

Z-Wave STRIPS Door and Window Sensor User Guide

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Sensative

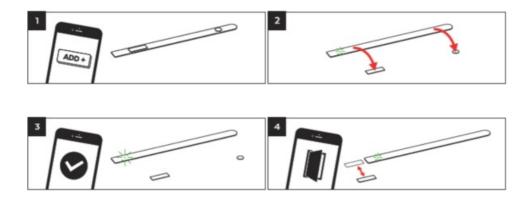
STRIPS Door and Window Sensor



Quickstart

This is a **Alarm Sensor** for **Europe**. To run this device please insert fresh **1** * **built in LiMnO2** batteries. Please make sure the internal battery is fully charged. Strips is delivered in "auto-add" mode. Follow the process below to add Strips in a Z-Wave network.

- 1. Start the add mode on the Z-Wave controller. See the controller's manual.
- 2. Remove both magnets from Strips. Strips blinks twice to confirm the command and successful addition.
- 3. A long LED blink indicates that the add process was successful
- 4. The Z-Wave controller application should now allow you to monitor your Strips sensor status.
- 5. Move the squared magnet as shown in the picture . Check that the Z-Wave system indicates the status correctly



Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law. The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material. Use this equipment only for its intended purpose. Follow the disposal instructions. Do not dispose of electronic equipment or batteries in a fire or near open heat sources.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section.

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.



This device and every other certified Z-Wave device can be **used** together with any other certified Z-Wave device regardless of brand and origin as long as both are suited for

the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.

Product Description

Strips by Sensative is an ultra-thin magnetic sensor designed to monitor windows and doors for your safety. It's so thin that it can be mounted invisibly in the tiny gap between the frame and the door or window. It is as easy to mount as a sticker using Strips's adhesive tape.

Strips is Z-Wave plus compliant and can be used with any existing Z-Wave smarthome systems.

Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state.** Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Reset to factory default

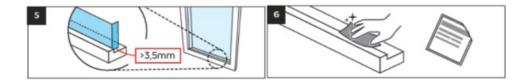
This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inoperable.

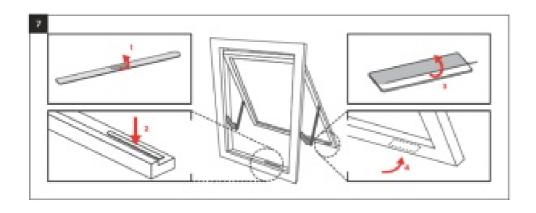
- 1. Place the round magnet at the rounded edge of Strips.
- 2. When the LED blinks, move the magnet away. Repeat 3 times in total within 10 seconds.
- 3. On the 3rd repetition, leave the magnet at the rounded edge for 10s.
- 4. A long LED signal indicates success.

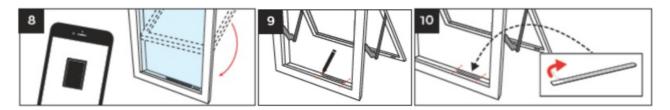
Safety Warning for Batteries

The product contains batteries. Please remove the batteries when the device is not used. Do not mix batteries of different charging level or different brands.

Installation







Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

- 1. Remove both magnets from Strips. Strips blinks twice to confirm the command and successful addition.
- 2. A long LED blink indicates that the add process was successful
- 3. The Z-Wave controller application should now allow you to monitor your Strips sensor status.
- 4. Move the squared magnet as shown in the picture. Check that the Z-Wave system indicates the status correctly
- 6. If the Z-Wave system do not respond, it may be needed to change Strips' notification type.

Manual add:

- 1. Set the controller to add mode (See your controller's manual).
- 2. Place the round magnet at the rounded edge of Strips. When the LED blinks, move the magnet away. Repeat 3 times in total within 10 seconds.
- 3. A long LED blink indicates that the add process was successful.

Exclusion

Place the round magnet at the rounded edge of Strips. When the LED blinks, move the magnet away. Repeat 3 times in total within 10 seconds. A long LED blink indicates that the remove process was successful.

Communication to a Sleeping device (Wakeup)

This device is battery operated and turned into deep sleep state most of the time to save battery life time. Communication with the device is limited. In order to communicate with the device, a static controller C is needed in the network. This controller will maintain a mailbox for the battery operated devices and store commands that can not be received during deep sleep state. Without such a controller, communication may become impossible

and/or the battery life time is significantly decreased.

This device will wakeup regularly and announce the wakeup state by sending out a so called Wakeup Notification. The controller can then empty the mailbox.

Therefore, the device needs to be configured with the desired wakeup interval and the node ID of the controller. If the device was included by a static controller this controller will usually perform all necessary configurations. The wakeup interval is a tradeoff between maximal battery life time and the desired responses of the device. To wakeup the device please perform the following action: Wake up Strips manually for Z-Wave communication: 1. Place the round magnet at the rounded edge of Strips. 2. When the LED blinks, move the magnet away. 3. Repeat 3 times in total within 10 seconds.

Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

- 1. Make sure a device is in factory reset state before including. In doubt exclude before include.
- 2. If inclusion still fails, check if both devices use the same frequency.
- 3. Remove all dead devices from associations. Otherwise you will see severe delays.
- 4. Never use sleeping battery devices without a central controller.
- 5. Dont poll FLIRS devices.
- 6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls an other device

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 the same wireless command wireless command, typically a 'Basic Set' Command.

Association Groups:

Group Number	Maximum Nodes	Description
1	1	Z-Wave Plus Lifeline

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 configuring 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 a two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

Parameter 1: Notification type

User can use this configuration parameter to change the notification type compatible with their gateway controller. Size: 1 Byte, Default Value: 1

Setting	Description
0	Binary Sensor report
1	Notification report
2	Basic report

Parameter 2: LED indication

LED On during specific event detected (ex. door opened) else if the parameter value is 0, LED will be turned OFF for the specific event detected.

Size: 1 Byte, Default Value: 1

Setting	Description
0	Specific event indication (ex. door opened) Off
1	On

Technical Data

Dimensions	195 x 15 x 3 mm
Weight	13 gr
Hardware Platform	ZM5101
EAN	7350088520017
Battery Type	1 * built in LiMnO2
Device Type	Notification Sensor
Network Operation	Reporting Sleeping Slave
Z-Wave Version	6.51.06
Certification ID	ZC10-16045049
Z-Wave Product Id	0x019A.0x0003.0x0003
Frequency	Europe – 868,4 Mhz
Maximum transmission power	5 mW

Supported Command Classes

- Association Group Information
- Association V2
- Battery

- Sensor Binary
- Configuration
- · Device Reset Locally
- Manufacturer Specific
- · Notification V4
- Powerlevel
- · Version V2
- · Wake Up V2
- Zwaveplus Info V2

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 adding 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 announces that is able to communicate.
- Node Information Frame is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.
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https://manual.zwave.eu/backend/make.php?lang=en&sku=SENE1110

Documents / Resources



Z-Wave STRIPS Door and Window Sensor [pdf] User Guide Z-Wave, STRIPS, Door, Window, Sensor

References

• Z-Wave Europe - The leading european distributor for Smart Home products.

- <u>Z-Wave Europe The leading european distributor for Smart Home products.</u>
- <u>Omanual.zwave.eu/backend/make.php?lang=en&sku=SENE1110</u>

Manuals+,