

## SPC4000 Intrunet® SPC Intrusion Control Panel

Perfect building protection inside and outside

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- Modern controller architecture
  - Modular system design
  - Up to 4 areas with 'true system partitioning'
  - Up to 32 monitored zones
  - Up to 30 free programmable outputs
  - Up to 1'000 event logs shared across area
  - Full connectivity with dual-path communications (PSTN, GSM)
  - Easy and flexible configuration facilities
  - Reliable high-speed expander bus (X-BUS)
  - Designed to meet EN50131 Grade 2



### Modern controller architecture

The SPC4000 is based on a modern controller architecture (ARM processor), offering high performance in connectivity, system features and Expander bus (X-Bus).

### Modular System Design

The modular system design allows the use of common SPC-series modules and expanders across the whole system family. This facilitates the planning efforts for the various application sizes and allows the system to grow with the customer requirements.

### Up to 4 areas with 'true system partitioning'

The SPC panel with its up to 4 areas with 'true system partitioning' enables multi-area and multi-tenant applications. Multi-tenant systems have the capability to report multiple uniform resource names (URN) to central stations (ARC) and enable private (SMS) notification to specific users.

### Up to 32 Zones and 30 Outputs

The up to 32 zones and 30 outputs can be programmed as needed by ticking specific attributes for the chosen function. This allows individually detection, control and event notification at all the sensitive points in a smaller building. And up to 1'000 events across all areas can be stored in the controller log book.

### Full connectivity with Dual-Path communications (PSTN, GSM)

Central station connectivity is a major part of the security system. All panels support dual path (PSTN, GSM) communication with all the major communication formats and prioritising of communication channels based on a predefined strategy. SPC supports also full connectivity for the engineer / user with secure authentication and rights management via data channel over GSM and PSTN networks. SMS text messaging via GSM/PSTN modules enhances the ability to notify events / alarms / to the user. Moreover the user can control the panel via SMS commands via GSM.

### Easy and flexible Configuration Facilities

The SPC panels provide easy and flexible configuration facilities. Remote configuration through any of the communication channels by use of a PC with SPC Pro Programming Software minimizes expensive on-site engineering costs. If off-site programming is not appropriate, the SPC Pro can also be used with direct connection to the panel. In addition, the SPC Fast Programmer can simply be plugged on the SPC controller for setup using pre-programmed configurations. Engineer friendly menus with intuitive interface along with system templates make the SPC panel to one of the quickest panels to program directly from the keypad.

### Reliable high-speed Expander Bus (X-BUS)

The high-speed Expander Bus (X-BUS with 307kB/s) is a fast and reliable backbone for all system installations with up to 400m distance between each bus device.

### Designed to meet EN50131 Grade 2

All the SPC panels are designed in-conjunction with the latest edition of European standard EN50131, allowing installations to fully comply to Grade 2.

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The Intrunet SPC4000 panel is designed to cope with the various project specific needs in small commercial applications regarding features and connectivity. Thanks to the modular concept the system can grow with increasing customer needs up to the specified limits.



EN50131 Grade 2 cabinet

### **SPC4120.200-L1 Intrusion CP, G2**

The SPC4120.200 control panel supports expansion up to 32 zones (8 on-board), 30 outputs (6 on-board), 4 system keypads and complies with EN50131 Grade 2 standard. Each zone can be configured for different zone monitoring requirements with 4K7 resistors as standard, but does support other resistor values.

The controller provides 1 X-BUS interfaces, 4 areas, 32 users with different access levels, dual signalling path with PSTN and GSM option, SMS over PSTN or GSM, 1'000 logged events, X-10 home automation interface.

The panel comes in a tamper protected metal cabinet with space for optional 7AH battery and 1 additional Expander.

The panel is delivered with English as default language. Other languages are delivered on the CD supplied with the panel for onsite download using SPC Pro or SPC Fast Programmer.

## X-Bus



The keypad is an iconic 32-character text keypad that is modern, aesthetically pleasing and functionally advanced. Support of proximity cards rounds off perfectly the safe and easy operating concept.



### SPCK420.100 LCD-Keypad, 2x16 Characters

The SPCK420 wired standard LCD keypad provides the user with an iconic Interface to control the security system. Its 32 character blue backlight display and keyboards allows control under all lighting conditions.

Navigation of the intuitive menu system is achieved using the central Navigation key. The keypad also has soft keys and alphanumeric keys that allow contextual key operation and data input directly from the keypad.



### SPCK421.100 LCD Keypad, 2x16 Characters, with Card Reader

The SPCK421 wired LCD keypad provides the user with a Card Reader interface and an iconic Interface to control the security system. Its 32 character blue backlight display and keyboards allows control under all lighting conditions.

Navigation of the intuitive menu system is achieved using the central Navigation key. The keypad also has soft keys and alphanumeric keys that allow contextual key operation and data input directly from the keypad.

It has also the ability to set/unset using a proximity keyfob. Proximity fobs have the advantage that they do not require batteries and negate the need for users to remember PIN's. When the system is configured to use the reader as setting / unset device, PIN entry is disabled during the entry timer.



### IB42-EM, EM laminated card without print; IB44-EM, Key Tag

These EM4102 compatible cards are supported by the SPCK421 LCD keypad and can be used to easily set/unset the system.



The SPC panel can be expanded up to the maximum number of zones or outputs using the common system expanders on the X-BUS (expansion bus). The X-BUS bus supports a maximum distance of 400 meters between each Expander. A complete range of Expanders covers all the security requirements.



### **SPCE650.100 Expander, 8 Input / 2 Outputs**

The SPCE650 Expander extends the SPC system via X-BUS with 8 wired zones and 2 fully programmable relay outputs. The zones and outputs on the Expander function exactly as the zones and outputs on the SPC panel.

Each zone can be configured for different zone monitoring requirements. The system supports 4K7 resistors as standard for monitoring but does support other resistor values. The outputs are volt free relays that provide both NO and NC terminals allowing the greatest flexibility.

The Expander comes in a tamper protected housing and features also an X-BUS status LED and on-board buzzer for easy device identification and extensive self-diagnostic capabilities.



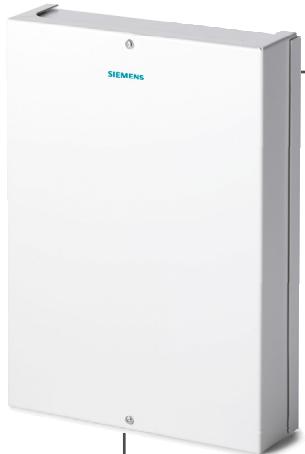
### **SPCE450.100 Expander, 8 Relay-Outputs**

The SPCE450 Expander extends the SPC system via X-BUS with 8 fully programmable relay outputs.

The outputs are volt free relays that provide both NO and NC terminals allowing the greatest flexibility.

The Expander comes in a tamper protected housing and features also an X-BUS status LED and on-board buzzer for easy device identification and extensive self-diagnostic capabilities.

## X-Bus



Each Expander provides built-in dual-isolators, a signal equalizer and a signal amplifier for highest X-BUS signal reliability.



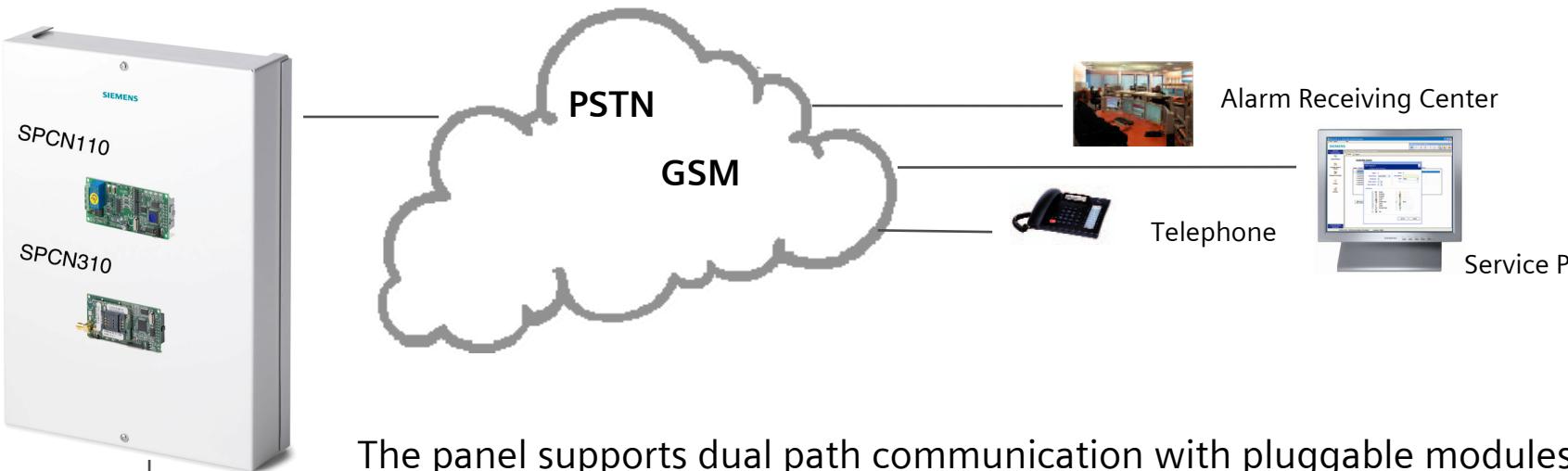
### **SPCP332.300 Smart PSU (7AH) with 8 Input / 2 Output Expander**

The SPCP332 Smart PSU Expander extends the SPC system via X-BUS with a monitored 12 V DC 2.6 A local power source for connected security devices (e.g. Expanders on X-BUS) and battery management, 8 wired zones and 2 fully programmable relay outputs.

The zones and outputs on the Expander function exactly as the zones and outputs on the SPC panel. Each zone can be configured for different zone monitoring requirements. The outputs are volt free relays that provide both NO and NC terminals allowing the greatest flexibility.

The Expander features also an X-BUS status LED and on-board buzzer for easy device identification and extensive self-diagnostic capabilities.

The PSU with Expander comes in a tamper protected metal cabinet with space for optional 7AH battery and complies with EN50131 Grade 2.



The panel supports dual path communication with pluggable modules to allow any combination to be used. The panel supports remote connectivity over all communication options, to provide engineering functions including configuration or diagnostics, and to the user the ability to remotely manage the premises.



### **SPCN110.000 PSTN Module, V90**

The SPCN110 PSTN module (up to 56K) is compatible with the complete SPC panel range and plugs directly on the main PCB removing the need for any additional wiring.

The modem can take control of the line and communicates with a central station (ARC) using common format protocols (SIA, Contact ID etc.). It also supports PPP connection to SPC Pro Software for remote programming and configuration up/download or SMS sending on a standard telephone line with caller ID.

The PSTN modem can be used as the primary source of communication or as backup to GSM modem.

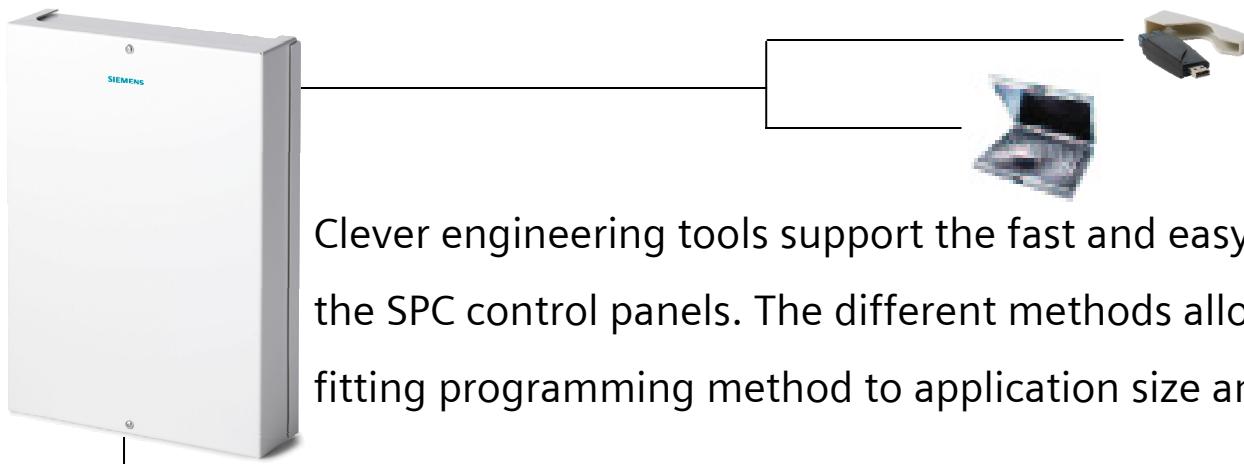


### **SPCN310.000 GSM Module incl. Antenna**

The SPCN310 GSM module can be assigned to any mobile network by the insertion of a standard SIM card. The modem is compatible with the complete range of SPC panels and plugs directly on the main PCB removing the need for any additional wiring. The unit comes with an external aerial that fits on the cabinet.

The modem communicates with a central station (ARC) using common format protocols (SIA, Contact ID etc.). It also supports PPP connection to SPC Pro Software for remote programming and configuration up/download. The SMS feature allows user / engineer to be sent a predefined text when selected events occur in the system. It also allows receiving of predefined SMS commands for security system control.

The GSM modem can be used as the primary source of communication or as backup to the PSTN modem.



Clever engineering tools support the fast and easy online or offline configuration of the SPC control panels. The different methods allow the engineer to choose the best fitting programming method to application size and available infrastructure.



### **SPCX410.000 SPC Fast Programmer**

The SPCX410.000 Fast Programmer provides a simple method of transferring configuration files from a PC (USB) to an SPC panel through the SPC Pro application and backing up configuration files from an SPC Panel to the Fast Programmer without direct PC connection.

This portable device has on-board 1MB flash memory, which typically can store in excess of 100 configuration files or a new firmware release for on site controller firmware update.



### **SPCS310.000 SPC Pro Programming Tool**

The SPCS310.000 configuration software allows the panels to be easily configured via PC in online or offline mode. In online mode the system can also be controlled (e.g. set/unset of areas or inhibit of zones) and event log and system status can be viewed.

The software connects via RS232 or USB to the SPC Controller. The RS232 connection can either be a direct or a remote connection (over PSTM or GSM). The SPC Fast Programmer is also supported.

## Technical features

<b>Controller</b>	<b>SPC4120.200-L1</b>
Programmable areas	4
Number of on-board zones	8
Max. number of hardwired zones	32
Supervised input	No EOL / Single EOL / Dual EOL / Tri EOL (Antimask PIR) / Inertial Sensors
EOL resistor	4K7 (default), other resistor combinations configurable
Number of on-board outputs	6
Max. number of outputs	30
Bus connections	X-BUS (1 spur)
Number of field devices	Max. 7 on X-BUS
- Number of Keypads	Max. 4 <sup>1)</sup>
- Number of 8 Input / 2 Output Expander	Max. 3 <sup>1)</sup>
- Number of Keypads 8 Output Expander	Max. 3 <sup>1)</sup>
- Number of Power Supply Unit (PSU) with built in 8 Input / 2 Output Expander	Max. 3 <sup>1,2)</sup>
Keypads with proximity cards	Yes
Keypad quick key configuration	Yes
Max. number of user codes	32
Event memory	1'000 (shared across areas)
Language	Single-language support
Fast Programmer Support	Yes
Local and Remote configuration	Yes
Firmware Upgrade	Local upgrade for Controller
X-10	Support for X-10 Power Controller and X-10 commands (devices with house code A)
Communication interface	Pluggable PSTN or GSM modem (system supports 2 optional modems simultaneously)
Communication protocol	SIA, Contact ID, Scancom Fast Format, SMS messaging
SMS event notification	With GSM or PSTN option
SMS panel control	With GSM option

1) Combinations of Expanders cannot exceed the maximum for controller (number of expanders, inputs, outputs).

2) Battery and mains faults of external PSU's are not monitored by SPC4000, I/O Expander is fully monitored

## Technical specifications

Controller	SPC4120.200-L1 Intrusion CP, G2
Mains voltage	230 V AC, +10 to -15 %, 50 Hz
Fuse	250 mA T
Power consumption	100 mA (230 V AC)
Auxiliary power (nominal) <sup>3)</sup>	Max. 750 mA (12 V DC)
Battery	Optional
Battery type	Sealed cell valve-regulated
Battery capacity	Max. 7 AH / 12 V
Battery charger	Max. 24h for 80 % of battery capacity
Operating voltage	n.a.
Current consumption <sup>3)</sup>	Max. 100 mA (12 V DC)
Number of on-board zones	8
EOL resistor	Dual 4K7 (default), other resistor combinations configurable
Number of on-board open collector outputs.	1 internal bell (max. 400 mA resistive), 1 external bell (max. 400 mA resistive), 3 general outputs (each max. 400 mA resistive, supplied via auxiliary output)
Number of on-board relays	1 strobe, 30 V / 1 A (resistive switching current)
Field bus <sup>4)</sup>	X-BUS on RS-485 (307 kb/s)
Interfaces	1 x X-BUS (1 spur), 1 x RS232 (RJ45 ports, for X-10 or external communications), 1 x USB (PC connection for terminal program access), 1 x SPC Fast Programmer
Tamper contact	On-board front cabinet spring tamper + 2 auxiliary tamper inputs
Operating temperature	5 – 40 °C
Relative humidity	Max. 90 % (no condensation)
Housing protection	IP30
Colour	RAL 9003
Housing protection class	Class II Indoor General
Mounting	Surface, wall-mounted
Housing material	Steel, > 1.2 mm
Housing	Metal enclosure
Housing can contain up to	1 additional Expander (size 150 mm x 82 mm)
Standards	Designed to meet EN50131-1:2006 (Grade 2) TS50131-3:2003 (Grade 2) EN50131-6:2008 (Grade 2)

Keypads	SPCK420.100 LCD-Keypad, 2x16 Characters	SPCK421.100 LCD-Keypad, 2x16 Char, Card Reader
LCD-display	2 x 16 characters	2 x 16 characters
Special function keys	Multi-dimensional navigation key and 2 soft keys	Multi-dimensional navigation key and 2 soft keys
Status LEDs	3	3
Card reader	-	125kHz, EM 4102 or compatible (e.g. SiPASS)
Card read distance	-	10 mm
Operating voltage	9.5 – 14 V DC	9.5 – 14 V DC
Current consumption <sup>3)</sup>	Min. 60 mA (12 V DC) Max. 70 mA (12 V DC)	Min. 90 mA (12 V DC) Max. 110 mA (12 V DC)
Field bus <sup>4)</sup>	X-BUS on RS-485 (307 kb/s)	X-BUS on RS-485 (307 kb/s)
Tamper contact	Front/rear spring tamper	Front/rear spring tamper
Operating temperature	5 – 40 °C	5 – 40 °C
Relative humidity	Max. 90 % (no condensation)	Max. 90 % (no condensation)
Housing protection	IP30	IP30
Housing protection class	Class II Indoor General	Class II Indoor General
Housing material	ABS	ABS
Colour	RAL 9003	RAL 9003
Mounting	Surface, wall-mounted, height of 1.30 – 1.50 m	Surface, wall-mounted, height of 1.30 – 1.50 m
Standards	Designed to meet EN50131-1:2006 (Grade 3), TS50131-3:2003 (Grade 3),	Designed to meet EN50131-1:2006 (Grade 3), TS50131-3:2003 (Grade 3)

<sup>3)</sup> For EN compliance the supplied current needs to be supported by the battery for required stand by time

<sup>4)</sup> Max. 400m between devices with cable types IYSTY 2 x 2 x Ø 0,6 mm (min.), UTP cat5 (solid core) or Belden 9829

<b>Expanders</b>	<b>SPCP332.300<sup>2)</sup> Smart PSU (7 AH) with I/O- Expander</b>	<b>SPCE650.100 Expander, 8 Inp./2 Outp.</b>	<b>SPCE450.100 Expander, 8 Relay-Outputs</b>
Mains voltage	230 V AC, +10 to -15 %, 50 Hz		
Fuse	500 mA T		
Power consumption	220 mA (230 V AC)		
Auxiliary power (nominal) <sup>3)</sup>	Max. 750 mA (12 V DC) on each output 1 and 2		
Battery	Optional		n.a.
Battery type	Sealed cell valve-regulated		
Battery capacity	Max. 7 AH / 12 V		
Battery charger	Max. 24h for 80 % of battery capacity		
Operating voltage	n.a.	9.5 – 14 V DC	9.5 – 14 V DC
Current consumption <sup>3)</sup>	Max. 80 mA (12 V DC)	Min. 45 mA (12 V DC) Max. 80 mA (12 V DC)	Min. 55 mA (12 V DC) Max. 180 mA (12 V DC)
Number of on-board zones	8	8	
EOL resistor	Dual 4K7 (default), other resistor combinations configurable	Dual 4K7 (default), other resistor combinations config.	n.a.
Number of on-board relays	2 single-pole changeover, 30 V DC / 1 A (resistive switching current)	2 single-pole changeover, 30 V DC / 1 A (resistive switching current)	8 single-pole changeover, 30 V DC / 1 A (resistive switching current)
Field bus <sup>4)</sup>	X-BUS on RS485 (307 kb/s)	X-BUS on RS485 (307 kb/s)	
Interfaces	X-BUS (In, Out, Branch)	X-BUS (In, Out, Branch)	
Tamper contact	On-board front cabinet spring tamper	On-board front cabinet spring tamper	
Operating temperature	5 – 40 °C	5 – 40 °C	
Relative humidity	Max. 90 % (no condensation)	Max. 90 % (no condensation)	
Housing protection	IP30	IP30	
Colour	RAL 9003	RAL 9003	
Housing protection class	Class II Indoor General	Class II Indoor General	
Mounting	Surface, wall-mounted	Surface, wall-mounted	
Housing material	Steel, > 1.2 mm	ABS	
Housing	Metal enclosure	Plastic enclosure	
Housing can contain up to	n.a.	n.a.	
Standards	Designed to meet EN50131-1:2006 (Grade 2), TS50131-3:2003 (Grade 2), EN50131-6:2008 (Grade 2)	Designed to meet EN50131-1:2006 (Grade 3), TS50131-3:2003 (Grade 3)	

<b>Communicators and Accessories</b>	<b>SPCN110.000 PSTN Module, V90</b>	<b>SPCN310.000 GSM Module incl. Antenna</b>	<b>SPCX410.000 SPC Fast Programmer</b>	<b>SPCS310.000 SPC Pro Programming Tool</b>
Communication protocol	Analogue Alarm protocols (e.g. SIA, Contact ID), PPP dial up	Analogue Alarm protocols (e.g. SIA, Contact ID), PPP dial up, SMS	n.a.	Supports communications to SPC Panels via RS232, USB (not supported with Vista), Ethernet, Data transfer from/to SPC Fast Programmer
Interfaces	1 x 16-pin socket to controller interface, 1 x PSTN line screw terminal	1 x 16-pin socket to controller interface, 1 x SMA connector for aerial	1 x USB (to PC), 1 x 10-pin connector (to SPC controller)	n.a.
Status LEDs	4	2	n.a.	n.a.
Network connection	PSTN (analogue telephone network)	GSM (dual band 900/1800 MHz)	n.a.	n.a.
Memory	n.a.	n.a.	1 MB	Min. 512 MB required
System compatibility	n.a.	n.a.	Windows 2000, XB, Vista	Windows 2000, XP, Vista
Current consumption <sup>3)</sup>	Min. 20 mA (12 V DC) Max. 35 mA (12 V DC)	Min. 50 mA (12 V DC) Max. 60 mA (12 V DC)	n.a.	n.a.
Operating temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C	n.a.
Relative humidity	Max. 90 % (no condensation)	Max. 90 % (no condensation)	Max. 90 % (no condensation)	n.a.
Mounting	Plug on module for SPC controller	Plug on module for SPC controller	Portable	n.a.
Housing material	n.a.	n.a.	ABS	n.a.
Standards	Designed to meet EN50131-1:2006 (Grade 3), TS50131-3:2003 (Grade 3)	Designed to meet EN50131-1:2006 (Grade 3), TS50131-3:2003 (Grade 3)	n.a.	n.a.

<sup>2)</sup> Battery and mains faults of external PSU's are not monitored by SPC4000, I/O Expander is fully monitored

<sup>3)</sup> For EN compliance the supplied current needs to be supported by the battery for required stand by time

<sup>4)</sup> Max. 400 m between devices with cable types IYSTY 2 x 2 x Ø 0,6 mm (min.), UTP cat5 (solid core) or Belden 9829

## Order Information

Type	Item No.	Designation	Dimensions (WxHxD in mm)	Weight
SPC4120.200-L1	S54541-C101-A100	SPC4120.200-L1 Intrusion CP, G2	264 x 357 x 81	4.50 kg
SPCP332.300	S54545-C102-A100	SPCP332.300 Smart PSU (7 AH) with I/O-Expander	264 x 357 x 81	5.10 kg
SPCK420.100	S54543-F101-A100	SPCK420.100 LCD-Keyp., 2x16 Char	148 x 85 x 33	0.20 kg
SPCK421.100	S54543-F102-A100	SPCK421.100 LCD-Keyp., 2x16 Char, Card Reader	148 x 85 x 33	0.20 kg
SPCE650.100	S54542-F101-A100	SPCE650.100 Expander, 8 Inp./2 Outp.	195 x150 x 47 (Enclosure) 50 x 82 x 20 (PCB)	0.35 kg
SPCE450.100	S54542-F103-A100	SPCE450.100 Expander, 8 Relay-Outputs	195 x150 x 47 (Enclosure) 50 x 82 x 20 (PCB)	0.40 kg
SPCN110.000	S54550-B101-A100	SPCN110.000 PSTN Module, V90	90 x 38 x 25	0.03 kg
SPCN310.000	S54550-B102-A100	SPCN310.000 GSM Module incl. Antenna	90 x 38 x 25	0.03 kg
SPCX410.000	S54559-B102-A100	SPCX410.000 SPC Fast Programmer	91 x 32 x 17	0.04 kg
SPCS310.000	Supplied with panel	SPCS310.000 SPC Pro Programming Tool	n.a.	n.a.
IB42-EM	S24246-D4901-A1	EM laminated card without print	n.a.	n.a.
IB44-EM	S24246-D4902-A1	Key tag	n.a.	n.a.