URSALINK

LoRaWAN®

EM500-UDL
Ultrasonic Distance/Level Sensor

▶ Introduction

EM500-UDL ultrasonic level sensor is a long range wireless sensor compatible with standard LoRaWAN protocol. Combining with the advanced LoRa technology and 19000mAh battery make it a low power consumption product with years-long use life. It can measure the distance to a wide range of objects by using ultrasonic sound waves and provides highly accurate continuous level measurement of most liquid material.

▶ Features

- Up to 11km communication range
- Standard LoRaWAN protocol
- Easy Configuration via NFC
- Ursalink Cloud and third-party platform compliant
- Low power consumption with 19000 mAh replaceable battery
- 1-Year Warranty Included

▶ Applications

- ✓ Water level monitoring in running water
- ✓ Flood monitoring
- ✓ Waste water management, sewer system monitoring
- ✓ Level/depth monitoring in water tanks
- ✓ Smart agriculture: fill level monitoring in grain, fertilizer or pellets silos
- ✓ Snow level monitoring

▶ Specifications

LoRaWAN	
Frequency	EU433/CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Antenna	Integrated ceramic antenna
Distance Measurement	
Range	0.3-5m/0.5-10m (Customizable for snow level detection)
Resolution	1 mm
Accuracy	±1%
Physical Characteristics	
Power Supply	19000 mAh Li-SOCL$_2$ battery
Battery Life	6 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-30°C to +65°C
Ingress Protection	IP66 (IP67 as required)
Dimension	156.1 × 71 × 69.5 mm

Mounting	Pole, wall, DIN Rail
Operation	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP or PC software via NFC or USB Type-C

▶ Order Information

Model	Measuring Range
EM500-UDL-W050	0.3-5m
EM500-UDL-W100	0.5-10m

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