

Wireless Emergency Button R312A Data Sheet

Wireless Sensor Network Based on LoRa Technology



R312A

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 Emergency Button

General Description

The R312A is an emergency button switch device that detects that detects after pressing the emergency button and sends an alarm message to the gateway.

It uses the SX1276 wireless communication module.

Principle of Operation

When the emergency button is pressed, the IO port of the module detects a low level, and when the emergency button is released, the IO port of the module detects a high level.

Example Applications

- Emergency button device
- Fire alarm
- Other

Features of NETVOX Sensors

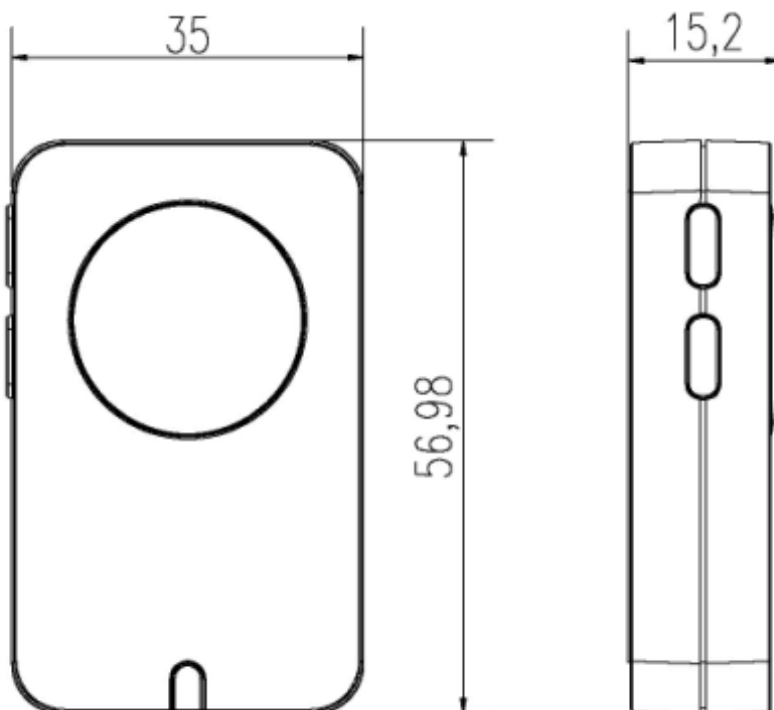
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Improved power management for longer battery life
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Battery Life*2:
 - Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html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

*1. Actual range may vary depending on environment.

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

Wireless Emergency Button

Technical Specifications



Electric

Input Power	2pcs 3.0V CR2450 button battery
Working Voltage	DC 2.4V~3V
Standby Current	13uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Low Voltage Threshold	2.4V
Battery Voltage Measurement Accuracy	±0.1V

Wireless Emergency Button

Frequency

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	Build-in antenna
Communication Range	Up to 10km, 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 35mm x 15.2mm
Weight	45g
Operating Temperature	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C

Contact:

[NETVOX TECHNOLOGY CO., LTD.](http://www.netvox.com.tw)

TEL: 886-6-2617641

FAX: 886-6-2656120

E-mail: sales@netvox.com.tw

WEB: www.netvox.com.tw