Wireless Push Button

Wireless Sensor Network Based on LoRa Technology

R718TB

Data Sheet

Introduction

R718TB is a wireless push button device. When people encounter danger and need emergency help, press the push button. R718TB will immediately send an alarm message to the gateway. R718TB is compatible with LoRaWAN. Protocol.

Main Characteristic

- Apply SX1276 wireless communication module
- 2 ER14505 batteries AA size in parallel (3.6V / section)
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- Push button
- IP rating IP65
- 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
- Improved power management for longer battery life
- Battery Life:

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

‾At this website, users can find battery lifetime for varier models at different configurations

  *1. Actual range may vary depending on environment

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

Application

- Engine Room
- Warehouse
- Archives
- Air Conditioner
- Semiconductor Plant
- Data Center

Technical Specification
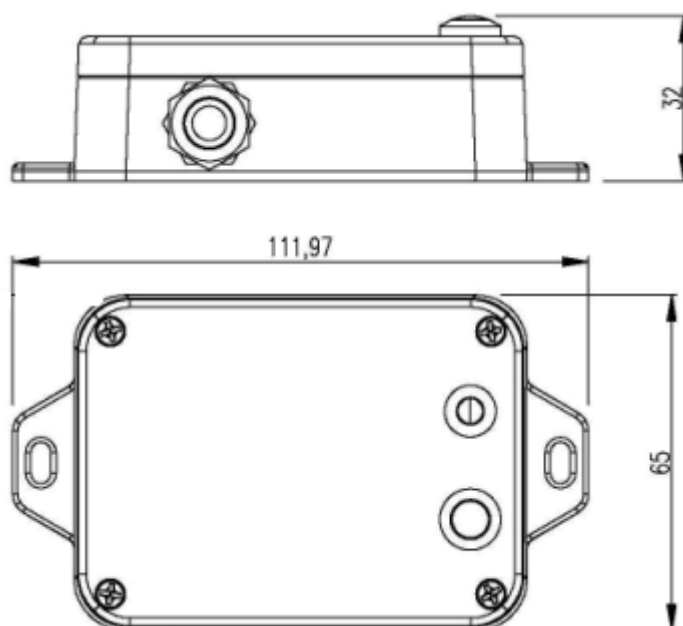
Electric

Input Power	2 ER14505 AA size lithium batteries (3.6V2400mah/ section)
Operating Voltage	3.1V to 3.65V
Battery Life	8.8 years (Conditions: ambient temperature 25 °C, 60 min report once, txpower = 20dBm, LoRa spreading factor SF = 10)
Standby Current	30.17uA
Wakeup Current	Wakeup current range 0.8mA-20 mA * When not transmitting /receiving LoRa data)
Low Battery Voltage Threshold	3.2V
Battery Measurement Accuracy	±0.1V

Module-R100H

Wake-up Current	0.8mA - 8mA@3.3V
RF Receiving Current (max)	11mA/3.3V
RF Transmitting Current (max)	120mA/3.3V

* Specific electrical characteristics may vary depending on the power supply voltage

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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	Build-in antenna
Communication Range	10 km (The actual transmission distance depends on the Environment.)
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation Method	LoRa/FSK (Note: choose one of them)
Available Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923-1, AS923-2, AS923-3, IN865-867, CN470-510 (Note: Configured before shipment)
Communication Range	Up to10 km, the actual transmission distance depends on the environment

Physical

Dimension	L:112mm*W:65mm*H:32mm
Main Body Weight	About 141g
Environment Temperature Range	-20℃ ~ 55℃
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40℃ ~ 85℃