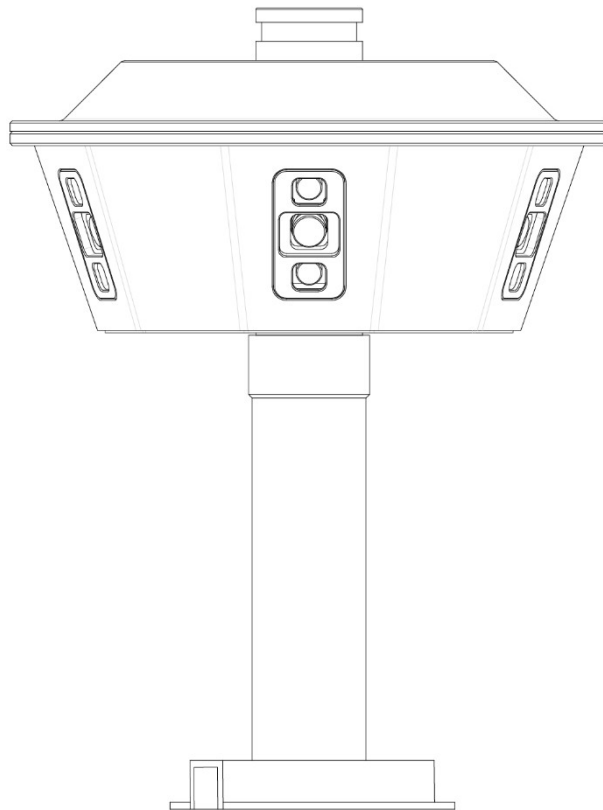


FIVE LENS PANORAMIC EXPLOSION PROOF CAMERA

WHITE LIGHT FULL-COLOR OR INFRARED



WDM-IP52360B/P

304/316L stainless steel steel

Install and operation instruction

WDM-IP52360B/P

360° Panoramic Explosion-Proof IP POE Camera

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General information about operating instructions

Thank you for choosing Wardmay products. We develop and manufacture our products with the greatest possible care. If you have any questions with regard to the product, putting it into service, or its operations, or should the product not meet your expectations, please feel free to talk to us about it at any time.

Please read the operating manual in full and attentively before using the product. It must be retained for later use. Our products are subject to continuous further development.

1、Product description

WDM-IP52360B/P is a panoramic explosion-proof camera that collects video data from different directions through 5 lenses, completes video splicing via AI chip, and outputs with a single IP channel. Widely used in marine, vessel, offshore platform, public square, mine, airport, port, high speed railway station..

The main characteristics are as follows:

- ❖ Adopt 304/316L stainless steel material ensures its own durability and can also cope with more complex working environments
- ❖ The camera glass is made of thick and highly transparent tempered glass which can withstand stronger impacts;
- ❖ Adopt Sony ultra-low illumination chip, combined with F1.0 lens, which can achieve full color starlight image;
- ❖ Adopting multi lens chip internal splicing imaging output, low latency, low power consumption, and no obvious seams;
- ❖ Front end multi-channel video splicing into one video upload greatly reduces transmission bandwidth and storage;
- ❖ Support multiple display modes, such as panoramic cruise control and panoramic overlay mode;
- ❖ Support video real-time viewing through direct connection to a monitor via HDMI port;
- ❖ Support POE connection to POE NVR or POE switch for power supply and network;
- ❖ Following the explosion-proof design concept, the whole camera adopts isolation design to avoid the phenomenon of equipment being unable to work normally due to electric shock

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caused by the housing.

1.1、 Important information about the product

Make certain based on the information on the monitor rating plate that the device type matches these operating instructions. For further instructions, please consult the operating instructions for the connected cameras or video control units.

1.2、 Technical data

Specification	
Product Name	2MP Five Lens Single IP Marine Ship High-End Splicing Multi View Panoramic Camera
Model No.	WDM-IP52360B/P
System Function	
IR Leds	10pcs white light, radius=10-30m
Resolution and frame rate	Main Stream : 50Hz: 1920H*1080V@25fps 60Hz: 1920H*1080V@30fps Sub Stream 50Hz: 25fps 1920H*1080V 60Hz: 30fps 1920H*1080V
Video Compression	Panoramic : Main Stream: H.264/MJPEG, H.264 support Main/High Profile Sub Stream: H.264/MJPEG, H.264 support Main/High Profile
Audio	G.711ala/AAC
Smart Code	Low Bit Rate
Panoramic Camera	
Sensor Type	5pcs 1/2.8" Progressive Scan CMOS Sony IMX290 LQR-C.
Min.Illumination	0.0001Lux @(F1.2, AGC ON); 0 Lux with IR.
Lens	4mm / F1.91, Horizontal view angle 360°, Vertical angle 44°.
Noise Ratio	>52dB
3D Noise Reduction	Support
White Balance	Automatic
Gain Control	Automatic
Electronic Shutter	1/1-1/30,000s
Day & Night Mode	Automatic ICR to Color

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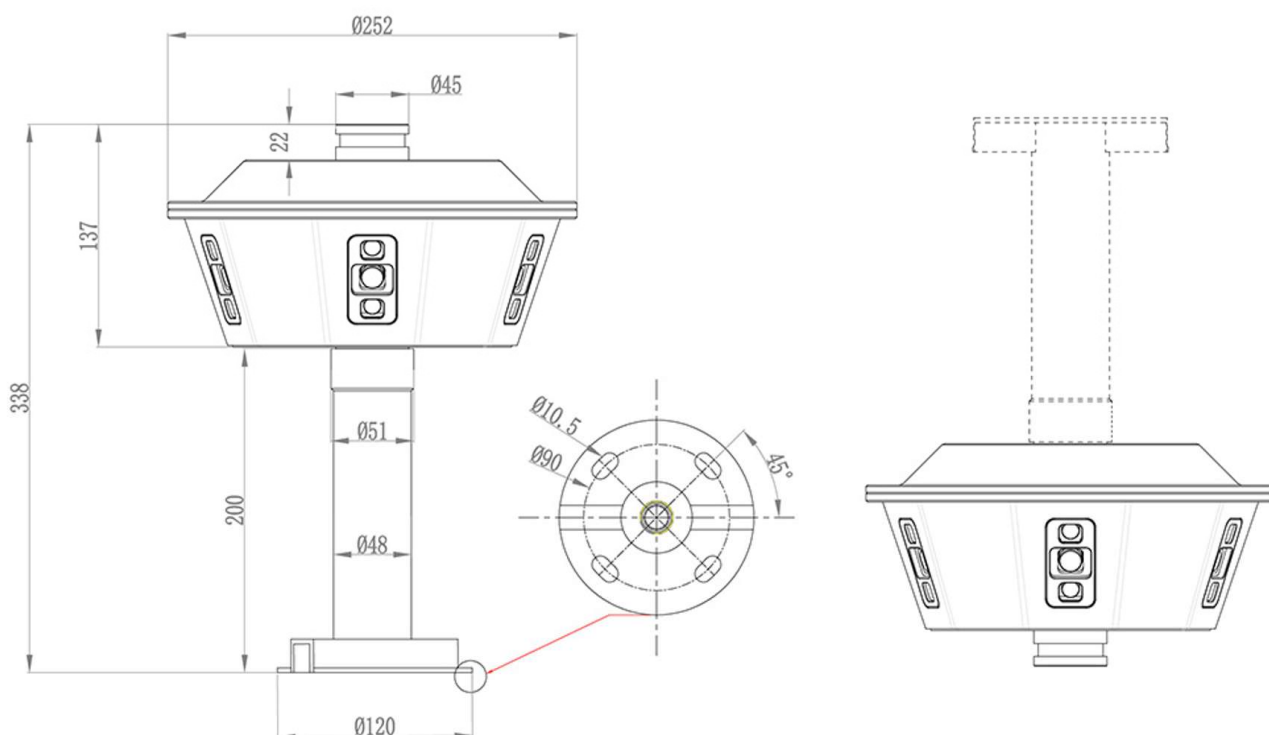
Smart Image Enhancement	Backlight compensation, digital wide dynamic range, strong light suppression, digital noise reduction, fog penetration, area exposure
Network	
Network Protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnp, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, UDP, IGMP, ICMP, DHCP, PPPoE, Bon jour
Application Programming Interface	Support Standard protocols ONVIF、Third party management platform access
Browser	Support IE8+, Chrome31-44, Firefox30-51 Browser
Safe Mode	Authorized username and password, MAC address binding, HTTPS encryption;
Interface	
Power Interface	DC12V/2A
Network Interface	RJ45 Port/POE, Adaptive 10M/100M/1000M
HDMI Interface	HDMI Support
Display Mode Network Interface	Support
Audio Input	1CH
SD Card	Built-in Micro SD Slot, Support Micro SD Card (Max 256G)
General	
Power Consumption	24W Max
Material	304/316L Stainless Steel
Installation	Bracket/Lifting mounting
Waterproof Level	IP68
Working Temperature and Humidity	-30°C~85°C; Humidity less than 90%
Equipment Dimension	ø252*136* (mm)
Packing Dimension	350*350*300(mm)
Weight	<8kg

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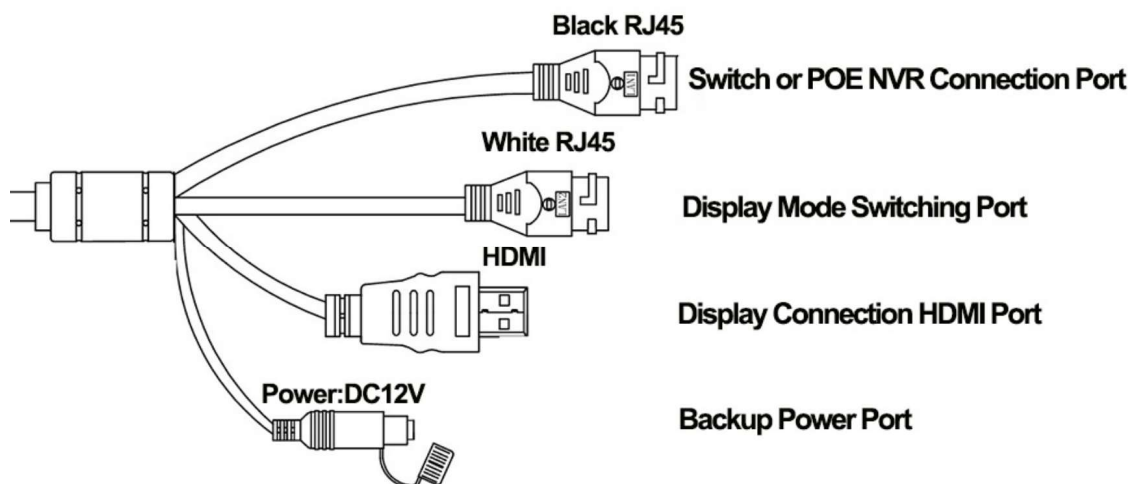
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1.3、Appearance and Installation Dimensions

All dimensions in mm



1.4、Cable Interface Introduction:



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2、Simple Operation Instruction

2.1 How to set different display modes for the camera

- ❖ Firstly, ensure that your computer and camera are on the same LAN, connect a 12V2A power supply to the backup power port of the camera, and connect the white RJ45 port to the LAN network switch.
- ❖ Secondly, add a gateway for the "0" network segment on your computer.
- ❖ Open the IE browser and enter the following entire IP address:
http://192.168.0.168/para_config.html, And press enter, as shown in the following interface:

影音参数配置界面

声音: ☒ 开 ☐ 关
声源定向: ☐ 开 ☒ 关
音影协同: ☒ 开 ☐ 关 (调整阈值[1~200] 5,10,20,30,50)
rtp音频频率: ☐ 44.1K ☐ 32K ☐ 16K ☒ 8K
麦克风阵列模式: ☐ 8 MIC ☒ 4 MIC

RTP硬件加速: ☒ 关闭 ☐ 打开

☒ 视频存到SD卡
每段录像存储的时间: ☐ 1分钟 ☒ 5分钟 ☐ 10分钟

☒ 音频去噪
去噪等级:
增益: ☒ 1倍 ☐ 2倍 ☐ 4倍 ☐ 8倍 ☐ 16倍

去混响
去混响: ☒ 开 ☐ 关
去混响增强: ☐ 0 ☐ 4 ☒ 8 ☐ 16

去混响
去混响: ☒ 开 ☐ 关
去混响增强: ☐ 0 ☐ 4 ☒ 8 ☐ 16

显示设置 (Display Settings)

显示模式: 参数:
分辨率: 4K
方向:
特写定位(0-31)

Display Mode → **Panoramic Cruise Mode** → **Panoramic Overlay Mode**

注意: "音频去噪"配置项在"提交"按钮执行之后,需重启摄像头装置后生效。

1. 声音开关: 摄像头可执行声音采集和传输,声音关闭后声音采集关闭,但不影响声源定向功能。
2. 声源定向开关: 声源定向功能关闭后,特写画面进入巡航操作;该功能打开后声源定向功能启动。
3. 音影协同开关: 本功能为辅助声源定向的"移动侦测"功能,关闭后"移动侦测"功能关闭,开启后可以辅助声源定向,提高定向准确性。
4. 视频存储SD卡开关: 开启后执行SD卡的视频流写入,关闭则不写入视频流到SD卡。SD写入为循环写入。

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- ❖ Select the display mode you want to set and submit it; After successful save, means setting is completed.
- ❖ Panoramic Cruise Mode:



- ❖ Panoramic Overlay Mode :



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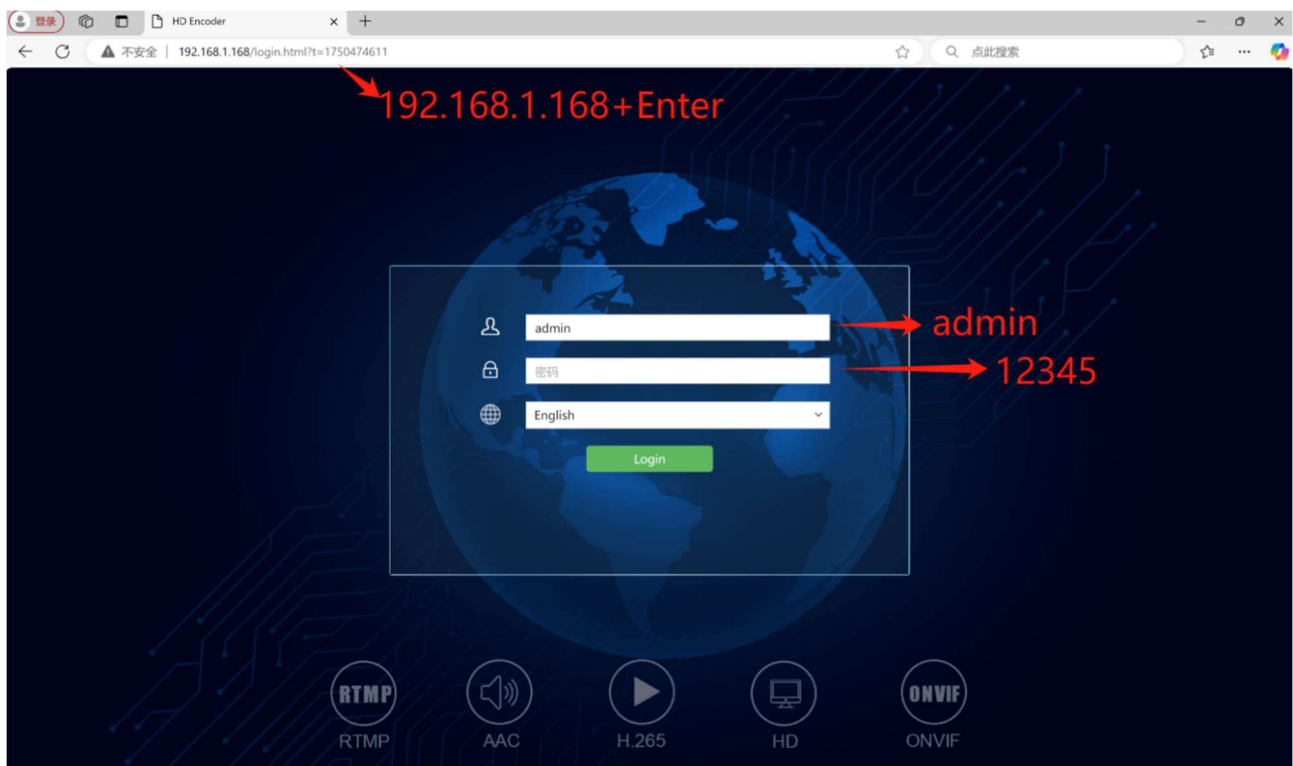
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2.2 How to change the default IP address of the camera:

❖ There are two power methods for this camera below. Please choose either method to supply power and network to the camera (ensure that the computer and camera are in the same local LAN network, and also that a gateway for the "1" network segment has been pre added to the computer)

1. Use a DC12V/2A power supply to power the camera and connect the black RJ45 port to the network switch;
2. Connect the black RJ45 port directly to the POE network switch with a network cable for power supply and network;

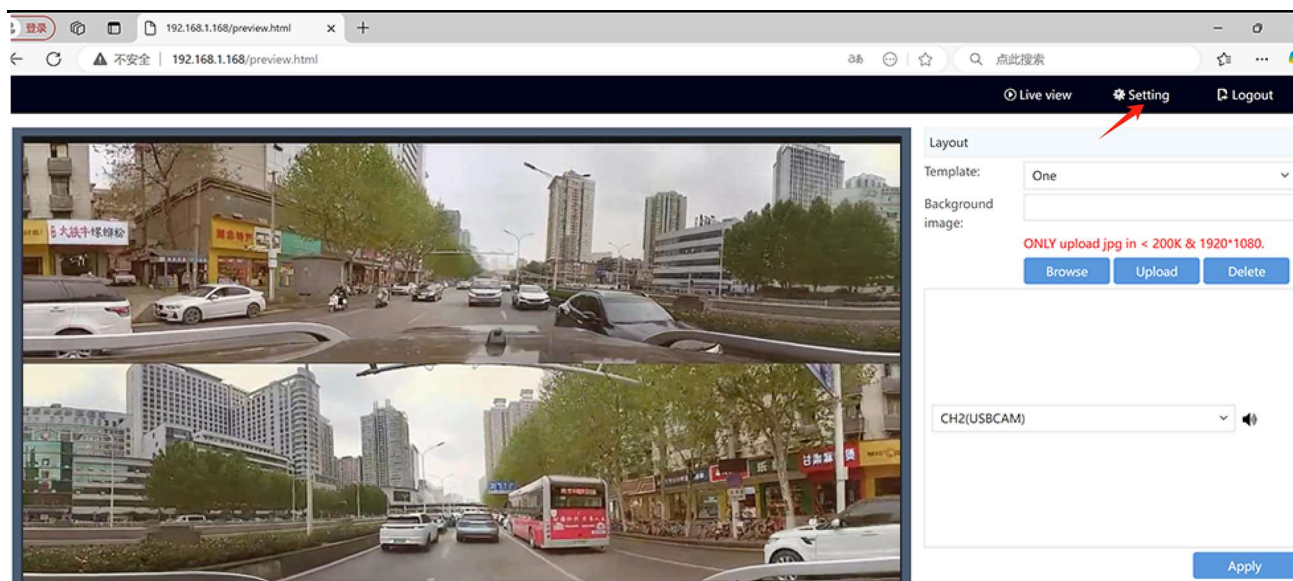
Enter 192.168.1.168 in the IE browser and press enter, as shown below:



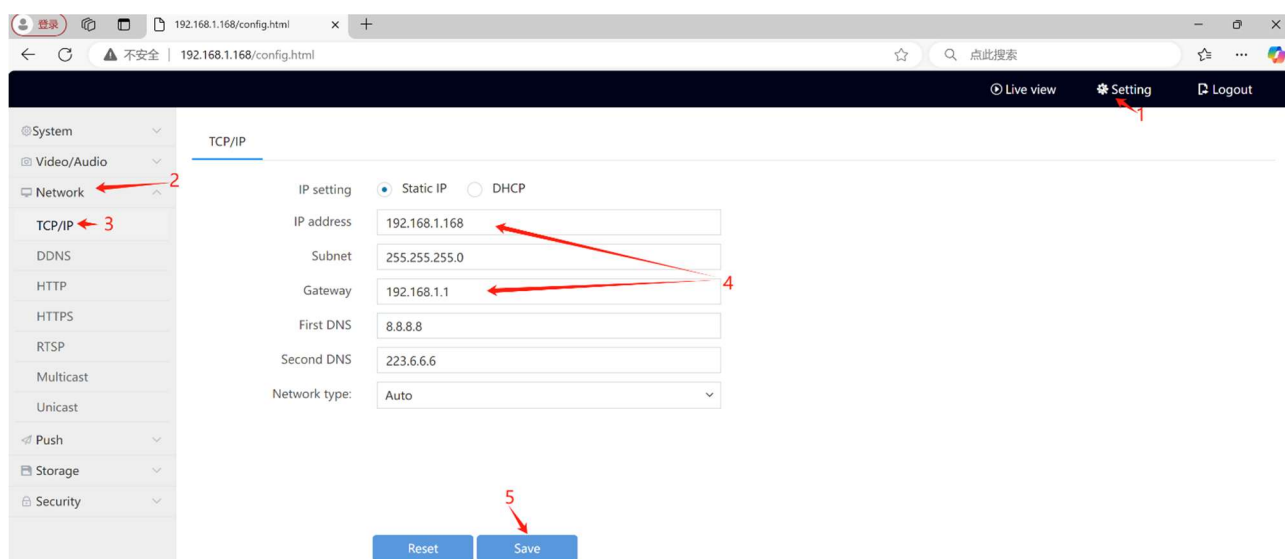
❖ Enter user name: admin and password: 12345, as shown below:

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❖ Click "Settings" - "Network" - "TCP/IP"; As shown in the following figure:



❖ Set the IP address and corresponding gateway you need, then Save (note: Do not set the same IP address to the modify the display mode);

2.3 How to add a camera to Hikvision's POE NVR?

❖ Firstly, Hikvision's POE NVR has internal and external IP addresses, corresponding to different gateways; External IP is connected to the Internet; The internal IP address is matched and connected to the camera, as shown in the following figure:

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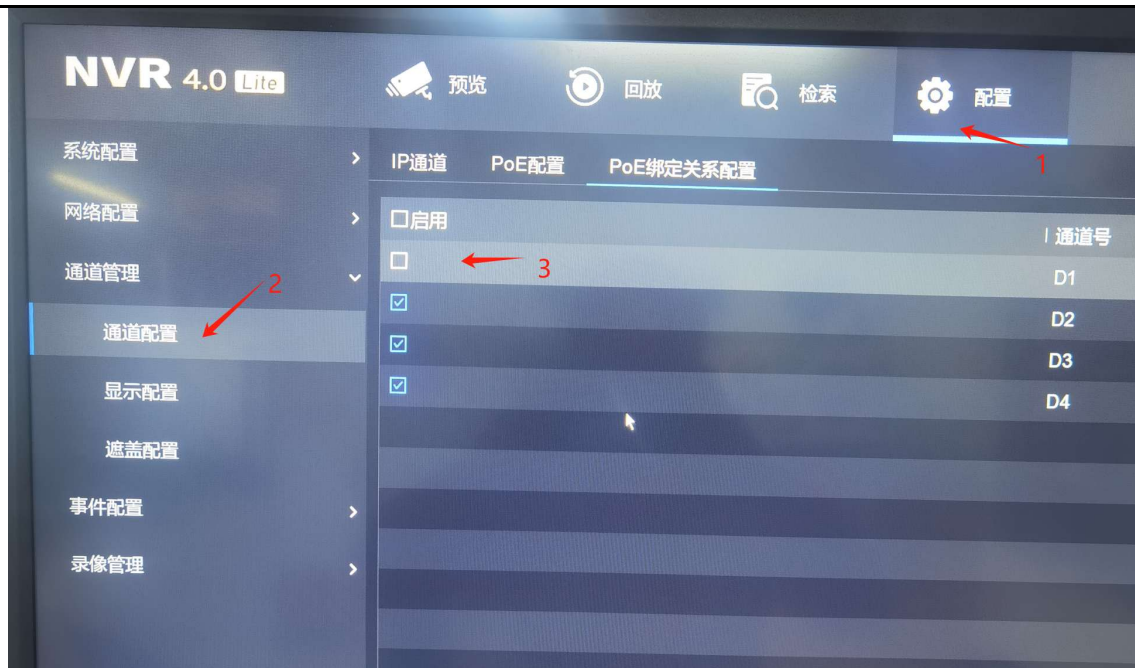
360° Panoramic Explosion-Proof IP POE Camera



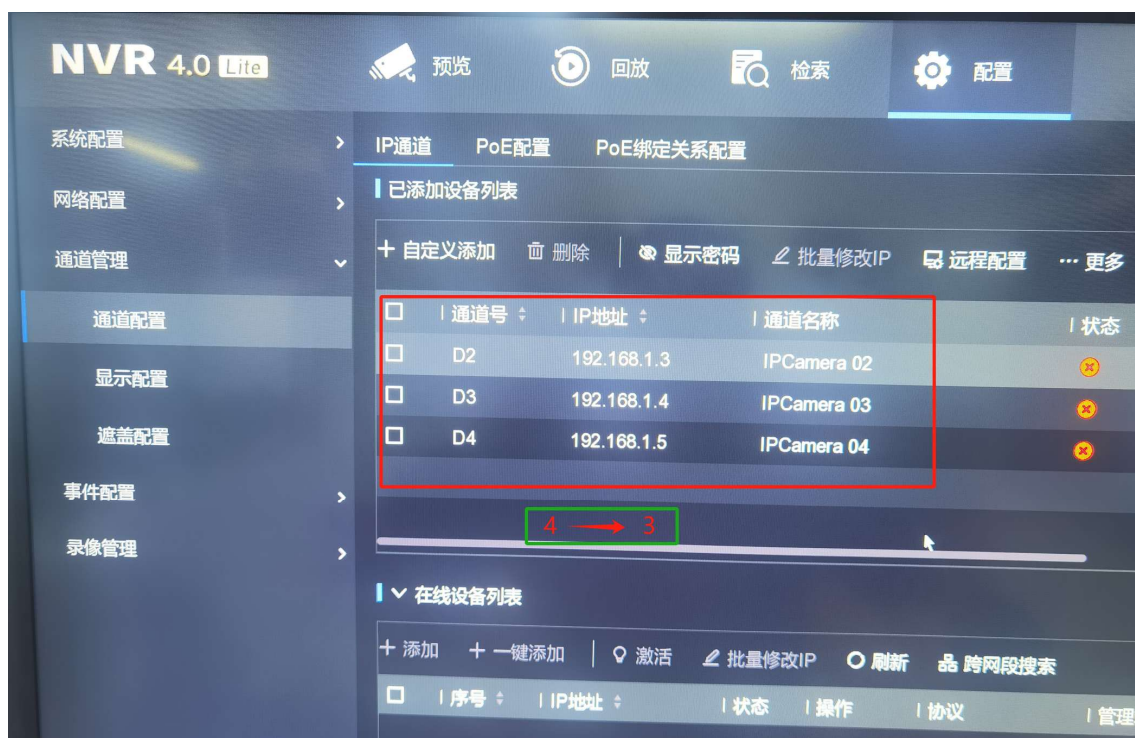
- ❖ Secondly, if we want to smoothly add the camera to Hikvision's POE NVR through plug and play, we need to first check the internal IP address and gateway, and then modify the camera's IP address and gateway to the same IP address as one of the ports in the internal channel according to the operation 2.2. Note that the camera's network port must also be plugged into the corresponding modified port, and enter the camera's default password.
- ❖ In addition, we can also add cameras to POE NVRs by modifying the IP address automatically bound inside the NVR to be the same with the default IP address of the camera; First unbind one of the ports, as shown in the figure:

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- ❖ Click on "Configuration" - "Channel Configuration" - "Uncheck Channel 1" - click "Apply" on POE NVR, as shown in the following figure:



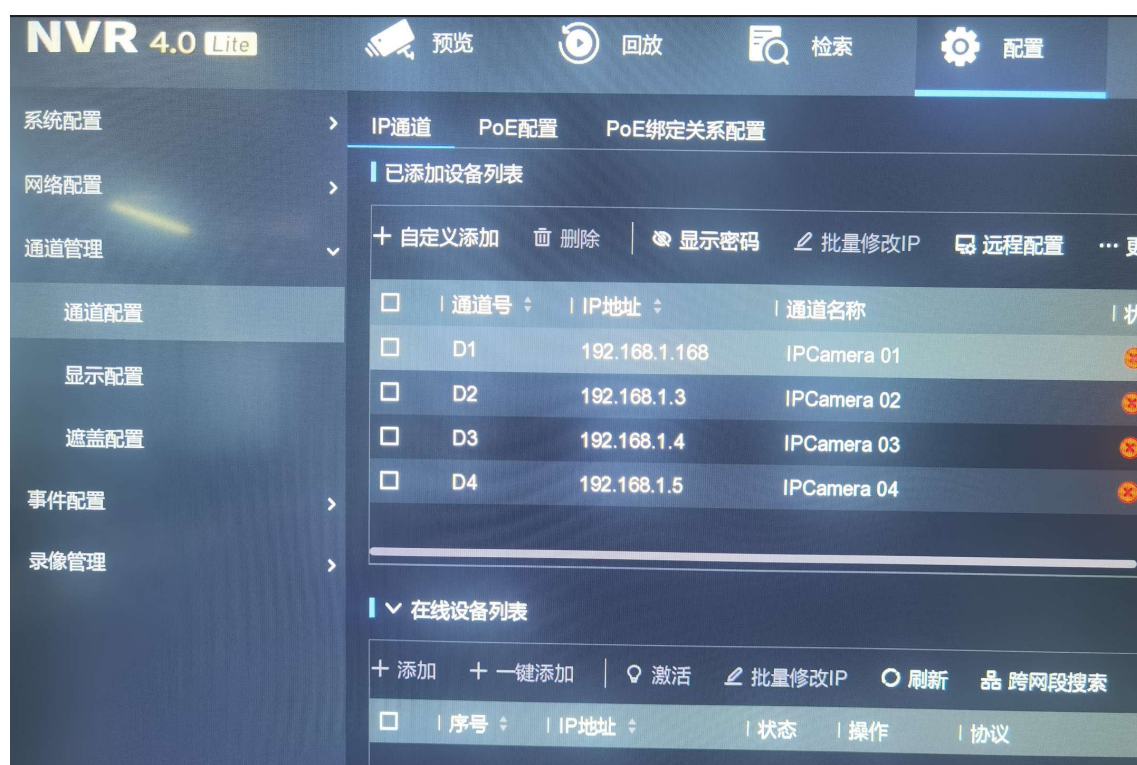
- ❖ Then, click on "Custom Add" - enter "192.168.1.168" - enter user name "admin" - enter "password" - click on "Add"

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❖ After successful addition, as shown in the following figure:



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- ❖ Finally, the above operation modified the IP of channel 1 to match the default IP of the camera. Therefore, we should also plug the camera's network port into port 1 of the POE NVR

3、Safety precautions

- ❖ The electrical connection and initial commissioning must only be performed by a knowledgeable specialist in conformity with the instructions in these operating instructions.
- ❖ The devices must only be placed in operation if the user is aware of the risks and dangers resulting from the use of the device.
- ❖ Damaged devices must not be placed in operation.
- ❖ A direct connection on the AC network is not permitted.

3.1 Product safety

The product is designed to the state of the art and meets the requirements of generally recognized safety rules. The system must only be operated in flawless condition and in accordance with the instructions in the operating manual.

3.2 Additional dangers

Before you begin using the camera system, check for visible defects and observe the system for potential faults during operation. If defects are discovered in a camera system that have a detrimental effect on safety, it must not be put in operation or must no longer be used. Defects that are detrimental to safety must be rectified before the system is placed in operation again. Dangers arising from the use of special working materials and untested, unapproved accessories, configuration, installation or operation of the device cannot be monitored. The user is therefore responsible for ensuring correct use of the products.

- ❖ Do not lay cables close to the motor or other sources of heat.
- ❖ Protect cables against damage with cable ducts or protective tubes.
- ❖ Make certain cables are not twisted.
- ❖ Cables must not be painted and must not come in contact with solvents.
- ❖ If the cable is too long, it can be routed in loops.

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- ❖ Please take note of the mandatory installation radius for the camera cable: 15 x cable diameter for fixed installation, 22 x cable diameter for flexible installation.
- ❖ Do not tighten the cable connections too tightly.
- ❖ Screw the plug connections hand-tight.

4、Commissioning

Caution:

The electrical connection and commissioning must only be performed by a knowledgeable specialist in conformity with the instructions in this operating manual.

4.1 Assembly

- ❖ Install the camera in a suitable position so that the observer can see the area he needs to see.
- ❖ Before beginning any mechanical tasks, make certain that no electrical parts or installation parts can be damaged. The camera must be fastened so that it does not vibrate. The assembly location must be sufficiently stable to ensure reliable fastening. .
- ❖ Please ensure that there is sufficient corrosion protection for the boreholes.
- ❖ Use the screws, washers, and other accessories in the installation kit as shown in the diagram to securely install the camera in the designated position.
- ❖ Deburr the cable breakthrough and use cable grommets.

4.2 Electrical connection

Connect the WDM-IP52360B/P to a camera input of a control unit or monitor with the appropriate connection cables. Follow the instructions in the operating manual of the instrument. For screwed plug connections, tighten the thread tight enough to ensure the plug will not leak, but not enough to over tighten or even destroy the screwed plug connection. If you use a wrench or some other tool, exercise due caution. Seal the cable connections properly with the accompanying self fusing electrical tape. To do this, unwind the tape around the plug while pulling lightly. In addition to further improving the seal, this will also provide additional protection for the screw connection and prevent it from accidentally coming loose. Use new fusing tape if you open the screw connection again later.

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4.3 Functional check and camera adjustment

Check the camera functionality after you have connected it to a monitor. Tighten the fastening screws on the camera completely. Seal any cable breakthroughs and check cables that were laid to ensure they are securely in place.

4.4 Faults

If a non-function or error is detected during operation, normally the first thing to do is check the external circuit (power supply voltage, wiring, monitor etc.).

5、 Customer information

Wardmay Ltd

- Service -

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5.1 Maintenance/Cleaning

The camera is maintenance-free. Clean the camera cover using a soft, slightly moistened cloth. The device is able to withstand cleaning with high-pressure or steam jet cleaners. Do not remove the labels which identify the product.

6、 Environmental protection

The packaging consists mainly of recyclable material. Use the opportunity to recycle the packaging in an environmentally responsible manner.