NB-IoT

Wireless motion / occupancy logger



The Efento NB-IoT wireless data logger is designed for detecting motion and occupancy in rooms, 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.
- **Motion or occupancy detection -** configurable operation allows the device to function either as a motion sensor or as an occupancy sensor, where the state changes after detecting a defined number of motion events within a specified time interval.

Applications

The device is designed to detect motion within a monitored area and record events related to the presence of people or movement of objects. It is ideal for use in security systems, warehouses, offices, server rooms, technical rooms, and public facilities. It can be used for detecting unauthorized presence as well as monitoring room occupancy (e.g., conference rooms).

Sensors

Motion sensor (PIR)	
Model	Panasaonic EKMB1304113K - PIR
Detection angle	40°×105°
Number of detection zones	68
Detection range	Up to 12m for temperature difference ≥ 4°C, up to 17m for temperature difference ≥ 8°C
Detection conditions	The temperature difference between the object and the environment must be greater than 4°C; movement speed: 1.0 m/s; object: human body with approximate dimensions of 700 × 250 mm; direction of movement: transverse to the detection beam

Technical data

Data logging	
Memory size	100 000 measurements
Measurement interval	5 s - 18 hours (user-configurable)
Bluetooth interface	
Radio module frequency	2.4 GHz
Power	2.5 mW (4 dBm)
Range	Up to 100 m (LOS)
Transmision 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, 28, 66, 70, 85
3GPP	13 i 14 (LTE Cat NB2)
Power	23 dBm ±2 dB
Communication	
Protocol	CoAP
Transmission interval	1 min - 7 days (user-configurable)
Operating and Storage Conditions	
Main unit operating conditions	Temperature: -20°C to +60°C, humidity: 0-99% RH (non-condensing)
Storage conditions	Temperature: -20°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
5905309603950	8,500 mAh battery (replaceable). Battery life up to 8 years	IP30, white ABS plastic Dimensions: 32.5 × 60 × 125 mm	-
5905309604278	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	-