

Wireless Door/Window Sensor R313A Data Sheet

Wireless Sensor Network Based on LoRa Technology



R313A

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General Description

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 Feature

- 2 sections of 3V CR2450 button battery power supply
- Adopt SX1276 wireless communication module
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Third-Party online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email (optional)
- Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne
- Improved power management for longer battery life
- Battery Life*2:

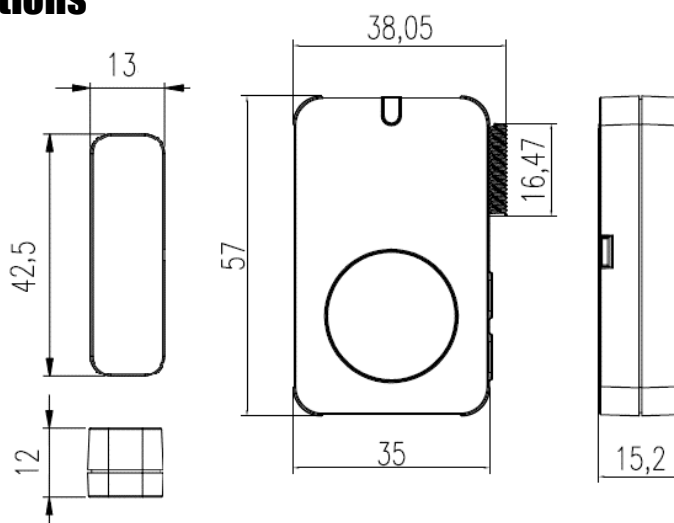
Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html

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

Example Applications

- Detects when a door or window is accessed.

Technical Specifications



(Unit: mm)

Electric

Input Power	2pcs 3.0V CR2450 button battery (Single CR2450 battery capacity 620mah)
Working Voltage	DC 2.4V~3V
Standby Current	12uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Low Voltage Threshold	2.4V
Battery Voltage Measurement Accuracy	±0.1V

Frequency

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	External antenna
Communication Range	Up 10 km, the actual transmission distance depends on the environment.
Data Transfer Rate	0.3kbps~50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870,US902-928,AU915-928,KR920-923,AS923-1,AS923-2,AS923-3,IN865-867,CN470-510 Configured before shipment

Physical

Main Body Dimension	57mm x 38.05mm x 15.2mm
Magnet Dimension	42.5mm x 13mm x 12mm
Weight	43.8g
Operating Temperature	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C