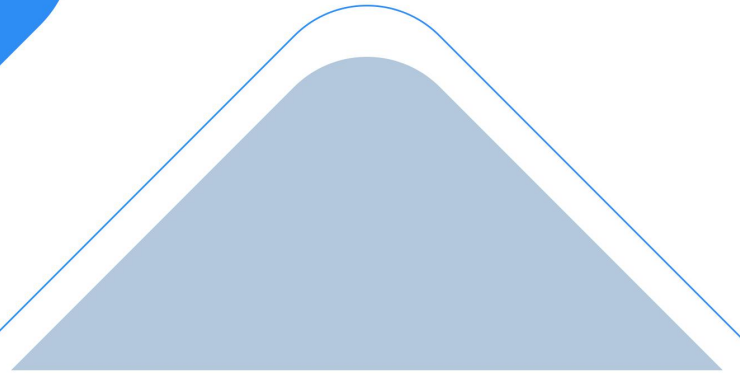


# Ultrasonic Distance Sensor

Featuring LoRaWAN®

## EM310-UDL



Milesight EM310-UDL is a LoRa ultrasonic distance sensor mainly for the detection of waste bin and other container's fill level. With a compact size and wide measure range, EM310-UDL can be installed to any types of waste bins or containers to monitor solid or liquid level. Besides, EM310-UDL equips with 3-axis accelerometer to detect the status of container cover. Compliant with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can know the container status and fill-in level in real-time via browser or mobile App remotely.

EM310-UDL can be widely used in waste management, water tank monitoring, manhole cover monitoring, etc.

## ◆ Features

- 3-450 cm wide measuring range with short blind zone
- Easy to install, suitable for various types of waste bins or containers
- Built-in 3-axis accelerometer sensor to monitor device tilt status
- IP67 waterproof and salt pray resistant enclosure for outdoor applications and easy to clean
- Ultra-wide-distance wireless transmission up to line of sight of 15 km
- Equipped with NFC for one touch configuration, support card emulation mode
- Function well with standard LoRaWAN® gateways and network servers
- Compliant with Milesight IoT Cloud

## ◆ Specifications

| Wireless Transmission    |  |
|--------------------------|--|
| Technology               | LoRaWAN®   |
| Frequency                | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923        |
| Tx Power                 | 16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)     |
| Sensitivity              | -137 dBm @300bps                                       |
| Mode                     | OTAA/ABP Class A                                       |
| Measurement              |  |
| Distance                 |  |
| Detection Range          | 3 - 450 cm   |
| Detection Accuracy       | ± (1+0.3%*S) cm, S=distance                            |
| Distance Resolution      | 1 mm   |
| Device Position          |  |
| Status                   | Normal/Tilt  |
| Operation                |  |
| Configuration            | NFC Configuration via Mobile App                       |
| Physical Characteristics |  |
| Power Supply             | 2 × 3500 mAh ER17505 Li-SOCl <sub>2</sub> battery      |
| Battery Life*            | Up to 10 years (10 min interval + 20 triggers per day) |
| Operating Temperature    | -15°C to +60°C   |
| Relative Humidity        | ≤90% (non-condensing)                                  |
| Ingress Protection       | IP67   |
| Dimension                | 111 × 62 × 40 mm (4.37 × 2.44 × 1.57 in)               |
| Weight                   | 168g   |
| Material & Color         | ABS, Black   |
| Installation             | On the flat surfaces with screws                       |

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

