



ELSACO

# LoRa, NB-IoT, Sigfox solutions for Smart Metering and Industrial IoT

## Elsaco Solutions' main LPWAN products

*Elsaco has been implementing solutions for monitoring meters for more than 25 years. We offer smart metering solutions for water, gas, electricity, heat, steam, and air compressor meters.*

*We are focusing on wireless monitoring solutions, especially LoRaWAN, NB-IoT, and Sigfox.*

*For LoRaWAN, we are providing turnkey solutions, including: LoRaWAN modules, gateways, servers.*



Modbus/M-Bus  
to LoRaWAN  
converter



Modbus/M-Bus to  
LoRa converter  
(point-to-point data link)



Customized LoRaWAN  
modules for any type of  
gas or water meter with  
pulse output capability

## GET IN TOUCH

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Innovative solutions based on our experience and the needs of our partners.  
Solutions for: utilities/smart metering, cyber security, IT&C.





# NB-IoT LoRa, LoRaWAN Sigfox



## **LoRaWAN/NB-IoT Solutions for Gas and Water Distributors for Their Residential Customers**

Using the LoRaWAN/NB-IoT technological advantage to penetrate dense urban areas and/or deep indoor environments with minimal energy requirements, it is now possible to remotely read residential gas and water meters. This is a big step ahead in residential smart metering for gas and water, as distributors can now have readings from meters as often as once per hour, for the duration of the battery lifetime (5-7 years). In addition to the obvious advantage of having real-time information about their distribution networks, distributors will now be able to increase the accuracy, timeliness, and prediction of their customers' invoices. Also, their customers will benefit from this cloud (or private cloud) technology used by LPWAN by being able to access real-time information about their water and gas consumption right from their smartphones, being able to also receive alarms if something goes wrong, allowing for a faster reaction time to emergencies.



## **LoRaWAN, LoRa Solutions for Industrial Customers (Industrial IoT)**

The Elsaco LoRaWAN and LoRa solutions are perfect for monitoring non-critical indoor and outdoor industrial utilities: water, gas, electricity, heat, steam, compressed air, fuel, H<sub>2</sub>, N, etc. By using our solutions, industrial customers can have the real-time energy balance for their entire company, or just for the most important sectors of their activity. Our LoRa converters replace classical wires for Modbus or M-Bus transmitters for industrial customers. This way, it is possible to perform remote readings of instruments with Modbus or M-Bus output, without wires, regardless if those instruments are located outside or inside industrial buildings.

## LoRa, LoRaWAN, NB-IoT, Sigfox Solutions

### **LoRaWAN, LoRa Solutions for Supermarket Chains, Malls, and Shopping Centers**

The Elsaco LoRaWAN and LoRa solutions are suitable for monitoring utilities for supermarket chains, malls, and shopping centers. Because their customers are located in huge buildings with additional large parking lots, they require solutions to easily and efficiently remotely read utility meters and other additional instruments (temperature, humidity, lighting, free parking spaces, etc.). Our LoRaWAN and LoRa solutions allow our customers to easily allocate/relocate utilities according to their needs.

### **LoRaWAN, LoRa, and NB-IoT Solutions for Real-Time Cold Chain Temperature Monitoring**

Elsaco has developed LoRaWAN/LoRa and NB-IoT solutions for real-time cold chain monitoring. Our solutions can be used for fresh agricultural products, seafood, frozen food, chemicals, and pharmaceutical drugs.

### **LoRaWAN, LoRa, NB-IoT, and Sigfox Solutions for Other Applications:**

- smart agriculture: smart irrigation, soil moisture monitoring, cattle tracking;
- smart cities: software for smart water leakage detection, smart street lighting, smart bus schedule signs;
- smart environments: smart flood sensors, air pollution monitoring;
- smart supply chain & logistics: fleet tracking, asset tracking.

### **Custom LoRaWAN Solutions**

We supply customized LoRaWAN modules for all meters with Pulse or Modbus capability (min. order quantity: 10k pcs./customized module).