

# AquaCheck Radar

**Wireless Radar Level Sensor.**



**Battery operated wireless radar sensor for liquid/solid level measurement.**

## Product Overview

**AquaCheck Radar** is a wireless battery-operated radar sensor designed to measure the distance from the sensor to the surface of the liquid/solid.

This intelligent device uses radar technology for higher accuracy and precision in challenging level measurement applications as is less affected by temperature, pressure, humidity, and dust. It can penetrate through vapors, foam, and other obstructions, providing reliable measurements in complex scenarios.

The sensors measure the air height to the liquid surface and promptly transmit 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® and NB-IoT**



**Secure operation with top-down encryption**



**Higher accuracy and Precision compared to Ultrasonic sensors**



**Radar Technology for Level measurement**



**High Penetration capability**



**Remote Monitoring**



**Lower Power Consumption and Battery Operated**



**Integration with Building Management System through protocol converters**



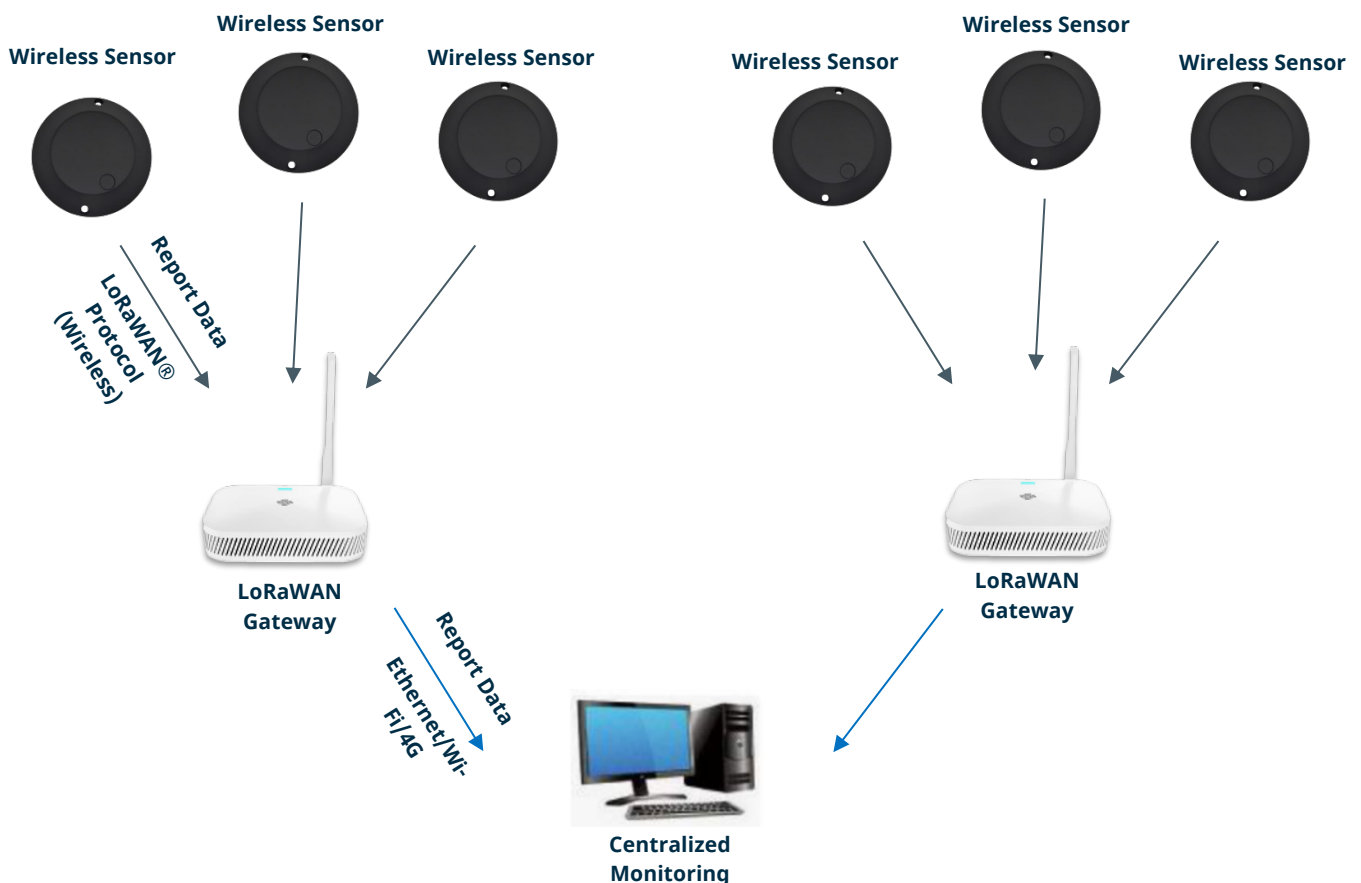
## Communication Technology

The **AquaCheck Radar** battery-operated radar 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	-30 °C to +85 °C
Power	Battery Powered
Battery Type	Non-rechargeable Lithium thionyl chloride battery, ER18505*4, 16000mAh@ 3.6V.
Battery Life	5 Years (Upload 4 times per day)
IP Class	IP68
Dimension	183*183*38mm
Weight	900g
Housing Material	ABS+PC
Housing Color	Black
Principle	Radar
Measuring Range	4m
Accuracy	±0.1m
Wireless Communication	
Technology	LoRaWAN®
Frequency	EU868 (868 Mhz) license free
Transmit Range	500m inside Building, 2KM Open Air
Security	128 AES Encryption
Antenna	External
Data Transfer Rate	0.3Kbps- 50Kbps
Data Format	JSON
Device Class	Class A
Activation Method	OTTA (Over-The-Air-Activation)
Certifications	
Regulatory	CE
Environmental	RoHS

