Operating instructions

LED sensor
2349 02

GIRA

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Safety instructions

Observe the notes on mains supply. No other form of mains supply other than specified in these instructions may be used.

Conventional batteries must never be charged. Danger of explosion!

Do not throw batteries into fire! Do not short-circuit batteries!

Only operate device indoors and avoid influence of humidity, dust, sunlight and heat.

Proper use

The LED sensor is used to collect current consumption data at an electronic household meter. Uses other than those specified in these operating instructions are not in accordance with the intended purpose and lead to exclusion of warranty and liability. This is also the case with modifications and conversions.

The values measured are not suitable for purposes of public information. The device is intended solely for private use and not for invoicing.

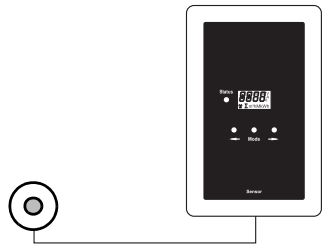
The main meter is usually sealed and is the property of the utility company. Modifications are prohibited. If measurement devices are installed, these must not influence the meter and must be completely removable. The LED sensor is designed to fulfil these requirements. No modifications to the meter or mains supply are required due to contactless, optoelectronic determination of measurement data.

Functional description

The Gira LED sensor consists of a sensor unit and a transmitting unit. The sensor unit registers the flashing of the pulse LED of the electronic household meter and passes the measurement data on to the transmitting unit. This transmits the data to the Gira energy and weather display.

The transmitting unit features an LED which illuminates when there is radio transmission. In normal operation, after pressing a button the display of the transmitting unit shows the average power between the last two pulses for a period of three minutes.

The sensor unit and transmitting unit are located in separate housings for ideal positioning. In this way the sensor unit can be positioned directly at the electricity meter and the transmitting unit can be positioned at a location with good radio reception with the aid of a connection cable.

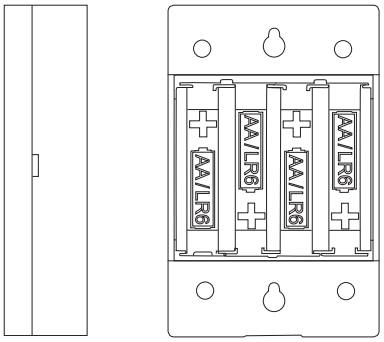


Sensor unit Transmitting unit

Inserting/replacing batteries

The sensor unit is supplied with voltage via the transmitting unit. This is operated with four alkaline batteries (1.5 V, type LR6, Mignon, AA). Both sides of the transmitting unit have small indentations to open the battery compartment.

1. Insert a screwdriver into the indentations and pull off the battery compartment cover.
2. Insert four LR6 batteries with correct polarisation into the transmitting unit.
3. Replace the battery compartment cover and snap it in.



Side view Battery compartment

Using batteries

The LED sensor may only be operated with alkaline batteries. Rechargeable batteries must not be used.

"Empty battery" display

If the batteries are empty, **bAt** appears in the display of the transmitting unit (alternating with the normal display).

If this is the case, replace the station's batteries. The assignment to the energy and weather display is maintained when replacing the battery.

Assigning the transmitter

Radio components must be assigned to each other to enable communication.

1. Press and hold ▶ on the transmitting unit for 3 seconds.

✓ The transmitting unit now transmits an assignment signal every five seconds for the next five minutes. The LED of the transmitting unit lights up for the duration of this assignment process.

2. Trigger the programming mode on the energy and weather display within these five minutes (see operating instructions for the energy and weather display).

✓ After start-up the transmitting unit displays its version number as well as „kW" for 1 second. This signalises that the sensor has been assigned.

✓ Following successful assignment the energy and weather display then shows the electricity meter data.

3. Pressing ▶ again exits the programming mode of the sensor.

A sensor can be assigned to any number of energy and weather displays.

Deleting the assignment

Deleting the LED sensor assignment is only possible on the energy and weather display.

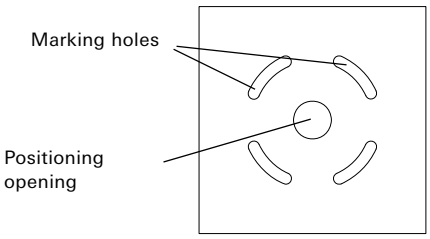
Mounting

Mounting the sensor unit

Work precisely!

The sensor unit must be positioned exactly above the pulse LED. Incorrect positioning by just a few millimetres may cause malfunctioning. This is why the following work steps must be carried out very precisely.

Use the included template to mount the sensor unit.



1. Clean or degrease the front panel with a suitable cleaning agent.
2. Place the template onto the front panel of the meter so that the LED of the meter is centred the positioning opening of the template.
3. In this position, trace the marking points of the four marking holes using a suitable pen.
4. Remove the protective film from the sensor unit.
5. Affix the sensor unit to the front panel of the meter. While doing so, position the sensor unit within the four traced markings.

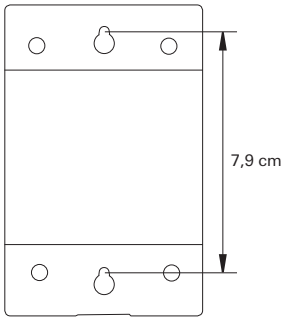
Caution - Do not press in the front panel!

Do not apply excessive pressure to the front panel of the meter when affixing the sensor unit.

Mounting the transmitting unit

1. Connect the transmitting unit to the sensor unit with the connection cable.
2. Check whether the energy and weather display is receiving data regularly from the transmitting unit. If necessary, modify the position of the transmitting unit or energy and weather display to establish good radio communication.

For wall mounting, use the two keyholes on the rear.



1. Mark the drilling holes.
2. Drill the mounting holes (Ø 5 mm) and insert the included dowels.
3. Fasten the included screws. These must protrude by approx. 0.5 cm to hang the transmitting unit.

Setting the meter constant

For correct measurements, the meter constant specified on the meter must be set. The meter constant specifies how many pulses the meter LED makes for energy consumption of 1 kWh. The meter constant is usually printed on the meter. If not, the value can be obtained from your utility company.

1. **Press and hold Mode** for more than 2 seconds.

✓ The display shows the currently set meter constant in pulses/kWh and the LED of the transmitting unit lights up.

2. Set the required meter constant with ◀ and ▶. Counting up and down is accelerated if the buttons are pressed and held longer than 2 seconds.
3. **Press Mode** to save the value and return to normal operation.

✓ If no button is pressed for longer than 60 seconds the device automatically returns to normal operation. The set meter constant is saved in this case.

✓ The LED of the transmitting unit displays each transmission by intermittently lighting up until 10 minutes after the last button press at the transmitting unit.

✓ For the next 3 minutes, current consumption between the last two pulses is displayed in W.

No signalling is output after this to protect the service life of the batteries.

To activate triggering of the LEDs for 10 minutes, briefly press any button of the transmitting unit.

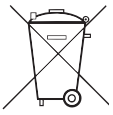
Transmission behaviour and radio interference

The transmitting unit transmits data at periods of 2 - 3 minutes to the energy and weather display. Radio transmission occurs on a non-exclusive transmission path, and interference cannot be excluded for this reason. For further information please consult the energy and weather display operating instructions.
In order to manually restore synchronisation, the assignment of the transmitting unit to the energy and weather display can be deleted and reassigned, as specified in the “Assigning the transmitter” section.

Maintenance and cleaning

The product is maintenance-free apart from battery replacement. Leave repairs to a qualified expert.
Clean the product with a clean, soft, dry and lint-free cloth.
The cloth may be dampened slightly with lukewarm water for removal of heavier soiling.
Do not use solvent-based cleaning agents. The plastic housing and inscription may be adversely affected.

Disposal information



Remove empty batteries immediately and dispose of them in an environmentally-friendly way.
Do not dispose of batteries with household waste. Local authorities provide information about environmentally-sound disposal. The end consumer is legally required to return used batteries in accordance with legislative requirements.

Technical data

Mains supply:	6 V
Batteries:	4 x alkaline 1.5 V (LR6, mignon, AA)
Do not use rechargeable batteries!	
Current consumption:	approx. 140 µA
Meter constant (can be set):	10 to 10,000 pulses/kWh
Transmission interval:	2 to 3 minutes (dynamic)
Transmission frequency:	868.35 MHz
Free field range:	100 m
Ambient temperature:	0 to 50 °C
Dimensions transmitting unit (W x H x D):	68 x 105 x 30 mm
sensor unit (Ø x H):	16 x 16 mm

Note

The manufacturer or seller of this LED sensor accepts no responsibility for incorrect values and any consequences that may ensue.

Declaration of conformity

The LED sensor may be operated in all EU and EFTA countries.

The declaration of conformity can be downloaded at **www.download.gira.de**.

Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/specialist electrical trade).

They will forward the devices to the Gira Service Center.