

# Wireless Activity Detection Sensor R313FA Data Sheet

Wireless Sensor Network Based on LoRa Technology



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## 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 Characteristic

- 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](http://www.netvox.com.tw/electric/electric_calc.html)

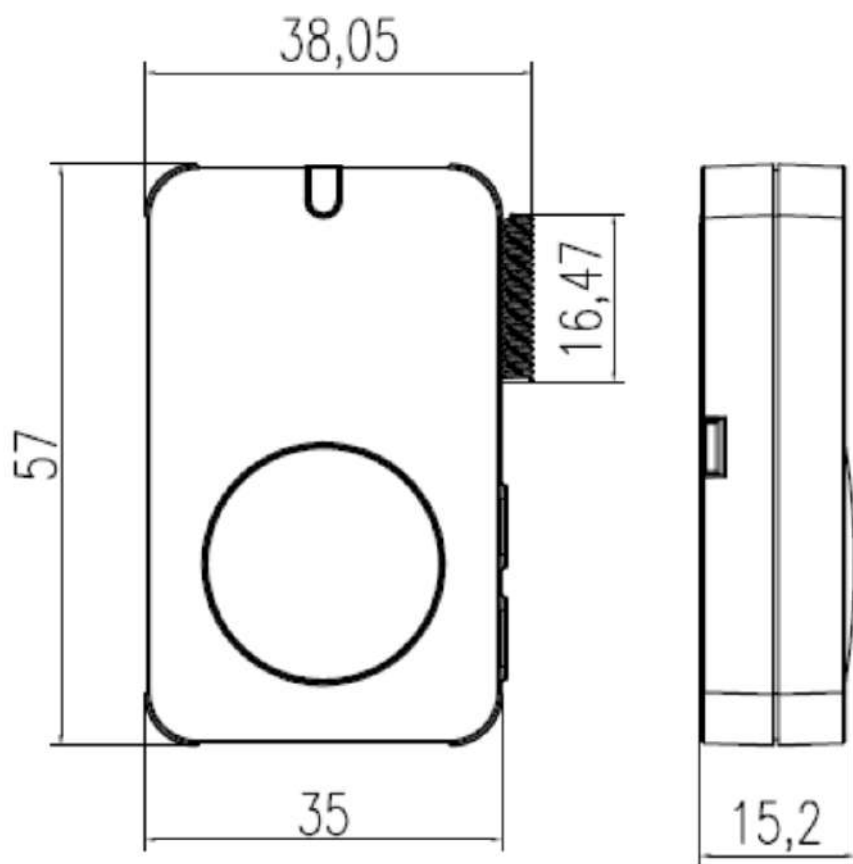
At this website, users can find battery life time for varier models at different configurations.

- 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

## Application Scenario

- Detect home electrical device falls and power protection
- Columns, poles and other applications such as tilt sensing, angle detection, direction discrimination, etc.

## Dimensions



Main Body

(Unit: mm)

## Electrical Characteristics

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	$\pm 0.1V$

## 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 Properties

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