Wireless Reed Switch

Open / Close Detection Sensor

Wireless Sensor Network Based on LoRa Technology

R718F

Data Sheet

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Wireless Reed Switch Open / Close Detection Sensor

Introduction

The device is equipped with a reed sensor, which can be used to detect the status of the door and window. Through the built-in wireless module, it can achieve wireless alarm and other functions. It uses the SX1276 wireless communication module.

Main Characteristic

- Adopt SX1276 wireless communication module
- 2*3.6V ER14505 lithium batteries in parallel power supply (3.6V / section)
- IP Rating: Main part- IP65 / IP67 (Optional), sensor- IP67
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- Simple operation and setting
- Compatible with LoRaWAN^{TM} Class A
- Frequency hopping spread spectrum (FHSS)
- Configuration parameters can be configured through third-party software platforms, data can be read and alarms can be set via SMS text and email (optional)
- Applicable to the third-party platforms: Actility/ThingPark, TTN, MyDevices/Cayenne
- Low power consumption and long battery life

Note:

Battery life is determined by the sensor reporting frequency and other variables, please refer to http://www.netvox.com.tw/electric/electric_calc.html

On this website, users can find battery life of various models in different configurations.

Application

- Doors and windows
- Production line tracking
- Objects to be detected open/ close status

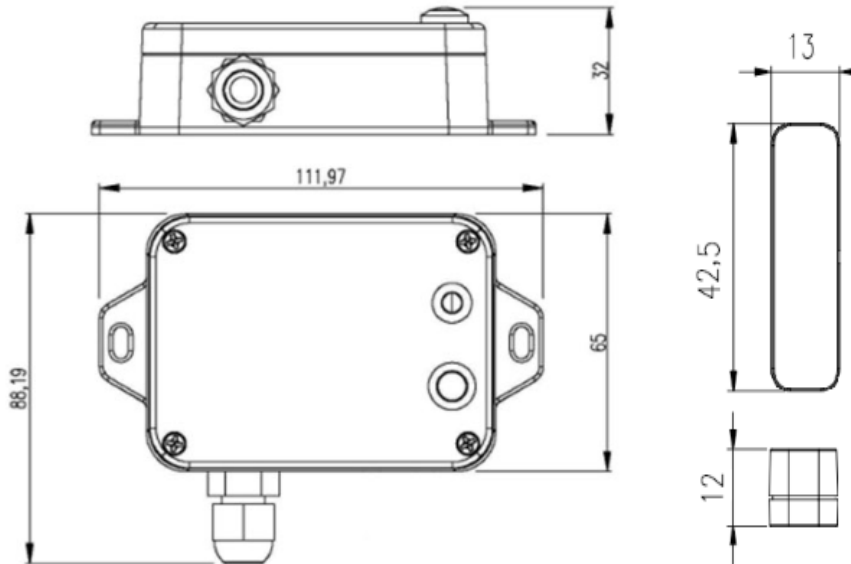**Wireless Reed Switch Open / Close Detection Sensor**

Dimension

Figure 2 Dimensions of main engine shell

Electric

Input Power	2 x 3.6V ER14505 AA size lithium batteries
Standby Current	20uA
Wakeup Current	6.3mA/ 3.3V
Transmitting Current (max)	120mA/ 3.3V
Receiving Current (max)	11mA / 3.3V
Battery Measurement Accuracy	± 0.1V
Low Voltage Threshold	3.2V

Reed Switch Sensor

Sensor Case Size	L:43mm*W:13mm*H:12mm
Sensor Characteristic	Inside the magnetic range, it is at on state (conducting). When out of the magnetic range, it is at off state (non-conducting). Sensing distance inside magnetic range is 2cm.
External Cable Length	1 meter

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Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	US915 20dbm; AS923 16dbm; AU915 20dbm; CN470 19.15dbm; EU868 16dbm; KR920 14dbm; IN865 20dbm;
Receiving Sensitivity	-136 dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps) -121 dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Build-in antenna
Communication Distance	10 km (Visible linear obstacle-free transmission distance, actual transmission distance depending on the environment.)
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation	LoRa / FSK (Note: choose one of them)
Supportable LoRaWAN Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923-1, AS923-2, AS923-3, IN865-867,CN470-510 (Note: The frequency band is optional and needs to be configured before shipment.)

Physical

Dimension	L: 112 mm x W: 65 mm x H: 32 mm
Weight	141g
Environment Humidity Range	<90 %RH (No condensation)
Operating Temperature	-20°C to 55 °C
Storage Temperature	-40°C to 85 °C