



## FC2060

Sinteso™

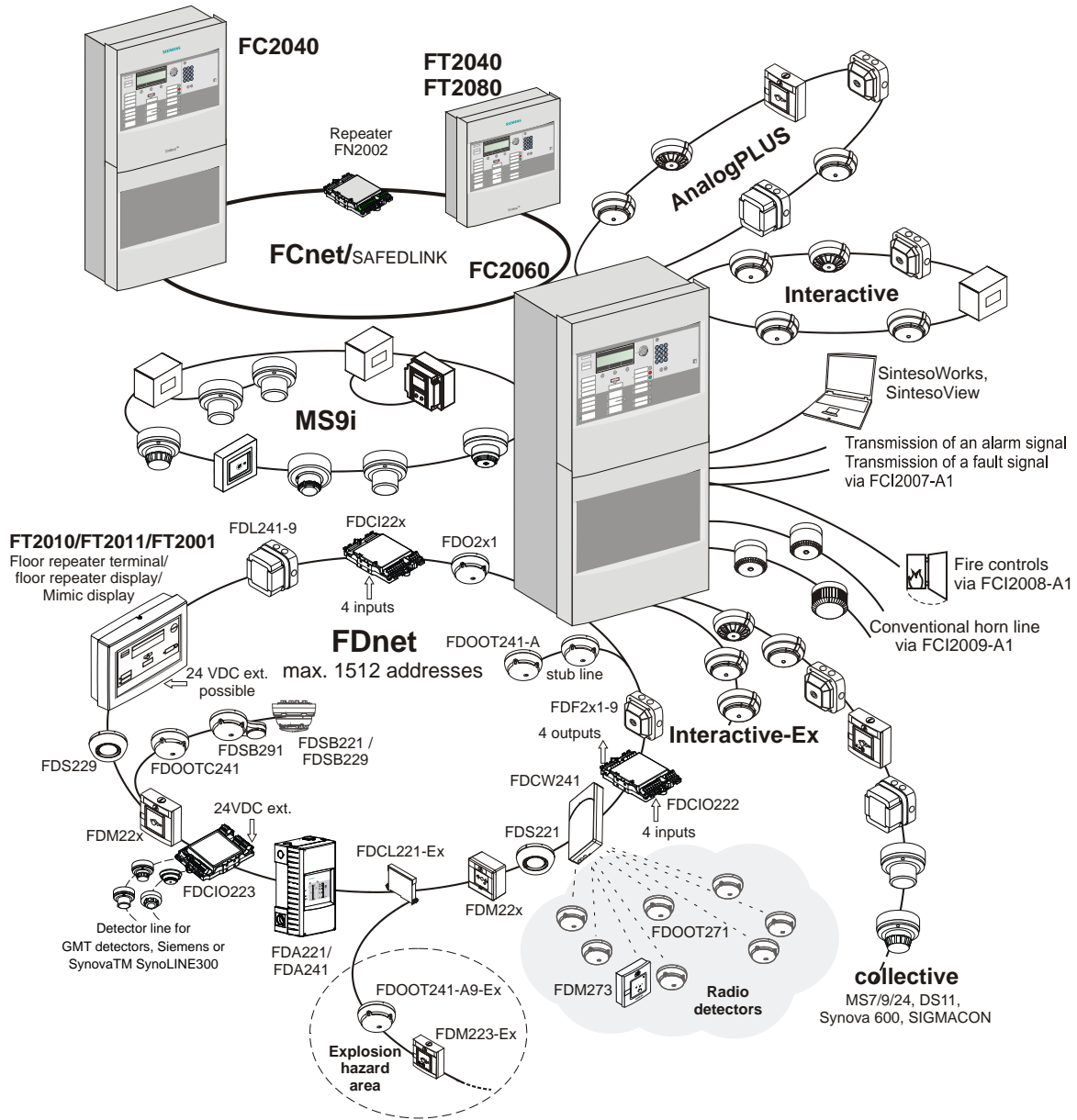
## Fire control panel



FS20 series (MP5.0)

- **Modular, prefabricated, microprocessor-controlled fire control panel with integrated user-friendly operating unit for up to max. 1512 addresses**
- **Processes signals from various detector systems like:**
  - FD20 devices of the Sinteso series
  - collective fire detectors of the MS7/9/24, DS11, Synova 600, SIGMACON series
  - addressable fire detectors of the MS9i, AnalogPLUS, Interactive series
  - Addressable fire detectors for explosive areas of the interactive Sinteso series
- **Fire control panel can be used as stand-alone version or can be networked**
- **Up to 64 stations (fire control panels and fire terminals) can be connected in one network**
- **Integrated degraded mode function**
- **Redundant network node, degraded mode operation according to EN 54**
- **Fast Ethernet interface for a heterogeneous network**
- **Option of printer, key switches, LED displays**
- **Slots for serial ports and max. 5 extra cards**
- **Emergency power supply for emergency operating time of up to 72 hours**
- **Recognition and automatic read-in (auto configuration) of all FDnet devices, ready for operation immediately**
- **Time and situation-dependent changeover of detector parameter sets**
- **Floor repeater, alarm devices and mimic displays in 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**

**System overview**

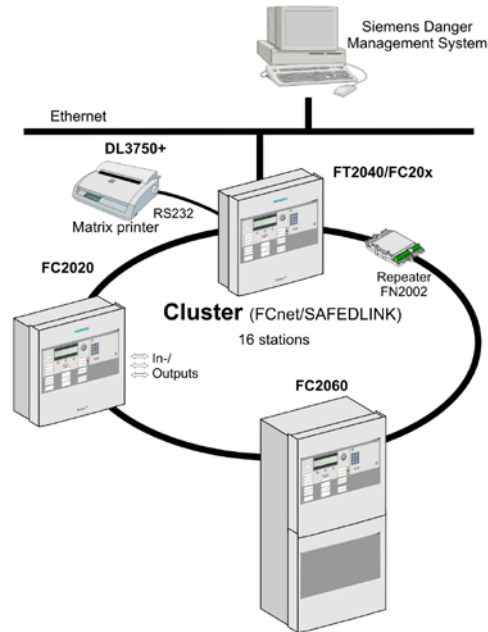


<p style="text-align: center;"><b>FDnet</b></p> <ul style="list-style-type: none"> <li>• 4 integrated loops (8 with loop extension)</li> <li>• 4 Loops with max. 252 addresses per line card</li> </ul>	<p style="text-align: center;"><b>Collective</b></p> <ul style="list-style-type: none"> <li>• 8 lines per line card</li> </ul>
<p style="text-align: center;"><b>MS9i</b></p> <ul style="list-style-type: none"> <li>• 2 loops per line card (with max. 100 addresses per line card)</li> </ul>	<p style="text-align: center;"><b>AnalogPLUS</b></p> <ul style="list-style-type: none"> <li>• 4 loops per line card (with max. 512 addresses per line card)</li> </ul>
<p style="text-align: center;"><b>Interactive</b></p> <ul style="list-style-type: none"> <li>• 1 loop per line card (with max. 128 addresses per line card)</li> </ul>	<p style="text-align: center;"><b>Interactive-Ex</b></p> <ul style="list-style-type: none"> <li>• 1 stub line per line card (with max. 32 addresses per line card)</li> </ul>
<p style="text-align: center;"><b>I/O-Karte (programmierbar)</b></p> <ul style="list-style-type: none"> <li>• 12 freely programmable inputs/outputs per I/O card</li> </ul>	<p style="text-align: center;"><b>I/O-Karte (Horn/überwacht)</b></p> <ul style="list-style-type: none"> <li>• 8 monitored horn lines or monitored outputs</li> </ul>

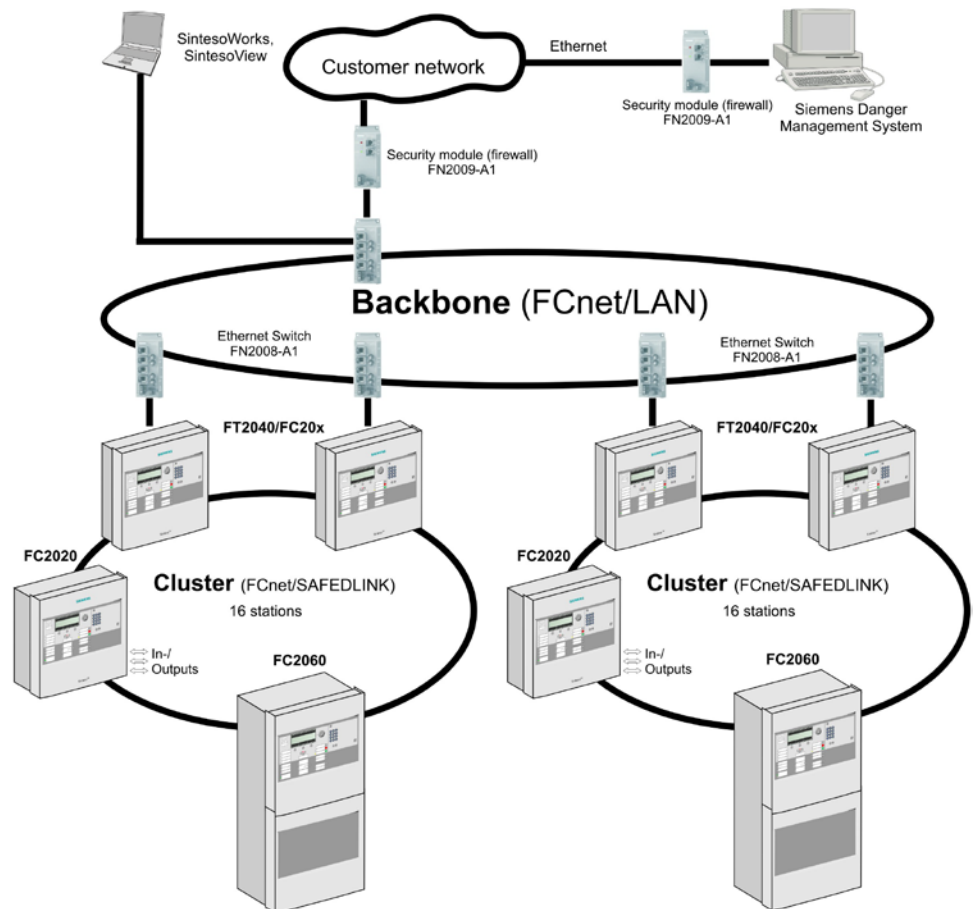
Mixed usage possible, but with a max. of 5 cards per control panel.

## 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

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- The FC2060 is a modular fire control panel with integrated operating unit for large installations and for modernizing large older fire detection installations.
- The FC2060 processes signals from Sinteso, collective (MS7/9/24, DS11, Synova 600, SIGMACON) and addressable (MS9i, Interactive, AnalogPLUS).
- An integrated card cage with 5 slots allows
  - FDnet line cards, FCL2001-A1 (for extra lines)
  - Collective line cards, FCL2002-A1
  - MS9i line cards, FCL2003-A1
  - Interactive line cards, FCL2006-A1
  - Interactive-Ex line cards, FCL2007-A1
  - AnalogPLUS line cards, FCL2005-A1
  - I/O card, FCI2008-A1 (with 12 programmable inputs/outputs)
- Mixed use of all line and I/O cards possible.
- In the event of a defect, the extra line cards can be replaced without the control panel having to be powered down.
- The fire control panel may be used as a stand-alone unit or networked.
- Using the user-friendly engineering tool SintesoWorks, the control panels can be configured to create a customized solution.
- Adaptation of customer texts on the terminal itself or using the configuration tool.
- Up to 2000 events can be stored and recalled according to various criteria.
- Automatic daylight saving time switchover.
- Integration to Siemens Danger Management System.

## Functional elements

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### Operating unit

The following are located on the operating unit:

- CPU module and electronic components for operating unit
- Ethernet connection
- Plug-ins for RS232, RS485 modules and networking modules (SAFEDLINK)
- Space for 'Kaba' or 'Nordic' key switch
- Space for event printer

### Periphery board

The following are located on the peripheral board:

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

### Card cage (5 slots)

There is a card cage on the rear housing panel for use of max. 5 line cards (FDnet, collective, MS9i, Interactive, Interactive-Ex and AnalogPLUS) and/or I/O cards.

### Power supply unit 150 W, emergency power supply

Provides the hardware with the necessary power and charges the batteries

- The batteries supply emergency power in case of power failure

### **Housing**

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

- 1 fire brigade periphery module
- 2 sounder modules (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**

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The FC2060 is ideally suited to large applications, e.g. for industrial plants, office complexes, chemicals, manufacturing etc. During modernization, it is also suited to a gradual seamless transition from older systems to Sinteso.
















### **Operation**

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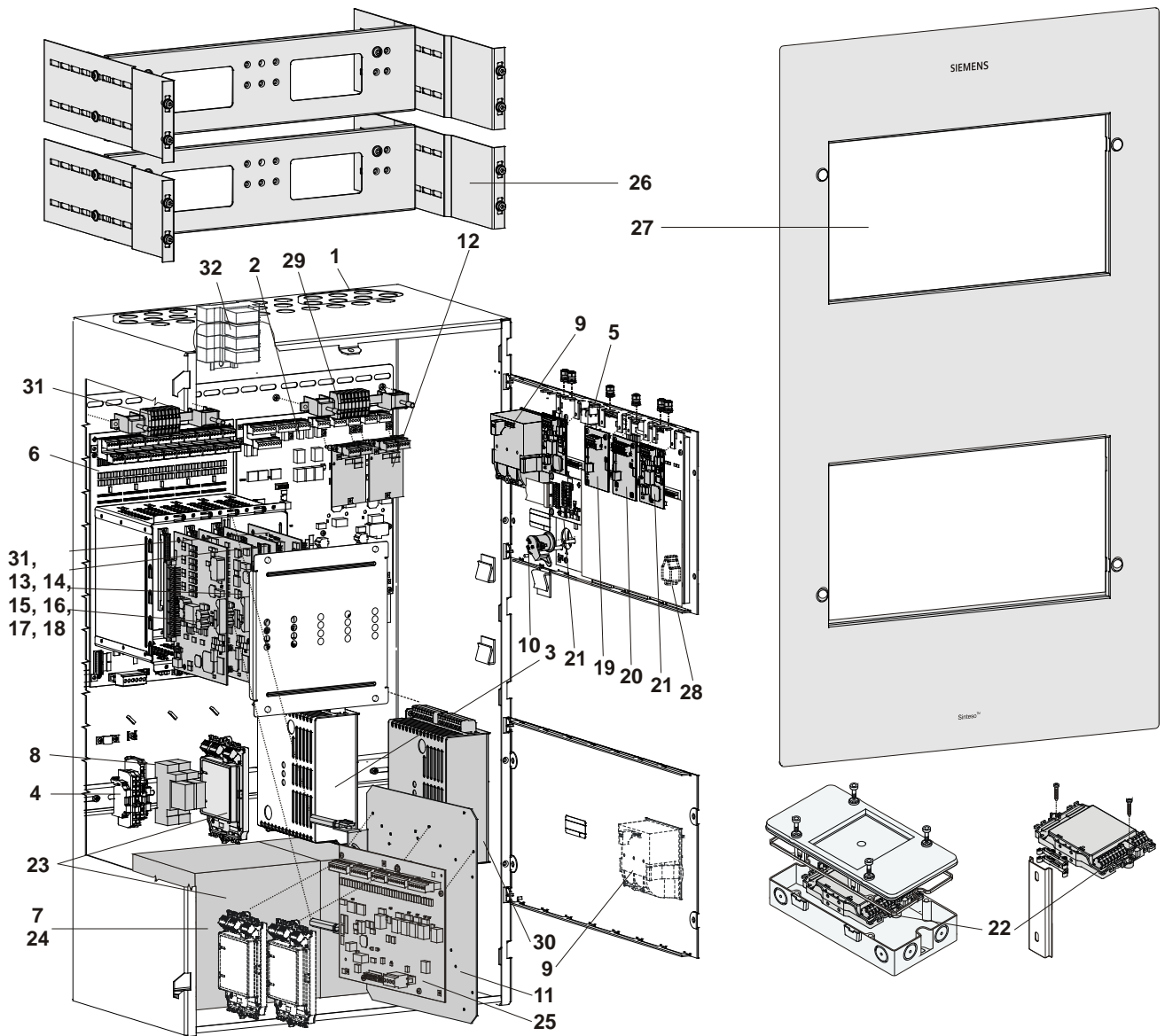
Each control panel has an integrated operating panel. The control panel can also be operated from a separate FT2040 operator terminal or any other control panel.

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

**Overview of FC2060-AA fire control panel (modular)**

<p><b>Control panel</b>  <b>FC2060-AA</b>          Housing (Large)</p>  <p>4 loops          with power supply (150 W)          Max. battery capacity 45 Ah          with card cage (5 slots)          for extra line cards like          FDnet, collective, MS9i          Interactive, AnalogPLUS          or I/O card</p>	<p><b>Housing extensions</b></p> <table border="1"> <tr> <td data-bbox="778 215 1109 913"> <p><b>FH2004-A1</b>                      Housing (Large extension)                      430 x 398 x 260 mm</p>  <p>Space for larger batteries                      2 x FA2007-A1 (45 Ah) or                      2 x FA2008-A1 (65 Ah) or                      2 x FA2009-A1 (100 Ah)</p> </td> <td data-bbox="1109 215 1444 913"> <p><b>FH2005-A1</b>                      Housing (Large)                      430 x 796 x 260 mm</p>  <p>Space for larger batteries                      – 4 x FA2006-A1 (26 Ah) or                      4 x FA2007-A1 (45 Ah) or                      2 x FA2008-A1 (65 Ah) or                      2 x FA2009-A1 (100 Ah)</p> </td> </tr> </table>		<p><b>FH2004-A1</b>                      Housing (Large extension)                      430 x 398 x 260 mm</p>  <p>Space for larger batteries                      2 x FA2007-A1 (45 Ah) or                      2 x FA2008-A1 (65 Ah) or                      2 x FA2009-A1 (100 Ah)</p>	<p><b>FH2005-A1</b>                      Housing (Large)                      430 x 796 x 260 mm</p>  <p>Space for larger batteries                      – 4 x FA2006-A1 (26 Ah) or                      4 x FA2007-A1 (45 Ah) or                      2 x FA2008-A1 (65 Ah) or                      2 x FA2009-A1 (100 Ah)</p>	
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<p><b>Printer</b>  <b>FTO2001-A1</b>          Event printer          can be fitted</p>  <p>RS232 module must be          ordered separately</p>	<p><b>Operating add-ons</b></p> <table border="1"> <tr> <td data-bbox="443 913 778 1332"> <p><b>FCM2038-A2</b>                      48 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p> </td> <td data-bbox="778 913 1109 1332"> <p><b>FCM2036-A2</b>                      96 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p> </td> </tr> </table>		<p><b>FCM2038-A2</b>                      48 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p>	<p><b>FCM2036-A2</b>                      96 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p>	<p><b>External printer</b>  <b>DL3750+</b>          Matrix printer (external)          RS232 interface</p>  <p>RS232 module must be          ordered separately</p>
<p><b>FCM2038-A2</b>                      48 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p>	<p><b>FCM2036-A2</b>                      96 display groups                      Each group                      One selectable red or green LED                      + one yellow LED</p>  <p>for retrofitting</p>				

## FC2060 configuration in housing (Large)





Basic equipment		Designation	Notes
1	Rear (Large)	FHA2005-A1	
2	Periphery board (4 loops)	FCI2004-A1	Items 1-6 → basic equipment
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	System operation and CPU at the same time, incl. cover cap
6	Card cage (5 slots)	FCA2008-A1	For FDnet, collective, MS9i line cards and I/O cards
7	Space for batteries	–	2 x 12 V / 17...45 Ah
Expansion			
8	Relay module	Z3B171	Relay for fire controls
9	Event printer	FTO2001-A1	For event logging
10	Key switch (Kaba)	FTO2005-C1	For operating access rights
	Key switch (Nordic)	FTO2006-B1	
11	Mounting plate	FHA2007-A1	E.g. for fire brigade periphery module
12	Loop extension (FDnet)	FCI2003-A1	For loop extension of 2 to 4, number of addresses remains the same
13	Line card (FDnet)	FCL2001-A1	For extra FDnet lines, 4 lines total 252 addresses per card
14	Line card (collective)	FCL2002-A1	For 8 collective lines MS7/9/24, DS11, Synova 600, SIGMACON
15	Line card (MS9i)	FCL2003-A1	For 2 addressable MS9i lines (max. 100 addresses)
16	Line card (AnalogPLUS)	FCL2005-A1	For 4 addressable AnalogPLUS lines
17	Line card (Interactive)	FCL2006-A1	For 1 addressable Interactive line
18	Line card (Interactive-Ex)	FCL2007-A1	For 1 addressable Interactive-Ex line

19	RS485 module (isolated)	FCA2002-A1	For peripheral devices with RS485 port
20	RS232 module (isolated)	FCA2001-A1	For participant with RS232 port
21	Network module (SAFEDLINK)	FN2001-A1	For networking various stations
22	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)
23	Sounder module	FCA2005-A1	For split-up of 1 to 4 conventional horn lines
24	Battery (12 V, 26 Ah, VDS)	FA2006-A1	For emergency power supply
	Battery (12 V, 45 Ah, VDS)	FA2007-A1	
25	Fire brigade periphery module	FCI2001-D1	For Germany (FBF, FSD, ÜE, FSE, ÖA, KL)
26	19" mounting kit	FHA2016-A1	For the installation in 3 <sup>rd</sup> party housings
27	FM blind 2 HU	FHA2015-A1	For the recess mounting of housings
28	License key Sx	FCA20xx	For specific functions
29	Cable kit (communication)	FCA2014-A1	For flexible cable connections to the modules on the operating unit
30	Power supply kit (150 W, B)	FP2005-A1	For additional power supply
31	I/O card	FCI2008-A1	12 programmable inputs/outputs
32	Relay module	Z3B171	Space for U-rail TS35 L=70 mm (on site) for max. 4 relay modules

## Technical data

Mains voltage	AC 98...127 V / AC 196...253 V
Power supply	150 W
Operating voltage	DC 21...28.6 V
Operating current	max. 5 A
Battery capacity	2 x 12 V, 45 Ah
Battery monitoring / mains monitoring	yes / yes
Connectable detector series	Sinteso, MS7/9/24, MS9i, DS11, Synova 600, SIGMACON
Number of FDnet addresses	max. 1512
Number of lines	
Integrated FDnet or stub lines	4 / 8
– with loop extension	8 / 16
FDnet (4 per line card)	max. 20
Collective (8 per line card)	max. 40
MS9i (2 per line card)	max. 10
Interactive (1 per line card)	max. 5
Interactive-Ex (1 per line card)	max. 5
AnalogPLUS (4 per line card)	max. 5
Integrated inputs/outputs	
– Relay output	
– Remote transmission alarm	1
– Remote transmission fault	1
– Monitored outputs	
– Alarm / Fault / Horn	1 / 1 / 2
– Free programmable inputs/outputs	12
Free programmable inputs/outputs with max. 5 extra I/O cards	60 (12 per card)
Operating unit	integrated
Plug-in position for RS232, RS485 serial ports	2
Plug-in position for network modules	2
Plug-in position for loop extension	2
Slots for line cards (on fitted card cage)	max. 5
Mounting spaces for cable kit (communication)	2
Sounder module	max. 2
Ethernet connection RJ45	1
Operating temperature	-8...+42 °C
Storage temperature	-20...+ 60 °C
Humidity (no condensation permitted)	≤95 % rel.
Dimensions (W x H x D)	
– Without cover cap	430 x 796 x 260 mm
– With cover cap	430 x 796 x 288 mm
Color: Housing / Cover cap	grey, ~RAL 7035 / white, ~RAL 9010
Protection category (IEC 60529)	IP30
Standards	EN 54-2, EN 54-4
Approvals:	
– VdS	G208202
– LPCB	126bn/04
– FM	approved



09  0786	<b>FC2060</b>	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. <b>008836</b>
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 ; 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 <a href="http://siemens.com/bt/download">http://siemens.com/bt/download</a>		
DoP No.: 0786-CPR-20669; DoC No.: CED-FC2060		
13  0786	<b>SV24V150W</b>	Siemens Switzerland Ltd; Gubelstrasse 22 CH-6301 Zug Technical data: see doc. <b>008837</b>
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 <a href="http://siemens.com/bt/download">http://siemens.com/bt/download</a>		
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 250 V AC / 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
	FCL2001-A1	A5Q00009875	Line card (FDnet)	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
	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 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
FHA2015-A1	A5Q00024621	FM blind 2 HU	5.100 kg	
FN2006-A1	S54400-A61-A1	Fiber network module (SM)	0.770 kg	
FN2007-A1	S54400-A62-A1	Fiber network module (MM)	0.770 kg	
Auxiliary power supply	FP2003-A1	A5Q00016005	Power supply kit (70 W)	0.650 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 cascading	1.100 kg

	Type	Art. no.	Designation	Weight
Networks (backbone)	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
	FA2009-A1	A5Q00023101	Battery (12 V, 100 Ah, VDS)	32.360 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 (external)	7.300 kg
Spare part	-	A5Q00023963	Black typewriter ribbon for printer DL3750+	0.078 kg