

Door/Window sensor - User Manual

This magnet sensor contains the latest Z-Wave technology with the ability to remotely control other Z-wave units available in your network. The fact that it is battery operated and so small you can virtually place it anywhere you want – on doors, windows or drawers, without the need of wiring. Screw or tape up the holder and then click the sensor in place. Done! The sensor is designed to be seen as little as possible and we have made it significantly smaller than other sensors. It consists of two parts that will merge into a stylish unit when the sensor is closed.

This device 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 reliability of the network.

Specification

Battery:	1 pcs 1/2 AA 3.6 V (ER14250)
Range:	Up to 30 meters indoor
Operating temperature:	0 - 40°C
Frequency:	868.42 MHz (EU)
Protection Class:	IP20

Terminology

Add	The process of including a node into the Z-Wave network.
Remove	The process of excluding a node from the Z-Wave network.

Installation

Remove the battery protection slip to start the sensor.

Mount the sensor where it's supposed to operate using the supplied adhesive tape or the supplied screws.

Include the sensor into your Z-Wave network. By doing it where it's supposed to operate, the mesh network will be set up correctly.

Add device

This device 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 reliability of the network.

When the device is not added to any Z-Wave network, the LED will flash slowly, when it's awake.

If the device already is added to a Z-Wave network, follow the remove device process before adding it to your network. Otherwise adding this device will fail.

Automatically add device to network

When a battery is inserted, the device is in automatic add mode for one minute (Network Wide Inclusion, NWI). This means that the device is added automatically when the Z-Wave controller enters add mode.

Manual add device to network

Start the add mode on the Z-Wave controller. Press the button on the device three times fast. The device will now be added into the Z-Wave-network.

Remove device

Start the exclusion mode on the Z-Wave controller. Press the button on the device three times fast. The device will now be removed from the Z-Wave-network.

Reset the device

Method 1

Remove the device from the Z-Wave network. This will reset the device to factory defaults.

Method 2:

Reset the device by:

1. Press and hold the button until the LED starts flashing (approx. 6 seconds).
2. Press the button once more, short.

The device will now reset to factory defaults. The LED will now flash, indicating that it's no longer added in any Z-Wave network. This procedure is called 'Device Reset Locally'.

Operating the device

The sensor will send it's status to the primary controller as long as it's included in association group 1 (Lifeline).

The sensor can control other devices that is included in association group 2 or 3. Devices in association group 2 will be controlled when the sensor is opened and closed, devices in association group 3 will only be controlled when the sensor is opened.

LED-indicator

Please note that the LED might has been turned off (configuration 7 set to 0), making the LED not light up at all.

Not in network	Slowly flashing (only when the device is awake)
Open/close	Short flash
Wakeup	LED lit as long as the sensor is awake

Basic Command Class

The Door/Window sensor can control other devices using the Basic Command Class. Associate the nodes using association group 2 or 3. The normal behavior is to send out a Basic Command ON (FF) when the magnet is removed from the sensor and to send out a Basic Command OFF (00) when the magnet is approaching the sensor. The value that is sent out when the magnet is removed can be changed by setting configuration parameter 2 and 5. The behavior can be inverted by setting configuration parameter 3 and 6. When inverted, the sensor will send out a Basic Command OFF (00) when the magnet is removed from the sensor and a Basic Command ON (FF) when the magnet is approaching the sensor.

Associations

Association group 1 - Lifeline - Sensor status - Max 1 node

The sensor will send it's status to the node in this group whenever the status of the sensor changes.

Lifeline is normally used to send the device status to the main controller / gateway.

Association group 2 - Sensor status - Max 10 nodes

The sensor will send control commands to nodes in this group when the status of the sensor changes.

Association group 3 - Sensor status - Max 10 nodes

The sensor will send control commands to nodes in this group when the sensor is opened only.

Configurations

By changing configurations, you are able to change various settings in the device. This can be done from the Z-Wave gateway/controller, if it's supported.

These settings are available in this device:

Parameter no 1 - Select what type of command to be sent to nodes in association group 2

Default value: 0 (Basic)

Size: 1 byte

Possible values: 0: Basic, 1: Switch Binary, 2: Switch All, 3: Switch Multilevel.

Parameter no 2 - Select what value that should be sent to association group 2

Default value: FF (Last value)

Size: 1 byte

Possible values: 0-63: Dim level, FF: Last value

Parameter no 3 - Type of commands to association group 2

Default value: 0 (Normal)

Size: 1 byte

Possible values: 0: Normal, 1: Inverted

Parameter no 4 - Select what type of command to be sent to nodes in association group 3

Default value: 0 (Basic)

Size: 1 byte

Possible values: 0: Basic, 1: Switch Binary, 2: Switch All, 3: Switch Multilevel.

Parameter no 5 - Select what value that should be sent to association group 3

Default value: FF (Last value)

Size: 1 byte

Possible values: 0-63: Dim level, FF: Last value

Parameter no 6 - Type of commands to association group 3

Default value: 0 (Normal)

Size: 1 byte

Possible values: 0: Normal, 1: Inverted

Parameter no 7 - LED-Indicator

Default value: 1 (On)

Size: 1 byte

Possible values: 0: Off, 1: On

Parameter no 8 - Select the type of command to be sent in the Lifeline

Default value: 0 (Notification)

Size: 1 byte

Possible values: 0: Notification, 1: Sensor binary

Wake up

Since this is a battery operated device, it will sleep most of the time, making it not listening for new settings etc. Press the button on the sensor one time short to wake up the device.

Node Information Frame

The 'Node Information Frame' contains information about the device type and the technical capabilities. The inclusion and exclusion of the device is confirmed by sending out a Node Information Frame. Beside this it may be needed for certain network operations to send out a Node Information Frame.

Tripple click the button on the device to send out a Node Information Frame.

Supported Command Classes

- Sensor binary (version 2)
- Association group info (version 1)
- Device reset locally (version 1)
- Z-Wave+ Info (version 2)
- Configuration (version 2)
- Alarm (version 4)
- Manufacturer specific (version 1)
- Powerlevel (version 1)
- Firmware update (version 2)
- Battery (version 1)
- Wake up (version 2)
- Association (version 2)
- Version (version 2)
- Multi channel association (version 2)