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. With this low power consumption technology, EM300-MCS can work up to 5 years with 4000 mAh battery. Combining with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data and remotely and visually and receive alarms via mobile App.

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 more than 5 years without replacement
- Store locally 3, 000 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 solution

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN®, Milesight D2D
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
Operation	
Power On & Off	NFC, Power Button (Internal)
Configuration	NFC Configuration via Mobile App
Advanced Feature	Milesight D2D Controller, Data Storage, Data Retransmission
Physical Characteristics	
Power Supply	1 × 4000 mAh ER18505 Li-SOCL$_2$ Battery (extendable to 2 batteries)
Battery Life*	10 years (10 min interval + 48 triggers per day)
Operating Temperature	-30°C to +70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP67
Dimension	Transceiver: 105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in) Magnet: 32 × 15 × 8 mm (1.25 × 0.59 × 0.31 in)

Installation	Wall Mounting
Approvals	
Regulatory	CE, FCC
Environmental	RoHS

* Tested under laboratory conditions and for guideline purposes only.