EVAC module [NL]

The RS485 module (isolated) is plugged into the FMI mainboard.

Order no.: ASQ00009923

Sounder module FCA2005-A1

The sounder module has connections for a conventional sounder lines (primary lines; 4x up to 1 A, max. 2 A total). The sounder module is screwed to the assembly plate FHA2007-A1.

Order no.: ASQ00014866

Output module (230 V) FCA1209-Z1

The module is directly connected with the monitored output line and provides one potential-free contact. It is an output module for the control of ventilation, air conditioning, elevators, etc.

Order no.: S54400-B124-A1

Operating add-ons

Operating add-on (2x LED-ind.) FCM7213-Y3

This contains 48 display groups each with one red, green and one yellow LED. Any events can be allocated to the LEDs.

Optional: event printer FT02001-A1

Order no.: S54400-B149-A1

Operating add-on (4x LED-ind.) FCM7214-Y3

This contains 96 display groups each with one red, green and one yellow LED. Any events can be allocated to the LEDs.

Order no.: S54400-B150-A1

Key switch Nordi FCT2006-B1

Kaba lock cylinder with installation accessories and keys (Kaba #100). Usable optionally for enabling operation.

Order no.: ASQ000010113

Extinguishing key switch Kaba XTO2002-C1

Order no.: S54392-B12-A1

Extinguishing key switch (Nordic) XTO2003-B1

Order no.: S54392-B11-A1

Event printer FT02001-A1

The event printer FT02001-A1 is installed directly in the control panel or in the terminal. It is a thermal printer which logs all events. An RS232 module (isolated) FCA2001-A1 is required for operating the event printer. This is not contained in the printer set and must be ordered separately.

Order no.: ASQ00010126

Event printer DL3750+

Monitored external event printer for serial connection or via Ethernet. Optional: RS232 module (isolated) FCA2001-A1.

Order no.: ASQ00023962

Extinguishing equipment

Extinguishing control kit (1 sector) XCA2005-A1

– Extinguishing card XC12005-A1

– Card cage (1 sector exting.) FCA2046-A1

– Card cage connection FCA2006

Order no.: S54392-S20-A1

Extinguishing terminal (1 sector) XCM7202-Z3

– 1 extinguishing terminal

– Configurable leds and push buttons

– 4 digit display to show countdown pre-warning time

Order no.: S54392-B18-A1

Extinguishing key switch Kaba XTO2002-C1

Order no.: S54392-B12-A1

Extinguishing key switch (Nordic) XTO2003-B1

Order no.: S54392-B11-A1