BLUETOOTH LOW ENERGY

Wireless soil moisture and temperature sensor

EAN: 5905309601543

Wireless soil moisture logger is used to measure the amount of water in the soil. The sensor measures soil moisture levels and notifies of a sharp decrease or increase in the amount of water in the soil. The devices are powered by a battery that ensures their maintenance-free operation for a period of at least ten years. The device comes in IP67 enclosure that protests it against the damage caused by water and dust. The logger is equipped with an external Watermark soil moisture probe 3 m long and a temperature probe – 3 m.

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

Moisture and temperature sensor
➔ Soil moisture range: 0 – 200 cb (kPa)
➔ Measurement interval: 1 minute to 10 days
➔ Temperature range: -55 to +125°C
➔ Accuracy: up to 0.5°C in the range from -10°C to +85°C and up to 2°C in the range -55 to -125°C
➔ Memory size: 40 000 measurements

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

Battery
➔ Package of 3 x AA, 6300 mAh (replaceable)
   Battery operating time: up to 5 years
➔ USB 5V with 1000 mAh rechargeable battery

Mechanical
➔ The sensor is equipped with a waterproof probes with a length of 3m
➔ Enclosure dimensions: 162 x 82 x 37 mm
   + 21 mm cable gland
➔ Weight: 0,38 kg (including batteries)
➔ Enclosure: plastic PC, colour gray
➔ Enclosure IP rating: IP67

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

ADDITIONAL INFORMATION

Calibration certificate
At the customer's request, each Efento sensor can be supplied with a calibration certificate in accordance with ISO / IEC 17025. The test is performed in an ILAC certified laboratory. The calibration date is saved in the logger's memory and it notifies the user about the suggested date of the next calibration.

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.