Wireless 2-Gang Water Leak Detector
R718WA2 Data Sheet

Wireless Sensor Network Based on LoRa Technology

Introduction

R718WA2 is an alarm device for 2-gang leak detection. When the water sensor detects a leak, it will send an alarm message to the gateway. When the water sensor detects that there is no water leak again, it will send a normal status message to the gateway. The device adopts the SX1276 wireless communication module.

Main Characteristic

- Adopt SX1276 wireless communication module
- 2 ER14505 battery AA SIZE (3.6V / section) in parallel
- 2-gnag water leak detection
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- IP rating:IP65/67 (option)
- The water leakage sensor can withstand 50°C (theoretical value)
- Compatible with LoRaWAN^{TM} 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:
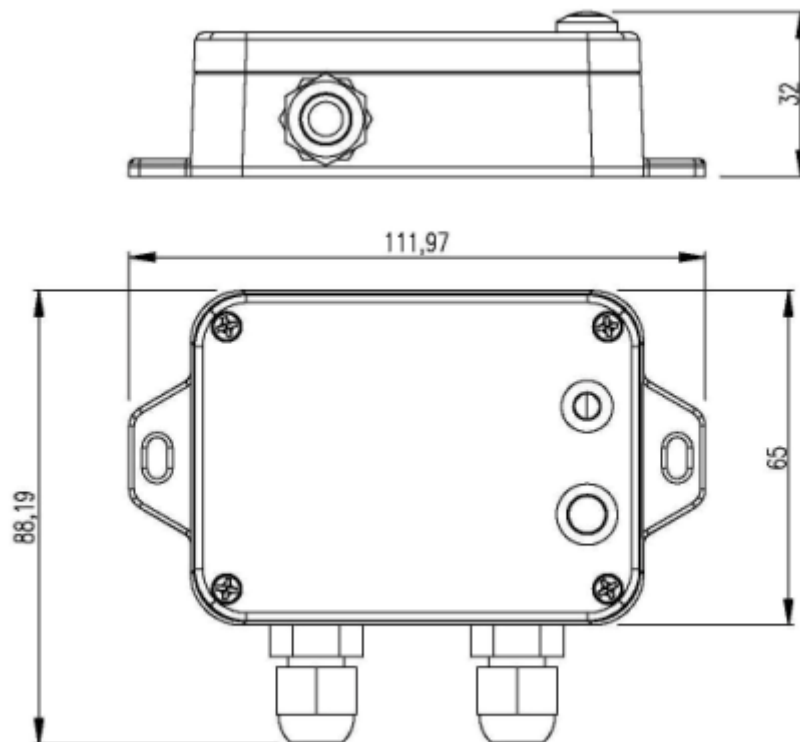Battery life is determined by the sensor reporting frequency and other variables.
Please refer to http://www.netvox.com.tw/electric/electric_calc.html
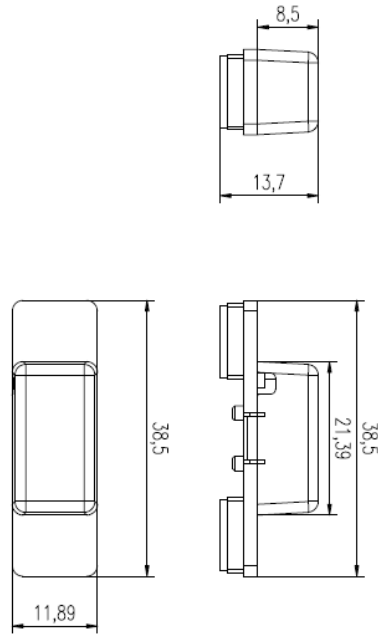On this website, users can find various types of battery lifetime in different configurations.

Wireless 2-Gang Water Leak Detector

Application

- Generator room

- Warehouse

- Smart home

- Archive

- Air conditioning

- Semiconductor plant

- Data Center

- Others

Dimension

Wireless 2-Gang Water Leak Detector

(Water Leak Sensor)   (Unit mm)

Electric

Power Supply	2 x 3.6V ER14505 AA 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	23uA
Wake-up Current	Wakeup current range 0.8mA-20 mA * When not transmitting /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

Water Leak Sensor Wiring Feature

Water Line Material	UL2547 24AWG
Water Line Diameter (max)	3.5mm
Water Line Length	1000mm (±10mm)
Water Line Flame Resistance Rating	VW-1
Water Line Length Limit	300m (theoretical value)

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	Up to 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

Host Body Dimension	L: 112 mm*W: 88.2 mm*H: 32 mm
Water Leak Sensor Dimension	L: 38.5 mm*W: 11.89 mm*H: 13.7mm
Host Body Weight	About 151 g
Ambient Temperature Range	-20°C to 55°C
Ambient Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40 °C ~ 85 °C