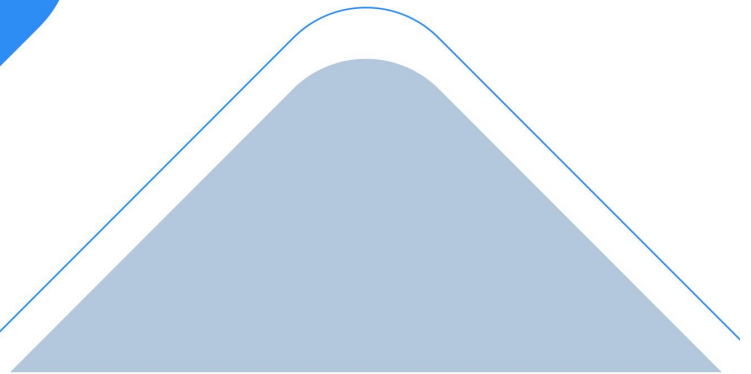


# EM500-UDL

Ultrasonic Distance Sensor



EM500-UDL is designed for objects distance or level detection in harsh environments and transmitting data using LoRaWAN® technology. With this low power consumption technology, EM500-UDL can work up to 10 years with 19000 mAh battery. Combining with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data remotely and visually.

EM500-UDL is widely used for outdoor applications like flood monitoring, granary level monitoring, etc.

## ◆ Features

- Object distance or level detection without touch
- Ultra-wide-distance transmission up to line of sight of 10km
- 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
- Quick and easy management with Milesight IoT Cloud solution

## ◆ 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

<b>Wireless Transmission</b>	
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
<b>Measurement</b>	
Range	0.3 - 5m/0.5-10m (Ordinary/Snow detection Version)
Accuracy	±1% FS
Resolution	1 mm
<b>Operation</b>	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP(via NFC) or PC software(via USB Type-C)
<b>Physical Characteristics</b>	
Power Supply	19000 mAh Li-SOCL <sub>2</sub> 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
<b>Approvals</b>	
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

\* Tested under laboratory conditions and for guideline purposes only.

Xiamen Milesight IoT Co., Ltd.

4/F, No.63-2 Wanghai Road, 2<sup>nd</sup> Software Park Xiamen 361008, China

Phone: +86-0592-5085280 Website: [www.milesight-iot.com](http://www.milesight-iot.com)

Fax: +86-0592-5023065

Email: [iot.sales@milesight.com](mailto:iot.sales@milesight.com)

