



NB-IoT

Wireless water leak logger

The Efento NB-IoT wireless data logger is designed for detecting water leaks and other conductive liquids, ensuring reliable data transmission. Using Narrowband IoT connectivity, it communicates directly over the cellular network. No gateways or additional infrastructure required.



Key Features

- **Effortless installation** - thanks to built-in NB-IoT connectivity, installation is as simple as mounting the device on a wall or placing it on a shelf - no gateways, cabling, or Wi-Fi configuration required.
- **Fast and intuitive setup** - with an integrated Bluetooth Low Energy (BLE) module and a dedicated mobile app, the sensor can be configured and activated in under 15 minutes.
- **Up to 8 years of battery life** - engineered for long-term, maintenance-free operation, the device uses intelligent data handling and optimized transmissions to achieve up to 8 years of operation on a single battery.
- **Cloud and system integration** - seamlessly connects with the Efento Cloud platform for data visualization, analysis, and alerting. Standard communication protocols also enable easy integration with custom server-based systems.
- **Remote management** - supports over-the-air firmware updates and secure remote configuration, reducing the need for on-site maintenance.
- **Continuous status monitoring** - the device continuously tracks the presence of liquid and automatically reports both the occurrence and disappearance of a leak.

Applications

The device is designed for point detection of water or other liquids at the sensor installation site. Detection occurs when liquid appears between the measurement electrodes. It is ideal for use in technical rooms, server rooms, boiler rooms, sanitary facilities, warehouses, industrial installations, and public buildings.

Sensors

Leak detection probe

Model	3 m resistive leak detection probe
Measurement range	Two states: OK - no leak detected, Alarm - leak detected (with configurable logic inversion)
Response time	≤ 5 s after immersion / ≤ 15 s after liquid removal

Technical data

Data logging

Memory size	100 000 measurements
Measurement interval	5 s - 7 days (user-configurable)

Bluetooth interface

Radio module frequency	2.4 GHz
Power	2.5 mW (4 dBm)
Range	Up to 100 m (LOS)
Transmission period	1 s
Bluetooth version	Bluetooth Low Energy (4.0)

NB-IoT interface

NB-IoT bands	1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 66, 70, 71, 85
3GPP	13 i 14 (LTE Cat NB2)
Power	23 dBm ±2 dB

Communication

Protocol	CoAP
Transmission interval	upon leak detection or every 1 minute to 7 days (configurable)

Operating and Storage Conditions

Main unit operating conditions	Temperature: -25°C to +70°C, humidity: 0-99% RH (non-condensing)
Probe operating conditions	Temperature: -20°C to +50°C
Storage conditions	Temperature: -25°C to +70°C
Charging conditions (variants with external power supply)	Temperature: 0°C to +45°C

Certifications

Regulatory	CE (RED), FCC
Environmental	RoHS

Variants

EAN	Power Supply	Enclosure	Weight
5905309603806	8,500 mAh battery (replaceable). Battery life up to 8 years	IP30, white ABS plastic Dimensions: 32.5 × 60 × 125 mm	230g (with battery)
5905309604094	USB-C, with a 1,300 mAh rechargeable backup battery to maintain operation in case of power loss	IP30, white ABS plastic Dimensions: 32.5 × 60 × 125 mm	215g
5905309604889	8,500 mAh battery (replaceable). Battery life up to 8 years	IP65, white ABS plastic Dimensions: 39.5 × 63.5 × 128.5 mm	285g (with battery)
5905309605305	9-26V, with a 1,300 mAh rechargeable backup battery to maintain operation in case of power loss	IP65, white ABS plastic Dimensions: 39.5 × 63.5 × 128.5 mm	270g