SIEMENS

Alarm system

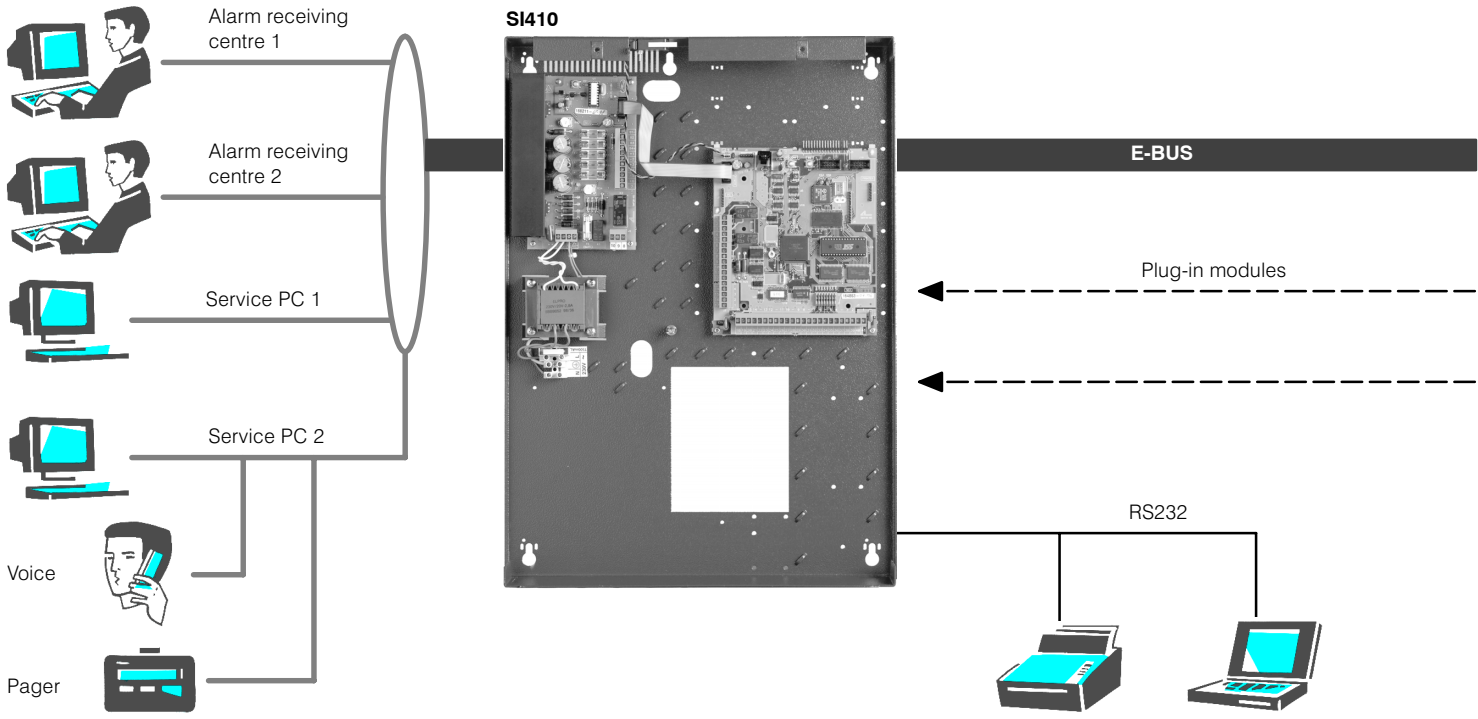
SI410
Guarto Easy IV

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

Central control unit SI410

The 1.5mm gauge painted steel housing comes with the main board, the power supply assembly and the transformer. It provides room for one 27Ah battery and relay boards or isolators. The housing is monitored for opening and can be lead-sealed.
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
- emergency exit
- fire detector line

The power pack of the central control unit supplies 12V/2.3A 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 32 remote keypads, 32 transponders, 16 power units and 4 transponder gateways to the central control unit. Up to 32 card reader gateways can replace the functionality of remote keypads. All events significant for operation are stored in a nonvolatile memory with the date and time exactly to the second. Sixteen user event memories (one for each ward), an engineer event memory and a memory for installer access are available.
To operate the system, 500 user PINs are available and 3 engineer PINs. The SI410 has twenty 2-year calendars for time controlling of wards, inputs, outputs and user PINs. This enables wards to be automatically set or unset and user PINs to be authorised or rejected according to times, outputs switched on or off and inputs blocked.

The SI410 has a ward structure with 3 levels:
- Level 1: 4 clusters to which any number of the 16 wards can be assigned.
- Level 2: 16 wards which may be programmed as main ward, sub-ward or „virtual" ward as required.
- Level 3: 8 setting groups per ward or part/full set per ward enable up to 16 independent installations or systems with up to 128 setting groups. This means that the IC410 can be tailored to all structural and/or organisational requirements of the property to be protected.

PSTN dialer SML51-TBR

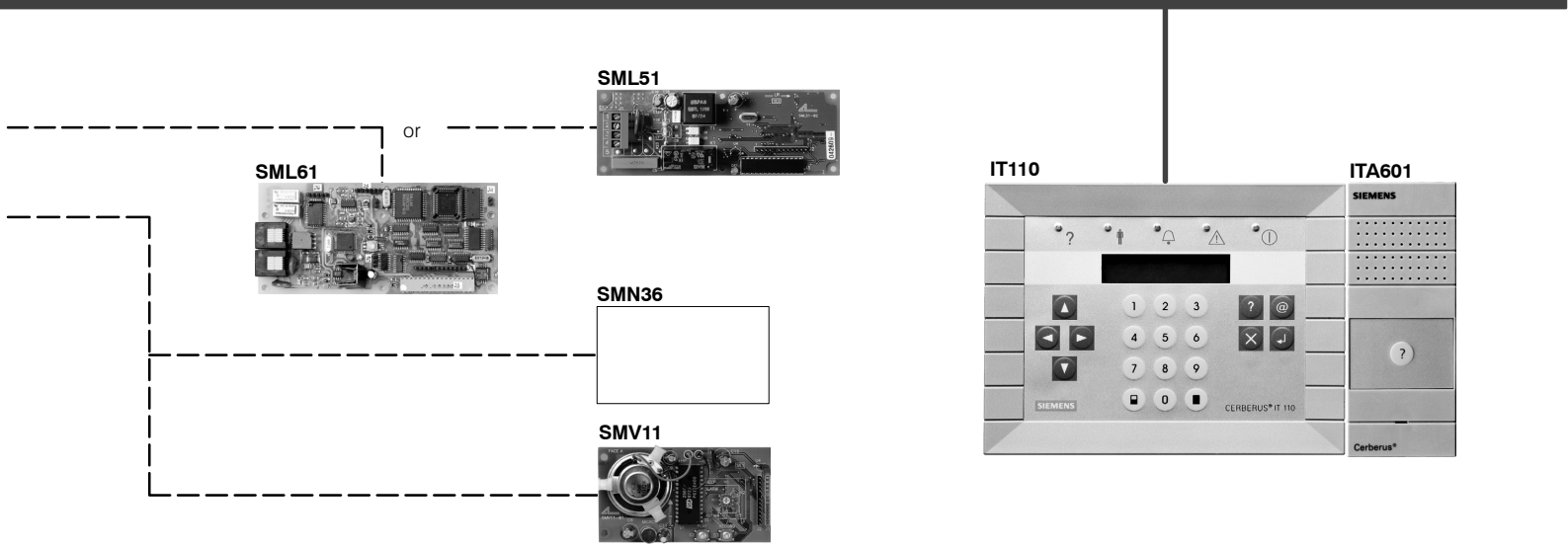
The SML51 connects the SI410 central control unit with the analog telephone network. It transmits alarms and other events to digital alarm receiving centres and/or PCs. The SML51 enables remote programming and operation of the central control unit via a PC (upload/download), and it also allows a message 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

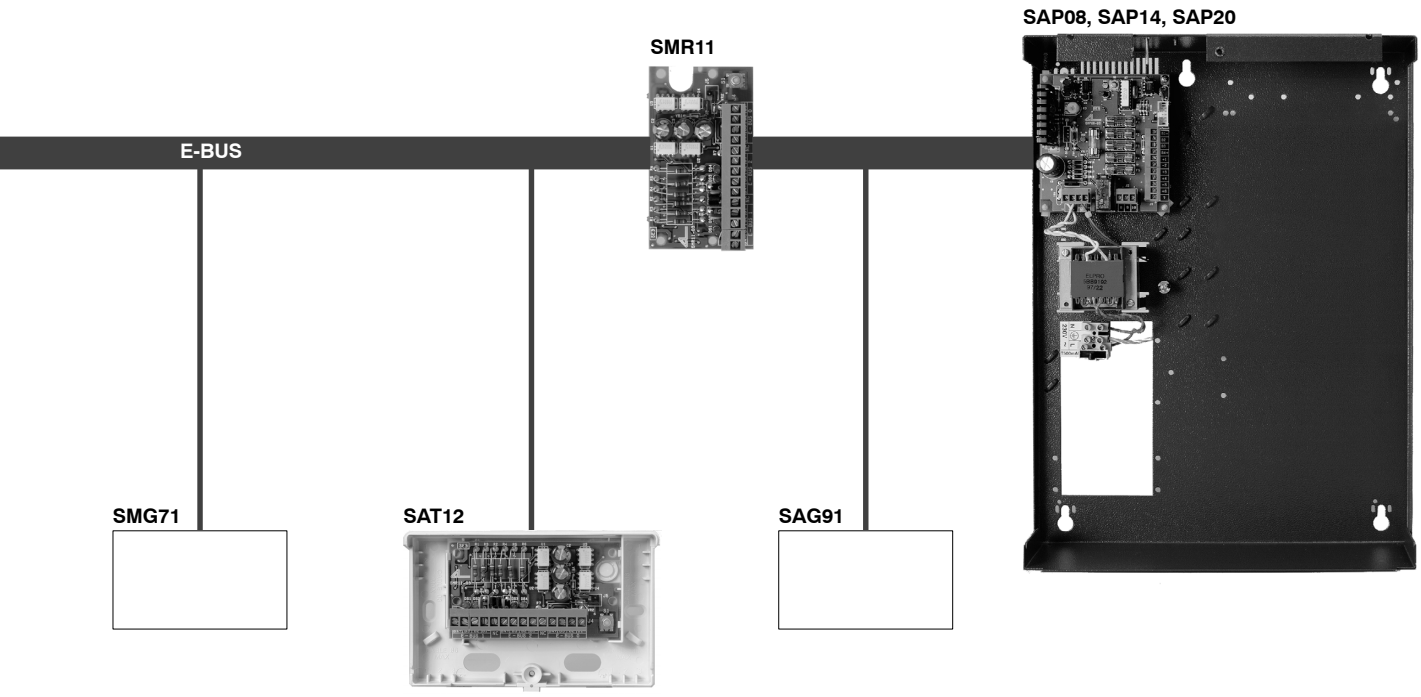
The SML61 connects the SI410 central control unit to the ISDN communication network. It has the same performance spectrum as the SML51 already described.

IP communicator SMN36

The SML36 connects 2 ports of the SI410 central control unit to the IP communication network. The SMN36 enables programming and operation of the control unit via a PC with Sylcom SW (upload / download) as well as alarm transmission to Medialine alarm receiver and specific monitoring software.



Voice module SMV11	The SMV11 is a voice module which can be plugged into the central unit's printed circuit board. With the help of the built-in microphone, the SMV11 records up to 6 alarm messages, 1 identification message and 4 help messages. The SML51 or SML61 communicator then transmits these messages to the desired person via the telephone network.
LCD remote keypad IT110	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. 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.
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).
Cardreader Gateway SMG71	The door control interface SMG71 can operate 2 standard card readers and is compatible with the two most popular protocols (Wiegand/F2F). Both readers performing seperate functions but jointly activate the door strike relay output. A switchable stand alone mode and door soft shunt function support solutions for sophisticated door control applications. In addition to that the embedded transponder can replace one standard SMT12.
E–Bus extension SAG91	The E–Bus extension extends the address range of control panel to add more transponders for additional inputs and outputs (80 inputs / 40 outputs per SAG91).
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 wholes 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.
Serial cable SAQ18	To connect the central control unit to serial link of LMS or 3rd party products.
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 IV alarm system opens up previously unknown horizons. In its minimal configuration, the system consists of the SI410 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	4 clusters, 16 wards and 128 setting groups enable adaptation to any structural or organisational requirements of the operator.
Extensive communications	The integrated communicator transmits to: – alarm receiving centres (all main protocols) – service computers (upload/download) – private individuals (message in plain text) – pagers
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 user access and setting of inputs, outputs and wards permits extensive automation of the system.
Access functions	Card readers can replace remote keypads functionality and are mainly used for door opening/closing and setting/unsetting wards.
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.
Simple to integrate	The open serial interface on SI410 enables the communication to LMS or 3rd party products as touchscreen panel or monitoring SW.

Technology at a glance

- Expandable
  - 16 to 464 inputs
  - 11 to 110 outputs
  - 1 to 32 remote keypads or 64 card readers
  - 1 to 16 power supply units
- 2 PC/printer interfaces
- E-BUS for flexible wiring configurations up to 1000 m
- User-programmable inputs and outputs
- 16 wards, 128 setting groups
- Transmission
  - Digital, pager, voice, audio, video
  - 2 alarm-receiving centres, 2 service numbers
- PSTN / ISDN / IP communication

System configuration

System functions	Min.	Max.
Freely programmable inputs	16	144
Additional inputs with E-Bus concentrators	0	320
Open collector outputs: 12V/0.15A	7	243
Open collector output: 12V/1A	1	1
Relay output: 1 changeover, 24V/2A	1	7
Relay output: 2 changeovers, 24V/2A	1	7
Relay output: 1 changeover, 48V/5A	1	16
Power supply, 12V	2.3A	36.8A
Fuse-protected 12V voltage outputs	4	64

Technical data

	SI410	SAP20	SAP14	IT110	SAT12	SMT12	SAR11	SMR11	SMV11	SML51
Supply	230V			E-BUS					Control unit	
Power consumption										
– min.				13mA	6mA		35mA		3mA	4mA
– max.	230mA		160mA	73mA	19mA		45mA		25mA	82mA
Output voltage	12V		12V	–	–		–		–	–
– output current	2.3A		1.3A	–	–		–		–	–
– max. ripple	$60mV_{pp}$		$60mV_{pp}$	–	–		–		–	–
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
SI410 UK	800808	Central control unit, UK version	500 x 365 x 183	8.600kg
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	0.125kg
SAT12	800615	Transponder (with housing)	86 x 135 x 27	0.260kg
SMT12	800616	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
SMT44	800673	Output transponder (printed board)	52 x 91 x 20	0.140kg
SMG71	800660	Card reader gateway (printed board)	52 x 91 x 20	0.140kg
SAG91	800974	Transponder gateway (with housing)	86 x 135 x 27	0.260kg
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
SAQ18	800641	Serial link cable		0.040kg
SMZ91	800594	Back tamper contact		
SMN36	A6E80117810	IP communicator module		0.110kg