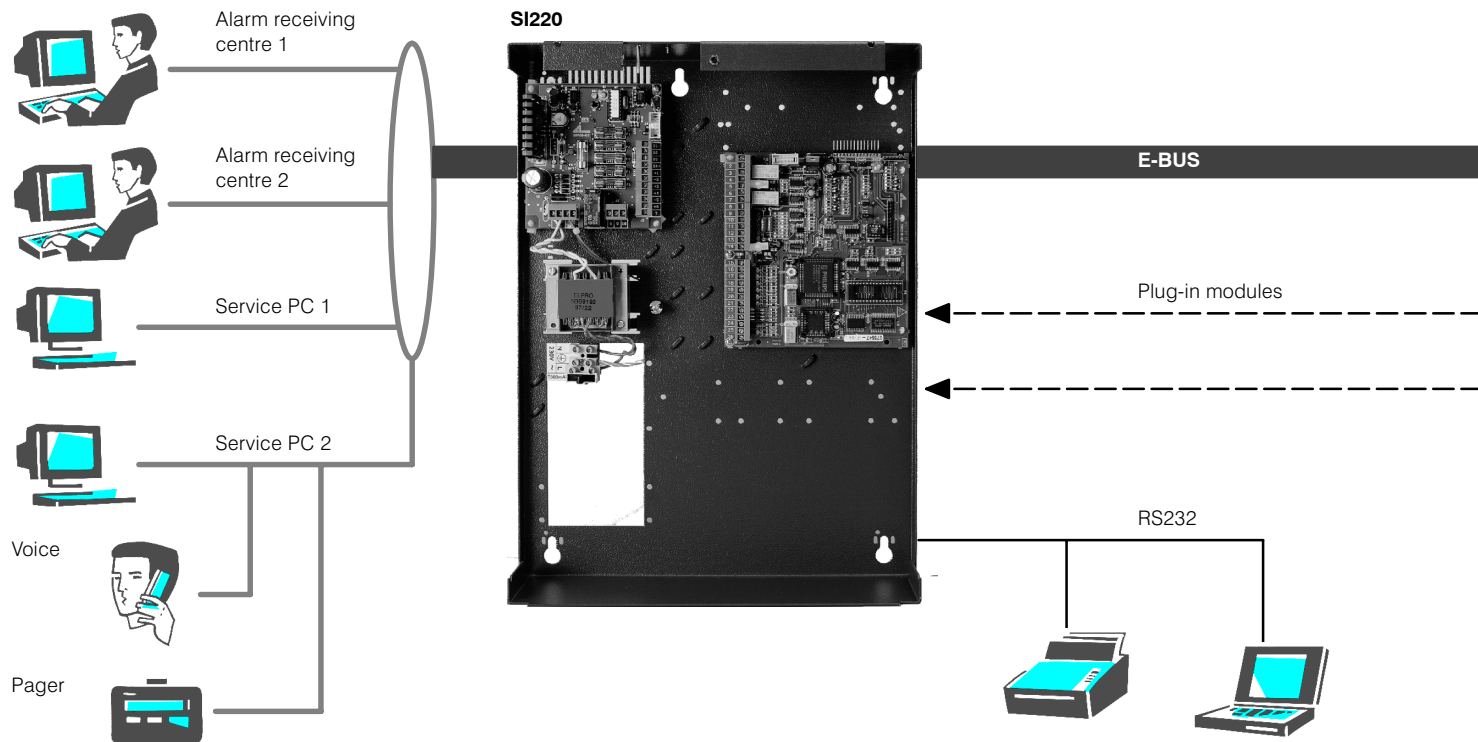




## Alarm system

## SI220 Guarto Easy II

- 
- Central alarm control unit with integrated communicator
  - Simple to program
  - Simple and reliable to operate
  - Flexible
  - Extensive communications
  - Simple to install



#### Central control unit SI220

The steel housing of the central control unit is supplied with the main board, the power unit board and the transformer. The housing is monitored for opening and can be lead-sealed. It provides room for one communicator, plug-in modules, one 17Ah battery and 2 relay cards.

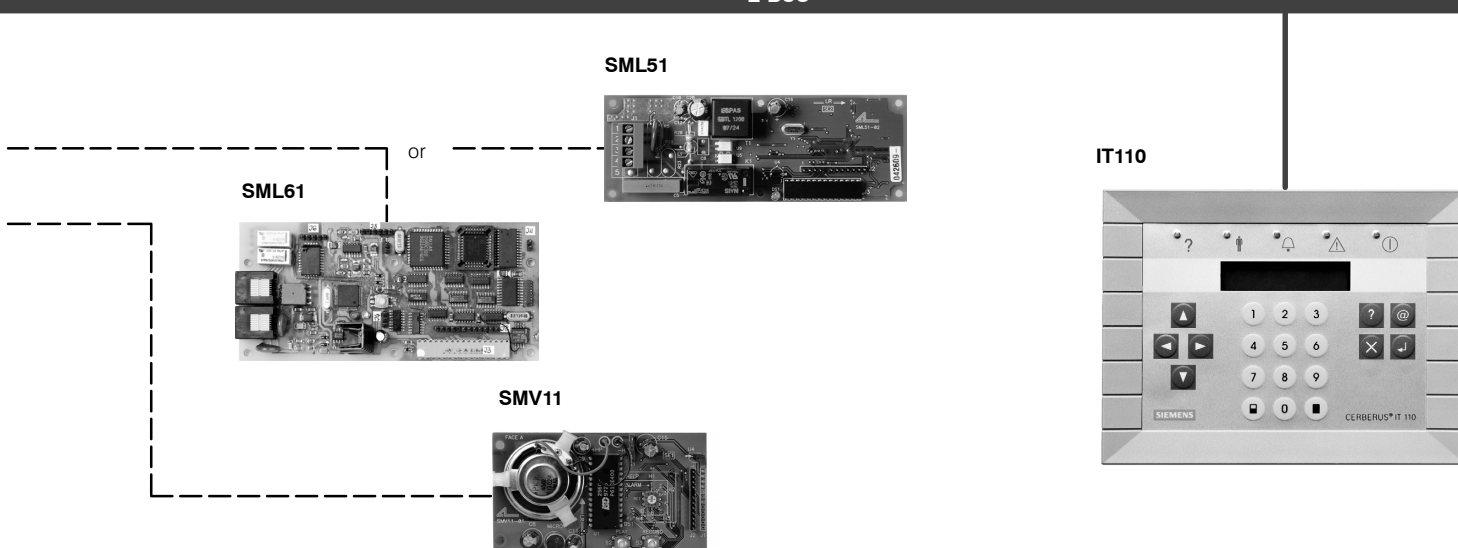
The following operating modes can be programmed by software for each input (in addition to the name, function etc.):

- normally open
- normally closed
- 1 end-of-line resistor
- 2 end-of-line resistors
- glassbreak sensor line
- fire detector line

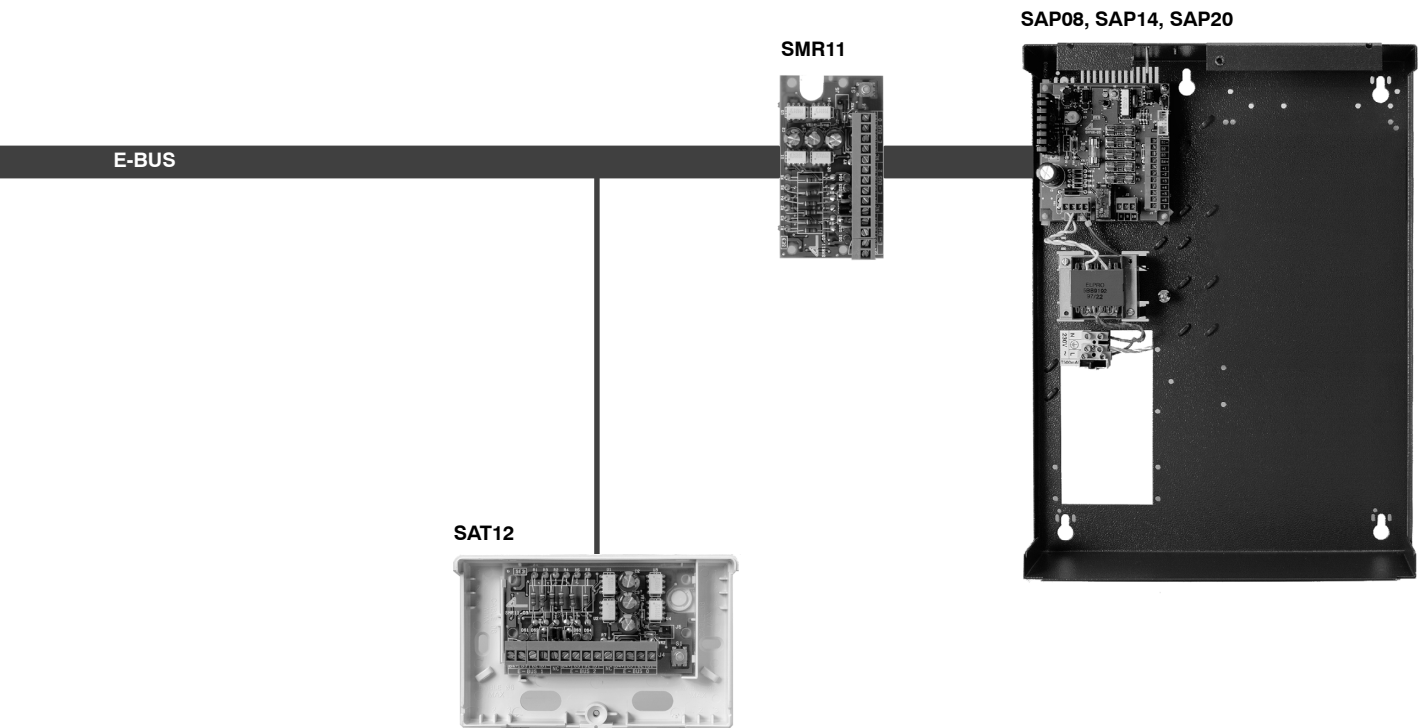
The power pack of the central control unit supplies 12V/1.3A to feed the central control unit and the external consumers. As well as the E-BUS supply, 4 separately protected 12V outputs are available. The battery, mains and fuses are all monitored. A failure is signalled to the main board via the E-BUS.

The length of an E-BUS line is 500m, which can be extended to 1000m by using the SAR11 insulator. The E-BUS can be used to connect as many as 7 remote keypads, 10 transponders and 5 power units to the central control unit.

All events that occur are stored in the event memory, together with the date and time. In each case, a separate event memory is available for the 6 arming wards and also for the whole system. In addition, technicians activities are recorded in a separate memory.



PSTN dialer SML51-TBR	The SML51 connects the SI220 central control unit with the analog telephone network. It transmits alarms and other events to digital alarm receiving centres and/or PCs. The SML51 enables remote programming and operation of the central control unit via a PC (upload/download), and it also allows a message to be transmitted to a pager. In conjunction with the SMV11 voice module, voice announcements can also be transmitted to any desired individuals.
ISDN dialer SML61	The SML61 connects the SI220 central control unit to the ISDN communication network. It has the same performance spectrum as the SML51 already described.
Voice module SMV11	The SMV11 is a voice module which can be plugged into the central unit's printed board. With the help of the built-in microphone, the SMV11 records up to 7 messages. The SML51 communicator then transmits these messages to the desired person via the telephone network.
LCD remote keypad IT110	<p>To make installation as simple as possible, the IT110 consists of a mounting base and a snap-on upper unit with connection terminals, display components and keyboard. Plain text user prompting is possible thanks to the illuminated 2 x 16 character LC display.</p> <p>The most commonly required functions can be executed rapidly, reliably and directly by using the 6 function keys. The integrated buzzer can be programmed via the central control unit. The LEDs provide a quick overview of the system and/or ward status. Other keypads are also available.</p>
Audio and video alarm verification	A range of products is available to allow verification of alarms at an alarm receiving centre. A separate data sheet provides information on the possibilities for alarm verification and the components required for the purpose.
Wireless components	It is possible to connect various radio detectors and operating devices to the Guarto Easy. A separate data sheet is available with details of the Guarto Easy radio components.



#### Insulator SAR11 / SMR11

The SAR11 / SMR11 insulator is used to divide the E-BUS into two branches which are decoupled from one another: in this way, faults on one branch will not influence other E-BUS branches. In addition to this, the E-BUS signals are amplified, so that the E-BUS can be extended by 500m. According to choice, the insulator is available as the SAR11 with housing, or the SMR11 as a printed board.

#### Transponder SAT12 / SMT12

The transponder can be used to extend the central control unit by adding 4 inputs and 2 outputs (open collectors, 0.15A) in each case. The transponder can be obtained as the SAT12 (in a housing), or as the SMT12 (board only).

#### Output transponder SMT44

The output transponder module SMT44 can be used to extend the control unit by adding 4 open collectors (12V/0.15A) and 4 relay outputs (24V/2A).

#### External power unit SAP08, SAP14, SAP20

The external power units provide up to 2.3A per unit to supply the E-BUS as well as the 4 separately protected 12V outputs. The battery, mains and fuses are monitored. A failure is signaled to the central control unit via the E-BUS. A programmable 48V/5A relay output is also available. The housings provide space and fixing holes for SMT12 and SMR11 PCB's (4 in SAP14 / 7 in SAP20), battery (7.2Ah in SAP14 / 17Ah in SAP20) and 2 relay boards.

#### Sylcom

Sylcom is a software tool for PCs, which can be used to program or operate the central control units. The technician can use Sylcom on site with an SAQ11 printer cable; remote use via the telephone network is also possible in conjunction with a modem.

#### PC/printer cable SAQ11

To connect the central control unit to the RS232 interface of a printer or a PC.

#### Relay board SMX13

The SMX13 has 2 independent relays with a 24V/2A changeover contact.

## Made-to-measure alarm system

	Thanks to its modular concept, the Guarto Easy II alarm system opens up previously unknown horizons. In its minimal configuration, the system consists of the SI220 central control unit and the IT110 LCD remote keypad. The system can be extended as required.
Central control unit with integrated communicator	Since it is a „black box“, the central control unit can be installed in the most favourable mounting location.
Simple to program	The LCD remote keypad or PC enables the entire system to be programmed in plain text.
Simple and reliable to operate	Function keys, user prompting in plain text and LED overview displays.
Flexible	6 wards and 36 setting groups enable adaptation to any structural or organisational requirements of the operator.
Extensive communications	The integrated communicator transmits to: <ul style="list-style-type: none"><li>- alarm receiving centres (all main protocols)</li><li>- service computers (upload/download)</li><li>- private individuals (message in plain text)</li><li>- pagers</li></ul>
Multimedia integration	E-BUS-controlled cameras, speakers and microphones, integrated CCTV applications, emergency call facility for the elderly and alarm verification.
Time controlling	Time-controlled setting of outputs and wards permits extensive automation of the system.
Simple to install	Input/output modules, power units and remote keypads are connected with the central control unit via the E-BUS. Consistent use of bus technology yields the advantages of reduced labour outlay and ultra-simple planning.

## System configuration

System functions	Min.	Max.
Freely programmable inputs	8	48
Open collector outputs: 12V/0.15A	4	32
Open collector output: 12V/1A	1	1
Relay output: 1 changeover, 24V/2A	1	5
Relay output: 2 changeovers, 24V/2A	1	5
Relay outputs: 1 changeover, 48V/5A	1	6
Power supply, 12V	1.3A	12.8A
Fuse-protected 12V voltage outputs	4	24

## Technical data

	SI220	SAP14	SAP20	IT110	SAT12	SMT12	SAR11	SMR11	SMV11	SML51
Supply	230V			E-BUS					Control unit	
Power consumption				13mA	6mA		35mA		3mA	4mA
- min.										
- max.	210mA	210mA	230mA	73mA	19mA		45mA		25mA	82mA
Output voltage	12V		12V	-	-		-		-	-
- output current	1.3A		2.3A	-	-		-		-	-
- max. ripple	60mV <sub>pp</sub>		60mV <sub>pp</sub>	-	-		-		-	-
Operating temperature	-10 ... +55°C									+40°C
Housing	Steel 1.5mm			ABS		-	ABS	-	-	-
Type of protection	IP30			IP41	IP30	-	IP30	-	-	-

## Details for ordering

Type	Part no	Designation	Dimensions H x W x D [mm]	Weight
SI220 UK	A6E80115710	Central control unit, UK version	400 x 303 x 87.5	5.400kg
IT110	800600	LCD remote keypad	130 x 173 x 35	0.260kg
ITA601	565464	Audio module with microphone and loudspeaker	130 x 53 x 35	
SAT12	800615	Transponder (with housing)	86 x 135 x 27	0.260kg
SMT12	800616	Transponder (printed board)	52 x 91 x 20	0.140kg
SMT44	800673	Output transponder (printed board)	52 x 91 x 20	0.140kg
SAR11	800099	Repeater/isolator (with housing)	86 x 135 x 27	0.260kg
SMR11	800109	Repeater/isolator (printed board)	52 x 91 x 20	0.140kg
SAP08	800617	External power unit 0.8A	400 x 303 x 87.5	5.200kg
SAP14	800316	External power unit 1.3A	400 x 303 x 87.5	5.400kg
SAP20	800688	External power unit 2.3A	500 x 364 x 133	8.400kg
SML51-TBR	800348	PSTN dialer	50 x 140 x 25	0.080kg
SML61	800397	ISDN dialer	50 x 140 x 25	0.080kg
SMV11	800044	Voice module	60 x 106 x 25	0.060kg
SMX13	800918	Relay board	15 x 60 x 38	0.030kg
		Sylcom PC software		
SAQ11	800196	PC/printer cable		0.100kg
SMZ91	800594	Back tamper contact		