

# AquaCheck

**Wireless Ultrasonic Level  
Sensor.**



**Battery operated wireless LoRaWAN® ultrasonic level  
sensor to liquid level.**

## Product Overview

**AquaCheck** is a wireless battery-operated ultrasonic level sensor designed to measure the distance from the sensor to the surface of the liquid.

This intelligent device uses an ultrasonic sensor to measure the air height to the liquid surface and promptly transmits alarm notifications to the designated application via LoRaWAN® wireless communication protocol.

This enables users to remotely monitor the level status information.

## Product Features



Easy Installation and  
configuration



Wireless data transmission  
through LoRaWAN®  
protocol



Secure operation  
with top-down  
encryption



Remote Monitoring



Lower Power  
Consumption and  
Battery Operated



Integration with  
Building Management  
System through  
protocol converters

## Communication Technology

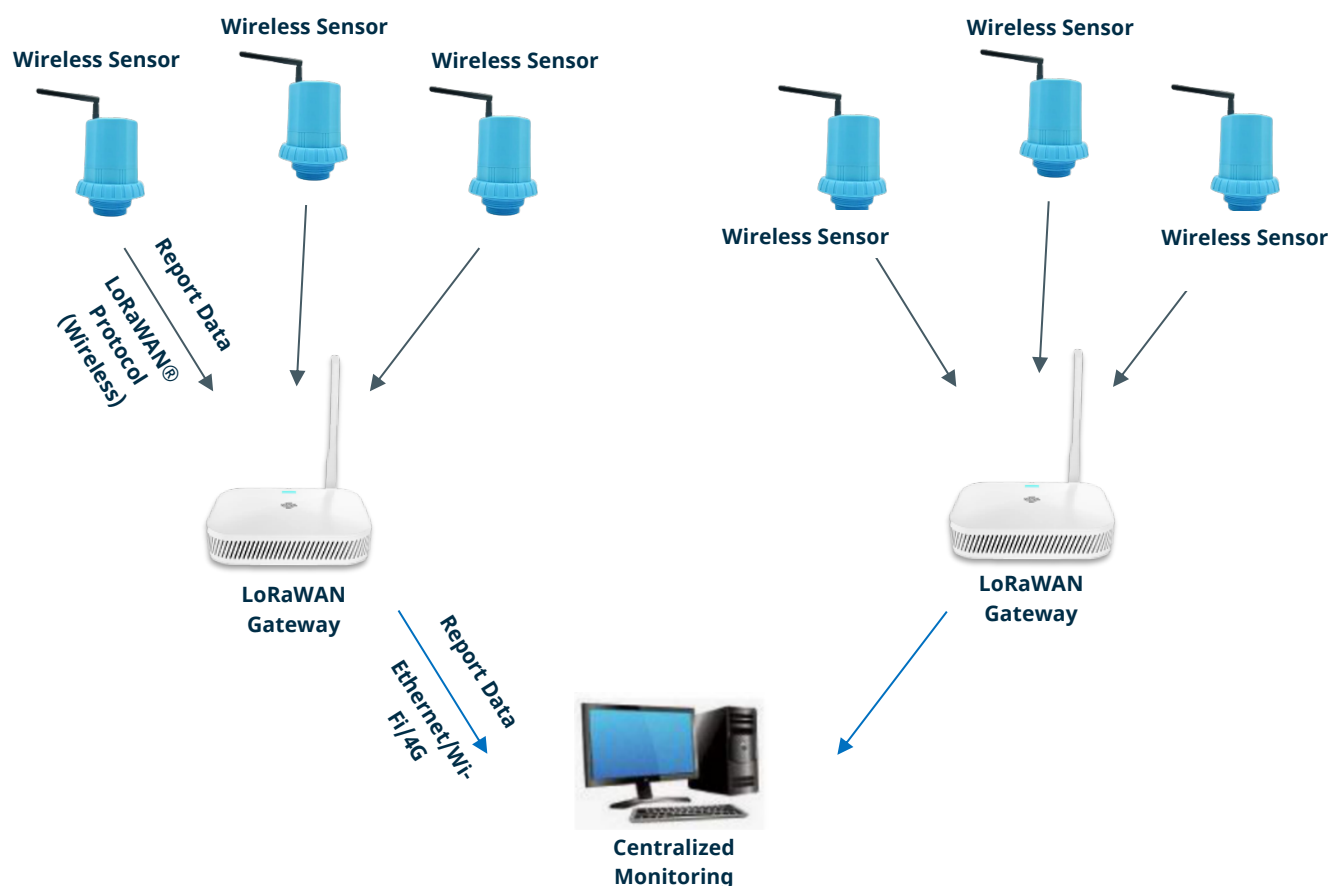
The **AquaCheck** battery-operated ultrasonic level sensor leverages advanced LoRaWAN® technology, ensuring low power consumption and long-range signal propagation for real-time control and monitoring.

Our smart gateway collects near real-time data from all wireless sensors within range, converts it into an easy-to-use JSON format, and publishes it via the MQTT protocol.

Data can be transmitted to any local or cloud MQTT broker through Ethernet, LTE (4G), or WIFI.



Integration to Building Management System (BMS) can be achieved using an external MQTT to BACnet converter.



## Specifications

General	
Operating temperature	-20 °C to +70 °C
Storage temperature	-40 °C to +85 °C
Power	Battery Powered or External Power Supply
Battery Type *	Non-Rechargeable ER26500 3.6V Lithium Battery, 8500 mAh@3.6V
Battery Life*	3 Years (Upload 4 times per day)
IP Class	IP67
Dimension	122.5*95mm
Weight	500g
Housing Material	ABS

<b>Housing Color</b>	Blue
<b>Principle</b>	Ultrasonic
<b>Range</b>	5m
<b>Wireless Communication</b>	
<b>Technology</b>	LoRaWAN®
<b>Frequency</b>	EU868 (868 Mhz) license free
<b>Transmit Range</b>	500m inside Building, 2KM Open Air
<b>Security</b>	128 AES Encryption
<b>Antenna</b>	External
<b>Data Transfer Rate</b>	0.3Kbps– 50Kbps
<b>Data Format</b>	JSON
<b>Device Class</b>	Class A
<b>Activation Method</b>	OTTA (Over-The-Air-Activation)
<b>Certifications</b>	
<b>Regulatory</b>	CE
<b>Environmental</b>	RoHS