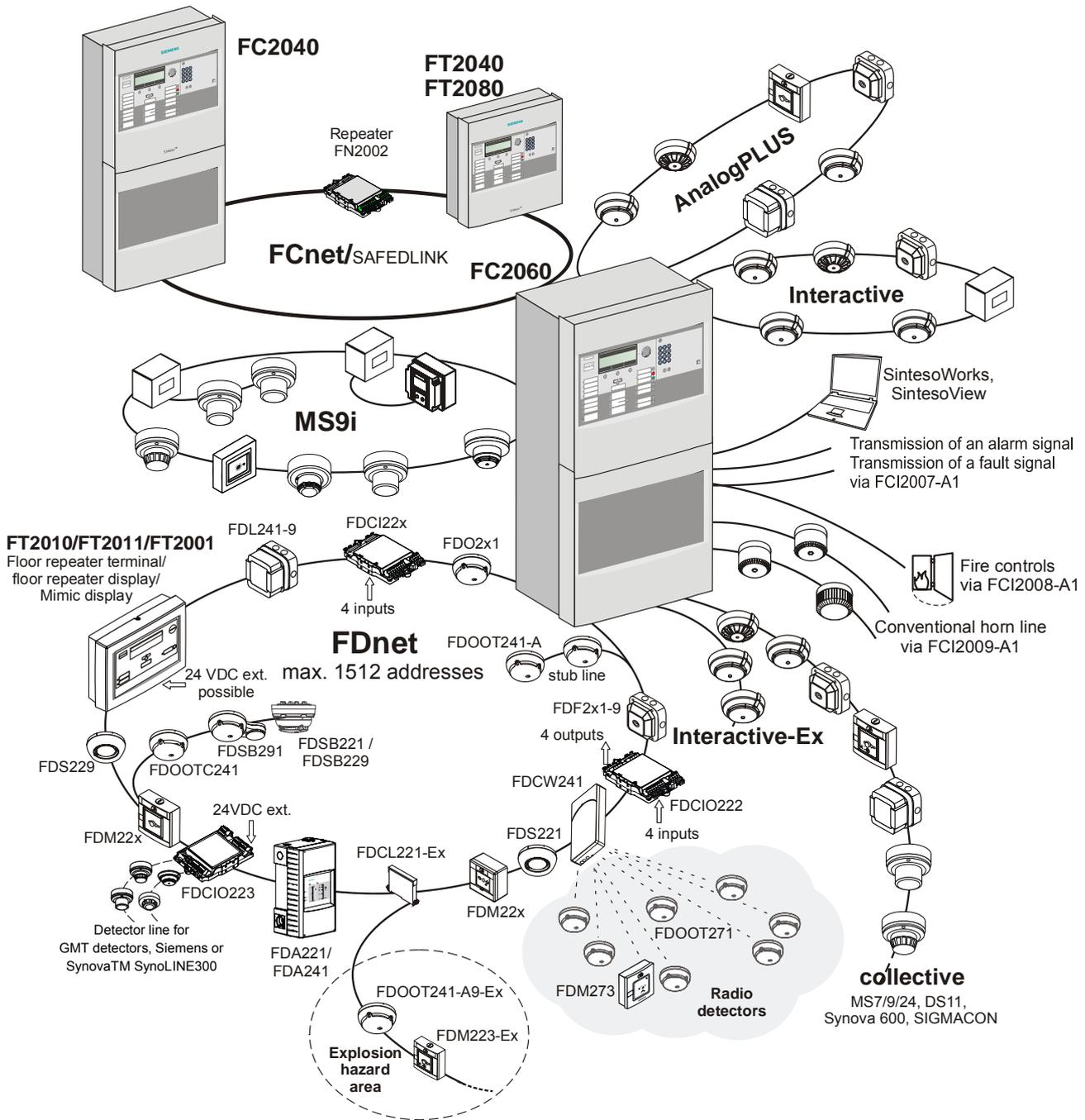# SIEMENS

FC2060

Sinteso™

Fire control panel (modular)

CE

FS20 series, MP6

- **Modular, pre-assembled, microprocessor-controlled fire control panel with user-friendly integrated operating unit for up to 1512 addresses**
- **Processes signals from various detector series:**
    - –FD20 devices from the Sinteso series
    - –Collective fire detectors from the MS7/9/24, DS11, Synova 600, and SIGMACON series
    - –Addressable fire detectors from the MS9i, interactive, and AnalogPLUS series
- **Fire control panel can be used as a standalone version or can be networked**
- **Up to 64 stations, such as control panels and terminals, can be linked to form a network**
- **Integrated degraded mode function**
- **Redundant network node, degraded mode operation according to EN 54**
- **Fast Ethernet interface for a heterogeneous network**
- **Can be extended by adding printer, key switches, LED indicators**
- **Slots for RS232, RS485 serial ports**
- **Card cage for up to five module bus cards (line and I/O cards)**
- **Hot plug system: Module bus cards can be changed during operation.**
- **Emergency power supply for emergency operating time of up to 72 hours**
- **Detection and automatic reading in (auto-configuration) of all FDnet devices, ready for operation immediately**
- **Time and situation-dependent changeover of detector parameter sets**
- **Floor repeater devices, alarm devices, and mimic displays on detector line (FDnet)**
- **Flexible configuration of complex applications and controls**
- **Configuration data can be uploaded/downloaded via remote access**
- **Firmware for all processor-controlled control panel components can be updated**
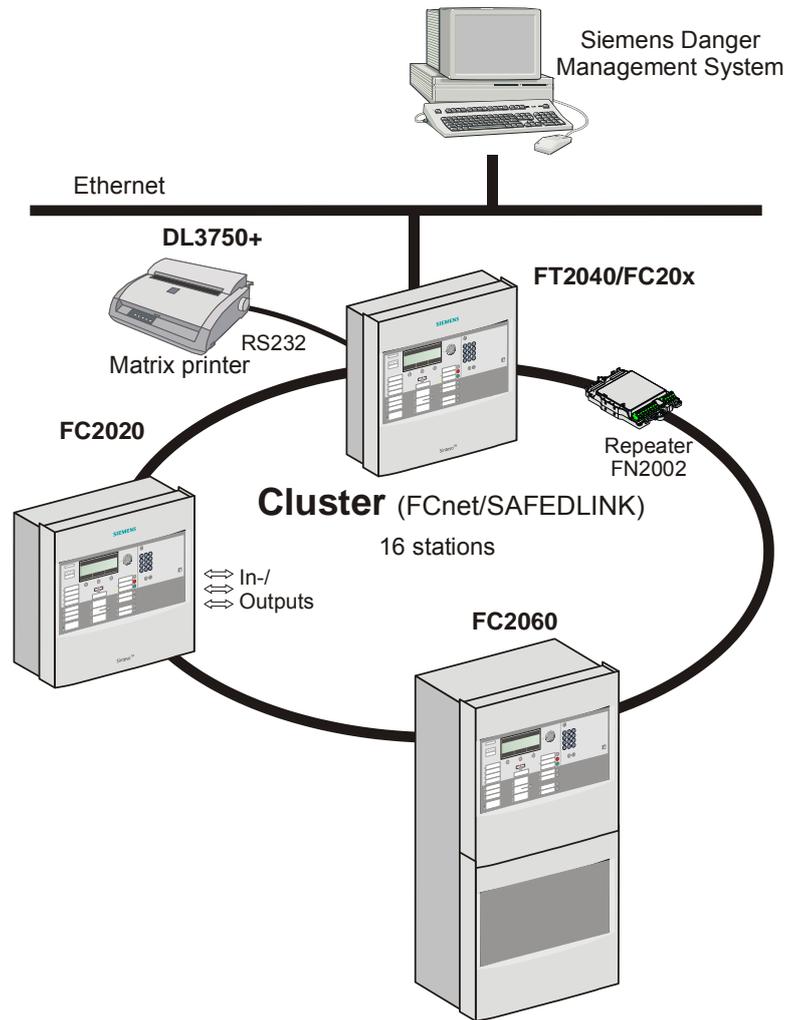
FDnet
- 4 integrated loops (8 with loop extension)
- 4 loops with a maximum of 252 addresses per line card

MS9i
- 2 loops per line card (with max. 100 addresses per line card)

Interactive
- 1 loop with a maximum total of 128 addresses per line card

I/O card (programmable)
- 12 freely programmable inputs/outputs per I/O card

Collective
- 8 lines per line card

AnalogPLUS
- 4 loops (with a maximum total of 512 addresses)

Interactive Ex
- 1 stub line with a maximum total of 32 addresses per line card

I/O card (horn/monitored)
- 8 monitored sounders or monitored outputs

Mixed usage possible, but with a max. of five cards per control panel.

Networking of several fire control panels

Up to 32 control panels and terminals can be linked to form a cluster (FCnet/SAFEDLINK network). If the cluster is connected to a danger management system via BACnet, up to 16 control panels and terminals can be networked.

Siemens Danger
Management System

Ethernet

DL3750+

FT2040/FC20x

RS232
Matrix printer

Repeater
FN2002

FC2020

Cluster (FCnet/SAFEDLINK)
16 stations

In-/
Outputs

FC2060

The use of an optical Ethernet network (FCnet/LAN) allows up to 14 clusters with up to 16 stations to be operated on one network (up to 64 stations in total).

SintesoWorks/SintesoView

Danger Management System

Customer network

Ethernet

Firewall

Ethernet Switch (modular)
FN2012

FCnet/LAN

Backbone

FN2012   FN2012   FN2012   FN2012

FT2040/FC20xx   **FT2040/FC20xx**

Cluster
FCnet/SAFEDLINK
16 stations

Cluster
FCnet/SAFEDLINK
16 stations

FC2020   **FC2040/FC2060**   **FC2020**   **FC2040/FC2060**

In-/Outputs   In-/Outputs
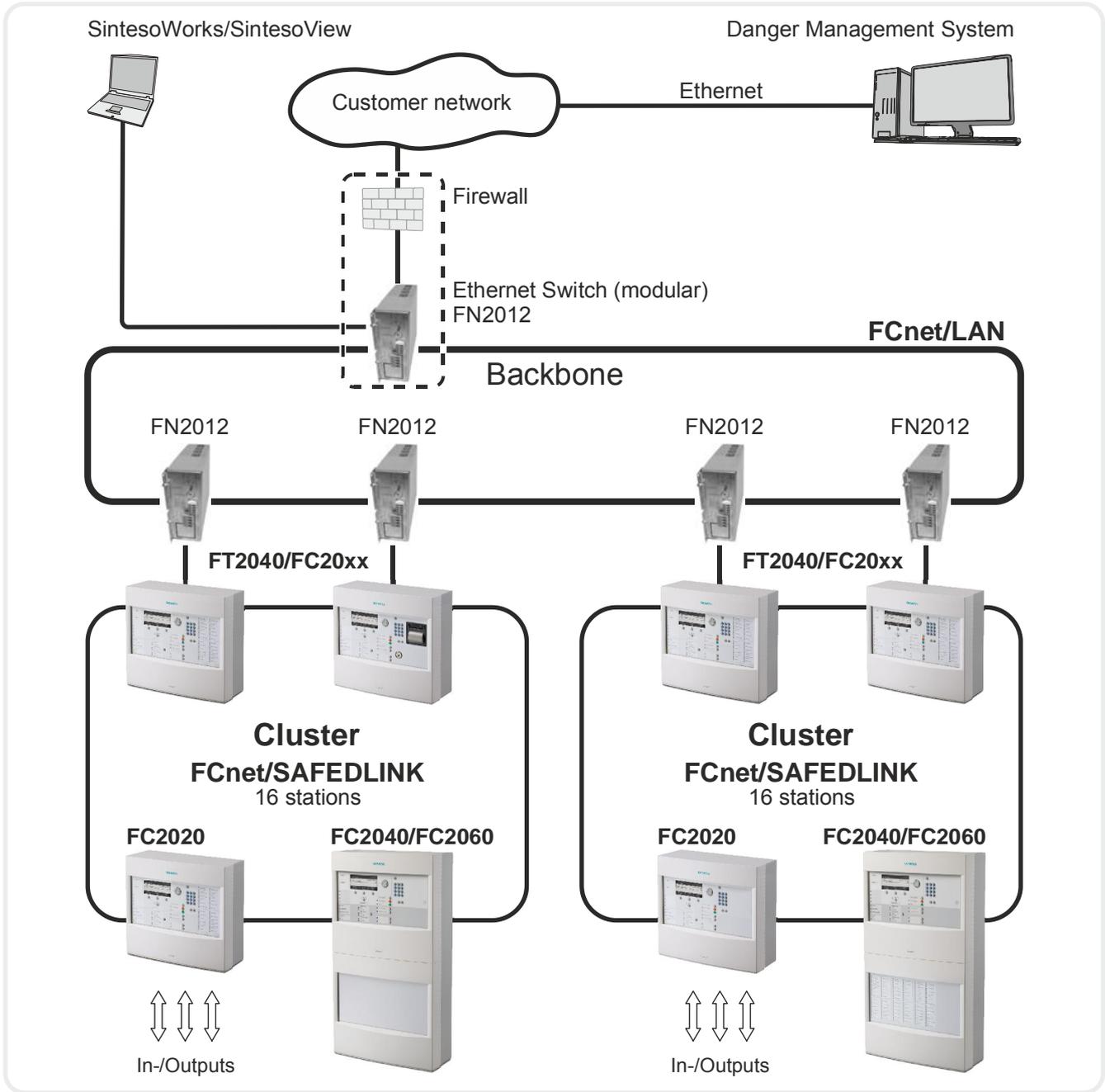
You will find details of system networking in product data sheet 008955.

Function features

- The FC2060 is a modular fire control panel with integrated operating unit that is intended for large sites and for modernizing existing large fire detection installations based on earlier systems.
- The FC2060 processes signals from Sinteso devices, from addressable devices based on earlier systems, and from collective devices.
- The control panel may be used as a standalone unit or networked.
- There is a card cage with five slots for inserting the following module bus cards:
  - Line card (FDnet) FCL2001-A1
  - Line card (collective) FCL2002-A1
  - Line card (MS9i) FCL2003-A1
  - Line card (AnalogPLUS) FCL2005-A1
  - Line card (interactive) FCL2006-A1
  - Line card (interactive, Ex) FCL2007-A1
  - I/O card (programmable) FCI2008-A1
  - I/O card (horn/monitored) FCI2009A1
  - I/O card (RT) FCI2007-A1
- Mixed use of all module bus cards (line and I/O cards) possible
- Auto-configuration of the detection logic and controls directly on the control panel itself or manual configuration with SintesoWorks
- The control panel and the fire detection system are custom-configured using the SintesoWorks software.
- Customer texts can be adapted directly on the operating unit of the control panel or with the SintesoWorks software.
- Up to 2000 events can be retrieved from the event memory based on various criteria.
- Automatic summer/winter time changeover
- Siemens danger management system can be connected

Operating unit

The following elements are available on the operating unit:
- CPU module and electronics
- Ethernet connection
- Slots for RS232 and RS485 modules and network modules (SAFEDLINK)
- Space for 'Kaba' or 'Nordic' key switch
- Space for event printer
- Peripheral data bus connection for optional LED modules

Periphery board

The following elements are available on the periphery board:
- Connection terminals for FDnet lines, remote transmission (alarm, fault), horn output, configurable control inputs and outputs, monitored alarm and fault output, emergency supply, power supply
- Two slots for loop extension (FDnet)

Card cage (5 slots)

There is a card cage mounted on the rear housing panel for inserting up to five module bus cards.

Power supply unit 150 W, emergency power supply

The power supply feeds the hardware and charges the batteries.
In the event of a power cut, the batteries provide emergency current.

Housing

A pivoting mounting plate can be fitted for the following elements above the periphery board on the rear housing panel:
- 1x fire brigade periphery module
- 2x sounder modules (can also be mounted on U-rail TS35)

Configuration

The SintesoWorks software allows the system to be customized.

Application ranges

The FC2060-CC is ideal for large applications, e.g., for use in industrial plants, office complexes, or factory halls. Within the context of modernization, it allows a gradual and seamless transition from older systems to Sinteso.

Operation

Each control unit has an integrated operating unit. The control panel can also be operated via a separate FT2040 fire terminal.
You will find details and more information in product data sheet 009386.

Overview of FC2060-AA fire control panel (modular)

Housing (Large)	Housing extensions	
FC2060-AA	**FH2004-A1**	**FH2005-A1**

		Housing (Large Extension) 430 x 398 x 283 mm	Housing (Large) 430 x 796 x 283 mm

4 loops
with card cage for
5 module bus cards
with power supply (150 W)
Max. battery capacity 45 Ah

Space for larger batteries
2x FA2007-A1 (45 Ah) or
2x FA2008-A1 (65 Ah)

For operating add-ons or
Event printer
Space for batteries
– 4x FA2006-A1 (26 Ah) or
4x FA2007-A1 (45 Ah) or
2x FA2008-A1 (65 Ah)

Printer	Operating accessories		External printer
FTO2001-A1	**FCM2038-A2**	**FCM2036-A2**	**DL3750+**
Event printer For installation in all empty housings	48 display groups with one red/green + one yellow LED each	96 indicator groups with one red/green + one yellow LED each	Matrix printer (external) RS232 interface
RS232 module must be ordered separately	for retrofitting Note installation depth (battery)	for retrofitting Note installation depth (battery)	RS232 module must be ordered separately

Layout of FC2060 inside housing (Large)
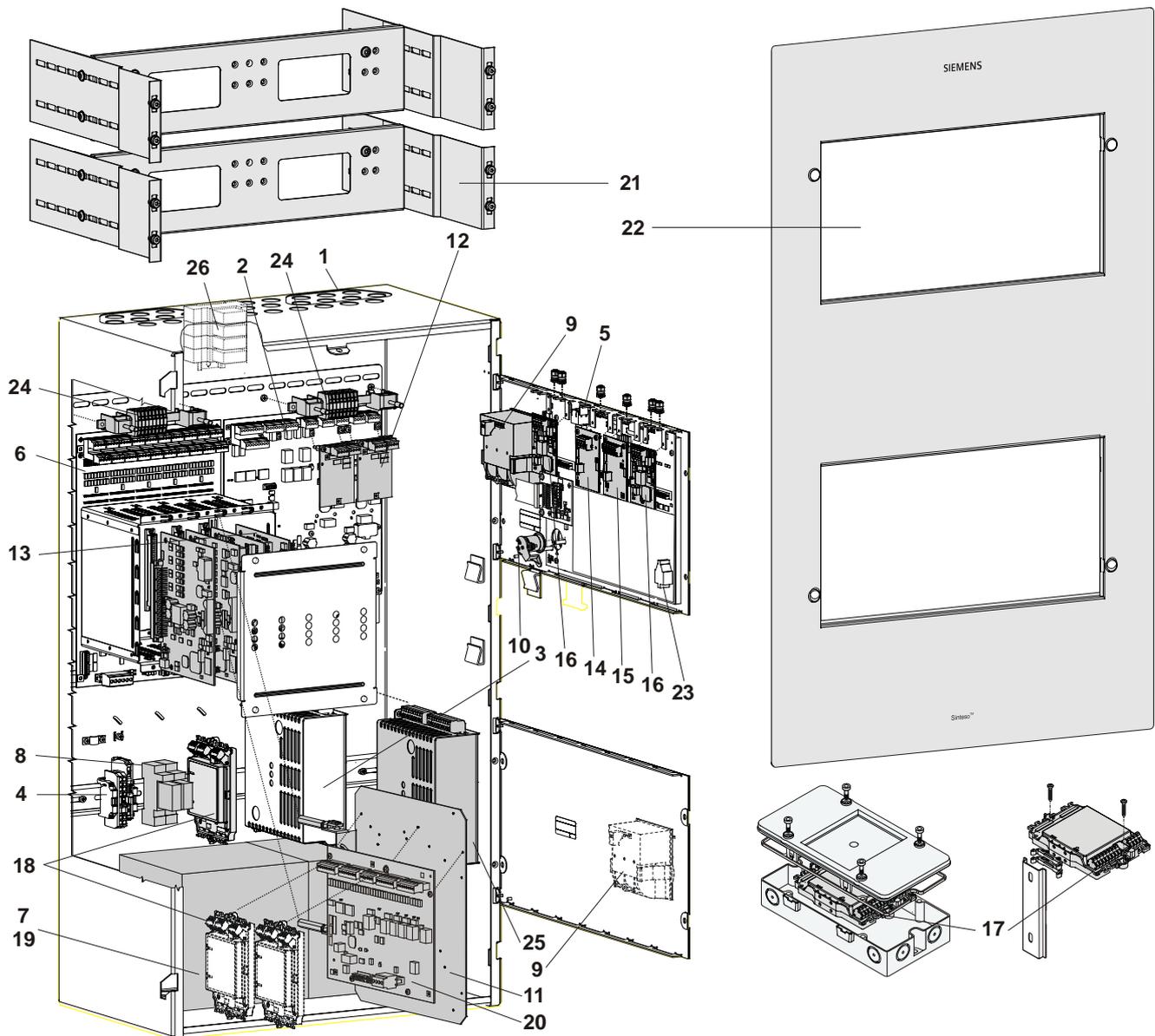
Basic equipment		Designation	Comment
1	Housing (Large)	FH2005-A1	Items 1-6: Basic equipment
2	Periphery board (4 loops)	FCI2004-A1	
3	Power supply (SV 24V-150 W)	V24230-Z6-A5	
4	Mains terminals on TS35 DIN rail	–	Space for socket, relay modules, etc.
5	Operating unit	FCM20xx-xx	Operating unit with CPU
6	Card cage (5 slots)	FCA2008-A1	For five module bus cards
7	Space for batteries	–	2x 12 V / 17…45 Ah

Extensions		Designation	Comment
8	Relay module	Z3B171	Relay for fire controls
9	Event printer	FTO2001-A1	For logging events
10	Key switch (Kaba)	FTO2005-C1	For operating access authorization
	Key switch (nordic)	FTO2006-B1	
11	Mounting plate	FHA2007-A1	E.g., for fire brigade periphery module
12	Loop extension (FDnet)	FCI2003-A1	For extending the number of loops from two to four, the number of addresses remains the same
13	Module bus cards:		For card cage (5 slots)
	Line card (FDnet/C-NET)	FCL2001-A1	For four extra FDnet lines
–	Line card (collective)	FCL2002-A1	For eight collective detector lines
–	Line card (MS9i)	FCL2003-A1	For two addressed MS9i detector lines
–	Line card (AnalogPLUS)	FCL2005-A1	For four addressed AnalogPLUS lines
–	Line card (interactive)	FCL2006-A1	For one addressed interactive line
–	Line card (interactive, Ex)	FCL2007-A1	For one addressed interactive Ex line
–	I/O card (programmable)	FCI2008-A1	For twelve configurable inputs/outputs
–	I/O card (horn/monitored)	FCI2009-A1	For eight monitored horn outputs
–	I/O card (RT)	FCI2007-A1	For extra alarm and fault outputs
14	RS485 module (isolated)	FCA2002-A1	For peripheral devices with an RS485 interface
15	RS232 module (isolated)	FCA2001-A1	For devices with an RS232 interface
16	Network module (SAFEDLINK)	FN2001-A1	For networking several stations
17	Repeater (SAFEDLINK)	FN2002-A1	For extending the FCnet system bus, max. 1x repeater (SAFEDLINK) between two stations (mounted directly on a plane surface, on a TS35 U-rail, or in housing FDCH291/292)
18	Sounder module	FCA2005-A1	For splitting one conventional sounder into four
19	Battery (12 V, 26 Ah, VDS)	FA2006-A1	For the emergency power supply
	Battery (12 V, 45 Ah, VDS)	FA2007-A1	
20	Fire brigade periphery module	FCI2001-D1	For Germany (FBF, FSD, ÜE, FSE, ÖA, KL)
21	19" mounting kit	FHA2016-A1	For installation in 19" third-party housing
22	FM blind 2HE	FHA2015-A1	For recessed mounting of housings
23	License key Sx	FCA20xx	For special functions
24	Cable kit (communication)	FCA2014-A1	For flexible cable joints running to the modules on the operating unit
25	Power supply kit (150 W, B)	FP2005-A1	For extra power supply
26	Relay module/U-rail	Z3B171	Space for U-rail TS35 L=70 mm with max. four relay modules

Technical data

Mains voltage	AC 115/230 V +10/-15 %
Power supply	150 W
Operating voltage	DC 21...28.4 V
Operating current	Max. 5 A
Battery capacity	2x 12 V, 45 Ah
Battery monitoring	Yes
Mains supervision	Yes
Connectable Sinteso detector series	FD20
Collective detectors which can be connected	MS7/9/24, DS11, Synova 600, SIGMACON
Other addressable detectors which can be connected	MS9i, interactive, AnalogPLUS
Number of FDnet addresses	Max. 1512
Number of integrated lines	
Integrated FDnet loops or stubs	4/8
– with loop extension	8/16
Number of extra lines	
FDnet (4 loops per line card)	Max. 20 loops
Collective (8 stubs per line card)	Max. 40 stubs
MS9i (2 loops per line card)	Max. 10 loops
Interactive (1 loop or stub per line card)	Max. 5 loops/stubs
Interactive Ex (1 stub per line card)	Max. 5 stubs
AnalogPLUS (4 loops or stubs per line card)	Max. 20 loops/stubs
Integrated inputs/outputs	
– Relay output for RT alarm/RT fault	1/1
– Monitored outputs for alarm/fault/horn	1/1/2
– Freely programmable inputs/outputs	12
Additional I/O cards	
I/O card (programmable)	12 configurable inputs/outputs 2 supply outputs 24 V
I/O card (horn/monitored)	Eight monitored horn outputs
I/O card (RT)	1x alarm relay output and 1x fault relay output 1x voltage output 24 V 2x GPIO 1x monitored fault output 2x configurable outputs, monitored
Operating unit	Integrated
Slots for RS232, RS485 serial ports	2
Slots for network modules	2
Slots for loop extension	2
Slots for module bus cards (on integrated card cage)	5
Mounting spaces for cable kit (communication)	2
Sounder module	Max. 2
Ethernet port RJ45	1
Operating temperature	-8...+42 °C
Storage temperature	-20...+60 °C
Air humidity (no condensation permitted)	≤95 % rel.
Maximum height above sea level	2000 m
Dimensions (W x H x D)	
– Without cover cap	430 x 796 x 260 mm
– With cover cap	430 x 796 x 283 mm
Color	
– Housing	~RAL 7035, light gray
– Cover cap	~RAL 9010, pure white
Protection category (IEC 60529)	IP30
Approvals	
– VdS	G208202
– LPCB	126bn/04
– FM	3048514

09 CE 0786	FC2060-AA / FC2060-BB / FC2060-CC / FC2060-FA	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. **008836**
FC2060 - Control and Indicating Equipment incl. SV24V150W - 150W/24VDC Power Supply Equipment for use in fire detection and fire alarm systems installed in buildings.		
305/2011/EU (CPR): EN 54-2 / EN 54-4 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2014/35/EU (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581		
The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or http://siemens.com/bt/download		
DoP No.: 0786-CPR-20669; DoC No.: CED-FC2060		
13 CE 0786	SV24V150W	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug Sinteso technical data: see doc. **008837** Cerberus™ PRO technical data: see doc. **A6V10210368**
SV24V150W - Power Supply Equipment 24VDC/150W for use in fire detection and fire alarm systems installed in buildings.		
305/2011/EU (CPR): EN 54-4 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2014/35/EU (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581		
The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or http://siemens.com/bt/download		
DoP No.: 0786-CPD-20775; DoC No.: CED-SV24V150W		

Details for ordering

	Type	Art. no.	Designation	Weight
Extensions	FC2060-AA	A5Q00023048	Fire control panel (modular)	20.800 kg
	Z3B171	BPZ:4843830001	Relay module AC 250 V / 10 A (1 relay)	0.042 kg
	FTO2001-A1	A5Q00010126	Event printer	0.250 kg
	–	A5Q00017619	Spare printer reels (10 reels)	0.090 kg
	FTO2005-C1	A5Q00010113	Key switch (Kaba)	0.013 kg
	FTO2006-B1	A5Q00010129	Key switch (nordic)	0.050 kg
	FHA2007-A1	A5Q00010151	Mounting plate	0.800 kg
	FCI2003-A1	A5Q00010136	Loop extension (FDnet)	0.064 kg
	FCL2001-A1	A5Q00009875	Line card (FDnet/C-NET)	0.120 kg
	FCL2002-A1	A5Q00010502	Line card (collective)	0.120 kg
	FCL2003-A1	A5Q00010044	Line card (MS9i)	0.120 kg
	FCL2005-A1	S54400-A107-A1	Line card (AnalogPLUS)	0.120 kg
	FCL2006-A1	S54400-A108-A1	Line card (interactive)	0.120 kg
	FCL2007-A1	S54400-A134-A1	Line card (interactive Ex)	0.120 kg
	FCI2008-A1	S54400-A6-A1	I/O card (programmable)	0.120 kg
	FCI2009-A1	S54400-A21-A1	I/O card (horn, monitored)	0.200 kg
	FCI2007-A1	S54400-A20-A1	I/O card (RT)	0.119 kg
	FCA2002-A1	A5Q00009923	RS485 module (isolated)	0.067 kg
	FCA2001-A1	A5Q00005327	RS232 module (isolated)	0.068 kg
	FN2001-A1	A5Q00012851	Network module (SAFEDLINK)	0.077 kg
	FN2002-A1	S24236-B2502-A1	Repeater (SAFEDLINK)	0.154 kg
	FCA2005-A1	A5Q00014866	Sounder module	0.140 kg
	FCA2014-A1	A5Q00023027	Cable kit (communication)	0.224 kg
	FCI2001-D1	A5Q00013100	Fire brigade periphery module	0.482 kg
	FH2004-A1	A5Q00018778	Housing (Large Extension)	11.820 kg
	FH2005-A1	A5Q00019543	Housing (Large)	15.400 kg
	FCM2038-A2	S54400-B146-A1	Operating add-on (2xLED indicator)	2.600 kg
	FCM2036-A2	S54400-B147-A1	Operating add-on (4xLED indicator)	2.800 kg
	FHA2016-A1	A5Q00020179	19" mounting kit	3.000 kg
	FHA2015-A1	A5Q00024621	UP diaphragm 2 HU	5.100 kg
	FN2006-A1	S54400-A109-A1	Fiber network module (SM)	0.770 kg
	FN2007-A1	S54400-A110-A1	Fiber network module (MM)	0.770 kg
Auxiliary power supply	FP2004-A1	A5Q00020825	Power supply kit (150 W, A) for installation into empty housing	1.366 kg
	FP2005-A1	A5Q00018779	Power supply kit (150 W, B) for cascading	1.100 kg
Networks (backbone)	FN2012-A1	S54400-B152-A1	Ethernet switch (modular)	0.560 kg
	FCA2031-A1	S54400-A153-A1	Connection module (MoNet)	0.020 kg + 0.050 kg for cable
	VN2002-A1	S54400-A43-A1	Ethernet module (MM)	0.030 kg
	VN2003-A1	S54400-A44-A1	Ethernet module (SM)	0.030 kg
	FHA2029-A1	S54400-B79-A1	Mounting kit (switch)	1.240 kg
Batteries	FA2003-A1	A5Q00019353	Battery (12 V, 7 Ah, VDS)	2.450 kg
	FA2004-A1	A5Q00019354	Battery (12 V, 12 Ah, VDS)	3.930 kg
	FA2005-A1	A5Q00019677	Battery (12 V, 17 Ah, VDS)	5.640 kg
	FA2006-A1	A5Q00019356	Battery (12 V, 26 Ah, VDS)	7.572 kg
	FA2007-A1	A5Q00022897	Battery (12 V, 45 Ah, VDS)	15.320 kg
	FA2008-A1	A5Q00019357	Battery (12 V, 65 Ah, VDS)	22.000 kg
License keys	FCA2033-A1	S54400-P154-A1	License key (S1)	0.010 kg
	FCA2034-A1	S54400-P155-A1	License key (S2)	0.010 kg
	FCA2035-A1	S54400-P156-A1	License key (S3)	0.010 kg
External printer	DL3750+	A5Q00023962	Matrix printer (external)	7.300 kg
Spare part	–	A5Q00023963	Color ribbon for matrix printer DL3750+	0.078 kg