Conventional Smoke Detector

User's Manual

V1.0.2

Important Safeguards and Warnings

This manual will help you to use the Device properly. Read the manual carefully before using the Device, and keep it well for future reference.

Operation Requirements

⚠ WARNING

Never ignore any alarm. Failure to respond may lead to serious injury or death.

⚠ CAUTION

- Make sure that the power supply of the device works properly before use.
- Use the device according to the operating environment.
- Only use the device within the rated power range.
- Transport, use and store the device under allowed humidity and temperature conditions.
- Prevent liquids from splashing or dripping on the device. Make sure that there are no objects filled with liquid on top of the device to avoid liquids flowing into it.
- The smoke alarm is only designed for indicating the presence of smoke, but it cannot detect gas, heat or flames.

Installation Requirements

⚠ WARNING

Failure to properly install and operate this device will prevent proper operation of the Device and will prevent its response to fire hazards.

⚠ CAUTION

- Observe all safety procedures and wear required protective equipment provided for your use while working at heights.
- Do not expose the device to direct sunlight or heat sources.
- Keep the original packing material well because you might need it to pack the device and send it back for repair.
- Make sure the application scenario conforms to installation requirements. Contact your local retailer or customer service center if there is any problem.
- All installation and operations shall conform to your local electrical safety requirements, fire protection regulations, and other relevant regulations.

Maintenance Requirements

- Do not clean the device with any cleaning products.
- Do not paint the device. Paint will seal the vents and interfere with the sensor's ability to detect smoke.
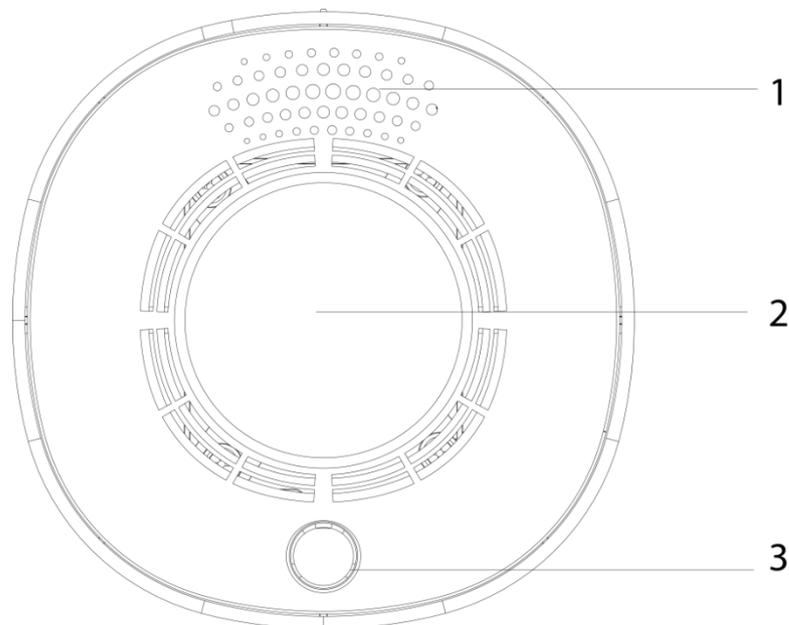
1 Introduction

1.1 Product information

DHI-HY-C133 Conventional Smoke Detector is a mated product of the Conventional Fire Alarm Control Panel. This detector adjusts alarm threshold automatically and extends cleaning cycle based on the backlight compensation algorithm.

It is suitable for apartments, hotels, teaching buildings, office buildings, banks, libraries, warehouses, computer rooms, communication machine rooms, archives, and other industrial and civil buildings.

1.2 Features

- Backlight compensation: Automatic compensation algorithm helps prolong cleaning cycle of chamber and offer a convenient maintenance
- Flexible installation: Non-loosening screws on base terminal for easy installation
- High endurance: Contacts material is highly acid-resistant and rust-resistant
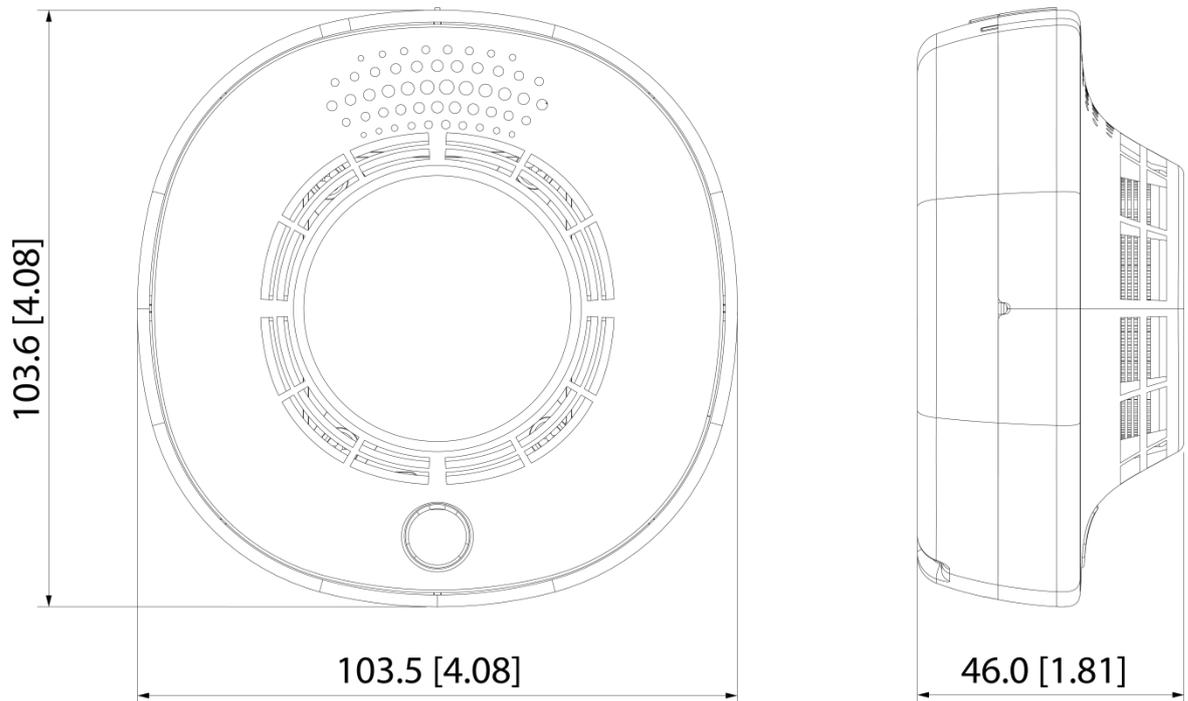
1.3 Product profile

No.	Name	Introduction
1	Buzzer	Continuously beep when the alarm is triggered
2	Vent	Keep it free of dust or inserts

No.	Name	Introduction
3	Test Button	Verify the normal working
	Indicator	● Standby: indicator flashes 6 seconds ● Alarm: indicator remains lit ● Fault: indicator flashes 2 seconds

1.4 Dimension

Figure 1-1 Dimension [mm(inch)]

2 Technical Information

Parameter	Introduction
Electrical	
Working Voltage	DC9-28V
Current	• Standby current: ≤ 60μA • Alarm current: ≤ 34mA
Indicator	Red LED • Polling: Flash 6 seconds • Alarm: Remain lit • Fault: Flash 2 seconds
Alarm Method	Visual and audible alarm
Construction	
Color	White
Dimensions (with base)	104.0 mm×103.6 mm×46 mm (4.09" × 4.08" × 1.81")
Weight (with base)	122 g (0.27 lb)
Installation	Ceiling mount
Environment	
Operating Temperature	−10℃ to +50℃ (+14°F to +122°F)
Storage Temperature	−20℃ to +65℃ (−4°F to +149°F)
Operating Humidity	≤ 95% RH (no condensation)

3 Device Installation

3.1 Packing List

Check the quantity and model. If you find device damage or any loss, contact the after-sales service.
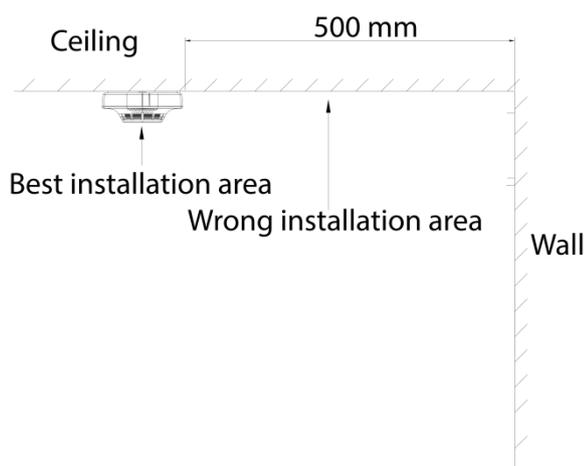
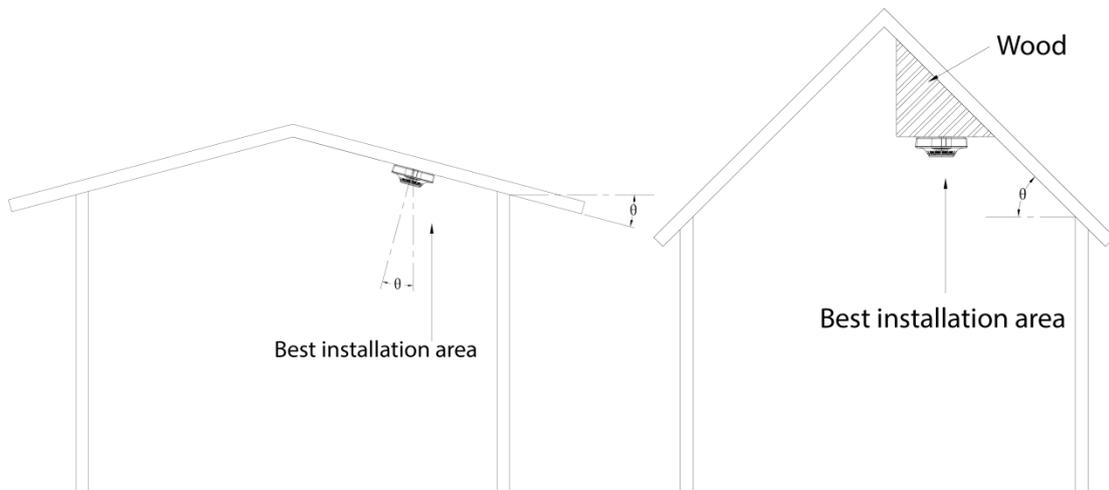## 3.2 Installation position

Figure 3-1 Overall layout

- Installed on the ceiling.

  If the device is installed on the ceiling, install at a distance of 20 inches (500 mm) away from the corners of the room, or at least 300mm from any light fitting or decorative object which might obstruct smoke entering the alarm unit.

Figure 3-2 Installation position (1)

- Installed on the sloping roof.

  When the slope is less than 45°, the appropriate distance is 20 inches (500 mm). When the slope is more than 45°, a wood should be installed.
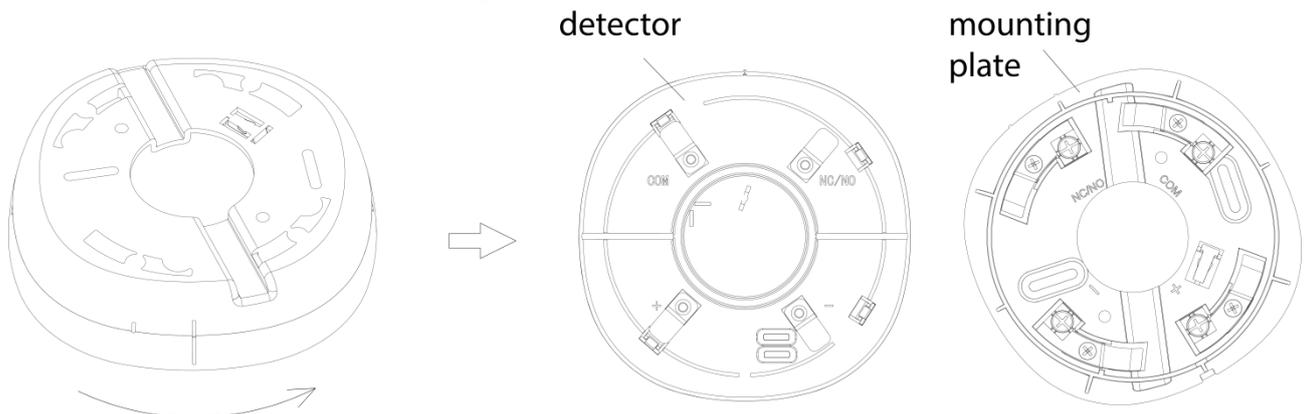
Figure 3-3 Installation position (2)

- Do not install your device here:
  - ◇ Kitchens, boiler rooms, and other damp areas.
  - ◇ Dusty areas or places attract inserts.
  - ◇ Next to air conditioner, fan, air vent or other similar ventilation openings.
  - ◇ Near obstructed areas.

3.3 Installation steps

Follow below steps to install the device properly.

Step 1   Rotate the mounting plate counterclockwise to separate the detector and mounting plate.
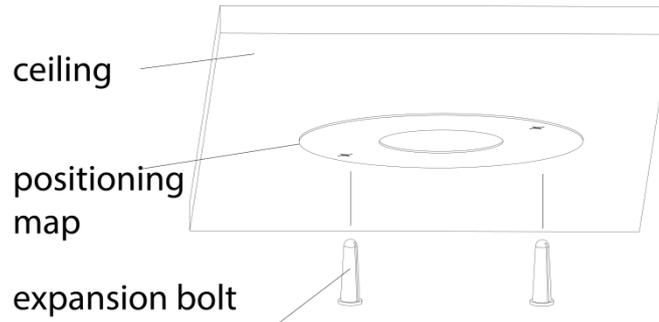
Figure 3-4 Installation (1)

Step 2   Choose suitable place to install positioning map.
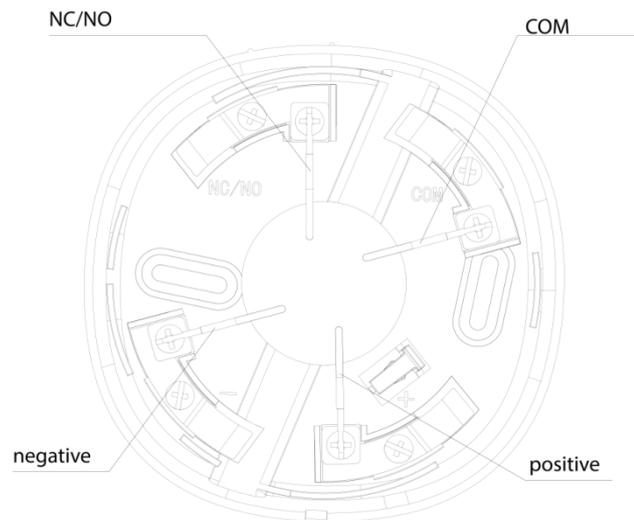
Step 3   Drill holes (Φ5 mm [0.20"]) on the wall, and then align the screw holes on the wall with the expansion bolts.
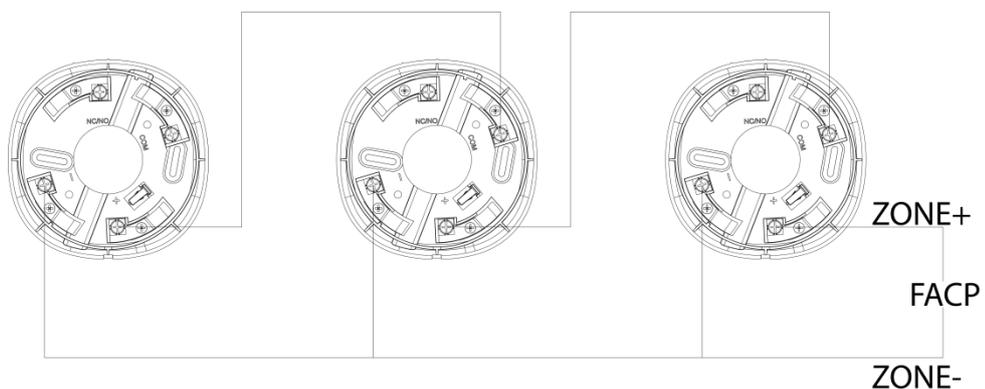
Figure 3-5 Installation (2)

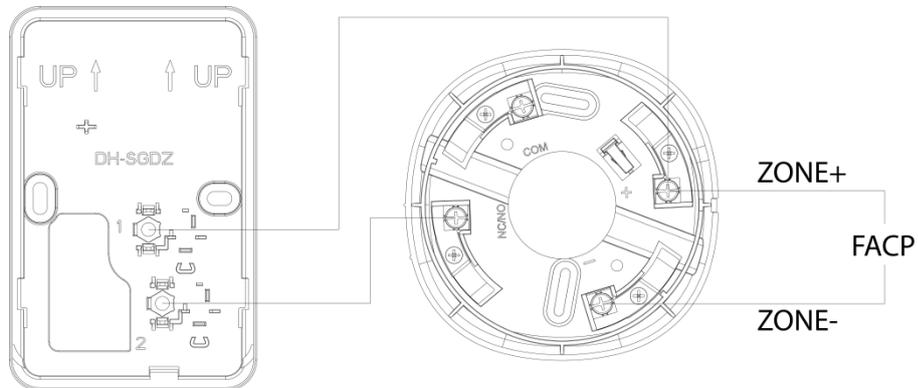Step 4　Wiring the terminals according to marks.

Figure 3-6 Installation (3)

□

- Connect FACP: Connect the positive electrode (+) of the FACP to the positive electrode (+) of the detector, the negative electrode (-) of the FACP to the negative electrode (-) of the detector.
- Connect multiple detectors: Connect the positive electrode (+) of this detector to the COM of another detector, the negative electrode (-) of this detector to negative electrode (-) of another detector.
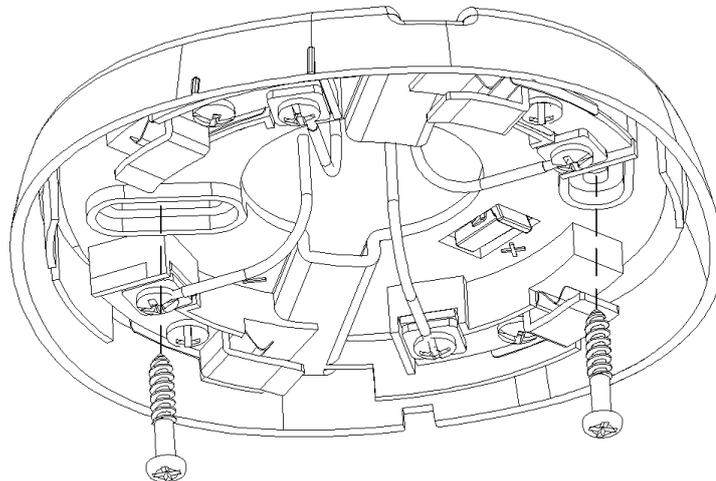
Figure 3-7 Wiring (1)

- Connect sounder strobe: Connect the positive electrode (+) and NC of this detector to terminals of sounder strobe.

Figure 3-8 Wiring (2)

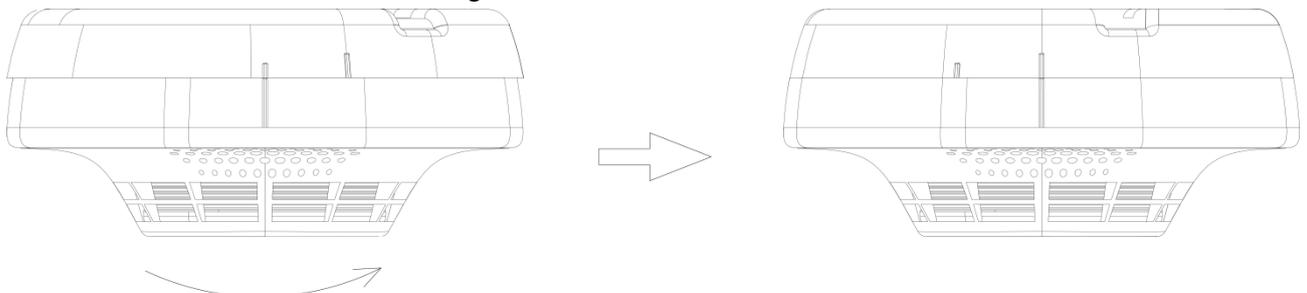Step 5   Fix the mounting plate with self-tapping screws.

Figure 3-9 Installation (4)

Step 6   Mount the device into the base by aligning them together and twisting the unit until it is firmly locked.

📖 NOTE

Please ensure it is firm.

Figure 3-10 Installation (5)

Step 7   After all devices are installed and checked, connect the power supply of the Fire Alarm Control Panel and conduct automatic register.

Step 8   Press the **Test** button, the LED indicator flashes, indicating the device works properly.

- Without alarm signal, press the **Test** button, the detector beeps and sends test signal to fire alarm control panel.
- With alarm signal, press the **Test** button, the detector does not respond. Press the **Reset** button on fire alarm control panel to reset the detector.

4 Test and Maintenance

4.1 Test

During the testing process, the defective device should be addressed according to "Frequently Asked Questions" and "Maintenance", and then tested again. If it fails to complete the test successfully, please send the Device to the manufacturer for repair.

⚠

- Do not test with real fire, which may cause sensor damage or fire.
- Before the first use, please remove the dust cover. If the detector is not put into use after the test, the dust cover should be reinstalled to prevent contamination caused by spraying operations.

4.2 Maintenance

To keep your device in good working condition, please follow these requirements.

- Simulate alarm test: Test the device once half a year (recommended).
- Before testing or maintaining, inform the proper authorities that the system is undergoing maintenance and will temporarily be put out of service.

5 Frequently Asked Questions

Problem	Solutions
The indicator light of the detector does not light up	Check whether the device is installed in place; if it is installed correctly, check the circuit, measure and ensure that the voltage of the equipment signal line is between DC16V and DC28V
The indicator light of the detector is constantly on, and Fire Alarm Control Panel reports a false fire alarm	Check whether there are interference sources such as steam and dust near the device

6 Disposal

Waste electrical products should not be disposed of your other household waste. Please dispose in an environmentally friendly manner, and strictly follow the local regulations regarding the disposal or recycling of the electrical device.

WARNING

Do not burn or dispose of in fire.