

- Instruction manual -



Fuel it 

Introduction

Thank you for choosing **Fuel it**. This revolutionary sensor allows you to monitor **the level of fuel in your tank in real time** on the terminal of your choice: smartphone, computer, tablet, **box** or home automation.

The sensor uses **ultrasonic technology** to measure the distance between the transmitter placed on top of the tank and the surface of the liquid in your tank. As the amount of fuel decreases, the measured distance increases accordingly. The distance measurement is then transmitted via the Object Internet network to a remote server.

An algorithm then translates this distance into volume. To do so, you must provide us with the dimensions of your tank when you first connect it to the Fuel it dashboard (<https://dashboard.fuel-it.io>).

Technical Specifications

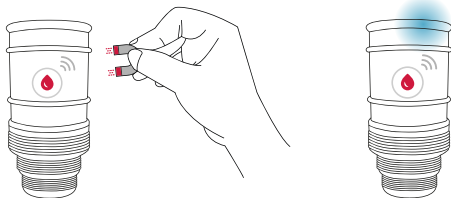
Portée du capteur

Minimale distance : 35 cm

Maximale distance : 3 m



Initialization

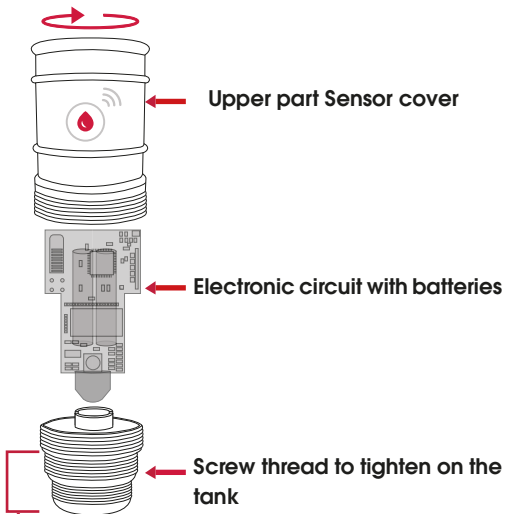


Blue LED lights up for a few seconds indicating that the sensor is switched on.

Type	Value
Dimension	Height: 120 mm Diameter: 60 mm
Diffusion angle	<30°
Screw thread	3 diameters <ul style="list-style-type: none"> • 1 inch 1/4 • 1 inch 1/2 • 2 inches
Mesure	Ultrasound Max distance: 3 meters Min Distance : 35 centimeters
Connexion	Sigfox / LoRa network ISM band: 868 Mz (CSS/BPSK)
Battery	2 Batteries 1.5V AAA LR03 Interchangeable alkalines To change the batteries, please loosen the upper part of the cover and remove the batteries from the battery compartment on the back of the circuit board.
Battery life	Between 3 & 5 years (May vary depending on exposure temperature)
Protection	ATEX request IP67
Conditions of use	Between -10°C and 60°C Between 0 & 95% humidity
Fabrication	Made in France
Certifications	CE
Measurement / day	The sensor takes one reading per day.

Port size required for transmitter installation

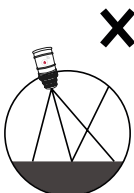
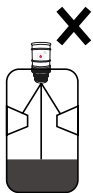
60 mm diameter



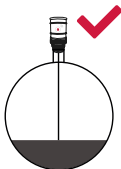
* Fixed part to be held during unscrewing

Installation advice

So that the sensor measurements are reliable and usable. Here are several recommendations regarding its installation.



The sensor must be installed vertically to the fuel oil, without obstacles to hinder the signal transmission.



Chimneys and offsets are tolerated.

Notes

Keep this product manual and installation guide. They contain practical instructions, technical features and safety warnings that you should be aware of.

The technical data of the Fuel It sensor, the contents and illustrations in this manual are subject to change without notice.

When used as recommended, the Fuel It sensor monitors the fuel level in the tank and transmits the collected data to a remote server. The Fuel It sensor should not be used as a certified gauge for weight and measurement verification purposes.

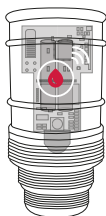
When filling your tank with oil, the Fuel It transmitter cannot measure reliably due to turbulence on the oil surface. During these periods, the Fuel It sensor may rise false values.

Not suitable for pressure vessels, can only be used with vessels equipped with external ventilation.

Temperature variations may cause the contraction or expansion of the tank as well as the liquid. This changes the tank capacity and the actual volume, which affects the reliability of the remaining calculated volumes.

The owner of the sensor must take into account that the actual quantity of fuel after the first filling does not correspond to the quantity displayed on the application.

The Fuel it sensor incorporates a tolerance margin of 8 cm of unusable fuel at the bottom of the tank. This margin corresponds to the location of the upper or lower pour point in the case of a top drain (this parameter is adjustable on your user account).



Product Maintenance and General Safety

To ensure that you use the device correctly and safely, please read the warnings, safety precautions and notes below regarding the use and maintenance of your Fuel it sensor.

- - **Do not use this product** in areas where the use of **radiofrequency** products may **cause malfunctions** in control devices used by other equipment, such as hospitals, airplanes, etc.
- **Do not subject the product to excessive force**, impact, dust, extreme temperatures or humidity.
- **Keep product away from heat sources**, such as heaters, ovens, boilers, etc.

- Do not use the Fuel it sensor in or near water or in very humid areas, such as bathrooms.
- Do not disassemble or modify the internal components of the Fuel it sensor. This will cancel the warranty.
- Do not attempt to repair the product yourself. Contact our technical service (contact details available on fuel-it.io)
- Do not throw away used batteries in unsuitable municipal containers; throw away them in accordance with local waste disposal regulations.
- When disposing of this product, dispose of in accordance with local waste disposal regulations.
- Do not replace batteries in a potentially explosive atmosphere.

