



FC2020

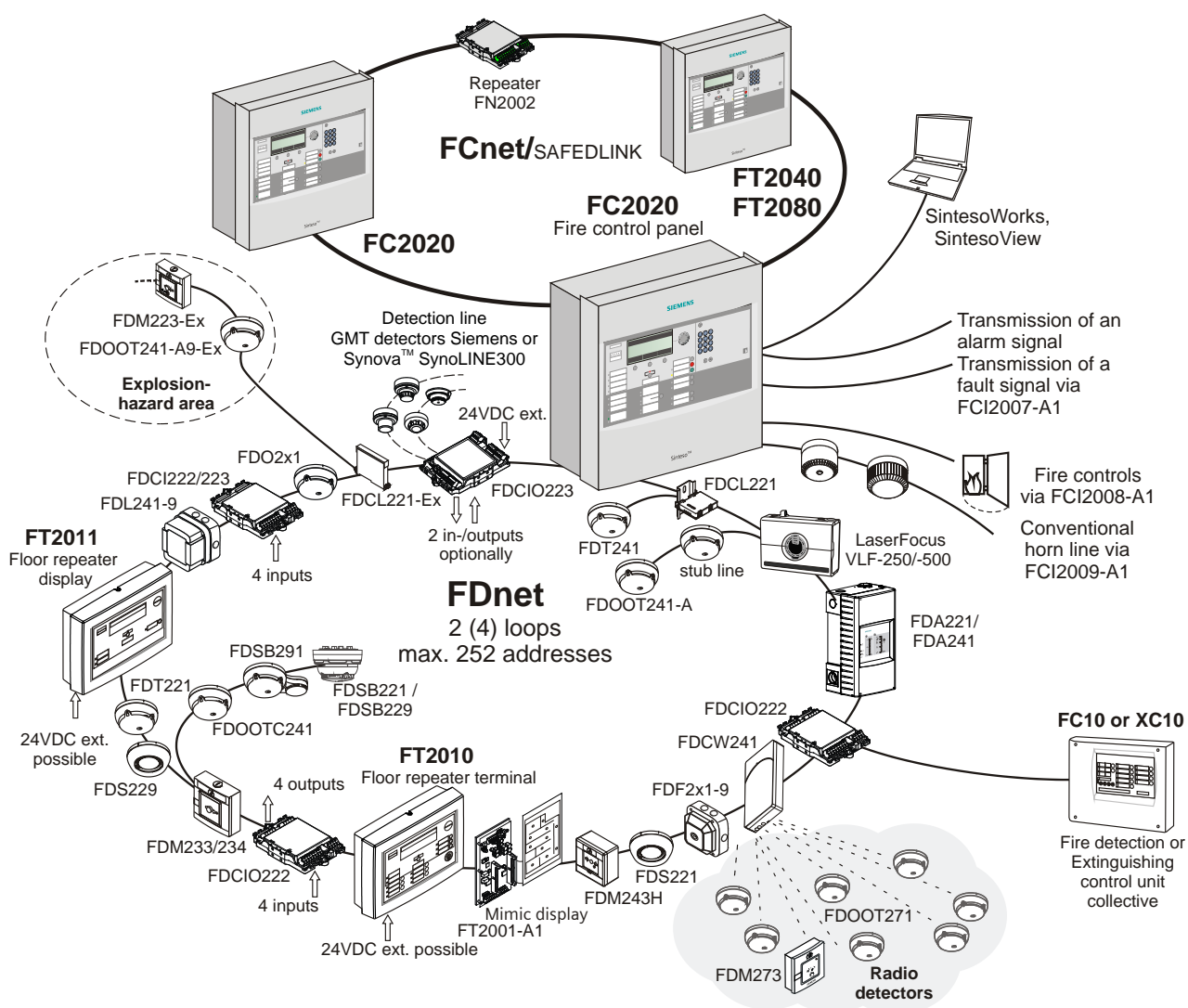
Sinteso™

Fire control panel



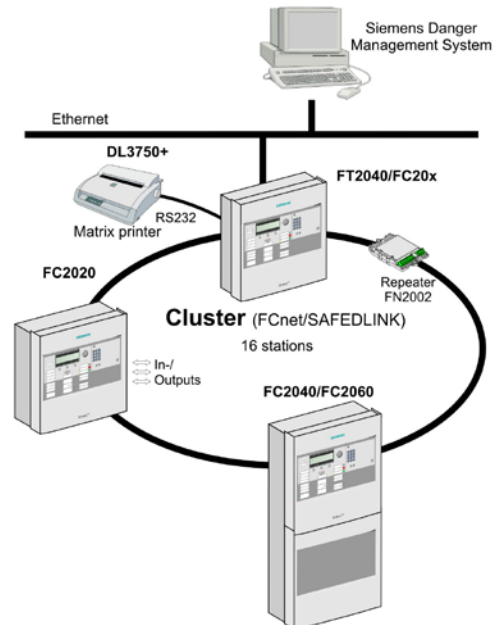
Series FS20 (MP5.0)

- Compact, prefabricated, microprocessor-controlled fire control panel for the connection of up to 252 addresses
- Fire control panel can be used as stand-alone version or networked
- Up to 64 stations (fire control panels and fire terminals) can be connected in one network
- Integrated emergency operation function
- Redundant network node, degrade operation according to EN 54
- Fast Ethernet interface for heterogeneous network
- Integrated user-friendly operating unit
- Optional printer, key switch, LED indicators
- Slots for RS232, RS485 serial ports
- Emergency power supply for up to 72 h emergency power time
- Recognition and automatic read-in (auto configuration) of all FDnet devices, providing immediate simple operation
- Processes signals from the Sinteso detector series
- Time and situation-dependent change over of the detector parameters
- Floor repeater devices, alarm devices and mimic displays in the detector loop (FDnet)
- Flexible programming of complex applications and controls
- Stored data can be uploaded via remote access
- Firmware download of all processor controlled control panel components

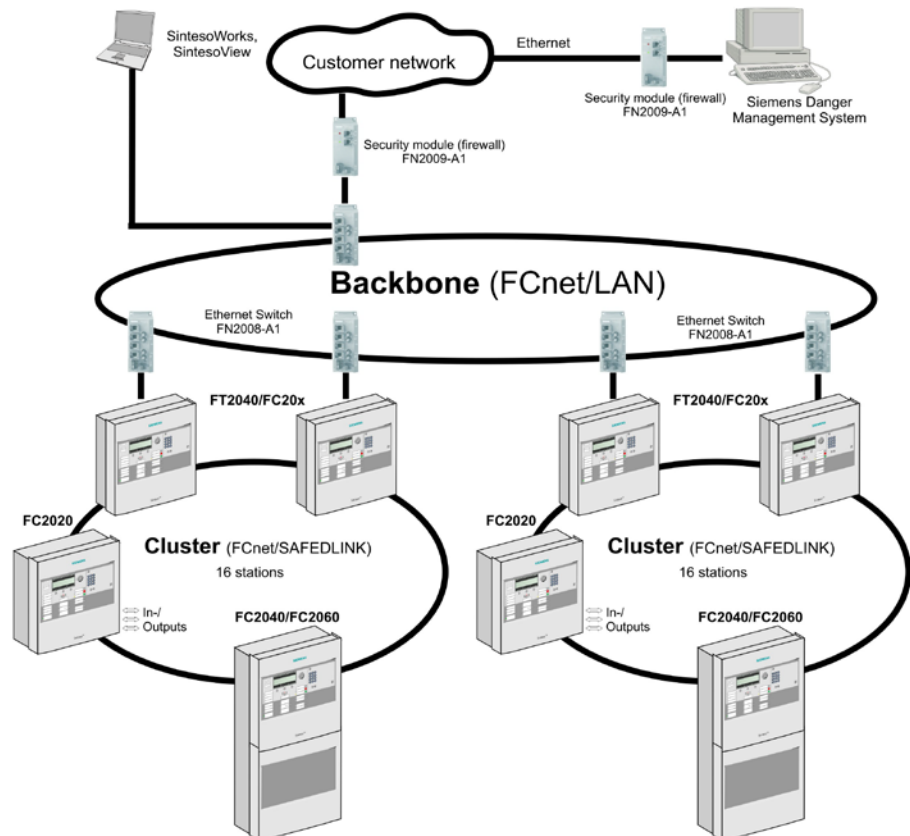


Networking topologies

Up to 32 fire control panels and fire control terminals can be connected in a single cluster (FCnet/SAFEDLINK) or up to 16 stations when the cluster is connected to a danger management system.



Using a fiber-optic Backbone (FCnet/LAN) up to 14 of the above mentioned clusters (with up to 16 stations each) can be networked. The entire network may contain up to 64 stations.



→ For details about system networking, please refer to product data sheet 008955

Characteristics

- The FC2020 is a compact fire control panel with an integrated operating unit that can process signals from Sinteso devices.
- The control panel can be used as a stand-alone unit or in a network.
- Using the user-friendly engineering tool SintesoWorks, the control panels can be configured to create a customized solution.
- All detector lines are monitored for ground faults.
- Adaptation of the user text directly on the terminal or with the software engineering tool.
- Up to 2000 events can be stored and recalled according to various criteria.
- Automatic daylight saving time switchover.
- Connection to Siemens Danger Management System

Functional elements

Operating unit

The following are located on the operating unit:

- CPU module and the electronics for the operating unit
- Ethernet connection
- Slots for RS232, RS485 modules and networking modules (SAFEDLINK)
- Space for 'Kaba' or 'Nordic' key switch
- Space for event printer (for FC2020-AZ/-AA/-AE)

Periphery board

The following are located on the periphery board:

- Connection terminals for FDnet loops, remote transmission (alarm, fault), horn output, programmable control inputs/outputs, monitored alarm and fault output, degrade supply, power supply
- Plug-in position for loop extension (FDnet)

Power supply 70 W or 150 W, emergency power supply

Provides the hardware with the necessary power and charges the batteries

- The batteries supply emergency power in case of mains failure

Housing

A pivoting mounting panel can be installed on the housing backplane to allow installation of:

- 1 fire brigade periphery module
- 1 sounder module (can also be mounted onto the U-rail TS35)

Configuration

The engineering tool (SintesoWorks) permits the system to be adapted to specific customers' requirements.

Application ranges














The FC2020 is ideally suited for smaller applications, e.g. in workshops, hotels, etc. or when networked as part of much larger applications.

Operation

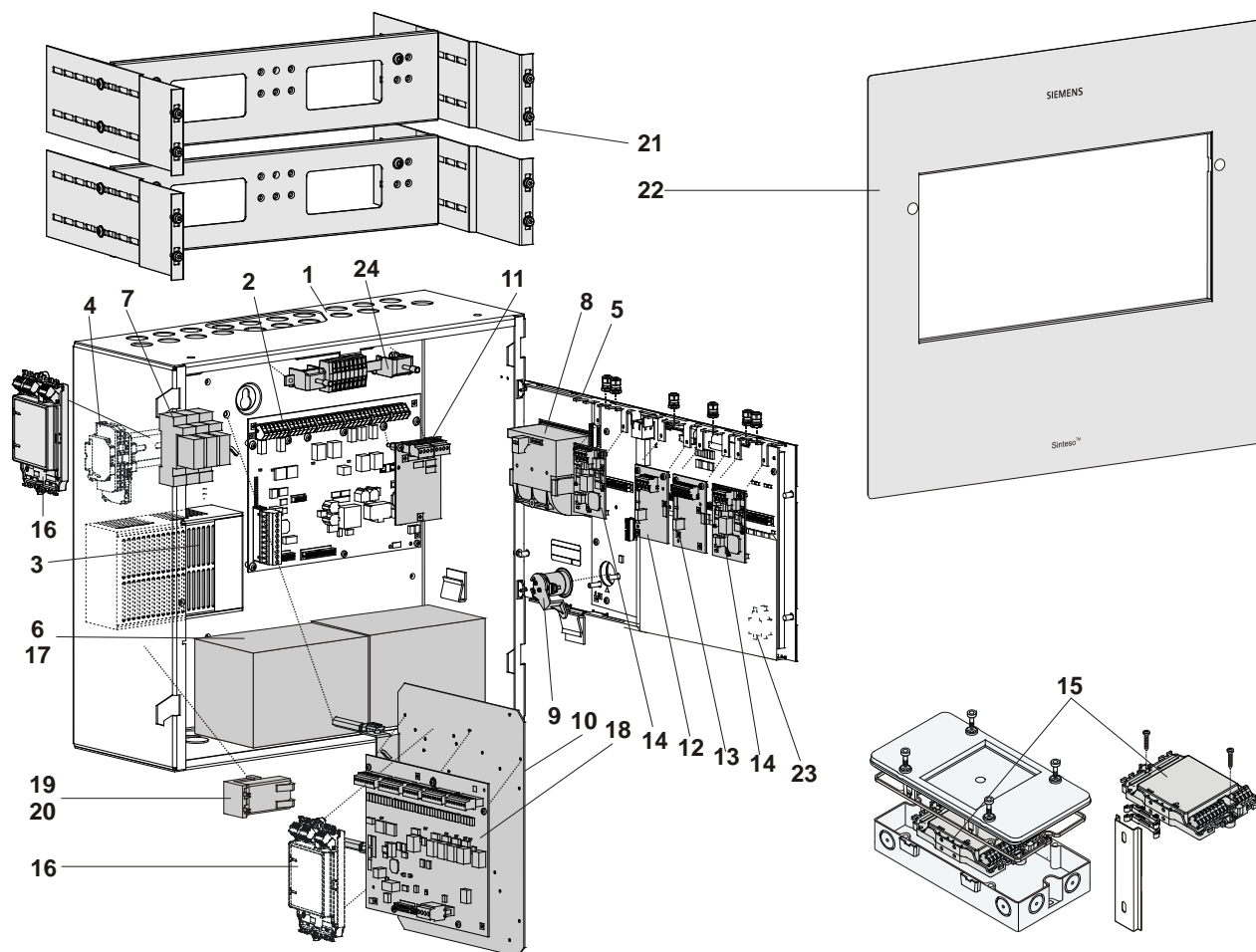
Each control panel has an integrated operating unit. The control panel can also be operated from a separate FT2040 operator terminal or any other control panel.

➔ For details and further information, please refer to product data sheet 009386.

Overview of FC2020 fire control panels

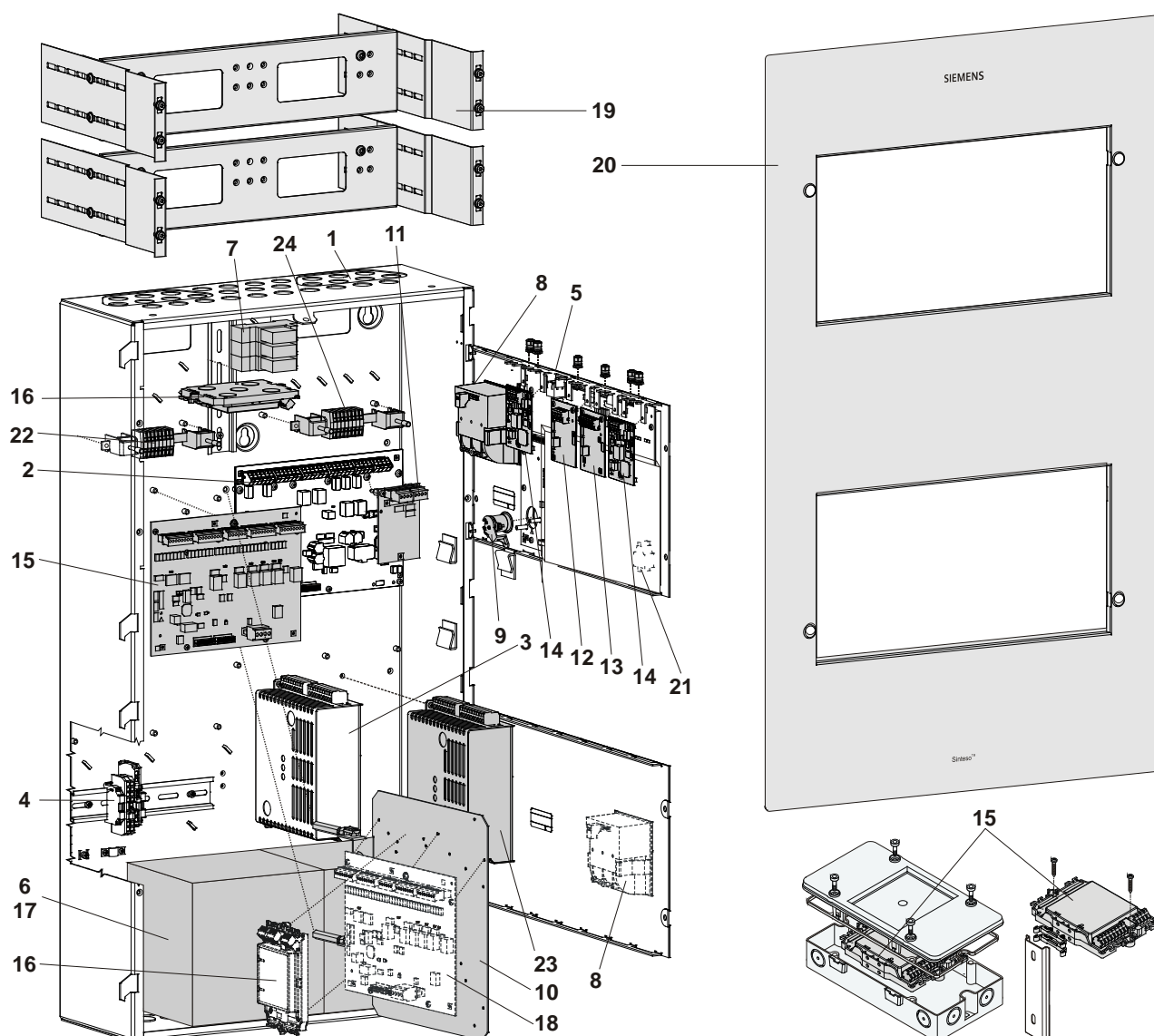
Housing (Standard)		Housing (Comfort)	
FC2020-AZ  2 Loops With power supply (70 W) Battery capacity max. 12 Ah	FC2020-EZ With 24 indicator groups with each one red + yellow LED  2 Loops With power supply (70 W) Battery capacity max. 12 Ah	FC2020-AA  2 Loops With power supply (150 W) Battery capacity max. 26 Ah	FC2020-AE With 48 indicator groups with each one red + yellow LED  2 Loops With power supply (150 W) Battery capacity max. 26 Ah
Expansion			
FTO2001-A1 Event printer  Can be installed in – FC2020-AZ – FC2020-AA – FC2020-AE RS232 module must be ordered separately	FH2007-A1 Housing (Std. +plan comp.) 430 x 398 x 160 mm  Empty housing for documents A4, Depth 150 mm	FH2003-A1 Housing (Comfort) 430 x 796 x 160 mm 	FH2005-A1 Housing (Large) 430 x 796 x 260 mm 
Empty housing for various applications FH2002-A1 Housing (Standard) 430 x 398 x 160 mm  e.g. for additional batteries, operating add-ons or event printer Space for batteries 2 x FA2003-A1 (7 Ah) or 2 x FA2004-A1 (12 Ah)		Empty housing for various applications e.g. for additional batteries, operating add-ons or event printer Space for batteries 2 x FA2003-A1 (7 Ah) or 2 x FA2004-A1 (12 Ah) or 2 x FA2005-A1 (17 Ah) or 2 x FA2006-A1 (26 Ah)	
FH2004-A1 Housing (Large extension) 430 x 398 x 260 mm  Space for larger batteries 2 x FA2007-A1 (45 Ah) or 2 x FA2008-A1 (65 Ah)		Space for larger batteries 4 x FA2006-A1 (26 Ah) or 4 x FA2007-A1 (45 Ah) or 2 x FA2008-A1 (65 Ah)	
Operating add-ons		External printer	
FCM2038-A2 48 indicator groups with each one red/green + yellow LED  For retrofitting	FCM2036-A2 96 indicator groups with each one red/green + yellow LED  For retrofitting	DL3750+ Matrix printer (Extern) RS232 interface  RS232 module must be ordered separately	

Configuration of FC2020 in housing (Standard)



Basic equipment		Designation	Notes
1	Rear (Standard)	FHA2002-A1	Nos. 1-5 -> Basic equipment for each FC2020-xx (Standard)
2	Periphery board (2-loop)	FCI2002-A1	
3	Power supply (70 W)	FP2001-A1	
	Power supply (70 W)	FP2015-A1	
4	Mains terminals on DIN mounting rail TS35	–	
5	Operating unit	FCM20xx-xx	Combined operating unit and CPU, incl. cover
6	Space for batteries	–	2 x 12 V / 7...12 Ah
Expansion			
7	Relay module	Z3B171	Relay for fire controls
8	Event printer	FTO2001-A1	For event logging
9	Key switch (Kaba)	FTO2005-C1	For operating access rights
	Key switch (Nordic)	FTO2006-B1	
10	Mounting plate	FHA2007-A1	E.g. for fire brigade peripheral
11	Loop extension (FDnet)	FCI2003-A1	For loop extension of 2 to 4, number of addresses remains the same
12	RS485 module (isolated)	FCA2002-A1	For peripheral devices with RS485 port
13	RS232 module (isolated)	FCA2001-A1	For stations with RS232 port
14	Networking module (SAFEDLINK)	FN2001-A1	For networking various stations
15	Repeater (SAFEDLINK)	FN2002-A1	For the extension of the system bus FCnet, max. 1 between 2 stations (mounting direct onto plane surface, onto a U-rail TS35 or in housings FDCH291/292)
16	Sounder module	FCA2005-A1	For split-up of 1 to 4 conventional horn lines
17	Battery (12 V, 7 Ah, VDS)	FA2003-A1	For emergency power supply
	Battery (12 V, 12 Ah, VDS)	FA2004-A1	
18	Fire brigade peripheral module	FCI2001-D1	For Germany (FBF, FSD, ÜE, FSE, ÖA, KL)
19	Battery kit (9 Volt)	FCA2010-F1	For 9 Volt battery (3 rd voltage source for France)
20	Lithium battery 9 V / 1 Ah	–	For FCA2010-F1
21	19" mounting kit	FHA2016-A1	For the installation in 3 rd party housings
22	FM blind 1HU	FHA2017-A1	For the recess mounting of housings
23	License key Sx	FCA20xx	For the release of special enhanced functions
24	Cable kit (communication)	FCA2014-A1	For flexible cable connections to the modules on the operating unit

Configuration of FC2020 in housing (Comfort)







Basic equipment		Designation	Notes
1	Rear (Comfort)	FHA2003-A1	Nos. 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 DIN mounting rail TS35	—	
5	Operating unit	FCM20xx-xx	
6	Space for batteries	—	2 x 12 V / 17...26 Ah
Expansion			
7	Relay module	Z3B171	Relay for fire controls
8	Event printer	FTO2001-A1	For event logging
9	Key switch (Kaba)	FTO2005-C1	For operating access rights
	Key switch (Nordic)	FTO2006-B1	
10	Mounting plate	FHA2007-A1	E.g. for fire brigade peripheral
11	Loop extension (FDnet)	FCI2003-A1	For loop extension of 2 to 4, number of addresses remains the same
12	RS485 module (isolated)	FCA2002-A1	For peripheral devices with RS485 port
13	RS232 module (isolated)	FCA2001-A1	For stations with RS232 port
14	Networking module (SAFEDLINK)	FN2001-A1	For networking various stations
15	Repeater (SAFEDLINK)	FN2002-A1	For the extension of the system bus FCnet, max. 1 between 2 stations (mounting direct onto plane surface, onto a U-rail TS35 or in housings FDCH291/292)
16	Sounder module	FCA2005-A1	For split-up of 1 to 4 conventional horn lines
17	Battery (12 V, 26 Ah, VDS)	FA2006-A1	For emergency power supply
18	Fire brigade periphery module	FCI2001-D1	For Germany (FBF, FSD, UE, FSE, ÖA, KL)

Basic equipment	Designation	Notes
1 Rear (Comfort)	FHA2003-A1	Nos. 1-5 -> Basic equipment for each FC2020-xx (Comfort)
19 19" mounting kit	FHA2016-A1	For the installation in 3 rd party housings
20 FM blind 2HU	FHA2015-A1	For the recess mounting of housings
21 License key Sx	FCA20xx	For the release of specific functions
22 Cable kit (communication)	FCA2014-A1	For flexible cable connections to the modules on the operating unit
23 Power supply kit (150 W, B)	FP2005-A1	For additional power supply

Technical data

	FC2020 in housing (Standard)	FC2020 in housing (Comfort)
Mains voltage	AC 97...127 V / AC 196...253 V	AC 98...127 V / AC 196...253 V
Power supply	70 W	150 W
Operating voltage	DC 21...28.6 V	DC 21...28.4 V
Operating current	max. 2.5 A	max. 5 A
Battery capacity	2 x 12 V, 7...12 Ah	2 x 12 V, 26 Ah
Battery monitoring	yes	yes
Mains monitoring	yes	yes
Connectable detector series	Sinteso (FDnet)	Sinteso (FDnet)
Number of lines		
– Loops (with loop extension) or	2 (4)	2 (4)
– Stub lines	4 (8)	4 (8)
Number of addresses	max. 252	max. 252
Integrated inputs/outputs		
– Relay output		
– Remote transmission alarm	1	1
– Remote transmission fault	1	1
– Monitored outputs		
– Alarm	1	1
– Fault	1	1
– Horn	1	1
– Free programmable inputs/outputs	8	8
Operating unit	integrated	integrated
Plug-in position for serial interfaces RS232, RS485	2	2
Plug-in position for network module	2	2
Plug-in position for loop extension	1	1
Mounting place for cable kit (communication)	1	2
Sounder module	max. 1	max. 1
Ethernet connection RJ45	1	1
Operating temperature	-8...+42 °C	-8...+42 °C
Storage temperature	-20...+60 °C	-20...+60 °C
Humidity (no condensation permitted)	≤95 % rel.	≤95 % rel.
Dimensions (W x H x D)		
– without cover cap	430 x 398 x 165 mm	430 x 796 x 165 mm
– with cover cap	430 x 398 x 188 mm	430 x 796 x 188 mm
Color		
– Housing	grey, ~RAL 7035	grey, ~RAL 7035
– Cover cap	white, ~RAL 9010	white, ~RAL 9010
Protection category (IEC 60529)	IP30	IP30
Approvals		
– VdS	G206109	G206109
– LPCB	126bn/01	126bn/01
– FM	approved	approved

09		0786	FC2020	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 ; 2004/108/EC (EMC): EN 50130-4 / EN 61000-6-3 ; 2006/95/EC (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581				
Declared performance and conformity can be seen in the Declaration of Performance and the EC Declaration of Conformity, 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				
07		0786	FP2001	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. 008837
FP2001 - Power Supply Equipment 24V/70W for use in fire detection and fire alarm systems installed in buildings				
305/2011/EU (CPR): EN 54-4 ; 2004/108/EC (EMC): EN 50130-4 / EN 61000-6-3 ; 2006/95/EC (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581				
Declared performance and conformity can be seen in the Declaration of Performance and the EC Declaration of Conformity, which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or http://siemens.com/bt/download				
DoP No.: 0786-CPR-20266; DoC No.: CED-FP2001				
14		0786	FP2015	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. A6V10411051
FP2015 - Power Supply Equipment 24V/70W for use in fire detection and fire alarm systems installed in buildings				
305/2011/EU (CPR): EN 54-4 ; 2004/108/EC (EMC): EN 50130-4 / EN 61000-6-3 ; 2006/95/EC (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581				
Declared performance and conformity can be seen in the Declaration of Performance and the EC Declaration of Conformity, which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or http://siemens.com/bt/download				
DoP No.: 0786-CPR-21302; DoC No.: CED-FP2015				
13		0786	SV24V150W	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. 008837
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 ; 2004/108/EC (EMC): EN 50130-4 / EN 61000-6-3 ; 2006/95/EC (LVD): EN 60950-1 ; 2011/65/EU (RoHS): EN 50581 ;				
Declared performance and conformity can be seen in the Declaration of Performance and the EC Declaration of Conformity, 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	Part no	Designation	Weight
Fire control panels	FC2020-AZ	A5Q00015550	Fire control panel (2-loop)	10.660 kg
	FC2020-EZ	A5Q00016827	Fire control panel (2-loop)	10.500 kg
	FC2020-AA	A5Q00016829	Fire control panel (2-loop)	18.250 kg
	FC2020-AE	A5Q00016851	Fire control panel (2-loop)	20.850 kg
Expansion	Z3B171	BPZ:4843830001	Relay module 250 VAC / 10 A (1 relay)	0.042 kg
	FTO2001-A1	A5Q00010126	Event printer	0.250 kg
	–	A5Q00017619	Replacement printer rolls (10 rolls)	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 (Std. +plan comp.)	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 ind.)	2.600 kg
	FCM2036-A2	S54400-B147-A1	Operating add-on (4xLED ind.)	2.800 kg
	FHA2016-A1	A5Q00020179	19" mounting kit	3.000 kg
	FHA2017-A1	A5Q00024719	FM blind 1HU	3.000 kg
	FHA2015-A1	A5Q00024621	FM blind 2HU	5.100 kg
Additional power supply	FP2003-A1	A5Q00016005	Power supply kit (70 W)	0.650 kg
	FP2015-A1	S54400-B121-A1	Power supply (70 W)	1,300 kg
	FP2004-A1	A5Q00020825	Power supply kit (150 W) for installation in empty housing	1.366 kg
	FP2005-A1	A5Q00018779	Power supply kit (150 W) for cascading	1.100 kg
	FN2006-A1	S54400-A61-A1	Fiber network module (SM)	0.770 kg
Networks (backbone)	FN2007-A1	S54400-A62-A1	Fiber network module (MM)	0.770 kg
	FN2008-A1	S54400-F94-A1	Ethernet switch	0.800 kg
	FN2009-A1	S54400-F95-A1	Security module	0.800 kg
	FHA2029-A1	S54400-B79-A1	Mounting kit for Ethernet switch (Comfort)	0.500 kg
	FHA2030-A1	S54400-B81-A1	Mounting kit for Ethernet switch (Large Ext.)	0.500 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
	FCA2036-A1	S54400-P157-A1	License key (S4)	0.010 kg
External printer	DL3750+	A5Q00023962	Matrix printer (Extern)	7.300 kg
Spare part	–	A5Q00023963	Black typewriter ribbon for printer DL3750+	0.078 kg