

Receiver module for energy harvesting wireless switches (AFZE)



QUICK START GUIDE

1 Safety guidelines



WARNING: Danger to life

- Do not install this product as part of a safety-relevant, life or health preserving facility.



CAUTION: Damage to the device due to electrical discharge

- Observe the ESD protection.



CAUTION: Damage due to liquid in the device

- Prevent liquid from getting inside the components.
- Do not use solvents such as benzine or alcohol, or scouring agent and scourers for cleaning.

2 Area of application

The receiver module for energy harvesting wireless switches (AFZE) was designed to demonstrate further application options of the energy harvesting wireless switch to you.

This quick start guide only covers the basic features of the AFZE. You can obtain more detailed information in the operating manual.

3 Starting up

3.1 Mounting the antenna sleeve

The AFZE has a fitted wire antenna. You need to mount the antenna sleeve for protection and a straight alignment.



- Guide the wire antenna straight into the antenna sleeve.
- Insert the antenna sleeve into the holder horizontally and turn it 90 degrees to the left.



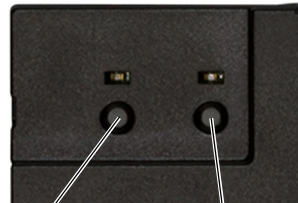
The antenna sleeve is mounted.

3.2 Connecting the power supply

The power is supplied using a USB micro-B plug which can be connected via a computer or a power supply unit.

4 Pairing and removing the transmitter

You can pair 32 transmitters. On the AFZE there are two buttons with LEDs on the left at the top in a recess. Press the buttons with a sharp object such as a ball-point pen.



Reset,
green LED

Pairing,
yellow LED

- Connect the AFZE to the power supply.
The left LED flashes green (if a transmitter has not yet been paired) or lights up green (if a transmitter has already been paired).

4.1 Pairing a transmitter (Pairing)

Get the transmitter that you want to pair ready. If you do not touch anything more for than 2 minutes during the procedure, it stops automatically.

- Press the right button for 2 seconds (Pairing) until the right LED flashes yellow.
- Trigger a signal on the transmitter.
- Press the right button briefly (Pairing).

The left LED lights up green and the right LED is off. The transmitter is now paired. If you trigger the transmitter, the right LED flashes yellow with each signal and you will hear the switching noise of the AFZE's relay.

4.2 Deleting the transmitter (Reset)

- Press the right button (Pairing) and hold it down.
- Press the left button briefly (Reset) while also holding down the right button (Pairing).
- When the right LED starts flashing slowly and then flashes faster after 4 seconds, release the right button (Pairing).

The left LED flashes green. All transmitters are deleted.

5 Technical data

Name	Value
Antenna	External wire antenna
Frequency EU	868.3 MHz (±15 kHz)
Frequency USA, Canada	915.0 MHz (±15 kHz)
Data rate	76.9 kBit/s
Interfaces	USB Micro-B, RS-485, RS-232, RS-232 TTL, low voltage relay 48 V/230 V
Wireless log	ZF proprietary 2.0
Modulation	2-FSK
Coding	NRZ
Wireless channels	1

Name	Value
Range	300 m outdoors, 30 m indoors
Operating temperature	-40 °C ... +85 °C
Sensitivity at 23 °C	-98 dBm at 0.1% telegram error rate
Supply voltage	5.0 V/DC ±5% USB

6 Contact

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7 General user information

We reserve the right to make technical modifications which serve the development of our products. Improper use and storage can lead to faults and damage to the product.

The warranty expires completely once unauthorized modifications to the product have been carried out. Do not carry out any unauthorized repairs and do not open up the product. These instructions are only valid for the supplied product.

The warranty for this product is for commercial customers for one year from date of purchase. Liability for financial damages and defects is excluded.

8 Declaration of conformity



These components are CE certified and comply with the guidelines EN 300-220 SRD, EN 301 489-1/-3 and EN 60950-1.

They were made and tested for use in Europe and USA in accordance with the FCC Part 15.249 and 15B. Observe the local regulations before using in other countries.

9 Disposal



Dispose of the used components at an official collection point for electronic waste or at your local dealer.