Wireless Activity Timer

Wireless Sensor Network Based on LoRa Technology

R311FC

Data Sheet

Copyright©Netvox Technology Co., Ltd.

This document contains proprietary technical information which is the property of NETVOX

Technology. It shall be maintained in strict confidence and shall not be disclosed to other

parties, in whole or in part, without written permission of NETVOX Technology. The

specifications are subject to change without prior notice.

Wireless Activity Timer

Introduction

The device detects the duration of the movement or vibration (timekeeping) and sends the duration or timing information of the movement or vibration to the gateway for processing. The duration of the movement or vibration can be up to 1000 hours (theoretical value). Apply SX1276 wireless communication module.

Main Characteristic

- Adopt SX1276 wireless communication module
- 2 section 3V CR2450 button battery
- Activity timer
- Compatible with LoRaWAN^{TM} Class A
- Frequency hopping spread spectrum (FHSS)
- Configuration parameters can be configured through third-party software platforms, data can be read and alarms can be set via SMS text and email (optional)
- Applicable to the 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 battery life of various models in different configurations.

Application

- Smart home
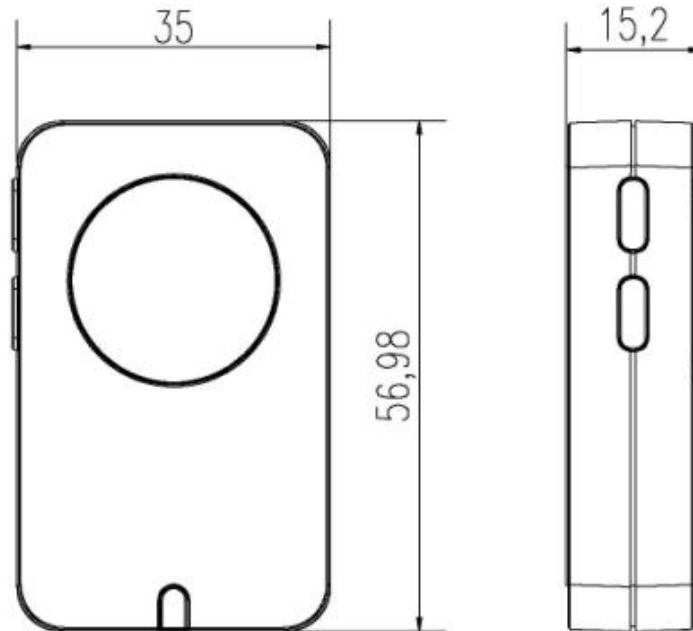- Industrial device
- Others

Wireless Activity Timer

Dimension

Figure 2 Dimensions of main engine shell

Electric

Input Power	2 pcs 3.0V CR2450 button battery
Operation Voltage Range	DC 2.4V to 3.0V
Standby Current	42uA/ 3.0V
Transmitting Current (max)	120 mA / 3.0V
Receiving Current (max)	11 mA / 3.0V
Battery Measurement Accuracy	±0.1V

Wireless Activity Timer

Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	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	10 km (Visible linear obstacle-free transmission distance, actual transmission distance depending on the environment.)
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation	LoRa / FSK (Note: choose one of them)
Supportable LoRaWAN Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923-1, AS923-2, AS923-3, IN865-867,CN470-510 (Note: The frequency band is optional and needs to be configured before shipment.)

Physical

Dimension	57mm x 35mm x 15.2mm
Weight	30.4g (Including batteries)
Environment Humidity	<90 %RH (No condensation)
Operating Temperature	-20°C to 55 °C
Storage Temperature	-40°C to 85 °C