
Wireless Hall Type Open/Close Detection Sensor

Wireless Hall Type Open/Close Detection Sensor R718LB Data Sheet

Wireless Sensor Network Based on LoRa Technology



R718LB

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Wireless Hall Type Open/Close Detection Sensor

General Description

This device is equipped with a Hall sensor, 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 ferrous object
- IP level IP65
- Hall sensor detection

Example Applications

- Door and window switchgear
- Other

Features of NETVOX Sensors

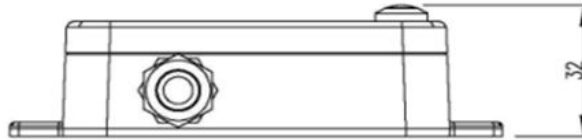
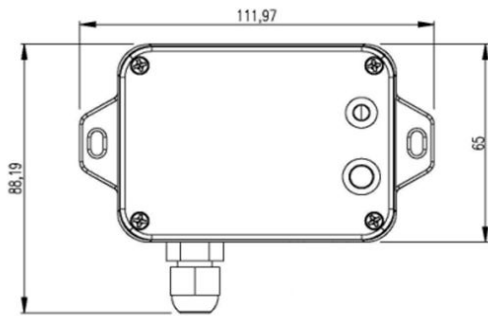
- Wireless range of 10km *1
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Improved power management for longer battery life
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Battery Life*2:
 - Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html
 - 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

Wireless Hall Type Open/Close Detection Sensor

Technical Specifications (Main Part)



(Uni. mm)

Electric

Input Power	2 x 3.6V ER14505 AA lithium batteries (3.6V 2400mah/section)
Sleeping Mode	23uA
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.

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	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 to10 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	150g
Environment Temperature Range	-20℃ ~ 55℃
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40℃ ~ 85℃

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