

Wireless 2-Gang Hall Type Open/Close Detection Sensor

Wireless Sensor Network Based on LoRa Technology



R718LB2 Data Sheet

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Wireless 2-Gang Hall Type Open/Close Detection Sensor

General Description

This device is equipped with two way Hall sensors, which can be used for door and window switch state detection. It can realize wireless alarm and other functions through the built-in wireless module. It applies SX1276 wireless communication module.

Main Characteristics

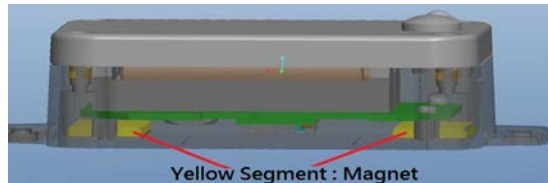
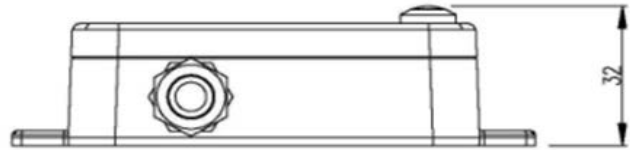
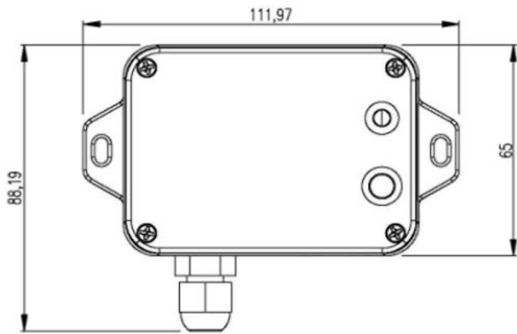
- Adopt SX1276 wireless communication module
- 2 ER14505 battery AA SIZE (3.6V / section) parallel power supply
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- Main body IP rating : IP65 / IP67 (Optional), sensor : IP65
- Hall sensor detection
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- 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 various models at different configurations.
- 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

Example Applications

- Door and window switchgear
- Other

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Technical Specifications (Main Part)



(Uni. mm)

Electric

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V 2400mah/section)
Battery Life Time	Battery life is 5 years (condition: ambient temperature 25°C , report once every 15 minutes, txpower = 20 dBm, LoRa spreading factor SF = 10)
Standby Current	26uA
Wake up Current	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V

* Specific electrical characteristics may vary depending on the power supply voltage.

Hall Sensor Specification

External Hall Sensor Housing Size	42mm*13mm*12mm
Performance Characteristics	All-pole sensing, the magnet can activate either pole.
Hall Sensor Supply Voltage Range	1.65-5.5VDC
Hall Sensor Temperature Range	40°C to 85°C
Push-pull Output	No external pull-up resistor required
Hall Sensor Sensing Distance	Less than 3cm.

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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	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)
Spread Technique	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

Dimension	L: 112mm*W: 65mm*H: 32mm
Weight	150g
Environment Temperature Range	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C