

## **BLUETOOTH LOW ENERGY**

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# 0-10 V analog sensor interface

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Efento 0-10 V sensor interface allows users to connect any type of analog sensor. Device can be equipped with up to two analog interfaces (2 x 0-10 V). Sensors can be powered either from the device's battery or by an external power source. Data from the analog sensors can be presented as voltage (0-10 V) or converted to other measurement types once it reaches the Efento Cloud platform.

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**

#### 0-10 V interface

- → Simultaneous operation with up to 2 devices: 2 x 0-10 V
- → Accuracy: 0.3% with factory default calibration, 0.01% with user 4 points calibration

## **Bluetooth Low Energy interface**

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

## **Power supply**

- → Package of 3 x AA, 6300 mAh (replaceable) Battery operating time: up to 5 years
- → External sensors can be powered by the device's battery (max. 16V, 30 mA)

#### **Mechanical**

- → Dimensions: 26 x 60 x 124 mm
- → Weight: 0,13 kg (including batteries)
- → Enclosure: plastic ABS, color white, IP30

#### **Environmental**

- → Operating
  - ◆ Temperature: -15° to 70°C
  - Humidity: 0 to 99% non-condensing
- → Storage and transportation
  - ♦ Temperature: -40° to 70°C

## **Additional information**

## **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.