

Wireless Emergency Push Button

Wireless Sensor Network Based on LoRa Technology



RB02I Data Sheet

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Introduction

RB02I is a high-reliability wireless controlling terminal device for smart homes. It has the characteristics of low power consumption during standby and applying the SX1276 wireless communication module. RB02I is an emergency alarm trigger device and is equipped with a silicone waterproof cover which is waterproof.

Main Characteristic

- Simple operation and setting
- Apply SX1276 wireless communication module
- When alarming, the red indicator will flash once
- It can set the time configuration of alarm button
- Compatible with LoRaWAN™ Class A
- Frequency Hopping Spread Spectrum (FHSS)
- Configuring parameters via third-party software platforms, and reading the data and setting alarms via SMS text and email (optional)
- Applicable to the third-party platforms: Actility/ ThingPark, TTN, MyDevices/Cayenne
- 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 lifetime for various models at different configurations.

*1. Actual range may vary depending on environment.

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

Electric

Power Supply	2 sections AAA batteries
Operating Voltage	2.3V-3V
Alarm Voltage	2.4V
Standby Current	14uA
Battery Measurement Accuracy	±0.1V

Module - R100H

Wakeup Current	0.8mA - 8mA @ 3.3V
RF Receiving Current	11mA @ 3.3V
RF Emission Current	120mA @ 3.3V

Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	US915 20dbm AS923 16dbm AU915 20dbm CN470 19.15dbm EU868 16dbm KR920 14dbm IN865 20dbm
Receive Sensitivity	-121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps) -136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps)
Antenna Type	Built-in antenna
Communication Distance	10km (visible linear obstacle-free transmission distance, actual transmission distance depending on the environment)
Data Transfer Rate	LoRa: 0.3kbps~50kbps FSK: 1.2kbps~300kbps
Modulation Method	LoRa/FSK (Note: choose one of them)
Supportable LoRaWAN Band	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	82mm* 82mm* 15mm
Ambient Temperature Range	-20°C ~ +55°C

Storage Temperature Range	-40°C ~ +85°C
Ambient Humidity Range	<90%RH (No condensation)