Biz Intellia
An end-to-end IoT Solution

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Intellia Ultrasonic Level Sensor

Intellia ultrasonic level sensor is designed for objects distance or level detection in harsh environments and transmitting data using LoRaWAN® technology. With this low power consumption technology, sensor can work up to 10 years with 19000 mAh battery. Combining with LoRaWAN® gateway and IoT platform, users can manage all sensor data remotely and visually.

Intellia ultrasonic sensor is widely used for outdoor applications like flood monitoring, granary level monitoring, level monitoring, etc.

◆ Features

- Object distance or level detection without touch
- Ultra-wide-distance transmission up to line of sight of 1 km
- IP66 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers

◆ Applications

- Water level monitoring
- Flood monitoring
- Level/depth monitoring in tanks
- Snow level monitoring
- Smart agriculture: fill level monitoring in grain, fertilizer or pellets silos

Specifications

Wireless Transmission	
Technology	LoRaWAN®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Range	0.3 - 5m/0.5-10m (Ordinary/Snow detection Version)
Accuracy	±1% FS
Resolution	1 mm
Operation	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP(via NFC) or PC software(via USB Type-C)
Physical Characteristics	
Power Supply	19000 mAh Li-SOCL$_2$ battery (ER34615)
Battery Life*	5.5 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-30°C to +65°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP66
Dimension	156.1 × 71 × 69.5 mm (6.1 × 2.8 × 2.7 in)
Installation	Pole, wall or DIN Rail Mounting
Approvals	
Regulatory	CE, FCC, LoRaWAN® Certified
EMC	EN 55032, EN 55035
EMS	IEC 61000-4-2 Level 3, IEC 61000-4-3 Level 2, IEC 61000-4-8 Level 4
Radio Frequency	FCC Part 15B, FCC Part 15.247, EN 300 330, EN 301 489-1/3, EN 300 220-1/2
Safety	EN62368-1