FC330A
Auto-addressing analogue fire detection panel

- Two-loop addressable panel, expandable to 4 loops
- Optional 4 or 12 conventional lines (e.g. for retrofit, modernization)
- Commissioning in record time by auto-addressing localization
- Auto-addressing eliminates the setting of dip switches, etc.
- Automatic localization of interruptions and short circuits
- Unshielded cables prevent irksome ground-returns
- Periodic self-test facility
- Serial interface for third-party building management systems, repeaters, printer, etc.
- Additional cards may be retrofitted at anytime for customized solutions
- Maintenance can be matched to customer needs
## Product features

The FC330A has all the requirements for intelligent systems. Addressing is automatic and address allocation takes only seconds. To improve security and increase speed, distributed intelligence enables detectors to verify danger signals independently.

512 addressable and 384 conventional fire detectors, regardless of type, may be connected to the FC330A fire control panel.

Commissioning, which comprises auto-addressing of all connected elements, is executed by the intelligent SynoLOOP transmission protocol. Time-consuming preparatory work such as setting dip switches, etc., is no longer necessary, providing reliable on-time commissioning.

Siemens equips all auto-addressable elements with isolators. No separate isolator has to be planned nor installed. If a short circuit occurs, the panel localizes and isolates the defective cable section. The loop system permits data flow in both directions up to the error source with optimum safety, until short-circuit is fixed. This kind of automatic isolation facilitates fire section planning, as well as adaptation to changing needs.

Expansion with various additional cards permits almost unlimited customized solutions.

## The fire control panel models

**FC330A-1/-6**
The FC330A-1/-6 standard fire control panel features the SynoLOOP K3X020 master board, an LCD unit, and the operator keypad.

**FC330A-2/-2-CH/-5**
The FC330A-2/-5 model consists of the standard control panel, the FC330A-2-CH model with 'FBA', expandable with parallel indicator panel B3R080.

**FC330A-4**
The FC330A-4 control panel can accommodate A4 and even A3 documents. The panel door accessible with a key protects against unauthorized access. A second inner door provides easy access for installation and maintenance access.
System overview

- Building Technologies
- Fire Safety & Security Products

- **SynoLINE600**
  - Collective

- **SynoLINE600-Ex**
  - Collective

- **SynoLINE300**
  - Conventional
  - Addressable

- Up to 4 SynoLOOP max. 512 devices

- Two RS232 serial interfaces

- Alarm devices
- Alarm reception centre (Fire brigade)
- Fire control installations (FCI)
- VoIP periphery:
  - Fire brigade control panel
  - Fire brigade key cabinet
  - Remote transmission unit

- Building management system
- Printer
- Configuration tool SWE330A
- Training

- LON-Bus via LON interface
  - Control input/output modules
  - LON/Synoptic converter
  - Database
  - Floor repeater panels
  - Parallel indicators or Synoptic / relay
FC330A and its expansions

[1] FC330A
Control panel

[2] Z3S030
Z3S020

Master board

2-loop addressable expansion card

4 conventional lines expansion card

12 conventional lines expansion card

Relay card

[8] K3L070
VdS interface card

[9] K3I080
RS232/LON-Bus converter

[10] Z3I830
Mounting plate

Relay module

[12] Z3I1000
Power supply

TS32
U-rail

(up to 2 cards)

or

(up to 2 cards)

or

or

(up to 16 Z3B171)

Two RS232 ports
Fire control panel FC330A-…
The fire control panel accommodates
- Smoke, heat and multi-sensor detectors and manual call points from different series
- Special detectors (flame detectors, Ex-detectors, highly sensitive detectors) for special applications
- Input and output modules
- Conventional line modules and siren outputs
The fire control panel is equipped with state-of-the-art software; virtually unlimited range of applications may be programmed easily. It provides
- Intuitive, menu-driven operation
- Definable detector groups or fire zones
- Dual-detector independence
- Chronological storage and retrieval of up to 200 events
- Windows-based software tool for parameter programming, etc.

Specific country version FC330A-NL
Same as FC330A-2 but with option for integration of the evacuation module for Netherlands. Already implemented are the power supply Z3I1000, 1 relay card K3G050 and 2 relay modules Z3B171.

Access with key Z3S030/Z3S020
The system operator may access the fire detection system in three ways: by passwords, without any password, or with access keys. Two kinds of key switches are available:
- Module Z3S030 is integrated in an existing like-keyed concept
- Module Z3S020 follows the Nordic fire brigade concept

SynoLOOP master board K3X020
The master board is the basic control panel module and is part of its basic equipment. Switched on, the master board recognizes all connected elements and is ready to transmit fire alarms. Two auto-addressing SynoLOOP ring cabling (with 128 detectors each) or two stub lines (with 32 addressable detectors each) may be connected to the master board. The master board has in addition the built-in:
- 8 Programmable control outputs
- 2 Monitored output (Sirens)
- 2 Control line relays
- Alarm and fault relays (to long distance transmission devices)
Two RS232 interfaces accommodate various applications:
- System programming
- Printer connection for event protocol printouts
- LON-bus connection
- Incorporation in a building management system (BMS)
- Connection of the Visualizer training tool, to operate the FC330A via your PC

Addressable 2-loop expansion card K3M030
The K3M030 allows expanding the FC330A by 2 addressable loops with up to 256 detectors or 2 stub lines with up to 32 detectors per stub.

Conventional line expansion card K3M010 (4 lines)
The K3M010 allows expansion of the control panel by:
- 4 conv./coll. lines (SynoLINE300/600)
- 4 programmable driver outputs
- 2 monitored outputs (sirens)
- 2 relay switch contacts

Conventional line expansion card K3M020 (12 lines)
The K3M020 allows expansion of the control panel by up to:
- 12 conv./coll. lines (SynoLINE300/600)
- 8 programmable driver outputs

Relay card K3G050
Relay card K3G050 triggers fire controls such as activation of fire doors or air vents. It offers additionally the following outputs:
- 8 relay switch contacts (30 VDC/2 A)
- 4 programmable outputs (24 VDC/48 mA)
- 2 monitored outputs (Sirens) (24 VDC/500 mA)
One plug is available for the relay card K3G050.

VdS Interface card K3L070
This card is only needed, when VdS peripherals are specified. The card contains the fire service key box adapter. It also permits the connection to a fire brigade operating panel or a transmission device. A standard extinguishing interface is provided. One plug is provided for the VdS card K3L070.
Optional power supply Z3I1000
The additional power supply Z3I1000 consists of a power supply – monitoring card M3P140 and the power supply B2F040. This set is needed if the current calculation exceeds the power supply output of the main board. Power supply output of the Z3I1000 max. 3.5 A / 29.6 VDC.

Parallel indicator panel B3R080 with 32 displays (LEDs) for panel FC330A-2/-2-CH/-5
The parallel indicator module visualizes important events, it contains 32 LED displays. One or more fire zones can be allocated to each of these 32 LEDs. The parallel indicator panel, built into the front of the control panel is connected directly to master board K3X020. This is used together with control panel type FC330A-2/-2-CH/-5.

Programmable key
A key on the key pad may serve as additional input. The key may be programmed for various functions (e.g. lamp test). It can be easily connected via the F02F290 to the master board K3X020.
## Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>K3X020</th>
<th>K3M010</th>
<th>K3M020</th>
<th>K3M030</th>
<th>K3G050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current consumption for FC330A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation current</td>
<td>128 mA 1) 2)</td>
<td>&lt;25 mA</td>
<td>&lt;72 mA</td>
<td>2 mA 1) 2)</td>
<td>20 mA</td>
</tr>
<tr>
<td>Alarm current</td>
<td>+9 mA 3)</td>
<td>+40 mA 4)</td>
<td>+40 mA 4)</td>
<td>0 mA</td>
<td>+9 mA 3)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>K3L070</th>
<th>K3I080</th>
<th>Z3B171</th>
<th>B3R080</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current consumption for FC330A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation current</td>
<td>12 mA</td>
<td>10 mA</td>
<td>0 mA</td>
<td>2 mA</td>
</tr>
<tr>
<td>Alarm current</td>
<td>+40 mA</td>
<td>0 mA 7)</td>
<td>+27 mA</td>
<td>+6 mA 6)</td>
</tr>
</tbody>
</table>

1) Each loop without any devices consumes additional 14 mA
2) 0.2 mA normal operation current consumption per addressable device connected
3) Per activated contact/control line/buzzer, without external load (sounders, etc.)
4) Per line in alarm
5) Per activated driver output
6) Per activated LED
7) LON devices see document no. 007349

- Detector loop (SynoLOOP) 2 + 2
- Programmable output 8 x 24 VDC / 40 mA
- Relay output 2 x 30 VDC / 1 A
- Transmission output 2 x 30 VDC / 1 A
- Supervised outputs 2 x 24 VDC / 500 mA
- Programmable input 4
- Programmable key input 1
- Programmable fire zones 512
- Programmable control zones 128
- Line resistance addressable loop 150 Ohm / 300 nF
- Supply voltage 115/230 VAC, ±15 % (VdS: +10 %) 50... 60 Hz
- Power consumption
  - Standard max. 100 VA
  - with optional power supply max. 120 VA
- Battery 2 x 12 V, 12 Ah or 2 x 12 V, 15 Ah
- Standards EN54-2, EN54-4
- Color light grey, RAL 7035
- Operating temperature 0… +50 °C
- Humidity ≤95 % rel.
- Protection category IP40
- Dimensions (W x H x D)
  - FC330A-1/-2/-2-CH/-5/-6/-NL 580 x 480 x 120 mm
  - FC330A-4 510 x 540 x 200 mm
- Approvals
  - VdS G298015
  - LPCB 126h/03

## Reference documents

- Doc. no. 1583 Synova™ FC330A Programming, Installation, Commissioning, Operating Programming, Trouble Shooting, Maintenance
- Doc. no. 1923 Synova™ FC330A Remote indicating & Control devices, Logging Printer (Installation & Commissioning)
- Doc. no. 007349 LON-Bus Data Sheet
### Details for ordering

<table>
<thead>
<tr>
<th>Type</th>
<th>Part no</th>
<th>Designation</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC330A-1</td>
<td>5665570001</td>
<td>Fire control panel, 2 LOOP analogue</td>
<td>12.380 kg</td>
</tr>
<tr>
<td>FC330A-2</td>
<td>5665600001</td>
<td>Fire control panel, 2 LOOP with mounting facility</td>
<td>12.160 kg</td>
</tr>
<tr>
<td>FC330A-2-CH</td>
<td>5775880001</td>
<td>Fire control panel, 2 LOOP with mounting facility as FC330A-2 but with ‘FBA-CH’ incl. inscription stripes</td>
<td>12.230 kg</td>
</tr>
<tr>
<td>FC330A-4</td>
<td>5665860001</td>
<td>Fire control panel 2 LOOP in special housing</td>
<td>22.600 kg</td>
</tr>
<tr>
<td>FC330A-5</td>
<td>5665590001</td>
<td>Fire control panel 2 LOOP as FC330A-2 but with LCD ‘Hebrew’</td>
<td>12.160 kg</td>
</tr>
<tr>
<td>FC330A-6</td>
<td>6289900001</td>
<td>Fire control panel 2 LOOP as FC330A-1 but with LCD ‘Cyrillic’</td>
<td>12.160 kg</td>
</tr>
<tr>
<td>FC330A-NL</td>
<td>A5Q00013021</td>
<td>Fire control panel 2 LOOP, Version NL</td>
<td>14.375 kg</td>
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</tbody>
</table>

#### Options for FC330A-2

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Part no</th>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3R080</td>
<td>5238460001</td>
<td>Parallel indicator panel (32 LEDs)</td>
<td>0.420 kg</td>
</tr>
<tr>
<td>H2B030</td>
<td>5238620001</td>
<td>Cover plate</td>
<td>0.203 kg</td>
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</table>

#### Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Part no</th>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z3S020</td>
<td>4840820001</td>
<td>Key switch module ‘Nordic access key’</td>
<td>0.075 kg</td>
</tr>
<tr>
<td>Z3S030</td>
<td>4840950001</td>
<td>Key switch module ‘like-keyed’</td>
<td>0.137 kg</td>
</tr>
<tr>
<td>Z3I830</td>
<td>5136650001</td>
<td>Mounting plate for accessories</td>
<td>0.590 kg</td>
</tr>
</tbody>
</table>

#### Expansion

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Part no</th>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3M010</td>
<td>5238170001</td>
<td>Line extension card ‘conventional’ (4 conventional lines)</td>
<td>0.285 kg</td>
</tr>
<tr>
<td>K3M020</td>
<td>4984180001</td>
<td>Line extension card ‘conventional’ (12 conventional lines)</td>
<td>0.300 kg</td>
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<tr>
<td>K3M030</td>
<td>5421600001</td>
<td>Loop extension card ‘addressable’ (2 loops or 2 stub lines)</td>
<td>0.245 kg</td>
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<tr>
<td>K3G050</td>
<td>5129700001</td>
<td>Relay card</td>
<td>0.294 kg</td>
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<tr>
<td>K3I080</td>
<td>5047680001</td>
<td>RS232/LON-bus Converter</td>
<td>0.305 kg</td>
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<tr>
<td>K3L070</td>
<td>5238200001</td>
<td>VdS-interface card ‘D’</td>
<td>0.357 kg</td>
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<tr>
<td>Z3I1000</td>
<td>5593440001</td>
<td>Additional power supply</td>
<td>1.050 kg</td>
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<tr>
<td>Z3I1020</td>
<td>5760000001</td>
<td>Battery extension set (for 2nd battery pack)</td>
<td>1.143 kg</td>
</tr>
</tbody>
</table>

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Supply subject to availability.