



Instruction manual

LA BUVETTE®

The Specialist in Livestock Drinking Solutions



Introduction

Thank you for choosing **Blue level**. This revolutionary sensor allows you to monitor **the level of water 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 water decreases, the measured distance increases accordingly. The distance measurement is then transmitted via the Object Internet network to a remote server.

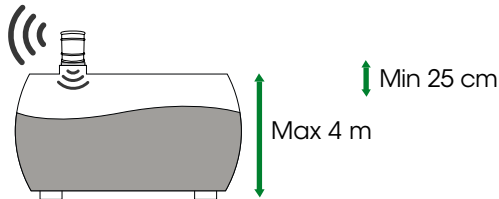
An algorithm then translates this distance into volume. To do so, you must provide us with the dimensions of your tank when you first connect it to the Blue level dashboard (<https://bluelevel.dashboard-labuvette.io>)

Technical Specifications

Sensor range

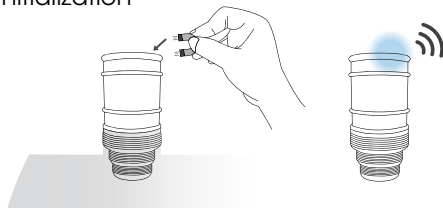
Minimale distance: 25 cm

Maximale distance: 4 m



Beyond those limits, the sensor will send «too close» or «too far» message.

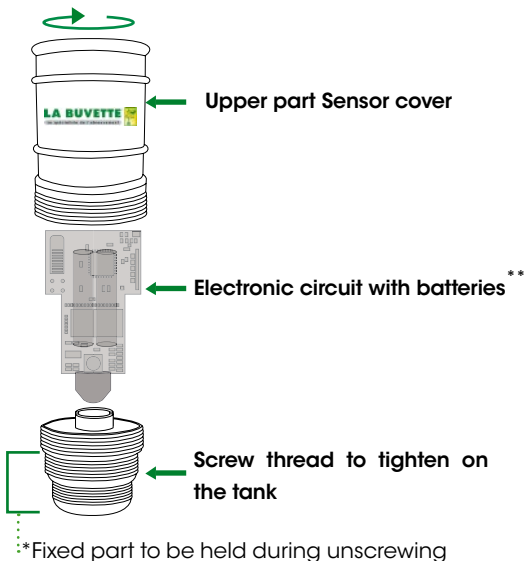
Initialization



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°
Compatible liquids	Water, fuel, lubricant, Adblue, red diesel...
Screw thread	3 diameters <ul style="list-style-type: none"> • 1 inch 1/4 • 1 inch 1/2 • 2 inches
Mesure	Ultrasound +/- 40 kHz Max distance: 4 m
Connection	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 not for long immersion
Conditions of use	Between -10°C and 60°C Between 0 & 95% humidity
Fabrication	Made in France
Certifications	CE
Measurement / day	The sensor takes 1 to 4 reading per day according to your settings.

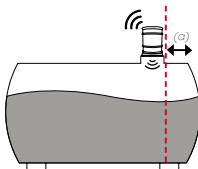
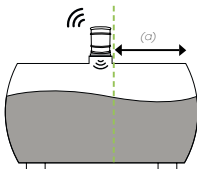
How to unscrew your sensor



**The electronic card must never get contact with metallic or humid parts.

Installation advice

Sensor position atop the tank



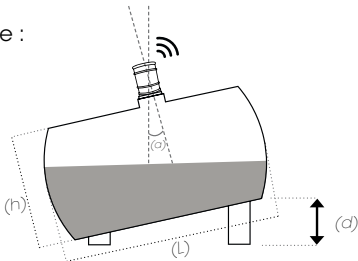
Minimale distance: **20 cm** (a) from the tank wall.

Sensor vertical inclination

The angle of inclination between the measured liquid and the diffusion cone of the sensor must not exceed:

Tank height (h)	2m	3m
Max angle of inclination (α)	7°	2°
Maximal slope (d) for a (L) 2m long tank	24cm	7cm
Maximal slope (d) for a (L) 3m long tank	36cm	10cm

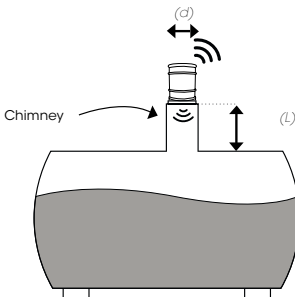
Example :



Chimney

Chimney walls must be smooth.

Diameter (d) in mm	35	45	55
Maximum authorized lengths (L) in mm	150	300	500



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 Blue level sensor, the contents and illustrations in this manual are subject to change without notice.

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

The Blue level sensor is not a certified tool to check measures and weights.

When filling your tank, the Blue level transmitter cannot measure reliably due to turbulence on the surface. During these periods, the Blue level 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 electronic card must never get contact with metallic or humid parts.

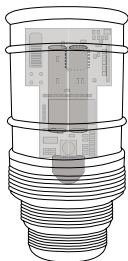


Product Maintenance and General Safety

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 Blue level 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 immerse the Blue Level sensor. Do not allow permanent contact with water.
- Do not disassemble or modify the internal components of the Blue level sensor. This will cancel the warranty.
- Do not attempt to repair the product yourself. Contact our technical service available on your dashboard:
<https://bluelevel.dashboard-labuvette.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.



<https://bluelevel.dashboard-labuvette.io>

