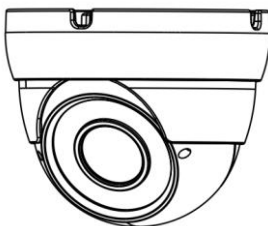
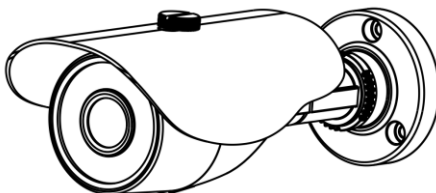


High-Resolution IR Camera User Manual



WBXHDD28127P4W(G)

WBXHDD287P4W(G)

WBXHDB28127P4W(G)

WBXHDB367P4W(G)

WBXHDD28121P4W(G)

WBXHDD281P4W(G)

WBXHDB28121P4W(G)

WBXHDB361P4W(G)

If you have any questions, please
contact your ADI salesperson.








Precautions

Precautions

Fully understand this document before using this device, and strictly observe rules in this document when using this device. If you install this device in public places, provide the tip "You have entered the area of electronic surveillance" in an eye-catching place. Failure to correctly use electrical products may cause fire and severe injuries. To prevent accidents, carefully read the following context:

Symbols

This document may contain the following symbols whose meanings are described accordingly.

Symbol	Description
 DANGER	It alerts you to fatal dangers which, if not avoided, may cause deaths or severe injuries.
 WARNING	It alerts you to moderate dangers which, if not avoided, may cause minor or moderate injuries.
 CAUTION	It alerts you to risks. Neglect of these risks may cause device damage, data loss, device performance deterioration, or unpredictable results.
 TIP	It provides a tip that may help you resolve problems or save time.
 NOTE	It provides additional information.

DANGER

To prevent electric shocks or other dangers, keep power plugs dry and clean.

WARNING

- Strictly observe installation requirements when installing the device. The manufacturer shall not be held responsible for device damage caused by users' non-conformance to these requirements.

- Strictly conform to local electrical safety standards and use power adapters that are marked with the LPS standard when installing and using this device. Otherwise, this device may be damaged.
- Use accessories delivered with this device. The voltage must meet input voltage requirements for this device.
- If this device is installed in places with unsteady voltage, ground this device to discharge high energy such as electrical surges in order to prevent the power supply from burning out.
- When this device is in use, ensure that no water or any liquid flows into the device. If water or liquid unexpectedly flows into the device, immediately power off the device and disconnect all cables (such as power cables and network cables) from this device.
- Do not focus strong light (such as lighted bulbs or sunlight) on this device. Otherwise, the service life of the image sensor may be shortened.
- If this device is installed in places where thunder and lightning frequently occur, ground the device nearby to discharge high energy such as thunder strikes in order to prevent device damage.

**CAUTION**

- Avoid heavy loads, intensive shakes, and soaking to prevent damages during transportation and storage. The warranty does not cover any device damage that is caused during secondary packaging and transportation after the original packaging is taken apart.
- Protect this device from fall-down and intensive strikes, keep the device away from magnetic field interference, and do not install the device in places with shaking surfaces or under shocks.
- Clean the device with a soft dry cloth. For stubborn dirt, dip the cloth into slight neutral cleanser, gently wipe the dirt with the cloth, and then dry the device.
- Do not jam the ventilation opening. Follow the installation instructions provided in this document when installing the device.
- Keep the device away from heat sources such as radiators, electric heaters, or other heat equipment.
- Keep the device away from moist, dusty, extremely hot or cold places, or places with strong electric radiation.
- If the device is installed outdoors, take insect- and moisture-proof measures to avoid circuit board corrosion that can affect monitoring.
- Remove the power plug if the device is idle for a long time.
- Before unpacking, check whether the fragile sticker is damaged. If the fragile sticker is damaged, contact customer services or sales personnel. The manufacturer shall not be held responsible for any artificial damage of the fragile sticker.

Special Announcement

All complete products sold by the manufacturer are delivered along with nameplates, operation instructions, and accessories after strict inspection. The manufacturer shall not be held responsible for counterfeit products.

This manual may contain misprints, technology information that is not accurate enough, or product function and operation description that is slightly inconsistent with the actual product. The manufacturer will update this manual according to product function enhancement or changes and regularly update the software and hardware described in this manual. Update information will be added to new versions of this manual without prior notice.

This manual is only for reference and does not ensure that the information is totally consistent with the actual product. For consistency, see the actual product.

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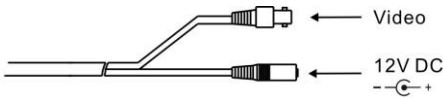
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1 Hardware Connection

Figure 1-1 shows the power and video cables.

Figure 1-1 Power and video cables



Connect the BNC connector of the power or video cable to a video signal cable and connect the other connector to a low-voltage power cable (12V DC). After installing the camera, directly connect the video cable and power cable.



NOTE

The BNC video output interface is used to emit composite video signals. Monitors with a resolution of higher than 800 TVL are recommended.

2 Eyeball Camera

2.1 Dimensions

Figure 2-1 shows the camera dimensions of WBXHDD287P4W(G) and WBXHDD281P4W(G).

Figure 2-1 Dimensions of WBXHDD287P4W(G) and WBXHDD281P4W(G) (unit: mm)

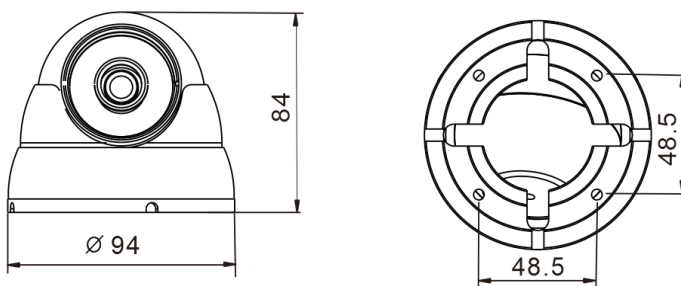
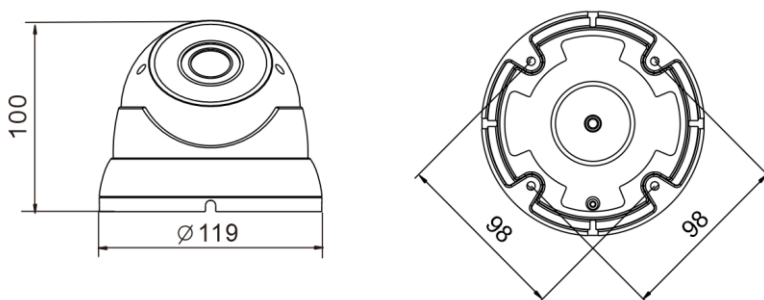


Figure 2-2 shows the camera dimensions of WBXHDD28121P4W(G) and WBXHDD28127P4W(G).

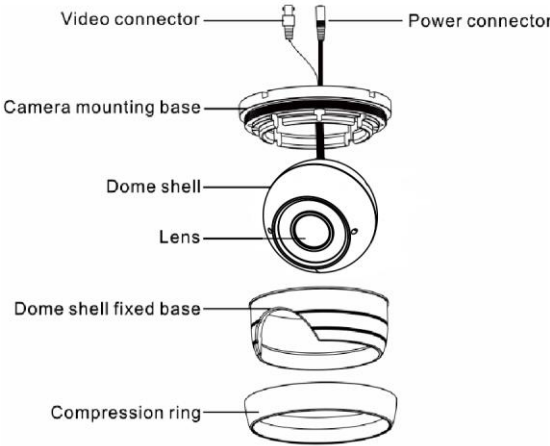
Figure 2-2 Dimensions of WBXHDD28121P4W(G) and WBXHDD28127P4W(G) (unit: mm)



2.2 Device Installation

- Step 1 Open a package, take out the camera, unscrew the camera compression ring, and disassemble the camera, the camera components is shown in Figure 2-3.

Figure 2-3 Camera components



- Step 2 Use the base as drill template, drill holes on the ceiling or wall, and reserve the cable entries of the video/power cables.

Figure 2-4 and Figure 2-5 shows the dimensions of the camera mounting base.

Figure 2-4 Dimensions of the WBXHDD287P4W(G) and WBXHDD281P4W(G) mounting base

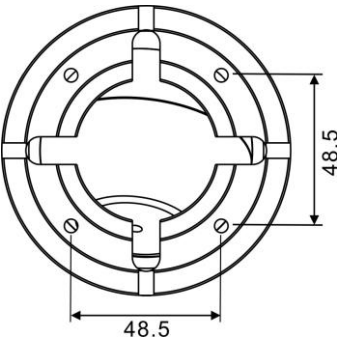
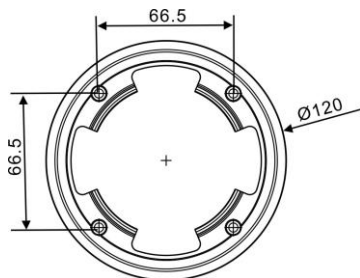


Figure 2-5 Dimensions of the WBXHDD28121P4W(G) and WBXHDD28127P4W(G) mounting base

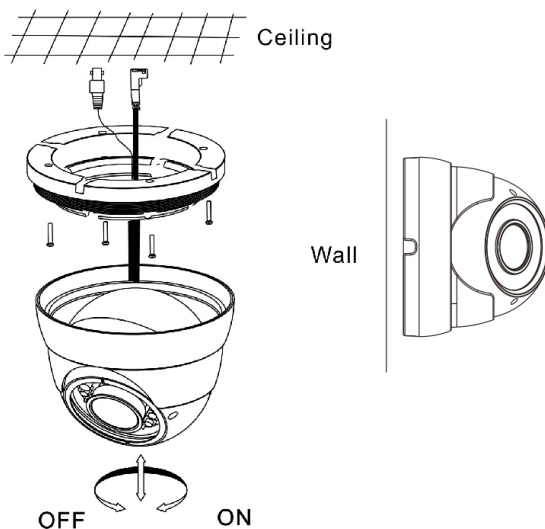


Step 3 Nail swell plastic buttons in to drilled holes, and fix the camera mounting base to the ceiling (or wall) by use of self-tapping screws.

Step 4 Install the compression ring, the dome shell, and the dome shell fixed base on the camera mounting base.

Figure 2-6 shows camera installation.

Figure 2-6 Camera installation



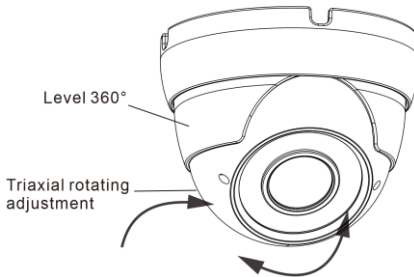
Step 5 Turn the main body, adjust the lens direction, and note the position of the dome cover window.

**NOTE**

- Connect the BNC connector of the power or video cable to a video signal cable and connect the other connector to a low-voltage power cable. After installing the camera, directly connect the video cable and power cable.
- Adjust the position of the camera by triaxial rotation: rotating horizontally, rotating up and down, and performing lens axial rotation, and adjust the camera direction and lens alignment target.

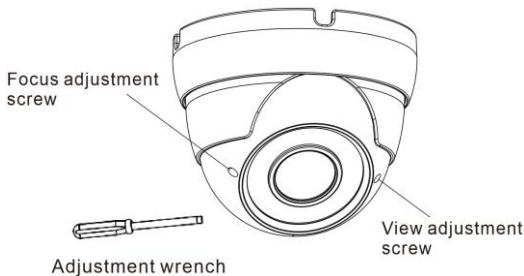
Figure 2-7 shows monitoring direction adjustment.

Figure 2-7 Monitoring direction adjustment



- Step 6 Adjust view angle and focal length by using an adjusting tool, as shown in Figure 2-8.
(This step is only for WBXHDD28127P4W and WBXHDD28127P4G)

Figure 2-8 View angle and focal length adjustment

**NOTE**

Set the zoom and focus value in UTC page of PTZ function of DVR user interface to adjust the view angle and focal length when a Motorized lens camera is connected to the DVR
(Only for WBXHDD28121P4W and WBXHDD28121P4G).

- Step 7 Use soft cloth to wipe the lens front glass which is likely to be soiled due to installation for cleaning the camera, and complete product installation and debugging.

---End

3 Bullet camera

3.1 Dimensions

Figure 3-1 shows the dimensions of WBXHDB28121P4W(G) and WBXHDB28127P4W(G).

Figure 3-1 dimensions of WBXHDB28121P4W(G) and WBXHDB28127P4W(G) (unit: mm)

Figure 3-2

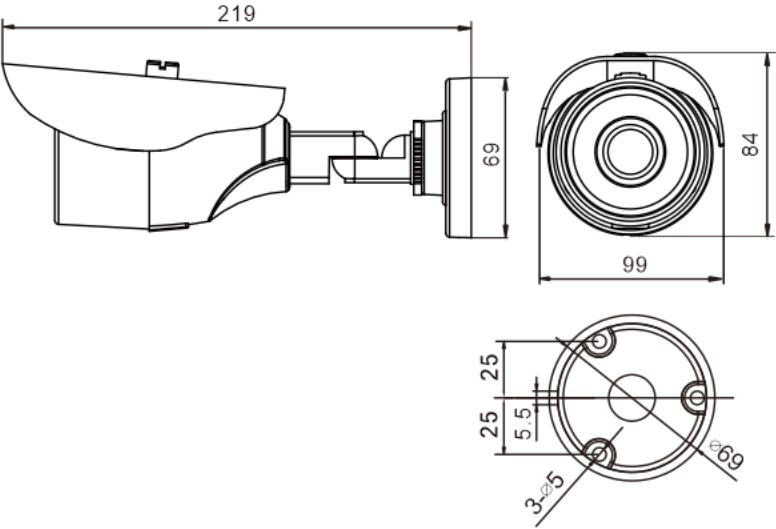
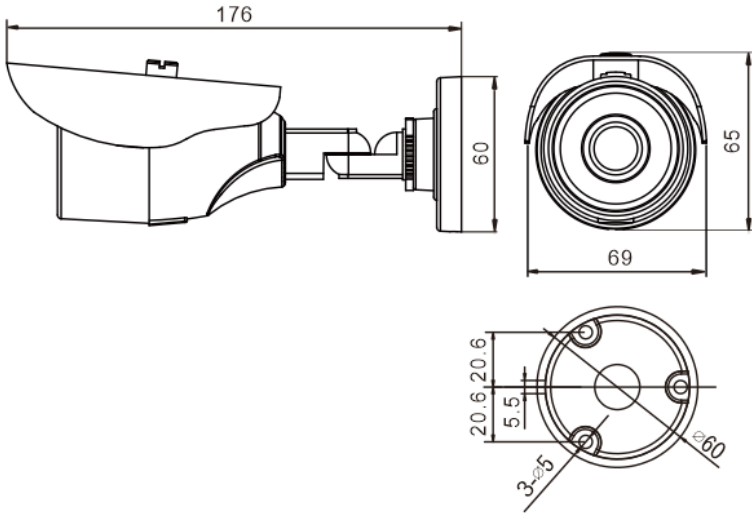


Figure 3-3 shows the dimensions of WBXHDB367P4W(G) and WBXHDB361P4W(G).

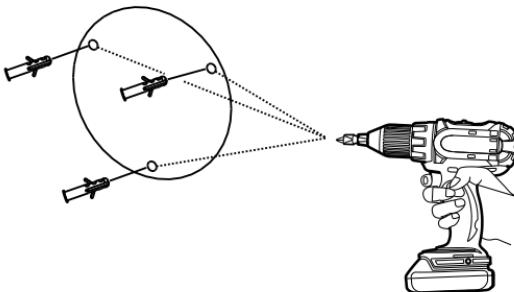
Figure 3-3 dimensions of WBXHDB367P4W(G) and WBXHDB361P4W (G) (unit: mm)



3.2 Device Installation

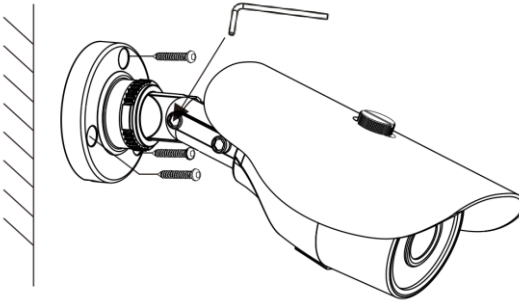
Step 1 Stick the Installation location sticker on the ceiling or wall, Drill three holes based on the marks on the sticker. Drive the swell plastic buttons into the holes, as shown in Figure 3-4.

Figure 3-4 Drilling holes



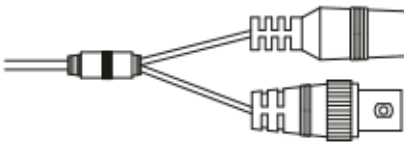
Step 2 Loosen the locking screw with L-Hex Wrench and rotate the camera, then attach the camera to the surface, as shown in Figure 3-5.

Figure 3-5 Installing camera



Step 3 Connect the Power and video cable, as shown in Figure 3-6.

Figure 3-6 Connecting cable



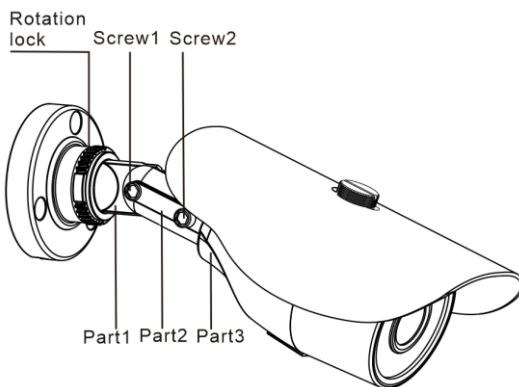
Step 4 Loosen the locking screw with L-Hex Wrench, rotate the camera to adjust the position and image so that the camera faces the monitored area, then tighten the locking screw, as shown in Figure 3-7.

To rotate the part 1 of the camera for 360 °, loosen rotation lock.

To rotate the part 2 of the camera for 180 °, loosen screw 1.

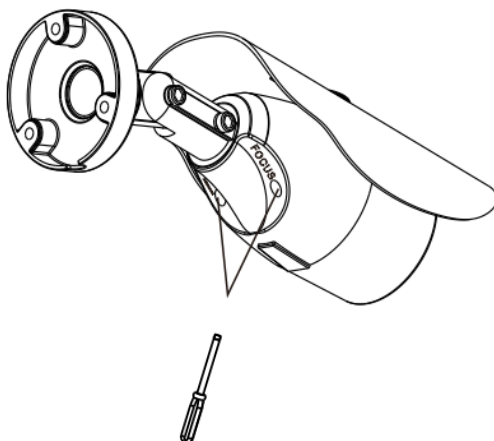
To rotate the part 3 of the camera for 360 °, loosen screw 2.

Figure 3-7 Adjusting monitored area



Step 5 Adjust zoom & focus using an focusing tool, as shown in Figure 3-8. (This step is only for WBXHDB28127P4W and WBXHDB28127P4G)

Figure 3-8 Adjusting zoom & focus



NOTE

Set the zoom and focus value in UTC page of PTZ function of DVR user interface to adjust the view angle and focal length when a Motorized lens camera is connected to the DVR (Only for WBXHDD28121P4W and WBXHDD28121P4G).

----End

4 Technical Specifications

Table 4-1 lists the technical specifications of the camera.

Table 4-1 Technical specifications

Specifications	WBXHDD287P4W WBXHDD287P4G	WBXHDB367P4W WBXHDB367P4G
CAMERA		
Image Sensor	1/4”CMOS	
Signal System	PAL/NTSC	
Min. illumination	0.05Lux @(F1.2,AGC ON) ; ON); 0Lux@(IR LED ON)	
S/N Ratio	≥50dB	
Day & Night	ICR	
Shutter Speed	PAL:1/50-1/50000, NTSC:1/60-1/60000	
Wide Dynamic Range	dWDR	
Digital Noise Reduction	2D	
Lens	2.8mm	3.6mm
FOV	90 °	85 °
IR LED	18pcs	
IR Wavelength	850nm	
IR Range	20m	
OSD Joystick	Support	
Up the Coax	Support	
IMAGE		
Effective Resolution	1280x720	
Frame	PAL:25fps ,NTSC:30fps	
VIDEO OUTPUT		
Max Distance	75-5 300m	
Video Output	AHD/TVI/CVI/CVBS	
GENERAL		

Specifications	WBXHDD287P4W WBXHDD287P4G	WBXHDB367P4W WBXHDB367P4G
Power Supply	DC12V ±10%	
Power Consumption	3.5W(Max)	
Operating Temperature	-25 ℃ ~ 55 ℃ (-13 ℉ ~ 131 ℉)	
Operating Humidity	0% - 85% RH	
Ingress Protection	IP66	
Material	Aluminium Alloy	
Product Dimensions	Φ94 ×84mm	Φ176 ×60mm
Product Weight	360g	300g

Specifications	WBXHDD281P4W WBXHDD281P4G	WBXHDD28121P4W WBXHDD28121P4G
CAMERA		
Image Sensor	1/2.9”Sony CMOS	
Signal System	PAL/NTSC	
Min. illumination	0.01Lux@(F1.2,AGC ON) ; 0Lux@(IR LED ON)	
S/N Ratio	≥50dB	
Day & Night	ICR	
Shutter Speed	PAL:1/50-1/50000, NTSC:1/60-1/60000	
Wide Dynamic Range	dWDR	
Digital Noise Reduction	2D	
Lens	2.8mm	Motorized 2.8-12mm
FOV	90 °	90 °35 °
IR LED	18pcs	24pcs
IR Wavelength	850nm	
IR Range	20m	40m
OSD Joystick	Support	
Up the Coax	Support	
IMAGE		
Effective Resolution	1920x1080	
Frame	PAL:25fps ,NTSC:30fps	
VIDEO OUTPUT		
Max Distance	75-5 300m	
Video Output	AHD/TVI/CVI/CVBS	
GENERAL		
Power Supply	DC12V ±10%	
Power Consumption	3.5W(Max)	4W(Max)
Operating Temperature	-25 ℃ ~ 55 ℃ (-13 ℉ ~ 131 ℉)	
Operating Humidity	0% - 85% RH	
Ingress Protection	IP66	
Material	Aluminium Alloy	
Product Dimensions	Φ94 ×84mm	Φ119 ×100mm
Product Weight	360g	650g

Specifications	WBXHDB361P4W WBXHDB361P4G	WBXHDB28121P4W WBXHDB28121P4G
CAMERA		
Image Sensor	1/2.9”Sony CMOS	
Signal System	PAL/NTSC	
Min. illumination	0.01Lux@(F1.2,AGC ON) ; 0Lux@(IR LED ON)	
S/N Ratio	≥50dB	
Day & Night	ICR	
Shutter Speed	PAL:1/50-1/50000, NTSC:1/60-1/60000	
Wide Dynamic Range	dWDR	
Digital Noise Reduction	2D	
Lens	3.6mm	Motorized 2.8-12mm
FOV	85 °	90 °35 °
IR LED	18pcs	24pcs
IR Wavelength	850nm	
IR Range	20m	40m
OSD Joystick	Support	
Up the Coax	Support	
IMAGE		
Effective Resolution	1920x1080	
Frame	PAL:25fps ,NTSC:30fps	
VIDEO OUTPUT		
Max Distance	75-5 300m	
Video Output	AHD/TVI/CVI/CVBS	
GENERAL		
Power Supply	DC12V ±10%	
Power Consumption	3.5W(Max)	4W(Max)
Operating Temperature	-25 ℃ ~ 55 ℃ (-13 ℉ ~ 131 ℉)	
Operating Humidity	0% - 85% RH	
Ingress Protection	IP66	
Material	Aluminium Alloy	
Product Dimensions	Φ176×60mm	Φ220×69mm
Product Weight	300g	520g

Specifications	WBXHDD28127P4W WBXHDD28127P4G	WBXHDB28127P4W WBXHDB28127P4G
CAMERA		
Image Sensor	1/4”CMOS	
Signal System	PAL/NTSC	
Min. illumination	Color:0.05Lux@(AGC ON) ; B/W:0Lux@(IR LED ON)	Color:0.01Lux@(F1.2,AGC ON) ; B/W:0Lux@(IR LED ON)
S/N Ratio	≥50dB	
Day & Night	ICR	
Shutter Speed	PAL:1/50-1/50000, NTSC:1/60-1/60000	
Wide Dynamic Range	dWDR	
Digital Noise Reduction	2D	
Lens	2.8mm-12mm	
FOV	90 °~35 °	
IR LED	24pcs	
IR Wavelength	850nm	
IR Range	25m~35m	40m
OSD Joystick	Support	
Up the Coax	Support	
IMAGE		
Effective Resolution	1280*720	1920*1080
Frame	PAL:25fps, NTSC:30fps	
VIDEO OUTPUT		
Max Distance	75-5 300m	
Video Output	AHD/ TVI/CVI	
GENERAL		
Power Supply	DC12V ±10%	
Power Consumption	4W(Max)	4W(Max)
Operating Temperature	-25 ℃ ~ 55 ℃ (-13 ℉ ~ 131 ℉)	
Operating Humidity	0% - 85% RH	0% - 85% RH
Ingress Protection	IP66	
Material	Aluminium Alloy	
Product Dimensions	Φ119×100mm	Φ228×69mm
Product Weight	650g	520g