

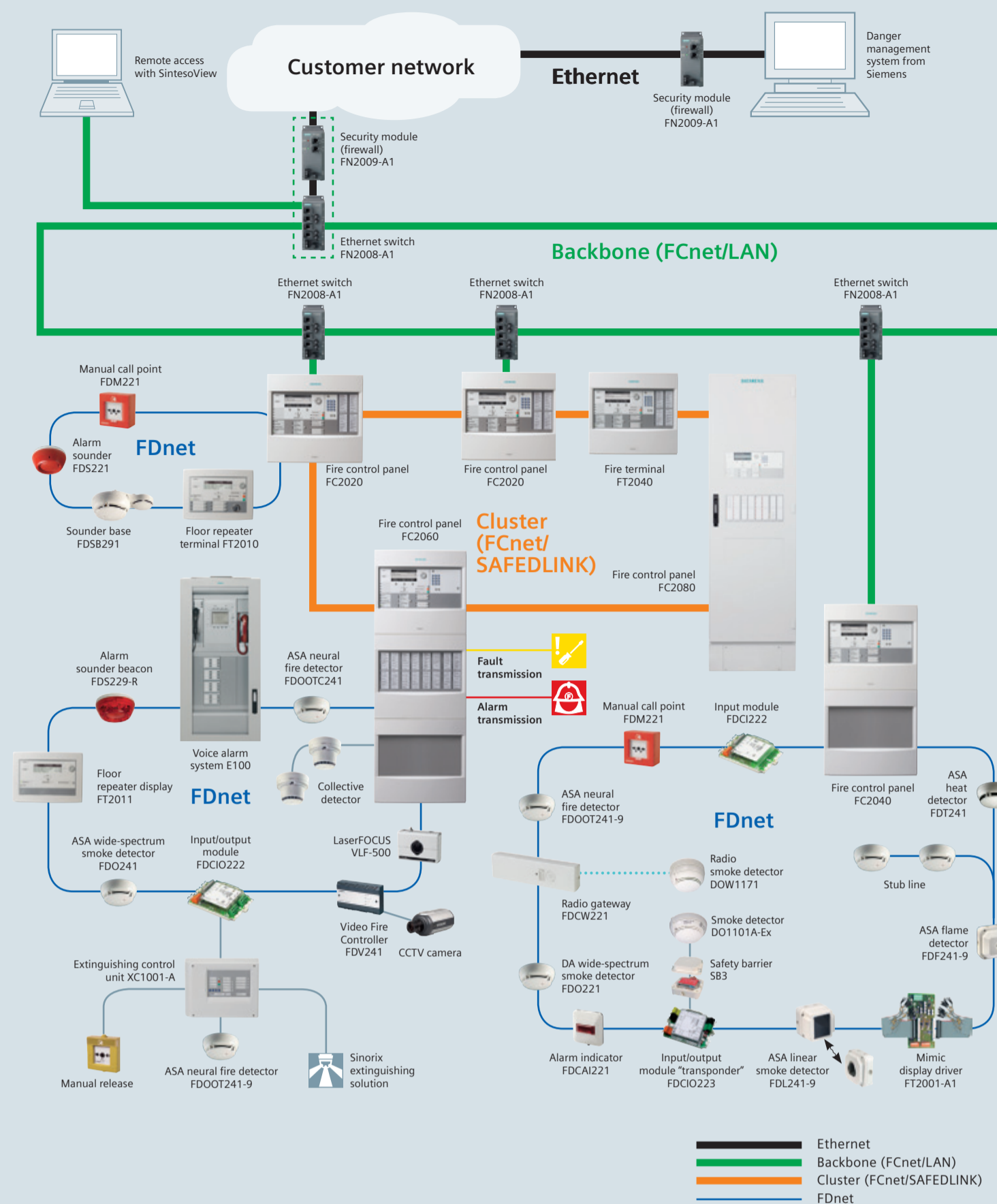


# Sinteso – panels, network and accessories

Planning Tool

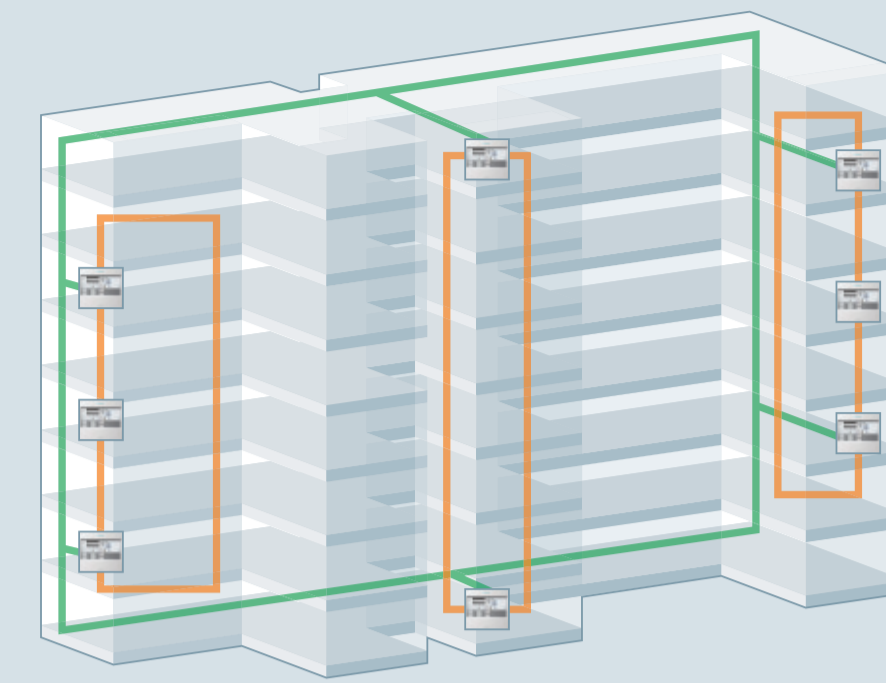
Answers for infrastructure.

## Your system for fire detection, alarming and control: Sinteso

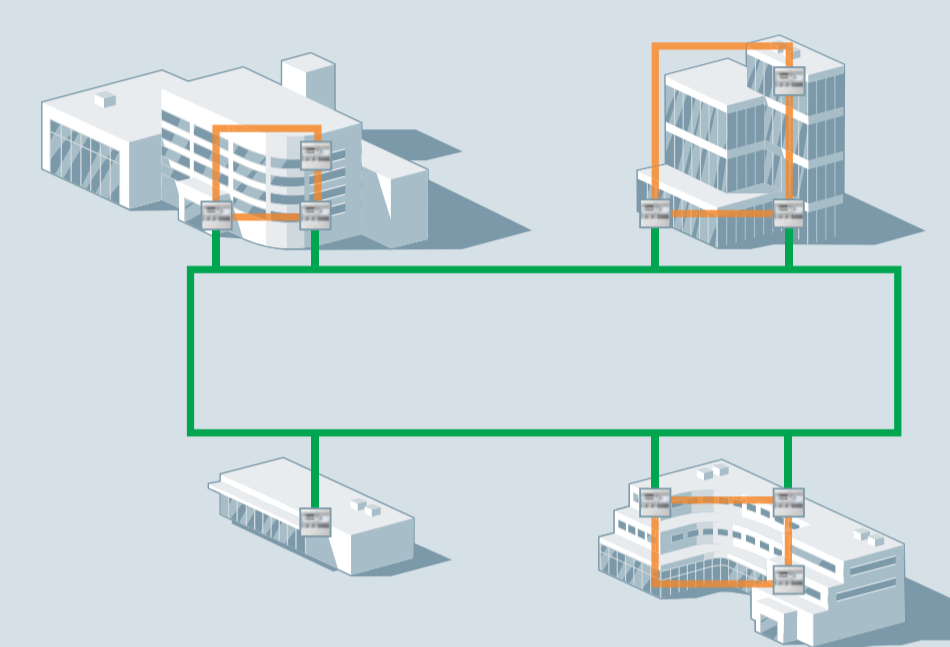


## Application: complex building and large campus

Network in a complex building, for example a hospital.



Extensive network spanning large distances, for example a production plant.



### Description

In complex buildings, the fire safety system can be adapted to local circumstances. The control panels as well as fire terminals are networked together via clusters (FCnet/SAFEDLINK). These clusters are interconnected via Industrial LAN technology per backbone (FCnet/LAN) to create an EN 54-compliant overall system.

### Benefits

- Only one remote transmission to fire brigade necessary for entire system
- One interface to common pager system
- Overview of entire system from any configured terminal
- Fiber-optic backbone with high immunity to electromagnetic disturbance
- System-wide EN 54-compliant operation
- Timely hand-over thanks to parallel commissioning of individual panels or clusters
- Distributed intelligence: complete control in the event of a fire is mapped in a cluster; this enables ideal adaptation to structural as well as process requirements

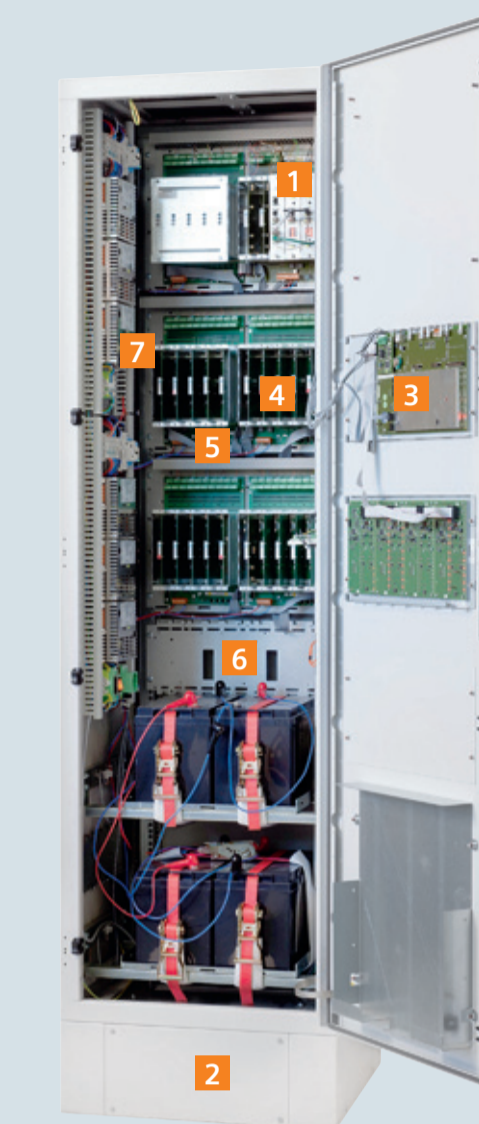
### Description

A campus comprises numerous, independent buildings. These have their own organization and structure that can be mapped ideally with a cluster of up to 16 panels. The backbone connects these clusters to an EN 54-compliant network.

### Benefits

- Intelligently arranged network structure with clearly defined clusters
- Only one control panel necessary to access entire system with all subnetworks
- Backbone is EMC protected and EN 54-compliant
- Simultaneous work at multiple stations allows for efficient commissioning
- Can be connected to a pager system for the entire system, possible from a central point
- Distributed intelligence: complete control in the event of a fire is mapped in a cluster; this enables ideal adaptation to structural and process conditions
- Security personnel has entire campus in view
- The right information at the right place: predefined views can be displayed according to customer requirements over the entire system; all controls can be configured to fulfill site-specific requirements

## Sinteso control panel FC2080 – uniquely safe and flexible



### Basic equipment

- Processor unit** → 1x\*  
Processor unit (19", FC2080) FCC2002-A1 → 1x  
– Main processor  
– Slots for max. 7 module bus cards  
Art. no.: S54400-B17-A1
- Free standing cabinet** → 1x\*  
Housing (19" upright cabinet) FHA2080-AA  
– Dimensions including base 601x220x615 mm (WxHxT)  
Art. no.: S54400-C103-A1

- Card cage** → 0 to 6x  
Card cage (5 slots) FCA2008-A1  
– Slots for max. 5 module bus cards  
– Dimensions including base 601x220x615 mm (WxHxT)  
Art. no.: S54400-B28-A1

### Operation

#### 3 Operating unit and operating add-ons → 0 to 3x

- Operating unit FCM2006-A2 → 0 to 1x
- Standard operating unit  
Art. no.: S54400-FB3-A1

- Operating add-on (2x LED indic.) FCM2006-A1 → 0 to 2x
- 48x LED groups  
Art. no.: ASQ00021771

- Operating add-on (4x LED indic.) FCM2007-A1 → 0 to 2x
- 96x LED groups  
Art. no.: ASQ00021772

### Extensions

#### 4 Module bus cards → 0 to 37x

- Line card (FDnet) FCL2001-A1 → 0 to 30x
- 4x FDnet lines and max. 252 addresses  
Art. no.: ASQ00009875

- Line card (collective) FCL2002-A1 → 0 to 30x
- 8x collective lines  
Art. no.: ASQ00010502

- Line card (MS9) FCL2003-A1 → 0 to 30x
- 2x MS9 lines and max. 100 addresses  
Art. no.: ASQ00010044

- I/O card (FUE) FCI2007-A1 → 0 to 7x
- Transmission unit for alarms and faults
- Max. 1x card cage FCA2008-A1  
Art. no.: S54400-A20-A1

### I/O card (programmable) FCI2008-A1

- 0 to 37x
- 12x Open Collector inputs/outputs  
Art. no.: S54400-A6-A1

### I/O card (sounder/monitored) FCI2009-A1

- 0 to 7x
- 8x monitored outputs
- Max. 1x card cage FCA2008-A1  
Art. no.: S54400-A21-A1

### 5 Card cage → 0 to 6x

- Card cage (5 slots) FCA2008-A1
- Slots for max. 5 module bus cards
- Dimensions including base 601x220x615 mm (WxHxT)  
Art. no.: S54400-B28-A1

### Installation

#### 6 19" carriers → Depending on the number of card cages and other options

- Carrier (19", card cage) FHA2023-A1
- For max. 2x card cages FCA2008-A1 (5 slots)
- Necessary height 358 mm  
Art. no.: S54400-B25-A1

- Carrier (19", option) FHA2024-A1
- For options, max. height 135 mm on two-level hat rail, length 430 mm; max. 1x key safe adapter SDA 300 (IFAM co.)
- Necessary height 182 mm  
Art. no.: S54400-B26-A1

- Information
- For 19" carriers, the available height between the FCC2002-A1 processor unit and FHA 2021-A1 battery tray
- With 1x battery tray FHA2021-A1: 1202 mm
- With 2x battery trays FHA2021-A1: 935 mm

### Power supply

#### 7 Power supply → 1 to 4x\*\*

- Carrier (19", power supply) FHA2022-A1 → 1 to 4x
- 19" slot including 300 W power supply
- 8x collective lines  
Art. no.: S54400-B24-A1

### Power supply kit (150 W, B) FP2005-A1

- 1x FHA2022-A1
- For extending the FHA2022-A1 by 150 W  
Art. no.: ASQ00018779

### Battery tray (19") FHA2021-A1

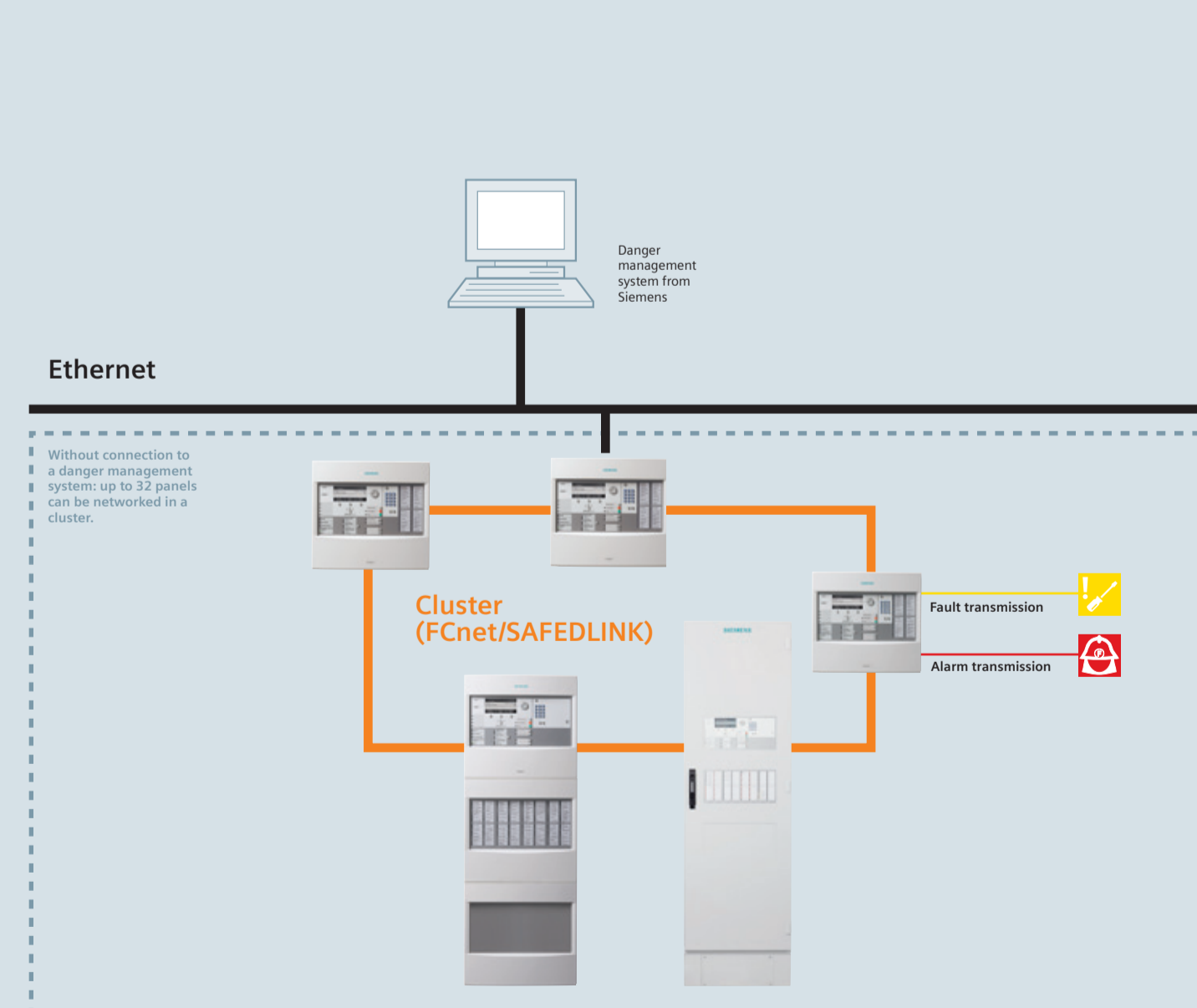
- 1x FHA2022-A1
- For max. 2x 110 Ah  
Art. no.: S54400-B23-A1

\* Number of units to be installed  
\*\* If 3 or 4: split into two housings

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## Topology 1

Up to 16 panels can be networked in a cluster (FCnet/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

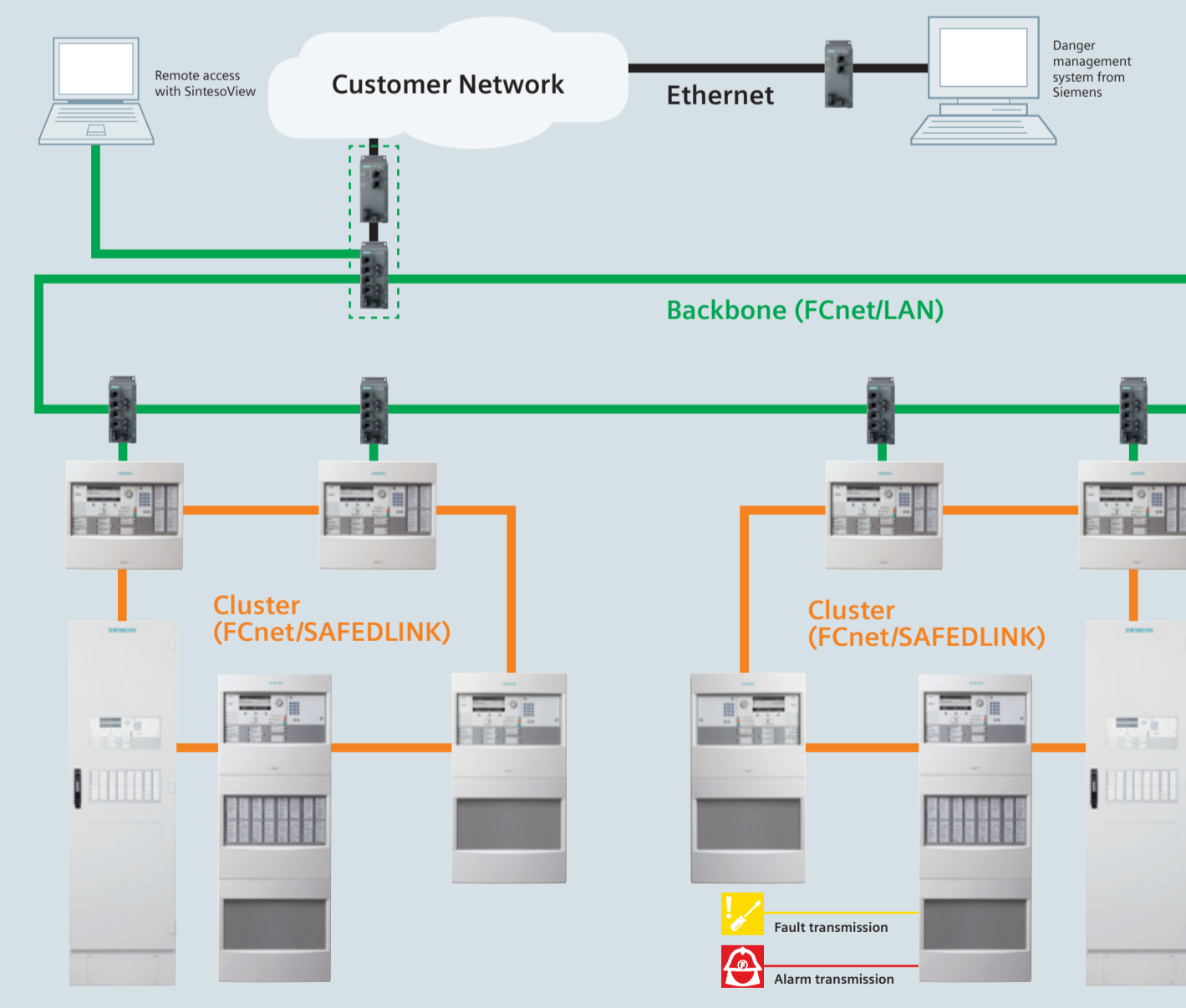
- Easy networking of panels
- Operation of panels as stand-alone solution or networked with a total length of up to 460 km
- Data rate can be adapted to line quality

### 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: 1,000 m
  - with repeater: 2,000 m
- 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-compliant system with widely varying combinations of clusters and backbone – and with connection to a danger management system via a customer network.



### Characteristics of topology example

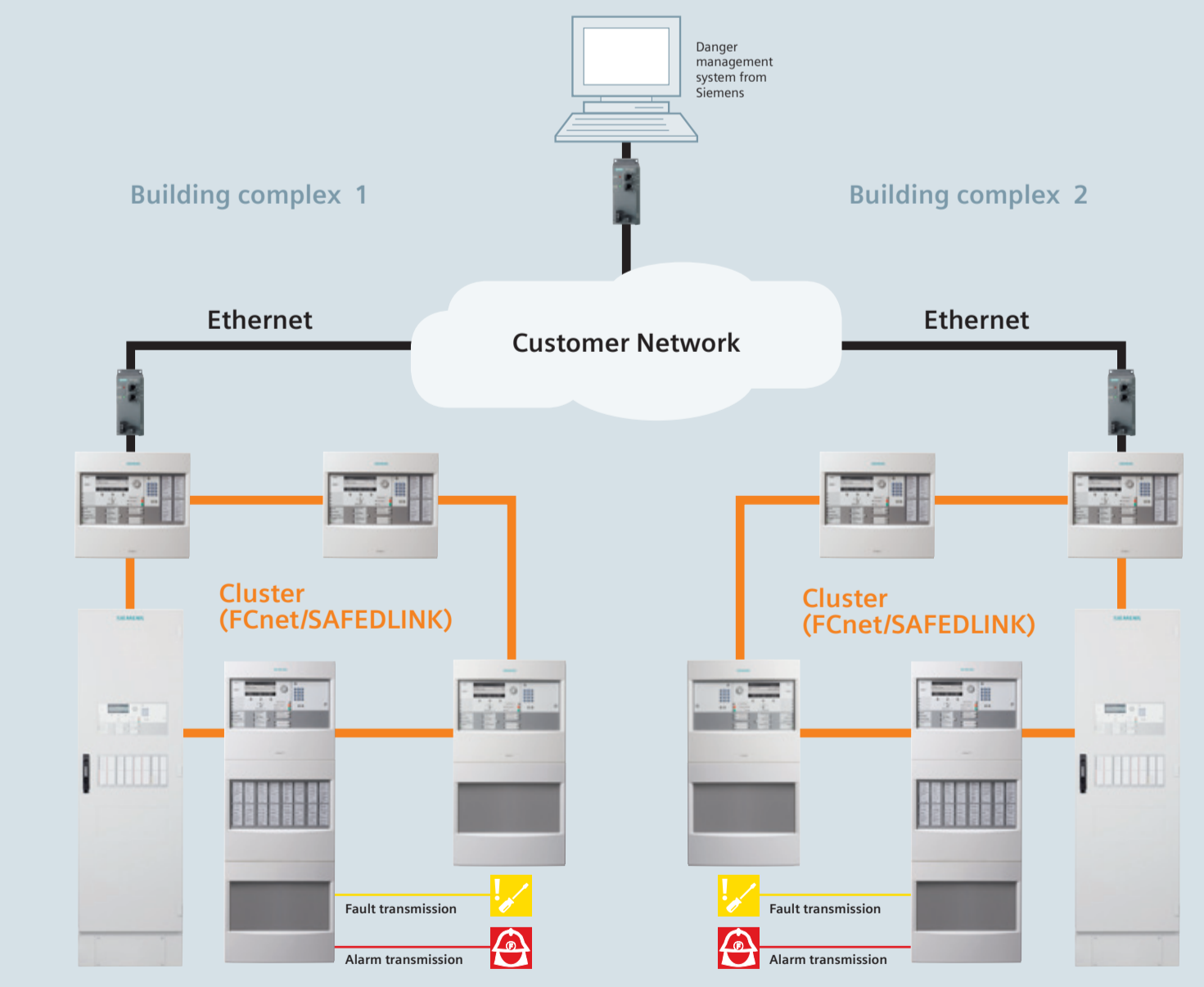
- EN 54-compliant networking of up to 64 panels via backbone
- Extensive networks spanning long distances
- Highest system availability thanks to system-wide redundancy
- Panels in different clusters can communicate with each other
- Even with these network structures, a system-wide transmission system including fire-fighting periphery can be implemented at a central contact point
- Distributed building complexes can be ideally protected
- Backbone realized with fiber-optic cable

### Key data

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

## Topology 3

Use of a customer network to transmit relevant information from several locations to a central danger management station.



### Characteristics of topology example

- Connection of independent building complexes with a danger management station via IT network provided by the customer
- Reduced installation or maintenance costs thanks to usage of customer networks
- Autonomous clusters with their own communication system to fire brigade (to fulfill EN 54 regulations)

### Key data

- Max. number of networkable panels per cluster: 16
- The maximum number of clusters, panels or data points is dependent on the management station.

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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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