Spot

Leak Detection Sensor

Featuring LoRaWAN®

EM300-SLD

EM300-SLD is a compact spot leakage detection sensor for detecting presence of water (or other conducting liquids) and transmitting alarm using LoRaWAN® technology. In addition to LoRaWAN® technology with low power consumption, it has a built-in high-capacity battery available for several years without replacement. Combining with Milesight LoRaWAN® gateway and Milesight Development Platform solution, users can manage all sensor data remotely.

EM300-SLD also integrates temperature and humidity sensors, which has a great use for applications such as pipe leakage monitoring, basement flooding, pump failure, etc.

◆ Features

- Detect the presence of liquids by a small water probe and based on the conductive principle
- Embedded with temperature and humidity sensors for environment monitoring
- Ultra-wide-distance transmission up to line of sight of 10km
- IP67 UV-resistant and waterproof enclosure for harsh environment applications
- Built-in 4000 mAh replaceable battery and works for several years without replacement
- Store locally historical records and support retransmission to prevent data loss
- Support Milesight D2D protocol to enable ultra-low latency and direct control without gateways
- Equipped with NFC for easily configuration

- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud and Milesight Development Platform

◆ Specifications

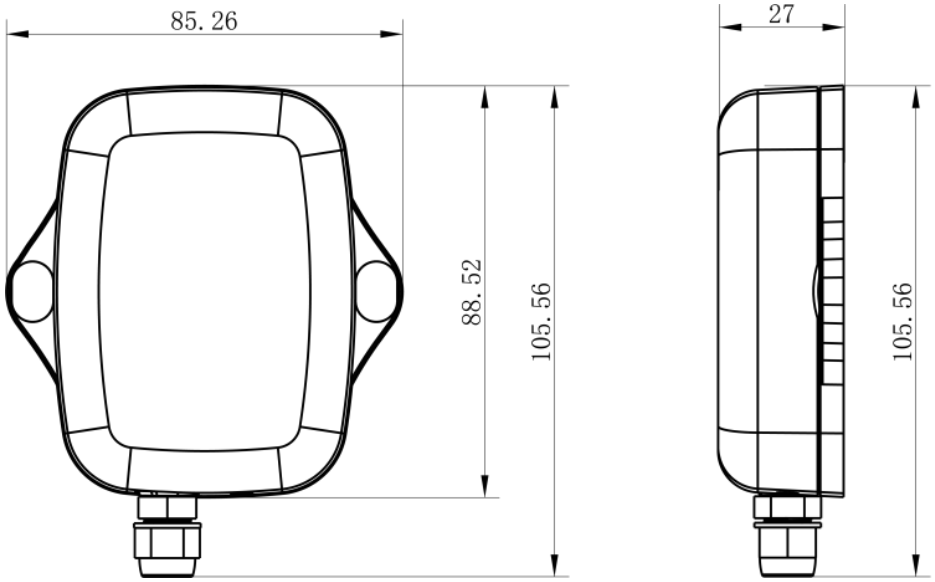
Wireless Transmission	
Technology	LoRaWAN®, Milesight D2D
Antenna	Internal Antenna
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Leakage Detection	
Liquid Type	Conducting liquid
Trigger Condition	When liquid level reaches 5mm
Cable Length	1.5m (Customizable)
Temperature	
Range	-30°C to + 70°C
Accuracy	0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C)
Resolution	0.1°C
Humidity	
Range	0% to 100% RH
Accuracy	10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)
Resolution	0.5% RH
Others	
LED	1 × LED Indicator (Internal)
Button	1 × Power/Reset Button (Internal)
Software	
Power On & Off	NFC, Power Button (Internal)
Configuration	NFC via Mobile App, Downlink
Advanced Feature	Threshold Alarm, Milesight D2D Controller, Data Storage (2, 800 entries), Data Retransmission, Data Retrievability
Physical Characteristics	
Power Supply	1 × 4000 mAh ER18505 Li-$SOCL_2$ Battery (8000 mAh Version Optional)

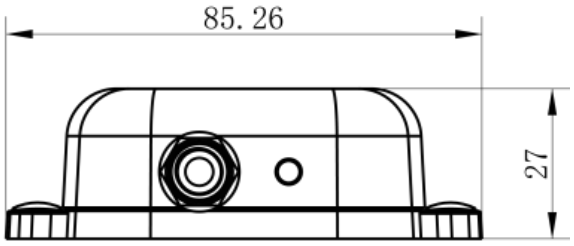
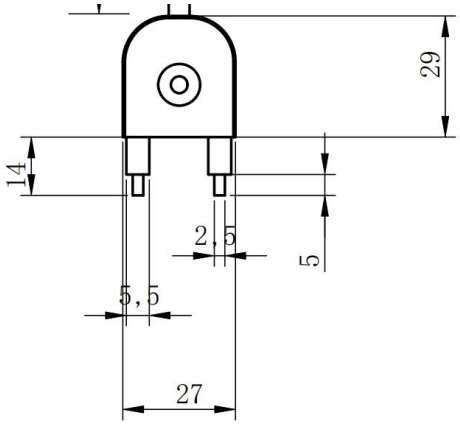
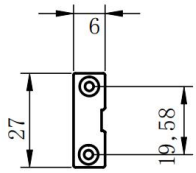
Battery Life* (10 min interval + 24 triggers per day)	Over 10 Years (SF7, EU868 & US915) Around 5.6 Years (SF10, EU868) Around 4.1 Years (SF10, US915)
Operating Temperature	-30°C to +70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP67
Housing& Color	Transceiver: ABS + PC (Flame Retardant), White Sensor Probe: Stainless Steel 316, White & Silver
Dimension	105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in)
Installation	Transceiver: Wall Screw Mounting, 3M Tape Mounting, Cable-Tie Mounting Sensor Probe: Wall Screw Mounting, 3M Tape Mounting
Approvals	
Regulatory	CE, FCC, ISED, RCM, Telec, ICASA
Environmental	RoHS

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions (mm)

Transceiver:





Sensor Probe: