

Wireless 2-Gang Reed Switch Open / Close Detection Sensor

Wireless Sensor Network Based on LoRa Technology



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Description

The device is equipped with 2-gang 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.

Feature

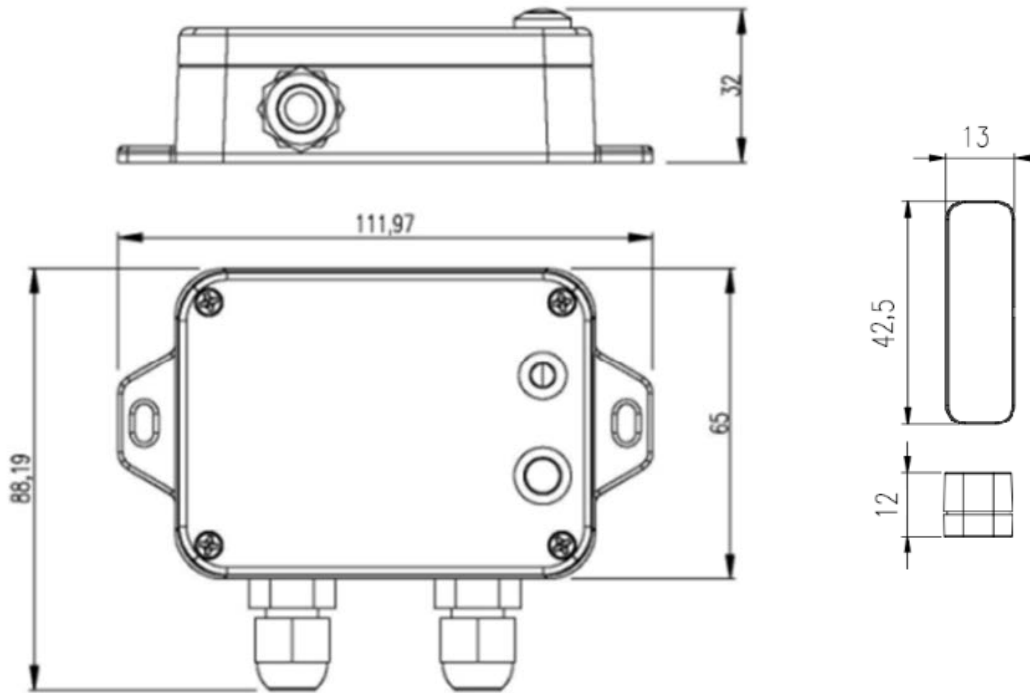
- Compatible with LoRaWAN
- Simple operation and setting
- 2 ER14505 lithium batteries in parallel power supply (3.6V / section)
- IP Rating: Main part-IP65 / IP67 (Optional), sensor- IP67
- Compatible with LoRaWAN™ Class A
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- 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.

Application

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

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Technical Specification



(Unit. mm)

Electric

| | |
|--------------------------------------|---------------------------------------|
| Input Power | 2 x 3.6V ER14505 AA lithium batteries |
| 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 |
| Low Voltage Threshold | 3.2V |

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

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

| | |
|---------------------|--|
| 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

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