Wireless Activity Event Counter

Wireless Sensor Network Based on LoRa Technology

R311FB
Data Sheet

Wireless Activity Event Counter

Overview

The device detects the number of movements or vibrations (such as detecting the motor a few times a day), the maximum number of movements or vibrations can reach 2^{32} times (theoretical value), and sends the information of the number of movements or vibrations to the gateway for processing. Apply SX1276 wireless communication module.

Main characteristics

- Adopt SX1276 wireless communication module
- 2 sections of 3.0 V CR2450 battery
- Compatible with LoRaWAN protocol
- Vibration counter detection
- Support frequency hopping spread spectrum technology
- Through third-party software platforms, sensor settings can be configured, 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

Note:

Battery life is determined by the sensor reporting frequency and other variables.

Please refer to http://www.netvox.com.tw/electric/electric_calc.html.

On this website, users can find various types of batteries life time in different

configurations.

Application Scenario

- Vibration counter detection
- Other

Wireless Activity Event Counter

Appearance

Indicator

Function Key

Dimensions

35.0

14.0

57.0
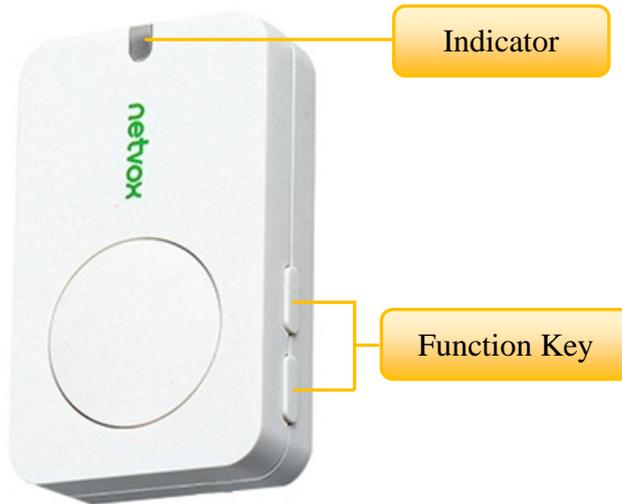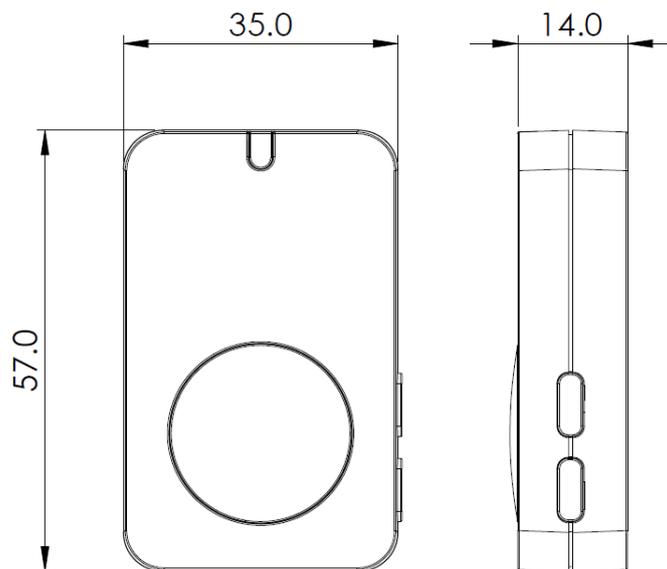
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Electric

Input Power	2 x 3.0V CR2450 battery
Work Voltage Range	DC 2.4 V to 3.0V
Standby Current	41μA / 3V
Emission Current (max)	120mA / 3.0V
Receiving Current (max)	11mA/ 3.0V
Battery Measurement Accuracy	± 0.1V

Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
Power Output	US915　　20dbm； AS923　　16dbm； AU915　　20dbm； CN470　　19.15dbm； EU868　　16dbm； KR920　　14dbm； IN865　　　20dbm；
Receiving Sensitivity	-136 dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps); -121 dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Distance	Up to 10 km (insight obstacle-free transmission distance, actual transmission distance depends on the real environment)
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation	LoRa / FSK (Note: available to choose one of them)
LoRaWAN Frequency Available	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)

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Physical

Dimension	57 mm x 35 mm x 15.2 mm
Weight	48.9g
Operating Temperature	-20°C to 55 °C
Environment Humidity	<90 %RH (no condense)
Storage Temperature	-40°C to 85 °C