HEIMAN®

Heiman

Smart Smoke Sensor

SKU: HEIEHS1SA

Quickstart

This is a **secure Alarm Sensor** for **Europe**. To run this device please insert fresh **1 * CR123A** batteries. Please make sure the internal battery is fully charged. - Press the Net_Button 3 times within 1.5s, Green LED is Blinking 3 times within 1 second.
- If Inclusion Process is successful, Green led will turn off.

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

The smart smoke sensor detects smoke, and sends an alarm signals to alertof danger.When the smart smoke sensor detects smoke, it will send an alarm notification to your gateway through wireless Z-Wave communication protocol.Then the gateway will send the notification to the server, the server interprets the signal and transfers the signal to users APP. The smart smoke sensor has high stabilityand sensitivity,which will alert house of fire effectively.

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.

- Long press Net-Button while installing batteries in HS1SA-Z.
- Device Reset Locally notification is Transmitted.

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.

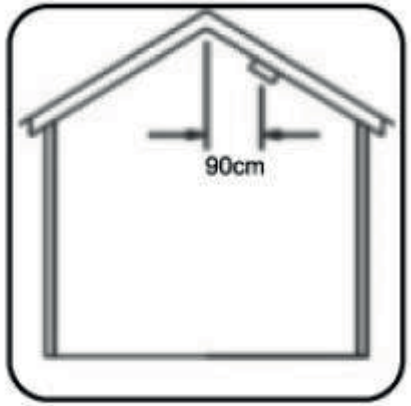
Installation

- Flat ceiling mounting

The preferred location to install smoke sensor is in the centre of the ceiling, because smoke, heat and combusible products rise to ceiling and will laterally spread. Keep at least 30 cm distance from lights or decoration and at least 17cm away from walls and corners.

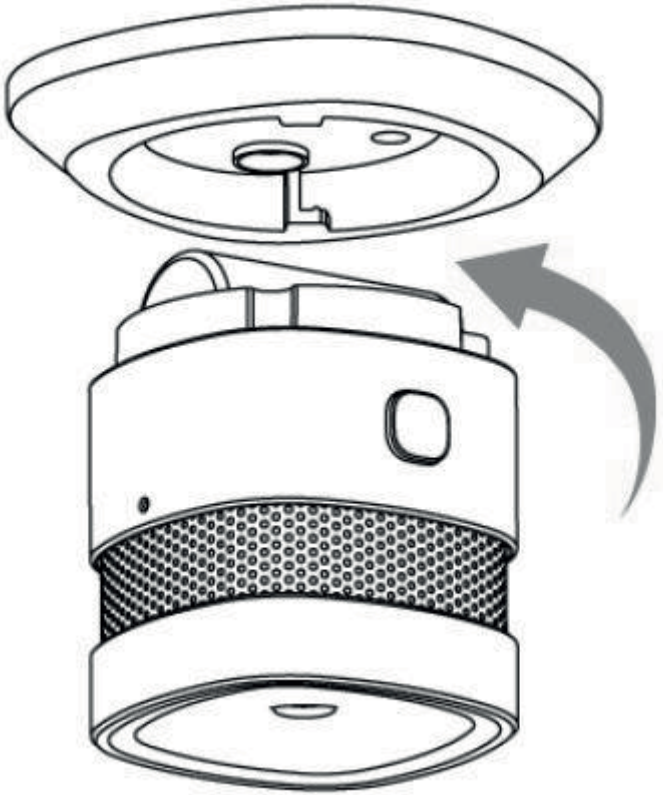
If ceiling is sloping, please install the smok sensor at horizontal distance 90 cm away from the ceiling top.

Recommended and Avoided Installation Position

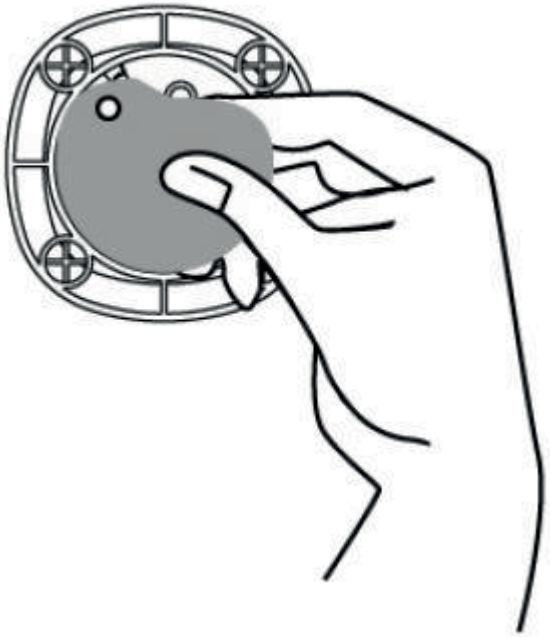


Sloping Ceiling Mounting Position

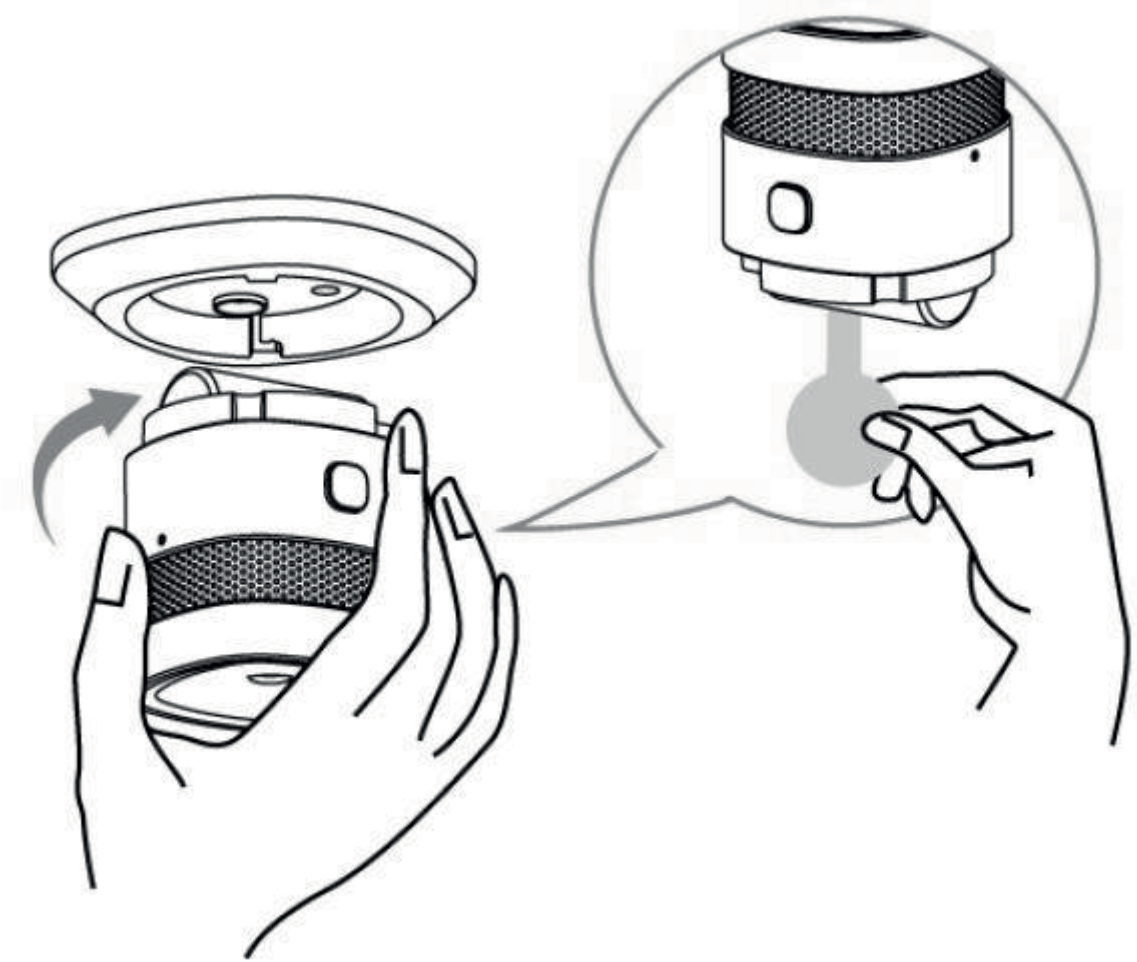
Installation guide



- Anticlockwise rotation the bracket out from the installation base.



- Fixed the bracket intoceiling using srews.
- Remove the double-sided adhersive and stickalarm into ceiling



- Remove the battery insulating strip to make detector on power and clockwise rotating alarm into bracket.

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.

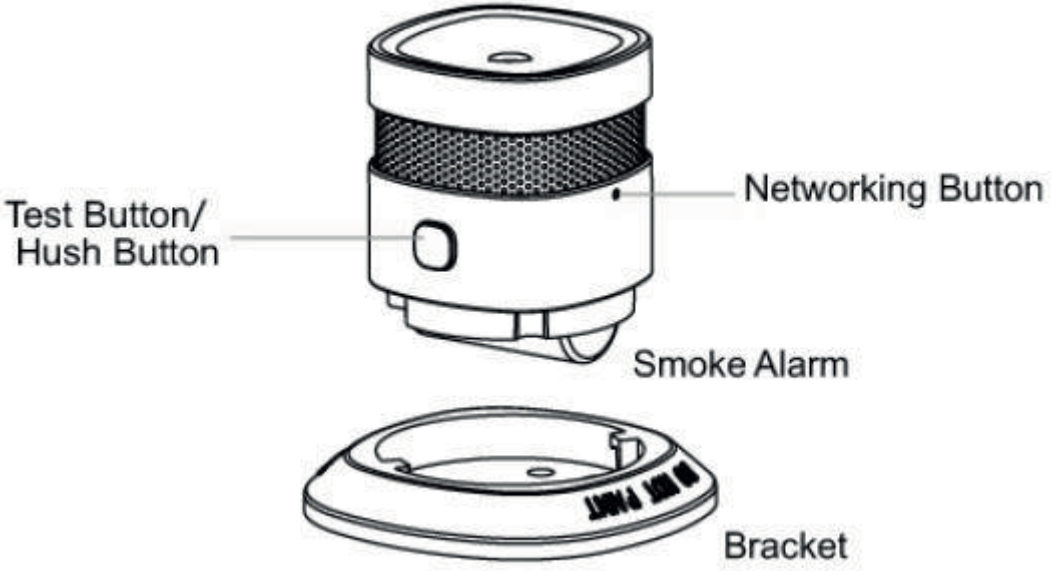
Inclusion

Press the Net-Button 3 times within 1.5s, Green LED is Blinking 3 times within 1 second.
If Inclusion Process is successful, Green led will turn off.

Exclusion

- Press the Net_Button 3 times within 1.5s
- If Exclusion Process is successful, Green led is Blinking 6 times, then turn off.

Product Usage



State	LED	Sound Alarm
Stanby	red LED flash every 53 seconds	NO
Test	red LED flash quickly	rapid"Di-Di-Di"
Alarm	red LED flash quickly	rapid"Di-Di-Di"
Hush	red LED flash every 10 seconds	NO
Low Power	red LED flash one time	"Di" every 53 seconds
Fault	red LED flash twice every 53 seconds	"Di-Di"for twice every 53 seconds

Node Information Frame

The Node Information Frame (NIF) 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. To issue a NIF execute the following action: Press network button once.

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 Notification is transmitted every 24 hours by default.

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	Lifeline
2	5	(V3.1 and higher) Root Device group (Notification) 1. Notification reports reports status of detect smoke or no smoke via Lifeline. 2. When the sensor detects status change between smoke and no smoke, the device will be triggered.
(2)	5	(only for older devices V1.0) Root Device group - (Binary Sensor) Compatible with 300 series 1. Binary Sensor reports status of smoke or no smoke via Lifeline.2.When the sensor detects status change between smoke and no smoke, the device will be triggered.
(3)	5	(only for older devices V1.0) Root Device group(Notification) 1. Notification reports reports status of detect smoke or no smoke via Lifeline. 2. When the sensor detects status change between smoke and no smoke, the device will be triggered.

Technical Data

Dimensions	0.0599200x0.0503400x0.0599200 mm
Weight	51 gr
Hardware Platform	ZM5202
EAN	6971348970048
IP Class	IP 20
Voltage	3V
Battery Type	1 * CR123A
Device Type	Notification Sensor
Network Operation	Reporting Sleeping Slave
Firmware Version	03.01
Z-Wave Version	05.03
Certification ID	ZC10-18076198
Z-Wave Product Id	0x0260.0x8002.0x1000
Outdoor Use	ok
IP (Ingress Protection) Rated	ok
Firmware Updatable	Not Updatable
Communications Protocol	Z-Wave Serial API
Communications Connections	Ethernet (Wireless/WiFi)
Color	White
Frequency	Europe - 868,4 Mhz

Maximum transmission power	5 mW

Supported Command Classes

- Basic
- Transport Service
- Association Grp Info
- Device Reset Locally
- Zwaveplus Info
- Supervision
- Alarm
- Manufacturer Specific
- Powerlevel
- Battery
- Wake Up
- Association
- Version
- Multi Channel Association
- Security 2

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.
