HDCVI Temperature & Humidity Bullet Camera

User's Manual

V1.0.1

Welcome

Thank you for purchasing our HDCVI camera!
This user's manual is designed to be a reference tool for your system.
Please read the following safeguard and warnings carefully before you use this series product!
Please keep this user's manual well for future reference!

Important Safeguards and Warnings

Electrical safety

- All installation and operation here should conform to your local electrical safety codes.
- The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated DC 12V or AC24V in the IEC60950-1. (Power supply requirement is subject to the device label).
- Please install easy-to-use device for power off before installing wiring, which is for emergent power off when necessary.
- Please check if the power supply meets the requirements of working voltage of the camera before operating the device (The material and length of the power supply cable will influence terminal voltage value).
- Please prevent the line cord from being trampled or pressed, especially the plug, power socket and the junction from the device.

Environment

- Not a professional environmental monitoring device, accuracy of temperature and humidity data provided by this device may vary based on environmental and operating conditions.
- Please don't aim the device at strong light (such as lighting, sunlight and so on) to focus.
- Please transport, use and store the device within the range of allowed humidity and temperature.

- Please do not allow water and other liquid falling into the camera in case that the internal components are damaged.
- Please keep the sound ventilation in case of heat accumulation.
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
- Please pack the device with standard factory packaging or material with same quality when transporting the device.
- It is recommended to use the device together with lightning protection device to enhance lightning protection effect.
- It is recommended to GND the device to enhance device reliability.
- It is advised to use qualified video transmission cable to improve video quality. It is recommended to use RG59 coaxial cable or higher standard.

Warning

- Please use the standard accessories provided by manufacturer and make sure the device is installed and fixed by professional engineers.
- Please prevent the device surface from the radiation of laser beam when using laser beam device.
- Please do not provide two or more power supply modes for the device, otherwise it may cause damage to the device.

Statement

- Please refer to the actual product for more details; the manual is just for reference.
- The manual will be regularly upgraded according to the product update; the upgraded content will be added in the manual without prior announcement.
- Please contact the customer service for the latest procedure and supplementary documentation.
- The company is not liable for any loss caused by the operation which is not followed by the manual.
- Please refer to the company's final explanation if there is any doubt or dispute.

1 General Introduction

1.1 Overview

This series HDCVI temperature and humidity camera conforms to the HDCVI standard. It supports megapixel definition and coaxial transmission for both video and control signal. It adopts temperature and humidity sensor with high performance. The product needs to be applied together with XVR which supports HDCVI standard and realize high speed, long distance, realtime lossless image transmission and realtime temperature and humidity display. The device can be applied to the scenarios which need video surveillance and temperature and humidity detection such as greenhouse, warehouse and storage room etc.

1.2 Features

- 720P series supports RG59 coaxial cable transmission without any loss. The distance is over 500m, 1080P, 4M and 4K series support RG59 coaxial cable transmission without any loss. The distance is over 300m.
- Temperature detection range $-40℃ \sim +60℃$ ($-40°F \sim +140°F$), accurate to $±2℃$ ($±4°F$).
- Humidity detection range 10%RH ~ 95%RH, accurate to ±5%RH.
- Supports Celsius and Fahrenheit display, it is Celsius display by default.
- Supports temperature correction under strong light outdoors.
- Supports black and white conversion and auto switch for day and night.
- Supports parameter adjustment via OSD menu.
- Supports DC 12V ± 30% wide voltage power supply.
- Supports IP67 compliance.

2 Device Structure

2.1 Dimension

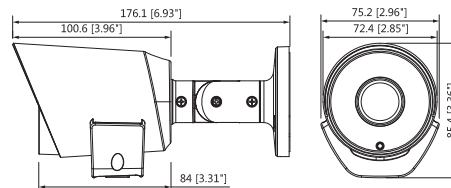Please refer to Figure 2-1 for the dimension. The unit is mm (inch).
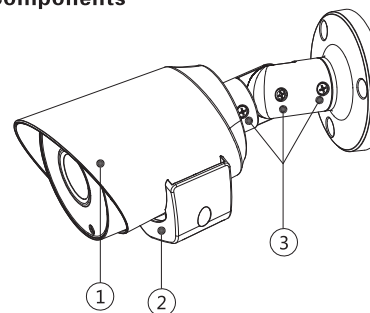

Figure 2-1

2.2 Components

Figure 2-2

Please refer to Table 2-1 for more details about device components.

SN	Name
1	Device Body
2	Temperature & Humidity Module
3	Bracket

Table 2-1

2.3 Cable Port
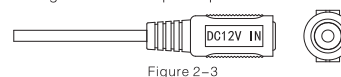
Please refer to Figure 2-3 for the power port.

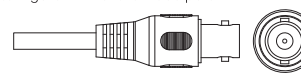Figure 2-3

Please refer to Figure 2-4 for the video port.

Figure 2-4

3 Device Installation

Caution

- The installation ceiling or wall shall be thick enough to sustain at least 3X weight of the camera.
- Please do not remove the electrostatic adsorption film (if any) on the surface of transparent cover before installation and debugging are completed, which is to avoid damage during installation;
- Please do not install the device in the strong air outlet, such as air conditioner vent and so on.
- Please do not install the device close to the thermal radiation source such as strong magnetic field, temperature blind angle and stove door etc.
- The following installation figures are for reference only; please refer to the actual device for more details.
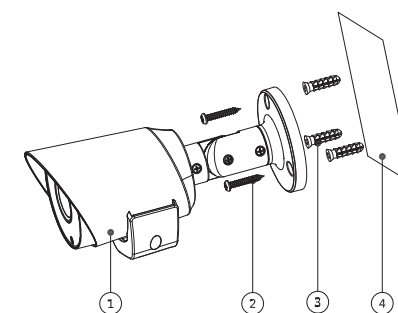

Figure 3-1

SN	Name
1	Device Body
2	Self-tapping Screw
3	Expansion Bolt
4	Mounting Surface

Table 3-1

Step 1
Install camera bracket.

- If it is cement wall, first it needs to install expansion bolt ③ (the mounting hole sites of expansion bolts need to be in accordance with those of the bracket), and then install the bracket, which is shown in Figure 3-1.
- If it is wooden wall, you can skip the first step, use self-tapping screw ② to install the bracket directly.

Step 2
Install the device ①.
Use the mounting pedestal on the camera bottom and use screws to fix the device on the bracket.

Step 3
Adjust the camera to the proper monitoring position, and then tighten the button on the bracket and fix the camera, which is shown in Figure 3-2.
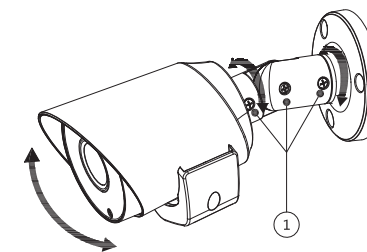

Figure 3-2

SN	Name
1	Adjusting Screw

Table 3-2

Step 4
Connect the video output port of device cable to the back-end XVR, connect the power port to power and adjust the device angle well. So far, the device installation and cable connection have been completed, you can check monitoring image via back-end coding device.

4 Menu and Settings

4.1 Menu Operation

Step 1
Click the right mouse button and select "PTZ", the system will display the interface of PTZ setting, which is shown in Figure 4-1.
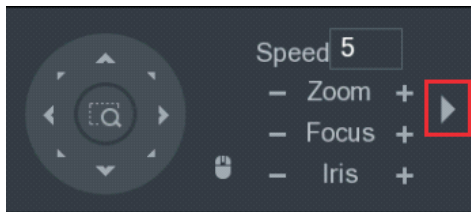
Figure 4-1

Step 2
Click ▶ and the system will enter the complete PTZ setting interface, which is shown in Figure 4-2.
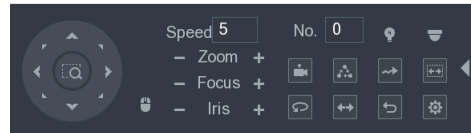

Figure 4-2

Step 3
Click ▼ and the system will enter the operation interface of OSD menu, which is shown in Figure 4-3.
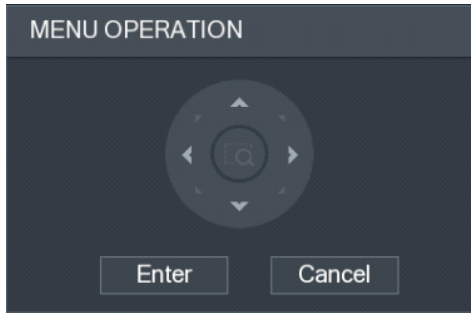

Figure 4-3

It can modify each parameter of OSD menu in the menu operation interface, please refer to Table 4-1 for more details about operation methods.

Button	Function	Button	Function
Enter	Open menu or confirm.	▲ ▼	Select menu item.
Cancel	Exit menu.	◀ ▶	Modify menu value.

Table 4-1

If there is " ↵ " in the parameter value, click the "Enter" button in "Menu Operation" interface to go to the 2nd menu. Click "Return" button to go back to the previous menu interface or exit the menu.

Note
- The operation interface above is just an examples, different back-end devices have different operation interface, please refer to corresponding XVR manual for more details.
- Menus are different according to different products; please refer to actual device for exact menu.

5

Temp & Humidity Function

5.1 Temp & Humidity Switch and Temperature Measurement Mode

5.1.1 Temperature and Humidity Switch
It will display realtime temperature and humidity in the image by default under normal monitoring status, you can enable and disable temperature & humidity display in the "Advanced > Temperature & Humidity" of OSD menu.

5.1.2 Temp Measure Mode
The temperature and humidity camera supports temperature correction under strong light outdoors. When the temperature and humidity function is enabled, you can change the temperature measurement mode into "Standard" and "Sunlight" in the "Advanced > Temperature & Humidity > Temp Measurement Mode" of OSD menu. The system is "Standard" by default, it is recommended to change the mode into "Standard" or "Sunlight" when it is used indoors or outdoors respectively.

5.2 Adjust Temperature & Humidity Display Location

When the temperature and humidity function is enabled, you can go to "Advanced > Temp & Humidity > Location" of OSD menu and click the arrow to adjust the temperature and humidity prompt to a proper location on the screen top, click "OK" after adjustment is completed, which is shown in Figure 5-1.
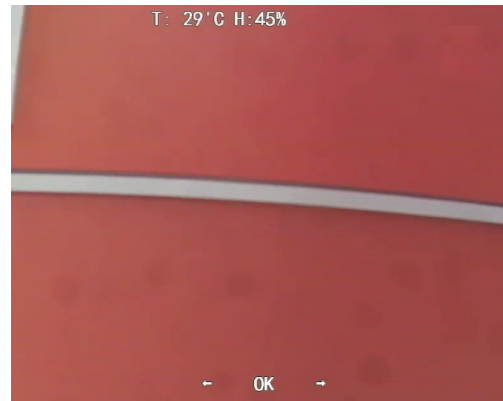

Figure 5-1

Note
Single click right button in any location of the monitoring image to return to the previous interface after all the settings are completed, it will return all the way to the normal monitoring interface.

5.3 Temp & Humidity Function Overview

Click in the normal monitoring image to enter XVR main menu, select "IoT" and then you can check realtime temp & humidity and changing curve of temp & humidity, which is shown in Figure 5-2.
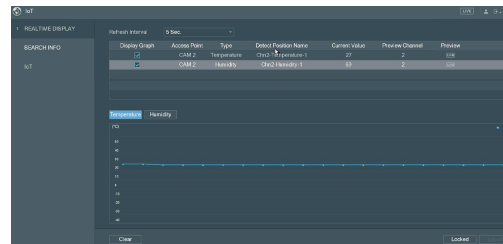

Figure 5-2

Note
Please refer to XVR device for more functions of temp & humidity.

6

Appendix Maintenance

Caution
Please maintain the device according to the following instructions in order to ensure the image effect and long-term stable operation of the device.
Maintenance for lens and mirror surface
The lens and mirror surface are covered with antireflection coating, so it may produce hazardous substance and lead to performance reduction or scratch, dimness etc. Please don't touch sensor CCD (or CMOS) directly, you can use hair dryer to remove dust or dirt on the lens surface. Please use dry cloth slightly soaked with alcohol to get rid of dust and dirt gently if it is necessary to be cleaned.
Camera Body Maintenance
Use a soft dry cloth to clean the camera body when it is dirty, in case the dirt is hard to remove, use a clean dry cloth soaked with mild detergent and wipe gently, make it dry later. Don't use volatile solvent like alcohol, benzene, thinner and etc. or strong detergent with abrasiveness, otherwise it will damage the surface coating or reduce the working performance of the device.

Note
- This manual is for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website or contact your local service engineer for more information.