

SMOKE SENSOR



CT-SMZW2007-FBR

Smoke Sensor

Introduction

Smoke Sensor is a universal, Z-Wave compatible sensor. The device can be hard wire (12 or 24V DC) or battery operated (battery life 3 years). Smoke detection is signaled through siren and LED diode blinking. Additionally, the smoke sensor signal can be sent to alarm system or fire alarm system hub, through a NC (normally closed) contact terminal.

The optical sensor detects smoke at an early stage of fire, often before flames appear and temperature starts to rise significantly. Moreover the device has a built-in temperature sensor, which can also trigger the alarm once the specified temperature threshold is exceeded.

Smoke Sensor is designed to be placed on a wall or ceiling. LED indicator signals fire, operating mode and used to see if device is within the Z-Wave network.

Technical Information

- Compatible with any Z-Wave network controller

- The smoke sensor signal can be sent to alarm system or fire alarm system hub, through a NC
- Battery or VDC powered
- Built-in temperature sensor
- Automatic efficiency test performed every 5 seconds.

Specifications

- Radio protocol: Z-Wave
- Radio Frequency: 868.4MHz EU; 908.4MHz US; 921.4Hz ANZ; 869.2Hz RU
- Power supply: DC 12-24V
- Battery type : CR123A
- Power consumption (VDC operation) : 0.4W
- Output terminals maximum current carrying capacity : 25mA
- Maximum voltage at output terminal: 24V(AC/DC)
- Operational Temperature: 0°C-40°C
- Measured Temperature: -20°C-100°C
- Range : up to 50m outdoors, up to 30m indoors (depending on the building materials used)
- Dimension : 65mm x 28mm

Installation Instructions

It's recommended to install the sensor on the ceiling or upper portion of wall at least 40cm from corners and other objects. Particular attention should be paid to any adjacent objects or devices which can impede smoke's access to its sensor. It's recommended to install the sensor in all rooms prone to fire, and between such rooms as well.

NOTES FOR THE DIAGRAM:

+12V- constant power supply terminal, 12/24V DC

-GND- ground terminal

SMOKE NC-potential free, smoke sensor connecting terminals (for wired system)

TAMP NC-potential free, tamper connecting terminals (for wired system)

SMOKE SENSOR INSTALLATION

1. Before installation make sure the voltage supply is disconnected.
2. If the sensor is hard wired to power source, drill holes in sensor's cover. Note the sensor may be connected to a wired alarm system controller or fire prevention system.
3. Install the cover in desired location.
4. If the sensor is to be VDC powered, connect wires observing Fig.1. If the sensor is to be connected to alarm system, connect wires observing Fig.2.
5. Screw the smoke sensor into the cover.
6. Include the module into Z-Wave network(If the module is already include in the Z-Wave network, wake it up by triple clicking the B-button) .

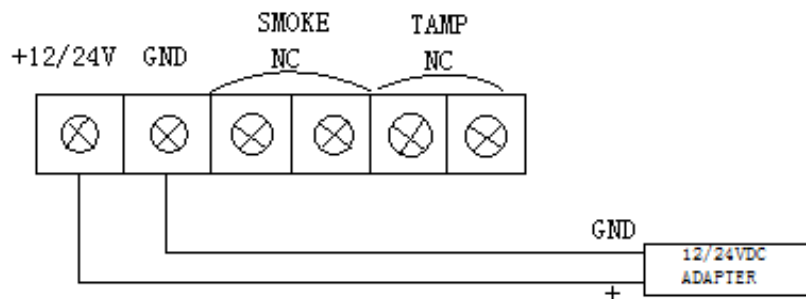


Fig.1- Power adapter connection

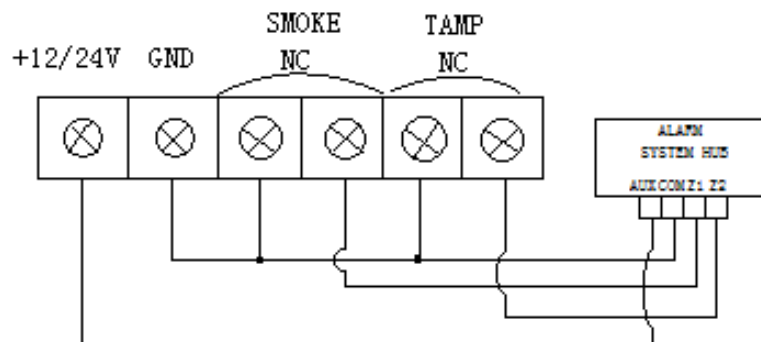


Fig.2-Alarm system hub connection

NOTE:

There are two powering modes for the sensor. By default it's powered by a factory included battery. Alternatively it can work with a constant current, after connecting a 12/24 VDC power source to +12/24 and GND terminal (Fig.1). Powering mode configuration is carried out automatically, while sensor is being included into the Z-Wave network. When battery powered, a Smoke Sensor communicates with the Z-Wave network main controller periodically. Smoke detection is sent immediately. Configuration parameters and association settings are sent periodically at specified wake up intervals, or at a manual wake up (triple click B-button). In DC powering mode, configuration and association parameters are sent when necessary, and additionally the smoke sensor serves as a Z-Wave signal repeater.


Switching to a constant current powering mode:

- 1) Exclude a sensor from the Z-Wave network.
- 2) Disconnect the battery
- 3) Install the constant power connecting terminal, observing the Fig.1
- 4) Connect the constant current power to the terminal (12/24VDC) to +12 and GND terminals (Fig.1)
- 5) Include Smoke Sensor into the Z-Wave network.

Operation

Z-WAVE NETWORK INCLUSION

Smoke Sensor may be included into Z-Wave network via the B-button.

- 1) Connect the power supply, and make sure that device in a state of "No node ID".
- 2) Choose "Z-Wave" to enter the Network Inclusion mode on the APP, then click "".



- 3) Triple click the B-button in 1.5 seconds.

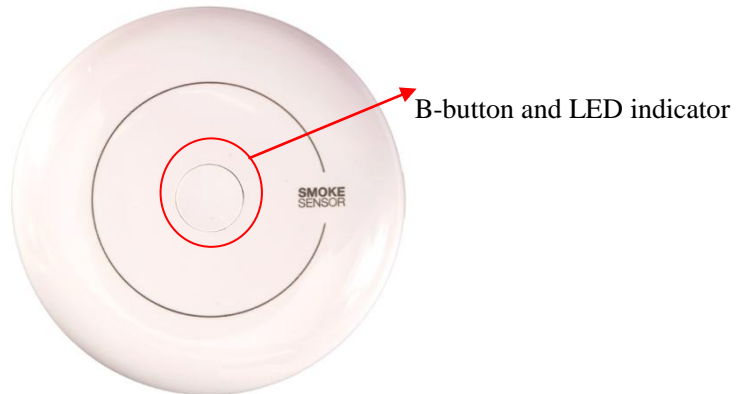


Fig.3

- 4) When prompt a message “Request Access Success”, please go to the device list interface, and refresh the device list, the device will be displayed.

Z-WAVE NETWORK EXCLUSION

- 1) Make sure the device is connected to the power supply.
- 2) Remove the device on the APP, then click "finish".
- 3) Triple click the B-button in 1.5 seconds.
- 4) Please go to the device list interface, and refresh the device list, the device will not be displayed.
- 5) If the device can still be displayed (network exclusion failed), repeat steps 2-4.

NOTE:

If the device is online, directly perform steps 1-5, if the device is offline, need interruption of the device power supply first, and then perform step 1-5.

DEVICE RESET

Reset procedure clears the modules' EPROM memory, including all information about the Z-Wave network controller, calibration and power consumption data.

- 1) Make sure the device is connected to the power supply.

- 2) Press and hold the B-button for 3seconds, LED will grow white.
- 3) Short signal will sound.
- 4) Release the B-button.
- 5) Wait until the LED grow yellow, signaling entering the 4th menu level.
- 6) Press the B-button briefly to confirm menu level choice.

Successful reset will not be confirmed with the LED changing color to red and fading. At the same time, short beep will sound, same as at the power connection.

Safety Notice

- A qualified electrician with the understanding of wiring diagrams and knowledge of electrical safety should complete installation following the instructions.
- Before installation, please confirm the real voltage complying with the device's specification. Cut off any power supply to secure the safety of people and device.
- During installation, protect the device from any physical damage by dropping or bumping. If happened, please contact the supplier for maintenance.
- Keep the device away from acid-base and other corrosive solids, liquids, gases, to avoid damage.
- Avoid overexertion during operation, to protect device from mechanical damage.
- Read all instructions and documentation and save for future reference.