Water Sensor

User Manual

Thank you for your support!

Please read the user manual carefully before operating.
Please keep the user manual for future reference.

Product Introduction

Water sensor is an intelligent security equipment that can transmit the Z-Wave network which has particular frequency. Different countries or areas, the radio frequency of Z-Wave is different. In the Z-Wave network communications, water sensor can work with any Z-Wave main controller. In the Z-Wave network communications, water sensor can send messages to the Z-Wave main controller, and realize association with other devices through the Z-Wave network. In the communication with the Z-Wave main controller, the water sensor can send messages to the Z-Wave main controller, but it can not receive messages from the Z-Wave main controller. When the water sensor is triggered, the LED light keeps on and the buzzer will make sound. The water sensor sends messages to the Z-Wave main controller at the same time, the Z-Wave main controller will display the current status of water sensor. Water sensor is battery powered, is small and can be installed easily.
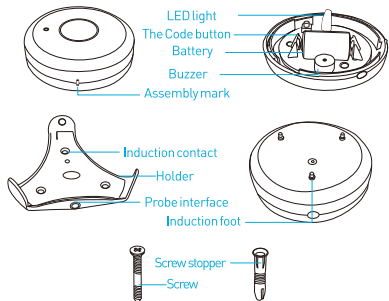
Technical Parameters

- Flood detection
- Battery specification: CR2=3V x 1
- Standby current: 3uA
- Max current: 35 mA(In Radio Transmitter MODEL)
- Battery life: 2 years
- Radio Protocol: Z-Wave
- Radio Frequency: 868.4MHz EU; 908.4MHz US
- Range: up to 80m outdoor; up to 40m indoor
- Operation temper: 0~40°C
- Storage temperature: 0~60°C
- Size (D x W x H): 68mm x 68mm x 34mm

Technical Information

- When alarm triggered, LED light flashes in the detection area.
- Easily install with screws or sticker .
- Detecting the location of the overflow timely and accurately , reduce the economic losses caused by the overflow of water.
- Compatible with any Z-Wave main controller.
- High sensitivity and good stability.

Product Configuration

LED light
The Code button
Battery
Buzzer
Assembly mark

Induction contact
Holder
Probe interface
Induction foot

Screw stopper
Screw

Items List

- Water sensor   1pc
- Holder   1pc
- Battery   1pc
- Screw   2pcs
- Screw stopper   2pcs
- Probe   1pc
- User manual   1pc

Installation Steps

- Holder Installation
- Fix water sensor on the holder
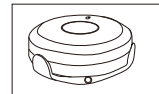- Battery installation
- Probe installation

Holder Installation

Fix the holder with screws and screw stopper

Battery Installation

Open the water sensor   Install the battery   Close the water sensor

Fix Water Sensor on the Holder

NOTE:
1. When assembling the water sensor, please align the assembly mark.
2. When fixing water sensor on the holder, please align the induction foot and the induction contact.

Tips

1. Make sure the water sensor is in the Z-Wave main controller's network.
2. Do not install in the place near water vapor or smoke.
3. Do not install the water sensor main body and the probe in the place where water is soaked.
4. The sensor probe should be placed on the surface of the water leakage.
5. Association allows for direct communication between Z-Wave network devices. Main controller does not take part in such communication. Using this mechanism, water sensor may communicate with other devices even when the main controller is damaged.

LED Color Indicator

LED Color	Led Display Status	Description
Red	Blink 5 Times (1s Interval)	Power on and Not Add in Z-Wave Network
	Blink 5 Times (500 ms Interval)	Press Button tripled, Adding siren in a Z-Wave Network or Send Node Info.
	Blink 5 Times (300 ms Interval)	Power on and Already Add in a Z-Wave Network
	Blink 1 Time	Press the Button Long Time, Reset the Plug ti restore default settings;
	Blink with Beep On/Off	Detect water leakage

Including Water Sensor to Z-Wave Network

The water sensor can be included to the Z-Wave network by pressing the code button.
1) Disassemble the water sensor and insert the battery into the water sensor; Make sure the device locates within the network of the Z-Wave main controller.
2) Set the Z-Wave main controller into the learning mode (see main controller's operating manual).
3) Quickly, triple click the code button, LED light flashes red for 5 times.
4) Water sensor will be detected and included in the Z-Wave network.
5) Wait for the main controller to configure the water sensor.
Tips: Power to the code, the device is plugged into the power 20S can not have any operation!

Excluding Water Sensor from Z-Wave Network

1) Make sure the sensor is connected to power source.
2) Set the Z-Wave main controller into the learning mode (see main controller's operating manual).
3) Quickly, triple click the code button, LED light flashes red for 5 times.
4) Wait for the Z-Wave main controller to delete the sensor.

Restore the Water Sensor to Factory Default Settings

Reset procedure will delete all information on the Z-Wave network and Z-Wave controller, and restore the sensor to factory default settings.

1. Remove the device cover.
2. Make sure the water sensor is connected to power source.
3. Press the reset button for 10 seconds, LED light flashes red for 1 times.
4. Release the button.

NOTE: When the water sensor is being restored factory settings, please make sure power source is connected.

Wakeup the Sensor Manual

User can press button once to wake up this sensor to send wakeup notification to controller; the Led will be blink one time.

Associations

(Association Command Class Version 2)

This Sensor supports 4 association groups. Each group supports max 5 associated nodes.
This has the effect that when the sensor is triggered, all devices associated with the sensor will receive the relevant reports. Through an association the sensor may control another Z-Wave network device, e.g. siren device, wall plug, lamp etc..
GROUP 1 is lifeline service that assigned to Sensor (Water leakage detector) status. It enables the sensor to send reports and readings to Z-Wave Controller or Z-Wave Gateway whenever the sensor is triggered. This Group Support: NOTIFICATION_REPORT_V4,BATTERY_REPORT, SENSOR_BINARY_REPORT_V2,DEVICE_RESET_LOCALLY_N OTIFICATION

GROUP 2 allows for sending control commands to associated devices such as relay module, lighting, etc. This association group is configured through the advanced parameters no. 7. If the sensor clears the Notification Event that a Basic Set with 0x00 is sent to the nodes associated in Group 2 in order to turn off the device. This Group Support: BASIC_SET.

GROUP 3 allows for Send Notification to associated devices in this group. This Group Support: NOTIFICATION_REPORT_V4

GROUP 4 allows for Send Notification to associated devices in this group. This Group Support: SENSOR_BINARY_REPORT_V2

Advanced Configuration

Alarm Duration Time #1

1.Configuring Alarm Duration Time

This configuration parameter that can be used to adjust the time for beep and LED turned on when water leakage is detected. If this parameter is set to `0`, the beep and LED will be turn on always until water leakage is not detected. Prefer to Figure 1.

Parameter Number	Size	Available Settings	Default
1	1	0 ~ 255min	120min

2.Configure Alarm Interval

This Parameter defines beep on /off interval time when water leakage is detected. Prefer to Figure 1.

Parameter Number	Size	Available Settings	Default
2	1	1 ~ 255min	1min

3.Configure First Alarm On Time Duration

This parameter defines beep on duration first time when water leakage is detected. Prefer to Figure 1.

Parameter Number	Size	Available Settings	Default
3	1	10 ~ 255s	60s

4.Configure Alarm on Time Duration

This parameter defines beep on duration after fist beep on when water leakage is detected. Prefer to Figure 1.

Parameter Number	Size	Available Settings	Default
4	1	5 ~ 255s	5s

5.Configure Alarm Enable/Disable

This parameter defines beep on is enabled or disabled when water leakage is detected. `0` indicate beep on is disable, but LED will be turned on when water leakage detected. `1` indicate beep on is enabled, the BEEP and LED will be turned on when water leakage detected.

Parameter Number	Size	Available Settings	Default
5	1	0,1	1

6.Configure Water Leakage Detected Enable/Disable

This parameter defines the function than water leakage detect is enabled or disabled. `0` indicate disable water leakage detect, `1` indicate enable water leakage detect.

Parameter Number	Size	Available Settings	Default
6	1	0,1	1

7.Basic Set Level

Basic Set Command will be sent where contains a value when the door/window is opened or closed, the receiver will take it for consideration; for instance, if a lamp module is received the

Basic Set Command of which value is decisive as to how bright of dim level of lamp module shall be.

Parameter Number	Size	Available Settings	Default
7	1	0 ~ 99, 255	255

Notification Command Class

Once the detector detected a water leakage, it will send NOTIFICATION_REPORT and SENSOR_BINARY_REPORT to the nodes of lifeline to inform there is a water leakage event. When water leakage is not detected, NOTIFICATION_REPORT and SENSOR_BINARY_REPORT will be sent again to the nodes in lifeline.
For compliant to Z-Wave 300 Series, There also realize the Binary Sensor Command Class.

Notification Report Command:
Event Present:
Command Class: COMMAND_CLASS_NOTIFICATION
Command: NOTIFICATION_REPORT
Notification Type: NOTIFICATION_TYPE_WATER_ALARM
Event: NOTIFICATION_EVENT_WATER_ALARM_WATER_LEA K_DETECTED_UNKNOWN_LOCATION
Event Clear:
Command Class: COMMAND_CLASS_NOTIFICATION,
Command: NOTIFICATION_REPORT,
Notification Type: NOTIFICATION_TYPE_WATER_ALARM,
Event: NOTIFICATION_EVENT_WATER_ALARM_NO_EVENT

Binary Sensor Report Command:
Event Present:
Command Class: COMMAND_CLASS_SENSOR_BINARY
Command: SENSOR_BINARY_REPORT
Sensor Type: SENSOR_WATER
Value: 0xFF

Event Clear:
Command Class: COMMAND_CLASS_SENSOR_BINARY
Command: SENSOR_BINARY_REPORT
Sensor Type: SENSOR_WATER
Value: 0x00

Battery Check Command

The users can also enquire the battery status of the water detector by sending BATTERY_GET command. Once the water detector receivers the command, it will return BATTERY_REPORT command. The water detector will send BATTERY_LEVEL = 0xFF command to the Z Wave Controller to inform that the water detector is in dead battery status, otherwise BATTERY_LEVEL value range is 0% to 100%.

Wakeup Command Class

The water detector stays in sleep status for the majority of time in order to conserve battery life. The minimum wakeup interval is 300s
The maximum wakeup interval is 16,777,200s (about 194 days)
Allowable interval among each wakeup interval is 60 second, such as 360, 420, 480...
Note: The default value is 12 hours. This value is longer, the battery life is greater.

Command Classes

This Sensor supports Command Classes as Below:
* COMMAND_CLASS_ZWAVEPLUS_INFO (V2)
* COMMAND_CLASS_VERSION (V2)
* COMMAND_CLASS_MANUFACTURER_SPECIFIC (V2)
* COMMAND_CLASS_DEVICE_RESET_LOCALLY (V1)
* COMMAND_CLASS_POWERLEVEL (V1)
* COMMAND_CLASS_BATTERY (V1)
* COMMAND_CLASS_ASSOCIATION (V2)
* COMMAND_CLASS_ASSOCIATION_GRP_INFO (V1)
* COMMAND_CLASS_WAKE_UP (V2)
* COMMAND_CLASS_NOTIFICATION (V4)
* COMMAND_CLASS_SENSOR_BINARY (V2)
* COMMAND_CLASS_CONFIGURATION (V1)

Guarantee

1. The Guarantee is provided by Shenzhen NEO Electronics Co., Ltd (hereinafter "Manufacture")
2. The Manufacturer is responsible for equipment malfunction resulting from physical defects (manufacturing or material) for 12 months from the date of its purchasing.
3. During the Guarantee period, the Manufacturer shall repair or replace any defects, free of charge.
4. In special cases, when the device cannot be replaced with the device of the same type (e.g. the device is no longer available in the commercial offer), the Manufacturer may replace it with a different device which has similar technical parameters as the faulty one. Such activity should be considered as fulfilling the obligations of the Manufacturer. The Manufacturer shall not refund money paid for the device.
5. The guarantee shall not cover:
mechanical damages (cracks, fractures, cuts, abrasions, physical deformations caused by impact, falling or dropping the device or other object, improper use or not observing the operating manual; damages resulting from external causes, e.g.: flood, storm, fire, lightning, natural disasters, earthquakes, war, civil disturbance, force
majeure, unforeseen accidents, theft, water damage, liquid leakage ,battery spill, weather conditions, sunlight, sand, moisture, high or low temperature, air pollution
damages caused by malfunctioning software, attack of a computer virus, or by failure to update the software as recommended by the Manufacturer;

All above is for reference only, please see the subject products.