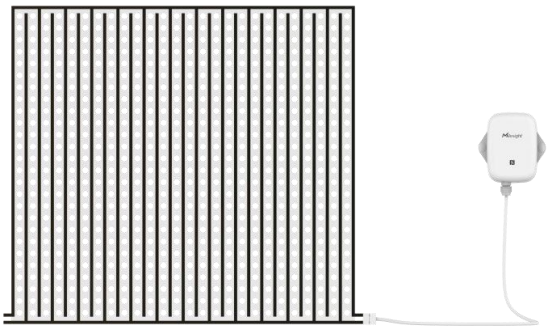
Membrane Leakage Detection Sensor

Featuring LoRaWAN®

EM300-MLD



The EM300-MLD is an innovative leak sensor that incorporates a flexible printed membrane. This design enables precise detection and customized coverage in a compact form factor, making it suitable for various applications. With a single embedded battery, EM300-MLD offers a long operational life of up to 10 years, extendable to two batteries if desired. Its high IP67 protection and durable construction ensure reliability and adaptability in harsh environments.

With easy configuration and wireless detection, the EM300-MLD facilitates simple deployment and connectivity. Compliant with Milesight LoRaWAN® gateway and Milesight Development Platform solution, users can monitor the leakage and receive alarms easily via webpage remotely.

EM300-MLD can be used in server rooms, warehouses, equipment cabinets, workshops, etc.

◆ Features

- Detect the presence of liquids by a flexible printed membrane for covering a larger area
- Equip with high-quality printed membrane that can be reused and customized
- Adopt green material with 100% reusability and cause no dangerous emissions
- IP67 waterproof and UV-resistant enclosure for harsh environment applications
- Built-in 4000 mAh replaceable battery and work up to 10 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 easy 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
Leakage Detection	
Liquid Type	Conductive Liquid (Water, Weak Acid, Weak Base, etc.)
Trigger Media	400 × 400 × 0.25 mm Printed Leakage-Detecting Film (The size can be customizable)
Trigger Condition	Soaking Liquid Length > 1.5 cm
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	Water Leakage Alarm, Milesight D2D Controller, Data Storage (1,000 entries), Data Retransmission, Data Retrievability
Physical Characteristics	
Cable Length	1000 mm (Customizable)
Power Supply	1 × 4000 mAh ER18505 Li-SOCL$_2$ Battery (8000 mAh Version Optional)
Battery Life* (One hour Leakage per Day, 25°C)	Around 10 Years (SF7, EU868 & US915) Around 5.3 Years (SF10, EU868) Around 3.9 Years (SF10, US915)
Operating Temperature	-30°C~70°C
Relative Humidity	0% to 95% (non-condensing)

Color & Material	White, ABS + PC (Flame Retardant)
Weight	142g (With 1 battery)
Ingress Protection	IP67
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 Leakage-Detecting Film: 3M Tape Mounting
Approvals	
Regulatory	CE, FCC, ISED

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions (mm)

