## Ultrasonic Distance

# Sensor Featuring LoRaWAN® EM500-UDL



EM500-UDL is designed for objects distance or level detection in harsh environments and transmitting data using LoRaWAN<sup>®</sup> technology. With this low power consumption technology, EM500-UDL can work up to 10 years with 19000 mAh battery. Combining with Milesight LoRaWAN<sup>®</sup> 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
- > IP67 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- > Store historical records locally and support retransmission
- > Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN<sup>®</sup> gateways and network servers
- > Quick and easy management with Milesight IoT Cloud solution

#### Applications

Milesight

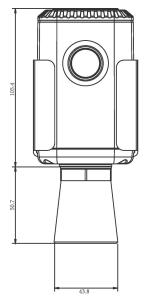
- Water level monitoring
- Flood monitoring
- Level/depth monitoring in tanks
- Manhole cover monitoring

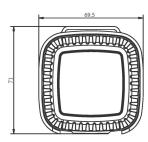
## Specifications

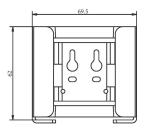
FrequencyCN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&&&Tx Power16dBm(868MHz)/20dBm(915MHz)/19dBm(470MHz)Sensitivity-137dBm @300bpsModeOTAA/ABP Class AMeasurementMappendixW100: 0.5 - 10 m, ±1% FS (050: 0.25 - 5 m, ± (1+0.3%*S) cm, S=distance (C100: 0.25 - 8 m, ± (1+0.3%*S) cm, S=distancePower On & OffNFC, Power Button (Internal)ConfigurationMobile App(via NFC) or PC software(via USB Type-C)Power On & OffNFC, Power Button (Internal)ConfigurationMobile App(via NFC) or PC software(via USB Type-C)Advanced FeatureData Storage, Data Retransmission, Data Retrievability, Threshold Alarm, Change Alarm, Milesight D2D ControllerPhysical CharacteristV050/W100: -30°C to +65°C (C050/C100: -15°C to +60°CPoperating TemperatureW050/W100: -30°C to +65°C (C050/C100: -15°C to +60°CRelative Humidity0%RH to 80%RH (non-condensing)Ingress ProtectionIF67Dimension156.1 × 71 × 69.5 mm (6.1 × 2.8 × 2.7 in)InstallationPole, wall or DIN Rail MountingApprovalsInterval pole	Wireless Transmission		
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Installation Pole, wall or DIN Rail Mounting Approvals	Ingress Protection	IP67	
Approvals	Dimension	156.1 × 71 × 69.5 mm (6.1 × 2.8 × 2.7 in)	
· ·	Installation	Pole, wall or DIN Rail Mounting	
Pagulatory OF ECC Palls ISED Talaa LaPaWAN® Cartified	Approvals		
Regulatory CL, FCC, ROHS, ISED, Telec, LORAWAR Certified	Regulatory	CE, FCC, RoHS, ISED, Telec, LoRaWAN <sup>®</sup> Certified	
EMC EN 55032, EN 55035	EMC	EN 55032, EN 55035	
EMS IEC 61000-4-2 Level 3, IEC 61000-4-3 Level 2, IEC 61000-4-8 Level 4	EMS	IEC 61000-4-2 Level 3, IEC 61000-4-3 Level 2, IEC 61000-4-8 Level 4	
FCC Part 15B, FCC Part 15.247, EN 300 330, EN 301 489-1/3,	Radio Frequency	FCC Part 15B, FCC Part 15.247, EN 300 330, EN 301 489-1/3,	
EN 300 220-1/2		EN 300 220-1/2	
Safety EN62368-1	Safety	EN62368-1	

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

### Dimensions(mm)







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