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

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# **Wireless Reed Switch Open/Close Detection Sensor R718F Data Sheet**

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Wireless Sensor Network Based on LoRa Technology



## **R718F**

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## Wireless Reed Switch Open/Close Detection Sensor

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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.

### Principle of Operation

The reed switch is on (conducting) within the magnetic range, and is off (nonconducting) when it's out of the magnetic range. The module can detect the closing and opening signals so that the state of the door window status can be detected.

### Example Applications

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

### Features of NETVOX Sensors

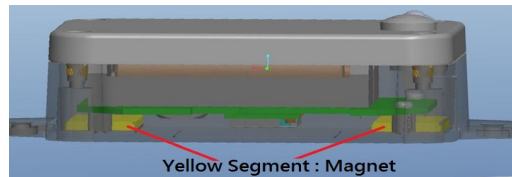
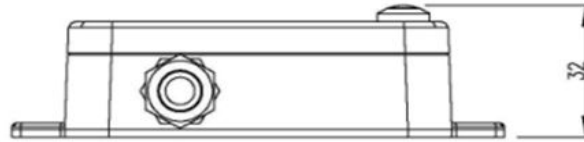
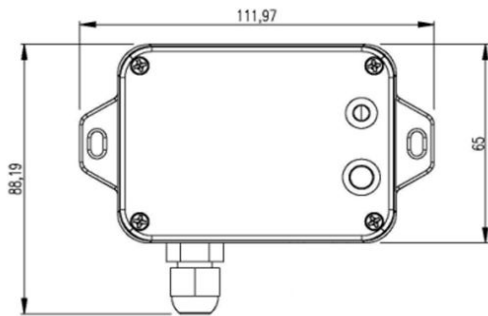
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Improved power management for longer battery life
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Battery Life\*2:
  - Please refer to web: [http://www.netvox.com.tw/electric/electric\\_calc.html](http://www.netvox.com.tw/electric/electric_calc.html)
  - At this website, users can find battery life time for varier models at different configurations.
- Over-the-air updates (future)
- 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
- R718X series carry magnets which can be attached to ferromagnetic materials and objects

\*1. Actual range may vary depending on environment.

\*2. Battery life is determined by sensor reporting frequency and other variables

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**Technical Specifications (Main Part)**



(Uni. mm)

**Electric**

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V2400mah/section)
Sleeping Mode	20uA
Wake up Mode	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 rang, it is at on state (conducting). When out of the magnetic range, it is at off state (non-conducting). Sensing distance inside magnetic rang is 2cm.
Reed solderability	Good solderability
External Cable Length	1 meter

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**Frequency**

TX Power	19dBm±1dBm
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
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 Configured before shipment

**Physical**

Dimension	Main Part: L: 112mm*W: 65mm*H: 32mm
Weight	141g
Environment Temperature Range	-20℃ ~ 55℃
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40℃ ~ 85℃

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