

# EM500 series

## Environment Monitoring Sensors



### ► Introduction

EM500-SWL 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 is designed to provide convenience of direct submergence in liquids for up to 200m reliable level measurement.

## ► Features

- Wide range of up to 200m
- 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

## ► Applications

- ✓ Water tank level monitoring
- ✓ Water resource level monitoring
- ✓ ISO tank level monitoring
- ✓ Waste water tank level monitoring
- ✓ Oil storage tank level monitoring

## ► Specifications

LoRaWAN	
Frequency	EU433/CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	20dBm
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Antenna	Integrated ceramic antenna
Pressure Measurement	
Pressure Type	Absolute Pressure
Range	EM500-SWL-L003: 3m (H <sub>2</sub> O) EM500-SWL-L005: 5m (H <sub>2</sub> O) EM500-SWL-L010: 10m (H <sub>2</sub> O) (Customizable up to 200m and for other liquids)
Accuracy	±0.5% FS
Physical Characteristics	
Probe Length	At least 1-1.5m longer than measuring range
Power Supply	19000 mAh Li-SOCL <sub>2</sub> battery
Battery Life	4.5 years (10 min interval, SF12) >10 years (10 min interval, SF7)
Operating Temperature	-20°C to +70°C

Ingress Protection	IP66 (IP67 as required)
Dimension	105.4 × 71 × 69.5 mm (Waterproof connector and sensor are not included)
Mounting	Pole, wall, DIN rail
<b>Operation</b>	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP or PC software via NFC: Configuration and Firmware Upgrade

## ► Order Information

Model	Measuring Range
EM500-SWL-L003	3m (H <sub>2</sub> O)
EM500-SWL-L005	5m (H <sub>2</sub> O)
EM500-SWL-L010	10m (H <sub>2</sub> O)