

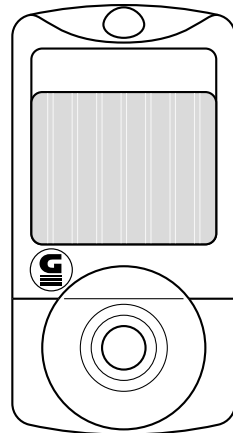
Radio sun sensor

**GEIGER**  
PARTNER TO THE SUN

# Radio sun sensor (solar-cell powered) GF0031

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Original assembly and  
operating instructions



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## 1. Introduction

Dear customer,

By deciding to buy the GEIGER solar-cell powered radio type sun sensor GF0031 you have made a good choice. The device you have acquired is a high quality product made by GEIGER.

The sensor GF0031 enables the automatic operation of your sunshade installation.

The device has been designed for use in indoor areas (GF0031). Installed in a weatherproof housing, the device suits also for applications outdoors.

No labour-intensive and time-consuming laying of control lines is needed as all switching signals are transmitted via radio.

All GEIGER radio receivers or tubular motor controls with integrated radio receivers can be used along with the solar-cell powered radio sun sensor as one operating unit:

- Radio-controlled motors
- External radio receivers

The GF0031 can be assigned to the different radio receivers as a single-, group- or central control device inside a room. The radio range depends on the local situation.

## 2. Guarantee

In the case of incorrect installation contrary to the operating instructions and/or constructional modification, the legal and contractual guarantee for property damage and product liability lapses.

## 3. Specified application

The radio sun sensor GF0031 has been designed exclusively for the operation of sunshade installations (winter garden awnings, vertical awnings etc.).

Do not operate the GF0031 with any radio receivers other than those authorised by the manufacture.

## 4. Safety information

- ▶ The control is determined for use within the limits of the specified application described in point 3 hereafter. If any unauthorised changes or modifications to the control are made, all warranty claims with regard to this product become extinct.
- ▶ Immediately after unwrapping of the control, it must be checked for damages. In the event of damages, the device must in no case be put into operation. Should damages have occurred, the supplier must be informed thereof immediately.
- ▶ If it is to be assumed that a safe operation of the control cannot be guaranteed, the control must immediately be taken out of operation and be protected against any unintentional or unauthorised operation. This assumption becomes real in the event the housing shows damages or if the device doesn't work any more.
- ▶ The responsibility for the compliance with the relevant regulations established by the power supply companies or the Union of German Electrical Engineers (VDE) is, according to VDE incumbent on the user and the related fitting firm.

## 5. Installation

The radio sun sensor GF0031 suits for the control of sunshade installations within the limits of a normal room (range approx. 15 metres).

The sun sensor must be mounted in front of or next to the sunscreen that is, the sunscreen must not shade the sun sensor.

A suction cup enables to fix the device in an easy manner directly on the window pane. The light sensor faces outwards.

Therefore, select the installation location so that there is a direct visual contact between the sensor GF0031 and the receiver.

## 6. Use

### Switch on sensor

Press S2 (> 2 sec.).

The sensor is activated.

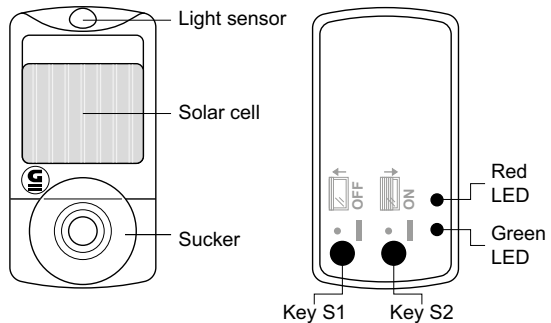
The green LED flashes three times for confirmation.

### Switch off sensor

Press S1 (> 2 sec.).

The sensor is turned off.

The red LED flashes three times for confirmation.



### How to test the function

#### of high light intensity (sun protection closed)

Press key S2 briefly (1 sec.). After releasing the key, the transmission is carried out and the green LED flashes once.

#### How to test the function of weak light intensity (sun protection open)

Press key S1 button briefly (1 sec.). After releasing the key, the transmission is carried out and the red LED flashes once.

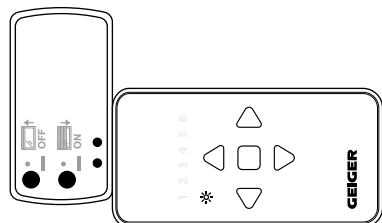
### Programming of the transmitter

#### Activate programming mode on the sensor

Press keys S1 and S2 for 3 sec. The red and the green LED blink alternately.

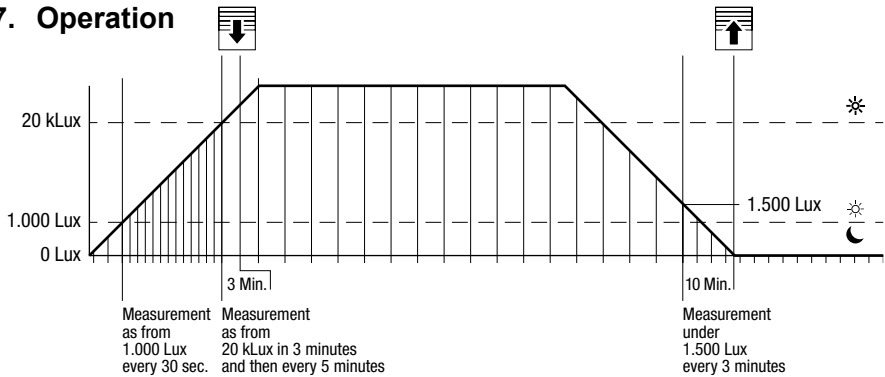
#### Programming of the transmitter:

Place the transmitter as displayed and within 20 sec. activate the UP or DOWN key with the channel sun. The green LED flashes for 0,5 sec. on the sensor. The transmitter has been learned and the programming mode is exited. You can also quit the programming mode with the operation of S1 or S2.



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## 7. Operation



When the device is switched on a light measurement is performed. If the light value is less than the threshold of 1000 Lux, the status night is taken over. Otherwise the sensor goes into the day status.

The threshold for the brightness is fixed and amounts to 20 kLux.

### Day status:

The illuminance measurement takes place every 30 seconds. If the brightness threshold (20 kLux) is continuously exceeded for 3 minutes, the sensor will send the message that it is too bright and repeats the transmission after two seconds. The „extend“ command will be issued.

As long as the brightness threshold is exceeded, the message will be repeated every 5 minutes.

If the brightness threshold is underrun for about 10 minutes (time for clouds suppression), so the sensor sends the message that it's too dark and repeats the message after two seconds. The „retract“ command will be issued.

If – in the day status – the brightness level is continuously under 1000 Lux for 5 minutes, the sensor switches to the night status.

In the day status, a message that the sensor is on is carried out every 60 seconds. With a fully charged battery the green LED flashes. Otherwise the red LED flashes.

If the brightness threshold (20 kLux) is exceeded the LED blinks twice successively, otherwise only once.

### Night status:

The illuminance measurement takes place every 200 seconds. If the light value of 1500 Lux is consecutively exceeded twice in succession, the sensor goes into the day status. In the night status the crystal oscillator is turned off. Times (200 seconds) can vary greatly (+100% / -50%).

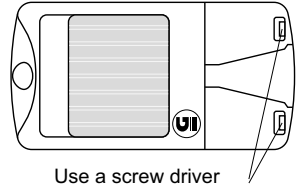
### Sensor off status:

No signalling.

## 8. Battery replacement

The battery has an average lifespan of four years under normal usage.

Remove the holder with the suction cup from the sensor housing. With the screwdriver push down/slightly backwards the holding tabs into the holes. You can then remove the lid and replace the battery.



Use a screw driver to press the locking noses down.

## 9. Technical data

<b>Sun threshold</b>	20 kLux (fixed value)
<b>Clouds suppression time</b>	10 Min.
<b>Brightness threshold:</b> <b>day</b>	1500 Lux / LED signal every 60 s.
<b>night</b>	1000 Lux / no signals
<b>Protection type</b>	IP 42
<b>Transmit frequency</b>	433,92 MHz
<b>Temperature range</b>	-0°C to +50°C
<b>Dimensions</b>	41 x 79 x 15 mm
<b>Power supply</b>	3V type CR2032 button cell

Subject to technical modifications



## 10. Declaration of conformity

The sensor complies with the relevant technical regulations enacted by the European Community. It bears the CE mark and is authorized for use in all EU member states and in Switzerland without any need of prior registration.

To learn more about the EC Declaration of Conformity pertaining to this sensor, please visit our website at: [www.geiger.de](http://www.geiger.de)

## 11. Notes on waste disposal

### Recycling of packaging materials

In the interest of environmental protection, please contact your local government's recycling or solid waste management department to learn more about the services it provides.

### Waste disposal of electric and electronic equipment.

Electronic equipment or batteries cannot be discarded along with the normal household waste. Keep for more information on the recycling and disposal methods envisaged by the local regulations in your area.

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**For technical questions, please call our service team at: +49 (0) 7142 938-333.  
They will be happy to assist you.**

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PARTNER TO THE SUN

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