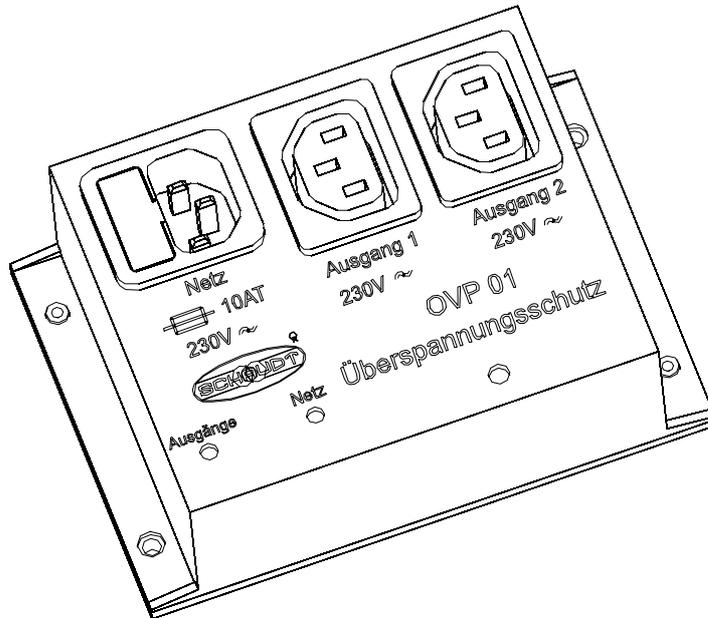


# Operating and Installation Instructions



## Overvoltage protection OVP 01 A

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## 1 Operating Instructions

### 1.1 Introduction

This instruction manual contains important information on the safe operation of equipment supplied by Schaudt. Make sure you read and follow the safety instructions provided.

The instruction manual should be kept in the vehicle at all times. Ensure other users are made aware of safety regulations.

### 1.2 Safety information

#### 1.2.1 Meaning of safety symbols



▲ **DANGER!**

Failure to comply with this symbol may result in danger to life and limb.



▲ **WARNING!**

Failure to comply with this symbol may result in injury to persons.



▲ **ATTENTION!**

Failure to comply with this symbol may result in damage to the device or connected consumers.



▲ This symbol indicates recommendations or special features.

#### 1.2.2 General safety information

The device is state-of-the-art and complies with approved safety regulations. Despite this, persons can be injured and the control and switch panel damaged if the safety instructions contained herein are not followed.

Ensure that the device is in perfect working order before use.

Any technical faults which may impact personal safety or the safety of the device must be rectified immediately by qualified personnel.



▲ **DANGER!**

230 V unit carrying mains voltage.

Risk of fatal injury as a result of electric shock or fire:

- Never undertake maintenance work on the device.
- Never try to start the device with defective housing or using a defective mains cable or a faulty connection.
- Do not contribute fluids into the housing.



▲ **DANGER!**

Incorrect installation.

Electric shock or damage to connected devices:

- Install as shown in installation instructions.



### ▲ WARNING!

Hot components!

Burns:

- Blown fuses may only be exchanged once the system has been disconnected from the power supply.
- Blown fuses may only be replaced once the cause of the fault has been identified and rectified.
- Never bypass or repair fuses.
- The rear of the device may become hot during operation. Do not touch.
- Only use original fuses rated as specified on the device.
- The device is exclusively designed to be fitted in a vehicle

## 1.3 Operation

The overvoltage protection OVP 01 A has no operating elements that need to be used on a day-to-day basis. It has the following display elements:

- LED “mains” (fig. 1 pos. 6)  
This LED lights up in yellow once the mains voltage is connected to the overvoltage protection OVP 01 A. If the safety fuse in the overvoltage protection is faulty the LED does not light up, even if the mains voltage is connected.  
If the mains voltage is connected the yellow LED “Mains” must light up. If it fails to do so it may be that overvoltage protection cannot be ensured. This must be tested from time to time.
- LED “Outputs” (fig. 1 pos. 7)  
In normal operating mode this LED lights green, indicating that the consumer is supplied with mains voltage. The LED does not light up in the event of excess- or low voltage or if the safety fuse in the overvoltage protection is faulty. The consumer are not supplied with the mains voltage.

There is a safety fuse (10 AT) in the extendable fuse carrier in the 230 V mains plug. The mains plug is also fitted with a spare fuse.

### 1.3.1 Faults

#### Flat vehicle fuses

In most cases faults are caused by a faulty fuse or an inactive 230 V circuit breaker.

Please contact our customer service address if you cannot rectify the fault using the following table.

If this is not possible, e.g. if you are abroad, a specialist garage can also repair the overvoltage protection. In this case you must ensure that the warranty is not invalidated by improper repairs being carried out. Schaudt GmbH will not accept any liability for damage resulting from such repairs.

## 1.3.2 Troubleshooting

Fault	Possible cause	Remedy
Connected devices do not work - LED "mains" lights up.	No 230 V ~ supply to the vehicle.	Check mains voltage in the electronic block
	Preswitched 230 V Circuit break is activated.	230 V circuit breaker must be switched on.
	Excess or low voltage.	Check supply (e.g. of camping site or generator).
	OVP 01 A safety fuse is faulty.	Replace fuse.
Connected devices do not work - LED "mains" lights up, LED "outputs" does not light up.	Over voltage or under voltage.	Check power supply (e. g. from camping ground or generator).

## 1.4 Design

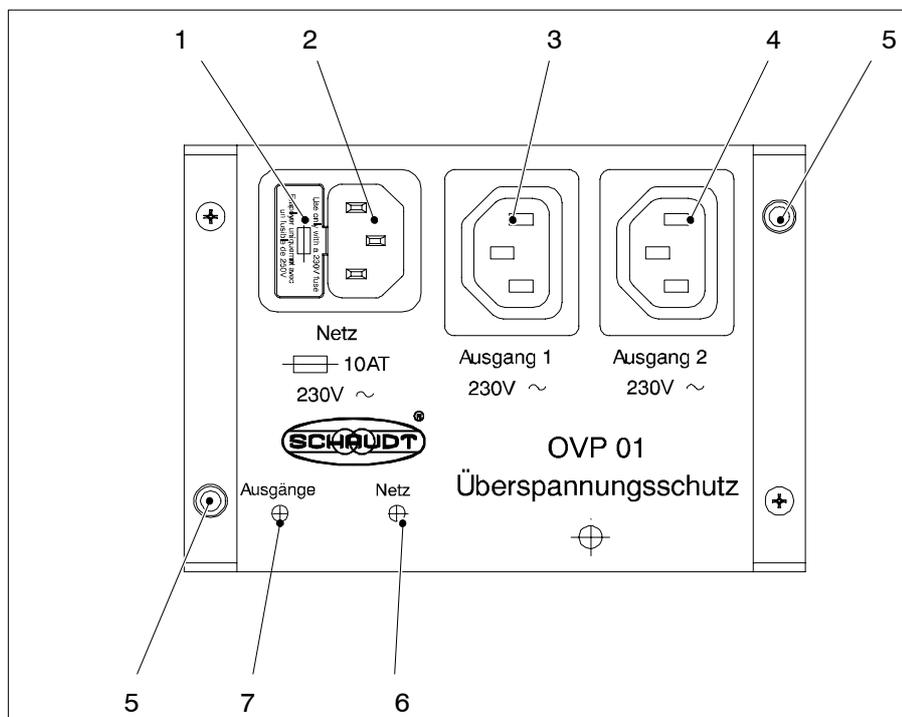


Fig. 1 Overvoltage protection OVP 01 A

- 1 10 AT (5 x 20 mm) safety fuse
- 2 Connection 230 V ~ mains-power supply vehicle
- 3 Connection 1 for consumer
- 4 Connection 2 for consumer
- 5 Fixing hole
- 6 LED yellow: "mains"
- 7 LED green: "outputs"

## 1.5 Application and function

The device is designed for applications where the danger of excess- or low voltage is particularly high. Examples of this are lightning striking the mains power supply, generator operated power, poor electrical installations or if used abroad.

The OVP 01 A overvoltage device is set between the power supply and the Schaudt device to be protected. In a leisure vehicle this is the 12-V-charger system (EBL ...), the 12-V-power supply (CSV ...) or an additional charger (LAS ...).

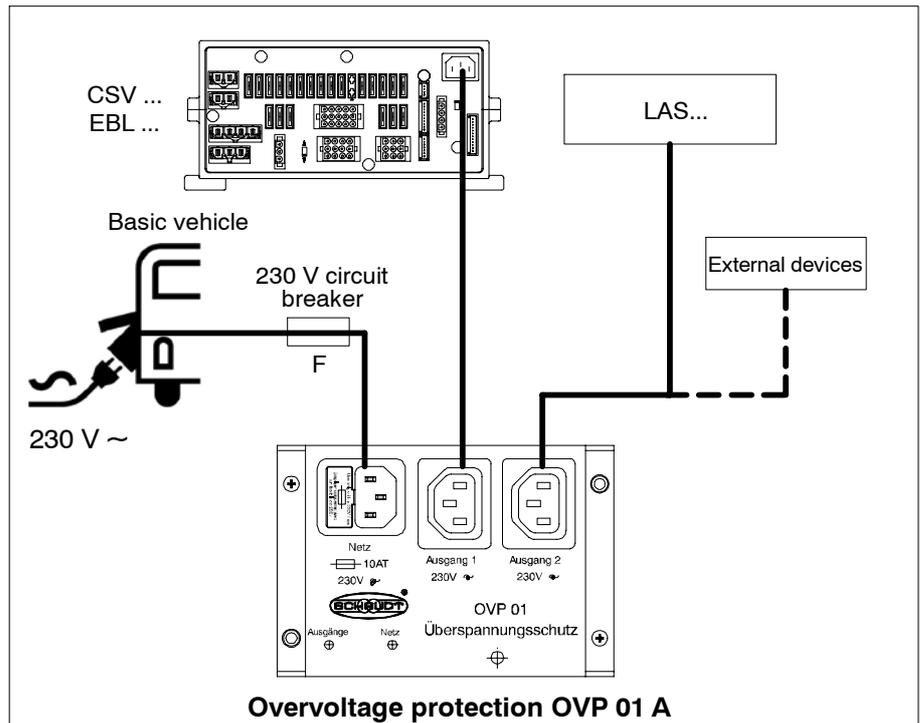


Fig. 2 Primary function of the overvoltage protection OVP 01 A

External devices can also be connected. Before connecting ensure that the switch on- and switch off voltage is compatible with the device and does not cause damage. The permissible connection load of the OVP 01 A may not be exceeded. Two consumers can be connected. In the event of excess- or low voltage the device disconnects the connected devices from the 230 V supply within a few milliseconds. The devices are not switched back on until the power supply has returned to normal.



### ▲ ATTENTION!

Load too high!

The overvoltage protection OVP 01 A is destroyed.

- Load both outputs of the overvoltage protection OVP 01 A with a combined load of max. 2000 W.



▲ No guarantees can be made for external devices the are connected.

### Modules

The overvoltage protection contains:

- Measuring and surveillance unit
- Appliance to disconnect the power supply, driven by the measuring and surveillance unit

### 1.6 Maintenance

The overvoltage protection does not require maintenance.

### 1.7 Technical details

#### 1.7.1 Mechanical data

**Dimensions** 130 x 47 x 90 (H x W x D in mm), without an inlet connector for non-heating appliances

**Weight** 196 g

**Casing** Plastic blue, (RAL 5010)

#### 1.7.2 Electrical data

**Operating voltage** 230 V, 47 – 63 Hz, sinusoidal, protection class 1

**Breaking voltage** Overvoltage: approx. 265 V ~ eff.  
Low voltage: approx. 175 V ~ eff.  
These values apply for an undistorted sinus voltage.

**Switch off delay** for overvoltage: low than 10 ms

**Switch off time** greater than 1 s

**Connection load** 2000 W max.

#### 1.7.3 Environmental parameters

**Operational temperature** -10 °C to +45 °C

**Storage temperature** -20 °C to +70 °C

**Humidity** Operation in dry environment only

**CE** CE mark



## 2.3 Electrical connection

**Connection sequence** Connect the overvoltage protection in the following sequence (please refer to the block diagram and the view in the instruction manual):

1. Disconnect vehicle from the 230-V-mains current.
2. Disconnect 230 V mains plug from the electoblock EBL ...
3. Plug this 230 V mains plug into the overvoltage protection OVP 01 A at "Mains".
4. Connect the supplied mains extension cable into output 1 of the overvoltage protection OVP 01 A.
5. Insert the other end of this cable into the mains input of the electroblock unit.

Devices with a two-pin earthed plug have to be modified. For the modification, a IEC connector for cable mounting is available. You can order it from Fa. Schaudt with the article.-no. 143.511.



Fig. 4 Kaltgerätestecker Art.-Nr. 143.511



**▲ DANGER!**

230 V unit carrying mains voltage.

Risk of fatal injury as a result of electric shock or fire:

- Only qualified electricians are permitted to make this modification.

6. If necessary other consumers can be connected to output 2 of the overvoltage protection.



- ▲ The block diagram/connection diagram are in the Appendix of this manual.

## 2.4 Storage - packaging - transport

Only transport and store the overvoltage protection if the packaging is suitable and ambient conditions are dry.

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## Appendix

### A EC-conformity Declaration

The Schaudt GmbH company hereby confirms that the type of construction of the OVP 01 A overvoltage protection complies with the following relevant regulations:

EC-low voltage directive

73/23/EEC edition with amendments issued on 22.07.93

Electromagnetic compatibility directive

89/336/EEC with amendments 92/31/EEC

The original EU-declaration of conformity is available for reference at any time.

**Manufacturer** Schaudt GmbH, Elektrotechnik & Apparatebau

**Address** Planckstraße 8  
88677 Markdorf  
Germany

### B Customer service

**Customer service address** Schaudt GmbH, Elektrotechnik & Apparatebau  
Planckstraße 8  
D-88677 Markdorf

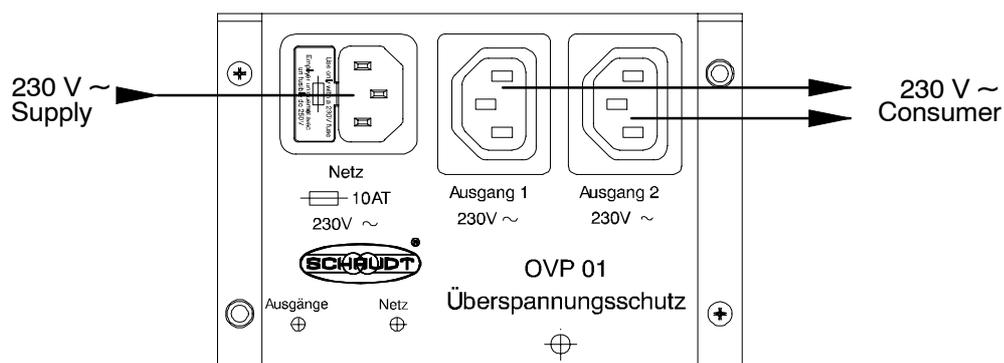
Phone: +49 7544 9577-16 EMail: kundendienst@schaudt-gmbh.de

Opening hours Mon to Thur 08:00 - 12:00, 13:00 - 16:00 hours  
Fri 08:00 - 12:00 hours

**Sending in device** Returning a defective device:

- Always use well-padded packaging.
- Fill in and enclose the fault report, see Appendix D.
- Send it to the addressee (free-of-charge delivery).

### C Block diagram/connection diagram OVP 01 A



**D Fault report**

In the event of damage please fill in the fault report and send with the faulty device to the manufacturer.

Device type: \_\_\_\_\_  
 Article-no.: \_\_\_\_\_  
 Vehicle: \_\_\_\_\_ Manufacturer: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Own installation? Yes  No   
 Upgrade? Yes  No

Please select the fault from the following:

The following electrical consumers do not work	
Cannot switch on- / off	
Permanent fault	
Temporary fault/loose contact	

Other remarks:

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