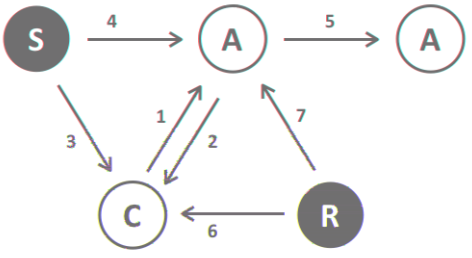
PHIEPAT02-A
Flood Multisensor

Firmware Version : 1.5

Quick Start

If the device is in factory default state it will try to autoinclude itself. Put your controller into inclusion mode and insert the battery into the flood sensor. After 5 seconds the sensor should be included. If that is not the case please press the tamper switch on the back for at least one second and release it to include it into the Z-Wave



in residential and light commercial environments. The technology uses a low-power RF radio embedded or retrofitted into home electronics devices and systems, such as lighting, home access control, entertainment systems and household appliances. This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network.

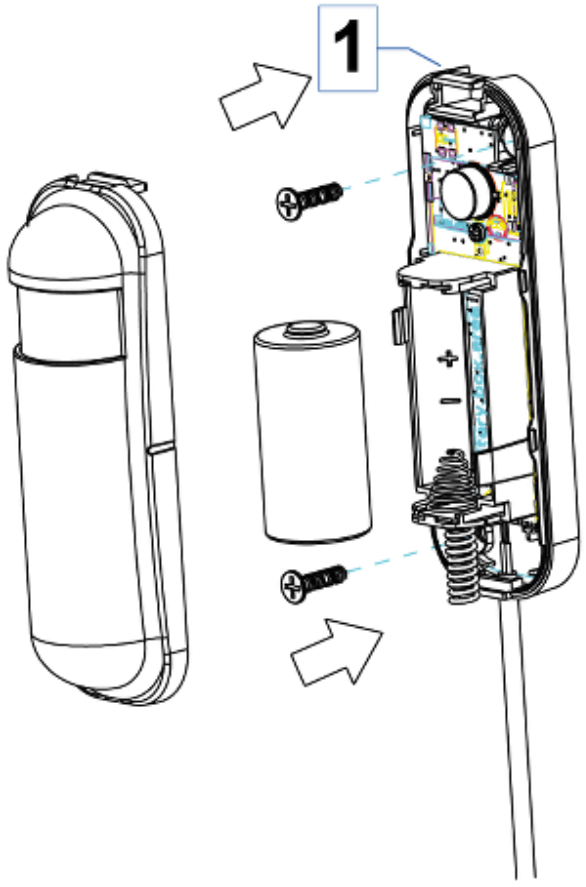
Batteries

The unit is operated by batteries. Use only batteries of correct type. Never mix old and new batteries in the same device. Used batteries contain hazardous substances and should not be disposed of with household waste!

Battery Type: 1 * CR123A

Installation Guidelines

Insert the battery into the flood sensor and include it into your Z-Wave network. Once that is done you can look for a good spot to mount the flood sensor. Please make sure that the flood sensor's cable can reach the spot where it should detect the water. When you have decided on a spot you can mount the flood sensor using either the adhesive tape or the screws. If you want to use the screws to mount the sensor you have to open the cover of the sensor by pressing the locking tab and removing the cover.



Behavior within the Z-Wave network

I On factory default the device does not belong to any Z-Wave network. The device needs to join an existing wireless network to communicate with the devices of this network. This process is called **Inclusion**. Devices can also leave a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller will be turned into exclusion respective inclusion mode. Please refer to your primary controllers manual on

how to turn your controller into inclusion or exclusion mode. Only if the primary controller is in inclusion or exclusion mode, this device can join or leave the network. Leaving the network - i.e. being excluded - sets the device back to factory default.

If the device already belongs to a network, follow the exclusion process before including it in your network. Otherwise inclusion of this device will fail. If the controller being included was a primary controller, it has to be reset first.

If the device is in factory default state it will try to autoinclude itself. Put your controller into inclusion mode and insert the battery into the flood sensor. After 5 seconds the sensor should be included. If that is not the case please press the tamper switch on the back for at least one second and release it to include it into the Z-Wave network. To exclude the flood sensor put the controller into exclusion mode and press the tamper switch on the back of the device for at least one second and release it. The LED will flash to indicate success. The device is now back in factory default state.

Operating the device

The Philio Flood Multisensor provides information about the temperature, the humidity and if water is detected. The main module has build in the temperature and humidity sensors while the flood sensor is connected via cable. This allows you to detect floods or monitor the water level of your pool while the device is perfectly save. The sensor will transmit its data to the controller whenever it wakes up. You can define that interval in the user interface of your controller. The controller can then use the information provided by the sensor to send out warnings or control other devices in the Z-Wave network. For example you could let the controller notify you when your washing machine is causing a flood or activate the water pump in the pool when the water level is too low.

Associations

A Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called *association*. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called **association groups** and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive a common wireless command.

Association Groups:

1	The group 1 is for receiving the report message, like triggered event, temperature, humidity etc. (max. nodes in group: 8)
2	The group 2 is for the light control, the device will send the “Basic Set” command to this group. (max. nodes in group: 8)

Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

IMPORTANT: Controllers may only allow to configure signed values. In order to set values in the range 128 ... 255 the value sent in the application shall be the desired value minus 256. For example: to set a parameter to 200 it may be needed to set a value of 200 minus 256 = minus 56. In case of two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

Basic Set OFF Level (Parameter Number 1, Parameter Size 1)

Setting the BASIC command value. When the flood trigger off, send the BASIC CC to the group 2.

Value	Description

Basic Set ON Level (Parameter Number 2, Parameter Size 1)

Setting the BASIC command value. When the flood trigger on, send the BASIC CC to the group 2.

Value	Description

Operation Mode (Parameter Number 5, Parameter Size 1)

Operation mode. Using bit to control.

Value	Description
0	Disable the Flood function. (Default)
1	Reserve.
2	Reserve.
3	Setting the temperature scale. 0: Fahrenheit, 1:Celsius
4	Reserve.
5	Disable the temperature report after event triggered. (1:Disable, 0:Enable)
6	Reserve.
7	Reserve.

Multsensor Function Switch (Parameter Number 6, Parameter Size 1)

Multisensor function switch. Using bit to control.

Value	Description
0	Reserve. (Default)
1	Reserve.
2	Reserve.
3	Reserve.
4	Reserve.
5	Reserve.
6	Disable the humidity report after event triggered. (1:Disable, 0:Enable)
7	Reserve.

Customer Function (Parameter Number 7, Parameter Size 1)

Customer function switch, using bit control.

Value	Description
0	Reserve. (Default)
1	Reserve.
2	Reserve.
3	Disable send out BASIC OFF after the flood event cleared. (1:Disable, 0:Enable)
4	Notification Type, 0: Using Notification Report. 1: Using Sensor Binary Report.
5	Disable Multi CC in auto report. (1:Disable, 0:Enable)
6	Disable to report battery state when the devid triggered. (1:Disable, 0:Enable)
7	Reserve.

Auto Report Battery Time (Parameter Number 10, Parameter Size 1)

Sets the time interval to send an auto report of the battery level. The tick time is set by the configuration No.20.

Value	Description
0	Auto report is turned off.
1 — 127	Defines time sQ

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Value	Description
0	All auto report function is disabled.
1 — 255	Defines interval time for an auto report each tick. (Default 30)

Temperature Differential Report (Parameter Number 21, Parameter Size 1)

The temperature differential that is reported. The unit is Fahrenheit. Enable this function the device will detect every 10 seconds. If the temperature is over 140 degree Fahrenheit, it will continue report.

Value	Description
0	Function is disabled.
1 — 127	Defines temperature differential that will be reported. (Default 1)

Humidity Differential Report (Parameter Number 23, Parameter Size 1)

The humidity differential that is reported. The unit is percentage. Enable this function the device will detect every 10 seconds.

Value	Description
0	Function is disabled.
1 — 60	Defines humidity differential that will be reported. (Default 5)

Command Classes

Supported Command Classes

- Z-Wave Plus Information (version 2)
- Manufacturer Specific (version 2)
- Version (version 2)
- Association Group Information (version 1)
- Powerlevel (version 1)
- Device Reset Locally (version 1)
- Multi Command Encapsulated (version 1)
- Security (version 1)
- Firmware Update Meta Data (version 2)
- Battery (version 1)
- Association (version 2)
- Configuration (version 1)
- Binary Sensor (version 2)
- Multilevel Sensor (version 5)
- Wake Up (version 2)
- Basic (version 1)

Controlled Command Classes

- Basic (version 1)

Technical Data

Battery Type	1 * CR123A
Explorer Frame Support	No
SDK	
Device Type	Slave with routing capabilities
Generic Device Class	
Specific Device Class	
Routing	No
FLiRS	No
Firmware Version	1.5

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of bringing new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to annonces that is is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z_Wave device to announce its capabilities and functions.

Disposal Guidelines

The product contains batteries. Please remove the batteries when the device is not used.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.