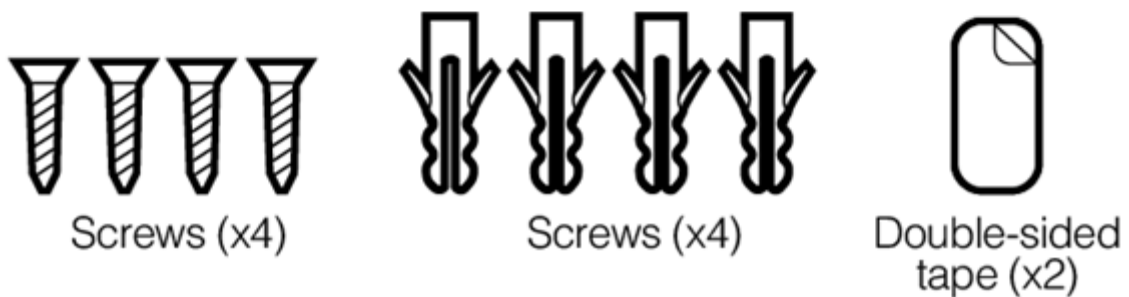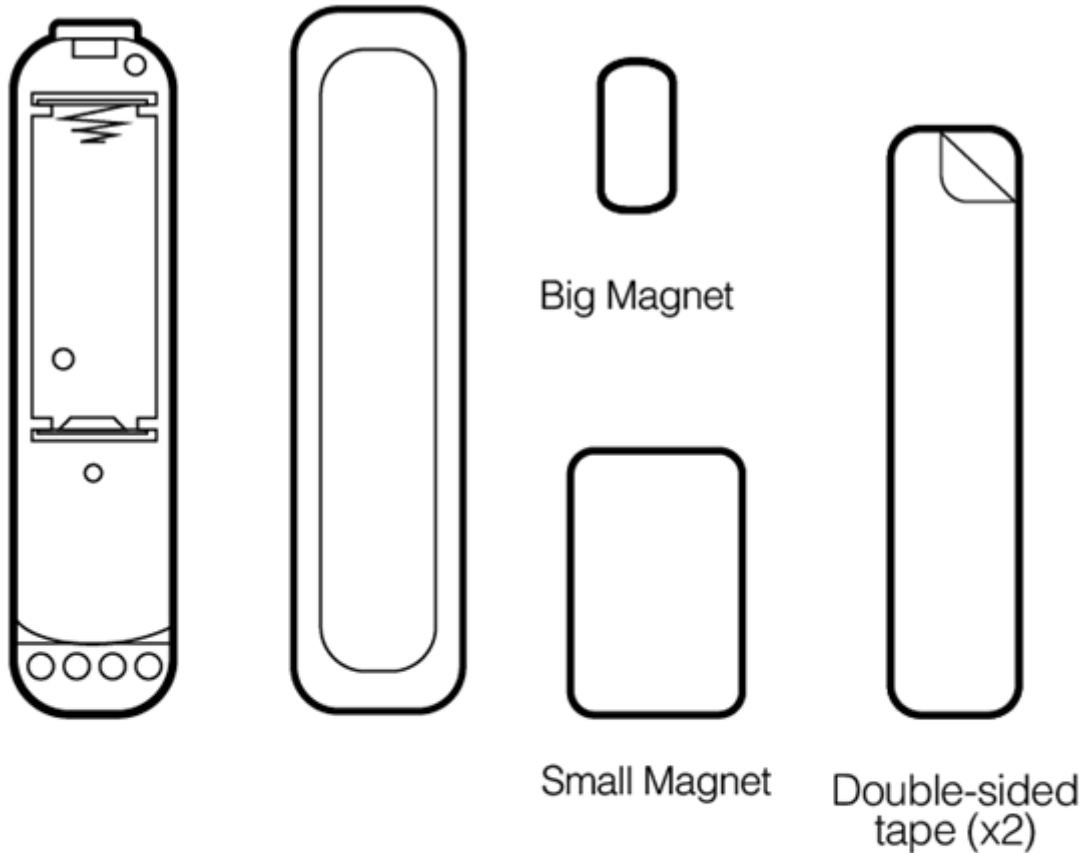# Aeotec Door / Window Sensor 7.

Aeotec Door / Window Sensor 7 has been crafted to power connected lighting using Z-Wave Plus. It is powered by Aeotec's Gen5 technology and S2 framework.

Familiarize yourself with your Door / Window Sensor 7.

Package contents:

1. Sensor Unit.
2. Cover
3. Big Magnet.
4. Small Magnet.
5. Double-Sided Tape large (×2).
6. Double-Sided Tape small (x2).
7. Screws (×4).
8. Dowels(x4).

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Big Magnet

Small Magnet

Double-sided tape (x2)

Screws (x4)

Screws (x4)

Double-sided tape (x2)

Important safety information.

Please read this and other device guides carefully. Failure to follow the recommendations set forth by Aeotec Limited may be dangerous or cause a violation of the law. The manufacturer, importer, distributor, and/or reseller will not be held responsible for any loss or damage resulting from not following any instructions in this guide or in other materials.

Keep product and batteries away from open flames and extreme heat. Avoid direct sunlight or heat exposure. Always remove all batteries from products that are being stored and not used.

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Batteries may damage the appliance if they leak. Do not use rechargeable batteries. Ensure correct polarity when inserting the batteries. Improper battery use may damage the product.

Door / Window Sensor 7 is intended for indoor use in dry locations only. Do not use in damp, moist, and/or wet locations.
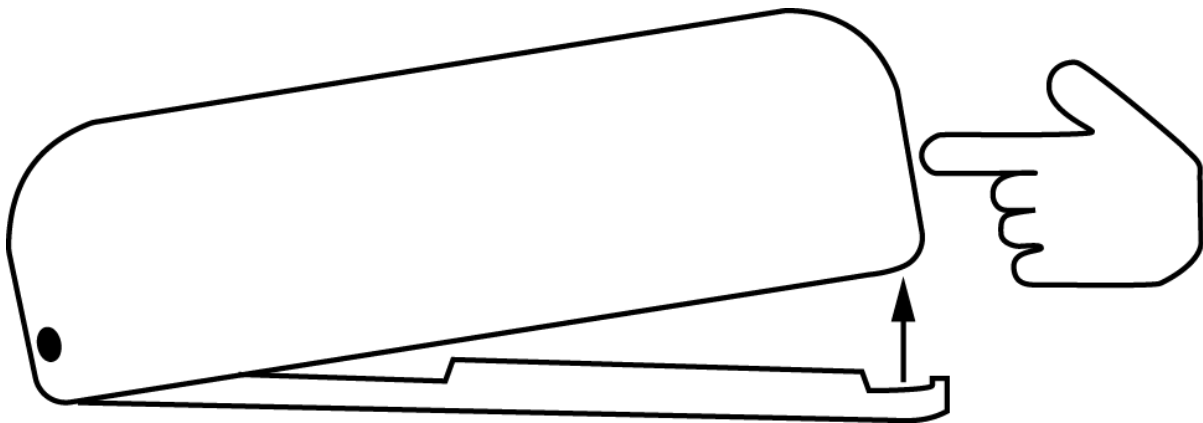
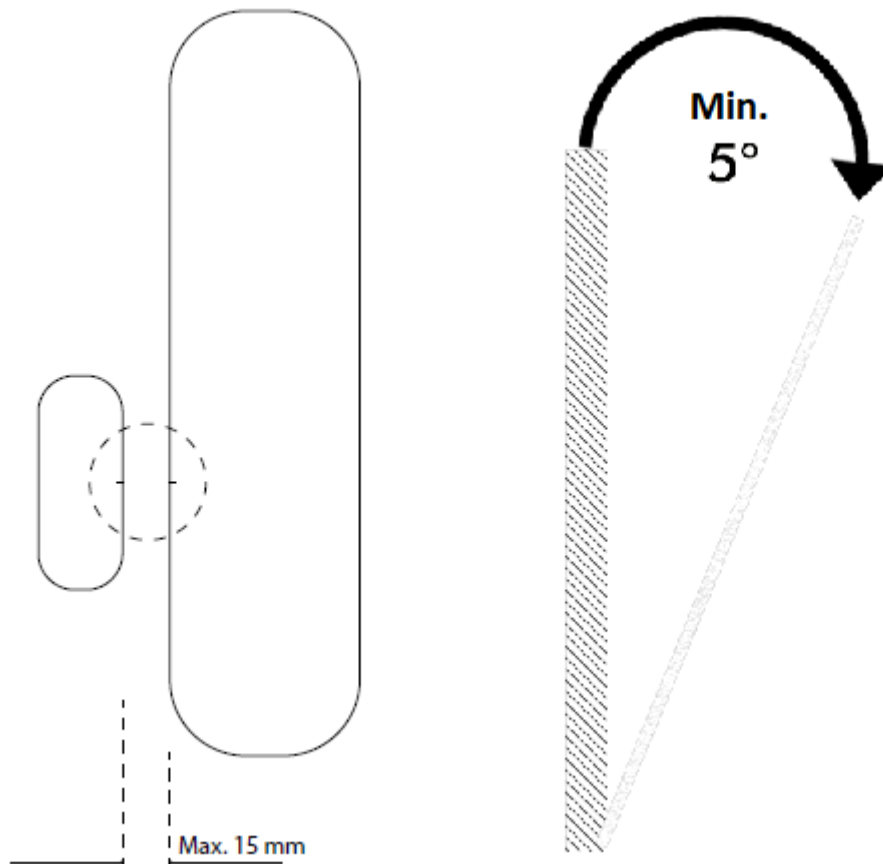It contains small parts; keep away from children.

Quick Start

Pre-Installation of Door / Window Sensor 7.

- Open the cover by pressing the clip on the side and pulling the cover upwards.
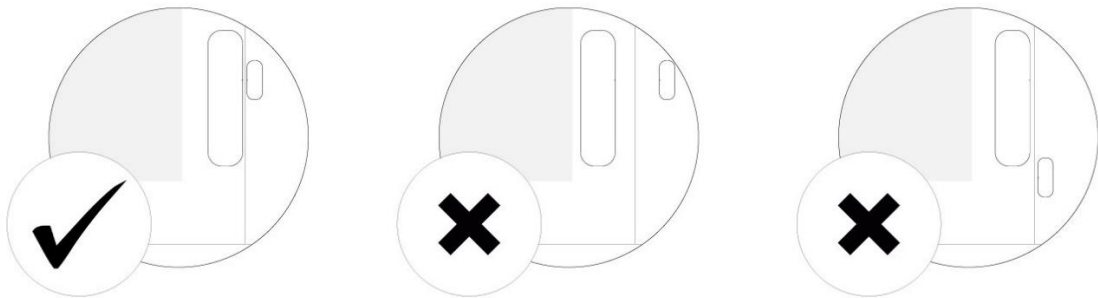- Insert a fresh **1 * 1/2 AA** battery, but pay attention to the polarity

Install your Door / Window Sensor 7.

The sensor can be mounted either on the moving part or on the fixed part of a door or a window. Mounting can be accomplished either using the tape by peeling off the protection foil or using two screws with the holes inside the battery compartment. If the tilt detection on a window (only normal windows, no roof windows) shall be used the sensor device must be placed on the moving part of the window and the magnet on the window frame. The sensor comes with two types of magnets:

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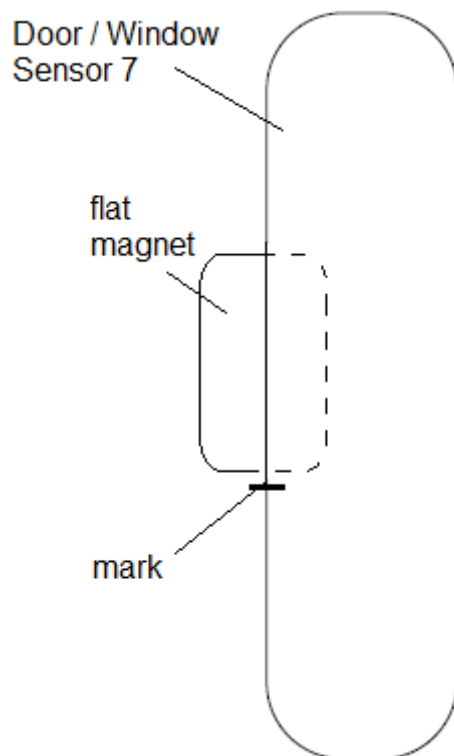Pagina 3

Max. 15 mm

Min. 5°

- The standard magnet covered by plastic part, mountable beside the sensor. Make sure the two indicating lines on sensor enclosure and magnet are opposite to each other. The image on the right-hand-side shows the position of magnet and sensor body.
- A slim "naked" magnet to be mounted behind the sensor in case the sensor body is placed on the side of a window.
- To use the tilting function, the opening angle of the window must be at least 5° or greater.

For German style windows there the window sits on top of the window frame mounting on the side of the window is highly recommended. If no tilting detection is used, the sensor can be placed on any position of the door or the window. In case tilting detection is desired the sensor should be placed on the upper side of the window.

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Installation of the flat magnet

When installing the flat magnet in a hidden location, make sure that it is on the longer side as seen from the mark on the Door / Windows Sensor 7.

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Adding your Door / Windows Sensor 7 to Z-Wave network.

1. Set your Z-Wave controller into pairing mode.
2. Triple-click the tamper switch on Door / Window Sensor 7 - this begins to blink five times
3. After completion of the inclusion, it lights up once before it goes out.
4. Close the cover
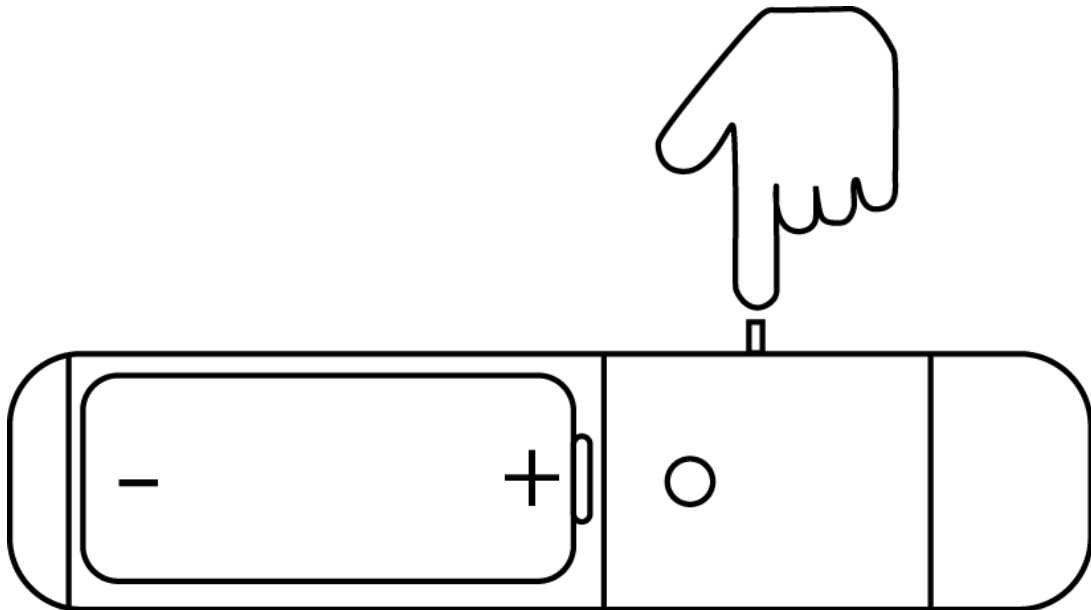
Functions of Door / Window Sensor 7.

Open/Close

Once installed the sensor will report "open" and "close" status changes to a central Z-Wave controller using notification commands.

- Open/Close utilizes Notification Report.

Tilt detection

The tilt detection allows reporting the way a window is opened. This is accomplished using the command class "binary sensor - tilt-type". In case the window is closed or opened without tilting the tilt sensor will report "Off". In case the window is tilted an "On" is reported. The angle of inclination of the window must be at least 5°.
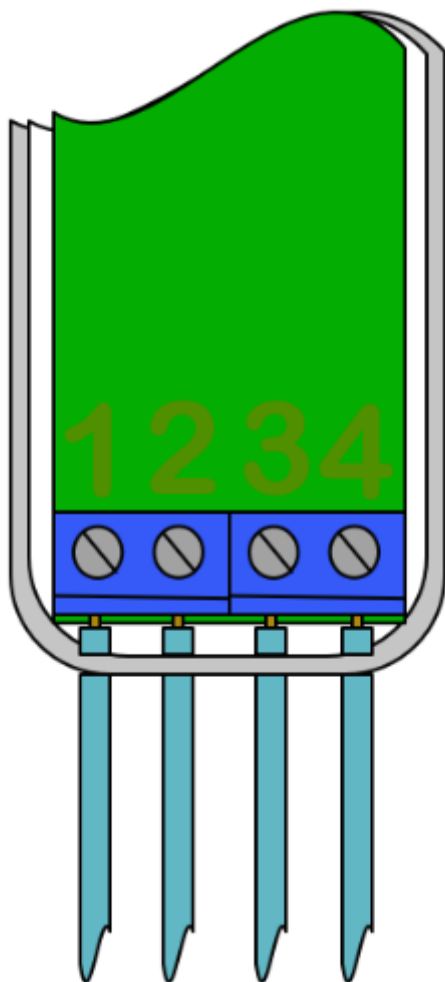
- Tilt Sensor uses Binary Sensor Report.
- Tilt Sensor reports Open when the window is opened, moving, and tilted at the same time.
  - Binary Sensor Report = 0xFF

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- When Window is closed, both Tilt Sensor and Window access will report CLOSED.
  - Binary Sensor Report = 0x00

Advances functions.

Screw Terminal.

With parameter #1 you can choose between the internal magnet or the external connections such as push buttons or dry contact sensors.

- #1: Not used.
- #2: Not used.
- #3: Digital Input
- #4: Ground

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Digital + Ground is used to connect an external dry contact mechanism to control scenes.

- Push button
- Water sensor probes
- External magnet detection
- etc.

Note: Please note that the contact Digital Input (#3) and Ground (#4) is a normally open (NO) contact. Closing the contact sends out a command (Open or Close). You must use a NO dry contact device with these terminals.

Door / Window Sensor 7 as Dry Contact Sensor.

Using configuration commands the source of "open" and "close" events can be chosen between the internal magnet detector or external dry contact connected on terminal #3 and #4.

You can find direct information in this article here:
https://aeotec.freshdesk.com/support/solutions/articles/6000223859

Scene Controller.

When activated by configuration parameter #13 the device can perform as a scene controller. The external dry contact will then act as a scene controller with a total of 7 scenes that can be activated:

1. Contact Pressed 1 time
2. Contact Pressed 2 time
3. Contact Pressed 3 time
4. Contact Pressed 4 time
5. Contact Pressed 5 time
6. Contact held down
7. Contact released

You can find out more information on how to use Door / Window Sensor 7 in this article here: https://aeotec.freshdesk.com/support/solutions/articles/6000223885

Communication test.

This utilizes the Power Level command class to determine the health between the Door / Window Sensor 7 and your Z-Wave gateway. This will tell you if the Door / Window Sensor 7 has a healthy connection to your system and is a great method of debugging connectivity issues.

1. Set Parameter #4 to value #1
2. Double click the Tamper Switch.
3. Result:
    o **Blinks once -** success
    o **Blinks 5x times -** failure

Firmware-Update over the Air.

This device is capable of receiving a new firmware 'over the air'. The update function needs to be supported by the central controller. Once the controller starts the update process, perform the following action to confirm the firmware update:

1. Wake Up the device by removing the cover.
2. The hit the tamper switch once.

Send a wake up notification.

In order to send your sensors new configuration commands from your Z-Wave controller or gateway, it will need to be woken up.

1. Wake Up the device by removing the cover.
2. The hit the tamper switch once.

Note: Door / Window Sensor 7 remains awake until the housing is closed again.

Remove your Door / Window Sensor 7 from Z-Wave network.

Your sensor can be removed from your Z-Wave network at any time. You'll need to use your Z-Wave network's main controller/gateway. To do this, please refer to the part of your gateways respective manual that tells you how to remove devices from your network.

1. Set your Z-Wave controller into unpair mode.
2. Triple-click the tamper switch on Door / Window Sensor 7 within 1.5 seconds - this will cause the LED to blink five times.
3. After a successful exclusion, it will light up its LED for 2 seconds then deactivate.

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Reset your Door / Windows Sensor 7.

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

To manually factory reset:

1. Remove the cover of Door / Window Sensor 7
2. Press and hold tamper switch for 5 seconds until the red LED blinks.
3. Release the tamper switch
4. Immediately press and hold the tamper switch for 5 seconds until the red LED blinks.

Parameter Configurations.

Parameter 1: Operation Mode.

This parameter allows switching between internal sensor and external sensor.

Size: 1 Byte, Default Value: 0

Setting Description

0   the internal hall sensor is enabled (external input disabled)

1   the external input is enabled (internal hall sensor disabled)

Parameter 2: Door/Window State.

This parameter allows setting Door / Window Sensor 7 state when the magnet is close to the sensor.

Size: 1 Byte, Default Value: 0

Setting Description

0   closed when the magnet is near

1   opened when the magnet is near

Parameter 3: Visual LED Indications.

This parameter defines events indicated by the visual LED indicator. Disabling events might extend battery life.

Size: 1 Byte, Default Value: 7, Range: 0 - 7

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Setting	Description
0	no indications
1	indication of opening/closing status change
2	indication of wake up (1 x click or periodical)
4	indication of device tampering

Parameter 4: Range test after double click.

Allows enabling the activation of Z-Wave range test with double click of a Tamper Switch 2.

Size: 1 Byte, Default Value: 0

Setting	Description
0	Disable
1	Enable

Parameter 5: Group 2 Association Triggers.

This parameter defines events that result in sending On/Off commands to devices added to the 2nd Association Group. These commands are sent alternately to switch the devices On and Off. Commands represent the values of BASIC SET command frames. This parameter is inactive in external dry-contact mode (parameter "Operation Mode" set to 1).

Size: 1 Byte, Default Value: 0

Setting	Description
0	switch after opening and closing
1	switch after opening
2	switch after closing

Parameter 6: Commands sent to associated devices on Group 2.

Command frames sent to devices added to the 2nd association group.

Size: 1 Byte, Default Value: 2

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Setting   Description
0   On
1   Off
2   On and Off

Parameter 7: Values of ON command frame sent to Group 2 Association.

The value of 0 turns OFF the device, 255 turns it On. In the case of associating the Dimmer or Roller Shutter module, values

Size: 1 Byte, Default Value: 255

Setting   Description
0 - 99   allow setting an Associated device to a specified level (0 is OFF)
255   ON

Parameter 8: Value of OFF command frame sent to Group 2 Association.

8 1 0-99,255 0 Value of OFF command frame sent to 2nd Association Group

The value of 0 turns OFF the device, 255 turns it On. In the case of associating the Dimmer or Roller Shutter module, values.

Size: 1 Byte, Default Value: 0

Setting   Description
0 - 99   allow setting an associated device to a specified level. (0 is OFF)
255   ON

Parameter 9: Time Delay of ON command from Group #2.

The time period after which On command frame will be sent.

Size: 2 Byte, Default Value: 0

Setting   Description
0 - 32400   Time set in seconds

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Parameter 10: Time Delay of OFF command from Group #2.

The time period after which the OFF command frame will be sent.

Size: 2 Byte, Default Value: 0

Setting	Description
0 - 32400	Time in seconds

Parameter 11: Delay of tamper alarm cancellation.

The time period after which a tamper alarm will be canceled.

Size: 2 Byte, Default Value: 0

Setting	Description
0 - 32400	Time in seconds

Parameter 12: Reporting tamper alarm cancellation.

Reporting cancellation of tamper alarm to the controller and 3rd Association Group.

Size: 1 Byte, Default Value: 1

Setting	Description
0	do not send tamper cancellation report
1	send tamper cancellation report

Parameter 13: Central Scene Event functionality.

Enable/Disable Central Scene Events.

Size: 1 Byte, Default Value: 0

Setting	Description
0	Contact Scene Events disabled
1	Contact Scene Events enabled

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Parameter 14: Tilt Sensor Functionality enable/disable.

Tilt Sensor functionality enable/disable.

Size: 1 Byte, Default Value: 1

Setting Description

0   Tilt Sensor disabled

1   Tilt Sensor Enabled

Parameter 15: Tilt sensitivity

You can use this parameter to adjust the tilt sensitivity if the tilt is too low or too high.

Size: 1 Byte, Default Value: 50

Setting	Description
1 - 100	Tilt sensitivity

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