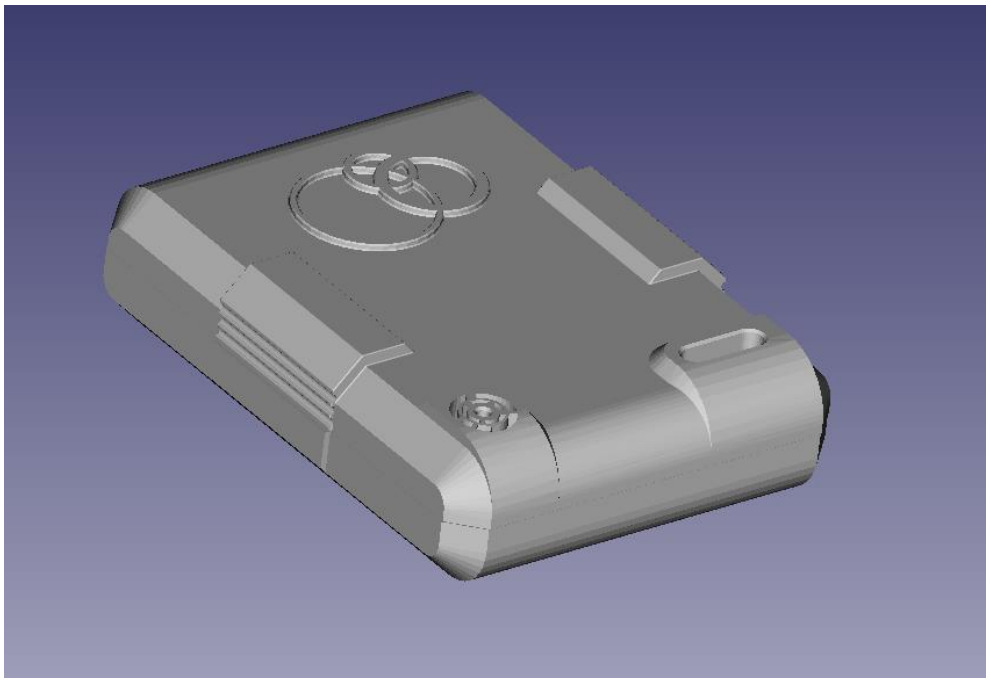
User Manual

Temperature – Humidity - Sensor
(LTHP_v3)



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1 Tabel of content

2 General information

Thank you for purchasing the extension components of Zigpos wireless sensor and actuator networks. For optimal performance and safety please read the following instructions carefully before using the components. Please save this owner's guide for future reference. This manual must be made available in case of handing over the device to other persons.

2.1 Hazard information

Only open the device if you want to insert a new battery! (see section „Changing the battery").There are no user-serviceable parts within the housing of the device. In case of error please contact our service.

3 Function

The temperature- and humidity module contains a variety of sensors, to record the data in Zipgpos sensor networks. The sensor transmits the recorded data wirelessly to a central network, if the owner of this network allows adding. The following sensor date can be obtained through this components:

- temperature
- humidity
- luminosity
- proximity
- air pressure
- acceleration

The sensor data are collected cyclically. The measurement interval is decisive for the battery lifetime and has the default setting of 300s. The length of the measuring interval can be changed by the user in **[1s]** steps from **5s** up to **60min.** The sensor has an additional connection for an external temperature and humidity unit, which is available separately.

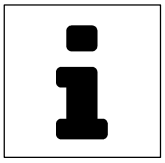
Do not insert the temperature sensor into oxidizing or conductive fluid! Operate the sensor only in appropriate work areas!

3.1 General system information about ZIGPOS sensor and actuator networks

This product is part of the sensor- / actuator networks of Zigpos and is equipped with a Zigpos own radio protocol based on the IEEE 802.15.4 standard. All devices are supplied with a standard configuration. This results in a wide range of special features like: couplings between devices, automations, regulations and alarm functions. For further information, please read the manual for the complete system. All technical documents are available at www.zigpos.com. Via the overall interface you can update and upgrade the product wirelessly. There is no need for additional hard- or software.

3.2 General information about radio operation

A non-exclusive transmission path is used for radio transmission, which means that interference can´t be ruled out. Additional interference factors can be: electric motors, defective electrical devices or switching operations in the environment. Smart channel selection mechanisms minimize the disturbing influences upon ZIGPOS sensor networks and lead to a more robust and secured data transmission.



The range of radio transmission within buildings is largely dependent on the local conditions (e.g. the nature of the building or environmental factors) and can differ very much from the tested data under free field conditions.

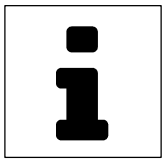
4 Assembly

4.1 Scope of delivery

- Temperatur- humidity sensor
- Battery: CR2430
- Operating instructions
- Quick Start Guide (incl. QR-Code)
- Glue strip for wall assembly

4.2 Assembly

The sensor can be fixed simply by the included glue strip on any place.

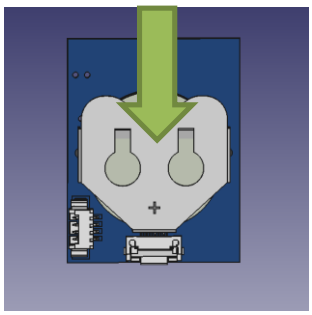


Take note of the sticky side of the sensor to ensure an easy battery change without solving the underside later from the overlying area.

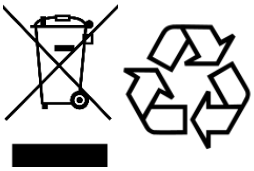
4.3 Battery change

The batteries inside the sensor have a limited lifetime and must be changed if it´s necessary. In addition to the regular transfer of measurements the sensor gives information about the battery condition and informs in case of a low battery level. To replace the battery you need a new one type CR2430.

Open the housing directly to the wall. For this please press the snap openers with two fingers at the intended places. The sensor with the battery holder is now inside on the detached housing side. Now remove the old battery with a new one and clip on the sensor back against the rear side.



Caution! Danger of explosion due to improper replace of batteries!



Used batteries do not belong to domestic rubbish! Please, dispose batteries at your local community waste collection/recycling centre.

4.4 Technical Service

The product is maintenance-free with the exception of a battery change that may be required. Maintenance or repair may only be performed by a qualified person. Clean the product with a soft cloth slightly dampened. Don not use solvent-based detergents. Plastic housing, labels and electronic engineering could be damaged.

5 Commissioning

5.1 Log on the central unit

Each component contains a unique key set by factory state, which secures the communication. To add a new sensor to the network, a registration with the ZIGPOS central application is required.

There are several options to do this:

- By means of the appertaining application you can scan the QR-Code of the device.
- Via the user interface the device can be added manually.

The supplied parameters of the QuickStartGuide are to be kept safely and secured from any access of third parties. They contain information that could allow to penetrate into the network under certain conditions.

After installing the device please insert a battery. The sensor appears in the network map and can be used ad libitum.

5.2 Delivery state

By using various interfaces or hardware access it is possible to reset the sensor to the status of delivery (Factory Reset). The delivery status can also be created by pressing the button for approximately 5s during operation.
If you want to make the reset conveniently via the network please follow the ZIGPOS´s sensor-& actuator networks operating instructions.

6 Technical Data

Summary	
Operating range	-40°C bis 85°C 0% rel. humidity up to 99% rel. humidity
Power supply	CR2430 battery
Battery runtime	up to 3 years
Radio frequency /Range	2.4GHz, IEEE802.15.4, 300m, typically indoors: 40m
Protection type	IP64
Housing	ABS
Dimensions	41mm x 32mm x 9mm (H x B x T)
Weight	10g (without battery)
Temperatur sensor	absolute accuracy (at 0°-65°): **+/- 1.0 °C** absolute accuracy (at 25°):

	+/- 0.5 °C
Humidity	absolute accuracy (20%-80% at 25°C): **+/- 3.0 %RH** hysteresis: +/- 1%RH
Air pressure	absolute accuracy (300hPa-1100hPa at 0°-65°C): **+/- 1.0 hPa**

ZIGPOS hereby declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2002/95/EC 2002/96/EC and other applicable Directives. Declaration of conformity is available at: www.zigpos.com

6.1 FCC Statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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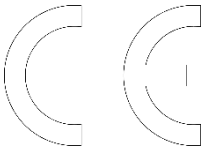
7 Other

7.1 Disclaimer of liability

 The information in this manual is verified on a regular basis and any required corrections will be included in subsequent editions. . For errors technical or printing type and their consequences we do NOT accept any liability. All trademarks and protected rights are acknowledged.

Modifications which serve the purpose of technical improvement of the device may be carried out without prior notification.

Disposal instruction
Any waste packaging or waste appliances etc. which accumulate should be disposed of according to the local regulations.



The CE sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.

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