

## SAP14

### External power supply

#### Installation instructions



#### Product description

---

The SAP14 is a power supply unit suitable for an E-Bus and has an output voltage of 12 V at a maximum of 1.3 A. The housing offers space for four type SMT12 (transponder) and for a battery of up to 12 V, 17 Ah for VdS applications or up to 12 V, 17 Ah for non-VdS applications. At least one SMT12 must be fitted to use the cover tamper contact.

#### Security

---

- Keep this document for later reference.
- Also follow the country-specific safety standards or regulations for project planning, operating and disposing of the product.
- The device is always to be disconnected from the mains or battery prior to performing maintenance work or installing additional devices.

#### Liability claim

- Do not connect the device if components are missing or damaged.
- Only make changes to the unit that are explicitly mentioned in this document or which have been approved by the manufacturer.
- Use only spare parts and accessories approved by the manufacturer.

#### Damages due to a inappropriate mounting location

- Observe the environmental requirements recommended by the manufacturer.
- Do not operate the unit in areas exposed to extreme dust formation, moisture, vibration or flammable gases.

### Risk of electrical shock

- Ensure that the connection is secure and the circuit breaker to the supply circuit is easily accessible when operating the unit (e.g. fuse up to 16 A).
- Do not connect any external consumers to the fuse.
- Grounding has to adhere to the respective safety regulations.

### Device damage due to overvoltage

- Connect the unit only to current sources with the specified voltage. Information on the power supply is available on the power supply unit / rating plate.

### Risk of panic reactions

- Prior to testing the system, make sure all important persons involved and supporting authorities are informed.
- To avoid panic, all involved should be informed prior to testing alarm facilities.

### Danger of explosion

- Make sure that the battery poles do not short circuit.
- Please pay attention to battery polarity.
- Always fasten the battery in place with the holder intended for this purpose.

### Technical data

Mains voltage	230 V AC, + 10 % / -15 %, 50 Hz
Power intake	max. 34 VA (at 230 V AC)
Mains supply fuse	160 mA T (Mains power)
Output voltage/current	13.7 V DC / 1.3 A
Max. ripple at 1.3 A	60 mV
Relay, single-pole changeover	48 V / 5 A
Battery type according to VdS	YUASA, Type NP7-12 (12 V / 7.2 Ah) recommended
Battery type not according to VdS	YUASA, Type NP17-12 (12 V / 17 Ah) recommended
Operating temperature	0 to 40 °C
Steel housing	1.5 mm
Dimensions (W x H x D)	303 x 400 x 87.5 mm
Protection rating	IP30
Environmental class	II
Weight without battery	5.5 kg

### Package contents

The SAP 14 package contains the following:

- One SAP14 power supply unit
- One battery holder
- One set (4 units) of spacers
- Installation instructions (de, en, fr, it)
- Terminal connection diagram

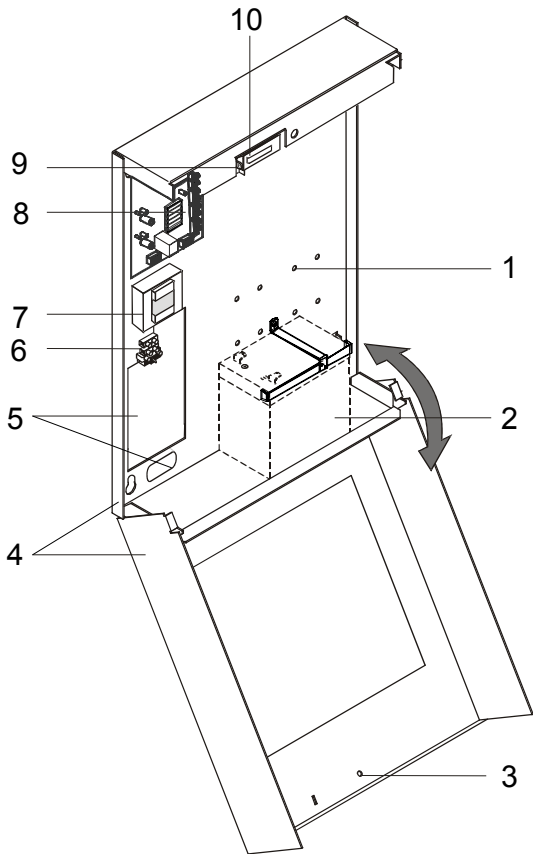


Fig. 1

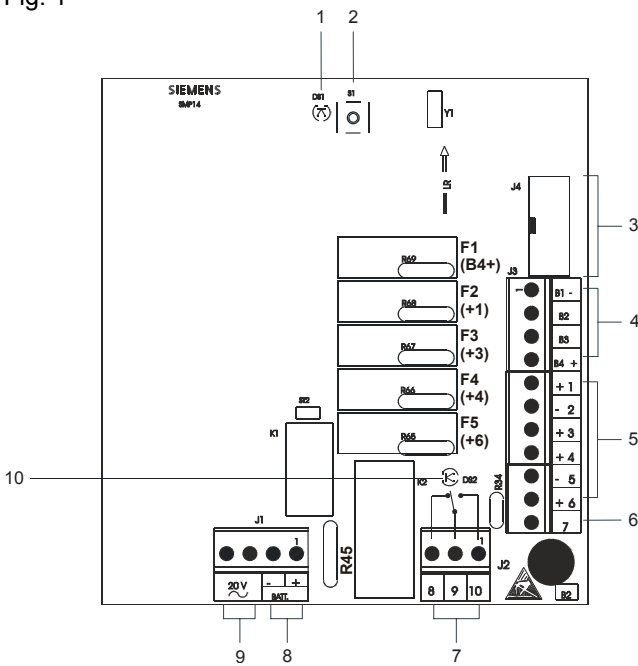


Fig. 2

## Assembly

The SAP14 external power supply unit is designed for mounting in dry indoor rooms. It must not be exposed to dripping or splashing water.

1	Mounting holes for relay boards (optional)
2	Space for battery up to 12 V / 17 Ah
3	Cover screw
4	Housing
5	Cable inlets
6	Mains supply terminals with F7 fuse.
7	Transformer SMU22
8	Power supply assembly circuit board SMP14
9	Eye for sealing.
10	Tamper contact

## Open cover

1. Loosen cover screw (3) Fig. 1
2. Remove cover

## Power supply assembly circuit board SMP14

1	LED flashes when E-bus communication is intact
2	Address button
3	Not used
4	E-Bus connection to burglary detection control unit (B1-, B2, B3, B4+); B4+ is secured by F1.
5	4 outputs +12 V (+1, +3, +4, +6), which are each secured with a fuse (F2 to F5).
6	Output for mains supply indication (not fused).
7	1 relay output (1 pin 48 V / 5 A switching current)
8	Pre-wired battery terminal; protected by R45
9	Transformer terminal 20 V, 50 Hz
10	LED for mains supply indication

## Fuses

No.	Connection	Function	Type
F1	B4+	E-bus (12 V DC)	F2A F 250 V
F2	+1	+12 V DC	F2A F 250 V
F3	+3	+12 V DC	F2A F 250 V
F4	+4	+12 V DC	F2A F 250 V
F5	+6	+12 V DC	F2A F 250 V

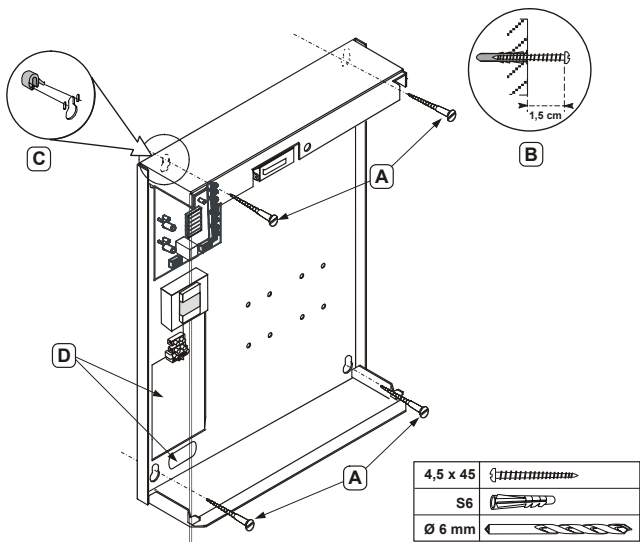


Fig. 3

### Mount the housing

1. Mark the drilling position for the four external mounting holes (A) Fig. 3.
2. Drill holes and insert plugs.
3. Screw in the screws leaving approximately 1.5 cm proud (B) Fig. 3.
4. Snap the spacers in at the four mounting holes from the back in the intended slots (Fig. 3).
5. Route the connection cable through the cut-outs (D) in the back wall and hang the back on the screws .
6. Tighten the screws.

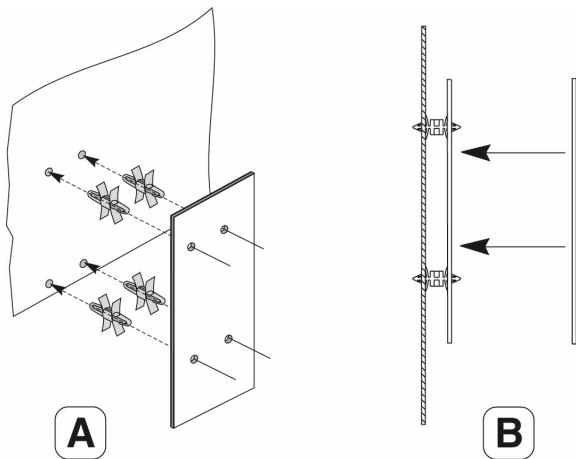


Fig. 4

### Mount boards (option)

1. Snap the fastening supports (included with the board) into the intended holes (A) Fig. 4.
2. Fit circuit boards (B) Fig. 4.

### Wiring

The terminals can be seen in Fig. 2 or in the wiring diagram on the inside of the housing cover.

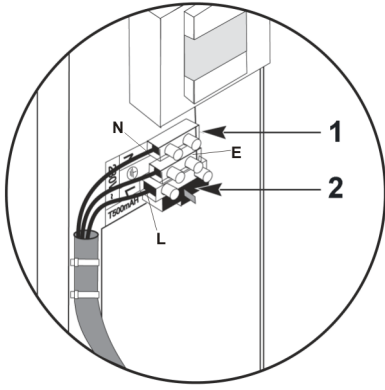


Fig. 5

1	Power supplies
2	Mains supply fuse

### Connect the mains power supply.

Cable type NYM 3 x 1.5 mm<sup>2</sup> is recommended.



#### WARNING

#### Personal risk and danger of device - damage

- Ensure that the connection is secure and the circuit breaker to the supply circuit is easily accessible when operating the unit.
- Secure the device using a fuse of up to 16 A. Do not connect external consumers to this fuse.
- When working on the device, disconnect this from the 230 V supply and from the battery using the intended cut-off.

1. Ensure that the mains supply terminal is de-energized.
2. Remove the mains fuse (2) Fig. 5
3. Check the protective conductor between the power supply board and the base of the housing.
4. Connect the mains to the mains supply terminals (ground wire E, null N and phase U).
5. Secure the cable to the clips in the rear wall using cable ties.

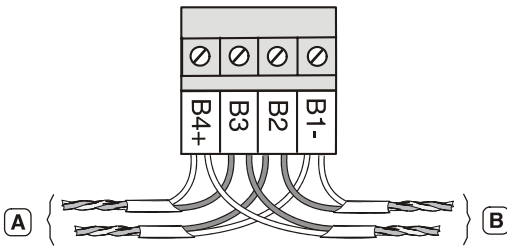


Fig. 6

A	E-bus from control unit
B	E-Bus to other accessories

### E-Bus

Cable type IYSTY 2 x 2 x , Ø 0.6 mm is recommended.



The total length of the E-Bus cable must not exceed 500 m.

The power supply unit circuit board SMP14 and the option (SMT12) must be connected to the central control unit via the E-Bus (B1-, B2, B3, B4+). It may be routed in parallel to other accessories. If shielded cable is used, the shield may not be laid on the housing of the SAP14. The shields of all cables must be connected at one point, e.g. at one of the NC terminals of SMT12.

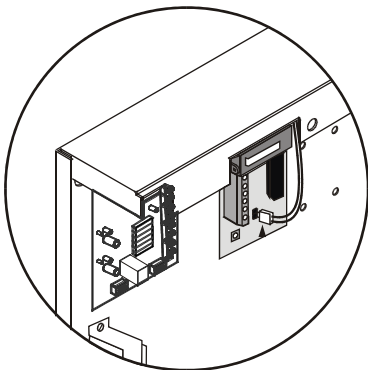


Fig. 7

### Tamper contact

The tamper contact of the housing must be connected to the SMT12 circuit board. Refer also to the installation instructions for the SMT12.

### Arcing contact

For the optional arcing contact, use the option SMZ91.

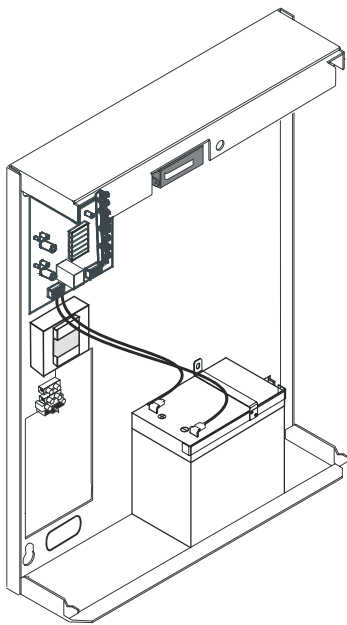


Fig. 8

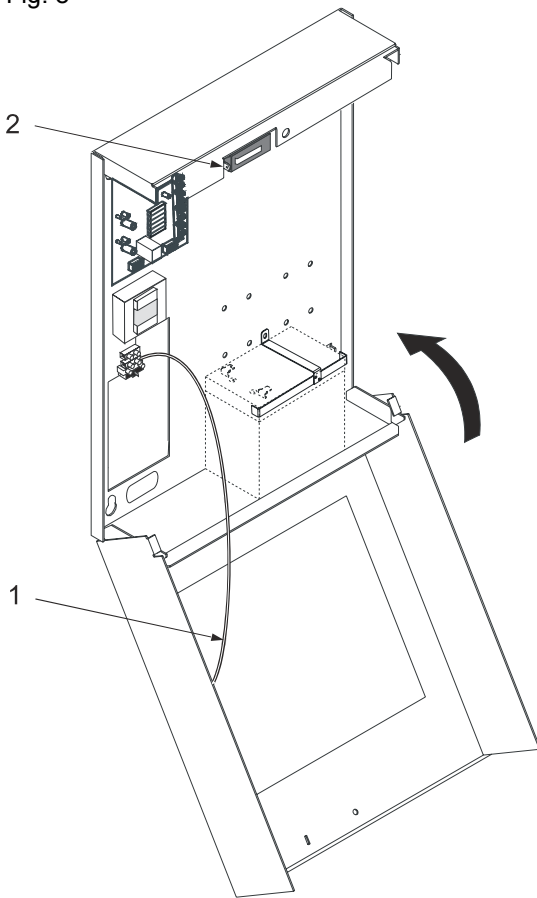


Fig. 9

## Operational setup

---

Before operating the system, all bus components have to be connected to the E-bus and thus to the control unit.

### Switch on the 230 V mains supply

1. Ensure that everything is correctly connected and wired and then switch on the mains supply externally
2. Refit fuse F7.

### Connect battery (Fig. 8)

1. Place the battery in the space provided in the base of the housing
2. Mount the battery holder angle.
3. Connect the pre-installed battery cables (- blue, + red).

## Close and seal the housing

---

1. Glue the circuit diagram to the inside of the cover.
2. Engage the cover in the retainer.
3. Connect the earthing lead (1) Fig. 9 to the cover.
4. Lightly lift and close the cover.
5. Screw the cover closed.
6. Use eye (2) Fig. 9 to seal.

When the cover is opened again, e.g. for servicing, there is no need to remove the cover completely. After loosening the screw, the cover can be lifted gently, swung downwards and suspended in the base.



## Disposal

---

All electrical and electronic devices are not to be disposed of as ordinary municipal waste, but rather at approved disposal facilities for such materials.

A crossed-out trash bin symbol on a product indicates that the product is subject to EU Directive 2002/96/EC.

Proper disposal and separate collection of such equipment is intended to prevent potential harm to health and the environment.

They are prerequisites for re-use and recycling of used electrical and electronic devices.

Detailed information on the disposal of used equipment can be obtained from your local authorities, your waste disposal service or the authorized dealer from whom you purchased the product.

Published by  
Siemens Building Technologies  
Fire & Security Products GmbH & Co. oHG  
76181 Karlsruhe, Germany

[www.buildingtechnologies.siemens.com](http://www.buildingtechnologies.siemens.com)

© 2009 Copyright by  
Siemens Building Technologies

Liefermöglichkeiten und technische Änderungen vorbehalten.  
Data and design subject to change without notice.

---

Document no. **A6V10236281**  
Edition 19.01.2009