Fibaro Flood Sensor is a wireless device, based on Z-Wave technology. It has a simple installation procedure and can be installed in any location. The device has a reliable signal transmission over a wide range of frequencies and is resistant to interference. The frequency of the transmitted signal is 869.2 MHz (RU) or 908.4 MHz (US). Fibaro provides many advantages in terms of security, accessibility, and ease of use.

**Fibaro Flood Sensor**

- Designed for placement on the floor or on a wall with a flood alarm system controller, through opening a NC contact.
- Device can be battery (ca. 2 years battery life) or VDC powered (12 or 24 VDC).
- Temperature measuring accuracy: -20 to 100°C
- Operational Temperature: 0 to 40°C
- Power Supply: 12 - 24 VDC
- Battery Type: CR123A
- Power Consumption (at VDC operation): 0.4W
- Output terminals maximum current carrying capacity (ALARM NC, TAMP NC): 25mA
- Maximum voltage at output terminals: 24V DC / 20V AC
- EU standards compliance: EMC, EN50365, EN61000-6-2, R&TTE 1999/5/WE
- Radio protocol: Z-Wave
- Radio frequency: 869.2 MHz RU; 908.4 MHz US
- Radio protocol: Z-Wave
- Compatibility: This means that the system is open and it may be extended in the future. Find more information at www.fibaro.com.
- Fibaro operates in the free bandwidth for data transmission. The frequency depends on radio regulations in individual countries. Each Fibaro network has its own unique network identification number (home ID), which is why it is possible to co-operate two or more independent systems in a single building without any interference.

**I. GENERAL INFORMATION ABOUT FIBARO SYSTEM**

Fibaro is a wireless system, based on Z-Wave technology. Fibaro provides many advantages compared to other systems. In general, a wireless system provides a direct connection between the receiver and transmitter. However, the radio signal is weakened by various obstacles located in its path (apartment walls, furniture, etc.) and in extreme cases it fails to transfer required data. The advantage of Fibaro system is that its devices, apart from their alarm system role and signal receivers, also do signal processing. When a direct connection path between the transmitter and the receiver cannot be established, the connection may be achieved through other intermediate devices.

**II. Z-WAVE NETWORK INCLUSION**

**Manual Z-Wave network inclusion:**

1. Open the cover.
2. Set the main controller into the learning mode (see a main controller’s operating manual).
3. Connect a Z-Wave device to the included network.
4. Fibaro Flood Sensor will be detected and included.

**NOTE**

- In case the Sensor is not detected, proceed to the manual inclusion (described below) or reset the Sensor and repeat auto inclusion procedure.

1. Remove sensor’s cover.
2. Connect a 12 - 24 VDC positive terminal (12 / 24 VDC in accordance with a wiring diagram no.2) - in such a case sensor power must be connected only after the built-in battery has been discharged.
3. Triple click TMP button. (TMP triple click). In DC powering mode, configuration and associations (i.e. flood alarm, temperature report, tilt, or manual wake up mechanism) are withdrawn from the Z-Wave network.

**III. Z-WAVE NETWORK EXCLUSION**

Complete the following steps to exclude a Fibaro Sensor from the Z-Wave network.

1. Remove sensor’s cover.
2. Make sure sensor is connected to a battery or a DC power supply.
3. Set a main controller into the learning mode (see main controller’s operating manual).
4. Triple click TMP button, located inside Flood Sensor’s casing.

**IV. SENSOR’S INSTALLATION**

1. Remove top cover.
2. Install into the Z-Wave network (see pt. 2).
3. Please sensor onto a surface prone to flooding. All three electrodes underneath the device should evenly touch the surface.
4. If the sensor is to be DC powered, drill holes in its casing and connect wires according to the wiring diagram no.2.
5. Close sensor’s casing.

**NOTE**

- After completing installation, it’s recommended to test sensor’s operation with power source connection (i.e. battery, in-built battery, DC power source) and send status confirmation signals received from devices operating in a “mesh” network.

**V. POWERING MODE INFORMATION**

There are two powering modes for the Fibaro Flood Sensor. By default it’s powered by a factory included battery. In addition it can work with a constant current, after connecting a 12 / 24 VDC power supply in +12 or +24 VDC terminals (see diagram no.2).

**Battery mode configuration:**

1. In case the sensor is powered by battery, the battery serves as an emergency power source, if constant power fails, sensor will automatically shift to an emergency mode. All reports, including flood and temperature, will be sent immediately, but it will not be possible to modify the configuration or association settings until constant power is restored.

2. Alternatively, the Sensor may be powered by VDC power source (12 / 24 VDC in accordance with a wiring diagram no.2) – in such a case a configuration, a battery will serve as an emergency power source.

**VI. FIBARO FLOOD SENSOR RESET**

Reset procedure deletes EPROM’s memory, including all information on the Z-Wave network and the main controller.

**Fibaro Flood Sensor’s reset procedure:**

1. Make sure the Sensor is powered.
2. Press and hold a TMP button for 15 - 20 seconds. LED indicator glows yellow to confirm entering settings mode.
3. Release the TMP button.
4. Click the TMP button once. The LED indicator glowing red and then turning off will confirm a successful reset.

Resting completion will be confirmed by an acoustic signal, same as at the power source connection.

**NOTE**

Reset procedure doesn’t remove the Sensor from the Z-Wave network’s main controller memory. Prior to reset, a sensor must be deleted from the Z-Wave network.
Fibaro Flood Sensor has two main channels of receiving information, each of them is controlled by different Z-Wave network, which may be used to control different devices in separate Z-Wave networks.

**XI. SENSOR OPERATION WARNING**

By default, flood sensor's sensitivity is set to 1 second, which means flooding will be reported one second after it's been detected.

To avoid false alarm triggering due to vibration, the sensor's movement will trigger an alarm, regardless of if 3D signals are connected.

**Fibaro Flood Sensor is a battery-powered device. Using batteries other than those specified in the operating manual of Fibaro products may result in a shorter operational life of the sensor and may result in damage to the sensor itself.**

**ADVANCED CONFIGURATION**

**Wake-up interval (battery mode)**

Default setting: 4 000 (each 4 minutes)

**Temperature measurement interval**

The parameter stores the measurement interval (in seconds) in which the temperature measurement device sends a temperature measurement frame. The measurement interval value is determined in the Parameter 12 (P = 10, 15, 30, 60, 120) new values, temperature measurement frame will be sent in the form of temperature change, the device will report a battery status change - Battery Report.

**Possible values:**

- 1 - 65 535 (seconds)

Parameter size: 2 [bytes]

**Parameter stores a temperature value to be added to or deducted from the current temperature value measured by the temperature sensor in case of temperature alarm. The parameter is relevant when using a Flood Sensor in a battery power mode - the Sensor will never go to sleep which may shorten battery life significantly.**

**Possible values:**

- 1 500 (in seconds, each 0,01°C)

Parameter size: 1 [byte]

**Visual and audible signals on / Off in case of flooding**

The parameter stores a VIS and AUD signals in case of flood alarm. It is determined by configuration parameter in the controller.

**Possible values:**

- 1 - acoustic alarm active, visual alarm inactive
- 2 - acoustic alarm inactive, visual alarm active
- 51 - acoustic alarm active, visual alarm inactive
- 52 - acoustic alarm inactive, visual alarm active
- 107 - alarm (flooding) cancellation active
- 108 - button and movement tampers alarm active
- 109 - temperature tamper and movement tampers alarm active

**Possible values:**

- 0 - button tamper alarm active
- 1 - movement tamper alarm active
- 2 - button and movement tamper alarm active

Parameter size: 1 [byte]

**High temperature alarm threshold**

Parameter size: 2 [bytes]

**Low temperature alarm threshold**

Parameter size: 2 [bytes]

**Temperature measurement hysterisis**

Parameter size: 2 [bytes]

**Possible values:**

- 10 settings.

**Possible values:**

- 1 - 65 535
- 0 - saving a battery life.

**Possible values:**

- 0 - battery mode (in seconds, each 0,01°C)

Parameter size: 2 [bytes]

**Temperature measurement accuracy**

The parameter stores a temperature value to be added to or deducted from the current temperature value measured by the temperature sensor in case of temperature alarm.

**Possible values:**

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Parameter size: 1 [byte]

**X. VOLTAGE AND CURRENT**

**Input voltage**

Fibaro Flood Sensor allows for controlling 5 regular and 5 multichannel devices per controller.

**Input current**

Fibaro Flood Sensor directly communicating with the main controller.

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