FM442g-n
Plug & Play IoT Sensor for Gas Consumption Monitoring

NB-IoT
LTE-M

BelSenso

FM442g-n
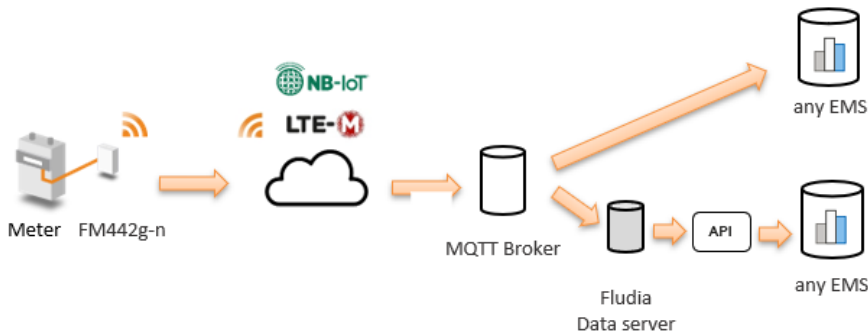## Plug & Play IoT Sensor for
Gas Consumption Monitoring

The **FM442g-n** is a plug-and-play IoT sensor designed for monitoring gas consumption in all types of buildings. The optical head can be quickly attached to the main gas meter, and the NB-IoT/LTE-M modem connects through standard cellular networks. Measurement data is transmitted to an MQTT broker and can be retrieved by any EMS (Energy Management System).

Benefits

⇒ **Plug & Play:** non-intrusive optical reading technology, easy and quick to install

⇒ **Universal:** compatible with all gas meters with mechanical display

⇒ **Reliable:** Adaptive detection and signal filtering built into the optical head

⇒ **Configurable:** Measurement and transmission intervals remotely adjustable

⇒ **Autonomous**: Battery-powered for multiple years of operation

⇒ Designed and manufactured in France

Operational

Uses-cases

⇒ **Building Energy Efficiency**: Monitoring overall gas consumption to optimize energy use.

⇒ **Residential Energy Budget Management:** Tracking consumption patterns to better control energy spending.

⇒ **Data Analytics for Energy Use:** Identifying specific end-uses by detecting consumption peaks.

General and technical features

	FM442g-n
Input	- Optical reading of one of the digits of the mechanical display - Detection of digit rotation
Output	- NB-IoT and LTE-M supported - MQTTs protocol
Operational	- Optical head mounted on a plastic holder with specialized 3M adhesive - Red and green LEDs for commissioning and diagnostics
Data	- Energy index and power load curve every 10, 15 or 60 minutes (remotely adjustable) - Default configuration: index increment every 15 minutes, data sent every 4 hours
Power supply	- Two replaceable A-size batteries: 3.6V Lithium-Thionyl Chloride (Li-SoCl$_2$)
Size & Weight	- Optical reader: 18 g (with cable), 34 mm (height), 46 mm (width), 15 mm (depth) - Cable length: 50 cm - Radio box: 130 g, 95 mm (height), 75 mm (width), 30 mm (depth)

FM442g-n

Reference

FM442g-n_ap_15mn	IoT Sensor for Gas Consumption Monitoring - data 15mn

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