

EM310-UDL



Ultrasonic Distance

Designed for Harsh Environments and Long Battery Life

EM310-UDL is a LoRa ultrasonic distance sensor with a 3-450 cm wide measuring range.

EM310-UDL can be applied in application such as:

- Parking occupancy detection in covered parking lots.
- Detecting fill levels of waste bins and containers.
- Flood levels in conjunction with sewers and manholes.

EM310-UDL includes a built-in 3-axis accelerometer to monitor device tilt status e.g., detecting the opening of manholes.

EM310-UDL provides up to 10-year battery life.

EM310-UDL is equipped with NFC for mobile app configuration (Android and iOS).

EM310-UDL is compliant with standard LoRaWAN[®] gateways and network servers.



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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

Range	3 - 450 cm
Accuracy	$\pm (1+0.3\%*S)$ cm, S=distance
Resolution	1 mm
Tilt status	Normal/Tilt



Gateway UG65



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Physical characteristics

Power supply	2 × 3500 mAh ER17505 Li-SOCl2 battery
Battery life	10 years (10 min interval + 20 triggers per day) For guideline purposes only!
Operating temp.	-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)
Installation	On flat surfaces by screws
Weight	168g
Material	ABS, black. Salt pray resistant enclosure for outdoor application

Dimensions in millimeters (mm)

