



Fire Detection Camera

User Manual

Legal Statement

About this Document

- This Document includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only.
- The information contained in the Document is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of the Document at the Hikvision website (<https://www.hikvision.com>). Unless otherwise agreed, Hangzhou Hikvision Digital Technology Co., Ltd. or its affiliates (hereinafter referred to as "Hikvision") makes no warranties, express or implied.
- Please use the Document with the guidance and assistance of professionals trained in supporting the Product.

About this Product

This product can only enjoy the after-sales service support in the country or region where the purchase is made.

Acknowledgment of Intellectual Property Rights

- Hikvision owns the copyrights and/or patents related to the technology embodied in the Products described in this Document, which may include licenses obtained from third parties.
- Any part of the Document, including text, pictures, graphics, etc., belongs to Hikvision. No part of this Document may be excerpted, copied, translated, or modified in whole or in part by any means without written permission.
- **HIKVISION** and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.
- Other trademarks and logos mentioned are the properties of their respective owners.

LEGAL DISCLAIMER

- TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS DOCUMENT AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.
- YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.
- YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT

Fire Detection Camera User Manual

RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

- IN THE EVENT OF ANY CONFLICTS BETWEEN THIS DOCUMENT AND THE APPLICABLE LAW, THE LATTER PREVAILS.

© Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

Introduction

The purpose of this section is to make sure the user can use the product correctly in this manual to avoid risky operation or property damage. Before using this product, please read the product manual carefully and keep it for future reference.

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 to update software.

Applicable Model

Product Name	Product Model
Fire Detection Camera	HF-VT344

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 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

- 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.

Fire Detection Camera User Manual

- 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.....	1
Appearance Description	2
Interface Description	3
1.4 Indicator and Speaker Status Description	3
Chapter 2 Wiring and Installation	5
2.1 Product Wiring	5
2.2 Product Installation	6
2.2.1 Pre-Installation Description	6
2.2.2 Installation Distance Recommended	7
2.2.3 Installation Method	8
2.2.4 Installing Waterproof Tape	12
2.2.5 Installing Network Port Waterproof Sleeve	13
Chapter 3 Pre-Use Operation Information	15
3.1 Network Connection	15
3.2 Activate Device	15
3.2.1 Activate Device via SADP Software	15
3.3 Access Device	16
3.3.1 Access Device via Web Client	16
3.3.2 Access Device via Hik-Connect	17
Chapter 4 Web Page Configuration and Operation	19
4.1 Live View	19
4.2 Video Playback	20
4.3 View Picture	21
4.4 Parameter Configuration	21
4.4.1 Local Configuration	21
4.4.2 System Parameters	23

Fire Detection Camera User Manual

4.4.3 Network Parameters	28
4.4.4 Video and Audio Parameters	32
4.4.5 Image Parameters	35
4.4.6 Event and Alarm	40
4.4.7 Storage	48
4.4.8 Temperature Measurement	50

Chapter 1 Product Introduction

1.1 Product Description

Fire detection camera (the device) is used as the main method of detecting fire using focal plane temperature detection technology. It recognizes the abnormal temperature and fire in the detected area, and provides the fire detection device with network management and visualization review function to warn and alarm. The product provides fire alarm, temperature detection alarm and video verification in the detected area. It is used in hospitals, schools (laboratories, libraries, warehouses, archive rooms), museums, monasteries, dorms, ATMs, devices, safe production, indoor substations, new energy, petrochemicals (gas stations), and other key fire protection and safety needs.

1.2 Product Function

- New fusion smart camera, which can sense the temperature for alarm and can be rechecked via video.
- 400W Fixed Focus Intelligent Camera
- Equips with local alarm indicators.
- Supports flame detection, coverage: 30 meters (burning object: n-heptane, 0.1 m² fire plate)
- Supports high-temperature and temperature-rise exception detection.
- Supports local alarm indicator light, high-decibel alarm through an internal speaker, and remote muting.
- 1 internal speaker, 1 internal microphone, supports bidirectional voice intercom.
- OSD alarm event overlay support
- Supports access to Hik-Connect
- Supports white fill light.
- Support PoE power supply.
- Supports 2 alarm input/output channels and 1 audio input/output channel.
- IP66 dust and water resistant.

1.3 Appearance Interface



Note

The product picture in this manual is a picture. Please use the actual device.

Fire Detection Camera User Manual

Appearance Description

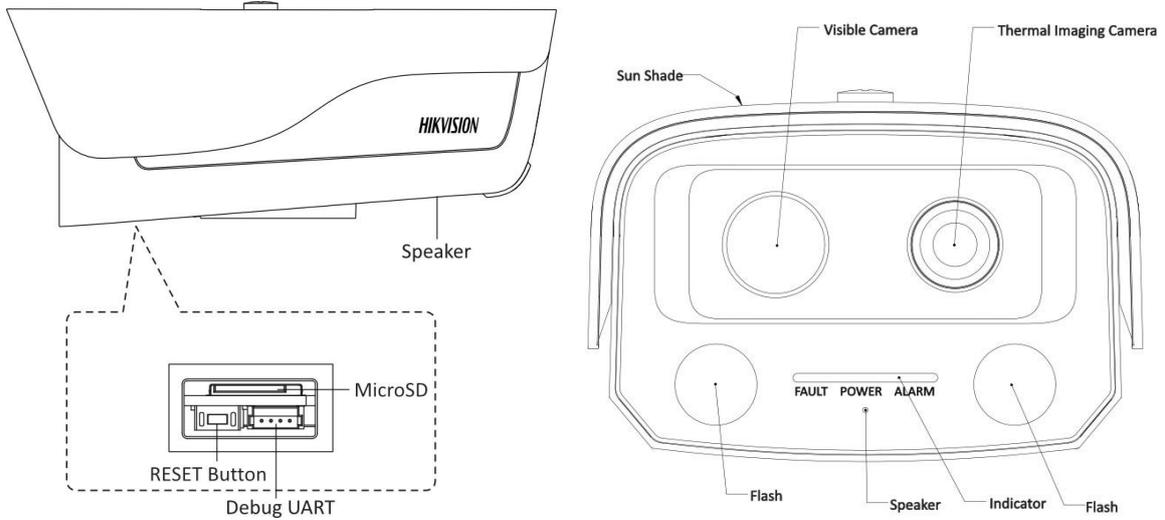


Figure 1-1 Appearance Picture

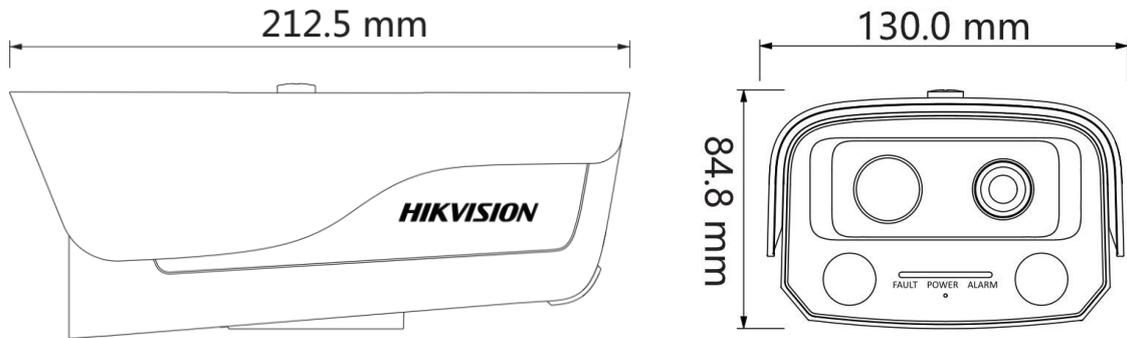


Figure 1 - 2 Appearance Size

microSD Card Slot

You can insert the microSD card for local storage.

RESET Button

Press and hold the key, and then power on the device. Press 10 to 15 seconds to release the key. All parameters will be restored to factory settings.

Debug Serial Port



Note

The serial port of the device is for debugging only. The user is not allowed.

Fire Detection Camera User Manual

Interface Description

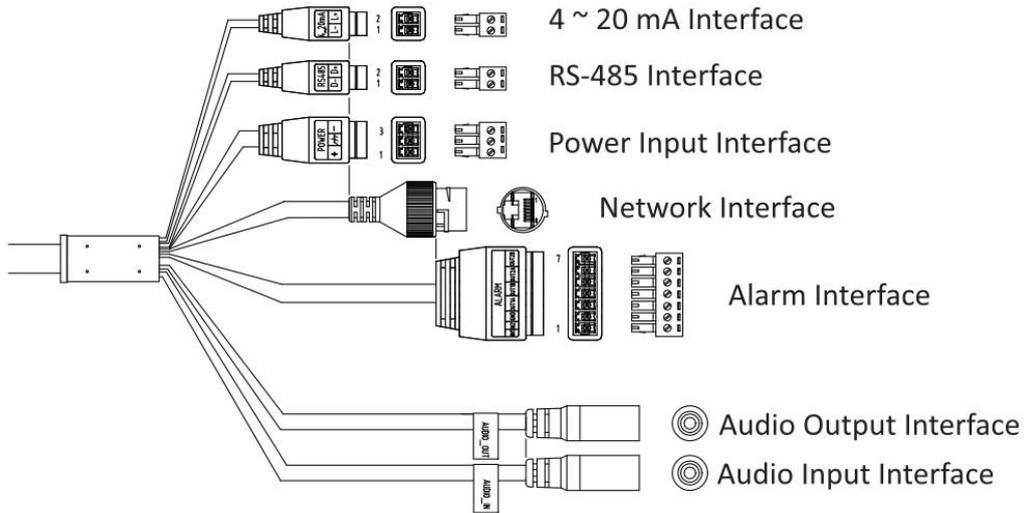


Figure 1-3 Interface

4 to 20 mA interface (reserved)

Connect to the PLC, controller, panel meter, ADC, or SCU.

RS-485 Interface

Connect the device that supports RS-485 protocol.

Network Interface

Access network, used to configure device, live view, central access platform, etc. The interface supports PoE power supply.

Power Input Interface

DC 9 V to DC 36 V input. Connect positive and negative power supply.

Alarm Interface

Alarm interface, which can connect alarm input and alarm output devices.

Audio Output Interface

Connect audio output device, such as audio speaker.

Audio Input Interface

Connect the audio input device.

1.4 Indicator and Speaker Status Description

Indicator	Speaker	Status Description
Red Light	Di...Di...Di...	Smoke or Fire Alarm
Red Light	Di...Di...Di...	Temperature Exception Alarm

Fire Detection Camera User Manual

Green Light	Off	Normal Operation
Indicator	Speaker	Status Description
Yellow Light	Off	Fault
None	Di...Di...Di...	Detector is blocked.

Chapter 2 Wiring and Installation

2.1 Product Wiring

The device has five external interfaces, including power input interface, RS-485 interface, alarm interface, audio input/output interface, and network interface. RS-485 interface, alarm interface, and power input interface are described below.

Table 2-1 RS-485 Interface Description

No.	ID	Interface Description	Wiring Description
1	D-	Connect the B-End of RS-485 Signal	Access RS-485 Signal
2	D+	Connect the A-End of RS-485 Signal	

Table 2-2 Alarm Interface Description

No.	ID	Interface Description	Wiring Description
1	IN1	Connect Alarm Input Signal 1 Positive Pole	Access Alarm Input Signal 1
3	GND	Connect Alarm Input Signal 1 Negative Pole Connect Alarm Input Signal 2 Negative Pole	
2	IN2	Connect Alarm Input Signal 2 Positive Pole	Access Alarm Input Signal 2
3	GND	Connect Alarm Input Signal 1 Negative Pole Connect Alarm Input Signal 2 Negative Pole	
4	OUT1A	Connect Alarm Output Signal	Access alarm output signal 1; positive and negative poles are not distinguished.
5	OUT1B		
6	OUT2A	Connect Alarm Output Signal	Access alarm output signal 2; positive and negative poles are not distinguished.
7	OUT2B		

Fire Detection Camera User Manual

Table 2 to 3 Power Input Interface

No.	ID	Interface Description	Wiring Description	
1	+	DC 24 V power input positive.	Access DC 12 V to power the device.	
No.	ID	Interface Description		Wiring Description
2		Power Grounding		
3	-	DC 24 V Power Input Negative		

2.2 Product Installation

2.2.1 Pre-Installation Description

- Please follow the installation method in this guide to install the device.
- When installing walls or ceilings, make sure the product is secure.
- Before installing, please check if the device in the box is intact and all components are complete.
- The wall should be of a certain thickness, and should be able to withstand at least 4 times the total weight of the device and installation accessories.
- If it is a cement ceiling wall, please install expansion bolts (the mounting holes of expansion bolts should be the same with the brackets) and then install the brackets.
- If it is a wood wall, you can use self-tapping screws to install the brackets directly.
- In the process of installing and using the device, the connection may affect the device's water resistance. See *Installing Waterproof Tape* and *Installing the Water Resistance Cover* for the device's cable connection.
- The brackets in the manual are optional. Please select according to actual needs.
- Do not drag the device tail cable directly when moving the device. Otherwise, the device may cause water resistance or route problem.

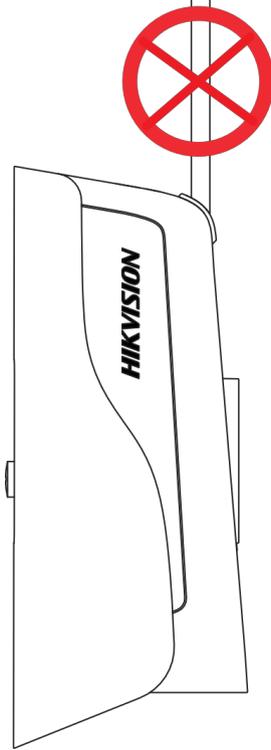


Figure 2-1 Handling Notices

2.2.2 Installation Distance Recommended

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

Fire Recognition

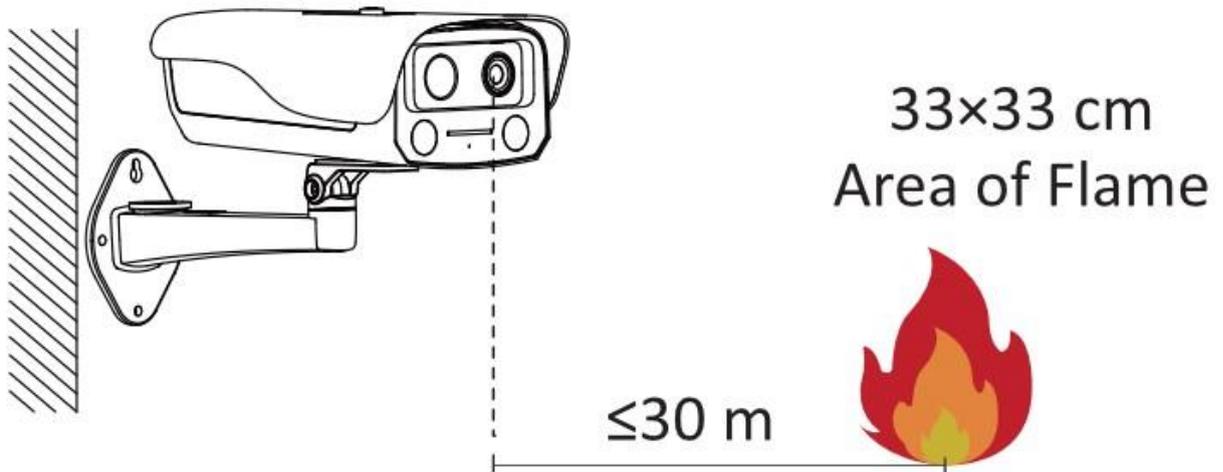
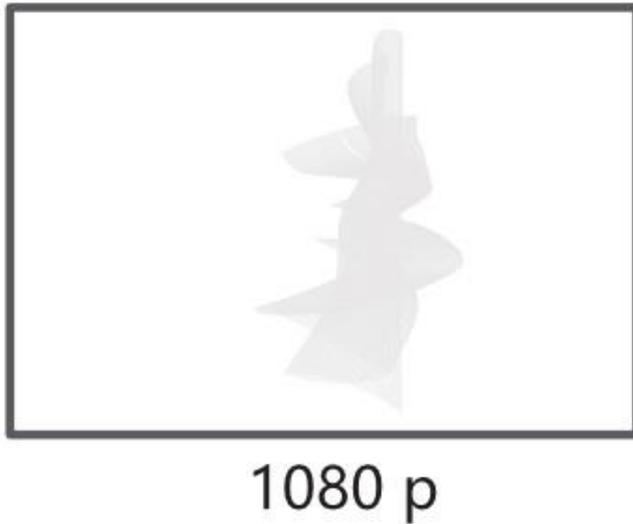


Figure 2-2 Fire Recognition Installation Distance

Smoke Recognition



Occupied Area of Smoke
in the Picture > 5%

Figure 2 - 3 Smoke Recognition Ratio

2.2.3 Installation Method

The device can be installed on the wall.



Note

This device can only be used with the supporting bracket (the wall model is NP-FP105-B, and should be purchased separately). It may cause damage due to instability when used with other devices (such as cart, rack, or handling device).

Wall Mount

Steps



Note

Speaker exists on the bottom of the device. Please avoid blocking the speaker when installing.

1. Optional: Install the microSD card.
 - 1) Loosen the screws and remove the cover.
 - 2) Insert the microSD card correctly according to the direction shown.
 - 3) Install the cover and tighten the screw.

Fire Detection Camera User Manual



Note

Do not leave the seal ring in the cover.

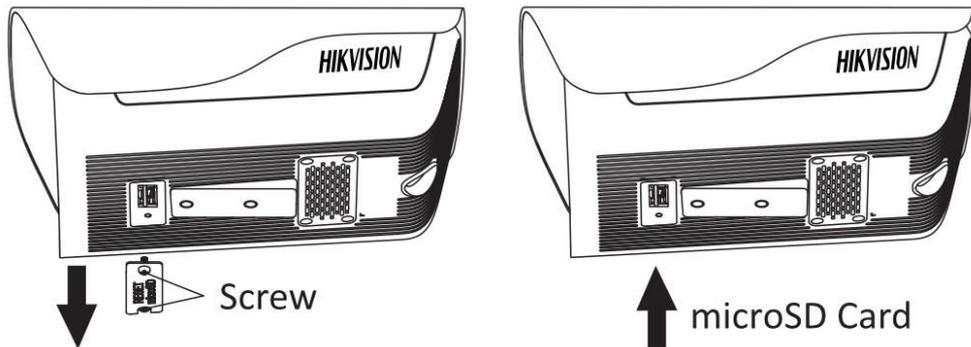


Figure 2-4 Install microSD Card

-
2. Install the wall mounting bracket. After positioning with the installation sticker, use 4 PA4 × 25 screws to secure the wall mounting bracket to the wall.

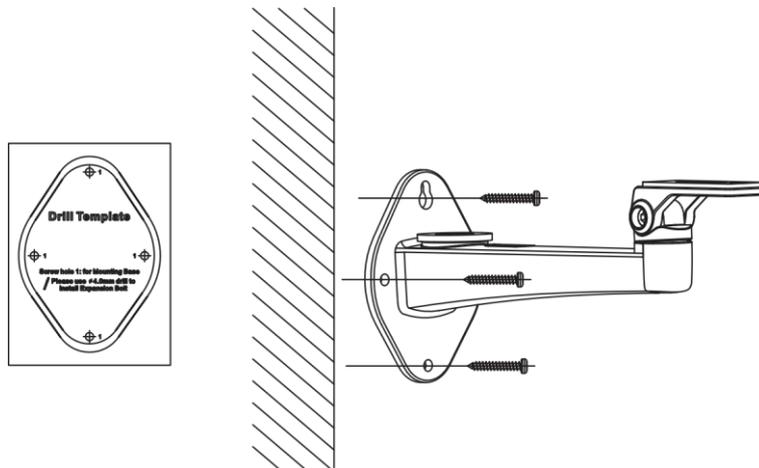


Figure 2-5 Mounting Wall Support

3. Install the device, and use 2 1/4-20 UNC × 12 screws (with flat-pad bullet) to fasten the device to the wall mounting bracket.

Fire Detection Camera User Manual

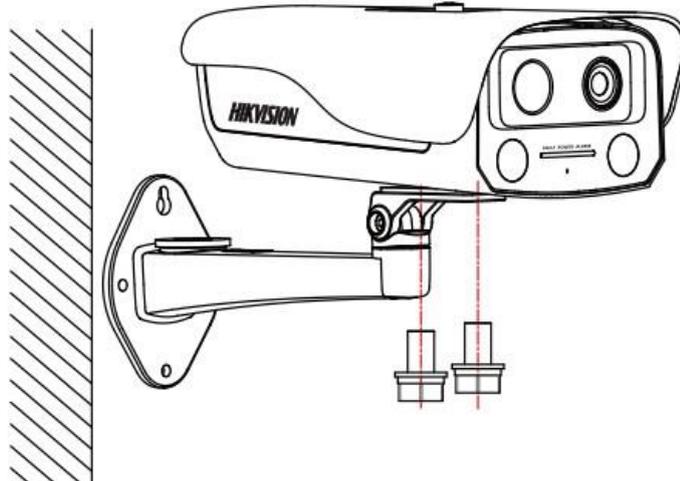


Figure 2-6 Installing Device

4. Set up wiring, arrange and connect power cables, network cables, and other cables, and handle insulation and water repellency. (For handling methods, see *Installing water repellency tape* and *installing water repellent sleeve*.)
5. Adjust the angle. Loosen the vertical or horizontal adjustment screws, and adjust vertically or horizontally. Adjust the device position and tighten the screws.

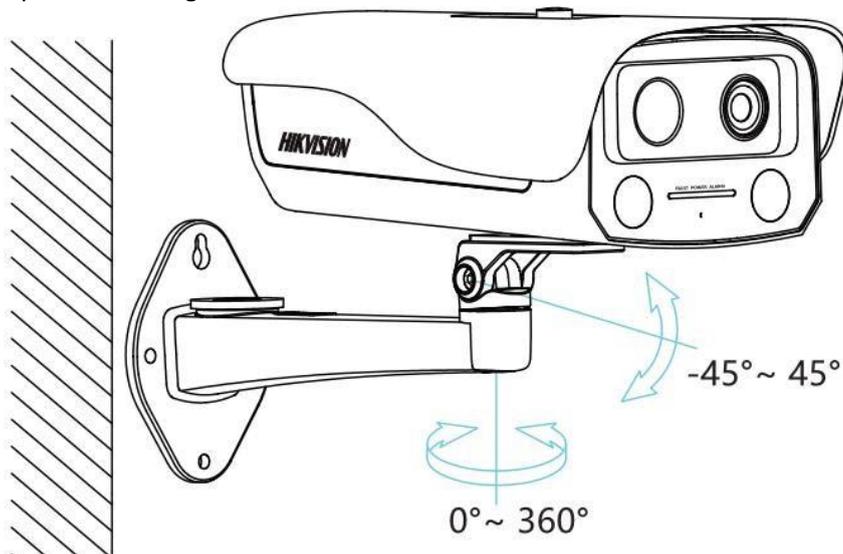


Figure 2-7 Adjusting Angle

Lifting

Steps



Note

Speaker exists on the bottom of the device. Please avoid blocking the speaker when installing.

1. Optional: Install the microSD card.

Fire Detection Camera User Manual

- 1) Loosen the screws and remove the cover.
- 2) Insert the microSD card correctly according to the direction shown. 3) Install the cover and tighten the screw.



Do not leave the seal ring in the cover.

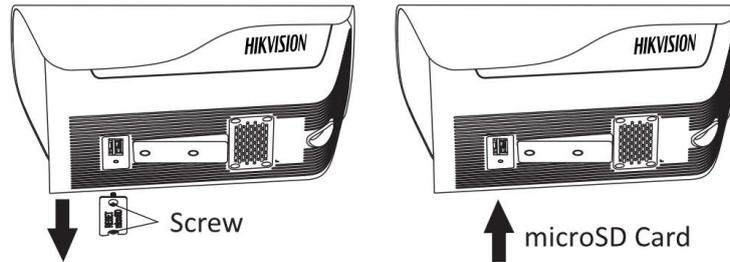


Figure 2-8 Installing microSD Card

-
2. Install the lifting bracket, and fix the lifting bracket to the wall with 3 PA4 × 25 screws.

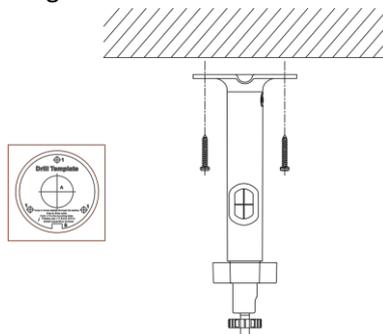


Figure 2-9 Installing Lifting Bracket

3. Install the device, remove the set screw on the device sun visor, align the threaded hole of the body with the bottom end of the bracket, and screw the device into the bracket.

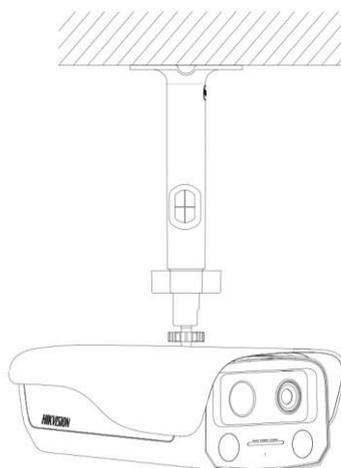


Figure 2-10 Installing Device

Fire Detection Camera User Manual

- Set up wiring, set up and connect power cables, network cables, etc., and handle the issue of insulation and water repellency (see Installing Waterproof Tape and Installing Network Port Waterproof Sleeve for handling method).
- Adjust the angle. Loosen the arm adjustment knob, and then fasten the screw to install.

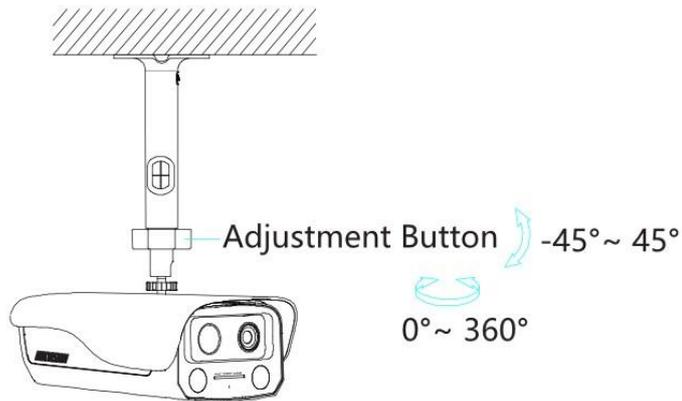


Figure 2-11 Adjusting Angle

2.2.4 Installing Waterproof Tape

When installing the device outdoors, it is necessary to install water-proof tape to prevent short circuit of the route.

Prerequisite

Set the cable first.

Steps

- Please tear off the release paper on the back of the supplied water-proof tape.
- Stretch the water-proof tape to the two ends and to about 2 times the initial length.

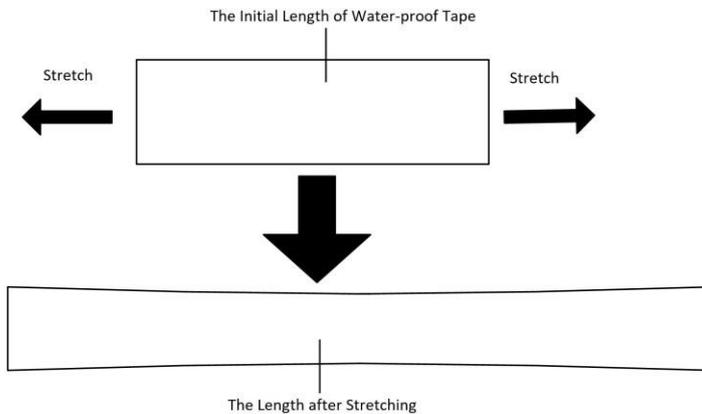


Figure 2-12 Stretch Waterproof Tape

- The tensioned waterproof tape should be applied to the terminal and the cable nearby. Keep the adhesive tape tight during the winding.

Fire Detection Camera User Manual

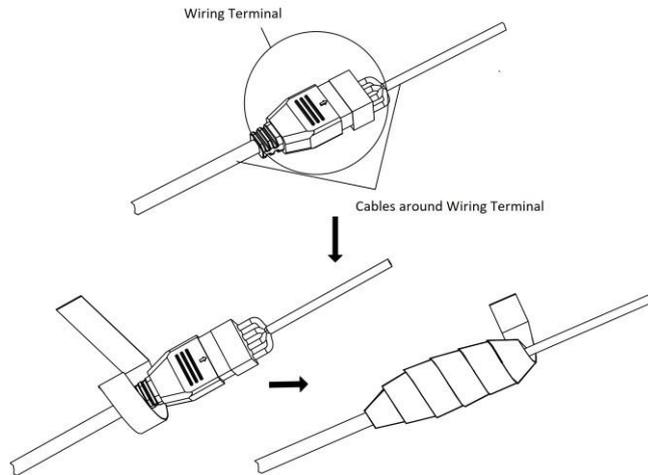


Figure 2-13 Wrapping Water-Proof Tape

4. Press the water-proof tape on both sides of the terminal in the direction shown in the picture to achieve the insulation seal.

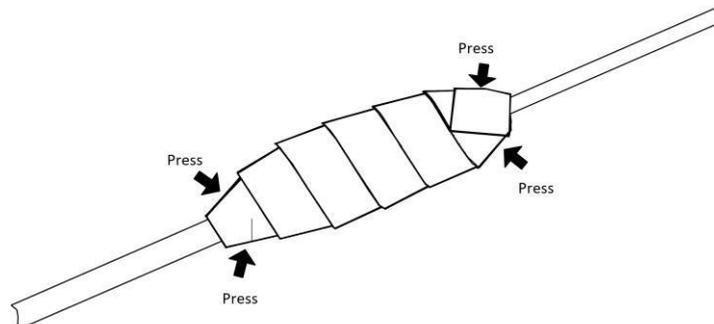


Figure 2-14 Pressing Water-Proof Tape

2.2.5 Installing Network Port Waterproof Sleeve

When using the device, install the network port waterproof sleeve to prevent network cable water entering.

Prerequisite

Set up network cable first.

Steps

1. Thread the cable through the screw cap and the waterproof sleeve body.
2. Open the cable between the body of the waterproof sleeve and the screw cap.
3. Put the o-shaped glue ring into the network port, and plug the network cable into the network port.

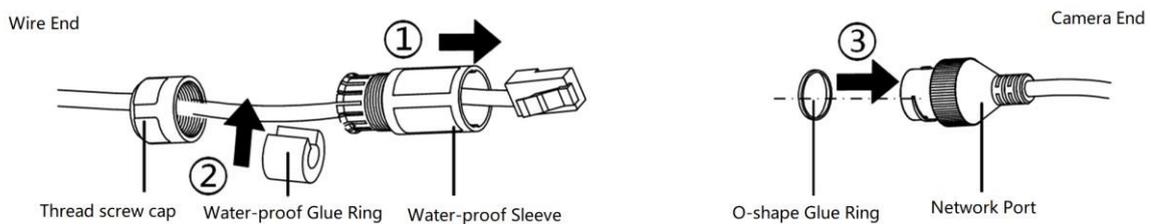


Figure 2-15 Installing Network Cable

Fire Detection Camera User Manual

4. Align the gap between the network port and the snap of the waterproof sleeve body. Connect the waterproof sleeve body to the port and turn it clockwise.
5. Put the waterproof glue ring into the body of the waterproof hat.
6. Turn clockwise to fasten the screw cap and press the water-proof glue ring.

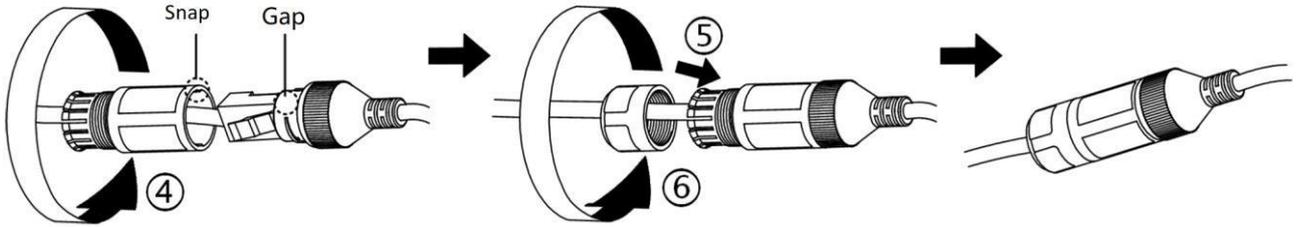


Figure 2-16 Installed

Chapter 3 Pre-Use Operation Information

3.1 Network Connection



If you connect the product to the Internet, including but not limited to cyber attack, hacking, virus infection, etc., the company will not be responsible for product work exception, information disclosure, etc., but the company will provide technical support to you.

Use network cable to connect the device to Ethernet. After connecting to the network, you can enter the device web page via browser to configure device functions and parameters.

3.2 Activate Device

In network access, to protect the security and privacy of your account, you can set a login password to activate the device, prevent others from logging in to the device, and get the data.



Please refer to the latest client software manual for activation method through client software.

3.2.1 Activate Device via SADP Software

Download and run SADP software. The SADP software will search for inactive devices or all online devices in the same network segment. Information such as device type, IP address, security status, and device serial No. will be displayed in the list. You can activate the inactive device via SADP software.

Prerequisite

Power on the device and connect to the network.

Steps

1. Download SADP software from official website and run.
 2. Select the device to activate. Information about the device will be displayed on the right side of the list.
 3. Set the device password in the Activate Device field, and click *OK* to complete the activation.
-



- In order to protect your privacy and corporate data and avoid network security problems of device products, it is recommended to set strong password that meets security requirements.
 - The password should contain 6 to 16 characters, including at least 2 of the following types: digits, lowercase letters, and uppercase letters. Special characters are not allowed.
-

Fire Detection Camera User Manual

After the device is activated, the activation status in the list will be updated to **activated**.

4. Optional: Edit device IP address.

1) Select the activated device in the device list.

2) Enter IP address, subnet mask, gateway, and other information in **the modified network parameter** on the right.



Edit IP address according to actual needs. For example, when you need to log in to device web page to configure device, set the IP address of the device and the IP address of the computer to log in to device web page to the same network segment.

3) Enter the password to activate the device after editing, and click *Edit*.

The **settings of parameters** such as IP address will take effect. The device will reboot after network parameters are edited.

3.3 Access Device

Provide access method through web page and Hik-Connect.

3.3.1 Access Device via Web Client

Login System

Log in to the device's web page, and configure and operate the device through the web page.

Power on the device and connect to the network. Enter the device IP address in the browser address field to log in.



After logging in, if the interface of installing browser plug-in pops up, please allow installation.

Get Help

The online help document provides quick access to the device.

Click  to open the online help document and view the instructions.

Exit System

If the device is set or operated, you need to exit the device system safely. Click



to exit the device system.

3.3.2 Access Device via Hik-Connect

Devices connected to Hik-Connect can receive abnormal information of the site of interest and take security measures in time.



The operation is only applicable to gateway and wireless re peater.

Enable Hik-Connect

Enable Hik-Connect via SADP or web page.

Enable Hik-Connect via SADP

Enable Hik-Connect via SADP software.

Prerequisite

Get SADP software via official website and install.

Steps

1. Open SADP software.
2. Select the device to enable Hik-Connect.
 - Select inactive device. Select *Guarding Vision to use Hik-Connect* to set the verification code to enable Hik-Connect.
 - Select the activated device, select *Use Guarding Vision*, set verification code, enter device password, and *click Edit* to enable Hik-Connect.

Enable Hik-Connect via Web Client

You can enable and set Hik-Connect to access Hik-Connect.

Steps

1. On the device web page, go to *Configuration* → *Network* → *Advanced Configuration* → *Platform Access*.
2. Platform access mode is *Guarding Vision*.
3. Select *Enable*.
4. Set Hik-Connect access parameters.

Access Server IP Address

By default, the device will automatically assign a server address to the server in the nearest area.

Custom means you can set domain name server address manually.

Verification Code

For device access security, please customize a verification code or edit the original verification code to add the device to Hik-Connect account.



The verification code should contain 6 to 12 characters, including letters and digits, and it is case sensitive. For device security, it is recommended to set a combination of uppercase letters, lowercase letters, and digits with more than 8 characters.

Fire Detection Camera User Manual

5. Click *Save*.

The registration status is online, meaning the device is registered to Hik-Connect platform.

Add Device to Hik-Connect Video Mobile Client

Hik-Connect video mobile client can connect device to Hik-Connect and access device through mobile client.

Prerequisite

The device is connected to the router via wired network. Please make sure the router is connected to the WAN normally.

Steps

1. Scan Hik-Connect video mobile client and download, install, and register client software.



Downloading will consume data. It is recommended to operate in Wi-Fi.



Figure 3-2 Hik-Connect QR Code



Hik-Connect video QR code supports cell phone scanning and downloading in Android system or iOS system.

2. Click + in the upper-left corner of the client software to add the device.

- Scan the QR code on the device body to add the device.
- Click in the upper-right corner of the software  to enter the serial No. on the device label to add the device.

3. Select *non-Hik-Connect device* to connect the device to Hik-Connect according to the prompt.



The operation of adding and configuring should be completed within 3 minutes after the camera is powered on. Otherwise, restart the device and try again.

4. Click *Live View*, click *Channel*, and access device.

Chapter 4 Web Page Configuration and Operation

4.1 Live View

Click to select a live view, and double-click a channel in the channel list on the left to view the live view of the channel in the selected live view.

- In the channel list, you can quickly record and switch channel stream type.



The thermal imaging sensor fire detector 01 is the optical channel; the thermal imaging sensor fire detector 02 is the thermal imaging infrared channel.

- In the live view page, you can control functions such as live view, recording, picture capture, and audio suppression.
- Select display mode according to the user's actual needs.
- Select stream of live view.



The following features are included in the live view page.

Table 5-1 Icon Function Description

Icon	Function Description
	Select the number of live view pictures. Up to 1 channel and 4 channel live view can be displayed.
	Select the picture size during live view. 4:3; 16:9; original scale and adaptive display, respectively.
	Select stream type during live view. Main stream and sub-stream are respectively represented.
	Two-way audio button is on.
	Live view is enabled and disabled.
Mute	Disable the alarm signal of the device.

Fire Detection Camera User Manual

	Capture picture during live view.
	Local recording is enabled and disabled during live view.
Icon	Function Description
	Enable and disable digital zoom. Drag the left mouse button to zoom in.
	Switch live view channel.
	Adjust live view volume.
	Display full screen. Click [ESC] to exit the full screen.

4.2 Video Playback

The playback interface provides searching, playback, and downloading of video files stored in the device.

Steps

1. Click *Playback* to enter the video playback page.



Picture division supports 1 and 4 divisions. When using 4 divisions, multi-channel video playback can be played simultaneously.

2. Select the channel and recording date. Click *Search* to find the video file on the timeline.
3. Select playback time.
 - Drag the time axis to the location to play, and click  to start playback.
 - If playback is required, set playback time point in playback time point positioning window, and click  to move to the set time.



By default, the system starts playing from the start time of the recording file.

4. Optional: During video playback, you can start/stop playback, stop playback, slow down, capture, video clip, zoom in, adjust volume, and download via the function button below the video.



Fire Detection Camera User Manual

- The capture file is stored in the playback capture saving path set in *parameter configuration* → *local configuration*.
 - The clip record file is stored in the playback clip saving path set in *the parameter configuration* → *local configuration*.
 - The downloaded video files are stored in the playback download saving path set in *Parameter Settings* → *Local Settings*.
-

4.3 View Picture

Search, view, and download picture files stored on the device.

Prerequisite

To view the picture file of the event alarm, set the linkage mode in the *event* first. Detailed method: Go to *Configuration* → *Event*, and enter Event Configuration interface (e.g., *Mobile Detection*). Click *Linkage Configuration*, and select *Upload FTP/SD card/NAS*.



The linkage mode configuration interface will display the specific upload location according to the picture storage mode supported by the current device. When the device supports the storage mode of the microSD card, the upload SD card will be displayed only.

Steps

1. Click *Picture* to enter the picture search page.
 2. Set the search condition on the left side of the window, select the picture type and time, and click *Search* to list the picture on the right.
 3. Optional: Select the picture file to download to local. Click *Download* to download the picture.
-



Click *Stop Downloading* to end *the download*.

Result Description

The downloaded picture is stored in the playback download saving path set in *Parameter* → *Local Configuration*.

4.4 Parameter Configuration

4.4.1 Local Configuration

Enter *Configuration* → *Local*. The following parameters can be configured.



The parameters configured by the device are described below. The parameters can be configured according to the actual interface.

Playing Parameters

Protocol Type

Set according to actual situation.

Playing Performance

Set according to actual playing requirements.

Display Rule Information

This is used to display rule information of intelligent rule in live view. Select *Yes*, and the rule box of intelligent function will be displayed on live view.

Auto Enable Live View

Select *Yes* to automatically display real-time pictures of all channels when entering *live view*. Select *No* to enter *live view* and preview as needed.

Captured Picture Format

Set the saving format of captured pictures.

Display Temperature Information

Select *Yes* to display temperature measurement information in the area triggering temperature alarm rule (e.g., highest temperature, lowest temperature, average temperature, etc.); when selecting *No*, the temperature measurement information will not be displayed in the live view.

Display Rule Info. On Captured Picture

Select *Yes* to overlay rule information when capturing picture.

Video Settings

Package Size of Video

The size of a single video file stored locally.

Video Saving Path

The video file is stored in the local path. Click *Browse* to change the path. Click *Open Folder* to open the folder in the archive path.

Download File Saving Path

The downloaded video file or picture will be stored in the local path. Click *Browse* to change the path. Click *Open Folder* to open the folder in the archive path.

Picture and Clip Settings

Live View Capture Saving Path

The captured picture will be stored locally during live view. Click *Browse* to change the path, and *Open to* open the folder under archive path.

Capture Saving Path

The captured picture will be stored locally during playback. Click *Browse* to change the path, and *Open Folder* to open the folder under archive path.

Fire Detection Camera User Manual

Clip Saving Path

When playing back, the edited video file will be stored locally. Click *Browse* to change the path, and *Open Folder* to open the folder under archive path.

4.4.2 System Parameters

System Settings



Note

The system settings are dependent on the actual device. The system settings that the device may support are described below.

View Basic Device Information

Device system information includes device model, serial No., version information, channel number, HDD number, and alarm input/output number.

Enter *Configuration* → *System* → *System Settings* → *Basic Information* to edit device name and device No.

Set Device Time

Set device time. Two time sync modes are supported: NTP time sync and manual time sync.

Go to *Configuration* → *System* → *System Settings* → *Time Configuration*.

Select the time zone, and then select time sync mode.

NTP Time Sync

Configure NTP server address, server port, and time sync interval.



Note

Click *Test* to test if the NTP server is correct.

After setting, the device will sync from NTP server periodically according to time sync interval.

Manual Time Sync

You can set device time directly or sync *with computer time*.

Set DST

If DST is applied in the area, you can set DST to synchronize the device with local time.

Steps

1. Go to *Configuration* → *System* → *System Settings* → *DST*.
2. Select *Enable DST*.
3. Select **start time**, **end time**, and **DST Bias** according to the DST system of the device.
4. Click *Save*.

Fire Detection Camera User Manual

Set RS-485 Parameters

RS-485 can be used to access control devices that support RS-485 communication protocol.

Prerequisite

Access control device via RS-485 interface.

Steps



When the device has no RS-485 interface, the interface will not be displayed on the web page, and parameters are not required.

1. Go to *Configuration* → *System* → *System Settings* → *RS-485*.
2. Set RS-485 parameters to make the control device consistent with the device's computer parameters.
3. Click *Save*.

About Device

Go to *Configuration* → *System* → *System Settings* → *About*, click *View* to display open source license information.

System Maintenance

Upgrade and Maintenance

Restart device, restore device parameters, import parameters, export, and upgrade device.

Go to *Configuration* → *System* → *System Maintenance* → *Upgrade and Maintenance*.

Reboot Device

Click *Restart* to restart the device.

Restore Default

Part Restore

Simply restore device parameters, except IP address, subnet mask, gateway, user information, format, and security question.

Full Restore

Restore device parameters to factory settings.

Export Information

Device Parameters

It is used to export device parameter file. It is used to configure device with the same parameter.

1. Click *Device Parameters* to pop up *the file encryption configuration* window.
2. Set encryption password to encrypt the exported device parameter file.
3. Click *OK* to select storage path to export.

Fire Detection Camera User Manual

Diagnosis Information

It is used to diagnose device running status, export logs and system information when device is running.

Import Parameter

Device parameter is used to import device parameter file. It is used to set the same parameter.

1. Click *Browse* to select the storage path of the device parameter file, and click *Open*.
2. Click *Import*. The prompt will be displayed.
3. Click *OK* to enter the encryption password, and import the device parameter file.

Upgrade

Upgrade File

When the device needs to be upgraded, you can copy the upgrade program to the local computer, click *Browse* to select the path of saving the upgrade file, and click *Upgrade* to start upgrading.

Upgrade Directory

Fuzzy upgrade refers to copying the upgrade program to a directory of local computer. Click *Browse* to select the directory, click *Upgrade* to start upgrading, and the device will automatically identify and upgrade the correct upgrade file in the directory.



Note

The device will reboot automatically after upgrading. Do not power off during upgrading.

Search Log

Log interface can search, display, and export log information that is saved in device storage.

Steps

1. Go to *Configuration* → *System* → *System Maintenance* → *Log*.
2. Select log type, set the date and start and end time of log search, and click *Search*. The results will be displayed in log list.



Note

Only the first 2,000 logs within the search time range are shown in a single search.

3. Optional: Click *Export* to save log information to local computer.



Note

The log saving format is Text.files and Excel.files.

Search Security Audit Log

It is used to search and manage device security logs.

Fire Detection Camera User Manual

Steps

1. Go to *Configuration* → *System* → *System Maintenance* → *Security Audit Log*.
2. Set log type, start time, and end time.
3. Click *Search*.

The log list shows all the logs that meet the search condition.

4. Optional: Click *Export* to save log to computer.

Security Management

Set Authentication Mode

Set RTSP authentication.

You can select the authentication mode as biggest and biggest/basic. The information to be carried by different modes of authentication is different. Please refer to the protocol for details.



Basic authentication information is simple. If the requirements for network security are high, it is recommended to use biggest.

Set IP Address Filtering

Used to set access permission of computer or terminal.



IP address refers to IPv4 address.

Steps

1. Enter *Configuration* → *System* → *Security Management* → *IP Address Filtering*.
2. Select *Enable IP Address Filtering*.
3. Set IP address filtering type.

Prohibited Access device is allowed for other IP addresses except those in the list.

Allowed Only IP address in the list can access the device.

4. Set the IP address to filter.
 - 1) Click *Add* to enter IP address.
 - 2) Optional: Click *Edit* to edit the selected IP address in the list.
 - 3) Optional: Click *Delete* to delete the selected IP address in the list.
5. Click *Save*.

Set Security Service

Configure SSH and invalid access lock functions.

Fire Detection Camera User Manual

Enter *Configuration* → *System* → *Security Management* → *Security Service*. Enable or disable corresponding security service according to actual situation. The configuration will take effect after saving.

Enable SSH

SSH is a security protocol based on the application layer. After enabling it, it can effectively prevent information leakage in remote management.

Enable *SSH* to provide a secure transmission environment for network service.



Note

The function is disabled by default after rebooting the device.

Enable Invalid Access Lock

Enable the function. Enter user name or password at login to the upper limit (seven times, and 5 times after SSH is enabled). The device will be prompted with lock information and will automatically enter lock status.



Note

For the security of your account, and to prevent unauthorized user login to the device, you are recommended to enable this function. Please set according to the actual situation.

Enable Safe Mode

Select *Enable Safe Mode*, enter administrator password, and enable the function. After enabling the function, the device will verify with strong password. In this mode, some versions of older NVRs will be disabled.

User Management

Add User

The administrator user adds operator or normal user, and assigns permission to the user. Up to 31 users can be created.

Steps

1. On the device web page, go to *Configuration* → *System* → *User Management* → *User Management*.
 2. Click *Add*.
 3. Set user name and password, select user type, and confirm password.
-



Note

- In order to protect your privacy and corporate data and avoid network security problems of device products, it is recommended to set strong password that meets security requirements.
 - To improve the security of product network, the password should be between 6 and 16 characters, and it should contain at least 2 or more types of digits, lowercase letters, and uppercase letters, excluding special characters.
-

Fire Detection Camera User Manual

4. Select permission for user according to needs.
5. Click *OK* to add the user.

Edit User

The administrator can change his/her user password, and the operator and normal user information and permission can only be changed.

Steps

1. On the device web page, go to *Configuration* → *System* → *User Management* → *User Management*.
2. Select the user in the user list and click *Edit*.
3. Edit user information.
4. Click *OK*.

Delete User

The administrator can delete the added operator user and normal user.

Steps

1. On the device web page, go to *Configuration* → *System* → *User Management* → *User Management*.
2. Select a user to delete in the user list, and click *Delete*.
3. Pop up prompt to delete the user. Click *OK* to delete the user.

View Online User

Used to display the list of users logged into the device in the network.

Go to *Configuration* → *System* → *User Management* → *Online User* to view all user information logged in to the device, including user name, user type, IP address, and user operation time. Click *Refresh* to refresh current user information.



Note

- If the IP address and user name are the same, only one user login information will be shown.
- Up to 30 user logins can be displayed in the online user interface.

4.4.3 Network Parameters

Set TCP/IP address

TCP/IP is the most basic transmission control protocol of the Internet. TCP/IP configuration is required for network.

Go to *Configuration* → *Network* → *Basic Configuration* → *TCP/IP*, set network parameters, and click *Save* to take effect.



Note

The TCP/IP parameters that the device may support are described below. The specific parameters that the device supports are subject to the actual device interface.

Fire Detection Camera User Manual

NIC Type

Select according to network environment.

IPv4 Address

- Select *Auto Obtain*. The device will automatically get network parameters according to the network environment.
- If *Auto Obtain* is not selected, manually enter device IPv4 address, IPv4 subnet mask, IPv4 default gateway, and other LAN parameters.



Note

When manually entering IPv4 network parameters, click *Test* to check if the IP address is available, and click *Save*.

MTU

The max. transmission unit refers to the size of the max. data packet in TCP/UDP protocol network transmission.

Multicast Address

After you enter the multicast address, you can send device data to multiple devices.

DNS Server Configuration

The domain name can be parsed when the device has set the correct available DNS server address.

Configure Port Parameters

You can edit the device port when network access is not available due to port conflict.



Note

Do not modify default port parameters at will, otherwise the device will be inaccessible.

Enter *Configuration* → *Network* → *Basic Configuration* → *Port*, set port parameters, and save to take effect.

HTTP Port

The port of the browser accessing device. For example, when **HTTP port** is changed to 81, you need to enter *http://192.168.1.64:81* in the browser to access it when you log in.

RTSP Port

The port of the real-time transmission protocol of the device.

HTTPS Port

It refers to the port accessed by the browser certificate. When the browser accesses the device, it requires certificate verification to access the device. The security level is high.

Service Port

Fire Detection Camera User Manual

When using the client to log in to the camera, you need to enter the port No. in the login page to log in to the camera normally.

Set Platform Access Function

Platform access function is mainly configured with access guarding vision.

Hik-Connect is the Hik-Connect micro-video service platform, and the device that supports Hik-Connect access can be accessed through Hik-Connect.

Steps

1. Go to *Configuration* → *Network* → *Advanced Configuration* → *Platform Access*.
2. Select *Guarding Vision*.
3. Select *Enable*.
4. Select Custom or Default *Access Server IP Address*.
 - Custom: Set domain name server IP address manually.
 - Default: The device will automatically assign a server IP address of the nearby area.
5. Click *Save*.



- Refresh the page or restart the device to check *the registration status*. Check if the device is registered.
 - If you log in via administrator, you can view the device's Hik-Connect verification code. If you log in via non-admin user, you cannot view the code.
-

Set HTTPS

In network access, to improve the security of browser access, you can build secure and encrypted network transmission via HTTPS protocol, and ensure the security of data transmission through identity authentication and encryption communication.

Steps

1. Go to *Settings* → *Network* → *Advanced Settings* → *HTTPS*.
2. Create and install certificate.

Create Private Certificate

Select *to create private certificate* in installation mode. Click *Create* to open private certificate creation window, enter parameters such as country, domain name/IP address, and validity period, and click *OK*.

Create Certificate Request

Select *to create certificate request first, and then continue to install*. Click *Create* to open license certificate creation window, enter country, domain name/IP, and click *OK* to complete the request. After receiving the valid certificate, you can download or delete the certificate request, or install the applied security certificate.

Install Signed Certificate

Select the already signed certificate in installation mode. Install it directly. Click *Browse* to select the existing signed certificate, click *Install*, and click *Save* when finished.

Fire Detection Camera User Manual

Download Certificate

After creating the certificate request, click *Download* to download the certificate and send to the authentication authority for authentication.

Delete Certificate

You can view the installed certificate. Click *Delete* to delete the current certificate.

3. Select *Enable* to access the device via HTTPS protocol.
4. Optional: Select *Auto Redirect to HTTPS* to automatically convert the input IP address to HTTPS address to improve network security.
5. Click *Save*.



- HTTPS port validity range: 1 to 65535. When remote access is via HTTPS, enter `https://IP address` in the browser address bar. If HTTPS sets port other than 443, enter `https://IP address+:(oward)+port No.`, e.g., `https://192.168.1.64:81.IP address`
 - You can also apply for *certificate creation*, upload the certificate issued by the authority certificate (CA) for authentication (fee is required for CA organizations with general authority), and improve the security level of access.
-

Configure Open Network Video Interface

Connect device via open network video interface protocol to enhance device network security.

Steps

1. Go to *Settings* → *Network* → *Advanced Settings* → *Integration Protocol*.
2. Select *Enable Open Network Video Interface*.
3. Click *Save*.

Set HTTP Listening

The device sends alarm information to the IP address or domain name via HTTP protocol. The IP address or domain name should support HTTP protocol transmission.

Steps

1. Go to *Settings* → *Network* → *Advanced Configuration* → *HTTP Listening*.
2. Enter IP address or domain name, URL address and port, and select protocol type.
3. Click *Test*.



Click *Reset* to reset the IP address or domain name.

4. Click *Save*.

4.4.4 Video and Audio Parameters



The content in the audio parameter settings will be determined according to the actual device. The following description refers to the audio settings that the device may support.

Video Configuration

You can set video parameters according to the quality requirements of the live view image.

Go to *Settings* → *Audio* → *Video* and configure video parameters.



The video parameters of the device are described below. The settings supported by the device are subject to the actual interface of the device.

Channel No.

Select the channel No. to set video parameters.



Only multi-channel devices have this option.

Stream Type

Main Stream (Timed)

Main stream is used for HD storage and live view, resolution, bitrate, and image quality.

Sub-Stream

Sub-stream is used for standardizing storage and live view, resolution, bitrate, and image quality when network bandwidth is insufficient.

Video Type

Video Stream

Video stream only.

Composite Stream

Including video stream and audio stream.

Resolution

Select according to customer requirements for video clarity. Higher resolution and higher bandwidth requirements.

Bit Rate Type and Bit Rate Upper Limit

Fixing Rate

Fire Detection Camera User Manual

It means that the bit rate is maintained at the average bit rate for transmission. The compression speed is fast, but video mosaic may occur.

Change Bit Rate

It means adjusting the bit rate on the basis of the upper limit of the bit rate. The compression speed is relatively slow, but it can ensure the image definition of complex scene.

Image Quality

When the bit rate is variable bit rate, you can set the image quality. Select according to the customer's requirements for image clarity. The higher the image quality, the higher the bandwidth requirement.

Video Frame Rate

It refers to the number of frames per second. The higher the video frame rate, the higher the bandwidth, and the higher the storage space.

Video Encoding

H.264

H.264 is a high-performance video encoding/decoding technology, with high compression, flexible handling, and ultra-low bit rate, saving network transmission bandwidth and storage space.



Note

When **the video encoding** parameter of sub-stream is set as *MJPEG*, if there is stuttering in the live view, H.264 encoding format is recommended to ensure smooth picture.

H.265

H.265 is a high-performance video encoding/decoding technology with high compression ratio, flexible handling, and ultra-low bitrate. Compression performance is twice as high as H.264, saving bandwidth and storage space.

Encoding Complexity

The higher the encoding complexity under the same bit rate, the higher the image quality, but the higher the network bandwidth requirements.

I Frame Interval

The number of frames between the two key frames. The larger the I frame interval, the smaller the stream fluctuations, but the poorer the image quality, the larger the stream fluctuations, and the higher the image quality.

SVC

It is a scalable video encoding technology that can be used for encoding storage when bandwidth is insufficient. This function should be used with back-end storage device. H.264/H.265 encoding device can be configured.

Stream Smoothing

Drag progress bar or set stream smoothing value. The higher the value, the better smoothing degree, but the image will be less clear. The reverse is the difference between the smoothness and the picture.

Intelligent Information Display Mode

Playing Library

Fire Detection Camera User Manual

Intelligent rule information will be displayed in the special player only when the video is played by the special player of the manufacturer.

Video

When other players are supported to play video, the intelligent rule information will be displayed in other players.

Audio Configuration

Go to *Settings* → *Video Audio* → *Audio* and configure audio parameters.



Note

- When the device has no audio interface, the interface does not exist on the web page. Setting parameters is not required.
 - The audio parameters that the device may contain are described below. The configuration that the device supports is subject to the actual interface of the device.
-

Channel No.

Select the channel No. to set audio parameters.



Note

Only multi-channel devices have this option.

Audio Encoding

Select audio encoding type according to actual usage requirements.

Audio Input

Please connect audio input device according to usage requirements and configure audio input parameters.

- Select audio input as LinIn when connecting to LinIn device.
It means that the device is connected to devices with high audio output power (e.g. MP3 and synthesizer).
- Connect MicIn device to select MicIn as the audio input.
It means that the device is connected to a device with relatively low audio output power (such as microphone and other passive audio input devices).

Configure ROI

The ROI is the code of the area of interest. Enabling ROI will improve the image encoding quality of the selected area, reduce the encoding quality of the selected area, and make the image clearer in the selected area during live view or recording.

Prerequisite

ROI is supported when video encoding is set to H.264 or H.265. Check video encoding type.

Fire Detection Camera User Manual



ROI settings are more effective when the bit rate is changed or the bit rate settings are lower.

Steps

1. Go to *Configuration* → *Video Audio* → *ROI*.
 2. Select **stream type**.
 3. Optional: Configure fixed area to be upgraded.
 - 1) Check *Enable*.
 - 2) Select area No. in the *fixed area* to draw the area of interest.
 - 3) Click to *draw area*, select a fixed area on the live screen with mouse, and click to *stop drawing*.
-



Select the fixed area to adjust. Drag the mouse to adjust the position of the fixed area.

- 4) Set upgrade level and area name.
-



The higher the upgrade level, the clearer the detection area image.

- 5) Optional: Repeat child steps 2 to 4, and draw multiple areas.
4. Click *Save*.

4.4.5 Image Parameters

Set Display Parameters

Enter *Settings* → *Image* → *Display Settings* to set the image quality of the main live view.



The display parameters that the device may support are described below. The display parameters that the device can configure are subject to the actual interface.

Channel No.

Select the channel No. to set audio parameters.



Only multi-channel devices have this option.

Image Adjustment

Fire Detection Camera User Manual

Adjust the brightness, contrast, saturation, and sharpness of the live view by dragging the progress bar. You can also set the value after the progress bar.

Exposure

Optical Circle Type

Manual by default.

Exposure Time

The camera's electronic shutter time, and the longer the exposure time, the better the image display. Different exposure times can be set according to different device scenes. If manual optical circle camera mode is used, the time set here is the longest exposure time.

Exposure

Adjust the zoom in of video signal. The larger the gain, the more obvious the image noise.

Day/Night Conversion

Day/Night Conversion

Auto

The device will automatically switch between daytime mode and night mode according to external environment brightness.

Daytime

When in daytime mode, the device image is forced to be in daytime, without supplement light, and without switching day or night according to actual scene.

Night

In night mode, the supplement light can be enabled, and the parameters of supplement light can be set. The device image is forced to night, and the switch between day and night will not take place according to the actual scene.

Scheduled Switch

In scheduled switch mode, the user should set the start time and end time of day. During this time period, the device will use day mode automatically. During this time period, the device will use night mode automatically.



Set start time and end time to the next day when you select *scheduled switch*. Please set the start time and end time to the next day.

Sensitivity

When **day or night mode** is selected as *Auto*, 0 to 7 can be adjusted, corresponding to night to day threshold. The lower the sensitivity settings, the higher the brightness of the device will be required to move from night mode to day mode. The higher the sensitivity settings, the lower the brightness requirements of the device to day mode.

Filtering Time

Fire Detection Camera User Manual

When **the conversion mode** is *auto*, the corresponding conversion filter time should be between 5 and 120 seconds. The switch will take effect when the environment light meets the requirements and the retention time exceeds the set threshold time.

Smart Supplement Light

Intelligent image processing technology is used to prevent the over-aeration of center area due to the light supplement of the device. The function is invalid when the supplement light is disabled. Select Enable or Disable according to the actual environment.

Supplement Light Mode

When the device supports supplementing light, you can select supplement mode.

White Light Mode

White light supplement light will be enabled.

Mixed Light Supplement

White light and IR supplement light will be enabled.

Close

Disable supplement light.

Brightness Adjustment Mode

Set brightness mode and brightness when supplementing light.

Auto

Adjust the brightness automatically according to the brightness of the current channel. When the image reaches a certain darkness, the supplement light will be automatically enabled. When the brightness reaches a certain level, the supplement light will be automatically disabled.

Manual

The brightness of the supplement light can be adjusted by dragging progress bar or setting value.

Backlight

Backlight Compensation Area

The user can select compensation area according to the actual video scene to avoid the area being too bright or dark. The user can also select custom area.

Width Dynamic

Wide dynamic is applicable to environments with large differences in light intensity. When high brightness area and areas with relatively low brightness, such as shadow and inverse light under strong light source (such as sunlight, lamps, or reflective reflection) exist in the picture, you can enable the function of wide dynamic and adjust the level to clear the video picture.

The brightest and darkest parts of the picture are automatically balanced in the width dynamic, so as to see more details.



Enabling WDR will be mutually exclusive with some functions. Please use the actual device interface.

Strong Light Suppression

Fire Detection Camera User Manual

When there is excessive exposure of bright area and under-occupied dark area, it will enable strong light suppression, weaken bright area, and highlight dark area to achieve the light balance of the whole picture.

White Balance

In different light environments, the color of the object will change according to the projected light color. The color error can be corrected according to the suitable white balance mode in the environment.



Note

- Lock the white balance to lock the current color correction matrix. If the actual scene is of fixed light type, you can select sunlight, incandescent light, and natural light according to the actual situation.
 - The sunlight is applicable to the color temperature environment of around 6500 K; the incandescent light is applicable to the color temperature environment of around 3000 K; the hotlight is applicable to the color temperature environment of around 4000 K; the natural light is applicable to the color temperature environment of around 5500 K.
-

Image Enhancement

Digital Noise Reduction

It refers to using advanced 3D image noise reduction technology to effectively reduce image noise and make the image softer.

Normal Mode

The noise reduction level is controlled by setting the noise reduction level.

Expert Mode

It can be adjusted by two dimensions: air domain noise reduction level and time domain noise reduction level.

Gray Scale

Select the gray range of video encoding according to actual needs.

Video Adjustment

Optimize the image display by setting video parameters.

Mirror

Adjust video by mirror image as needed. You can select center, left, right, up, down mirror image to adjust, or disable mirror image. When the image is inverted, you can flip the image through the menu.



Note

- Using mirroring function will cause inaccuracy in the positioning of fire points.
 - After enabling mirroring mode, the platform video will be interrupted for a short time.
-

Video Standard

It refers to video signal format, and the highest frame rate of different formats (e.g., the highest frame rate of 50 Hz is 25 fps, and the highest frame rate of 60 Hz is 30 fps).

Fire Detection Camera User Manual

Set OSD Parameters

OSD refers to the information displayed on the video screen. The video screen can display device name, date, week, channel information, and superimposed characters.

Enter *Configuration* → *Image* → *OSD settings*, and select channel No. to set corresponding parameters for the channel, which will take effect after saving.



Only multi-channel device can select channel. Single-channel device does not need to be selected. Set OSD parameters directly.

Basic OSD Information Settings

- Select the OSD information to display: Select *the display name, date, and week*, and the corresponding OSD information will be displayed on the live view.
- Edit OSD information display location: Drag the OSD red box on the live view to move to the location you want to display.
- Edited display format: In **the channel name/time format/date format**, you can edit the channel name displayed on the live view and the time and date format.

OSD Attribute Settings

Set OSD information properties, font size, color, and alignment method displayed on live view.

Overlay Custom Characters

Multiple characters can be added to the video. Select and set the characters to be added. The characters in the video will display in red font. You can drag the characters or set **the alignment mode** to adjust the characters to the position to be displayed. Click *Save* to finish the settings.



Some characters are default fire alarm characters, and cannot be edited.

Set Target Mask

Video masking refers to covering sensitive areas in the video picture, and is not displayed in the image.

Steps

1. On the device web page, go to *Configuration* → *Image* → *Target Mask*.
2. Select *Enable Target Masking*.
3. Click the *drawing area*, click the left mouse button in the picture, drag the mouse, and release the left mouse button to draw an area.

Fire Detection Camera User Manual



Up to 4 areas can be drawn in the picture.

4. When the area is drawn, click *Stop Drawing* to finish the area drawing.
5. Optional: Click *Clear All* to clear all areas.
6. Click *Save*.

Set Picture in Picture

Picture-in-picture refers to the overlay of video thermal imaging and visible light picture to increase the definition of pictures and contours.

Steps



This function is applicable to image-type fire detector and thermal imaging temperature sensitive fire detector.

On the device web page, go to *Configuration* → *Image* → *Picture-in-Picture*.

2. Select **channel 02** and **fusion mode**.

Edge Fusion Ratio

In the process of merging thermal imaging and visible light picture into picture in picture. The weight ratio of the visible light picture profile in thermal imaging. Ratio and ratio are large, and the visible light is of high definition.

Fusion Distance

The distance of the scene to be used. and the depth of the image in thermal imaging and optical dual sensor fusion.

3. Optional: Click  or  support recording and capture, and save to the local path.
4. Click *Save* to complete the picture-in-picture settings.

4.4.6 Event and Alarm

Describe the function configuration of each event supported by the device, and configure the corresponding event according to needs, and trigger device linkage.



The event functions that the device may support are described below. Please use the function supported by the actual device.

Fire Detection Camera User Manual

Schedule and Linkage Configuration

The device receives alarm information during the scheduled time period. The device is linked to execute corresponding actions.

Set Arming Time

Set start time and end time of task execution.

Steps

1. Click *Arming Time*.
2. Select a point in the timeline as start point. Hold the left mouse button to drag in the timeline, and release the mouse when dragging to the end point to set the arming time.



8 time periods are supported in one time axis.

3. Adjust arming time.
 - Click *Arming Time Period* to enter start time and end time manually to adjust arming time. Click *Save*.
 - Click *Arming Time Period* to display two circles on both ends of the time period. Move the mouse to both ends of the time period, and display the adjustment arrow in the left and right directions. Move the adjustment arrow to adjust the time period.
 - Drag the arming time period to any position on the axis to reset the time period.

Click to Delete Time Delete current time period.

Period

Click to *Delete* Delete the selected time period.

Click to *Delete All* Delete all time periods.

Click to *copy to...* Copy the same schedule to other time.

4. Click *Save*.

Linkage Configuration

You can enable alarm linkage when there is an event or alarm.

The linkage mode that the device may support is described below. Please configure the linkage mode according to available options on the actual device interface.

Normal Linkage

Upload Center

Select *Upload Center* to upload alarm information and pictures to remote central platform when alarm occurs.

Please go to *Configure* → *Network* → *Advanced Settings* → *Platform Access* to configure the upload center.

Upload to Memory Card

If you select and configure the FTP/NAS/SD card, the alarm information can be sent to the FTP server, network HDD, and microSD card for saving when alarm is triggered.

Fire Detection Camera User Manual



The media to be saved is supported by the device. The corresponding configuration path is as follows:

- FTP: *Configure* → *Network* → *Advanced Settings* → *FTP Settings*.
 - NAS: *Configure* → *Storage* → *Storage Management* → *Network HDD*.
 - SD card configuration: *Configure* → *Storage* → *Storage Management* → *HDD Management*.
-

Flash Alarm

When the event is triggered, the device will signal alarm light.

Audio Linkage

Alarm signal will be triggered when event is triggered.

Linkage Alarm Output

A->No.

Select the alarm output channel. If the alarm output interface of the device is connected to the alarm output device, the alarm output device will output the signal when the alarm is triggered.

Recording Linkage

Select and configure recording schedule. When alarm is triggered, the channel can be linked to record.

See **Recording Schedule** for recording schedule configuration.

Configure Normal Event

Describe the basic event configuration of the device.



The event types supported by the device are described below. The actual event types will be determined according to the actual interface.

Configure Motion Detection

The function is used to detect whether an area has moved object during a certain time period. When there is moving object, the device will be triggered to execute linkage actions.

Steps

1. Go to *Configuration* → *Event* → *Normal Event* → *Mobile Detection*.
 2. Select *Enable Motion Detection*.
 3. Optional: Set the moving object in the picture to green to highlight. 1) Select *Enable Dynamic Analysis*.
-

Fire Detection Camera User Manual

- 2) Go to *Configuration* → *Local* and select **Rule Information** to enable.
4. Select **configuration mode** to set rule area and rule parameter. – See Normal Mode for general mode settings.
 - Please refer to Expert Mode for the expert mode settings.
5. Set arming time and linkage mode. See *Schedule and Linkage Configuration*.
6. Click *Save*.

Normal Mode

Set mobile detection according to device default parameters.

Steps

1. Select normal **mode in configuration** mode.
2. Set normal mode sensitivity parameters. The higher the sensitivity value, the higher the sensitivity of motion detection. If sensitivity is set to 0, motion detection and dynamic analysis will not work.
3. Click the *drawing area*, hold down the left mouse button in the live picture, drag the mouse, and release the left mouse button to draw an area.

Click to stop drawing. End area drawing.

Click Clear All Delete the drawn area.



Multiple rule areas and rule parameters can be set by the method above.

Expert Mode

Customize movement detection parameters for daytime and nighttime.

Steps

1. Select **Expert Mode** in configuration mode.
2. Set expert mode parameters.



The parameter configuration items that the device may support are listed here. The parameter items that can be configured will be subject to the actual interface.

Day/Night Parameter Conversion

Close

It means that day or night is not switched.

Auto Switch

The system will automatically switch between daytime and nighttime mode according to changes in environment. The picture of daytime mode is color, and the picture of nighttime mode is black and white.

Fire Detection Camera User Manual

Scheduled Switch

Switch according to the set time. The time period is day mode, and the time period is night mode.

Sensitivity

The higher the sensitivity value, the higher the sensitivity of motion detection. If sensitivity is set to 0, motion detection and dynamic analysis will not work.

Ratio

When moving object as a percentage of the area you draw, motion detection will be triggered when the object exceeds the set percentage.

3. Select an **area**, click the *area to draw*, click the left mouse button in the live view, drag the mouse, and release the left mouse button to draw an area.

Click to stop drawing. End area drawing.

Click Clear All Delete drawn area.

Configure Video Tampering Alarm

When the blocked area in the pre-defined video is blocked, the area cannot be viewed normally, and the device will be linked.

Steps

1. Enter *Configuration* → *Event* → *Basic Event* → *Video Tampering Alarm*.
2. Select *Enable*.
3. The **sensitivity is** set. The higher the sensitivity value, the more sensitive the detection.
4. Click the *drawing area*, click the left mouse button in the live picture, drag the mouse, and release the left mouse button to draw an area.

Click to stop drawing. End area drawing.

Click Clear All Delete drawn area.

5. Set arming time and linkage mode. See *Schedule and Linkage Configuration*.
6. Click *Save*.

Configure Alarm Input

The device's alarm input interface is external to the device. When the device generates alarm signal, the device will be triggered to execute linkage actions.

Prerequisite

The device's alarm input interface is external to the device.

Steps

1. Enter *Configuration* → *Event* → *Basic Event* → *Alarm Input*.
2. Select alarm input No. and alarm type, and customize alarm name.



Note

Set alarm type according to the connected alarm device.

Fire Detection Camera User Manual

3. Optional operation: Select *Handling Alarm Input* to enable event configuration alarm linkage.
4. Set arming time and linkage mode. See [Schedule and Linkage Configuration](#).
5. Optional: Click **Copy To** to copy the alarm input settings to other alarm input channels.



The function is not supported when the device only has one alarm input channel.

6. Click *Save*.

Configure Alarm Output

The device's alarm output interface is external to the device's alarm output. When the device generates alarm signal, the device triggers alarm output.

Prerequisite

The device's alarm output interface is external to the device's alarm output.

Steps

1. Enter *Configuration* → *Event* → *Basic Event* → *Alarm Output*.
2. Select **alarm output No.** to set its delay and alarm name.



The specific time delay is subject to the actual situation. Set the duration between 5 seconds and 10 minutes, or set the duration as *manual*.

3. Set arming time. See [Schedule and Linkage Configuration](#).
4. Optional: Click **Copy To** to Copy the Alarm Output Settings to Other Alarm Output Channels.



The function is not supported when the device only has one alarm output channel.

5. Optional: Click *Manual Alarm* to control the alarm output device on the alarm output interface of the device.
6. Click *Save*.

Configure Exception Alarm

When device exception occurs (such as network disconnection), the configured linkage action can be triggered.

Steps

1. Enter *Configuration* → *Event* → *Basic Event* → *Exception*
2. Select exception alarm type.
3. Set linkage mode. See [Schedule and Linkage Configuration](#) for linkage mode settings.
4. Click *Save* to finish the alarm configuration.

Configure Flashing Alarm Light Output

Steps

1. Enter *Configuration* → *Event* → *Basic Event* → *Flashing Alarm Light Output*
2. Select white light mode.
3. Set delay time and brightness.
4. Set linkage mode. See [Schedule and Linkage Configuration](#) for linkage mode settings.
5. Click *Save* to finish the alarm configuration.

Configure Smart Event

Select and configure Smart Event for specific scene. When there is target triggering rule, the device will execute linkage action.



The event types that the device may support are described below. The actual event types will be determined according to the actual interface.

Configure Intrusion Detection

Area intrusion detection is used to detect whether target has entered the alarm area. This function allows the user to set up 4 four-sided alarm areas at most. When target object enters the area, the device can generate alarm signals and interact with the alarm.

Steps

1. Enter *configuration* → *Event* → *Smart Event* → *Intrusion Detection*.
2. Select *Enable*.
3. Draw the min. size.
 - 1) Click *Max. Size/Min. Size*.
 - 2) Select a point in the live view as start point, and drag to the left mouse button to draw the max. size filter frame/min. size filter frame.
 - 3) Optional: If you need to re-map the filter frame, click *Max. Size/Min. Size* again to draw again. If there is an object entering the warning area and the object size is within the range of max. and min. size, it can be recognized as the target. Otherwise, it is not the target.
4. Set the alarm area.
 - 1) Select a warning area, and click *Detection Area*.
 - 2) Click the mouse to select four vertices in the live view to draw the four-way detection area.
 - 3) Optional: Click *Clear* to clear the drawn area.
 - 4) Optional operation: Repeat child steps 1 to 3. Up to 4 warning areas can be set.
5. Set alarm parameters.

Time Threshold

It means that the target enters the alarm area. The duration of stay in the area will be exceeded. The larger the time threshold, the longer the target will remain in motion in the detection area. For example, set to 0. The alarm will be triggered immediately after the target intrusion area. Up to 10 seconds are allowed.

Sensitivity

Fire Detection Camera User Manual

It indicates the degree of target entering arming area. The higher the sensitivity settings, the easier the alarm will be triggered.

Detection Target

Used to specify detection target. The device will detect the specified target.

6. Set arming time and linkage mode. See [Schedule and Linkage Configuration](#).
7. Click *Save*.

Configure Line Crossing Detection

Line crossing detection is used to detect whether the target crosses the alarm plane in the specified direction. If the target crosses the alarm plane in the specified direction, the device will be triggered to execute linkage action.

Steps

1. Enter *configuration* → *Event* → *Smart Event* → *Line Crossing Detection*.
2. Select *Enable*.
3. Draw the min. size.
 - 1) Click *Max. Size* or *Min. Size*.
 - 2) Select a point in the live view as start point, and drag to the left mouse button to draw the max. size filter frame or min. size filter frame.
 - 3) Optional: If you need to re-map the filter frame, click *Max. Size* or *Min. Size* again to draw again. If there is an object entering the warning area and the object size is within the range of max. and min. size, it can be recognized as the target. Otherwise, it is not the target.
4. Set alarm level.
 - 1) Select a warning area and click *detection area*. A line segment with arrow will appear in the picture.
 - 2) Click the selected line segment to drag the vertex to edit the length and position of the line segment, or click *Drag* to move the line segment in parallel.
 - 3) Optional: Click *Clear* to clear the drawn area.
 - 4) Optional operation: Repeat child steps 1 to 3. Up to 4 alarm areas can be set.
5. Set rule parameters.

Detection Target

After the detection target is selected, the device will detect the specific detection target.

Direction

It indicates the direction of alarm triggered by the target crossing alarm plane.

A->B

Alarm will be triggered when the target crosses the line from A to B.

B->A

Alarm will be triggered when the target crosses the line from B to A.

A<->B

It means that the alarm is triggered by target two-way.

Sensitivity

The sensitivity value = $100 - S1/ST * 100$. S1 is the area of the target entering the arming area. ST is the actual area of the target. The larger the sensitivity settings, the easier the alarm will be triggered.

6. Set arming time and linkage mode. See [Schedule and Linkage Configuration](#).
7. Click *Save*.

Fire Detection Camera User Manual

Configure Fire and Smoke Detection

Fire and smoke detection is used to detect whether there is fire or flame in the area. When fire or flame is detected and fire alarm is triggered, the configured linkage will be executed.

Steps

1. On the device web page, go to *Configuration* → *Event* → *Smart Event* → *Fire and Smoke Detection*.
2. Select *Enable* and *Overlay Smart Information When Capturing*.
3. Set detection area and shielded area.
 - 1) Click to *draw detection area/screen area*.
 - 2) Click the left mouse button in the picture to draw any convex quadrilateral shape.
 - 3) Repeat steps 1 to 2, and draw up to 4 detection areas/shielded areas.
 - 4) Optional: Edit the drawn area by the following methods.
 - Move the mouse to the area internal. Drag to change the area position.
 - Move mouse to area vertex. Click Drag to edit vertex position.
 - Click *Clear All* to delete all drawn areas.

The device will intelligently detect and analyze events in the detection area, and ignore the detection results in the shielded area.

4. Select channel alarm mode.

Fire and Fire Alarm The channel is detecting smoke and fire.

Fire Alarm The channel is currently detecting fire.

5. Set detection parameters.

Sensitivity

The higher the sensitivity, the higher the alarm will be triggered, and the false recognition rate will be larger.

Fire Check

When you select *Fire Check*, you can improve the accuracy of recognition and reduce false alarm. For example, an object in the picture is detected as a fire, and the actual temperature is too low through the function of flame verification. It can be determined as false alarm and alarm will not be triggered.

6. Set arming time and linkage mode. See [Schedule and Linkage Configuration](#).
7. Click *Save*.

4.4.7 Storage

Recording Schedule

Schedule recording is the task of automatically executing recording in a set time period.

Steps

1. Go to *Configuration* → *Storage* → *Schedule Configuration* → *Recording Schedule*.
2. Select channel No. to configure recording schedule for the channel.
3. Select *Enable* to enable recording schedule.
4. Select recording type.



Fire Detection Camera User Manual

The video types of the device are described below. The selected video types will be subject to the actual interface of the device.

Scheduled

It means recording according to the time configured by the scheduled recording.

Motion Detection

Channel recording occurs when motion detection event occurs.

Alarm

It means that the alarm input will generate alarm or record the alarm event.



Note

The event type should be set in advance for motion detection or alarm and event recording. See Events and Alarms for details.

5. Click *Advanced Parameters* to configure the parameters.

Repetition Write

If you select *Repetition*, the earliest recording file will be overwritten when the storage space is full. If not, the recording will be stopped when the storage space is full.

Pre-Record Time

Pre-recording time before start time node of recording schedule.

Video Delay

Delay recording time after recording schedule end time node.

Stream Type

Stream type of video storage.



Note

The higher the bit rate, the lower the pre-record time.

6. Set recording schedule time. See *Schedule and Linkage Configuration*.
7. Click Save.
8. Optional: Click *Copy To* to copy the recording schedule of the channel to other channels.

Format SD Card

For the first time, please log in to the device web client to format the microSD card.

Prerequisite

Install the microSD card to the device.

Steps

Fire Detection Camera User Manual

1. Go to *Configuration* → *Storage* → *Storage Management* → *HDD Management*.
2. Select the microSD card to be formatted in the list of detected HDDs.
3. Set the quota for capture and recording in HDD.



When formatting, the video partition should be no less than 1 GB. Otherwise, the video function will be affected.

4. Click *Format*.



After formatting, the status of the microSD card is changed from unformatted to normal. It means that the microSD card can be used normally, and the disk capacity and remaining space can be viewed.

5. Click *Save*.

4.4.8 Temperature Measurement

It is used for real-time temperature monitoring of the site. By setting the temperature measurement parameter or temperature measurement rule, temperature measurement and alarm will be automatically performed when the target meets the temperature measurement parameter or the temperature measurement rule is triggered.

Set Temperature Measurement Parameters

Realize the configuration of basic parameters of auto temperature measurement.

Steps

1. Go to *Configuration* → *Temperature Screening* → *Basic Configuration*.
2. Select *Enable Temperature Screening*.
3. Set temperature measurement parameters.

Stream Overlay Temperature Information

Select to add the detected temperature and temperature detection frame information to the stream.

Max. Temperature, Min. Temperature, Average Temperature

Select to display the temperature measurement data of the highest temperature, lowest temperature, or average temperature in the live picture.

Temperature Screening Unit

Set the unit of temperature measurement.

Temperature Measurement Range

Set the temperature range of the target.

Algorithm Library Version

Check current temperature measurement algorithm library version.

4. Click *Save*.

Normal Temperature Screening

Normal temperature measurement is used to measure temperature and alarm the whole scene.

Steps

1. Go to *Configuration* → *Temperature Screening* → *Advanced Configuration*, and select **Configuration Mode** as *Normal Mode*.
2. Set normal mode parameters.

Emissivity

The emission rate of the temperature screening target.

Distance

The straight line distance between the temperature screening scene and the device.

Pre-Alarm Threshold and Filtering Time

The device will warn when the temperature exceeds the set warning threshold and the duration exceeds the filter time.

Alarm Threshold and Filtering Time

When the temperature exceeds the set alarm threshold and the duration exceeds the filter time, the device will alarm.

Alarm Output and Alarm Output

The selected alarm output channel action is linked when alarm or alarm is generated.

5. Click *Save*.

6. Enter *Configuration* → *Temperature Measurement* → *Linkage method*, set arming time and linkage mode, and save. See *Set Arming Time* for arming time settings, and [Linkage Method](#) for linkage mode settings. The live view will show the measured temperature of the highest and lowest temperature in real time.

UD43184B-A



See Far, Go Further