

FLOOD SENSOR



CT-SMZW2013-FBR

Flood Sensor

Introduction

Flood Sensor is a universal, Z-Wave compatible sensor. The device can be hard wire (12 or 24V DC) or battery operated (battery life 2 years). Flood detection is signaled through siren and LED diode blinking. Additionally, the Flood alarm is sent to the Z-Wave network devices or additionally to any alarm system controller, through opening a NC (normally closed) contact terminal.

Moreover the device has a built-in temperature sensor, which can also trigger the alarm once the specified temperature threshold is exceeded.

Flood Sensor is designed to be placed on the flood or on a wall with a flood sensor probe extended by connected wire. The device has built in LED indicator and alarm. In addition, the sensor is equipped with a tilt sensor reporting tilt or movement to the main controller e.g. when someone take it from its original location. LED diode signals flood, operating mode or the Z-Wave network communication range. Flood Sensor is sink-proof, which means it drifts on the water surface and keeps on sending alarm signal in case of substantial inundation of water.

Technical Information

- Compatible with any Z-Wave network controller
- The Flood Sensor signal can be sent to alarm system through a NC
- Battery or VDC powered
- Built-in temperature sensor
- Theft protection

Specifications

- Radio protocol: Z-Wave
- Power supply: DC 12-24V
- Battery type : CR123A
- Power consumption (VDC operation) : 0.4W
- Output terminals maximum current carrying capacity : 25mA
- Maximum voltage at output terminal : 40V (AC or DC)
- Radio Frequency: 868.4MHz EU; 908.4MHz US; 921.4Hz ANZ; 869.2Hz RU
- Range : up to 50m outdoors, up to 30m indoors (depending on the building materials used)
- Operational Temperature: 0°C-40°C
- Measured Temperature: -20°C-100°C
- Temperature measurement accuracy: 0.5 degrees Celsius (within 0 to 40 °C)
- Dimension : 72mm x28mm
- Operational temperature in VDC powering mode: -20-70°C

Installation Instructions

It's recommended to install the Flood Sensor on the floor or on a wall with a flood sensor probe extended by connected wire.

NOTES FOR THE DIAGRAM:

+12V- constant power supply terminal, 12/24V DC

-GND- ground terminal

ALARM NC-potential free, flood sensor connecting terminals (for wired system)

TAMP NC-potential free, tamper connecting terminals (for wired system)

SENS1,SENS2-flood sensor electrodes' terminals

FLOOD SENSOR INSTALLATION

1. Before installation make sure the voltage supply is disconnected.
2. Remove the top cover.
3. If the sensor is hard wired to power source, drill holes in sensor's casing connect wires observing Fig.1.Note the sensor may be connected to a wired alarm system (Fig.2) .
4. If the sensor is to be VDC powered, connect wires observing Fig.1.
5. Close the sensor's casing.
6. Place sensor onto a surface prone to flooding. All three electrodes underneath the device should evenly touch the surface.
7. Include the module into Z-Wave network(If the module is already include in the Z-Wave network, wake it up by triple clicking the TMP) .

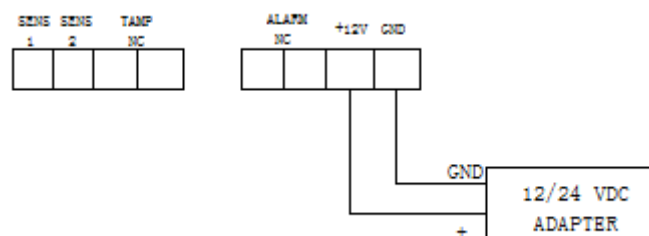


Fig.1- Power adapter connection

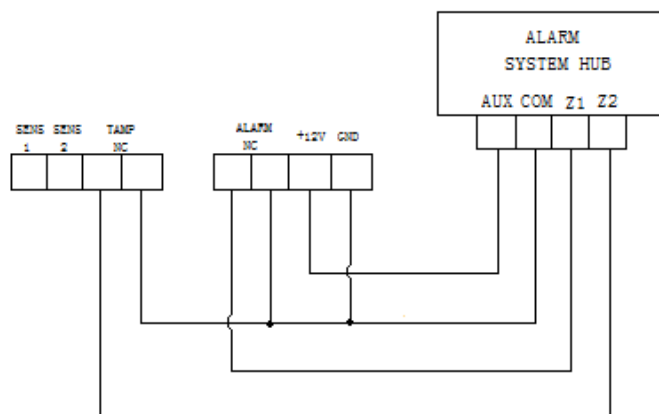


Fig.2-Alarm system hub connection

NOTE:

There are two powering modes for the sensor. By default it's powered by a factory included battery. Alternatively it can work with a constant current, after connecting a 12/24 VDC power source to +12/24 and GND terminal (Fig.1). Powering mode configuration is carried out automatically, while sensor is being included into the Z-Wave network. When battery powered, a Flood Sensor communicates with the Z-Wave network main controller periodically. Detection alarms are sent immediately, but configuration parameters and association settings are sent periodically at specified wake up intervals, or at a manual wake up (triple click TMP). In DC powering mode, configuration and association parameters are sent when necessary, and additionally the flood sensor serves as a Z-Wave signal repeater.

Switching to a constant current powering mode:

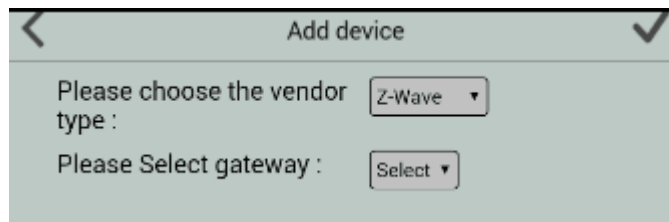
- 1) Exclude a sensor from the Z-Wave network.
- 2) Disconnect the battery
- 3) Install the constant power connecting terminal, observing the Fig.1
- 4) Connect the constant current power to the terminal (12/24VDC) to +12 and GND terminals (Fig.1)
- 5) Include Flood Sensor into the Z-Wave network.

Operation

Z-WAVE NETWORK INCLUSION

Flood Sensor may be included into Z-Wave network via the TMP.

- 1) Connect the power supply, and make sure that device in a state of "No node ID".
- 2) Choose "Z-Wave" to enter the Network Inclusion mode on the APP, then click "✓".



- 3) Triple click the TMP in 1.5 seconds.

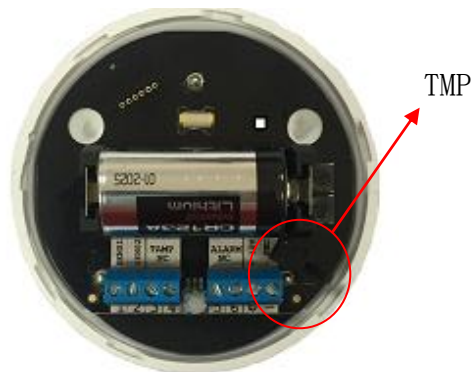


Fig.3

- 4) When prompt a message "Request Access Success", please go to the device list interface, and refresh the device list, the device will be displayed.

Z-WAVE NETWORK EXCLUSION

- 1) Make sure the device is connected to the power supply.
- 2) Remove the device on the APP, then click "finish".
- 3) Triple click the TMP in 1.5 seconds.
- 4) Please go to the device list interface, and refresh the device list, the device will not be displayed.

- 5) If the device can still be displayed (network exclusion failed), repeat steps 2-4.

NOTE:

If the device is online, directly perform steps 1-5, if the device is offline, need interruption of the device power supply first, and then perform step 1-5.

DEVICE RESET

Reset procedure clears the modules' EPROM memory, including all information about the Z-Wave network controller, calibration and power consumption data.

- 1) Make sure the device is connected to the power supply.
- 2) Press and hold the TMP for 15-20seconds, LED will grow yellow.
- 3) Release the TMP.
- 4) Press the TMP briefly, once.

Successful reset will not be confirmed with the LED changing color to red and then turning off.

Safety Notice

- A qualified electrician with the understanding of wiring diagrams and knowledge of electrical safety should complete installation following the instructions.
- Before installation, please confirm the real voltage complying with the device's specification. Cut off any power supply to secure the safety of people and device.
- During installation, protect the device from any physical damage by dropping or bumping. If damaged, please contact the supplier for maintenance.
- Keep the device away from acid-base and other corrosive solids, liquids, gases, to avoid damage.
- Avoid overexertion during operation, to protect device from mechanical damage.
- Read all instructions and documentation and save for future reference.