Heiman

Smart Combustible Gas Sensor (LPG)

SKU: HEIEHS1CG-P

Quickstart

This is a **Alarm Sensor** for **Europe**. To run this device please connect it to your mains power supply. Press the Network Button 3 times within 1.5s, Green LED is Blinking 3 times within 1 second.
If add Process is successful, Green LED will turn on.

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 sectior

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 combustible gas sensor is designed to detect propane (C3H8), and sound alarm to remind people of the danger, it can also send notification to users' smart phone via gateway to remind of people remotely. it adopts Z-Wave wireless transmission technology. With the characteristics of high sensitivity and stablization, it can avoid fire or explosion happened in advance.

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 recommende 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 at least 10 seconds in the device.
-Device Reset Locally notification is Transmitted.

Safety Warning for Mains Powered Devices

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

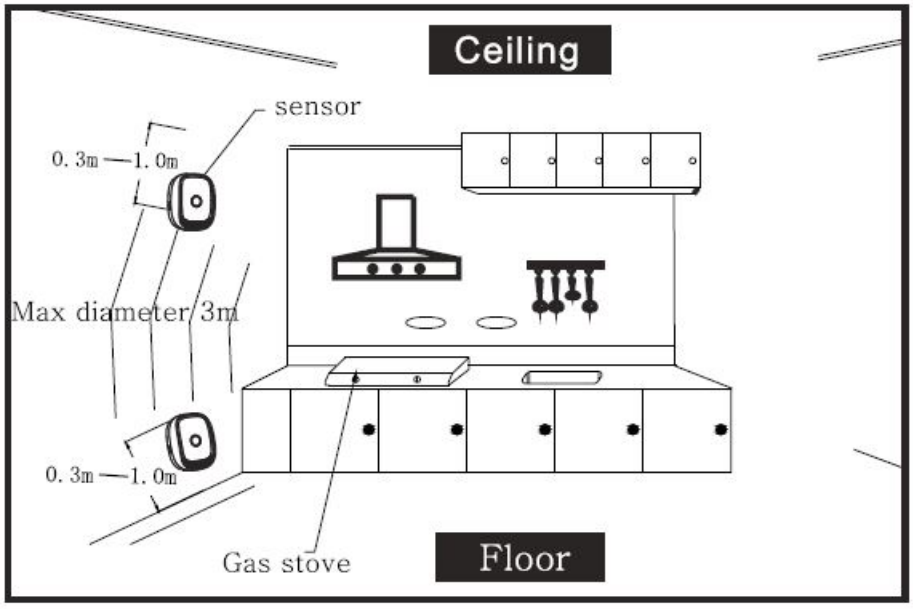
Installation

Liquefied petroleum gas:

Should be installed at 0.3-1m height from floor and semi-conductor of sensor installation position to gas source should be less than 1.5m.

Natural gas, manufactured gas, marsh gas, etc.:

Should be installed at 0.3-1m below from the ceiling, semi-diameter to gas source less than 1.5m.



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. Th controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

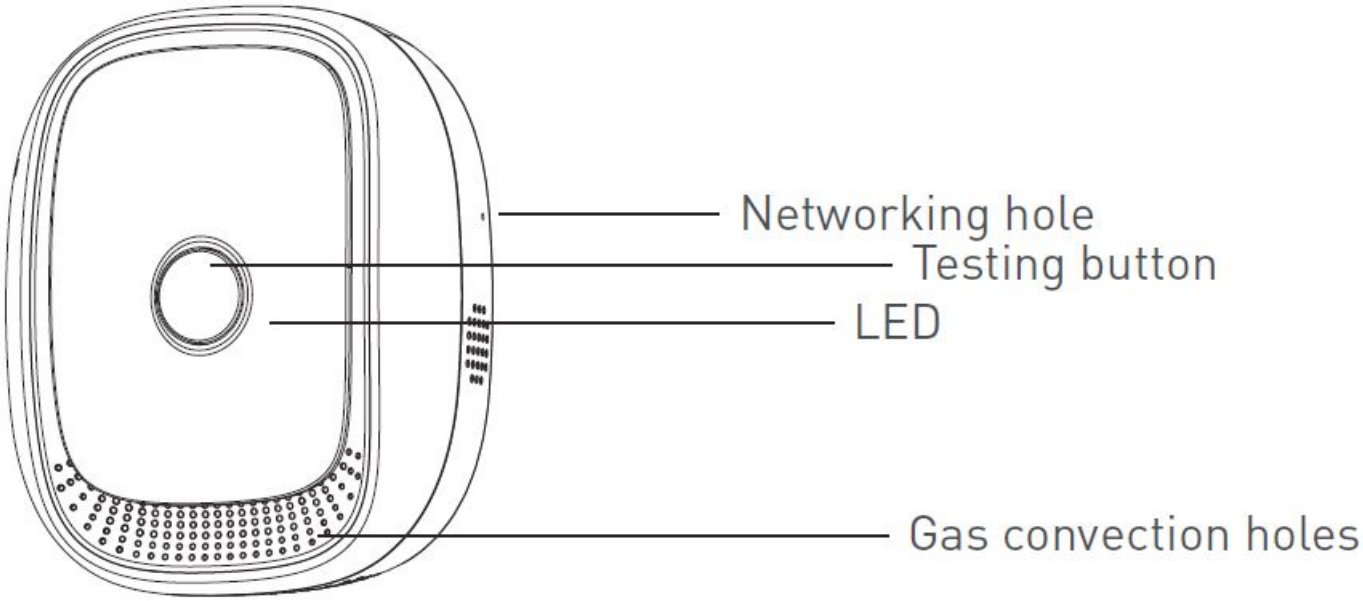
Inclusion

Press the Network Button 3 times within 1.5s, Green LED is Blinking 3 times within 1 second.
If add Process is successful, Green LED will turn on.

Exclusion

Press the Network Button 3 times within 1.5s
If remove Process is successful, Green LED is Blinking 6 times, then turn on

Product Usage



1. Shell surface will be slightly hot while working, which is normal phenomenon
2. Please dismantle sensor while decorating house
3. Avoid spraying aerosol around sensor
4. Oil adhesion around gas convection holes may effect the sensitivity of gas sensor after a long time of use. It‘s suggested to clear gas convention holes every 3 months (with a little detergent, but with care so it doesn‘t enter the body of the sensor).
5. Semi-conductor of gas sensor has 5-year lifespan
6. Don‘t use lighter to test the sensor directly

Starting up

The green LED lights up after power on the sensor, when a beep sounds once, the sensor enters into warm-up state then red and yellow LED flashes alternately Eventually, the flash stops 3 minutes later, which indicates that the sensor has entered into normal working state. Don‘t the senor while it‘s in warm-up state.

LIGHT STATE & PRODUCT TEST

STATE	**COLOR**	**LIGHT**	**ALARM SOUND**
Power	*Green*	Normally on	No
Alarm	*Red*	Flashing	gas alarm
Malfunction	*Yellow*	Normally on	Long buzz

Test button of this sensor is used for testing wheater LED indicator and buzzer can work properly. Red LED and yellow LED flash alternatively with buzzer alarm when the test button is pressed.

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 differen 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 association group Include command classes: Notification Report and Device Reset Locally notification.
2	5	Root Device group(Notification). Notification reports status of gas detected or no gas detected via Lifeline. When the sensor detects status change of gas detected and no gas detected, the device wil be triggered.

Technical Data

Dimensions	78 x 78 x 68 mm
Weight	91 gr
Hardware Platform	ZM5202
EAN	4251295701769
IP Class	IP 20
Voltage	230V
Device Type	Notification Sensor
Network Operation	Always On Slave
Z-Wave Version	6.51.09
Certification ID	ZC10-16125343
Z-Wave Product Id	0x0260.0x8003.0x1000
Communications Protocol	Z-Wave Serial API
Color	White
Communications Connections	Ethernet (Wireless/WiFi)
Electric Load Type	
IP (Ingress Protection) Rated	ok
Sensors	
Frequency	Europe - 868,4 Mhz
Maximum transmission power	5 mW

Supported Command Classes

- Association Grp Info

- Association V2
- Device Reset Locally
- Manufacturer Specific V2
- Notification V7
- Powerlevel
- Version 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.
