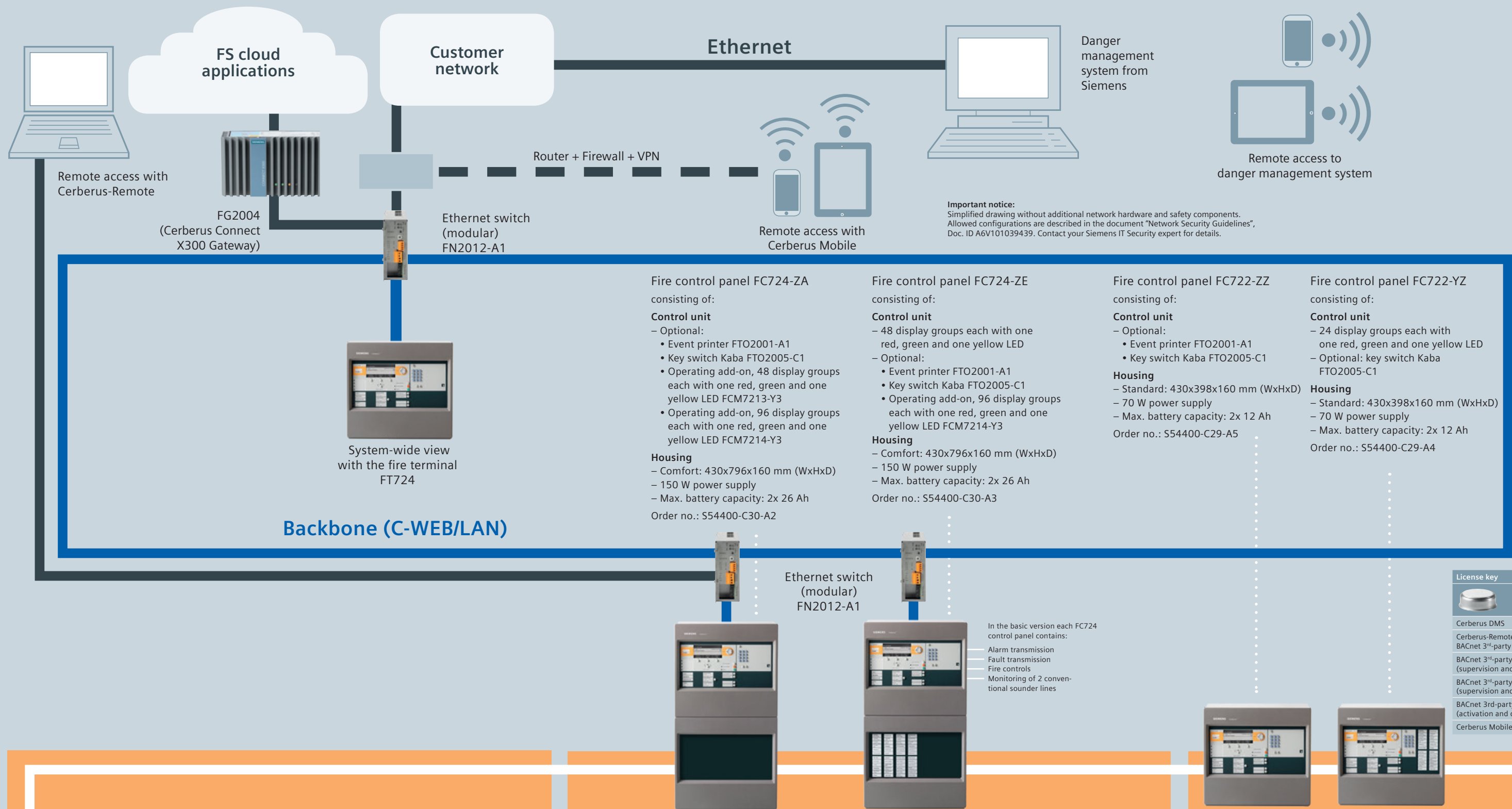


Cerberus PRO Planning Tool

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/SAFE/LINK)

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

Ethernet module (electroCAT5) 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

Cluster

Network module (SAFE/LINK) 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/SAFE/LINK 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-A109-A1

License key	Without license key	S1 (FCA2031-A1) Order no.: S54400-P154-A1	S2 (FCA2034-A1) Order no.: S54400-P155-A1	S3 (FCA2035-A1) Order no.: S54400-P156-A1	S4 (FCA2036-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	–	–	–	–	–

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/SAFE/LINK) or Ethernet

Technical data

C-NET detector lines

- Number of addresses: max. 126
- Number of integrated loops/stubs: 1/2

Inputs and outputs

- 1 relay output for RT alarm
- 1 relay output for RT fault
- 1 monitored alarm output
- 1 monitored fault output
- 1 monitored sounder output (1 A)
- 8 configurable inputs/outputs DC 24 V
- 1 Ethernet connection (RJ45)
- Optional: sounder module for splitting the sounder line output into 4 monitored outputs (2 A)

Fire control panel FC721-YZ

consisting of:

- 24 display groups each with one red, green and one yellow LED
- Optional: key switch Kaba FT02005-C1

Housing

- Eco: 430x398x80 mm (WxHxD)
- 70 W power supply
- Max. battery capacity: 2x 7 Ah

Order no.: S54400-C32-A3

FDA241 ASD from Siemens

The FDA241 is a very early warning dual wavelength (blue and infrared) smoke detector designed to protect small business-critical environments up to 800 m³.

Order no.: S5433-F14-A1

FP120-Z1 Power supply kit A (70 W)

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

Order no.: S54400-S122-A1

Housings

Housing (Eco) FH7201-Z3

- Max. battery capacity: 2x 26 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
- Power supply kit (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-B86-A1

Housing (Large Extension) FH7204-Z3

- Max. battery capacity: 2x 100 Ah
- 430x398x260 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 FT724 fire terminal; 530x500 mm (WxH)

Order no.: ASQ00024719

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.: ASQ0002079

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/monitored) 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 FT724-ZZ.

Order no.: S54400-B121-A1

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 FBF) [DE and C2]
- 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 Kaba FT02005-C1

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

Key switch Nordif FT02006-B1

Key set with mounting accessories. Optimally applicable for operation clearance.

Order no.: ASQ000010129

Extinguishing key switch (Nordif) 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.: ASQ000010126

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

consisting of:

- Extinguishing card XCI2005-A1
- Card cage (1 sector exting.) FCA2046-A1
- Accessory kit FCA2047-A1
- Card cage connection FCA2006

Order no.: S54392-S20-A1

Extinguishing terminal (1 sector) XCM7202-Z3

consisting of:

- 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 (Nordif) XTO2003-B1

Order no.: S54392-B11-A1