

# FM442g-n

Plug & Play IoT Sensor for  
Gas Consumption Monitoring



# FM442g-n

## Plug & Play IoT Sensor for Gas Consumption Monitoring

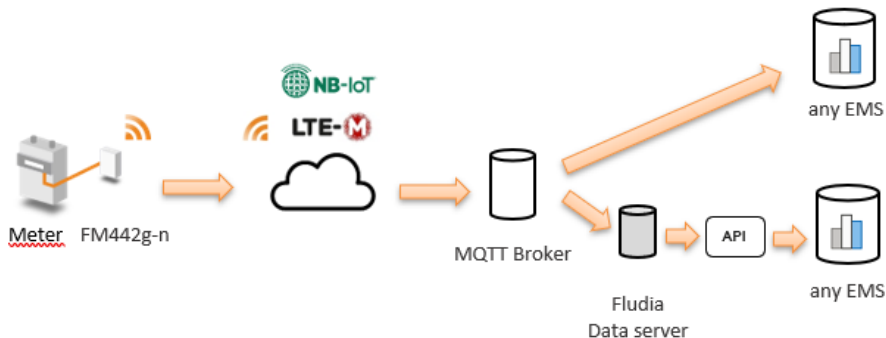


The **FM442g-n** is a plug-and-play IoT sensor designed for monitoring gas consumption in all types of buildings. The optical head can be quickly attached to the main gas meter, and the NB-IoT/LTE-M modem connects through standard cellular networks. Measurement data is transmitted to an MQTT broker and 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	<div><div>- Optical reading of one of the digits of the mechanical display</div><div>- Detection of digit rotation</div></div>
Output	<div><div>- NB-IoT and LTE-M supported</div><div>- MQTTs protocol</div></div>
Operational	<div><div>- Optical head mounted on a plastic holder with specialized 3M adhesive</div><div>- Red and green LEDs for commissioning and diagnostics</div></div>
Data	<div><div>- Energy index and power load curve every 10, 15 or 60 minutes (remotely adjustable)</div><div>- Default configuration: index increment every 15 minutes, data sent every 4 hours</div></div>
Power supply	<div><div>- Two replaceable A-size batteries: 3.6V Lithium-Thionyl Chloride (Li-SoCl<sub>2</sub>)</div></div>
Size & Weight	<div><div>- Optical reader: 18 g (with cable), 34 mm (height), 46 mm (width), 15 mm (depth)</div><div>- Cable length: 50 cm</div><div>- Radio box: 130 g, 95 mm (height), 75 mm (width), 30 mm (depth)</div></div>

## FM442g-n



### Reference

FM442g-n\_ap\_15mn

IoT Sensor for Gas Consumption Monitoring - data 15mn

#### Contact:

Fludia - 37 avenue Edouard Vaillant - 92150 Suresnes - France  
Phone: +33 (0)1 83 64 13 90 - Email: [contact@fludia.com](mailto:contact@fludia.com) - [www.fludia.com](http://www.fludia.com)