



Light-duty Protective Housing

User's Manual

V1.0.2

ZHEJIANG DAHUA VISION TECHNOLOGY CO.,LTD.

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About this Document






- This document is for reference only. Please refer to the actual product for more details.
- This document serves as a reference for multiple types of products, whose specific operations won't be enumerated. Please operate according to actual products.
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Overview

This document mainly introduces installation of light-duty protective housing.

Symbol Definition

The following symbols may appear in the document. Please refer to the table below for the respective definition.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as the emphasis and supplement to the text.

Revision Record

No.	Version No.	Revision Content	Release Date
1	V1.0.0	First release	2017.9.30
2	V1.0.1	Add statement: Regarding a camera with RS485 control function, "PTZ Setting" shall be adjusted to "Default" status.	2017.12.10
3	V1.0.2	1. Integrate with anti-corrosion bracket; 2. Modify some dimensional drawings; 3. Modify technical specification parameters.	2018.01.20

Important Safeguards and Warnings

The following description is the correct application method of the device. Please read the manual carefully before use, in order to prevent danger and property loss. Strictly conform to the manual during application and keep it properly after reading.



Caution

- Please install it at stable places, and prevent it from falling.
- Use the device only within rated input and output range.
- Please don't dismantle the device arbitrarily.



Warning

- The product shall use electric wires (power wires) recommended by this area, which shall be used within its rated specification.
- Please use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, please refer to device labels.
- If power plug or appliance coupler is a disconnecting device, please ensure its convenient operation.

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1 Product Overview

Light-duty protective housing provides all-weather protection for cameras and lens, and ensures their normal work in severe environment such as high temperature, low temperature, rain and snow. Support to install cameras and lens of various sizes; boast a built-in adjustable camera fixing plate and relatively high protection level.

It is hereinafter referred to as “housing”.

1.1 Product Feature

- Brand-new side cover design facilitates device installation and debugging.
- Aluminium shell owns fully sealed design and reaches IP66/IP67 protection level.
- Built-in heating and cooling system guarantees stable operation.
- Windows adopt waterproof films, so as to reduce the effect of weather on the camera.
- 1~100m infrared ray provides auxiliary ray of light.
- Support remote control of LED and windshield wiper.

1.2 Product Size

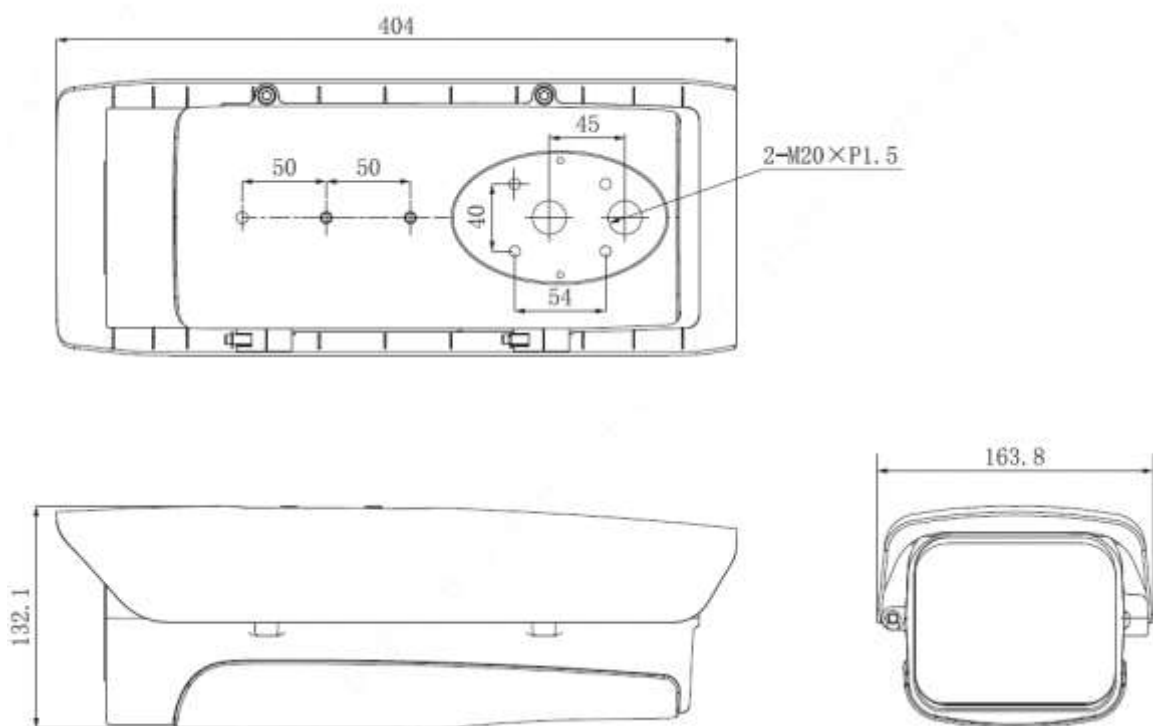


Figure 1-1 DH-PFH610N and DH-PFH610N-H (unit: mm)

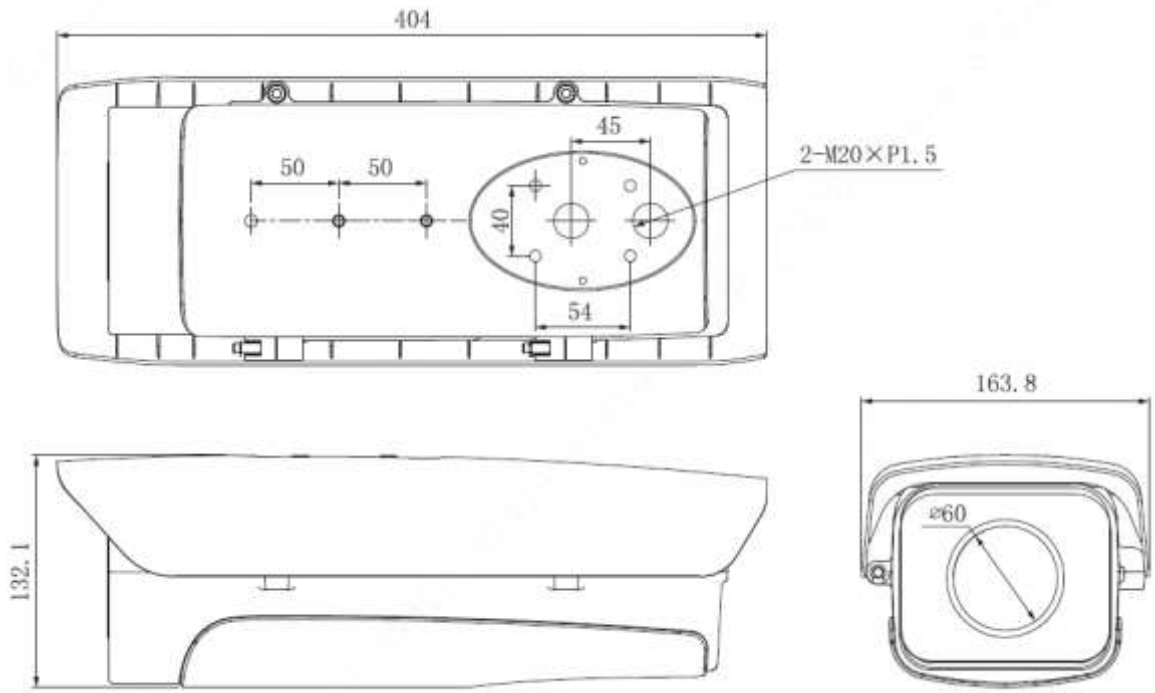


Figure 1-2 DH-PFH610N-IR/LED, DH-PFH610A-IR, DH-PFH610A and DH-PFH610A-H (unit: mm)

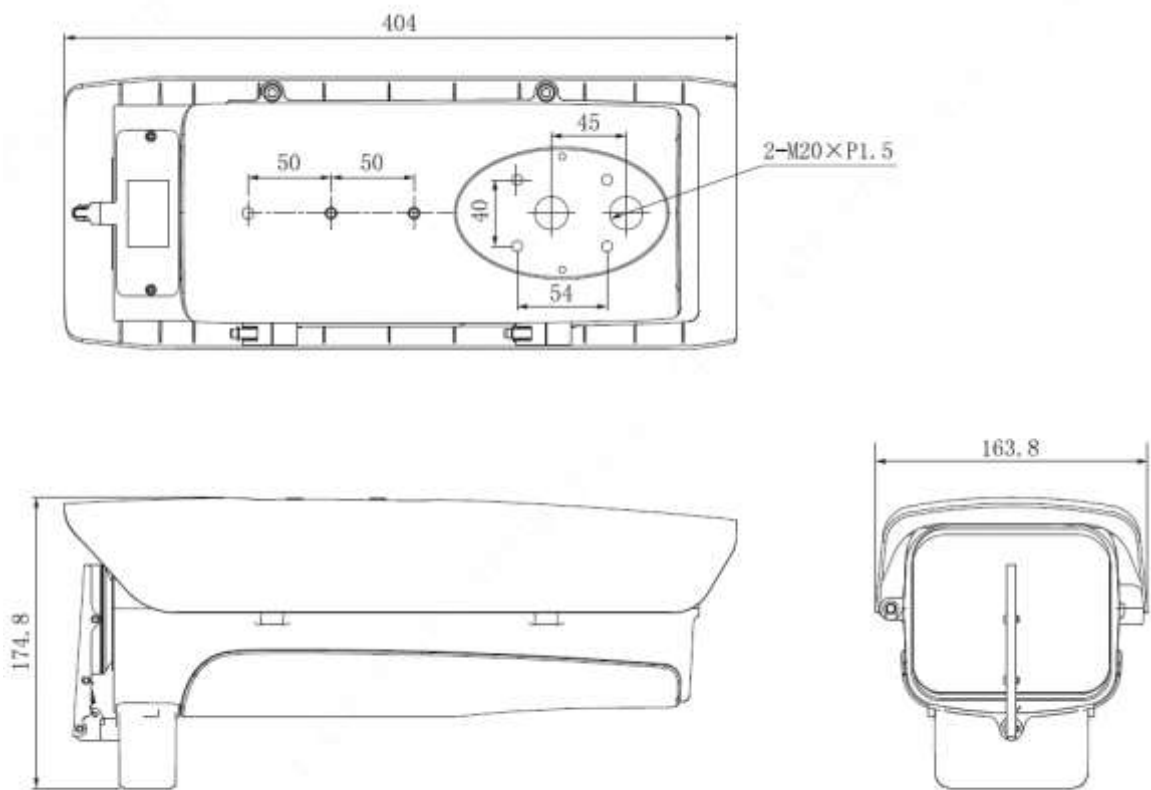


Figure 1-3 DH-PFH610N-W and DH-PFH610N-IR-W (unit: mm)

2

Installation Guide of Housing

2.1 Open and Lock the Housing

Open or lock the housing with two M6 screws at the side and internal hexagonal wrench (5.0mm), as shown in Figure 2-1.

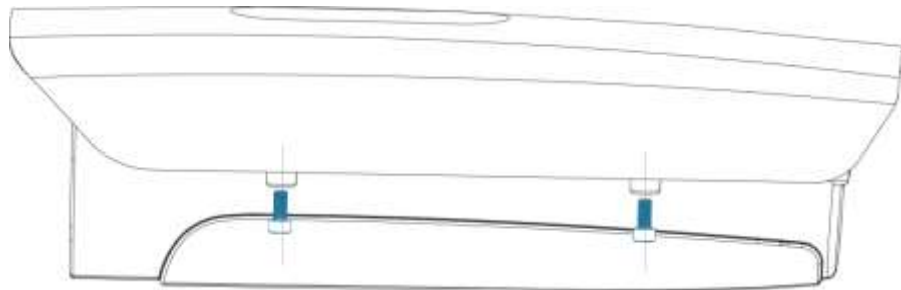


Figure 2-1



Caution

Before closing the cover, please inspect whether waterproof ring of the shell is correctly installed in place, as shown in Figure 2-2. Otherwise, waterproof performance of the housing may be affected.

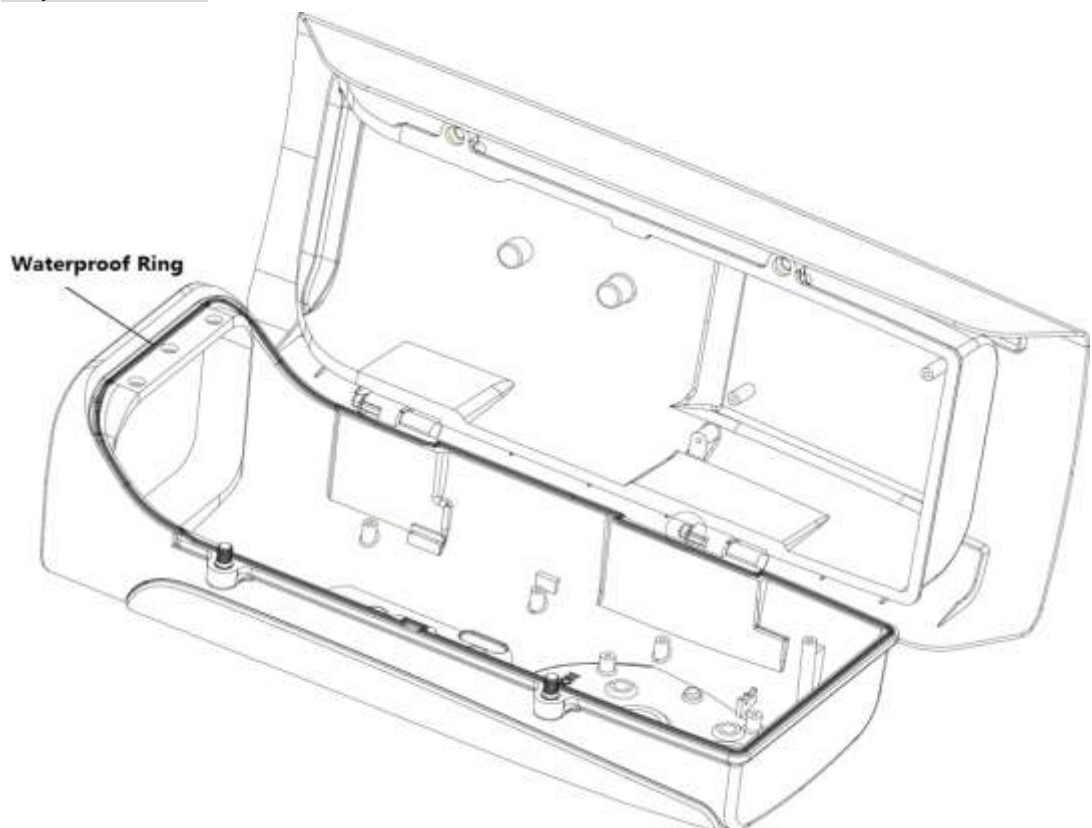


Figure 2-2

2.2 Control and Wiring Instruction

With LED/wiper module, there are 3 control modes as shown in

Mode	Applicable IPC Camera Type	Wiring Instruction
Remote 1	Camera with RS485 control function.	Control LED and wiper status at WEB interface. Specific wiring of IPC is shown in Figure 2-3 Wiring Diagram of IPC Interface (Remote Mode 1).
Remote 2	Camera without RS485 control function; "N/C" interface of the camera satisfies "LED" and "WIPER" connection.	Control LED and wiper switch through camera alarm option. Specific wiring is shown in Figure 2-4 Wiring Diagram of IPC Interface (Remote Mode 2).
Routine	Camera without RS485 control function; "N/C" interface of the camera cannot satisfy "LED" and "WIPER" connection at the same time.	Control wiper switch through camera alarm, and control LED switch through LED photosensitive unit. Specific wiring of IPC is shown in Figure 2-5 Wiring Diagram of IPC Interface (Routine Mode).

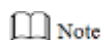
Table 2-1 and Table 2-2.

Mode	Applicable IPC Camera Type	Wiring Instruction
Remote 1	Camera with RS485 control function.	Control LED and wiper status at WEB interface. Specific wiring of IPC is shown in Figure 2-3 Wiring Diagram of IPC Interface (Remote Mode 1).
Remote 2	Camera without RS485 control function; "N/C" interface of the camera satisfies "LED" and "WIPER" connection.	Control LED and wiper switch through camera alarm option. Specific wiring is shown in Figure 2-4 Wiring Diagram of IPC Interface (Remote Mode 2).
Routine	Camera without RS485 control function; "N/C" interface of the camera cannot satisfy "LED" and "WIPER" connection at the same time.	Control wiper switch through camera alarm, and control LED switch through LED photosensitive unit. Specific wiring of IPC is shown in Figure 2-5 Wiring Diagram of IPC Interface (Routine Mode).

Table 2-1

Mode	Applicable CVI Camera Type	Wiring Instruction
Remote	Camera with RS485 control function.	Control LED and wiper status at WEB interface. Specific wiring is shown in Figure 2-6 Wiring Diagram of CVI Interface (Remote Mode 1).
Routine	Camera without RS485 control function.	Control wiper switch through camera alarm, and control LED switch through LED photosensitive unit. Specific wiring is shown in Figure 2-7 Wiring Diagram of CVI Interface (Routine Mode).

Table 2-2



- Camera with RS485 control function means that "Peripheral Management" menu at WEB

interface has “External Light Setting” and “Wiper Setting”.

- Choose corresponding control mode according to different camera types.
- “N/C”, “NO/C” and “OUT/G” interfaces of the camera have the same functions. Different types of devices display in a different way.
- Regarding a camera with RS485 control function, “PTZ Setting” shall be adjusted to “Default” status.
- Protective housing of white light doesn’t support remote mode 2.



Caution

Please don't connect NO/C or OUT/G interface with IR/G interface, or the IR light will be damaged.

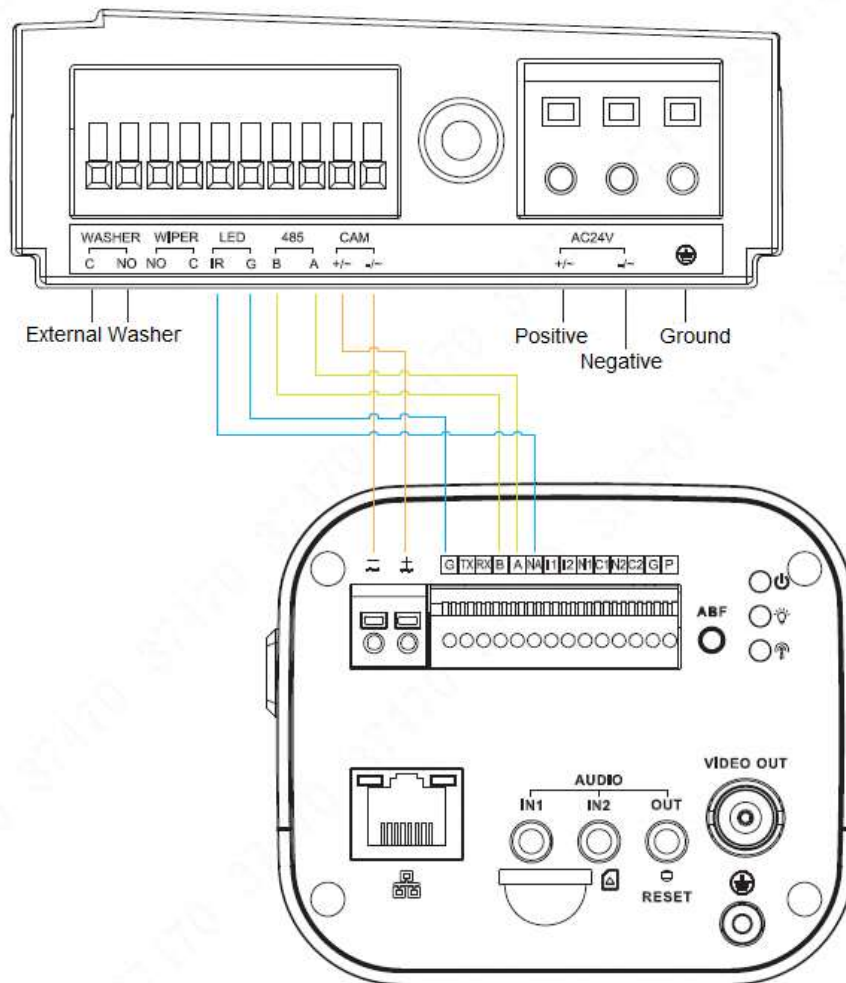


Figure 2-3 Wiring Diagram of IPC Interface (Remote Mode 1)

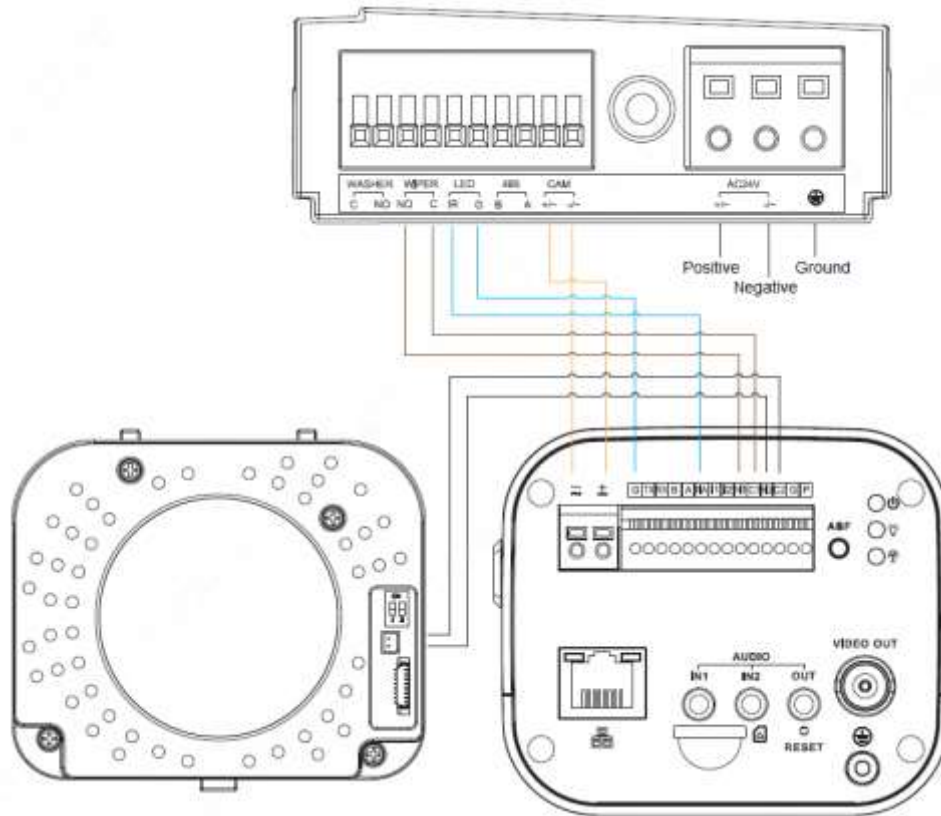


Figure 2-4 Wiring Diagram of IPC Interface (Remote Mode 2)

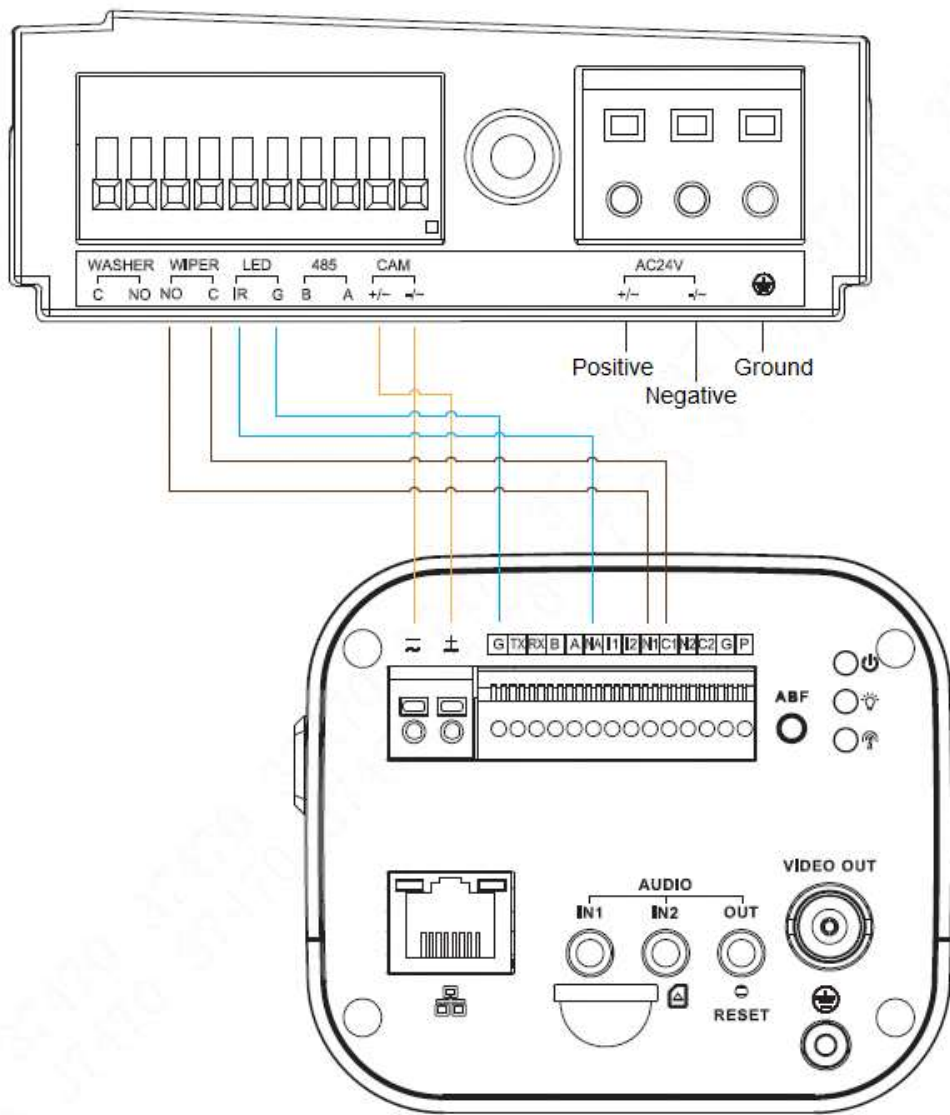


Figure 2-5 Wiring Diagram of IPC Interface (Routine Mode)

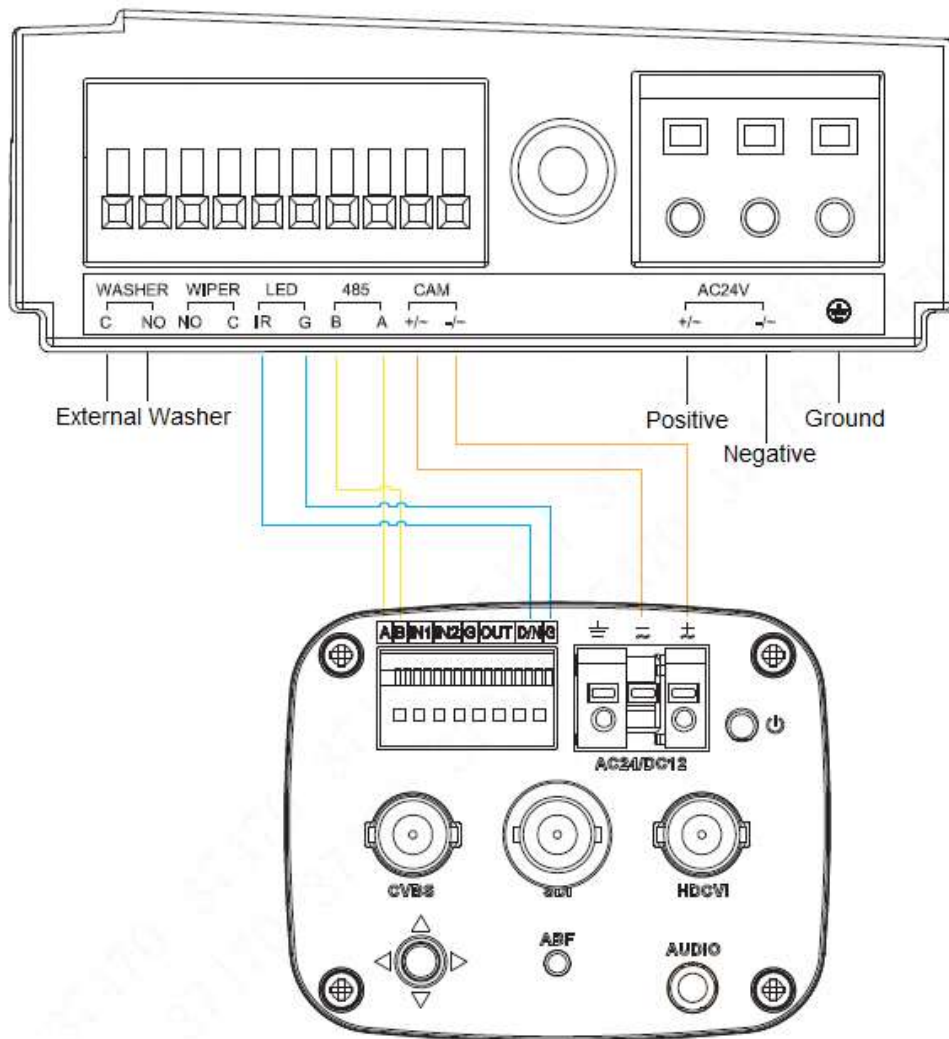


Figure 2-6 Wiring Diagram of CVI Interface (Remote Mode 1)

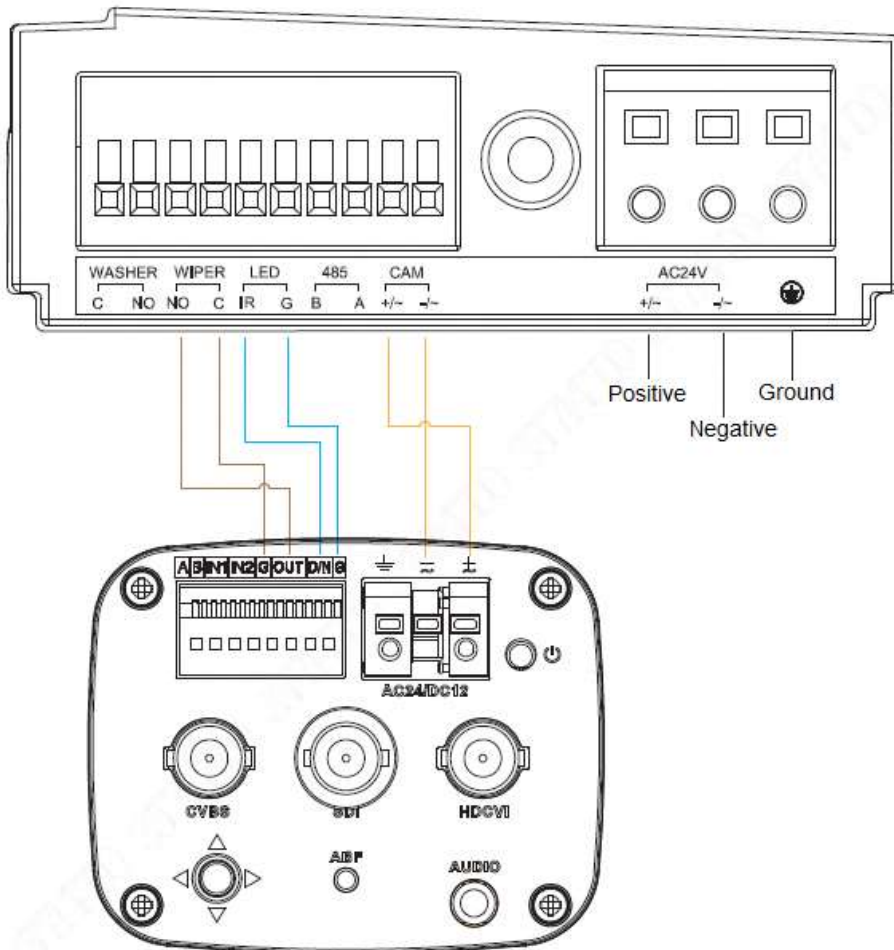


Figure 2-7 Wiring Diagram of CVI Interface (Routine Mode)

Position	Interface	Instruction
Interface board	AC24V	Power input interface, to connect external power.
	CAM	Power output interface, consistent with external power supply, to supply power to the camera.
	485 (A/B)	In remote mode 1, this is LED and wiper control interface. In remote mode 2 and routine mode, it is ok if this interface is not connected.
	LED (IR/G) (D/N/G)	This is illumination signal terminal of IR lamp. It only applies to products with IR lamp.
	WIPER (NO/C) (OUT/G)	In remote mode 1, it is ok if this interface is not connected. In remote mode 2 and routine mode, this is wiper control interface, to connect normally-on alarm output terminal of the camera.
	WASHER(NO/C) (OUT/G)	In remote mode 1, this is external washer interface. In remote mode 2 and routine mode, it is ok if this interface is not connected.
IR driving board	NO/C	In remote mode 1, it is ok if this interface is not connected. In remote mode 2, this is IR control interface, to connect normally-on alarm output terminal of the camera. In routine mode, it is ok if this interface is not connected.


Table 2-3

2.3 Install Camera

Step 1 Take camera installation plate out of the housing.

Step 2 Fix the camera onto camera installation plate.

Step 3 Fix camera installation plate onto housing shell, as shown in Figure 2-8.

 **Note**

- During installation of camera lens, try to get close to inner surface of glass (1-3mm away from the inner surface), so as not to affect viewing angle of the lens.
- According to camera size, camera installation plate can be installed at obverse side and reverse side.

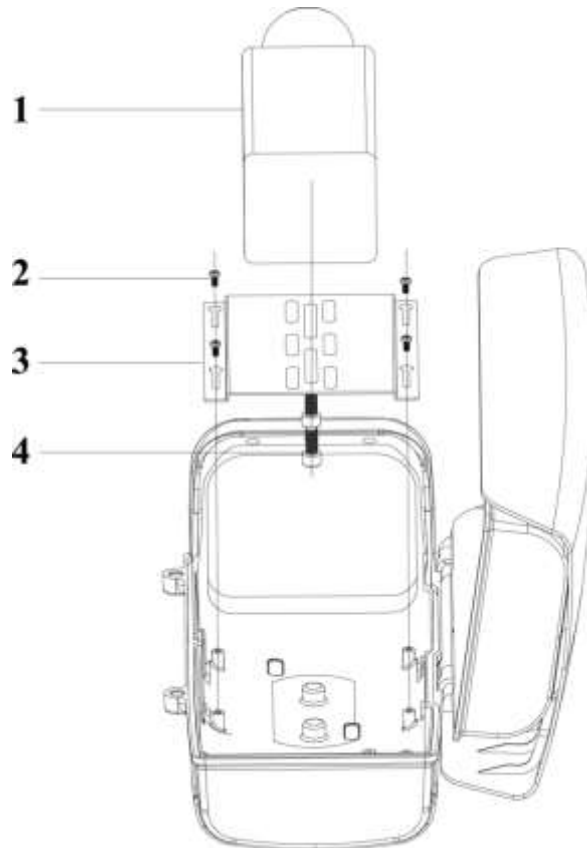


Figure 2-8

No.	Component Name
1	Camera
2	Screws to fix camera installation plate (M3×8 combination screws)
3	Camera installation plate
4	Screws to fix camera (1/4-20×8UNC pan head combination screw)

Table 2-4

2.4 Operating Control Instruction

IR lamp panel owns dial switch; 6 IR lamps are turned on by default. Except remote mode 1, in the

other two modes, dial switch can be turned to 1 or 2, so corresponding IR lamp can be turned off (at most 4 lamps can be turned off), in order to meet short-distance fill-in light requirement.

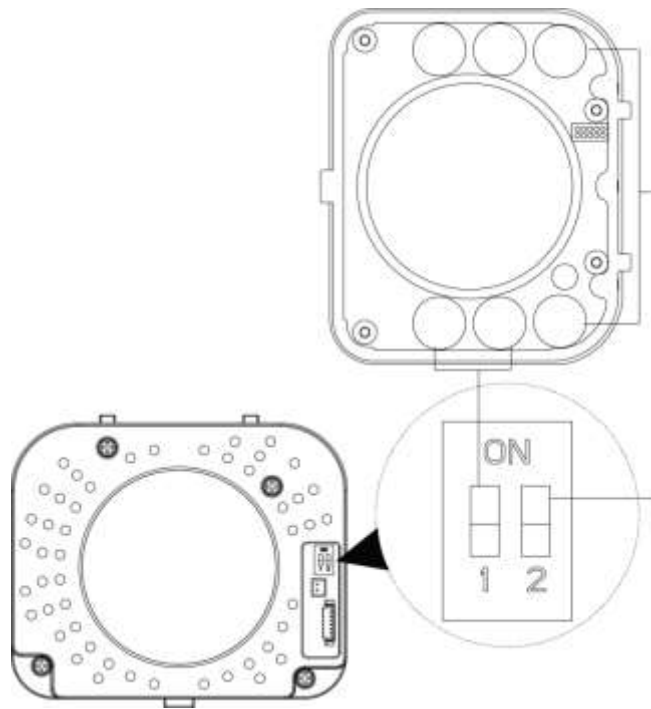


Figure 2-9

3 Installation Guide of Bracket

3.1 Install General Bracket

Protective housing can be installed with a bracket, which owns general threaded holes. Threaded holes (M6) of general bracket on protective housing are shown in Figure 3-1.

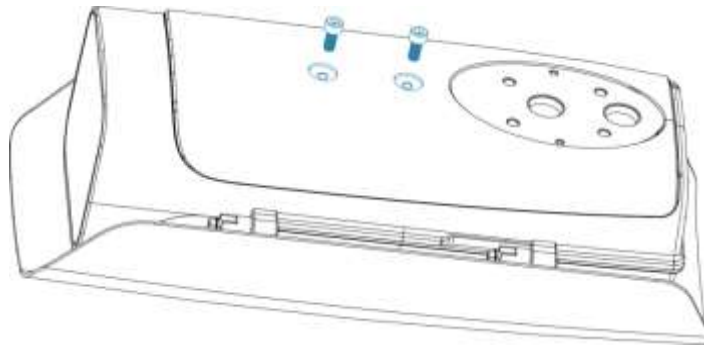


Figure 3-1

3.2 Install Special Bracket

Special bracket means integration of housing and bracket, and thus supports concealed wiring.

Step 1 Wiring harness goes through the bracket, as shown in Figure 3-2.

Step 2 Fasten the bracket onto protective housing, as shown in Figure 3-3.

Step 3 Put a waterproof joint onto wiring harness, and tighten the waterproof joint, as shown in Figure 3-4.

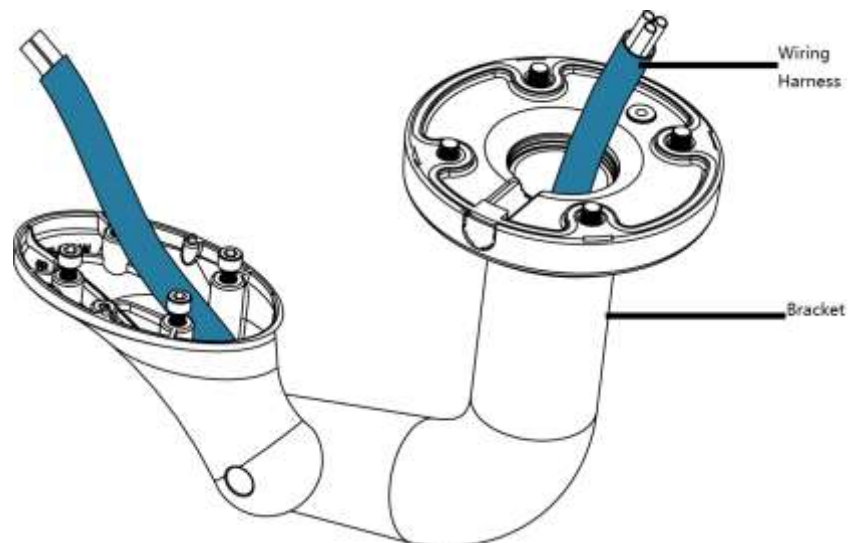


Figure 3-2

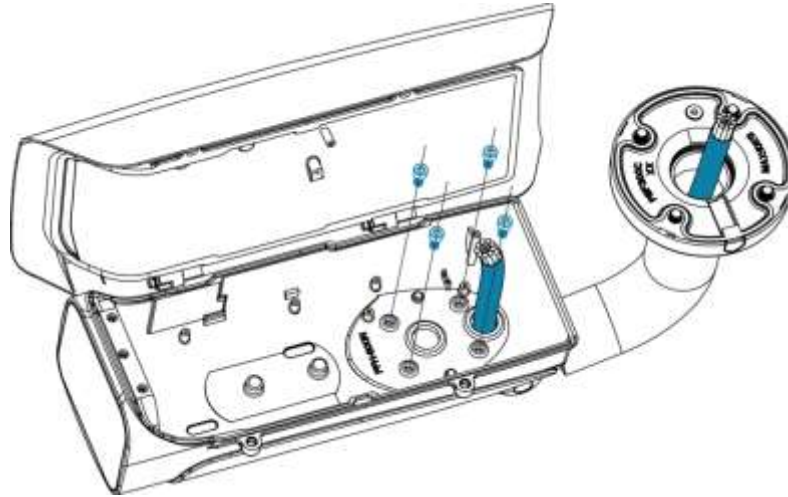


Figure 3-3

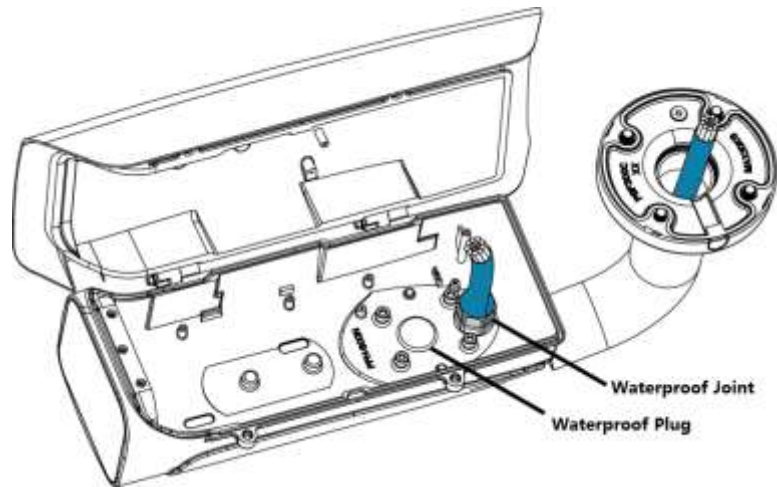



Figure 3-4



Caution

During wiring, it is suggested that wiring harness should divide into signal harness and power harness, go out of two holes respectively and connect waterproof joints. If all wires goes out of one hole and connect waterproof joint, it is suggested that the other hole should be covered with waterproof plug, in order to prevent water leakage.

3.3 Bracket Model

 Note

- The bracket is not included in basic configuration of the housing. Please buy it if it is needed.
- Anti-corrosion protective housing shall be matched with specific anti-corrosion bracket.

Please refer to Table 3-1 for bracket models corresponding to all installation and hanging modes.

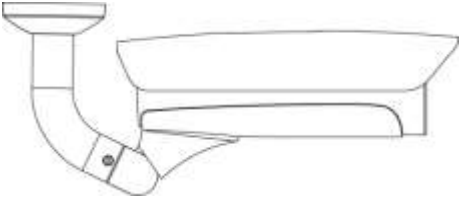
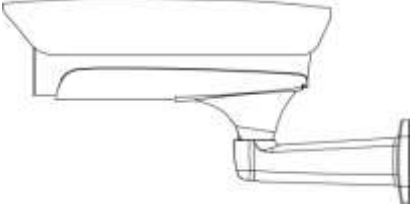


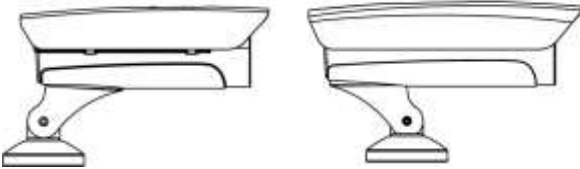

Hanging Mode	Schematic Diagram	Bracket Model
Ceiling installation		DH-PFB600W
Wall installation		DH-PFB604W
Plane installation		DH-PFA162
Cross-bar installation		DH-PFA150+DH-PFA162
Vertical installation 1	<p style="text-align: center;">Front Installation Reverse Installation</p> 	DH-PFB601W
Vertical installation 2		DH-PFB601W+DH-PFA112 (200mm) or DH-PFA113 (400mm)

Table 3-1

Technical Specification

Product Model	DH-PFH610N	DH-PFH610A	DH-PFH610N-H	DH-PFH610A-H
Product Size(LxWxH)	404mm×164mm×132mm			
Max. Size of Camera (LxWxH)	255mm×90mm×83mm		255mm×90mm×70.5mm or 215mm×90mm×83mm	
Window Area	100mm×80mm	Φ60mm	100mm×80mm	Φ60mm
Weight	2.5kg		2.7kg	
Material	AL + PC			
Protection Level	IP67			
Installation Environment	Indoor/outdoor			
Working Temperature	-30℃~+60℃		-40℃~+60℃	
Working Humidity	<90%, non-condensation			
Working Voltage	N/A		AC 24V	
Working Frequency	N/A		50/60Hz	
Rated Power	N/A		30W	
Auto Temperature Control Range (Heating)	N/A		ON: 5±5℃ OFF: 15±5℃	
Auto Temperature Control Range (Cooling)	N/A		ON: 37±5℃ OFF: 20±5℃	
Infrared Distance	N/A			
White Light Distance	N/A			
Anti-corrosion	N/A	YES	N/A	YES
Wiper	N/A			
Vandal Resistance	N/A	YES	N/A	YES

Product Model	DH-PFH610N-IR	DH-PFH610A-IR	DH-PFH610N-LED	DH-PFH610N-IR-W	DH-PFH610N-W
Product Size(LxWxH)	404mm×164mm×132mm			404mm×164mm×175mm	
Max. Size of Camera (LxWxH)	255mm×90mm×70.5mm or 215mm×90mm×83mm				
Window Area	Φ60mm			100mm×80mm	
Weight	3.0kg		3.5kg	3.0g	
Material	AL + PC				
Protection Level	IP67			IP66	
Installation Environment	Indoor/outdoor				

Working Temperature	-40°C ~ +60°C			
Working Humidity	< 90%, non-condensation			
Working Voltage	AC 24V			
Working Frequency	50/60Hz			
Rated Power	55W	55W	58W	32W
Auto Temperature Control Range (Heating)	ON: 5±5°C OFF: 15±5°C			
Auto Temperature Control Range (Cooling)	ON: 37±5°C OFF: 20±5°C			
Infrared Distance	0m~100m	N/A	0m~100m	N/A
White Light Distance	N/A	0m~60m	N/A	
Anti-corrosion	N/A	YES	N/A	
Wiper	N/A		YES	
Vandal Resistance	N/A	YES	N/A	



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