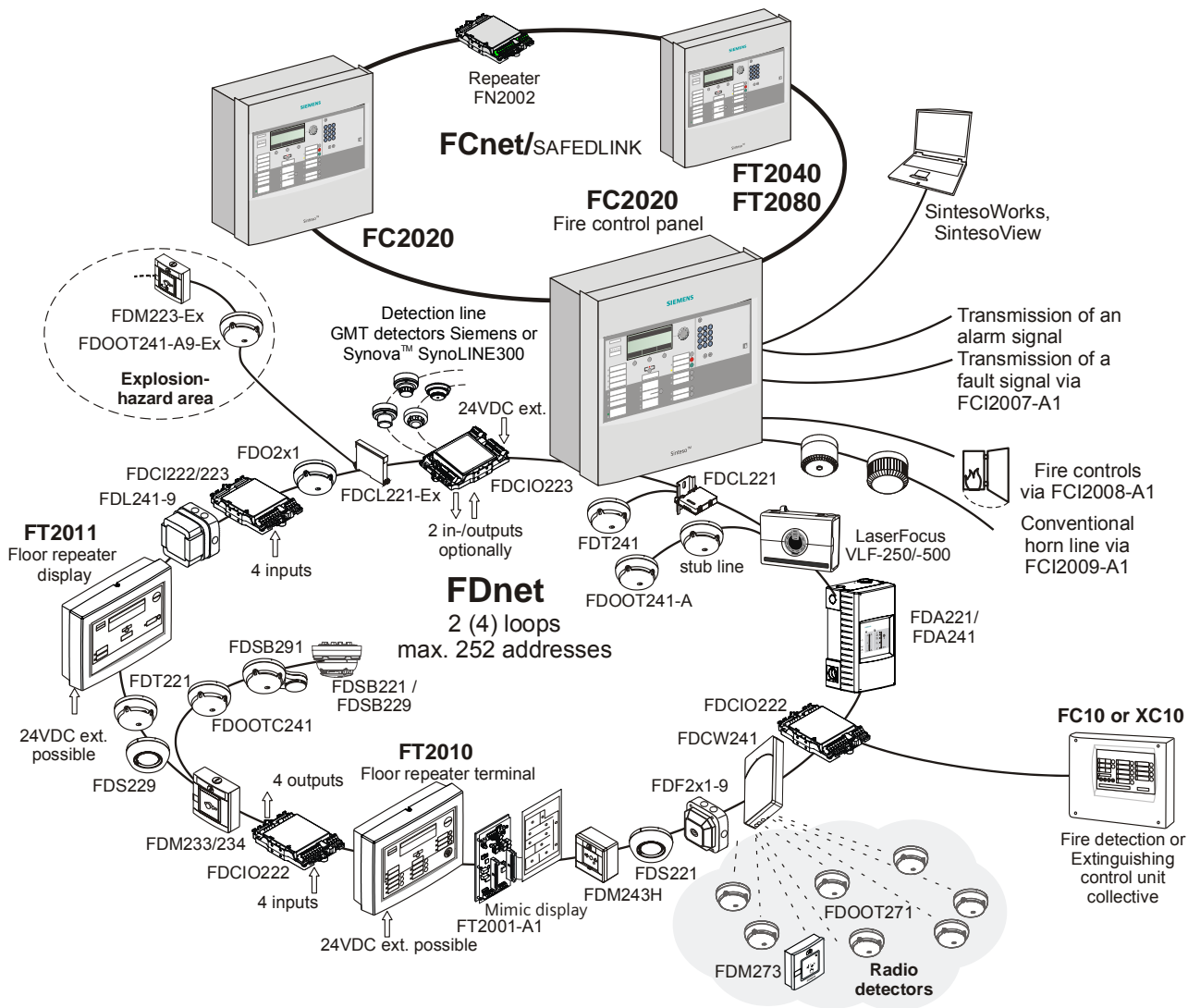# SIEMENS

FC2020

Sinteso™
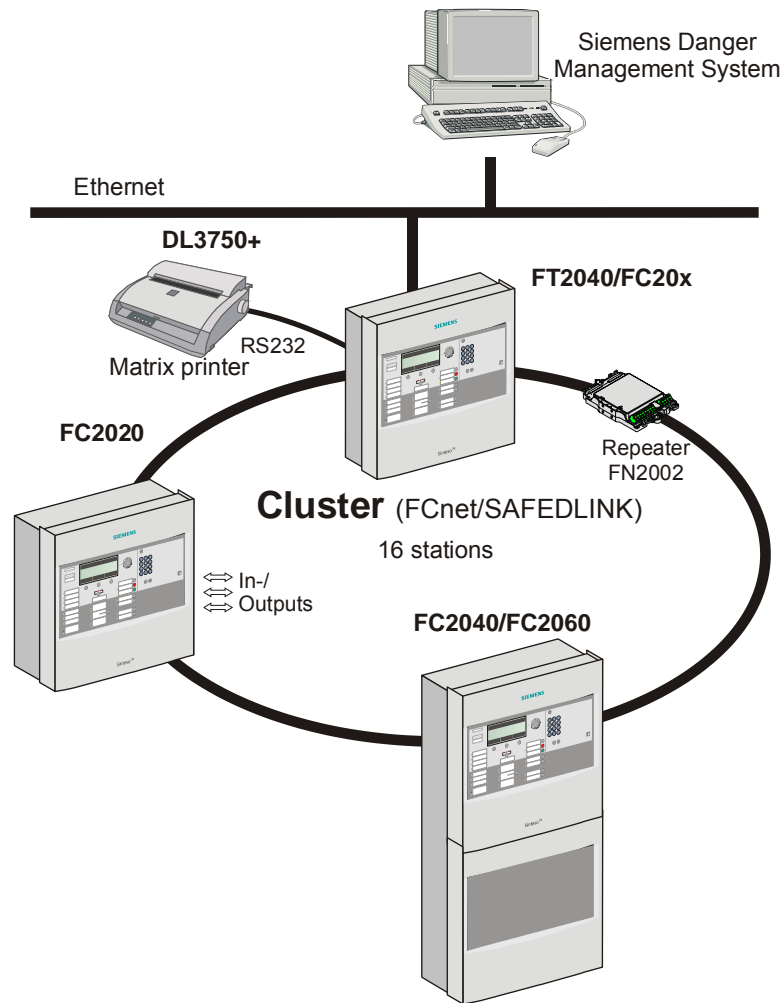
Fire control panel

CE

FS20 series, MP6

- **Compact, pre-assembled, microprocessor-controlled fire control panel with integrated operating unit for up to 252 addresses**
- **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**
- **Integrated user-friendly operating unit**
- **Can be extended by adding printer, key switches, LED indicators**
- **Slots for RS232 and RS485 serial interfaces**
- **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**
- **Processes signals from Sinteso detector series**
- **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**

Repeater
FN2002

FCnet/SAFEDLINK

FT2040
FT2080

FC2020
Fire control panel

FC2020

SintesoWorks,
SintesoView

FDM223-Ex
FDOOT241-A9-Ex

**Explosion-
hazard area**

Detection line
GMT detectors Siemens or
Synova™ SynoLINE300

24VDC ext.

Transmission of an
alarm signal
Transmission of a
fault signal via
FCI2007-A1

FDO2x1

FDCI222/223

FDL241-9

FDCL221-Ex

FDCIO223

FDCL221

FT2011
Floor repeater
display

2 in-/outputs
optionally

FDT241

stub line

Fire controls
via FCI2008-A1

Conventional
horn line via
FCI2009-A1

4 inputs

FDnet
2 (4) loops
max. 252 addresses

FDOOT241-A

LaserFocus
VLF-250/-500

FDSB291

FDA221/
FDA241

FDSB221 /
FDSB229

FDT221

FDCIO222

FC10 or XC10

24VDC ext.
possible

FDOOTC241

FT2010
Floor repeater terminal

FDCW241

FDF2x1-9

FDS229

4 outputs

Fire detection or
Extinguishing
control unit
collective

FDM233/234

FDCIO222

4 inputs

Mimic display
FT2001-A1

FDS221

FDM243H

FDOOT271

24VDC ext. possible
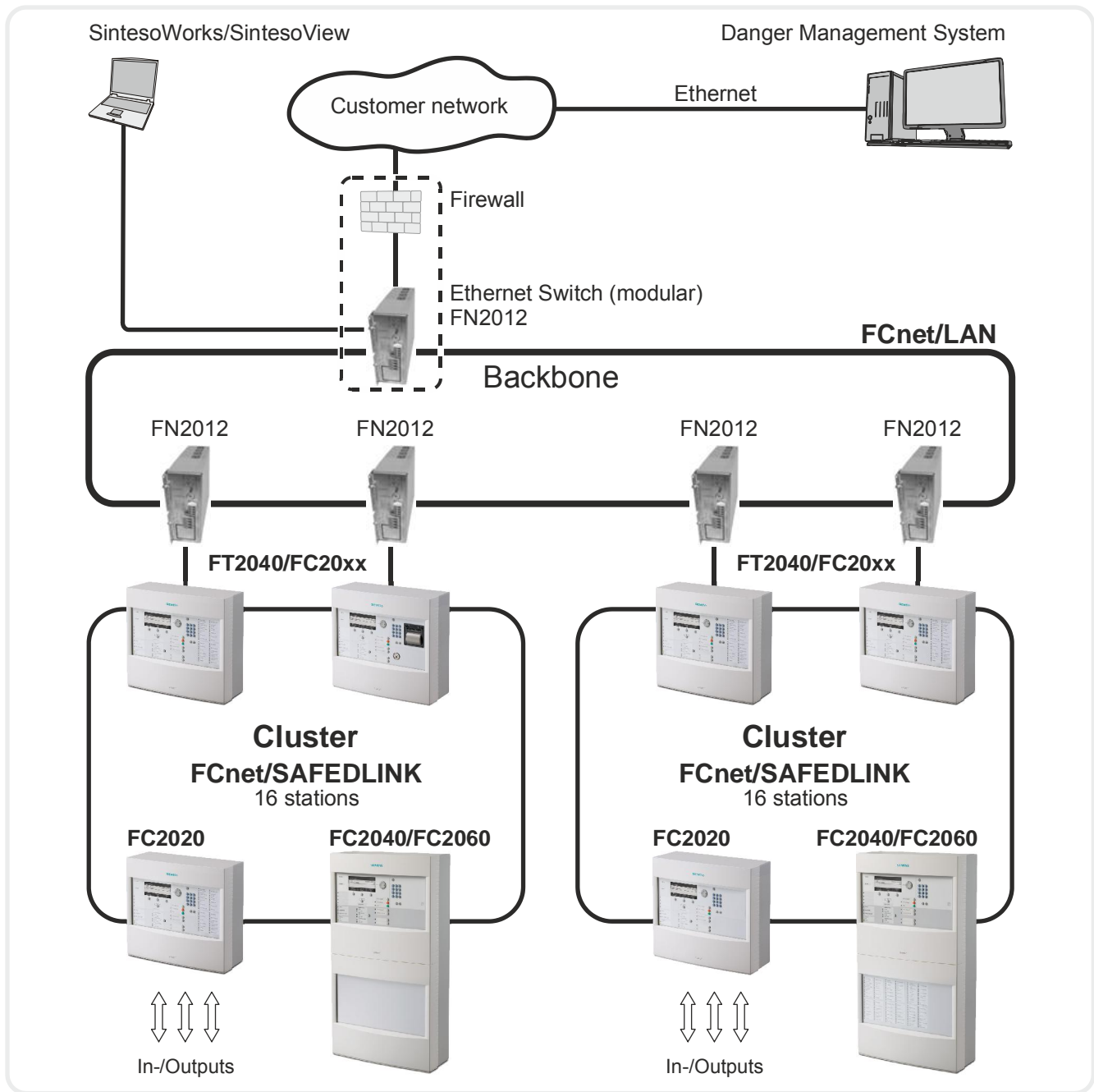
FDM273

**Radio
detectors**

2

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.

An optical Ethernet network (FCnet/LAN) allows up to 14 clusters with up to 16 stations to be operated on one network. A maximum of 64 stations is supported in total.

You will find details of system networking in product data sheet 008955.

Function features

- The FC2020 is a compact fire control panel with integrated operating unit for processing signals from Sinteso devices.
- The control panel may be used as a standalone unit or networked.
- The control panel and the fire detection system are custom-configured using the SintesoWorks software.
- All detector lines are monitored for ground faults.
- 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 (depending on version)
– Peripheral data bus connection for optional LED modules (for FC722 in Comfort housing)

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
– Slot for loop extension (FDnet)

70 W or 150 W power supply, 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 (for Germany)
– 1x sounder module (as an alternative to mounting on U-rail TS3)

Configuration

The FXS2002 SintesoWorks software allows the system to be customized.

Application ranges

The FC2020 is ideal for smaller applications, e.g., for use in workshops or hotels, or as a device in a network.
However, thanks to the flexible networking options, the FC2020 can also be used for large-scale sites.

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 FC2020 fire control panels

Housing (Standard)		Housing (Comfort)	
FC2020-AZ	**FC2020-EZ**	**FC2020-AA**	**FC2020-AE**
	Featuring 24 indicator groups with one red/green + one yellow LED each		Featuring 48 indicator groups with one red/green + one yellow LED each
2 loops with power supply (70 W) Max. battery capacity 12 Ah	2 loops with power supply (70 W) Max. battery capacity 12 Ah	2 loops with power supply (150 W) Max. battery capacity 26 Ah	2 loops with power supply (150 W) Max. battery capacity 26 Ah

Extensions			
FTO2001-A1	**FH2007-A1**	**FH2003-A1**	**FH2005-A1**
Event printer	Housing (standard + plan compartment) 430 x 398 x 183 mm	Housing (Comfort) 430 x 796 x 183 mm	Housing (Large) 430 x 796 x 283 mm
For installation in FC2020-AZ FC2020-AA FC2020-AE	Empty housing for A4 documents	Empty housing for free use	
RS232 module must be ordered separately	Depth 150 mm	E.g., for extra batteries, operating add-ons, or event printer	
		Space for batteries 2x FA2003-A1 (7 Ah) or 2x FA2004-A1 (12 Ah) or 2x FA2005-A1 (17 Ah) or 2x FA2006-A1 (26 Ah)	Space for larger batteries 4x FA2006-A1 (26 Ah) or 4x FA2007-A1 (45 Ah) or 2x FA2008-A1 (65 Ah)

Empty housing for free use	
FH2002-A1	**FH2004-A1**
Housing (Standard)	Housing (Large Extension)
430 x 398 x 183 mm	430 x 398 x 283 mm
E.g., for extra batteries, Operating add-ons or Event printer	Space for larger batteries 2x FA2007-A1 (45 Ah) or 2x FA2008-A1 (65 Ah)
Space for batteries 2x FA2003-A1 (7 Ah) or 2x FA2004-A1 (12 Ah)	

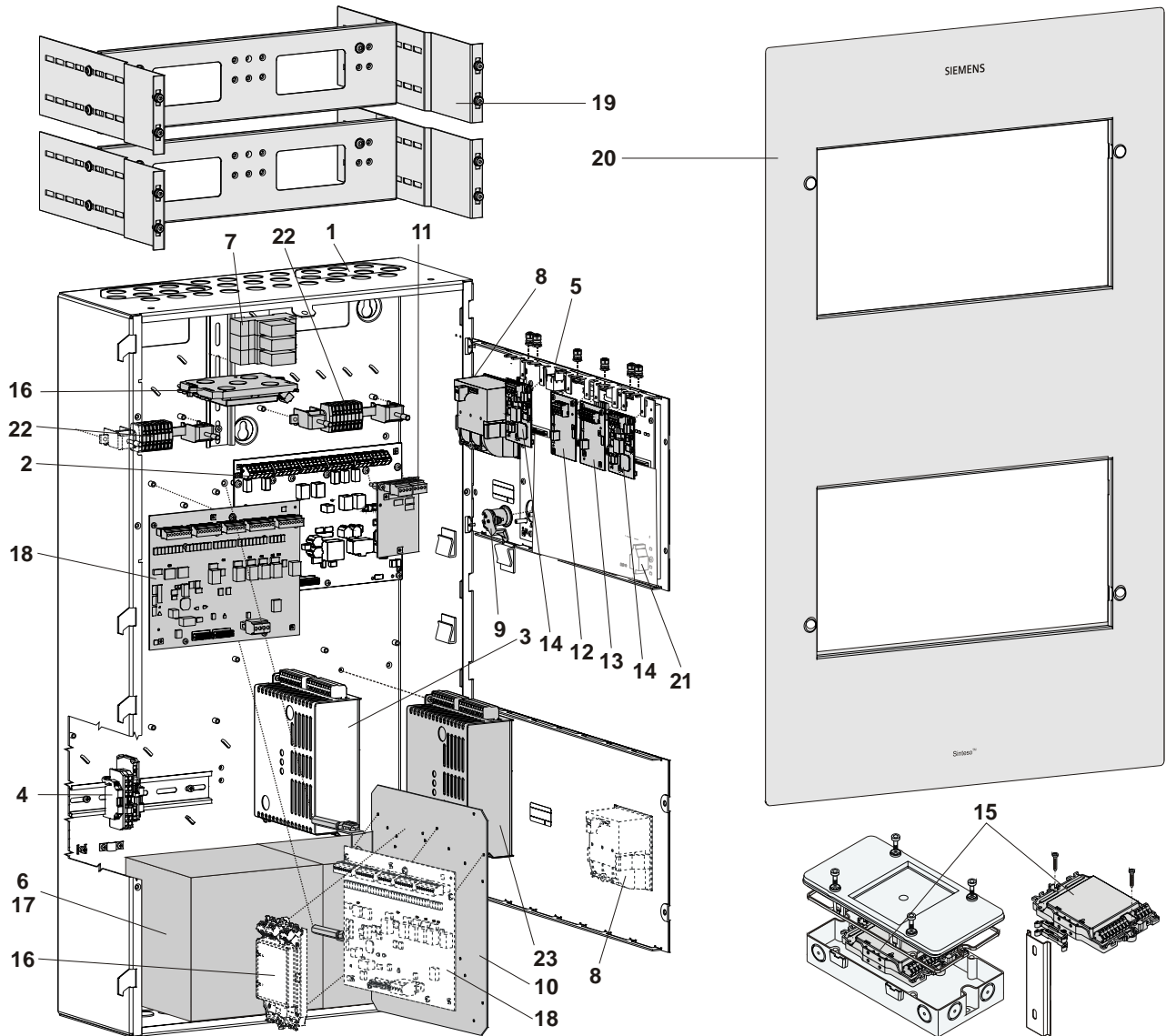| Operating accessories		External printer
FCM2038-A2	**FCM2036-A2**	**DL3750+**
48 display groups with one red/green + one yellow LED each	96 indicator groups with one red/green + one yellow LED each	Matrix printer (external) RS232 interface
For retrofitting	For retrofitting	RS232 module must be ordered separately

Layout of FC2020 inside housing (Standard)

	Basic equipment	Designation	Notes
1	Housing (Standard)	FHA2002-A1	
2	Periphery board (2-loop)	FCI2002-A1	Items 1-5: Basic equipment for each FC2020-xx (Standard)
3	Power supply (70 W)	FP2015-A1	
4	Mains terminals on TS35 DIN rail	–	Space for socket, relay modules
5	Operating unit	FCM20xx-xx	Operating unit with CPU
6	Space for batteries	–	2x 12 V / 7…12 Ah
Extensions			
7	Relay module	Z3B171	Relay for fire controls
8	Event printer	FTO2001-A1	For logging events
9	Key switch (Kaba)	FTO2005-C1	For operating access authorization
9	Key switch (nordic)	FTO2006-B1	
10	Mounting plate	FHA2007-A1	E.g., for fire brigade periphery module
11	Loop extension (FDnet)	FCI2003-A1	For extending the number of loops from two to four, the number of addresses remains the same
12	RS485 module (isolated)	FCA2002-A1	For peripheral devices with an RS485 interface
13	RS232 module (isolated)	FCA2001-A1	For devices with an RS232 interface
14	Network module (SAFEDLINK)	FN2001-A1	For networking several stations
15	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)
16	Sounder module	FCA2005-A1	For splitting one conventional sounder into four
17	Battery (12 V, 7 Ah, VDS)	FA2003-A1	For the emergency power supply
17	Battery (12 V, 12 Ah, VDS)	FA2004-A1	
18	Fire brigade periphery module	FCI2001-D1	For Germany (FBF, FSD, ÜE, FSE, ÖA, KL)
19	Battery kit (9 V)	FCA2010-F1	For 9-volt battery (3rd source of voltage for France only)
20	Block battery type E 9 V / 1 Ah	–	for FCA2010-F1
21	19" mounting kit	FHA2016-A1	For installation in 19" third-party housing
22	FM blind 1HE	FHA2017-A1	For recessed mounting of housing
23	License key Sx	FCA20xx	For special functions
24	Cable kit (communication)	FCA2014-A1	For flexible connections running to the modules on the operating unit

Layout of FC2020 inside housing (Comfort)

Basic equipment		Designation	Notes
1	Housing (Comfort)	FHA2003-A1	Items 1-5: Basic equipment for each FC2020-xx (Comfort)
2	Periphery board (2-loop)	FCI2002-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	Space for batteries	–	2x 12 V/17…26 Ah

Extensions		Designation	Notes
7	Relay module	Z3B171	Relay for fire controls
8	Event printer	FTO2001-A1	For logging events
9	Key switch (Kaba)	FTO2005-C1	For operating access authorization
	Key switch (nordic)	FTO2006-B1	
10	Mounting plate	FHA2007-A1	E.g., for fire brigade periphery module
11	Loop extension (FDnet)	FCI2003-A1	For extending the number of loops from two to four, the number of addresses remains the same
12	RS485 module (isolated)	FCA2002-A1	For peripheral devices with an RS485 interface
13	RS232 module (isolated)	FCA2001-A1	For devices with an RS232 interface
14	Network module (SAFEDLINK)	FN2001-A1	For networking several stations
15	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)
16	Sounder module	FCA2005-A1	For splitting one conventional sounder into four
17	Battery (12 V, 26 Ah, VDS)	FA2006-A1	For the emergency power supply
18	Fire brigade periphery module	FCI2001-D1	For Germany (FBF, FSD, ÜE, FSE, ÖA, KL)

Extensions		Designation	Notes
19	19" mounting kit	FHA2016-A1	For installation in 19" third-party housing
20	FM blind 2HE	FHA2015-A1	For recessed mounting of housing
21	License key Sx	FCA2xx	For special functions
22	Cable kit (communication)	FCA2014-A1	For flexible connections running to the modules on the operating unit
23	Power supply kit (150 W, B)	FP2005-A1	For extra power supply

Technical data

	FC2020 inside housing (Standard)	FC2020 inside housing (Comfort)
Mains voltage	AC 97…127 V / AC 196…253 V	AC 115 / 230 V +10/-15 %
Power supply	70 W	150 W
Operating voltage	DC 20.5…28.6 V	DC 21…28.4 V
Operating current	Max. 2.5 A	Max. 5 A
Battery capacity	2x 12 V, 7…12 Ah	2x 12 V, 26 Ah
Battery monitoring	Yes	Yes
Network monitoring	Yes	Yes
Connectable detector series	Sinteso (FDnet)	Sinteso (FDnet)
Number of lines		
– Loops (with loop extension) or	2 (4)	2 (4)
– Stubs	4 (8)	4 (8)
Number of addresses	Max. 252	Max. 252
Integrated inputs/outputs		
– Relay output		
– RT alarm	1	1
– RT fault	1	1
– Monitored outputs		
– Alarm	1	1
– Fault	1	1
– Horn	1	1
– Freely programmable inputs/outputs	8	8
Operating unit	Integrated	Integrated
Slots for RS232, RS485 serial ports	2	2
Slots for network modules	2	2
Slot for loop extension	1	1
Mounting space for cable kit (communication)	1	2
Sounder module	Max. 1	Max. 1
Ethernet port RJ45	1	1
Operating temperature	-8…+42 °C	-8…+42 °C
Storage temperature	-20…+60 °C	-20…+60 °C
Air humidity (no condensation permitted)	≤95 % rel.	≤95 % rel.
Maximum height above sea level	4000 m	2000 m
Dimensions (W x H x D)		
– Without cover cap	430 x 398 x 160 mm	430 x 796 x 160 mm
– With cover cap	430 x 398 x 183 mm	430 x 796 x 183 mm
Color		
– Housing	~RAL 7035, light gray	~RAL 7035, light gray
– Cover cap	~RAL 9010, pure white	~RAL 9010, pure white
Protection category (IEC 60529)	IP30	IP30
Approvals		
– VdS	G206109	G206109
– LPCB	126bn/01	126bn/01
– FM	3048514	3048514
– DNV GL (Marine)	-	See document A6V10400920

09 CE 0786	FC2020-AA / FC2020-AE / FC2020-AZ / FC2020-BB / FC2020-CC / FC2020-CZ / FC2020-EZ / FC2020-FZ / FC2020-NA	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. **008836**

FC2020 - Control and Indicating Equipment incl. FP2001 or FP2015 - 70W/24VDC or 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-20719; DoC No.: CED-FC2020

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
Control panels	FC2020-AZ	A5Q00015550	Fire control panel (2 loops)	10.660 kg
	FC2020-EZ	A5Q00016827	Fire control panel (2 loops)	10.500 kg
	FC2020-AA	A5Q00016829	Fire control panel (2 loops)	18.250 kg
	FC2020-AE	A5Q00016851	Fire control panel (2 loops)	20.850 kg
Extensions	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
	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
	FH2002-A1	A5Q00018931	Housing (Standard)	7.500 kg
	FH2007-A1	A5Q00022369	Housing (standard + plan compartment)	12.940 kg
	FH2004-A1	A5Q00018778	Housing (Large Extension)	11.820 kg
	FH2003-A1	A5Q00009906	Housing (Comfort)	15.000 kg
	FH2005-A1	A5Q00019543	Housing (Large)	20.300 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
	FHA2017-A1	A5Q00024719	FM blind 1 HU	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-A2	Fiber network module (MM)	0.770 kg

	Type	Art. no.	Designation	Weight
Auxiliary power supply	FP2015-A1	S54400-B121-A1	Power supply (70 W)	1.300 kg
	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 parallel connection	1.100 kg
Networks (backbone)	FN2012-A1	S54400-A152-A1	Ethernet switch (modular)	0.560 kg
	FCA2031	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