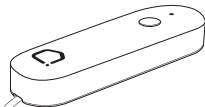


## Energy Sensor P1

### User Guide



### Product Description

When the Energy Sensor P1 is paired to the Futurehome Smarthub and connected to a power meter (AMS), it will provide real-time electricity data that can be viewed in the Futurehome app.

### Precautions

Make sure the P1 port is open to transmit data by contacting the grid company in your area.

### Getting Started

The P1 Sensor requires no special assembly and is powered by the power meter (AMS) via the P1 port. It comes equipped with a HAN cable (RJ12) to connect to the AMS HAN-P1 interface.

- 1 Insert the RJ12 connector on the end of the cable in the P1 port of the power meter (AMS). Placement of the P1 port on the AMS can vary depending on your specific model.
- 2 The P1 Sensor will now start searching for Zigbee networks to join. If needed, press the button on the front cover to restart inclusion mode on the device.
- 3 Set the Futurehome Smarthub to Zigbee pairing mode in device settings using the application.
- 4 While the P1 sensor is searching for a Zigbee network to join, the LED blinks blue.
- 5 When the LED stops flashing and turns green, the P1 Sensor has successfully joined the Zigbee network on the Smarthub.

### Placement

Place the P1 Sensor so that it has the best chance of getting a good connection to the Smarthub.

Since the P1 Sensor is IP65 rated and can operate at temperatures from -30 to +50°C it is generally safer to place it outside when the power meter (AMS) is located outside the home.

### Mounting

The P1 Sensor comes with magnets and double-sided tape on the back so that you can choose the preferred mounting method. For the best signal quality, it should be mounted on the outside of the electrical cabinet. The cable is flat, so it's safe to close the electrician cabinet door with the P1 sensor placed outside, without compromising the cable.

### Resetting

To reset the P1 Sensor, press and hold the action button until the LED blinks red. The device should now be reset to factory settings and ready to include in a new Zigbee network.

### Fault finding

After including the P1 Sensor with the Smarthub it could take up to several minutes before it starts sending data for the first time.

If your P1 Sensor is not sending data after a while, first check the physical connection to the P1 port. If data is still not available, check the device details in the application for signal strength to verify whether it has a strong connection to the Smarthub.

A physical reboot of the device can be attempted by unplugging it from the P1 port and plugging it in again, which will power cycle the device.

Visit [support.futurehome.no](http://support.futurehome.no) for further fault-finding guidance if needed.

### CE certification

The CE mark affixed to this product confirms its compliance with the European Directives.

A complete EU-declaration of conformity can be found at [futurehome.io/products](http://futurehome.io/products).

In accordance with the directives:

1. RoHS Directive 2011/65/EU
2. Radio Equipment Directive 2014/53/EU
3. EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
4. EN IEC 62311:2020 Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)
5. EN IEC 62368-1:2020+A11:2020 Audio/visual, information and communication technology equipment - Part 1: Safety requirements
6. EN 55032:2015+A1:2020 Electromagnetic compatibility of multimedia equipment - Emission Requirements
7. EN 55035:2017+A11:2020 Electromagnetic compatibility of multimedia equipment - Immunity requirements
8. EN IEC 61000-3-2:2019+A1:2021 Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤16 A per phase)

9. EN 61000-3-3:2013+A2:2021 Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
10. EN 301 489-1 V2.3:2019 ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility
11. EN 301 489-17 V3.2.4:2020 ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband and Wideband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility
12. EN 300 328 V2.2:2019 Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz band; Harmonised Standard for access to radio spectrum
13. EN 62056-21 Electricity metering - Data exchange for meter reading, tariff and load control - Part 21: Direct local data exchange
14. EN 62056-61 Electricity metering - Data exchange for meter reading, tariff and load control - Part 61: OBIS Object Identification System

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