

# *BelSenso* FM432e

LoRa Electricity Tracker



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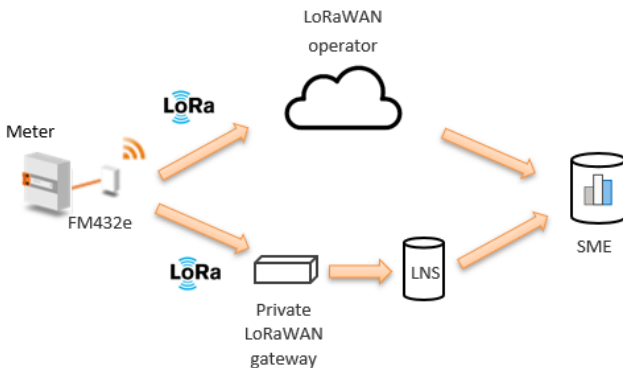
**BelSenso FM432e** is a universal device that provides Automatic Reading features to all types of electricity meters. The interoperability with the IoT LoRaWAN networks, dedicated to Connected Objects, allows to be quickly informed of the level of electricity consumption. The ideal device to deploy energy efficiency services for Small and Medium Buildings.

### Benefits

- ⇒ **Universal:** compliant with all meters (electronic, disk, smart)
- ⇒ **Plug & Play:** self installation (< 5mn)
- ⇒ **Precision:** monitoring consumption every 1mn, 10mn, 15mn, 1h
- ⇒ **Autonomy:** up to 8 years with battery
- ⇒ **Cost-effective:** competitive IoT Network subscription



### Operational



## Implementations

- ⇒ **Energy Efficiency of medium buildings:** analysis of consumption (1mn, 10mn, 15mn)
- ⇒ **Budget Energy control of small buildings:** supervision of consumption (1h)
- ⇒ **Solar Installations:** supervision of production (10mn, 15mn, 1h)
- ⇒ **Street Lighting:** optimisation of operational costs (1h)

## General and technical features

	BelSenso FM432e	
Input	Compliant with all types of electricity meters	
	Optical reading of electromechanical meters (Detection of disk rotations) Maximum speed 5 rev/sec (disk)	Optical reading of electronical meters (Detection of LED flashes) Maximum speed 10 flashes/sec (LED)
Output	LPWAN 868 Mhz Network - LoRaWan 1.0 Internal antenna (PCB) - RF Power 14 dbm (25mw)	
Operational	Fixing with adhesive pads (3M) Selection of the « type of meter » by switch Red and Green LEDs for commissionning    T°: -15°C to +45°C	
Data	Load curve measurement: 1mn, 10mn, 15mn, 1h Transmission 5 to 35 messages/day (*) Data delivery (csv/json format) using FTP or API request or Softplug (.exe)	
Power supply	Internal battery 3.6V	
Size & Weight	<b>Optical reader</b> weight: 19gr (with cable) height: 24mm width: 40mm (without cable) depth: 19mm	<b>Radio Box</b> weight: 130gr height: 95mm width: 75mm depth: 30mm

## FM432e



### References

<b>FM432e_1mn</b>	LoRa Electricity Tracker - data 1mn (**)
<b>FM432e_10mn</b>	LoRa Electricity Tracker - data 10mn (**)
<b>FM432e_15mn</b>	LoRa Electricity Tracker - data 15mn (**)
<b>FM432e_1h</b>	LoRa Electricity Tracker - data 1h (**)

(\*) Based on the complete network availability and depending on the version (1h, 1mn)

(\*\*) The radio box includes 2 Lithium size A batteries

*Battery life 8 years with hourly data for electronic meter*

*Battery life 5 years with hourly data for electromechanical meter*

#### To contact us:

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