



Heat Detector
HF-AH1/HF-CH1
User Manual

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Pre-Use Description

- Go to our website (www.hikvision.com) to get manuals, application tools, and development materials.
- Please sync the device before use.
- Part of the web page configuration in the manual is applicable to the latest software version. Please contact technical support personnel to update the software.

Regulatory Information



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU. Construction products (CPR) Regulation (EU) No 305/2011.



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Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Note	Provides additional information to emphasize or supplement important

Symbol	Description
	points of the main text.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.

Safety Instruction

Danger

- It is a Class B product. In the living environment, the product may cause radio interference. In this case, the user may be required to take practical steps to interfere.
- During product installation and use, the electrical safety regulations of the country and area must be strictly observed.
- The plug or socket of the device is the device that disconnects the power supply. Do not block the plug or plug it in.
- Do not connect more than one product to the same power adapter (it may cause excessive heat or fire if the adapter is overloaded).
- Make sure to disconnect the product power supply during wiring, disassembling, etc., and do not power on the device.
- When installing the product on a wall or ceiling, fix the product firmly.
- To avoid heat build-up, keep the device ventilated.
- If product smoke occurs, it may cause odor, or sound noise. Turn off the power supply and unplug the power cable. Please contact the distributor or service center.

- If the product is not working normally, please contact the store or nearest service center of the device. Do not disassemble or edit the product in any way. (The Company shall not be responsible for problems caused by unauthorized editing or repair).

 **Caution**

- Product functions can only be carried out when the product is installed and maintained. This product is used to help you prevent disaster, but it is not a substitute for your on-site inspection, or to stop the accident from happening or expanding. You should still be more vigilant, be safer, and pay careful attention to the safety of your person and property.
- Please follow the installation method in this guide to install the device.
- To prevent injury, the device must be secured to the wall or ceiling.
- The serial port of the device is for debugging only. The user is not allowed.
- The device is only available in areas below 2000 m above sea level.
- Do not let the object fall on the product or vibrate the product so that the product is away from the point where magnetic field interference exists. Do not install the product in the area of surface vibration or shock risk (ignoring this item may damage the product).
- Do not use the product in high temperature, low temperature, or humidity. See the product parameter table for temperature and humidity requirements.
- For low-temperature products, preheat before starting. The pre-heating time should be determined according to different environment. Make sure the heat is enough before starting the product.
- Do not place exposed flame sources, such as lighted candles, on the device.
- Do not target the product lens to strong light source. Otherwise, the camera will be damaged.
- The product cannot be exposed to rain or humidity.
- Do not place the product in an environment with corrosive gas, which may cause damage to the device.
- Avoid placing the product in direct sunshine, in poor ventilation, or near heat sources, such as heaters or heaters (ignoring this item may cause fire hazards).
- When cleaning product lens or shield, use a sufficiently soft dry cloth or other alternative to wipe the outer surface. Do not use basic cleaning agent to wash the lens or shield.

- The product may face network security problems. Please strengthen the protection of personal information and data security. Please contact us as soon as you find the device may have network security risks.
- Please understand that it is your responsibility to reasonably configure all password and other related product security settings, and to properly keep your user name and password.
- Please keep all the original packaging materials of the product properly, so that when the problem persists, the packaging material can be used to package the product and send to the agent or return to the manufacturer. The company shall not be liable for the accidental damage caused by the transportation of non-original packaging material.

Note

Quality requirements for installation and maintenance personnel: Qualification certificate or experience in video system installation and maintenance, and qualification in related work (such as working at height). The following knowledge and operation skills are required.

- Basic knowledge and installation skills of video system and component.
- Basic knowledge and operation skills of low-voltage wiring and low-voltage electronic wiring.
- It has basic network security knowledge and skills, and is able to read the content of this manual.

The requirements of lifting device:

- Use a safe elevator device suitable for installation location and device installation mode.
- The lifting and lifting device has enough lifting and lifting level to reach the installation position.
- The lifting device has good safety performance.

Contents

Chapter 1 Product Introduction	1
1.1 Product Description	1
1.2 Product Function	1
1.3 Appearance Interface	2
1.4 Indicator Status Description	3
Chapter 2 Wiring and Installation	4
2.1 Product Wiring	4
2.2 Product Installation	6
2.2.1 Pre-Installation Description	6
2.2.2 Installation Description	6
Chapter 3 Technical Parameter	8

Chapter 1 Product Introduction

1.1 Product Description

- The heat detector detects changes in the surrounding environment temperature through a thermistor. In the initial stage of a fire, in addition to producing a large amount of smoke, objects will release a large amount of heat during the combustion process, causing a sharp increase in the temperature of the surrounding environment. The resistance in the thermal element undergoes physical changes based on the thermal effect, responding to abnormal temperature, temperature rate, and temperature difference, thereby converting the temperature signal into an electrical signal and issuing an alarm.

1.2 Product Function

- The fire alarm confirmation light adopts a light guide column for conduction, visible at 360°.
- Two-wire, convenient for construction wiring.
- High reliability sensor design, suitable for environments such as high humidity basements.
- Intelligent temperature compensation algorithm improves the response ability under different temperature rise conditions.

1.3 Appearance Description

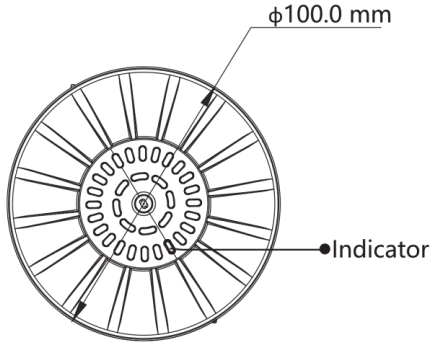


Figure 1-1 Front View of Detector

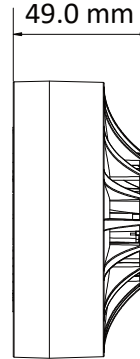


Figure 1-2 Side View of Detector with Base

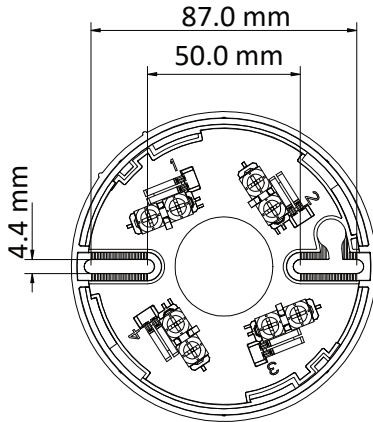


Figure 1-3 Front View of Detector Base

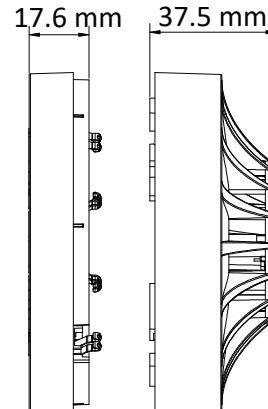


Figure 1-4 Exploded Side View of Detector with Base

1.4 Indicator Status Description

Indicator	Status	Description
Red Light	Flash	Detector is polling.
	Always on	Trigger fire alarm

Chapter 2 Wiring and Installation

2.1 Product Wiring

For HF-CH1

There are four labeled wiring terminals on the device base. 3 is the line positive terminal (derived from terminal 4 and connected to terminal 3 of the next detector, the positive and negative terminals of the line end need to be connected with a resistor), 1 is the line negative terminal, 4 is the positive terminal for the external indicator light, and 2 is the negative terminal for the external indicator light. The wiring diagram is as follows:

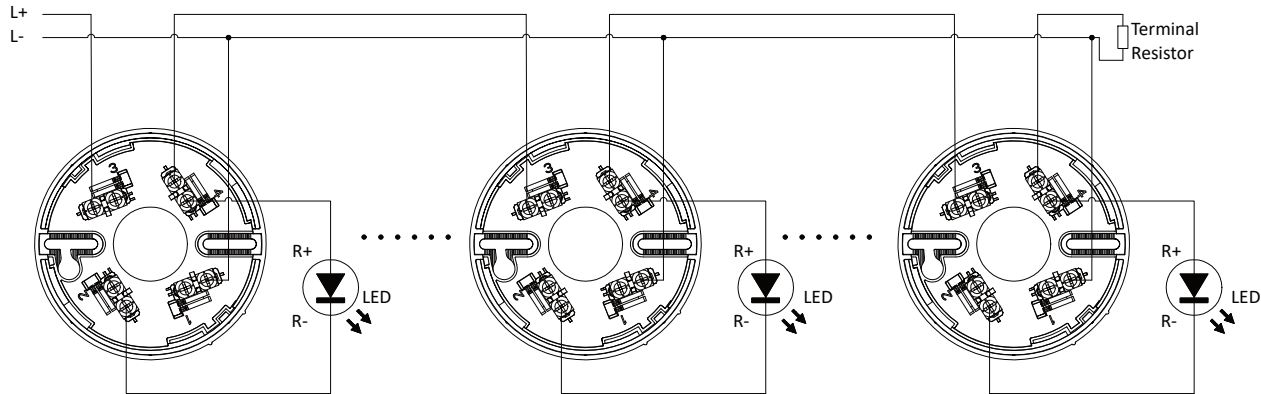


Figure 2-1 Wiring Figure

For HF-AH1

There are four labeled wiring terminals on the device base. 3 is the line positive terminal, 1 is the line negative terminal, 4 is the positive terminal for the external indicator light, and 2 is the negative terminal for the external indicator light. The wiring diagram is as follows:

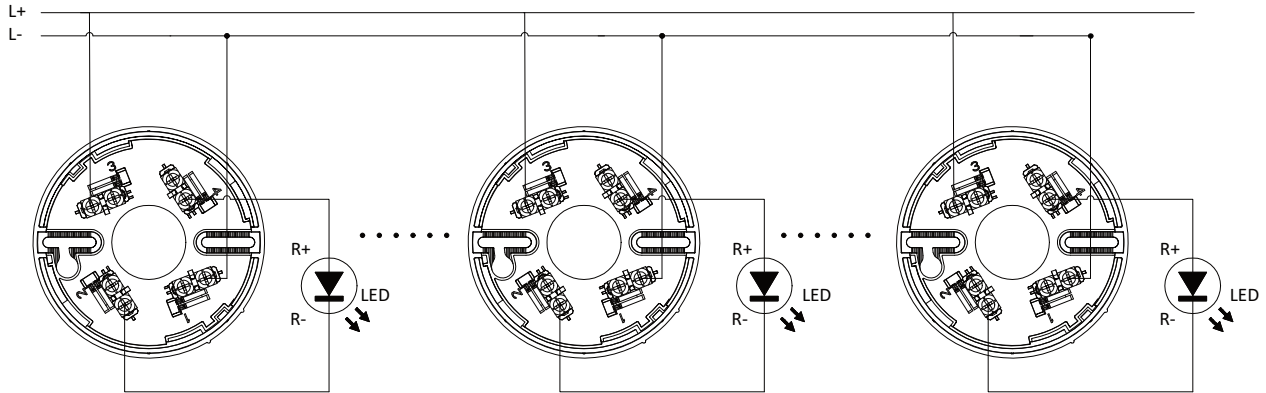


Figure 2-2 Wiring Figure

2.2 Product Installation

2.2.1 Pre-Installation Description

- Please follow the installation method in this guide to install the device.
- When installing, make sure the product is secure.
- Please make sure the device in the box is intact and all components are complete before installation.

2.2.2 Installation Description

Before installing the device, select the correct installation location according to actual needs.

Steps

1. Fix the base to the ceiling or embedded box using two M4 screws at the installation hole of the base.

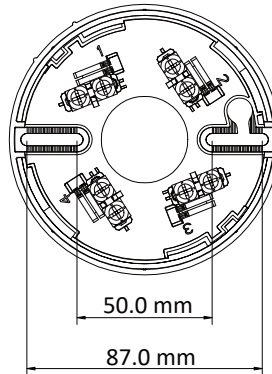


Figure 2-3 Installation Hole

2. Attach the detector to the base and rotate it clockwise until you hear "Ka-Da" sound.

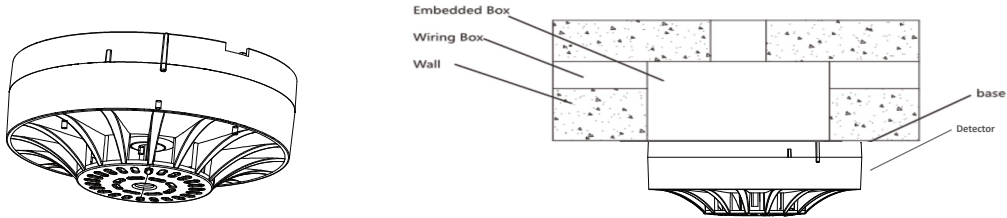


Figure 2-4 Installation Figure

3. Check whether the detector is aligned with the alignment line on the base and whether there is no gap between the detector and the base to ensure a tight joint.

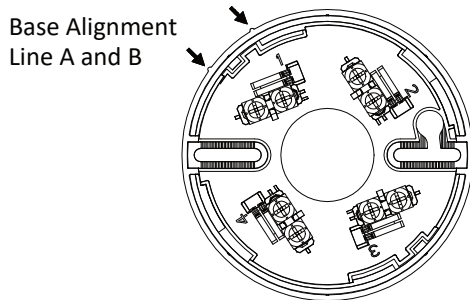


Figure 2-5 Installation Figure

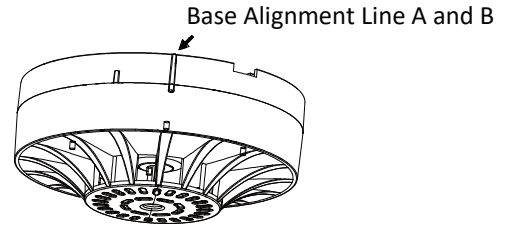


Figure 2-6 Installation Figure

Chapter 3 Technical Parameter

Table 3-1 Specification

	HF-CH1	HF-AH1
Main Power Supply	DC 24 V (DC 18 V ~ DC 28 V)	
Product Dimension	φ 100.0 mm × H 49.0 mm (with base)	
Weight	92 g	
Indicator	1 Red	
Monitor Current	≤ 300 μA	
Wiring	Two-wire, 1 is for L-, 3 is for L+; 2 is for R-, 4 is for R+/OUT	Two-wire, 1 is for L-, 3 is for L+; 2 is for R-, 4 is for R+
Material	ABS	
Alarm Current	≤ 15 mA	≤ 350 μA (In addressing mode, when the remote indicator light function is enabled, the alarm power consumption is about 2.4mA)
Wiring Requirements	RVS 2*1.5 mm ² Flame Retardant Wire, Max distance: 500 m	



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