

Wireless 2-Gang Water Leak Detector with Rope Sensor R718WB2 Data Sheet

Wireless Sensor Network Based on LoRa Technology



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.

Introduction

R718WB2, a wireless communication device, is a 2-gang non-positional water leak detection. R718WB2 is connected to a 2-core non-positional water leakage detection sensor line which can detect water leakage and transmit the detected data to other devices through the wireless network for display. It adopts the SX1276 wireless communication module.

Main Characteristic

- Adopt SX1276 wireless communication module
- 2 ER14505 battery AA SIZE (3.6V / section) in parallel
- 2-gang non-positional water leak detection
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- Protection level IP65/67 (option)
- Compatible with LoRaWAN™ Class A
- Frequency hopping spread spectrum technology
- Configuring parameters and reading data via the third-party software platforms, and set alarms 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 various types of battery lifetime in different configurations.

Wireless 2-Gang Water Leak Detector with Rope Sensor

Application

- Generator room
- Warehouse
- Smart home
- Archive
- Air conditioning
- Semiconductor plant
- Data Center
- Others

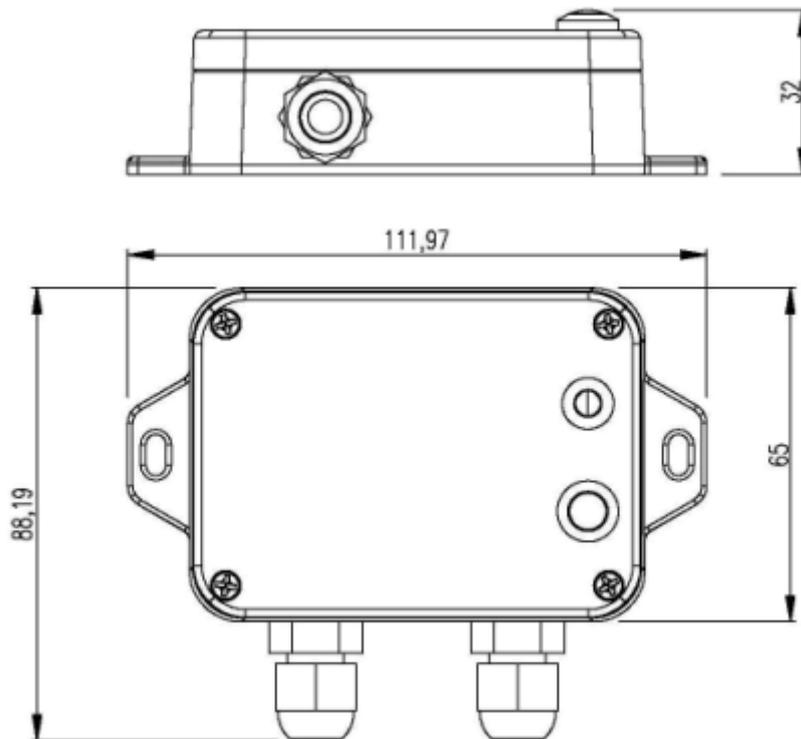
Dimension

Fig. R718WB2 Host Body Dimension

(Unit: mm)

Wireless 2-Gang Water Leak Detector with Rope Sensor
Electric

Power Supply	2 ER14505 AA SIZE lithium batteries (3.6V 2400mah/section) The specific specifications of lithium batteries are subject to actual shipment.
Battery Lifetime	5 years (Conditions: ambient temperature 25 °C, 15 min report once, TXpower = 20dBm, LoRa spreading factor SF = 10)
Standby Current	20uA
Wake-up Current	Wakeup current range 0.8mA-20 mA (When no transmitting and receiving LoRa data)
Low Battery Threshold	3.2V
Battery Measurement Accuracy	±0.1V

Module-R100H

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

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

Non-positional Leaking Line

Leaking Line Material	PE (polyethylene) and alloy lead
Leaking Line Maximum Temperature	75°C
Leaking Line Diameter	5.5mm
Leaking Line Length	3000mm (±5mm)
Leaking Line Flame Resistance	Second pressure plenum cable
Leaking Line Quality	18g/m
Leaking Line Color	Orange
Pull Force Limit	60kg
Core Resistance	Less than 5 ohm/100 meters
Leaking Line Length Limit	300m (theoretical value)

Wireless 2-Gang Water Leak Detector with Rope Sensor

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	-136dBm (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 (The actual transmission distance depends on the real environment.)
Data Transfer Rate	0.3kbps to 50kbps
Modulation Method	LoRa/FSK (Note: choose one of them)
Supportable LoRaWAN Band	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 (Note: The frequency band is optional and needs to be configured before the shipment)

Physical

Dimension	L: 112 mm*W: 88.19 mm*H: 32 mm
Host Body Weight	About 141 g
Ambient Temperature Range	-20°C to 55°C
Ambient Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40 °C ~ 85 °C