Wireless Activity Detection Sensor

Wireless Activity Detection Sensor R313FA Data Sheet

Wireless Sensor Network Based on LoRa Technology

R313FA

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Wireless Activity Detection Sensor

General Description

It can detect the sudden movement or vibration of the device and send an alarm signal to the gateway for processing. It uses the SX1276 wireless communication module.

Main Property

- 2 section 3V CR2450 button battery
- Acceleration sensor detection
- Adopt SX1276 wireless communication module
- Vibration sensitivity: 62.5mg

Example Applications

- Smart home
- Anti-theft system
- Industrial equipment
- Security field

Features of NETVOX Sensors

- LoRaWANTM Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- 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.

- Third-Party online wireless sensor monitoring and notification system to configure sensors, view data

    and set alerts via SMS text and email (optional)
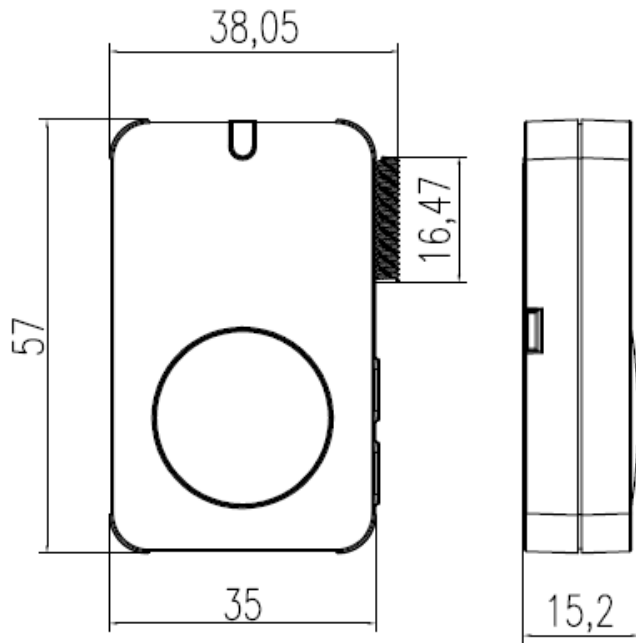
- Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne

    *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 Body   (Unit: mm)

Electric

Input Power	2pcs 3.0V CR2450 button battery
Working Voltage	DC 2.4V～3.0V
Standby Current	40uA /3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Voltage Measurement Accuracy	±0.1V

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Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
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 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

Main Body Dimension	57mm x 38.05mm x 15.2mm
Weight	48.9 g
Operating Temperature	-20℃ ～ 55℃
Environment Humidity Range	<90% RH（No condensation）
Storage Temperature	-40℃ ～ 85℃