

# **BLUETOOTH LOW ENERGY**

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# **Wireless pulse counter - electricity**

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Electricity pulse counter is used to remotely monitor electricity consumption in order to control related expenses and quickly detect anomalies. You can connect it to any meter equipped with Standard output (SO). The solution is dedicated for both enterprises and households. The sensor can simultaneously work with up to three electricity meters. By default, each counted pulse represents one watt-hour (Wh). Data is presented in the form of power consumed by devices (W) in addition it is possible to generate a report with total consumption (Wh / kWh) in a selected period.

You can use a free mobile application to configure the device and read the data from its memory. If you add Efento Gateway, you can build a remote monitoring system

# **Key features**

## → Works with Efento Cloud

Together with Efento Cloud, the sensors enable constant monitoring, alerting about exceeding safe limits, generating reports and analyzes.

## → Long battery life

Loggers have been designed to work for up to 5 years on battery. You can forget about changing the battery frequently or troublesome battery charging.

## → Lower costs

Choosing wireless sensors and a cloud platform reduces the installation and maintenance costs.

## → Wide range of sensors

Efento sensors can measure various physical and chemical values. If you decide on one sensor today, you can expand your sensors fleet to another types anytime you want.

## → Integration

Standard communication protocols allow integration with any cloud platform or mobile application.

## → Easy set up

All you need to set up a logger is a smartphone with a free mobile application. The whole configuration takes no more than 15 minutes.



# **Technical data**

## Versatility

→ The counter can cooperate with any device equipped with a pulse output

## Minimum pulse duration

→ 5 millisecond

# Maximum pulse duration

→ 500 millisecond

# **Bluetooth Low Energy interface**

- → Communication: Bluetooth Low Energy (BLE)
- → Radio module frequency: 2,4 GHz
- → Power: 2,5 mW (4 dBm)
- $\rightarrow$  Range: up to 100 m (LOS)
- → Communication standard: Bluetooth Smart (Bluetooth Low Energy, Bluetooth 4.0)
- → Transmision period: 1 s

# Up to 3 channels

→ Simultaneous operation with up to 3 devices

## Battery

- → Battery: 3,6 V, size AA, capacity 2 700 mAh (replaceable)
- → Battery operating time: at least 5 years (measurement interval: 15 min)

# Mechanical

- → Supported counters NO (Pull-up 3.6V)
- → Dimensions: 27 x 71 x 71 mm
- → Weight: 80 g (including batteries)
- → Enclosure: plastic ABS, color white
- → Enclosure IP rating: IP30, IP42 with a dedicated silicone cover

# Environmental

- → Operating
  - Temperature: -35° to 70°C
  - Humidity: 0 to 99 non-condensing
- → Storage and transportation
  - ◆ Temperature: -40° to 70°C

# **Additional information**

# Universal pulse counter for electricity

Efento wireless pulse counter can work with any electricity meter equipped with standard output (SO). The pulse counter has three channels and can count pulses from up to three meters simultaneously.

## **Data security**

Data transmitted wirelessly between the sensor and smartphone / Efento Gateway can be encrypted. Thanks to that, unauthorized persons cannot hijack the communication between sensors and other devices. Efento sensors' software can be updated over the air, which will allow you to easily install any security patch that is released.

# Integration

If you want to integrate Efento loggers with your software, cloud platform or mobile application, we will provide you with the necessary documentation, libraries and / or SDKs.

## Sensor's passport

Sensor's passport documents the entire lifecycle of a device. By accessing the data on Efento Cloud platform, the user can check all information about the sensor: date of sale, warranty status, date of calibration, information on all service activities. In addition, the user can download all documents regarding the device – a duplicate of calibration certificate or service protocols.

## **Dedicated silicone cover**

Loggers can be equipped with dedicated silicone covers which protect the devices against mechanical damages and water splashes. Silicone cover increases the protection level of the enclosure to IP42 level.