

# VISION<sup>®</sup>

## VIS\_ZG8101 Garage Door Sensor (Tilt)

Firmware Version : 4.84



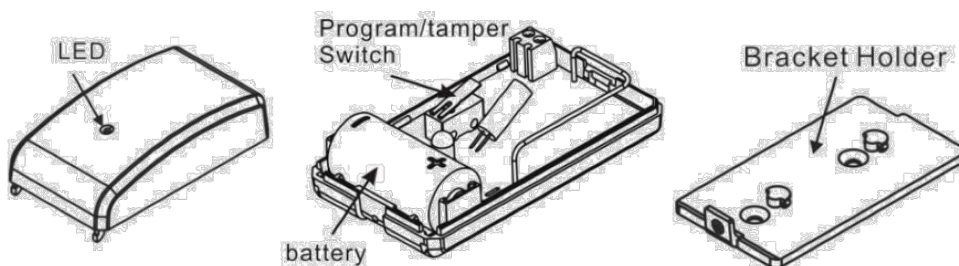
### Quick Start

**S** This device is a wireless Z-Wave sensor. A single click on the tampering switch inside the enclosure will confirm Inclusion and Exclusion. Releasing the tampering switch will wake up the device and keep it awake. Please refer to the chapters below for detailed information about all aspects of the products usage.

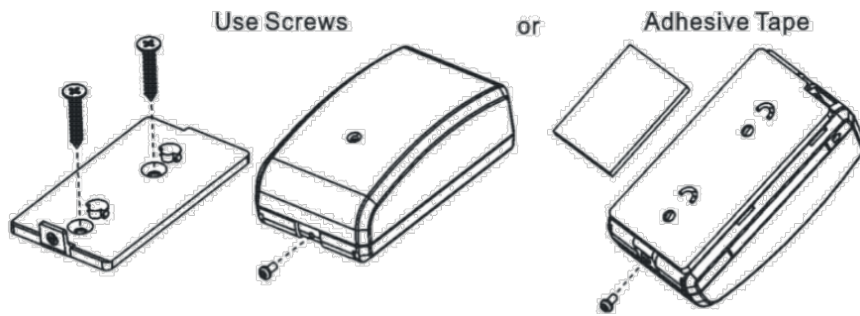
### Product description

This sensor offers information whether a garage door is open or closed. It detects the horizontal or vertical position of the door. It is therefore required to mount it to the door in a way that it will also change the position from vertically to horizontally and back. The installation can be done with screws or double-sided tape. The device is battery-operated and therefore in sleeping mode unless an action is detected. After a programmable sleeping time the device wakes up and sends a status information. After this the unit goes back to sleeping mode. Batteries can be changed without unscrewing the device from the door or frame. The unit will give a visual warning on the device and sends a warning to the Z-Wave controller, when batteries need to be replaced. The units send information to a controller or any other associated Z-Wave device. Up to 5 devices can be controlled from this device. Two terminals allow the connection of an external dry contact in parallel to the position sensor. The powerful CR123 Lithium battery lasts 3 ... 5 years in normal operation conditions. The device supports normal Z-Wave inclusion, auto inclusion and network wide inclusion for convenient handling.

### Installation Guidelines



There are two options to mount the sensor. Double-sided tape can be applied to the mounting plate or the device itself. Screws however offer a more solid mounting and are strongly recommended for all security-related applications. The device needs to be placed in a way that the movement of the garage door results in a turning of the sensor so that the movement and the position can be detected.



## Behavior within the Z-Wave network

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 inclusion respective exclusion 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.

**A single click for one second on the tampering switch inside the enclosure will confirm Inclusion and Exclusion.**

## Operating the device

The installed tilt sensor will send out a wireless signal every time the garage door is changing its position from open to close or back.

## Wakeup Intervals - how to communicate with the device?

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.

**Releasing the tampering switch will wake up the device and keep it awake.**

It is possible to set the node ID to 255 to send wakeup notifications as broadcast. In this mode device takes more time to go to sleep and drains battery faster, but can notify all it's direct neighbors about a wakeup.

## Node Information Frame

The Node Information Frame is the business card of a Z-Wave device. It 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.

A single click on the tampering switch inside the enclosure will send out a Node Information Frame.

## 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 | Control Command when trip (max. nodes in group: 5) |
|---|--|

## Technical Data

|                        |                                 |
|------------------------|---------------------------------|
| Battery Type           | 1 * CR123A                      |
| Explorer Frame Support | Yes                             |
| SDK                    | 4.54.00                         |
| Device Type            | Slave with routing capabilities |
| Generic Device Class   | Binary Sensor                   |
| Specific Device Class  | Routing Binary Sensor           |
| Routing                | No                              |
| FLiRS                  | No                              |
| Firmware Version       | 4.84                            |