Wireless Emergency Button R313MA Data Sheet

Wireless Sensor Network Based on LoRa Technology

R313MA

Wireless Emergency Button

General Description

The R313MA is a wireless emergency button 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.

Main Characteristics

- 2 sections of 3.0V CR2450 batteries in parallel
- Apply SX1276 wireless communication module
- Simple operation, no wiring required
- Comes with key ring for easy fixing and carrying
- LoRaWAN^{TM} Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- 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
- 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

Example Applications

- Emergency button devices
- Fire alarm
- Others

Wireless Emergency Button

Electric

R313MA

Input Power	2pcs 3.0V CR2450 button battery
Operating Voltage	DC 2.3V～3V
Standby Current	13uA@3V
Wakeup Current	7.02mA (Typical value) Wakeup current range 0.8mA-20 mA * When not transmitting /receiving LoRa data)
Low Battery Voltage Threshold	2.4V
Battery Measurement Accuracy	± 0.1V

Module-R100H

Wake-up Current	0.8mA - 8mA@3.3V
RF Receiving Current (max)	11mA / 3V
RF Transmitting Current (max)	120mA / 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；
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 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, AS923-1,AS923-2,AS923-3,IN865-867,CN470-510 Configured before shipment

Wireless Emergency Button

Physical
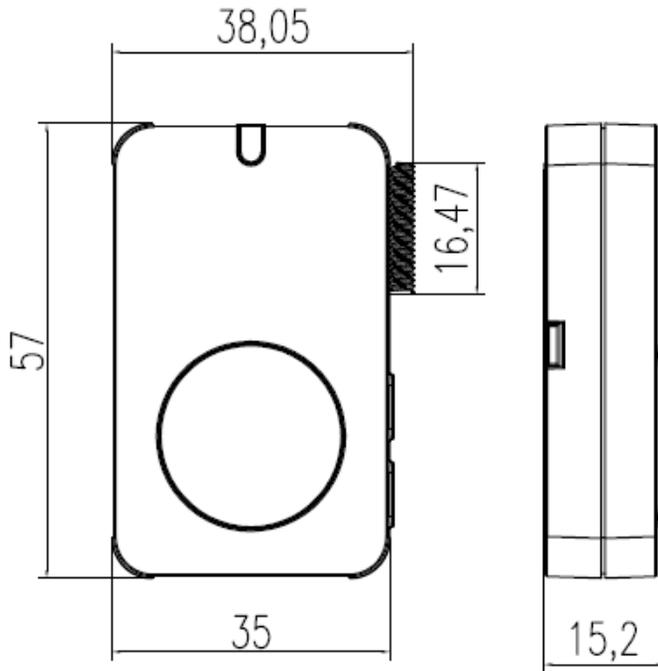
Main Body Dimension	57mm x 38.05mm x 15.2mm
Weight	45g
Operating Temperature	-20°C ∼ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ∼ 85°C