

Wireless 2-Gang Door/Window Sensor

Wireless Sensor Network Based on LoRa Technology



R311CC Data Sheet

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General Description

R311CC is equipped with two external reed switches, which can be used for door and window switch state detection. The built-in wireless module can realize wireless alarm and other functions, and is compatible with the LoRaWAN protocol.

It can be easily networked with other related devices. The R311CC is durable and ensures optimum use and is a low power consumption device. Due to their small size, they can be installed anywhere. They are wireless so they take up very little space.

Main Property

- Compatible with LoRaWAN
- 2 sections of 3V CR2450 button batteries
- Compatible with LoRaWAN™ Class A
- Frequency hopping spread spectrum
- Configuration parameters can be configured via a third-party software platform, data can be read and alerts can be set via SMS text and email (optional)
- Applicable to third-party platforms: Actility/ThingPark, TTN, MyDevices/Cayenne
- Low power consumption and long battery life
- Battery Life:

Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html

At this website, users can find battery life time for variety models at different configurations.

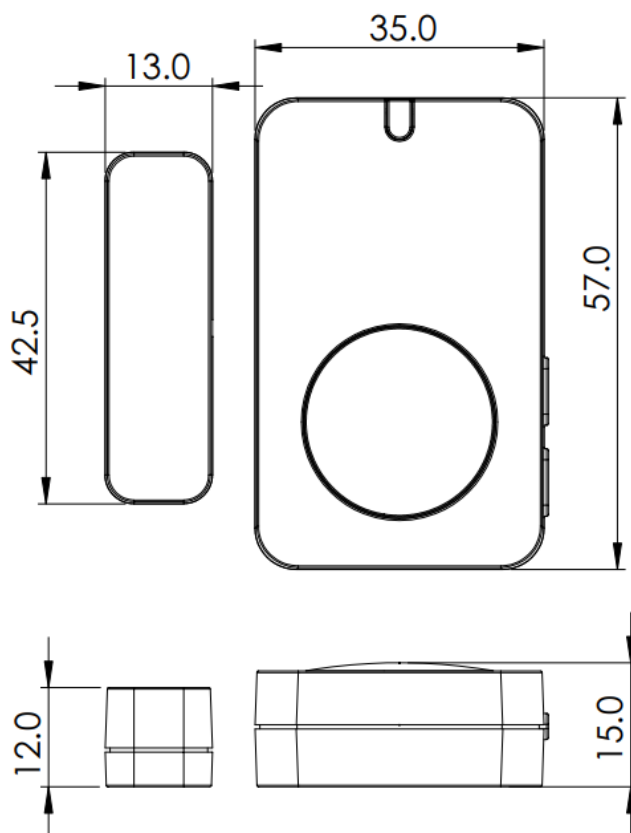
1. Actual range may vary depending on environment.
2. Battery life is determined by sensor reporting frequency and other variables.

Applications

- Condition monitoring of doors and windows such as home or business

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Technical Specifications



Electric

Input Power	2pcs 3.0V CR2450 button battery
Working Voltage	DC 2.4V ~ 3.0V
Standby Current	10uA / 3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Measurement Accuracy	±0.1V

Reed Switch Sensor

Sensor Case Size	42.5mm x 13mm x 12mm
Sensor Characteristic	<p>Inside the magnetic range, it is at on state (conducting).</p> <p>When out of the magnetic range, it is at off state (non-conducting).</p>

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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 ;
Rx Sensitivity	-136dBm(LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm(FSK,Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Build-in antenna
Communication Range	Up to 10 km, the actual transmission distance depends on the environment.
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation	LoRa/FSK
Available Frequency	EU863-870,US902-928,AU915-928,KR920-923, AS923-1,AS923-2,AS923-3,IN865-867,CN470-510 (Note: optional, to be done in the factory configuration)

Physical

Main Body Dimension	57mm x 35mm x 15mm
Weight	48.9 g
Operating Temperature	-20°C ~ 55°C
Environment Humidity Range	< 90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C