Magnet Switch Sensor

Featuring LoRaWAN®

EM300-MCS



EM300-MCS is a compact magnet switch sensor for detecting open/close status of objects (such as doors or windows) 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 and remotely.

EM300-MCS also integrates temperature and humidity sensors, which has a great use for applications such as home and office automation, factories monitoring, etc.

◆ Features

- High sensitivity with door and window security detection
- 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

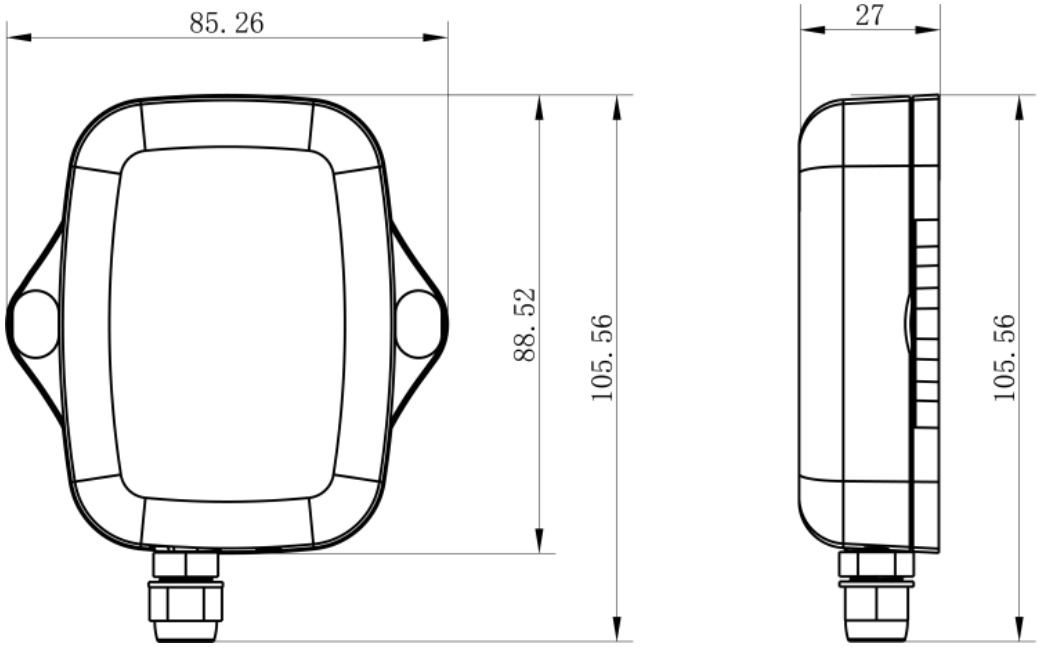
Wireless Transmission	
Technology	LoRaWAN®, Milesight D2D
Antenna	Internal Antenna
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class A
Measurement	
Door Magnet	
Detection Distance	20-30 mm
Cable Length	1.5 m
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 + 48 triggers	Over 10 Years (SF7, EU868 & US915) Around 4.5 Years (SF10, EU868)

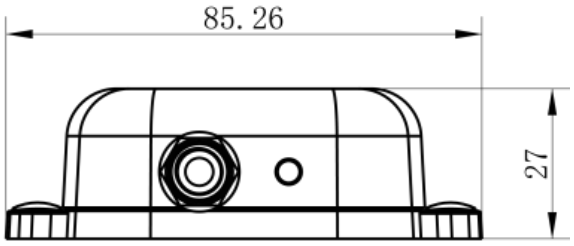
per day)	Around 3.2 Years (SF10, US915)
Operating Temperature	-30°C to +70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP67
Housing& Color	Transceiver: ABS + PC (Flame Retardant), White Magnet: Zinc Alloy, Silver Gray
Dimension	Transceiver: 105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in) Magnet: 31 × 14 × 7.5 mm (1.25 × 0.59 × 0.31 in)
Installation	Transceiver: Wall Screw Mounting, 3M Tape Mounting, Cable-Tie Mounting Magnet: 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:





Magnet:

