Netvox LoRa Sensors & Devices

Wireless Sensor Network Based on LoRa Technology

Product Catalogue

2024

What is LoRa?

LoRa technology was developed by a company called Semtech and it is a new wireless protocol designed specifically for long-range, low-power communications. LoRa stands for Long Range Radio and is mainly targeted for M2M and IoT networks. This technology will enable public or multi-tenant networks to connect a number of applications running on the same network.

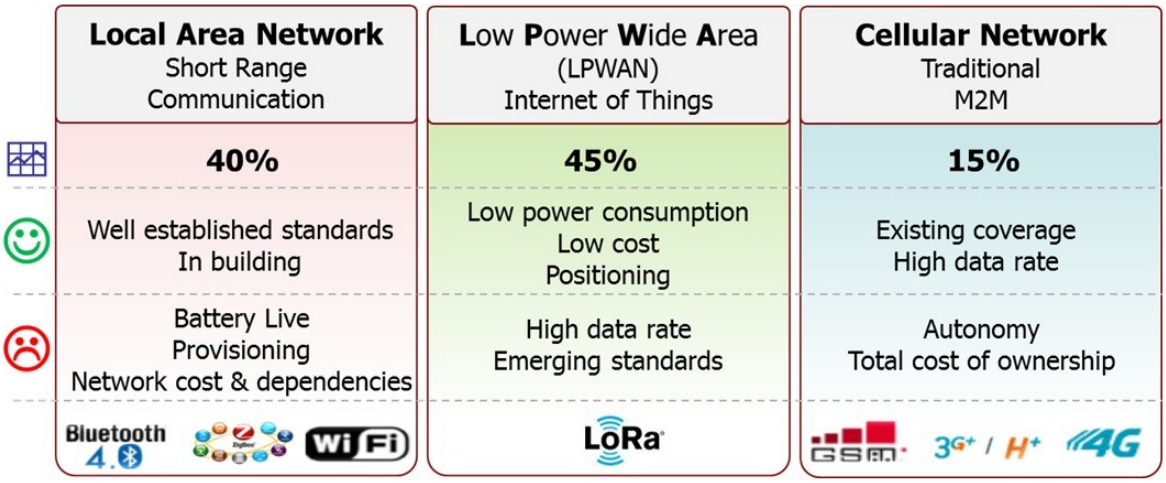
LoRa Alliance was formed to standardize LPWAN (Low Power Wide Area Networks) for IoT and is a non-profit association which features membership from a number of key market shareholders such as CISCO, Actility, MicroChip, IBM, STMicro, SEMTECH, Orange mobile and many more. This alliance is key to providing interoperability among multiple nationwide networks.

Each LoRa gateway has the ability to handle up to millions of nodes. The signals can span a significant distance, which means that there is less infrastructure required, making constructing a network much cheaper and faster to implement.

LoRa also features an adaptive data rate algorithm to help maximize the nodes life and network capacity. The LoRa protocol includes a number of different layers including encryption at the network, application and device level for secure communications.

Where does LPWAN fit?

One technology cannot serve all of the projected applications and volumes for IoT. Wi-Fi and BTLE are widely adopted standards and serve the applications related to communicating personal devices quite well. Cellular technology is a great fit for applications that need high data throughput and have a power source. LPWAN offers multi-year lifetime and is designed for sensors and applications that need to send small amounts of data over long distances a few times per hour from varying environments.



Important Factors in LPWAN?

The most critical factors in a LPWAN are:

- Network architecture
- Communication range
- lifetime or low power
- Robustness to interference
- Network capacity (maximum number of nodes in a network)
- Network security
- One-way vs two-way communication
- Variety of applications served

Reference: https://docs.wixstatic.com/ugd/eccc1a_ed71ea1cd969417493c74e4a13c55685.pdf

Intellectual System Based on LoRa Technology

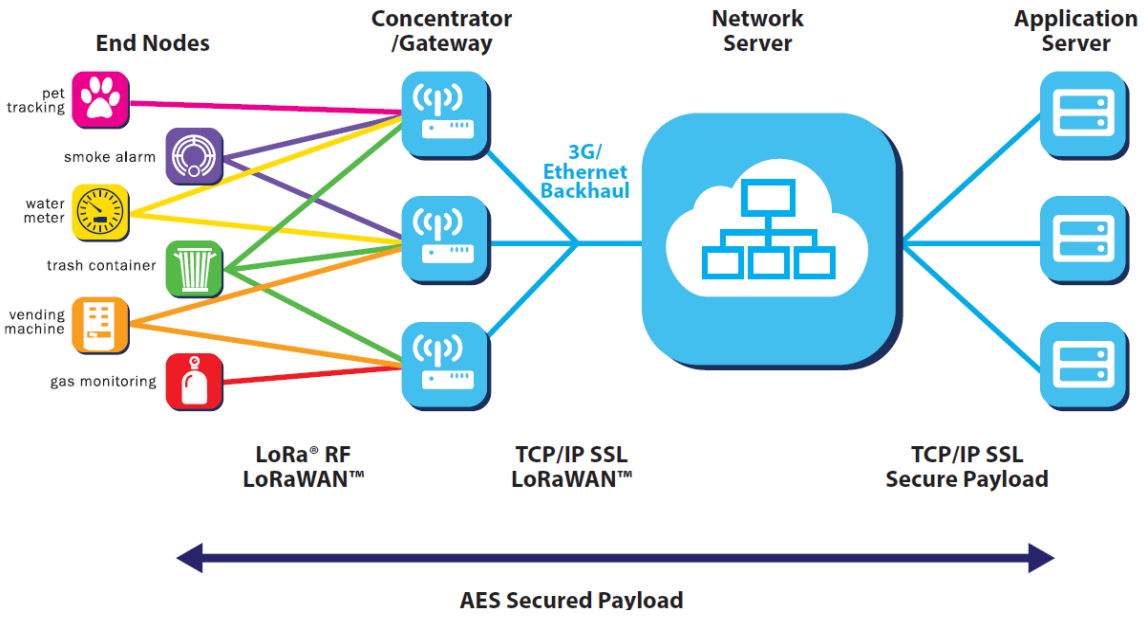
What is LoRaWAN™?

LoRaWAN™ defines the communication protocol and system architecture for the network while the LoRa® physical layer enables the long-range communication link. The protocol and network architecture have the most influence in determining the lifetime of a node, the network capacity, the quality of service, the security, and the variety of applications served by the network.

Application					
LoRa® MAC					
Class A (Baseline)		Class B (Beacon)		Class C (Continuous)	MAC options
LoRa® Modulation					
EU868	US915	AU915	AS923	…	Regional ISM band

Network Architecture

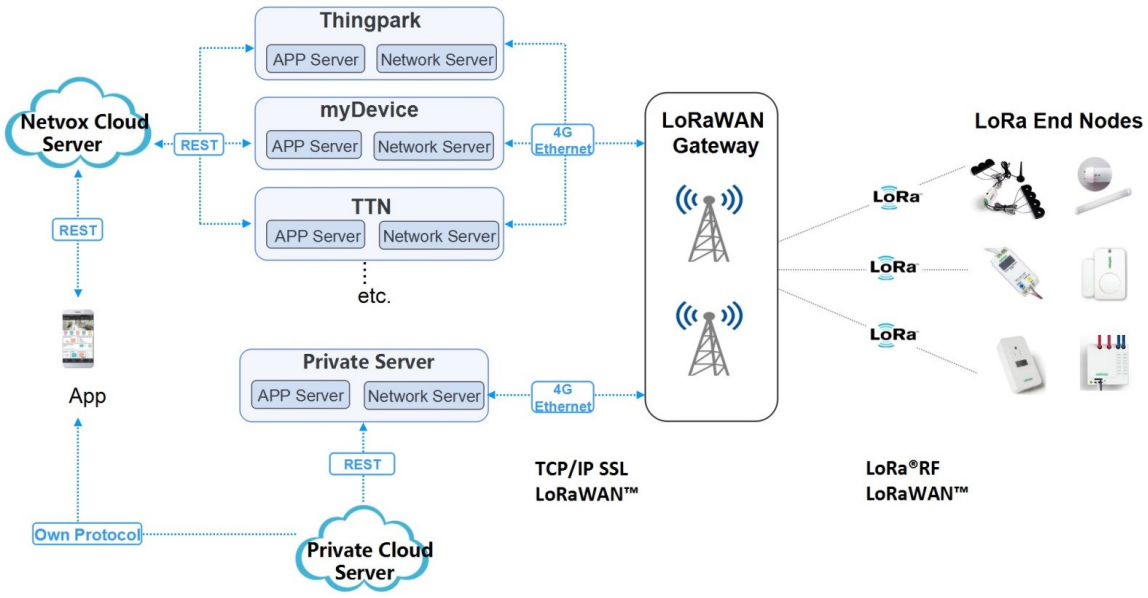
Many existing deployed networks utilize a mesh network architecture. In a mesh network, the individual end-nodes forward the information of other nodes to increase the communication range and cell size of the network.



Reference: https://docs.wixstatic.com/ugd/eccc1a_ed71ea1cd969417493c74e4a13c55685.pdf

Netvox Network Architecture

While this increases the range, it also adds complexity, reduces network capacity, and reduces lifetime as nodes receive and forward information from other nodes that is likely irrelevant for them. Long range star architecture makes the most sense for preserving lifetime when long-range connectivity can be achieved.



In a LoRaWAN™ network nodes are not associated with a specific gateway. Instead, data transmitted by a node is typically received by multiple gateways. Each gateway will forward the received packet from the end-node to the cloud-based network server via some backhaul (either cellular, Ethernet, satellite, or Wi-Fi).

The intelligence and complexity is pushed to the network server, which manages the network and will filter redundant received packets, perform security checks, schedule acknowledgments through the optimal gateway, and perform adaptive data rate, etc.

If a node is mobile or moving there is no handover needed from gateway to gateway, which is a critical feature to enable asset tracking applications–a major target application vertical for IoT.

Reference: https://docs.wixstatic.com/ugd/eccc1a_ed71ea1cd969417493c74e4a13c55685.pdf

LoRaWAN™ Regional Summery

The LoRaWAN™ specification varies slightly from region to region based on the different regional spectrum allocations and regulatory requirements. The LoRaWAN™ specification for Europe and North America are defined, but other regions are still being defined by the technical committee.

Joining the LoRa® Alliance as a contributor member and participating in the technical committee can have significant advantages to companies targeting solutions for the Asia market.

	Europe	North America	China	Korea	Japan	India
Frequency band	867-869MHz	902-928MHz	470-510MHz	920-925MHz	920-925MHz	865-867MHz
Channels	10	64 + 8 +8	In definition by Technical Committee	In definition by Technical Committee	In definition by Technical Committee	In definition by Technical Committee
Channel BW Up	125/250kHz	125/500kHz				
Channel BW Dn	125kHz	500kHz				
TX Power Up	+14dBm	+20dBm typ (+30dBm allowed)				
TX Power Dn	+14dBm	+27dBm				
SF Up	7-12	7-10				
Data rate	250bps- 50kbps	980bps-21.9kpbs				
Link Budget Up	155dB	154dB				
Link Budget Dn	155dB	157dB				

Reference: https://docs.wixstatic.com/ugd/eccc1a_ed71ea1cd969417493c74e4a13c55685.pdf

Intellectual System Based on LoRa Technology

LoRaWAN™ Features

Long Range

1. Greater than cellular
2. Deep indoor coverage
3. Star topology

Max Lifetime

4. Low power optimized
5. Long lifetime
6. >10x vs cellular M2M

Multi-Usage

7. High capacity
8. Multi-tenant
9. Public network

Low Cost

10. Minimal infrastructure
11. Low cost end node
12. Open SW

Reference: https://docs.wixstatic.com/ugd/eccc1a_ed71ea1cd969417493c74e4a13c55685.pdf

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Model	Description
DSC100C4	Indoor Renewable Energy Power Bank for IoT with 4 Lithium-ion
DSC716L	Illuminance Meter
R100H	Wireless LoRa Module
R100L	Wireless LoRa Module

Frequency Characters for All Netvox LoRa Devices

The LoRa frequency characters are shown as below. Applicable to all Netvox LoRa Devices which are equipped with SX1276 wireless communication module.

LoRa Frequency Characters

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	Built-in antenna
Communication Range	Up to10 km, the actual transmission distance depends on the environment.
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
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

R206 Wireless IoT Controller

R206 is a Cloud-Based Wireless Smart Home Controller.

As the core of the entire wireless smart IoT system,

R206 is a combination of the cloud technology, Wi-Fi, and LoRa wireless IoT technology.

R206 connects to the Internet and combines with the Netvox cloud service platform to achieve remote monitoring.

※ Only used in Netvox M2 private LoRa Solution

※ The LoRaWAN device is not supported

Main Characteristics

- Support LoRa
- Support Netvox cloud and Netvox M2 APP
- Support 3.5G/4G USB dongle
- Support RTC (Real-time clock)
- Support gateway / bridge / wi-fi AP mode
- Two RJ-45 interfaces (WAN/LAN)

Technical Parameter

Power	Input: AC 100~240V Output: DC 12V/1.5A
Power Consumption	2.2W (28mA @230V 50Hz) (Typical)
Dimension	124mm x 155mm x 65mm
Shell Material	PC510
Operating Temperature	-10°C~50°C
Operating Humidity	0~95%RH (No condensation)
Storage Temperature	-20°C~60°C
Storage Humidity	0~95%RH (No condensation)

Available Frequency : EU/IN Region, US/AU Region, AS Region, KR Region, CN Region

R206A Wireless Dual-Mode IoT Controller

R206A is a Cloud-Based Wireless Smart Home Controller.

As the core of the entire wireless smart IoT system,

R206A is a combination of the cloud technology, Wi-Fi, Zigbee and LoRa wireless IoT technology.

R206A connects to the Internet and combines with the Netvox cloud service platform to achieve remote monitoring.

※ Only used in Netvox M2 private LoRa Solution

※ The LoRaWAN device is not supported

Main Characteristics

- Support LoRa and ZigBee
- Support Netvox cloud and Netvox M2 APP
- Support 3.5G/4G USB dongle
- Support RTC (Real-time clock)
- Support gateway / bridge / wi-fi AP mode
- Two RJ-45 interfaces (WAN/LAN)

Technical Parameter

Power	Input: AC 100~240V Output: DC 12V/1.5A
Power Consumption	2.2W (28mA @230V 50Hz) (Typical)
Dimension	124mm x 155mm x 65mm
Shell Material	PC510
Operating Temperature	-10°C~50°C
Operating Humidity	0~95%RH (No condensation)
Storage Temperature	-20°C~60°C
Storage Humidity	0~95%RH (No condensation)

Available Frequency : EU/IN Region, US/AU Region, AS Region, KR Region, CN Region

R206C Wireless IoT Controller with External Antenna

R206C is a highly reliable wireless smart cloud gateway. As the core of the entire wireless smart IoT system, R206C achieves the combination of cloud technology, Wi-Fi, and Netvox LoRa. The Netvox APP (Android and iOS) can control the device. Users can also monitor all changes in the network by accessing R206C through the cloud, and easily realize real IoT remote control to achieve energy saving, carbon reduction, and green environmental protection.

※ Only used in Netvox M2 private LoRa Solution

※ The LoRaWAN device is not supported

Main Characteristics

- Support LoRa
- Support Netvox cloud and Netvox M2 APP
- Support 3.5G/4G USB dongle
- Support RTC (Real-time clock)
- Support gateway / bridge / wi-fi AP mode
- Two RJ-45 interfaces (WAN/LAN)
- External suction cup antenna

Technical Parameter

Power	Input: AC 100~240V Output: DC 12V/1.5A
Power Consumption	2.2W (28mA @230V 50Hz) (Typical)
Dimension	124mm x 155mm x 65mm
Shell Material	PC510
Operating Temperature	-10°C~50°C
Operating Humidity	0~95%RH (No condensation)
Storage Temperature	-20°C~60°C
Storage Humidity	0~95%RH (No condensation)

Available Frequency : EU/IN Region, US/AU Region, AS Region, KR Region, CN Region

R207 is a Wireless IoT Controller. As the core of the entire smart home system, R207 is the first one achieving the perfect combination of cloud technology and Netvox LoRa proprietary protocol Internet of Things. R207 acts as a gateway in the LoRa network and can automatically screen and configure. The third-party software can control the device through R207, for example, the Android client side can achieve mode control. At the same time, users can monitor all the changes of home via R207 through the cloud, realize the remote control of smart home easily and have functions about energy saving, emission reduction and environmental protection.

※ Only used in Netvox M2 private LoRa Solution

※ The LoRaWAN device is not supported

Main Characteristics

- Support Netvox cloud and Netvox M2 APP
- One RJ-45 interfaces (WAN)

Technical Parameter

Power	Input: AC 100~240V Output: DC 5V/1A
Power Consumption	5V/0.12A/0.6W (typical)
Dimension	76.5mm x 37.0mm x 22.0mm
Shell Material	PC510
Operating Temperature	-10°C~50°C
Operating Humidity	0~95%RH (No condensation)
Storage Temperature	-20°C~60°C
Storage Humidity	0~95%RH (No condensation)

R207C Wireless IoT Controller with External Antenna

R207C is a highly reliable wireless smart cloud gateway. As the core of the entire wireless smart IoT system, R207C achieves the combination of cloud technology and LoRa wireless IoT technology.

The Netvox APP (Android and iOS) can control the device. Users can also monitor all changes in the network by accessing R207C through the cloud, and easily realize real IoT remote control to achieve energy saving, carbon reduction, and green environmental protection.

※ Only used in Netvox M2 private LoRa Solution

※ The LoRaWAN device is not supported

Main Characteristics

- Support Netvox cloud and Netvox M2 APP
- One RJ-45 interfaces (WAN)
- External Antenna

Technical Parameter

Power	Input: AC 100~240V Output: DC 5V/1A
Power Consumption	5V/0.12A/0.6W (typical)
Dimension	76.5mm x 37.0mm x 22.0mm
Shell Material	PC510
Operating Temperature	-10°C~50°C
Operating Humidity	0~95%RH (No condensation)
Storage Temperature	-20°C~60°C
Storage Humidity	0~95%RH (No condensation)

Available Frequency : EU/IN Region, US/AU Region, AS Region, KR Region, CN Region

R309 Wireless Wearable Emergency Button with Inactivity Detection

R309 is a wireless emergency button alarm device, which can realize the wireless alarm function together with other devices through the buttons on the device. At the same time, the device has built-in vibration sensors to further improve the alarm system.

※ R30900 Lanyard Version ※ R30901 Wristband Version

※ R3090S Lanyard Version & For Semtech Join Server Only

※ R3091S Wristband Version & For Semtech Join Server Only

Main Characteristics

- Emergency alarm status detection
- Inactivity detection
- IP67

Technical Parameter

Input Power	2 x 3.0V CR2032 button batteries
Operating Voltage	2.5V to 3.0V
Standby Current	≤6uA
Battery Accuracy	±0.1V
Dimension	R30900/R3090S: 48mm x 55.5mm x 18.2mm R30901/R3091S: 48mm x 55.5mm x 19.8mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~55°C

R311A/R313A Wireless Door / Window Sensor

R311A / R313A is equipped with a reed sensor, which can be used to detect the status of the door and window.

※ R311A Built-in antenna

※ R313A External antenna

Main Characteristics

- Door / window status detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	12uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Main Body Dimensions	R311A: 57mm x 35mm x 15mm R313A: 57mm x 38.05mm x 15mm
Magnet Dimension	43mm x 13mm x 12mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~55°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R311D / R313D has a simple positioning function which can detect the position status of itself. The device can report RSSI and SNR information to the gateway for processing periodically and locating its position.

※ R311D Built-in antenna

※ R313D External antenna

Main Characteristics

- RSSI and SNR detection
- Simple positioning
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	16uA /3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Accuracy	±0.1V
Dimension	R311D: 57mm x 35mm x 15mm R313D: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311DA/R313DA Wireless Vibration Sensor, Rolling Ball Type

R311DA / R313DA can detect vibrations or moving signals and transmit the detected data to other devices through the wireless network

※ R311DA Built-in antenna

※ R313DA External antenna

Main Characteristics

- Vibration detection
- Rolling Ball Type
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Voltage Accuracy	±0.1V
Vibration Sensor Sensitivity	In a horizontal position, be easy to trigger with a shaking
Dimension	R311DA: 57mm x 35mm x 15mm R313DA: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R311DB/R313DB Wireless Vibration Sensor, Spring Type

R311DB / R313DB can detect vibrations or moving signals and transmit the detected data to other devices through the wireless network

※ R311DB Built-in antenna

※ R313DB External antenna

Main Characteristics

- Vibration detection
- Spring Type
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Voltage Accuracy	±0.1V
Vibration Sensor Working Principle	When it is at rest, it is in the open state OFF state. When the external force is touched to reach the corresponding vibration force, or when the moving speed reaches the appropriate centrifugal force, the conductive pin will instantly reach the ON state.
Dimension	R311DB: 57mm x 35mm x 15mm R313DB: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

When the R311W / R313W detects leaks, it will send a message to the gateway.

※ R311W Built-in antenna

※ R313W External antenna

Main Characteristics

- Water leaking detection
- Main body-IP30, Sensor-IP67

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	12uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Water Leakage Material	UL2468 28AWG
Water Line Core resistance	1.3 Ω / meter
Water Line Diameter	1mm
Water Line Length	1000mm (±5mm)
Water Line Flame Rating	VW-1
Dimension	R311W: 57mm x 35mm x 15mm R313W: 57mm x 38.05mm x 15mm

R312/R313M Wireless Door Bell Button

R312 / R313M is a button device which can detect whether the doorbell is triggered.

※ R312 Built-in antenna

※ R313M External antenna

※ The pressing time of the alarm button can be configured through the command.

Main Characteristics

- Doorbell status detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	14uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Dimension	R312: 57mm x 35mm x 15mm R313M: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R312A/R313MA Wireless Emergency Button

R312A / R313MA is an emergency button device which can detect whether the button is triggered.

※ R312A Built-in antenna

※ R313MA External antenna

※ The pressing time of the alarm button can be configured through the command.

Main Characteristics

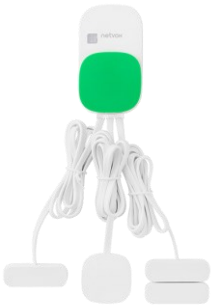
- Button status detection
- Comes with key ring for easy fixing and carrying
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	13uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Dimension	R312A: 57mm x 35mm x 15mm R313MA: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R31511



R31512

R31513

R31521

R31522

R31523

R31524

R31527

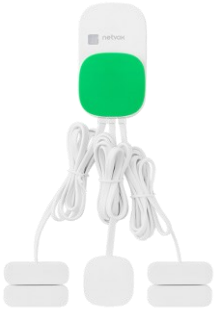
R31531

R31533

R31535

R31538

R31545



R31555

R31559

R31560

For more R315 series information, please refer to this file:
http://www.netvox.com.tw/download/R315combination.xlsx

R31561

R31570

R31594

R31597

R315101

R315102

For more R315 series information, please refer to this file:
http://www.netvox.com.tw/download/R315combination.xlsx

R315 series can be connected with temperature and humidity, lighting, door magnetism, vibration, infrared detection, emergency button, tilt detection, water leakage detection, seat state detection, dry contact in, and digital output. Netvox presents to you the latest 8 in 1 combination, a more powerful and multifunctional option.

Main Characteristics

- 8 in 1 Multi-Sensor
- Main body-IP30

Internal Sensor:

- ✓ Temperature and humidity sensor
- ✓ Light sensor
- ✓ PIR
- ✓ Internal vibration
- ✓ Emergency button
- ✓ Tilt sensor

External Sensor:

- ✓ Water leak sensor
- ✓ Glass break sensor
- ✓ External vibration
- ✓ Reed switch
- ✓ Seat occupancy sensor
- ✓ Dry contact in
- ✓ DO out (3v)

Technical Parameter

Input Power	2x 3V CR2450 button batteries
Operating Voltage	2.3V to 3V
PIR Detectable Angle	80 ° horizontally and 90 ° vertically
PIR Detectable Range	2.5m
Vibration Sensor Type	Roll Ball Tilt Switch
Glass Break Sensor Type	Piezoelectric buzzer
Glass Break Sensing Range	within 2.5m radius
External Sensor Wire Length	100 cm
Seat Sensor Pressure Range	200-300g
Seat Sensor Dimension	300mm x 300mm x 0.65mm
Main Body Dimension	75.5mm x 44mm x 19.35mm

R315LA is a proximity sensor that detects an object's presence by measuring the distance between the sensor and the item. With a 62cm measurement range, it is suitable for short-range measurements, such as toilet paper detection.

Main Characteristics

- Time of Flight (ToF) sensor
- IP30
- Distance Measurement

Technical Parameter

Input Power	2x 3V CR2450 button batteries
Operating Voltage	2.3V to 3V
Detectable Range	0-620mm (Ambient light, temperature, and voltage could affect the measurement range.)
Divergent Laser Angle	25°
Dimensions	75.5mm x 44mm x 16.35mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R602A / R602B has four kinds of alarm sounds – fire, emergency, burglar, doorbell and a mute mode. It also has the high-brightness alarm flasher.

※ R602A: Only DC12V power supply

※ R602B: Supports DC and rechargeable battery power supplies.

Main Characteristics

- Different types of alarm sounds
- Different ways of flashing lights
- Class C device

Technical Parameter

	R602A	R602B
Input Power	DC 12V	DC 12V & 3 sections 1.2V AAA Ni-MH rechargeable batteries
Backup rechargeable battery once full use time	/	about 24 hours
Working Current (max)	250mA(DC 12V)	
Standby Current (max)	30mA(DC 12V)	
Alarm Sound Level	≧80dB	
Dimension	Ø85mm x 52mm	
Environment Temperature	-20˚C~55˚C	
Operating Humidity	<90% RH (No condensation)	

R603 Wireless Customized Voice Announcer

R603 is a wireless siren.

With 10 types of alarm sounds (fire / emergency / burglar alarm),RGB LED light, R603 can be controlled through AppServer and customized the settings of alarm sounds and light.

With all these functions, R603 helps you improve security and provides customized options for each application.

Main Characteristics

- 10 Audio to Upload
- Programmable RGB LED Color
- Adjustable Volume and Mute Mode
- 2 LED Flash Modes

Technical Parameter

Input Power	DC 12V
Backup rechargeable battery once full use time	about 24 hours
Working Current (max)	250mA(DC 12V)
Standby Current (max)	30mA(DC 12V)
Alarm Sound Level	≧80dB
Dimension	Ø85mm x 52mm
Environment Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718DA/R718DA2

Wireless 1-Gang/2-Gang Vibration Sensor, Rolling Ball Type

R718DA / R718DA2 can detect the vibration or movement signal, and transmit the detected data to other devices through the wireless network.

※ It is not suitable for the fast-vibrating environment

Main Characteristics

- Vibration detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Sensor Characteristic	When the vibration sensor is tilted and the tilting angle is greater than 10 degrees, it will be OFF mode. When the tilt level changes, and the triggering end is lower than tilt angle 10 degrees, it will be ON state. The module can detect open circuit OFF state and closed circuit ON state signal to detect vibration or move.
External Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718DB / R718DB2 can detect the vibration or movement signal, and transmit the detected data to other devices through the wireless network.

※ It is not suitable for the fast-vibrating environment

Main Characteristics

- Vibration detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Sensor Characteristic	When it is at rest, it is in the open state OFF state. When the external force is touched to reach the corresponding vibration force, or when the moving speed reaches the appropriate centrifugal force, the conductive pin will instantly reach the ON state. When the external force disappears, the switch returns to the OFF state.
External Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718F / R718F2 is equipped with a reed sensor which can be used to detect the status of the door and the window.

Main Characteristics

- Reed switch status detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Sensor Characteristic	Inside the magnetic range, it is at on state (conducting). When out of the magnetic range, it is at off state (non-conducting). Sensing distance inside magnetic range is 2cm.
External Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

R718T/R718T2 Wireless 1-Input/2-Input Push Button Interface

R718T / R718T2 can connect with an external push button and detect whether the external button is pressed.

※ The pressing time of the alarm button can be configured through the command.

Main Characteristics

- Push button interface
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Standby Current	22 uA
Wake up Current	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718TB is a wireless push button device. When people encounter danger and need emergency help, press the push button.

※ The pressing time of the alarm button can be configured through the command.

Main Characteristics

- Push button
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Standby Current	30.17 uA
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Dimension	112mm x 65mm x 32mm
Weight	141g
Operating Temperature	-20˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

RA02A Wireless Smoke Detector

RA02A has a built-in photoelectric smoke detector and buzzer. It can detect the smoke density in the environment and sound alarm when the smoke density exceeds the default value.

Main Characteristics

- Smoke detection
- High temperature detection (>60°C)
- IP20

Technical Parameter

Input Power	2 x1.5V AAA alkaline battery
Operating Voltage	2.3V to 3.3V
Standby Current	12uA/3.0v
Working Current While Alarming	580mA/3.0v
Alarming Decibel	85dBm @3m
Alarming Concentration	0.65~15.5% obs/m
Dimension	Ø106mm x 40.6mm
Operating Temperature	-10°C ~ 55°C
Operating Humidity	<90%RH (no condensation)
Storage Temperature	-40°C~85°C

※ RA02A is an auxiliary smart smoke sensor which must be installed with the fire-fighting smoke sensor.

※ RA02A cannot be used to replace the fire-fighting smoke sensor.

RA02C is a device for the detection of harmful gases in the home environment. It is suitable for the detection of CO (carbon monoxide). When the concentration exceeds the preset value, it will trigger the alarm.

Main Characteristics

- Carbon monoxide
- High temperature detection (>60°C)
- IP20

Technical Parameter

Input Power	2 x1.5V AAA alkaline battery
Standby Current	18uA/3.0v
Average Operating Current	70uA/3.0v
Current While Alarming	20mA/3.0v
Alarming Decibel	85dBm@3m
CO Detection Range	0 ~ 1000ppm
Dimension	Ø106mm x 40.6mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90%RH (no condensation)
Storage Temperature	-40°C~85°C

RA02D1 Wireless Liquefied Petroleum Gas Detector

RA02D1 is a liquified petroleum gas detector. It can detect the LPG concentration in the environment,

and sound alarm when the concentration exceeds the default value.

※ Trigger alarm when LPG concentration exceeds 5% LEL, and stop alarm when it falls below 2%.

Main Characteristics

- Liquified petroleum gas detection
- High temperature detection (>60˚C)
- IP20

Technical Parameter

Input Power	DC12V
Operating Current	<150mA
Alarm Decibel Value	85dB (3 meters away)
Liquid Petroleum Gas Measurement Range	500~10000 ppm
Dimensions	Ø106mm x 40.6mm
Operating Temperature	-20˚C~55˚C

RA02G Wireless Cigarette Smoke, Vaping and Bullying Alarm Sensor

RA02G is a smoking and noise detector with an anti-tamper alarm. Indoor environments, such as schools, hospitals, and stations, can be easily monitored by the stable and functional RA02G. As soon as it detects smoke, excessive noises, or vibration, it will sound the alarm to alert users.

Main Characteristics

- Smoking and noise detection
- Anti-tamper alarm
- Battery backup
- Customize audio alerts or mute
- Connect PoE splitter
- Adjust sensitivity / alarm volume
- Detect power outage
- IP30

Technical Parameter

Input Power	DC12V/1A
Backup Power	2 x1.5V AAA alkaline battery
Vibration sensor	Ball-type omnidirectional signal trigger switch
Smoke Detector Comprehensive Response Time	≤10 seconds
Sound Sensitivity	-36±3db
Sound Frequency	20~10000 Hz
Dimensions	Ø106mm x 40.6 mm
Length of adapter cable	1.5m
Ambient Humidity Range	<90%RH (no condensation)
Ambient Temperature Range	-20°C~55°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RB11E Wireless Occupancy / Light / Temperature Sensor

RB11E combines infrared detection, temperature, and illumination sensors. During infrared real-time detection, if a people or other organism which is active in the monitoring area, RB11E will detect the infrared signal .

Main Characteristics

- Occupancy, temperature, illuminance and disassembled detection
- IP30

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Mounting Height	2 to 2.2 meters above ground level
Mounting Angle	Tilt 15° downward
Sensing Angle	Horizontal 110°, vertical 60°
Sensing Distance	2m to 12m
Temperature Accuracy	±2°C
Light Sensor Measurement Range	2~1100 LUX
Light Sensor Accuracy	≦15%
Dimension	78mm x 78.8mm x 82.2mm
Weight	125.8g
Operating Temperature	-20°C ~55°C
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

When the illuminance exceeds the set threshold, a report will be sent immediately.

※ R311B Built-in antenna

※ R313B External antenna

Main Characteristics

- Illuminance detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	12uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Detecting Illumination Range	1~3000 lux
Dimension	R311B: 57mm x 35mm x 15mm R313B: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311CA/R313CA Wireless 2-Input Dry Contact Interface

R311CA is externally connected to two dry contacts for customers to connect to the equipment under test, such as switches, buttons, sensors, relays, reed switches, etc. At the same time, wireless alarm and other functions can be realized through the built-in wireless module.

※ R311CA Built-in antenna

※ R313CA External antenna

Main Characteristics

- Dry contact Interface
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	10uA /3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Wire Material	UL2468 28AWG
Wire Length	1000mm (±5mm)
Wire Flame Resistance Rating	VW-1
Main Body Dimension	R311CA: 57mm x 35mm x 15mm R313CA: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311CB/R313CB Wireless Window Sensor with Glass Break Detector

R311CB / R313CB device has a built-in reed switch sensor and can be externally connected to the reed switch. It can be used for door and window switch status detection and externally connected to broken glass sensor to detect the glass status.

※ R311CB Built-in antenna

※ R313CB External antenna

Main Characteristics

- Reed switch and glass break detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Sensor Characteristic	Within the magnetic range, it is at off state (conducting). When out of the magnetic range, it is at on state (non-conducting).
Main Body Dimension	R311CB: 57mm x 35mm x 15mm R313CB: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311CC/R313CC Wireless 2-Gang Door/Window Sensor

R311CC / R313CC is equipped with two external reed switches, which can be used for door and window switch state detection.

※ R311CC Built-in antenna

※ R313CC External antenna

Main Characteristics

- Reed switch detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	10uA /3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA / 3.0V
Battery Accuracy	±0.1V
Sensor Case Size	42mm x 13mm x 12mm
External Cable Length	1 meter
Main Body Dimension	R311CC: 57mm x 35mm x 15mm R313CC: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311G / R311G has the built-in light sensor. It can be used for detecting ambient light intensity and can send the ambient illumination value.

※ R311G Built-in antenna

※ R313G External antenna

Main Characteristics

- Illuminance detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	12uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Detecting Illumination Range	1~3000 lux
Dimension	R311G: 57mm x 35mm x 15mm R313G: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

When the R311K / R313K has a tilt of 45 degrees or more in any direction, a tilt signal will be issued.

※ R311K Built-in antenna

※ R313K External antenna

※ It needs to be installed vertically.

Main Characteristics

- Tilt detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	10uA / 3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA/ 3.0V
Battery Accuracy	± 0.1V
Conversion Angle	45±5 degrees
Contact Resistance	Less than 10 ohms
Insulation Resistance	More than 100 megohms
Installation Type	Suitable for PCB at vertical state
Dimension	R311K: 57mm x 35mm x 15mm R313K: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311LA / R313LA is able to detect the existence of an object nearby. It has an infrared proximity sensor that can detect if there is an object existing within its detection range.

※ R311LA Built-in antenna

※ R313LA External antenna

Main Characteristics

- Infrared proximity detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	12uA / 3.0V
Transmitting Current (max)	120mA / 3.0V
Receiving Current (max)	11mA/ 3.0V
Battery Accuracy	±0.1V
Sensing Distance	Approximately 5cm
Dimension	R311LA: 57mm x 35mm x 15mm R313LA: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R311WA/R313WA Wireless 2-Gang Seat Occupancy Sensor

R311WA / R313WA is a device that detects the presence of a seat. If there is someone on the seat, R311WA / R313WA will send a message to the gateway. When detecting no one on a sensor seat, it will send a normal status message back to the gateway.

※ R311WA Built-in antenna

※ R313WA External antenna

Main Characteristics

- Seat occupancy detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Pressure Range	200-300g
Wire Material	UL2468 28AWG
Wire Length	1000mm (±15mm)
Main Unit Casing Size	R311WA: 57mm x 35mm x 15mm R313WA: 57mm x 38.05mm x 15mm
Cushion Film Sensor Size	300 mm x 300 mm x 0.65 mm
Operating Temperature	-20°C~55 °C
Operating Humidity	<90 %RH (no condense)
Storage Temperature	-40°C~85 °C

R711 is mainly used to measure the indoor ambient temperature and humidity.

※ Temperature Measurement Range: -20°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature and humidity detection
- IP40

Technical Parameter

Input Power	2 x 1.5V AA alkaline battery
Operating Voltage	2.3V to 3.0V
Standby Current	12uA/3V
Transmitting Current (max)	120mA/3V
Receiving Current (max)	11mA/3V
Battery Accuracy	±0.1V
Temperature Range	-20°C~55°C
Temperature Accuracy	±0.8°C @25°C (indoor)
Humidity Range	0%RH~100%RH
Humidity Accuracy	±5%RH @25°C
Dimension	108.5mm x 34.2mm x 19mm
Operating Humidity	<90%RH
Operating Temperature	-20°C ~55°C
Storage Temperature	-40°C~85°C

R712 Wireless Outdoor Temperature and Humidity Sensor

R712 is mainly used to detect the temperature and humidity in outdoor air, and also carrying a waterproof housing.

※ Temperature Measurement Range: -20°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature and humidity detection
- IP54

Technical Parameter

Input Power	2 x 1.5V AA alkaline battery
Operating Voltage	2.3V to 3.0V
Standby Current	12uA/3V
Transmitting Current (max)	120mA/3V
Receiving Current (max)	11mA/3V
Battery Accuracy	±0.1V
Temperature Range	-20°C~55°C
Temperature Accuracy	±1.5°C @25°C
Humidity Range	0%RH ~ 100%RH
Humidity Accuracy	±10%RH @25°C
Dimension	112mm x 34mm x 17mm
Waterproof Housing Dimension	222mm x 130mm x 195mm
Operating Humidity	<90%RH
Operating Temperature	-20°C~55°C
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718A/R718A01

Wireless Temperature and Humidity Sensor For Low Temperature Environment

R718A / R718A01 can be used in general refrigerators or domestic logistics refrigerators that store and transport food, medicines, flowers and other perishable goods.

※ R718A01: Capable to cache 50 records of temperature and humidity data.

※ Temperature Measurement Range: -40°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature and humidity detection
- IP65

Technical Parameter

	R718A	R718A01
Data Storage Function	X	O
Input Power	2 x 3.6V ER14505 lithium batteries	
Operating Voltage	3.1V to 3.65V	
Receiving Current (max)	11mA @3.3V	
Transmitting Current (max)	120mA/3.3V	
Battery Accuracy	±0.1V	
Temperature Detecting Range	-40°C~55°C	
Temperature Accuracy	±0.5°C @25°C	
Humidity Detecting Range	0%RH~100%RH	
Humidity Accuracy	±3%RH @25°C	
Dimension	112mm x 65mm x 28mm	
Operating Temperature	-40°C~55°C	
Operating Humidity	<90% RH (No condensation)	
Storage Temperature	-40°C~85°C	

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718AB can detect the temperature and humidity of the air.

※ Temperature Measurement Range: -20°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature and humidity detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Accuracy	±0.1V
Temperature Range	-20°C~55°C
Temperature Accuracy	±1°C @25°C
Humidity Range	0%RH~100%RH
Humidity Accuracy	±4%RH @25°C
Dimension	112mm x 65mm x 28mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718AD Wireless Temperature Sensor

R718AD is mainly used to measure the temperature of object.

※ Temperature Measurement Range: -40˚C~125˚C

※ Digital Thermometer

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Accuracy	±0.1V
Temperature Detecting Range	-40˚C~125˚C
Temperature Accuracy	±1˚C
Cable Length	1 m
Probe Size Length	50mm, outer diameter: 5mm
Probe Material	Stainless steel 316
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

R718BC /R718BC Wireless Temperature Sensor - PT1000 Clamp Probe

R718BC / R718BC2 is a wireless temperature sensor with a clamp probe, allowing users to securely attach it to a surface and easily measure the temperature of a tube.

※ Temperature Measurement Range: -50°C~150°C

※ PT1000

※ Clamp probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-50°C ~ 150°C
Accuracy	±3℃
Lead Length	2m
Adjustable Range	Diameter: 21 – 38mm

R718BP / R718BP2 Wireless Temperature Sensor - PT1000 Patch Probe

R718BP / R718BP2 is a wireless temperature sensor with a patch probe, allowing users to attach it to the surface and easily measure the temperature of an object.

※ Temperature Measurement Range: -50°C~150°C

※ PT1000

※ Patch probe

Main Characteristics

- Temperature detection
- Main body-IP65, Sensor-IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-50°C ~ 150°C
Accuracy	± 2℃
Lead Length	2m
Patch Probe Dimension	20mm x 25mm

R718B120/R718B220 Wireless 1-Gang/2-Gang Temperature Sensor

R718B120 / R718B220 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -70˚C~200˚C

※ PT1000

※ Round head probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-70˚C ~ 200˚C
Measurement Accuracy	**(1)The host body and sensor are in the same temperature range:** 0˚C ≤ t ≤ 55˚C, Accuracy: ±0.8˚C **(2)The host body and sensor are in the different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -70˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 200˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}˚C
Lead Length	2m
Probe Specifications	5mm in diameter x 30mm in length, round head probe

R718B121/R718B221 Wireless 1-Gang/2-Gang Temperature Sensor

R718B121 / R718B221 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -70˚C~200˚C

※ PT1000

※ Needle probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-70˚C ~ 200˚C
Measurement Accuracy	**(1)The host body and sensor are in the same temperature range:** 0˚C ≤ t ≤ 55˚C, Accuracy: ±0.8˚C **(2)The host body and sensor are in the different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -70˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 200˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}˚C
Lead Length	2m
Probe Specifications	5mm in diameter x 150mm in length, needle probe

R718B122 / R718B222 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -50˚C~180˚C

※ PT1000

※ Absorption probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-50˚C ~ 180˚C
Measurement Accuracy	**(1)The host body and sensor are in the same temperature range:** 0˚C ≤ t ≤ 55˚C, Accuracy: ±1˚C **(2)The host body and sensor are in the different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -50˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1.5}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 180˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.8}˚C
Lead Length	2m
Probe Specifications	5mm in diameter, absorption probe, NdFeB magnet

R718B140/R718B240 Wireless 1-Gang/2-Gang Temperature Sensor

R718B140 / R718B240 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -40˚C~375˚C

※ PT1000

※ Round head probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40˚C ~ 375˚C
Measurement Accuracy	**(1)The host body and sensor are in the same temperature range:** 0˚C ≤ t ≤ 55˚C, Accuracy: ±0.8˚C **(2)The host body and sensor are in the different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -40˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 375˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}˚C
Lead Length	2m
Probe Specifications	5mm in diameter x 30mm in length, round head probe

R718B141/R718B241 Wireless 1-Gang/2-Gang Temperature Sensor

R718B141 / R718B241 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -40˚C~375˚C

※ PT1000

※ Needle probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40˚C ~ 375˚C
Measurement Accuracy	**(1)The host body and sensor are in the same temperature range:** 0˚C ≤ t ≤ 55˚C, Accuracy: ±0.8˚C **(2)The host body and sensor are in the different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -40˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 375˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}˚C
Lead Length	2m
Probe Specifications	5mm in diameter x 150mm in length, needle probe

R718B150/R718B250 Wireless 1-Gang/2-Gang Temperature Sensor

R718B150 / R718B250 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -40˚C~500˚C

※ PT1000

※ Round head probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40˚C~500˚C
Measurement Accuracy	(1)The host body and sensor are in the same temperature range: 0˚C ≤ t ≤ 55˚C, Accuracy: ±0.8˚C (2)The host body and sensor are in the different temperature ranges: T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -40˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C <T2 ≤ 500˚C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}˚C
Lead Length	2m
Probe Specifications	5mm in diameter x 30mm in length, round head probe

R718B151/R718B251 Wireless 1-Gang/2-Gang Temperature Sensor

R718B151 / R718B251 connects an external resistance temperature detector to measure the temperature.

※ Temperature Measurement Range: -40°C~500°C

※ PT1000

※ Needle probe

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40°C~500°C
Measurement Accuracy	(1)The host body and sensor are in the same temperature range: 0°C ≤ t ≤ 55°C, Accuracy: ±0.8°C (2)The host body and sensor are in the different temperature ranges: T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: -40°C ≤ T2 < 0°C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+1}°C T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: 55°C <T2 ≤ 500°C (Sensor) Accuracy: ±{(0.15 + 0.002x |T2|)+0.6}°C
Lead Length	2m
Probe Specifications	5mm in diameter x 150mm in length, needle probe

R718CK/R718CK2 Wireless 1-Gang/2-Gang Thermocouple Sensor - Type K

R718CK / R718CK2 is used to detect temperature of the object and medium which thermocouple is contacted.

※ Temperature Measurement Range: -40˚C~375˚C

※ Thermocouple Sensor - Type K

Main Characteristics

- Temperature detection
- IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40˚C~375˚C
Measurement Accuracy	**(1)The host body and K-type thermocouple are in the same temperature range:** Temperature Range: 0˚C ≤ t ≤ 55˚C, Accuracy: ±1.5˚C **(2)The host body and K-type thermocouple are in different temperature ranges:** T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -40˚C ≤ T2 < 0˚C (Sensor) Accuracy: ±2˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C < T2 ≤ 375˚C (Sensor) Accuracy: ±2˚C
Lead Length	1m

R718CKAB Wireless Temperature and Humidity Sensor with Thermocouple Sensor - Type K

R718CKAB connects a temperature/humidity sensor and K-Type thermocouple, which respectively detects temperature and humidity, and the surface temperature of an object.

Main Characteristics

- Temperature / Humidity / Thermocouple detection
- IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-20°C~55°C
Humidity Range	0%~100%
Thermocouple Range	-40°C~375°C
Measurement Accuracy	**(1)The host body and K-type thermocouple are in the same temperature range:** Temperature Range: 0°C ≤ t ≤ 55°C, Accuracy: ±1.5°C **(2)The host body and K-type thermocouple are in different temperature ranges:** T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: -40°C ≤ T2 < 0°C (Sensor) Accuracy: ±2°C T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: 55°C < T2 ≤ 375°C (Sensor) Accuracy: ±2°C
Lead Length	1m

R718CN/R718CN2

Wireless 1-Gang/2-Gang Thermocouple Sensor - Type N

R718CN / R718CN2 is used to detect temperature of the object and medium which thermocouple is contacted.

※ Temperature Measurement Range: -40˚C~800˚C

※ Thermocouple Sensor - Type N

Main Characteristics

- Temperature detection
- IP50

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40~800˚C
Measurement Accuracy	±2˚C (-40~375˚C) ±0.004t+1˚C (375˚C~800˚C)
Lead Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718CT/R718CT2 Wireless 1-Gang/2-Gang Thermocouple Sensor - Type T

R718CT / R718CT2 is used to detect temperature of the object and medium which thermocouple is contacted.

※ Temperature Measurement Range: -40˚C~125˚C

※ Thermocouple Sensor - Type T

Main Characteristics

- Temperature detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-40 ˚C ~ 125˚C
Measurement Accuracy	(1)The host body and T-type thermocouple are in the same temperature range: Temperature Range: 0˚C ≤ t ≤ 55˚C, Accuracy:±0.8˚C (2)The host body and T-type thermocouple are in different temperature ranges: T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: -40˚C ≤ T2< 0˚C (Sensor) Accuracy: ±2˚C T1: 0˚C ≤ T1 ≤ 55˚C (Host body) T2: 55˚C < T2 ≤ 125˚C (Sensor) Accuracy: ±1.5˚C
Lead Length	1m

R718CTAB Wireless Temperature and Humidity Sensor with Thermocouple Sensor - Type T

R718CTAB connects a temperature/humidity sensor and T-Type thermocouple, which respectively detects temperature and humidity, and the surface temperature of an object.

Main Characteristics

- Temperature / Humidity / Thermocouple detection
- Main body-IP65/IP67, Thermocouple-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Range	-20°C~55°C
Humidity Range	0%~100%
Thermocouple Range	-40 °C ~ 125°C
Measurement Accuracy	(1)The host body and T-type thermocouple are in the same temperature range: Temperature Range: 0°C ≤ t ≤ 55°C, Accuracy:±0.8°C (2)The host body and T-type thermocouple are in different temperature ranges: T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: -40°C ≤ T2< 0°C (Sensor) Accuracy: ±2°C T1: 0°C ≤ T1 ≤ 55°C (Host body) T2: 55°C < T2 ≤ 125°C (Sensor) Accuracy: ±1.5°C
Lead Length	1m

R718PA1 Wireless CO Sensor

R718PA1 is a wireless communication device for detecting the concentration of CO in the air.

Main Characteristics

- Carbon monoxide detection
- Main body-IP65/IP67, Sensor-IP54

Technical Parameter

Input Power	DC 12V power supply
CO Measurement Range	0 to 2000ppm
CO Measurement Resolution	1ppm
CO Measurement Accuracy	±10%
Dimension	Main body: 112mm x 88mm x 32mm Sensor: 110mm x 85mm x 44mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA2 is a wireless communication device for detecting the concentration of NO in the air.

Main Characteristics

- Nitric oxide detection
- Main body-IP65/IP67, Sensor-IP65

Technical Parameter

Input Power	DC 12V power supply
NO Measurement Range	0 to 2000ppm
NO Measurement Method	Electrochemical sensors
NO Measurement Accuracy	<± reading 2% (@25°C)
NO Measurement Resolution	< 1ppm
Response time	< 60s
Dimension	112mm x 88mm x 32mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA3 Wireless O3 Sensor

R718PA3 is a wireless communication device for detecting the concentration of O3 in the air.

Main Characteristics

- Ozone detection
- Main body-IP65/IP67, Sensor-IP54

Technical Parameter

Input Power	DC 12V power supply
O3 Measurement Range	0 to 10ppm
O3 Measurement Resolution	0.01ppm
O3 Measurement Accuracy	±6%FS
Dimension	Main body: 112mm x 88mm x 32mm Sensor: 110mm x 85mm x 44mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA4 is a wireless communication device for detecting the concentration of H2S in the air.

Main Characteristics

- Hydrogen sulfide detection
- Main body-IP65/IP67, Sensor-IP54

Technical Parameter

Input Power	DC 12V power supply
H2S Measurement Range	0 to 100 ppm
H2S Measurement Resolution	1ppm
H2S Measurement Accuracy	±10%
Dimension	Main body: 112mm x 88mm x 32mm Sensor: 110mm x 85mm x 44mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA5 Wireless NO2 Sensor

R718PA5 is a wireless communication device for detecting the concentration of NO2 in the air.

Main Characteristics

- Nitrogen dioxide detection
- Main body-IP65/IP67, Sensor-IP54

Technical Parameter

Input Power	DC 12V power supply
NO2 Measurement Range	0 to 20 ppm
NO2 Measurement Resolution	0.1ppm
NO2 Measurement Accuracy	±5%FS
Dimension	Main body: 112mm x 88mm x 32mm Sensor: 110mm x 85mm x 44mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA6 Wireless SO2 Sensor

R718PA6 is a wireless communication device for detecting the concentration of SO2 in the air.

Main Characteristics

- Sulphur dioxide detection
- Main body-IP65/IP67, Sensor-IP54

Technical Parameter

Input Power	DC 12V power supply
SO2 Measurement Range	0 to 20 ppm
SO2 Measurement Resolution	0.1ppm
SO2 Measurement Accuracy	±5%FS
Dimension	Main body: 112mm x 88mm x 32mm Sensor: 110mm x 85mm x 44mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA7 Wireless Noise Sensor

R718PA7 is a wireless communication device for detecting the noise decibel value.

Main Characteristics

- Noise detection
- Main body-IP65/IP67, Sensor-IP65

Technical Parameter

Input Power	DC 12V power supply
Noise Measurement Range	30dB to 130dB
Noise Measurement Accuracy	0.1dB
Noise Measurement Error	±3dB
Response Time	≤ 3s
Frequency Response	20Hz –12.5Khz
Weighting Curve	A-Weighting
Dimensions	Main body: 112 mm x 88.19mm x 32 mm Noise Sensor: 147mm x 115mm x 41mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA8 is a wireless communication device for detecting PH value.

Main Characteristics

- PH value detection
- Main body-IP65/IP67, Sensor-IP68

Technical Parameter

Input Power	DC 12V power supply
PH Measurement Range	0 to 14 PH
PH Measurement Resolution	0.01 PH
Wire Length	5m (Other lengths customizable)
Dimension	112mm x 88mm x 32mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA10 Wireless Turbidity Sensor

R718PA10 is a wireless communication device for detecting turbidity value and temperature of the solution.

Main Characteristics

- Turbidity detection
- Main body-IP65/IP67, Sensor-IP68

Technical Parameter

Input Power	DC 12V power supply
Turbidity Range	0.1 to 1000 ntu
Turbidity Resolution	0.1 ntu
Turbidity Accuracy	<5% or 0.3 ntu
Maximum Depth	Underwater 10 m
Wire Length	10m (Other lengths customizable)
Dimension	112mm x 88mm x 32mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PA11 Wireless Liquid Level Sensor

R718PA11 is a wireless communication device for detecting the depth of liquid in the container.

※ Others line length/range can be customized.

Main Characteristics

- Liquid level detection
- Main body-IP65/IP67, Sensor-IP68

Technical Parameter

Input Power	DC 12V power supply
Measurement Range	10m (Other range customizable)
Line Length	12m (Other lengths customizable)
Accuracy	0.25%FS (Typical)
Dimension	112mm x 88mm x 32mm
Weight	About 160g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718PA22 Wireless Bottom-Mounted Ultrasonic Liquid Level Sensor

R718PA22 can be mounted at the bottom of the tank without breaking or making holes.

It can detect pure liquids, such as clear water, oil, diesel, gasoline and liquefied gas in small, medium or large capacity tanks.

Main Characteristics

- Bottom-Mounted Ultrasonic Liquid Level detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	DC 12V power supply
Measuring Range	80~2200mm (0-80mm is blind zone)
Measurement Accuracy	±(5+S*0.5%)mm ("S" represents the current liquid level height)
Resolution	1mm
Measurable Container Thickness	4~7mm
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PB15 / R718PB15A

Wireless Soil Moisture / Temperature / Electrical Conductivity Sensor

R718PB15 / R718PB15A is a wireless communication device for detecting soil temperature, moisture content and soil electrical conductivity.

※ R718PB15A with a waterproof housing.

Main Characteristics

- Soil temperature detection
- Moisture content detection
- Soil electrical conductivity detection
- R718PB15: Main body-IP65/IP67,Sensor:IP67
- R718PB15A: Main body-IP67,Sensor:IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Battery Accuracy	±0.1V
Soil Temperature Range	-40°C to 80°C
Soil Moisture Content Range	0 to 100%
Soil EC Range	0 to 20000 us/cm
Sensor Cable Length	2m
Dimension	R718PB15: 112mm x 88mm x 32mm R718PB15A: Ø80mm x 134mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718PE Top-Mounted Ultrasonic Level Sensor

The propagation medium of the R718PE ultrasonic sensor is air, so the measured object can be any liquid or solid object with an even surface.

Main Characteristics

- Top-Mounted Ultrasonic Level detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Measuring Range	0.25-8m
Blind Zone	0-0.25m
Detection Angle	About 15°
Measurement Accuracy	±(1+Sx0.3%) cm, S refers to the detected distance between the device and the detected object.
Cable Length	About 40cm
Dimension	112mm x 88mm x 32mm
Operating Temperature	-15°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-25°C~70°C

R718PE02 / R718PE02D Wireless Lidar Material Level Detection Sensor

R718PE02 / R718PE02D uses LiDAR radar for single-point ranging for the material level detection industry. Based on the ToF (Time of Flight) schematic, it provides stable, accurate, and reliable ranging performance by optimizing the optical system and built-in algorithms.

※R718PE02: Battery power supply

※R718PE02D: DC12V power supply

Main Characteristics

- Lidar Material Level detection
- R718PE02: Main body-IP65/IP67, Sensor-IP5X
- R718PE02D: Main body-IP30, Sensor-IP5X

Technical Parameter

	R718PE02	R718PE02D
Input Power	8 x 3.6V ER14505 lithium batteries	DC5V/2A
Measuring Range	90% Reflectivity, 0K lux 0.1m to 25m 10% Reflectivity, 0K lux 0.1m to 12m 90% Reflectivity, 100K lux 0.1m to 25m 10% Reflectivity, 100K lux 0.1m to 12m	
Blind Zone	0-0.1m	
Detection Angle	3°	
Measurement Accuracy	±6 cm (0.1-6m); ±1% (6-25m)	
Dimension	Main body: 112mm x 88mm x 32mm Battery box: 117mm x 89.05 x 82mm Sensor: 85mm x 59mm x43mm	
Operating Temperature	-15°C~55°C	
Operating Humidity	<60% RH (No condensation)	
Storage Temperature	-25°C~70°C	

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718PG has the built-in light sensor. It can be used for detecting ambient light intensity and can send the ambient illumination value.

Main Characteristics

- Illuminance detection
- IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Illuminance Range	0.01 Lux - 157K Lux
Illuminance Accuracy	±20% (In the sunlight) ±10% (Test Condition: white LED light, 6500K, room temperature)
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)

R718PQ Wireless Short-Range Occupancy Sensor

R718PQ has a built-in PIR sensor. If the movement of people or animal is detected within the monitored area, the device will report the detected status to gateway.

Main Characteristics

- Occupancy detection
- IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Wake up Current	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Measuring Distance	3.8M (from the main unit)
Detecting Angle	About 72° (2 meters away perpendicular to the sensor)
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718PQA Wireless Toilet Occupancy Sensor

R718PQA has a reed switch sensor and a built-in PIR sensor which detects if someone enter the toilet and close the door, it will report occupancy status.

Main Characteristics

- Occupancy and reed switch detection
- Main body-IP65/IP67, Sensor-IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Wake up Current	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Measuring Distance	3.8M (from the main unit)
Detecting Angle	About 72° (2 meters away perpendicular to the sensor)
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718UBB series is a wireless communication device that can detect CO2 in the environment and can be combined with a variety of sensors.

※See model combination for optional combination

Main Characteristics

- CO2, Temperature and humidity sensor, Vibration, Air Pressure, Light sensor
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
CO2 Range	400 to 5000 ppm (extended range up to 10000ppm)
CO2 Accuracy	±(50ppm ±3% of reading) Extended range: ± 10% of reading
Temperature Range	0°C to 50°
Humidity Range	0%RH to 100%RH
Vibration Type	Roll Ball Tilt Switch
Air Pressure Range	300hPa to 1100hPa
Illuminance Range	0.01 LUX to 157K LUX

Model Combination

Model	CO2	TH (1)	Vibration (2)	Air Pressure (3)	Light (5)
R718UBB	V				
R718UBB1	V	V			
R718UBB12	V	V	V		
R718UBB123	V	V	V	V	
R718UBB23	V		V	V	
R718UBB25	V		V		V
R718UBB125	V	V	V		V
R718UBB235	V		V	V	V
R718UBB1235	V	V	V	V	V

R718UBD Series Wireless CO2 / Temperature / Humidity / Vibration / Air Pressure / Light / PM2.5 / PM10

R718UBD series is a wireless communication device that can detect CO2 in the environment and can be combined with a variety of sensors. And transmits the detected data to other devices through the wireless network for display, which adopts the SX1276 wireless communication module.

※See model combination for optional combination

Main Characteristics

- CO2 Temperature and humidity sensor, Vibration, Air Pressure, Light Sensor
- PM2.5/PM10, TVOC
- Main body-IP65, PM2.5/PM10 Sensor-IP67, TVOC Sensor-IP65

Technical Parameter

Input Power	DC 12V
CO2 Range	400 to 5000 ppm extended range up to 10000ppm
CO2 Accuracy	±(50ppm ±3% of reading) Extended range: ± 10% of reading
Temperature Range	0°C to 50°C
Humidity Range	0%RH to 100%RH
Vibration Type	Roll Ball Tilt Switch
Air Pressure Range	300hPa to 1100hPa
Illuminance Range	0.01 LUX to 157K LUX
PM2.5/PM10 Range	PM2.5: 0 to 999ug/m³ PM10: 0 to 1500ug/m³
TVOC Range	0 to 60000ppb

Model Combination

Model	Built-in sensor					External Sensor	
	CO2	TH (1)	Vibration (2)	AirPressure (3)	Light (5)	TVOC (6)	PM2.5/10 (7)
R718UBD	V						
R718UBD1	V	V					
R718UBD12	V	V	V				
R718UBD123	V	V	V	V			
R718UBD23	V		V	V			
R718UBD25	V		V		V		
R718UBD125	V	V	V		V		
R718UBD235	V		V	V	V		
R718UBD1235	V	V	V	V	V		
R718UBD126	V	V	V			V	
R718UBD1236	V	V	V	V		V	
R718UBD1256	V	V	V		V	V	
R718UBD12356	V	V	V	V	V	V	
R718UBD127	V	V	V				V
R718UBD1237	V	V	V	V			V
R718UBD12357	V	V	V	V	V		V
R718UBD1257	V	V	V		V		V
R718UBD256	V		V		V	V	
R718UBD257	V		V		V		V
R718UBD236	V		V	V		V	
R718UBD237	V		V	V			V
R718UBD2356	V		V	V	V	V	
R718UBD2357	V		V	V	V		V

R718VA Wireless Capacitive Proximity Sensor

R718VA is connected to a non-contact capacitive sensor, which can be installed on the exterior of the container. Without direct contact, the sensor can detect the current level of water or liquid hand soap within the measurement range.

※Suitable for installation in flat non-metal containers

Main Characteristics

- The presence or absence of liquid/object detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Sensing Container Thickness	≤20mm (Non-metal:glass, plastic etc.)
Sensitivity	The sensitivity of the non-contact capacitive sensor must be adjusted in the field according to different liquids or objects and the thickness of non-metallic containers.
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718VB Wireless Capacitive Proximity Sensor

R718VB is to detect the level of toilet tank water, liquid hand soap, and liquid level of non-metallic pipes (pipe outside diameter: D ≥11MM). This device is connected to a non-contact capacitive sensor, which can be installed on the exterior of the container. Without direct contact, the sensor can detect the current level of water or liquid hand soap within the measurement range.

※ Suitable for installation in uneven non-metal containers

Main Characteristics

- The presence or absence of liquid/object detection
- Main body-IP65/IP67, Sensor-IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Sensing Container Thickness	≤20mm (Non-metal:glass, plastic etc.)
Applicable Pipe Diameter Range	≥11mm
Sensitivity	The sensitivity of the non-contact capacitive sensor must be adjusted in the field according to different liquids or objects and the thickness of non-metallic containers.
Dimension	112mm x 88mm x 32mm
Weight	About 150g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718WA/R718WA2 Wireless 1/2-Gang Water Leak Detector

If the R718WA / R718WA2 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 state message back to the gateway.

Main Characteristics

- Water leak detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Wire Material	UL2547 24AWG
Wire Length	1000mm (±5mm)
Wire Flame Resistance Rating	VW-1
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718WAA

Wireless Water Leak Detector with Temperature and Humidity Sensor

R718WAA can detect the temperature and humidity value of the current environment and send the temperature and humidity value information to the gateway for processing.

Main Characteristics

- Water leak detection
- Temperature and humidity detection
- Main body-IP65, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Measurement Range	-20°C to 55°C
Humidity Measurement Range	0%RH to 100%RH
Wire Material	UL2547 28AWG
Wire Length	1000mm (±5mm)
Wire Flame Resistance Rating	VW-1
Dimension	112mm x 93.4mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718WB/R718WB2

Wireless 1/2-Gang Water Leak Detector with Rope Sensor

R718WB /R718WB2 can detect the leak status through an external dual-core non-positioning water rope sensor, and send the detected data to data center through the wireless network.

Main Characteristics

- Non-positioning water leak detection
- Main body-IP65/IP67, Sensor-IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Leakage Rope Material	Conductive Polyethylene + Alloy Wire
Length	3000mm (±5mm)
Breaking Strength	60 kg
Detect Core Resistance	Less than 5 ohms/100 meters
Dimension	112mm x 88mm x 32mm
Weight	About 141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718WBA Wireless Water Leak Detector (Rope Sensor) with Temperature and Humidity Sensor

R718WBA can detect the leaking status through an external dual-core non-positioning water rope sensor. It also can detect temperature and humidity.

Main Characteristics

- Non-positioning water leak detection
- Temperature and humidity detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Measurement Range	-20°C to 55°C
Humidity Measurement Range	0%RH to 100%RH
Leakage Rope Material	Conductive Polyethylene + Alloy Wire
Length	3000mm (±5mm)
Breaking Strength	60 kg
Detect Core Resistance	Less than 5 ohms/100 meters
Dimension	112mm x 88mm x 32mm
Weight	About 141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718X Wireless Ultrasonic Distance Sensor and Temperature Sensor

R718X has a built-in ultrasonic ranging sensor that can detect the distance from the sensor to the detected object.

R718X also has the temperature detection function, it can detect the temperature of the waste bin.

Main Characteristics

- Ultrasonic distance detection
- Temperature detection
- IP66

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Distance of Detection	0.20~3.5m
Distance Accuracy	S±0.12m (The test object is cardboard)
Distance Blind Zone	0~0.20m
Temperature Range	-40°C to 55°C
Temperature Accuracy	±3°C
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718Y Wireless Differential Pressure and Temperature Sensor

R718Y is a wireless communication device for detecting the pressure difference and temperature.

Main Characteristics

- Differential pressure detection
- IP40

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Differential Pressure Range	-500 Pa to 500 Pa
Differential Pressure Accuracy	3% of reading ± 0.1 Pa
Allowable Overpressure	100 kPa
Rated Burst Pressure	500 kPa
Temperature Accuracy	± 3°C (-20°C to 50°C)
Media Compatibility	Air, Nitrogen, Oxygen, Non-condensing
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C ~ 50°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R719A Wireless Surface-Mounted Parking Sensor

R719A can be used to detect the presence or absence of parking vehicles in the parking space.

Main Characteristics

- Parking space detection
- IP67

Technical Parameter

Input Power	2 x 3.6V ER18505 lithium batteries
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Geomagnetic Sensor-Magnetic Field Detection Range	± 50 gauss
Radar Sensor - Working Frequency	60GHZ
Radar Sensor - Detection Range	6cm~2m
Operating Humidity	< 90% RH (No condensation)
Operating Temperature	-20°C~75°C
Dimension	150mm x 150mm x 30mm

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720A

Wireless Temperature and Humidity Sensor For Low Temperature Environment

R720A can be used in general refrigerators or domestic logistics refrigerators that store and transport food, medicines, flowers and other perishable goods.

※ Temperature Measurement Range: -40°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature and humidity detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Detecting Range	-40°C~55°C
Temperature Accuracy	±0.5°C @25°C
Humidity Detecting Range	0%RH~100%RH
Humidity Accuracy	±4%RH @25°C
Dimension	88mm x 65mm x 19mm
Operating Temperature	-40°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720B

Wireless Temperature and Humidity Sensor with Activity Detection Sensor

R720B can detect the temperature, humidity and move alarm.

※ Temperature Measurement Range: -40°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature, humidity and move alarm detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Detecting Range	-40°C~55°C
Temperature Accuracy	±0.5°C @25°C
Humidity Detecting Range	0%RH~100%RH
Humidity Accuracy	±4%RH @25°C
Dimension	88mm x 65mm x 19mm
Operating Temperature	-40°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720C Wireless Air Pressure and Temperature Sensor

R720C is a wireless communication device for detecting ambient air pressure and temperature.

※ Temperature Measurement Range: -40˚C~55˚C

Main Characteristics

- Air pressure and temperature detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Temperature Detecting Range	-40˚C~55˚C
Temperature Accuracy	±1˚C @25˚C
Air Pressure Range	300-1100hPa
Air Pressure Accuracy	±1.5 hPa (950 ... 1050 hPa, 0 ... +40 ˚C)
Dimension	88mm x 65mm x 19mm
Operating Temperature	-40˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720E can detect the temperature, humidity and TVOC.

※ Temperature Measurement Range: -20°C~55°C

※ Humidity Measurement Range: 0%RH~100%RH

Main Characteristics

- Temperature, humidity and TVOC detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
TVOC Detecting Range	0 ppb - 60000 ppb
TVOC Detecting Resolution	0ppb-2008ppb : 1ppb 2008ppb-11110ppb : 6ppb 11110ppb-60000ppb : 32ppb
TVOC Concentration Range Reference Description	Excellent: 0-65 ppb Good: 65-220 ppb Moderate: 220-660 ppb Poor: 660-2200 ppb Unhealthy: 2200-60000 ppb
Temperature Range	-20°C to 55°C
Humidity Range	0%RH to 100%RH

R720F Series Wireless Liquid Hand Soap Sensor

R720F series can detect the existence of hand sanitizer / water leakage. This device is connected with two electrode rods which can be used to detect the state of the insufficient amount of hand sanitizer in the hand sanitizer box or whether there is the water leakage in the detection area.

※The shape and orientation of electrode rod can be selected according to the needs.

Main Characteristics

- Liquid hand soap detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Electrode Rod Material	Nickel-plated phosphor bronze
Electrode Rod Length	Total length: 201.5±1.5mm 10 sections of the electrode rod have been rolled grooves for easy cutting. The length of each section is about 10mm as the figure shown.
Dimension	88mm x W 65mm x H 19mm

R720FLO
L-type probe
electrode rods upward

R720FLD
L-type probe
electrode rods downward

R720FU
U-type probe

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720FW Wireless Water Leak Detector

R720FW is a wireless communication device for detecting water leak.

Main Characteristics

- Water leak detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Electrode Rod Material	Nickel-plated phosphor bronze
Dimension	88mm x 65mm x 19mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R720FLT Wireless Toilet Tank Leak Detector

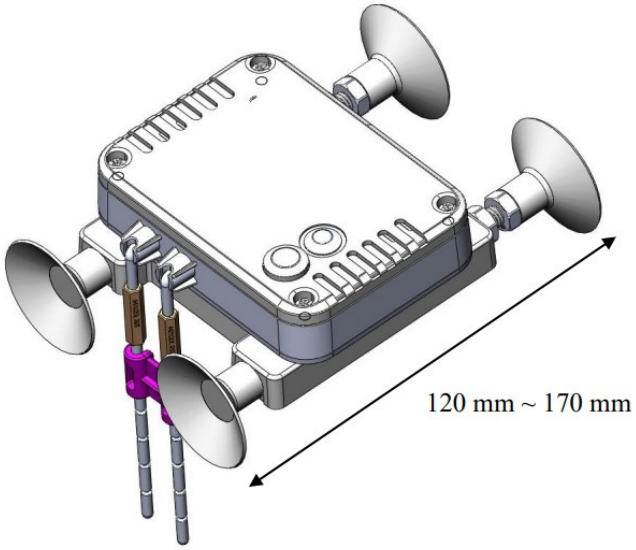
R720FLT is connected with two electrode rods to detect the water make-up of the toilet water tank, detect the daily water make up times and whether the water tank is faulty.

Main Characteristics

- Toilet tank leak detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Electrode Rod Material	Nickel-plated phosphor bronze
Length	Total length: Ø 3mm x 90.2mm (Length from the bottom of the R720FLT unit to the top of the probe.) Electrode Rod : Ø 3mm x 73.75mm
Dimension	88mm x 65mm x 19mm



Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA0701

RA0701Y

R72601

RA0701 / RA0701Y / R72601 is a wireless communication device for detecting the concentration of CO in the air.

Main Characteristics

- CO concentration detection

Technical Parameter

	RA0701	RA0701Y	R72601
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
CO Measurement Range	0 to 2000ppm		
CO Measurement Resolution	1ppm		
CO Measurement Accuracy	±10%		
Operating Temperature	-20°C~55°C		
Operating Humidity	<90% RH (No condensation)		
Storage Temperature	-40°C~85°C		
Main body IP Rating	IP40	IP23	IP23

RA0708/RA0708Y/R72608

Wireless Water pH Sensor

RA0708

RA0708Y

R72608

RA0708 / RA0708Y / R72608 is a wireless communication device for detecting the water pH value and water temperature.

Main Characteristics

- Water pH detection

Technical Parameter

	RA0708	RA0708Y	R72608
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
PH Value Range	0~14PH		
Temperature Range	0 to 65° C		
Installation Method	Immersive installation, 3/4NPT pipe thread		
Wire Length	5 meters, other lengths can be customized		
Main body IP Rating	IP40	IP23	IP23
PH Sensor IP Rating	IP68		

RA0710/RA0710Y/R72610

Wireless Water Turbidity Sensor

RA0710

RA0710Y

R72610

RA0710 / RA0710Y / R72610 is a wireless communication device for detecting the water turbidity and water temperature.

※ If the user needs a range of 0~100 NTU / 0~20 NTU, the user needs to purchase the sensor of this range

Main Characteristics

- Water turbidity detection

Technical Parameter

	RA0710	RA0710Y	R72610
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
Measurement Range	0~1000 NTU		
Accuracy	±5% or ±3NTU		
Installation Method	Immersive installation, 3/4NPT pipe thread		
Wire Length	5 meters, other lengths can be customized		
Main body IP Rating	IP40	IP23	IP23
Turbidity Sensor IP Rating	IP68		

RA0711/RA0711Y/R72611

Wireless Water Level Sensor

RA0711

RA0711Y

R72611

RA0711 / RA0711Y / R72611 is a wireless communication device for detecting the water level.

※ Others line length/range can be customized.

Main Characteristics

■ Water level detection

Technical Parameter

	RA0711	RA0711Y	R72611
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
Measurement Range	10m		
Wire Length	12m		
Accuracy Level	0.25%FS (typical value)		
Main body IP Rating	IP40	IP23	IP23
Water Level Sensor IP Rating	IP68		

RA0715/RA0715Y/R72615/R72615A

Wireless CO2 / Temperature / Humidity Sensor

RA0715

RA0715Y

R72615

R72615A

RA0715 / RA0715Y / R72615 / R72615A is a wireless communication device for detecting the concentration of CO2 in the air.

Main Characteristics

- CO2, temperature and humidity detection

Technical Parameter

	RA0715	RA0715Y	R72615	R72615A
Input Power	DC 12V	DC 12V	3x18650	8xER14505
Solar Panel Specification	/	/	5W/18VDC	/
CO2 Measurement Range	400-5000ppm			
Temperature Measurement Range	-20°C~55°C			
Humidity Measurement Range	0%RH ~ 100%RH			
Main body IP Rating	IP20	IP43	IP23	IP40

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA0716/RA0716Y/R72616/R72616A

Wireless PM2.5 / Temperature / Humidity Sensor

RA0716

RA0716Y

R72616

R72616A

RA0716 / RA0716Y / R72616 / R72616A is a wireless communication device for detecting the PM2.5 dust in the air.

Main Characteristics

- PM2.5, temperature and humidity detection

Technical Parameter

	RA0716	RA0716Y	R72616	R72616A
Input Power	DC 12V	DC 12V	3x18650	8xER14505
Solar Panel Specification	/	/	5W/18VDC	/
Measurement Range	0.3 ~ 1.0 ; 1.0 ~ 2.5um			
Counting Efficiency	50%@0.3um, 98%@≥0.5um			
Effective Rang (PM2.5 standard)	0~500μg/m^3			
Temperature Measurement Range	-20˚C~55˚C			
Humidity Measurement Range	0%RH ~ 100%RH			
Main body IP Rating	IP20	IP23	IP23	IP30

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA0723/RA0723Y/R72623

Wireless PM2.5 / Noise / Temperature / Humidity Sensor

RA0723

RA0723Y

R72623

RA0723 / RA0723Y / R72623 is a wireless communication device which can detect PM2.5, noise intensity, temperature and humidity of the environment.

Main Characteristics

- PM2.5, noise, temperature and humidity detection

Technical Parameter

	RA0723	RA0723Y	R72623
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
Particle Measurement Range	PM2.5: 0.3 ~ 1.0 ; 1.0 ~ 2.5um		
Counting Efficiency	50%@0.3um, 98%@≥0.5um		
Effective Rang (PM2.5 standard)	0~500μg/m^3		
Temperature Measurement Range	-20°C~55°C		
Humidity Measurement Range	0%RH~100%RH		
Noise Measuring Range	30dB~130dB		
Main body IP Rating	IP20	IP23	IP23

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA0724/RA0724Y/R72624

Wireless Noise / Temperature / Humidity Sensor

RA0724

RA0724Y

R72624

RA0724 / RA0724Y / R72624 is a wireless communication device which can detect noise intensity, temperature and humidity of the environment.

Main Characteristics

- Noise, temperature and humidity detection

Technical Parameter

	RA0724	RA0724Y	R72624
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
Noise Measurement Range	30dB~130dB		
Measuring Error	3% F.S		
Frequency Weighted Characteristic	A weighted		
Temperature Measurement Range	-20°C~55°C		
Humidity Measurement Range	0%RH~100%RH		
Main body IP Rating	IP40	IP43	IP43

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA0730/RA0730Y/R72630

Wireless Wind Speed / Wind Direction / Temperature / Humidity Sensor

RA0730

RA0730Y

R72630

RA0730 / RA0730Y / R72630 is equipped with wind speed sensor, wind direction sensor, and temperature and humidity sensor. It can detect and send the data of the wind speed, wind direction, temperature and humidity of the environment.

Main Characteristics

- Wind speed, wind direction, temperature and humidity detection

Technical Parameter

	RA0730	RA0730Y	R72630
Input Power	DC 12V	DC 12V	3x18650
Solar Panel Specification	/	/	5W/18VDC
Wind Speed Measurement Range	0-30m/s		
Wind Direction Measurement Range	16 points of a compass		
Temperature Measurement Range	-20°C~55°C		
Humidity Measurement Range	0%RH~100%RH		

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R72632A

R72632A01

R72632A / R72632A01 can detect and send soil nitrogen (N), phosphorus (P) and potassium (K) data.

※ It is suitable for measuring ordinary yellow-cinnamon soil, black soil, and terra rossa.

※ It is not applicable to saline-alkali land, sandy land, or other powdery objects with high salinity.

※ The soil humidity shall be more than 25%

Main Characteristics

■ Soil NPK detection

Technical Parameter

	R72632A	R72632A01
Input Power	2 x ER34615	8 x ER14505
Measurement Range	0-1999 mg/kg	
Detection Accuracy	±2% F.s	
Detection Resolution	1mg/kg (mg/L)	
Wire Length	1.25m	
Main body IP Rating	IP65	
NPK Sensor IP Rating	IP68	

RA07W Wireless Water Leak Detection and Location Sensor

RA07W is a water leak detector leak locating equipment, which can be connected to water leak sensor through the external four-core positioning leak detection sensor line to detect the water leak location.

Main Characteristics

- Water leak detection
- IP65

Technical Parameter

Input Power	12V/1A
Wire Length	Water leak detector line 3m+ extension line 1m
Leak Detection Error Range	1%±0.5 meters of sensor line length
Dimension	111mm x 86mm x 41mm
Working Temperature	-20°C~55°C
Operating Humidity	5%RH~95%RH
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA08B01

RA08B01S

RA08B01 / RA08B01S is a multi-functional device for indoor detection of CO2, temperature, humidity, TVOC, illuminance, air pressure, and PIR.

※ RA08B01S: With a 2.13-inch E-paper display

※ Battery power supply

Main Characteristics

■ Built-in sensors:

CO2, Temperature, humidity, TVOC, illuminance, air pressure and PIR.

Technical Parameter

Input Power	4 x 3.6V ER14505 lithium batteries
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
Illuminance Range	0.01 Lux to 157 Klux
Air Pressure Measurement Range	300 to 1100hPa
PIR Detection Distance	0~2.5m

RA08B02

RA08B02S

RA08B02 / RA08B02S is a multi-functional device for indoor detection of CO2, temperature, humidity, TVOC and PIR.

※ RA08B02S: With a 2.13-inch E-paper display

※ Battery power supply

Main Characteristics

- Built-in sensor:

  CO2, Temperature, humidity, TVOC and PIR.

Technical Parameter

Input Power	4 x 3.6V ER14505 lithium batteries
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
PIR Detection Distance	0~2.5m

RA08B03

RA08B03S

RA08B03 / RA08B03S is a multi-functional device for indoor detection of CO2, temperature, humidity, TVOC , illuminance, air pressure, PIR, NH3 and H2S.

※ RA08B03S: With a 2.13-inch E-paper display

※ Battery power supply

Main Characteristics

■ Built-in sensors:

CO2, Temperature, humidity, TVOC , illuminance, air pressure, PIR, NH3 and H2S.

Technical Parameter

Input Power	4 x 3.6V ER14505 lithium batteries
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
Illuminance Range	0.01 lux to 157K lux
Air Pressure Measurement Range	300 to 1100hPa
PIR Detection Distance	0~2.5m
NH3 Measurement Range	0 to 10ppm
H2S Measurement Range	0 to 5ppm

RA08B04

RA08B04S

RA08B04 / RA08B04S is a multi-functional device for indoor detection of CO2, temperature, humidity, PIR, NH3, and H2S.

※ RA08B04S: With a 2.13-inch E-paper display

※ Battery power supply

Main Characteristics

- Built-in sensors:

  CO2, Temperature, humidity, PIR, NH3 and H2S.

Technical Parameter

Input Power	4 x 3.6V ER14505 lithium batteries
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
PIR Detection Distance	0~2.5m
NH3 Measurement Range	0 to 10ppm
H2S Measurement Range	0 to 5ppm

RA08D07/RA08D07S Wireless CO2 / Temperature / Humidity / TVOC / Light / Air Pressure / PIR / CH2O / CO Sensor

RA08D07

RA08D07S

RA08D07 / RA08D07S is a multi-functional device for indoor detection of CO2, temperature, humidity, TVOC, illuminance, air pressure, PIR, CH2O and CO.

※ RA08D07S: With a 2.13-inch E-paper display

※ DC power supply

Main Characteristics

- Built-in sensors:

  CO2, temperature, humidity, TVOC, illuminance, air pressure, PIR and CH2O.

- External sensor: CO sensor.

Technical Parameter

Input Power	DC12V
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
Illuminance Range	0.01 Lux to 157 Klux
Air Pressure Measurement Range	300 to 1100hPa
PIR Detection Distance	0~2.5m
CH2O Measurement Range	0-2000ppb
CO Measurement Range	0- 1000ppm

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA08D08/RA08D08S Wireless PM2.5 / Temperature / Humidity / TVOC / Light / Air Pressure / PIR / CO Sensor

RA08D08

RA08D08S

RA08D08 / RA08D08S is a multi-functional device for indoor detection of PM2.5, temperature, humidity, TVOC, illuminance, air pressure, PIR and CO.

※ RA08D08S: With a 2.13-inch E-paper display

※ DC power supply

Main Characteristics

- Built-in sensors:

  PM2.5, Temperature, humidity, TVOC, illuminance, air pressure and PIR.

- External sensor: CO sensor.

Technical Parameter

Input Power	DC12V
PM2.5 Measurement Range	0.3 to 1.0um; 1.0 to 2.5um
Particle Mass Concentration Effective Range	0 to 500μg/m^3
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
Illuminance Range	0.01 Lux to 157 Klux
Air Pressure Measurement Range	300 to 1100hPa
PIR Detection Distance	0~2.5m
CO Measurement Range	0- 1000ppm

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA08D09

RA08D09S

RA08D09 / RA08D09S is a multi-functional device for indoor detection of CO2, temperature, humidity, TVOC, illuminance, air pressure, PIR, NH3 and H2S.

※ RA08D09S: With a 2.13-inch E-paper display

※ DC power supply

Main Characteristics

- Built-in sensors:

  CO2, Temperature, humidity, TVOC, illuminance, air pressure, PIR, NH3 and H2S.

Technical Parameter

Input Power	DC12V
CO2 Measurement Range	400 to 5000 ppm ±(50ppm+3% of reading) 5001 to 10000ppm ± 10% of reading
Temperature Measurement Range	0°C to 50°C
Humidity Measurement Range	0%RH to 100%RH
TVOC Measurement Range	0 to 1,000,000 ppb
Illuminance Range	0.01 Lux to 157 Klux
Air Pressure Measurement Range	300 to 1100hPa
PIR Detection Distance	0~2.5m
NH3 Measurement Range	0 to 10ppm
H2S Measurement Range	0 to 5ppm

R211 can execute IR learning and IR applying. After IR learns, it can operate R211 to control electrical equipment remotely, e.g. electric fan and air conditioner.

※ Infrared frequency 38KHz

Main Characteristics

- IR learning
- IP30

Technical Parameter

Input Power	DC 12V
Standby Current	50mA
Infrared Frequency	38KHz
Infrared Signal Range	About 32 meters
Dimension	Ø106mm x 30.5mm
Operating Temperature	-20˚C~55˚C
Operating Humidity	5% RH ~ 95% RH (No condensation)
Storage Temperature	-40˚C~85˚C

R311FA/R313FA Wireless Activity Detection Sensor

R311FA / R313FA can detect its sudden movement or vibration.

※ R311FA Built-in antenna

※ R313FA External antenna

Main Characteristics

- Vibration status: 0(off) or 1(on) detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	40uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Vibration Intensity Sensitivity	62.5mg
Dimension	R311FA: 57mm x 35mm x 15mm R313FA: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R311FA1/R313FA1 Wireless Accelerometer

When the R311FA1 / R313FA1 moves or shakes beyond the set threshold, it immediately reports the current acceleration and velocity of the X, Y, and Z axes.

※ R311FA1 Built-in antenna

※ R313FA1 External antenna

Main Characteristics

- 3-axis acceleration and velocity detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	42uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Dimension	R311FA1: 57mm x 35mm x 15mm R313FA1: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R311FB/R313FB Wireless Activity Event Counter

R311FB / R313FB can count its number of movements or vibrations

※ R311FB Built-in antenna

※ R313FB External antenna

Main Characteristics

- Vibration count detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	40uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Vibration Intensity Sensitivity	62.5mg
Dimension	R311FB: 57mm x 35mm x 15mm R313FB: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R311FC/R313FC Wireless Activity Timer

R311FC / R313FC detects the duration of the movement or vibration.

※ R311FC Built-in antenna

※ R313FC External antenna

Main Characteristics

- Vibration duration time detection
- IP30

Technical Parameter

Input Power	2 x 3.0V CR2450 button batteries
Operating Voltage	2.4V to 3.0V
Standby Current	42uA/3.0V
Transmitting Current (max)	120mA/3.0V
Receiving Current (max)	11mA @3.0V
Battery Accuracy	±0.1V
Vibration Intensity Sensitivity	62.5mg
Dimension	R311FC: 57mm x 35mm x 15mm R313FC: 57mm x 38.05mm x 15mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R716S Portable LoRa Field Signal Meter

R716S is developed based on LoRa technology to detect the network signal of the LoRa network.

R716S can detect the LoRa signal strength of the scanned area and display the detected data through LCD.

Main Characteristics

- LoRa signal strength detection

Technical Parameter

Input Power	2 AA size alkaline battery
Operating Voltage Range	2.3V to 3V
Low Battery Threshold	2.4V
Battery Voltage Accuracy	±0.1V
Standby Current	28uA
Dimension	112mm x 34mm x 17mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718E/R718EC Wireless Accelerometer and Surface Temperature Sensor

R718E / R718EC reports 3-axis acceleration, velocity, angle, status, and surface temperature as the values of movement and vibration exceed the thresholds.

The thresholds of each axis can be set based on user's needs and different applications.

Main Characteristics

- 3-axis acceleration, velocity, angle detection
- Surface temperature detection
- Main body-IP65, Sensor-IP67

Technical Parameter

	R718E	R718EC
Vibration sensor	Internal	External
Input Power	2 x 3.6V ER14505 lithium batteries	
3-axis Acceleration Range	±16g	
Angle Range	±90° (Unit:0.005°)	
ADC Maximum Resolution	13 bits	
Temperature Measurement Range	-40°C~120°C	
Dimension	112 mm x 88 mm x 32 mm	
Operating Temperature	-20°C~55°C	
Operating Humidity Range	<90% RH (No condensation)	
Storage Temperature Range	-40°C~85°C	

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718EA/R718EB Wireless Tilt Angle (and Surface Temperature) Sensor

R718EA / R718EB reports 3-axis angle and surface temperature as the values of movement and vibration exceed the thresholds.

R718EA is connected with an external NTC thermistor to detect the surface temperature of the measured object.

Main Characteristics

- Angle of the 3-axis detection
- Surface temperature detection
- Main body-IP65, Sensor-IP67

Technical Parameter

	R718EA	R718EB
NTC Thermistor	40°C~120°C	X
Angle Resolution	1°	0.1° / 0.005°
Input Power	2 x 3.6V ER14505 lithium batteries	
Angle Measurement Range	±90°	
Angle Accuracy	±3°	
Dimension	112 mm x 88 mm x 32 mm	
Operating Temperature	-20°C~55°C	
Operating Humidity Range	<90% RH (No condensation)	
Storage Temperature Range	-40°C~85°C	

※ The units of R718EB's angle measurement are 0.1° and 0.005°.
The unit cannot be changed through the configuration of commands.
It shall be set before the shipment.

R718IA / R718IA2 can externally connect a device to measure ADC voltage, and the measuring range is 0 to 5v.

Main Characteristics

- ADC 0-5V detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
ADC Sampling Voltage Range	0-5V
ADC Resolution	12 bits
ADC Conversion Rate	1.14 Msps
External Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718IB/R718IB2 Wireless 1/2-Input 0-10V ADC Sampling Interface

R718IB / R718IB2 can externally connect a device to measure ADC voltage, and the measuring range is 0 to 10v.

Main Characteristics

- ADC 0-10V detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
ADC Sampling Voltage Range	0-10V
ADC Resolution	12 bits
ADC Conversion Rate	1.14 Msps
External Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718J / R718J2 can connect a dry contact device to detect output status, e.g. switch, reed switch and so on.

Main Characteristics

- Dry contact detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Wire material	UL2547 28AWG
Wire length	1000mm（±5mm）
Wire flame resistance rating	VW-1
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718H / R718H2 is connected with a pulse detection interface, which can calculate the number of pulses.

※ The input pulse width is greater than 100ms to accurately count.

Main Characteristics

- Pulse counter detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Pulse Voltage Range	2.4v~3.3v
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20˚C~55˚C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40˚C~85˚C

R718LB/R718LB2

Wireless 1/2-Gang Hall Type Open / Close Detection Sensor

R718LB / R718LB2 is equipped with a hall sensor, which can be used for door and window switch state detection.

Main Characteristics

- Open / Close detection
- Main body-IP65/IP67, Sensor-IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Performance Characteristics	All-pole sensing, the magnet can activate either pole.
Hall Sensor Sensing Distance	Less than 3cm.
Cable Length	1m
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718MA has a simple positioning function which can detect the position status of itself. The device can report RSSI and SNR information to the gateway for processing periodically and locating its position.

Main Characteristics

- RSSI and SNR detection
- Simple positioning
- Main body-IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718MBA Wireless Activity Detection Sensor

R718MBA can detect its sudden movement or vibration.

Main Characteristics

- Vibration status: 0(off) or 1(on) detection
- Main body-IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Standby Current	76uA
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718MBB Wireless Activity Event Counter

R718MBB can count its number of movements or vibrations.

Main Characteristics

- Vibration count detection
- Main body-IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Standby Current	76uA
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718MBC Wireless Activity Timer

R718MBC detects the duration of the movement or vibration.

Main Characteristics

- Vibration duration time detection
- Main body-IP65/IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Standby Current	76uA
Dimension	112mm x 65mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718KA/R718KA2

Wireless 1/2-Gang mA Current Meter Interface, 4~20mA

R718KA / R718KA2 It converts the 4mA-20mA signal into a corresponding detection signal through the operational amplifier and then reads the current through the sampling of the ADC module.

Main Characteristics

- 4~20mA current detection
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Operating Voltage	3.1V to 3.65V
Measurement Range	4~20mA
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718KBA Wireless 4-Input 0-10V ADC Sampling Interface

R718KBA is a device for detecting 0-10V signals interface. It can detect four 0-10V signals simultaneously, with high precision and small error.

It is suitable for use with sensors or instruments that output signals in the range of 0-10V.

Main Characteristics

- 4-Input 0-10V ADC Sampling Interface
- IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Measurement Range	0 to 10V
Accuracy	0V to 0.5V: <2% 0.5V to 10V: <1%
Resolution	1mV
Cable Length	1m
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)

R718KBB Wireless 4-Input 0-20mA Sensor Interface

R718KBB is a device for detecting 0-20mA signals interface. It can detect four 0-20mA signals simultaneously, with high precision and small error.

It is suitable for use with sensors or instruments that output signals in the range of 0-20mA.

Main Characteristics

- 0~20mA current detection
- IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Measurement Range	0 to 20mA
Accuracy	0 to 1mA: <2% 1 to 20mA: <1%
Resolution	1uA
Cable Length	1m
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)

R718KBC

Wireless 2-Input 0-10V ADC Sampling and 2-Input 0-20mA Sensor Interface

R718KBC is a device for detecting 0-10V and 0-20mA signals interface. It can detect two 0-10V and two 0-20mA signals simultaneously, with high precision and small error.

It is suitable for use with sensors or instruments that output signals in the range of 0-10V and 0-20mA.

Main Characteristics

- 0-10V ADC and 4~20mA current detection
- IP67

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
Measurement Range	0 to 10V 0 to 20mA
Accuracy	0V to 0.5V: <2% 0.5V to 10V: <1% 0 to 1mA: <2% 1 to 20mA: <1%
Resolution	1mV / 1uA
Cable Length	1m
Dimension	112mm x 88mm x 32mm
Weight	141g
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R718PC supports RS485 serial port transparent transmission.

The device can send the read commands to sensors supporting RS485 protocol according to the configured cycle.

※ It supports up to 128 bytes of data (depending on the current communication rate)

Main Characteristics

- RS485 serial port transparent transmission
- Main body-IP65/IP67

Technical Parameter

Input Power	DC 12V power supply
Operating Current	35 mA (when there is no external sensor)
Baud Rate	115200 / 57600 / 38400 / 28800 / 19200 / 9600 / 4800 / 2400
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718PDA supports RS232 serial port transparent transmission.

The device can send the read commands to sensors supporting RS232 protocol according to the configured cycle.

※ It supports up to 128 bytes of data (depending on the current communication rate)

Main Characteristics

- RS232 serial port transparent transmission
- Main body-IP65/IP67

Technical Parameter

Input Power	DC 12V power supply
Operating Current	45 mA (when there is no external sensor)
Baud Rate	115200 / 57600 / 38400 / 28800 / 19200 / 9600 / 4800 / 2400
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718N17/R718N17E/R718N17D/R718N17DE

Wireless Single-Phase Current Meter with 1 x 75A Clamp-On CT

R718N17

R718N17E

R718N17D

R718N17DE

R718N17 series is a 1-phase clamp-on CT of 75A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 100mA~75A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N17	R718N17E	R718N17D	R718N17DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	100mA~75A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	10±0.2 mm			

R718N115/R718N115E/R718N115D/R718N115DE

Wireless Single-Phase Current Meter with 1 x 150A Clamp-On CT

R718N115

R718N115E

R718N115D

R718N115DE

R718N115 series is a 1-phase clamp-on CT of 150A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 1A~150A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N115	R718N115E	R718N115D	R718N115DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	1A~150A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	16±0.5 mm			

R718N125/R718N125E/R718N125D/R718N125DE

Wireless Single-Phase Current Meter with 1 x 250A Clamp-On CT

R718N125

R718N125E

R718N125D

R718N125DE

R718N125 series is a 1-phase clamp-on CT of 250A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 1A~250A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N125	R718N125E	R718N125D	R718N125DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	1A~250A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	24.3±0.5 mm			

R718N163/R718N163E/R718N163D/R718N163DE

Wireless Single-Phase Current Meter with 1 x 630A Clamp-On CT

R718N163

R718N163E

R718N163D

R718N163DE

R718N163 series is a 1-phase clamp-on CT of 630A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 5A~630A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N163	R718N163E	R718N163D	R718N163DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	5A~630A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	35±0.5 mm			

R718N1100/R718N1100E/R718N1100D/R718N1100DE

Wireless Single-Phase Current Meter with 1 x 1000A Clamp-On CT

R718N1100

R718N1100E

R718N1100D

R718N1100DE

R718N1100 series is a 1-phase clamp-on CT of 1000A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 10A~1000A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N1100	R718N1100E	R718N1100D	R718N1100DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	10A~1000A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	51 mm			

R718N1300/R718N1300E/R718N1300D/R718N1300DE

Wireless 3-Phase Current Meter with 1 x 3000A Clamp-On CT

R718N1300

R718N1300E

R718N1300D

R718N1300DE

R718N1300 series is a 1-phase clamp-on CT of 3000A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 150A~3000A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N1300	R718N1300E	R718N1300D	R718N1300DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	150A~3000A			
Resolution	1mA			
Wiring Length	About 980mm			
CT Hole Diameter	76.8x130mm			

R718N37/R718N37E/R718N37D/R718N37DE

Wireless 3-Phase Current Meter with 3 x 75A Clamp-On CT

R718N37

R718N37E

R718N37D

R718N37DE

R718N37 series is a 3-phase clamp-on CT of 75A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 100mA~75A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N37	R718N37E	R718N37D	R718N37DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	100mA~75A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	10±0.2 mm			

R718N315/R718N315E/R718N315D/R718N315DE

Wireless 3-Phase Current Meter with 3 x 150A Clamp-On CT

R718N315

R718N315E

R718N315D

R718N315DE

R718N315 series is a 3-phase clamp-on CT of 150A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 1A~150A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N315	R718N315E	R718N315D	R718N315DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	1A~150A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	16±0.5 mm			

R718N325/R718N325E/R718N325D/R718N325DE

Wireless 3-Phase Current Meter with 3 x 250A Clamp-On CT

R718N325

R718N325E

R718N325D

R718N325DE

R718N325 series is a 3-phase clamp-on CT of 250A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 1A~250A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N325	R718N325E	R718N325D	R718N325DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	1A~250A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	24.3±0.5 mm			

R718N363/R718N363E/R718N363D/R718N363DE

Wireless 3-Phase Current Meter with 3 x 630A Clamp-On CT

R718N363

R718N363E

R718N363D

R718N363DE

R718N363 series is a 3-phase clamp-on CT of 630A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 10A~630A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N363	R718N363E	R718N363D	R718N363DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	10A~630A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	35±0.5 mm			

R718N3100/R718N3100E/R718N3100D/R718N3100DE

Wireless 3-Phase Current Meter with 3 x 1000A Clamp-On CT

R718N3100

R718N3100E

R718N3100D

R718N3100DE

R718N3100 series is a 3-phase clamp-on CT of 1000A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 10A~1000A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N3100	R718N3100E	R718N3100D	R718N3100DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	10A~1000A			
Resolution	1mA			
Wiring Length	Undetachable cable: About 900mm Detachable cable: About 1200mm			
CT Hole Diameter	51mm			

R718N3300/R718N3300E/R718N3300D/R718N3300DE

Wireless 3-Phase Current Meter with 3 x 3000A Clamp-On CT

R718N3300

R718N3300E

R718N3300D

R718N3300DE

R718N3300 series is a 3-phase clamp-on CT of 3000A , which can be conveniently connected to the measuring device.

Depending on your needs, you can choose between battery or DC 3.3V power supply and choose whether to detach the CT cable.

※ Only support AC current measuring.

Main Characteristics

- 150A~3000A current detection
- Main body-IP53, Sensor-IP30

Technical Parameter

	R718N3300	R718N3300E	R718N3300D	R718N3300DE
Input Power	2 x ER14505		DC 3.3V	
CT cables	Un-detachable	Detachable	Un-detachable	Detachable
Measurement Range	150A~3000A			
Resolution	1mA			
Wiring Length	About 980mm			
CT Hole Diameter	76.8x130mm			

R718N360/R718N360D

Wireless 3-Phase Current Meter Interface

R718N360

R718N3630D

R718N360 / R718N360D is a 3-phase current detection device. The device provides 3-way wiring. Each wiring can be connected with a current transformer provided by the customer.

※ Only support AC current measuring.

Main Characteristics

- Current Meter Interface
- Main body-IP53

Technical Parameter

	R718N360	R718N360D
Input Power	2 x ER14505	DC 3.3V
CT Measurement Range	It is recommended that the primary side current be at most 600A, and the secondary side current of the current transformer is at most 1A.	
Current Resolution	1mA	
Dimension	112mm x 88mm x 32mm	
Operating Temperature	-20°C~55°C	
Operating Humidity	<90% RH (No condensation)	
Storage Temperature	-40°C~85°C	

R718NL17/R718NL37 Wireless Light Sensor and 1/3-Phase Current Meter with 75A Clamp-On CT

R718NL17 / R718NL37 is a 1-phase/3-phase clamp-on CT of 75A with a light sensor, allowing it to be conveniently connected to the measuring device and to detect environmental illumination.

※ Only support AC current measuring.

Main Characteristics

- 100mA~75A current detection
- Illuminance detection
- Main body-IP53, Sensor-IP30

Technical Parameter

Input Power	2 x ER14505
Measurement Range	100mA~75A
Resolution	1mA
Wiring Length	About 900mm
CT Hole Diameter	10±0.2 mm
Illuminance Range	0.01 LUX~157K LUX
Illuminance Accuracy	± 20%: Under sunlight. ± 10%: Under stable and controlled light source conditions, such as white LED lamp, 6500K, room temperature.
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718NL115/R718NL315 Wireless Light Sensor and 1/3-Phase Current Meter with 150A Clamp-On CT

R718NL115 / R718NL315 is a 1-phase/3-phase clamp-on CT of 150A with a light sensor, allowing it to be conveniently connected to the measuring device and to detect environmental illumination.

※ Only support AC current measuring.

Main Characteristics

- 1A~150A current detection
- Illuminance detection
- Main body-IP53, Sensor-IP30

Technical Parameter

Input Power	2 x ER14505
Measurement Range	1A~150A
Resolution	1mA
Wiring Length	About 900mm
CT Hole Diameter	16±0.5 mm
Illuminance Range	0.01 LUX~157K LUX
Illuminance Accuracy	± 20%: Under sunlight. ± 10%: Under stable and controlled light source conditions, such as white LED lamp, 6500K, room temperature.
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718NL125/R718NL325 Wireless Light Sensor and 1/3-Phase Current Meter with 250A Clamp-On CT

R718NL125 / R718NL325 is a 1-phase/3-phase clamp-on CT of 250A with a light sensor, allowing it to be conveniently connected to the measuring device and to detect environmental illumination.

※ Only support AC current measuring.

Main Characteristics

- 1A~250A current detection
- Illuminance detection
- Main body-IP53, Sensor-IP30

Technical Parameter

Input Power	2 x ER14505
Measurement Range	1A~250A
Resolution	1mA
Wiring Length	About 900mm
CT Hole Diameter	24.3±0.5 mm
Illuminance Range	0.01 LUX~157K LUX
Illuminance Accuracy	± 20%: Under sunlight. ± 10%: Under stable and controlled light source conditions, such as white LED lamp, 6500K, room temperature.
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718NL163/R718NL363 Wireless Light Sensor and 1/3-Phase Current Meter with 630A Clamp-On CT

R718NL163 / R718NL363 is a 1-phase/3-phase clamp-on CT of 630A with a light sensor, allowing it to be conveniently connected to the measuring device and to detect environmental illumination.

※ Only support AC current measuring.

Main Characteristics

- 5A~630A /10A~630A current detection
- Illuminance detection
- Main body-IP53, Sensor-IP30

Technical Parameter

Input Power	2 x ER14505
Measurement Range	R718NL163: 5A~630A R718NL363: 10A~630A
Resolution	1mA
Wiring Length	About 900mm
CT Hole Diameter	35±0.5 mm
Illuminance Range	0.01 LUX~157K LUX
Illuminance Accuracy	± 20%: Under sunlight. ± 10%: Under stable and controlled light source conditions, such as white LED lamp, 6500K, room temperature.
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R718IJK Wireless Multi-Sensor Interface for 0-24V ADC, Dry Contact and 4-20mA Sensors

R718IJK can detect 4mA-20mA signal, 0-24V ADC sampling signal and dry contact input signal.

Main Characteristics

- 4mA-20mA Current Meter Interface
- 0-24V ADC Sampling Interface
- Dry contact Interface
- IP65

Technical Parameter

Input Power	2 x 3.6V ER14505 lithium batteries
ADC Measurement Range	0~24v
Current Measurement Range	4~20mA
Dimension	112mm x 88mm x 32mm
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

RP02RH1PN063/RP02RH1PNLB063 Wireless 1P+N Miniature Circuit Breaker with Power Meter (and Leak Detection), 63A (with 30mA sensitivity)

RP02RH1PN063

RP02RH1PNLB063

RP02RH1PN063 / RP02RH1PNLB063 is a class C smart 1P+N Miniature Circuit Breaker with Power Meter (and Leak Detection) based on LoRaWAN open protocol. It can monitor the status of all external circuit breakers in real time.

Main Characteristics

- Miniature Circuit Breaker (MCB)
- Current, voltage, power, temperature, energy (,leakage current) detection
- Circuit breaker status detection

Technical Parameter

LoRa Radio Module Power Supply	DC12V
Power Module Power Supply	AC 110 to 240V / 24W / 50Hz
Power Module Certified	UL, CB, CE, UKCA, TUV
Breaker Rated Voltage	AC230V/50Hz
Breaker Rated Current	63A
Residual Current	1PNL: 30mA
Environment Temperature Range	-20°C~55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40°C~85°C

RP02RH3PN063/RP02RH3PNLB063 Wireless 3P+N Miniature Circuit Breaker with Power Meter (and Leak Detection), 63A (with 30mA sensitivity)

RP02RH3PN063

RP02RH3PNLB063

RP02RH3PN063 / RP02RH3PNLB063 is a class C smart 3P+N Miniature Circuit Breaker with Power Meter (and Leak Detection) based on LoRaWAN open protocol. It can monitor the status of all external circuit breakers in real time.

Main Characteristics

- Miniature Circuit Breaker (MCB)
- Current, voltage, power, temperature, energy (,leakage current) detection
- Circuit breaker status detection

Technical Parameter

LoRa Radio Module Power Supply	DC12V
Power Module Power Supply	AC 110 to 240V / 24W / 50Hz
Power Module Certified	UL, CB, CE, UKCA, TUV
Breaker Rated Voltage	AC400V
Breaker Rated Current	63A
Residual Current	3PNL: 30mA
Environment Temperature Range	-20°C~55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40°C~85°C

RP02RH2P100/RP02RH4P100

Wireless 2P/4P Miniature Circuit Breaker with Power Meter, 100A

RP02RH2P100

RP02RH4P100

RP02RH2P100 / RP02RH4P100 is a class C smart 2P/4P Miniature Circuit Breaker with Power Meter based on the LoRaWAN open protocol. It can monitor the status of all external circuit breakers in real time. When the wire is abnormal, such as undervoltage, overvoltage, overload, etc., the system will automatically warn, alarm, and power off. It can also periodically detect the electricity, current, voltage, power, circuit breaker status, etc. of all external short circuit breakers.

Main Characteristics

- Miniature Circuit Breaker (MCB)
- Current, voltage, power, temperature, energy detection
- Circuit breaker status detection

Technical Parameter

LoRa Radio Module Power Supply	DC12V
Power Module Power Supply	AC 110 to 240V / 24W / 50Hz
Power Module Certified	UL, CB, CE, UKCA, TUV
Breaker Rated Voltage	2P: AC230V 4P: AC400V
Breaker Rated Current	100A
Environment Temperature Range	-20°C~55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RP02RH3P250/RP02RH4P250

Wireless 3P/4P Miniature Circuit Breaker with Power Meter, 250A

RP02RH3P250

RP02RH4P250

RP02RH3P250 / RP02RH4P250 is a class C smart 3P/4P Miniature Circuit Breaker with Power Meter based on the LoRaWAN open protocol. It can monitor the status of all external circuit breakers in real time. When the wire is abnormal, such as undervoltage, overvoltage, overload, etc., the system will automatically warn, alarm, and power off. It can also periodically detect the electricity, current, voltage, power, circuit breaker status, etc. of all external short circuit breakers.

Main Characteristics

- Miniature Circuit Breaker (MCB)
- Current, voltage, power, temperature, energy detection
- Circuit breaker status detection

Technical Parameter

LoRa Radio Module Power Supply	DC12V
Power Module Power Supply	AC 85 to 264V / 60W / 47 to 63Hz
Power Module Certified	UL ,CB, CE, UKCA, TUV
Breaker Rated Voltage	AC400V
Breaker Rated Current	250A
Environment Temperature Range	-20°C~55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40°C~85°C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

RA10 can control the open/close status of the valve remotely or manually, such as water valve, gas valve and ball valve.

※ Apply to the pipe of diameter less than 26.5mm.

Main Characteristics

- Control valves

Technical Parameter

Input Power	DC 12V
Actuating Arm Maximum Torque	7.5 kgf
Rotation Angle	90 degrees
Physical Size	152.99mm x 70.99mm x128.3mm
Applicable Pipe Diameter	6 British inch (3/4 US inch)
Operating Temperature	-20°C~55°C
Operating Humidity	<90% RH (No condensation)
Storage Temperature	-40°C~85°C

R809A/R809A01 Wireless Plug-and-Play Power Outlet with Consumption Monitoring (and Power Outage Detection)

R809AB/R809AB01
(US type)

R809AF
(EU type)

R809AG/R809AG01
(UK type)

R809AI/R809AI01
(AU type)

R809A / R809A01 can remotely or manually control (turn on/off) the connected electrical equipment. It will report the on/off, energy, voltage, current, power, over current alarm, power off alarm of the load.

※ R809A supports the following types: US, EU, UK and AU type.

※ R809A01 supports the following types: US, UK and AU type.

Main Characteristics

- On/off, energy, voltage, current, power, over current alarm detection
- R809A01 supports power off alarm.

Technical Parameter

Input Power	100-240VAC, 50/60Hz
Typical Operating Current	15mA/220VAC/1W
Typical Load Characteristics	Resistive load: 16A/250VAC; P: 4000VA Inductive load: 8A/220VAC; P: 1760VA (COSϕ=0.4) Rated Load: US type: 15A/125VAC EU type: 16A/250VAC UK type: 13A/250VAC AU type: 10A/250VAC
Energy Measurement Error	±1%

R816B/R816B01 Wireless Wall-Mounted Power Socket with Consumption Monitoring (and Power Outage Detection)

R816B / R816B01 is an electrical switch socket designed for indoor use. It is compatible with US standard wall cassette installation. The output socket accommodates US standard 2 or 3 pole plugs.

※ The upper socket is a general socket and cannot be controlled.

※ The lower socket is a relay control output, with a power detection function.

Main Characteristics

- On/off, energy, voltage, current, power, over current alarm detection
- R816B01 supports power off alarm.

Technical Parameter

Input Power	100-240VAC, 50/60Hz
Typical Operating Current	13mA/120VAC/0.8W
Typical Load Characteristics	Resistive load: 16A/250VAC; P: 4000VA Inductive load: 8A/220VAC; P: 1760VA (COSϕ=0.4)
Current Measurement Range	100mA~15A
Energy Measurement Error	±1%
Dimension	113.0 mm x 69.0 mm x 39.5 mm
Operating Humidity Range	5% to 85% RH (no condense)
Operating Temperature	-10°C~50°C
Storage Temperature	-40°C~85 °C

Available Frequency : EU863-870 / US902-928 / AU915-928 / KR920-923 / AS923-1 / AS923-2 / AS923-3 / IN865-867 / CN470-510

R831 can be equipped with a three-way controllable relay switch and three-way relay output can be used as a dry contact.

R831 has three operating modes corresponding to the three keys of the DIP switch.

Main Characteristics

- R831B - Button mode
- R831C - Relay mode
- R831D - Relay mode

Technical Parameter

Input Power	DC 12V
Relay Load Characteristics	DC30V/5A (contact load)
Relay Power Consumption	300mW
Relay Type	Magnetic Latching Relay
Dimension	66mm x 47mm x 20.3 mm
Working Temperature	-20°C~55°C
Ambient Humidity Range	<90% RH (no condense)
Storage Temperature Range	-40°C~85°C

RB02B

RB02C

RB02I

RB02B/RB02C/RB02I is a button device capable of detecting button presses.

※ The pressing time of the alarm button can be configured through the command.

Main Characteristics

- Push button status detection
- IP40

Technical Parameter

Input Power	2 x 1.5V AAA batteries
Operating Voltage	2.3V to 3V
Dimension	82mmx82mmx15mm
Working Temperature	-20°C~55°C
Storage Temperature	-40°C~85°C
Operating Humidity	<90%RH

DSC100C Indoor Renewable Energy Power Bank for IoT - USB-C Version

DSC100C is a renewable power bank with a 55mm x 100mm dye-sensitized module, two 250F lithium capacitors, the IP65 of water resistance rating, and an LED light to indicate the power of the device. The DSC100C can be charged through indoor light resources and supply power to IoT devices with low power consumption.

※ Do not expose to direct sunlight or high temperatures.

Main Characteristics

- Power Netvox's and third-party devices thorough Type-C
- Adjustable bracket to change the angle of module
- The DSC100C can be charged through indoor light
- Connect in parallel to support high power-consuming devices and receive frequent report
- The user can switch to choose the output voltage

Technical Parameter

Power Supply	2 lithium capacitors in parallel
Operating Voltage	2.5V~3.3V or 2.5V~3.8V Note: Use switch to choose the output voltage
Dimensions	129.4mm x 90mm x 25mm

Three DSC100C connected in parallel

Two DSC100C connected to a device

DSC100C4 Indoor Renewable Energy Power Bank for IoT with 4 Lithium-ion Capacitors - USB-C Version

DSC100C4 is a renewable power bank with a 55mm x 100mm dye-sensitized module, four 250F lithium capacitors, the IP65 of water resistance rating, and an LED light to indicate the power of the device. The DSC100C4 can be charged through indoor light resources and supply power to IoT devices with low power consumption.

※ Do not expose to direct sunlight or high temperatures.

Main Characteristics

- Power Netvox's and third-party devices thorough Type-C
- Adjustable bracket to change the angle of module
- The DSC100C4 can be charged through indoor light
- Connect in parallel to support high power-consuming devices and receive frequent report
- The user can switch to choose the output voltage

Technical Parameter

Power Supply	4 lithium capacitors in parallel
Operating Voltage	2.5V~3.3V or 2.5V~3.8V Note: Use switch to choose the output voltage
Dimensions	129.4mm x 90mm x 25mm

back

The DSC100C4 connected to a device

DSC716L Illuminance Meter

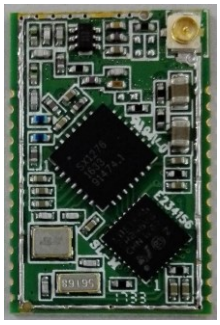
DSC716L detects the illuminance and displays the data on LCD. You can easily know the illuminance and find your device a good installation spot by one short press.

Main Characteristics

- Illuminance detection

Technical Parameter

Power Supply	2 AA size alkaline batteries (1.5 V/ section)
Operating Voltage	2.3V to 3V
Illuminance Range	0.01 LUX to 157K LUX
Illuminance Accuracy	±10% (in white LED light or 6500k light, and at room temperature) ±20% (in the sunlight)
Dimensions	112 mm x 34 mm x 7 mm



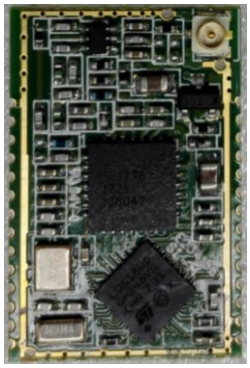
The R100H is a low power transceiver based on the SX1276 chip LoRa™ solution. The R100H is designed for SMD to mount on the main PCB. SMD installations provide the best RF performance at the lowest cost. In addition, the R100H is designed to take up minimal board space on the host PCB which has already included a rich set of interface ports and power management circuitry. As a result, it can be easily integrated into other devices without the need for RF experience and expertise. The R100H operates in the 862-1020MHz band.

Main Characteristics

- High performance and low power 32-bit ARM Cortex-M0 microprocessor
- Provide powerful and flexible development tools

Technical Parameter

Data Transfer Rate	0.3kbps～50kbps (LoRa) / 1.2kbps～300kbps (FSK)
Bandwidth	862-928MHz
Modulation	LoRa/FSK (Remarks: Choose one of them)
Receive Sensitivity	-121dBm (Frequency deviation=5kHz,Bit Rate=1.2kb/s)
Operating Voltage	1.8 to 3.6 V DC
Receiving Current	11mA (typical value)
Emission Current	120mA (typical value)
Working Current	2mA (typical value)
Standby Current	8uA
Product Size	16.0mm x 24.5mm x 3.0mm



The Lora RF module R100L from NETVOX is a low-power transceiver based on the SX1276 chip LoRa™ solution. The R100L is designed for SMD to mount on the main PCB. SMD installations provide the best RF performance at the lowest cost. In addition, the R100L is designed to take up minimal board space on the host PCB which has already included a rich set of interface ports and power management circuitry. As a result, it can be easily integrated into other devices without the need for RF experience and expertise. The R100L operates in the 470-510MHz band.

Main Characteristics

- High performance and low power 32-bit ARM Cortex-M0 microprocessor
- Provide powerful and flexible development tools

Technical Parameter

Data Transfer Rate	0.3kbps～50kbps (LoRa) / 1.2kbps～300kbps (FSK)
Bandwidth	470-510MHz
Modulation	LoRa/FSK (Remarks: Choose one of them)
Receive Sensitivity	-121dBm (Frequency deviation=5kHz,Bit Rate=1.2kb/s)
Operating Voltage	1.8 to 3.6 V DC
Receiving Current	11mA (typical value)
Emission Current	120mA (typical value)
Working Current	2mA (typical value)
Standby Current	8uA
Product Size	16.0mm x 24.5mm x 3.0mm

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