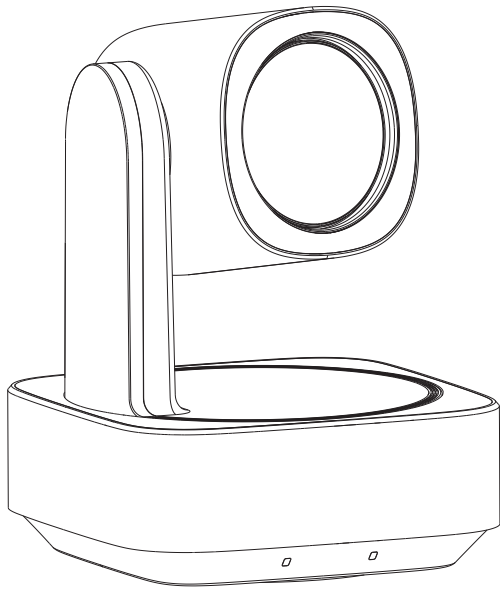


HD PTZ Camera

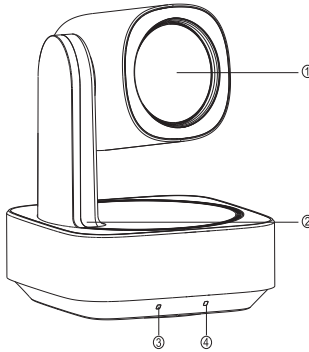
User Manual



Version V2.0

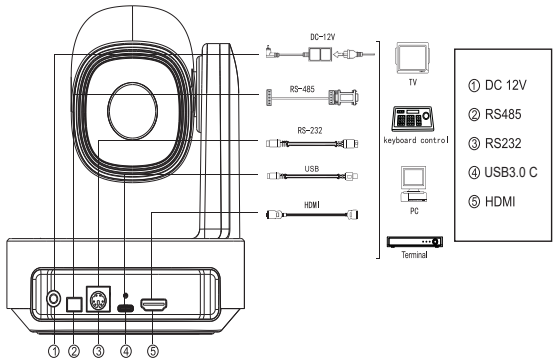
1. Product Description

1.1 Front

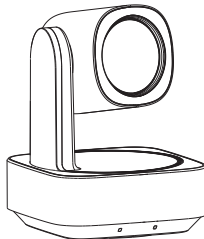


- ① Lens
- ② Pan&Tilt
- ③ Standby
- ④ Power

1.2 Back



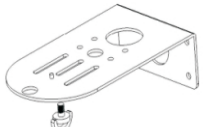
2. Packing List



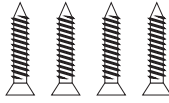
HD PTZ camera



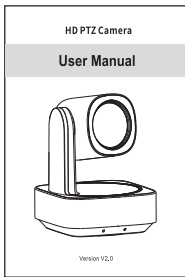
DC 12V power supply



Wall mount



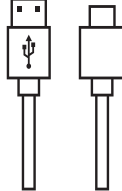
Mounting screws



User manual



Remote control

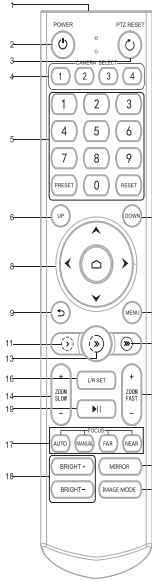


USB cable

3. Performance Characteristics

Model No.	1080P 11x Zoom	1080P 20x Zoom
Image Sensor	1/2.8" CMOS	
Effective Pixels	2.38 mega pixel	
Optical Zoom	11x optical zoom	20x optical zoom
Lens	f=5.78-46.09mm	f=5.9-94.4mm
Aperture	F1.8-2.6	F1.8-3.9
Horizontal Angle	54.7°(W)-6.8°(T)	52.1°(W)-3.4°(T)
Vertical Angle	30.8°(W)-3.8°(T)	29.3°(W)-1.9°(T)
Diagonal Angle	62.8°(W)-7.8°(T)	59.8°(W)-3.9°(T)
Video Format	1080p@60/50/30/25fps, 720p@60/50/30/25fps	
Backlight Compensation	Support	
SNR	>50dB	
Focus	Auto / Manual	
Digital Noise Reduction	2D & 3D Noise Reduction	
Exposure	Auto / Manual	
I / O Interface		
Video Interfaces	HDMI, USB3.0 C	
Video Compression Format	H.264, H.265, MJPG, YUY2	
Control Protocol	VISCA/Pelco-D/Pelco-P; Baud Rate: 38400/9600/4800/2400	
Control Interface	RS232 (input only), RS485, USB3.0 C	
PTZ Parameter		
Pan/Tilt Rotation	±175°, -90° ~ +90°	
Pan Control Speed	0.1 ~80°/sec	
Tilt Control Speed	0.1 ~60°/sec	
Preset Number	User can set up to 255 presets (10 presets by IR remote)	
General Parameter		
Operation Systems	Windows 7, Windows 8.1, Windows 10, Windows 11; Android, Mac OS™ 10.10 or higher, Linux (Required to support UVC.)	
Input Voltage	DC 12V	
Input Current	2.0A (Max.)	
Power Consumption	13W (Max.)	
Store Temperature	-10℃ ~ +60℃	
Store Humidity	20% ~ 90%	
Working Temperature	-10℃ ~ +50℃	
Working Humidity	20% ~ 80%	
Dimension (W*H*D)	171.6*192.6*171.6mm/260*217*197mm (Before/ After packing)	
N.W. / G.W.	1.35kg/ 2.05kg (Net/ Gross weight)	
Accessory	1 x Camera; 1 x USB Cable; 1 x PowerAdapter; 1 x IR Remote Control; 1 x Wall Mount; 1 x Manual	
Mfg. Warranty	3 Years standard Parts & Labor warranty	

4. Remote Control Button Description



No	Name	Function
1	Launch Window	Remote Control Launch Window
2	Power	Enter into Standby mode by pressing
3	PTZ Reset	Reset the PTZ
4	Camera Select Key	Select the camera need to control
5	Position	Preset position setup keys, include 【PRESET】 and 【RESET】 Set the preset position Reset the preset position
6	UP	The camera rotates horizontally in regular installed direction
7	DOWN	The camera rotates horizontally in reversed installed direction
8	PTZ Control Key	PTZ move according to the arrow indicates. Press 【↶】 PTZ will back to the middle position
9	Return/Exit	Return to up level menu or exit menu
10	MENU	Enter or exit OSD Menu after pressed it
11	PTZ rotates speed-	PTZ rotates speed-
12	PTZ rotates speed	PTZ rotates speed
13	PTZ rotates speed+	PTZ rotates speed+
14	ZOOM Slow Key	Zoom in + or out - slowly
15	ZOOM Fast Key	Zoom in + or out -quickly
16	L/R Set	Support, press this key for 10 seconds
17	Focus Key	Auto/Manual/Far/Near Focus Default: Auto Focus
18	Bright Adjustment	Adjust the brightness of the image
19	Turn on/off screen freeze	Turn on/off screen freeze
20	Mirror	Enable the picture left/right flip
21	Image Mode	Switch between three image modes Normal, PC, Bright

★Attentions for Remote Control

- Please check whether the indicator corresponding to the camera selection area is on or not.
- If the remote control doesn't work, please replace batteries.
- Make sure the Number keys on the camera selection area are consistent with the remote control address in the menu.

5. Camera Menu Setup

When operating remote control, press 【MENU】 to enter main menu of the video camera.

5.1 Level 1 Menu - Main Menu

Main Menu	
→ Exposure	
Color	
Image	
P/T/Z	
Communication	
Information	
Restore Default	
Language	English
[Home]	Enter
[Menu]	Back

Language: Support Chinese/English

Click the Home button on the Remote to enter level 2 sub-menu

Click the Menu button on the Remote to exit menu

5.2 Level 2 Menu - Exposure

Exposure	
→ Mode	Auto
Backlight	On/Off
ExpComp	0
Flicker	50Hz
[Return]	

Mode: Auto/Manual

Backlight: On/Off the backlight

ExpComp: Exposure compensation, optional item is 0 to 15

Flicker: Support 50Hz/60Hz

When changing the exposure mode to Manual, the sub-menu is as follows,

Exposure	
→ Mode	Manual
Iris	F1.6
Shutter	1/60
Gain	0
Flicker	50Hz
[Return]	

Iris: F No.Setting, the value should be

F1.6/F2.0/F2.4/F2.8/F3.4/F4.0/F4.8/F5.6/F6.8/F8.0/F9.6(Suitable for10x and 12x Zoom PTZ Camera)

Shutter: Shutter value setting, the value is between 1/100000 and 1/25

Gain: Exposure Gain Setting, optional item is 0 to 99

Flicker: Off/50HZ/60HZ

5.3 Level 2 Menu - Color

Color	
→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	Auto
Rtuning	50
Btuning	50
[Return]	

Brightness: Set image brightness dynamically. Default 50, optional item is 0-99

Contrast: Set image contrast dynamically. Default 50, optional item is 0-99

Hue: Set the relative brightness of the image. Default 50, optional item is 0-99

Saturation: Set image color effect. Default 50, optional item is 0-99

Sharpness: Set sharpness level. Default 50, optional item is 0-99

WB mode: Auto/Manual/VAR

When the WB mode is Auto, the Rtuning and Btuning value

can be tuned and the range is 0 to 99

When the WB mode is Manual, the sub-menu will be the following:

Color	
Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
→ WB Mode	Manual
Rtuning	50
Btuning	50
Rgain	50
Bgain	50
[Return]	

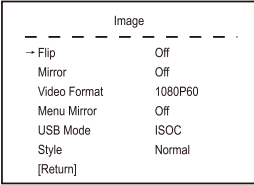
In manual WB mode, the above values can be adjusted.The Rgain and Bgain value can be tuned,

the range is 0 to 99. When the WB mode is VAR, the sub-menu will be the following:

Color	
→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	VAR
Color Temp	5500
Rtuning	50
Btuning	50
[Return]	

The range for the color temp can be adjusted from 2500K to 9000K.

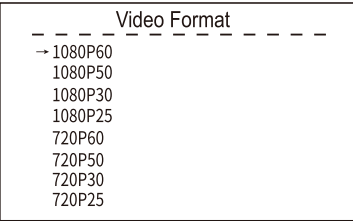
5.4 Level 2 Menu - Image



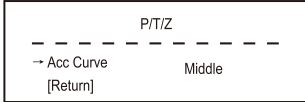
Flip: Off/On, Enable/disable the picture up/down
Mirror: Off/On, Enable/disable the picture left/right flip
Video Format: 1080P60/1080P50/1080P30/1080P25
720P60/720P50/1720P30/1720P25
Menu Mirror: Off/On, Enable/disable the menu picture left/right flip
Mode: ISOC/BULK
USB mode: Adjust between Isochronous transfers mode and Bulktransfers mode.
Style Mode: Normal, PC, Bright

5.5 Video Format

The supported video formats as follows:

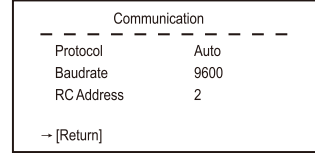


5.6 Level 2 Menu P/T/Z



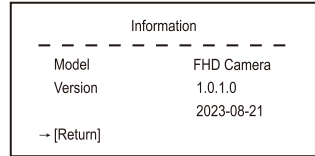
Acc Curve: Adjust the rotation speed of the Pan and Tilt,Fast/Middle/Slow

5.7 Level 2 Menu-Communication

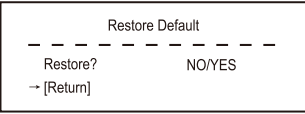


Protocol: Default Visca, option item Visca/PELCO-D/PELCO-P/Auto
Address: Set the camera's address, option item 1-7 in Visca, 1-255 in PELCO-D, 1-32 in PELCO-P
Baudrate: Default 9600, option item 2400/4800/9600/38400
RC Address: Set the IR remote control's address to control the corresponding camera, option item ALL/1/2/3/4

5.8 Level 2 Menu-Information



Model: FHD Camera
Version: 1.0.1.0
Date:2023-08-21
Notice:The version number here is just an example,the actual parameters shall prevail.



Restore: No/Yes, before you Exit the Menu,
please choose restore all settings on the menu or not.

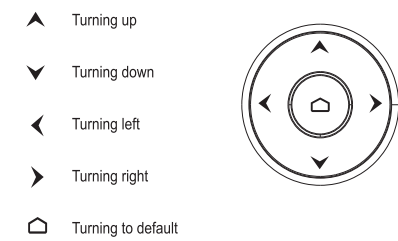
6. Common Operation Instructions

6.1 Camera Select

Refer to the dial-up at the bottom of the camera and choose camera address number that you want to control (1-4).



6.2 Camera Direction Control



6.3 Camera Focusing Mode Control

Note: Press the direction key when you need to adjust the angle. If you want to move the camera slowly, just click the direction key; If you want to move the camera fast at a large scale, just long-press the button.

【AUTO FOCUS】Switch the focus mode to AUTO

【MANUAL FOCUS】Switch the focus mode to MANUAL

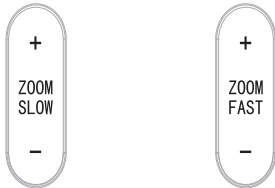
【FAR】Far focus manually

【NEAR】Near focus manually



6.4 Camera Zoom Control

Press any one of the 4 【ZOOM】 to make the zoom functioning. These 4 keys are not applicable for fixed focus cameras.



6.5 Preset Setup, Call, Cancel

(1) Reserve Preset: Press 【PRESET】, then press one of the numbers (0-9) to reserve a preset that corresponds to the NUMBER.

Note: You can setup 10 presets at most by the remote control.

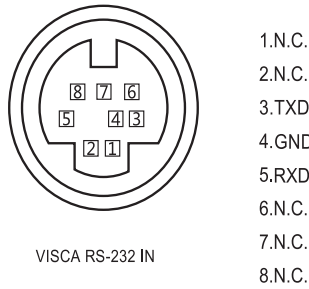
(2) Call Preset: Press the NUMBER (0-9) directly to call the reserved preset.

Note: It won't work if there's no preset reserved in the corresponded number.

(3) Remove Preset: Press 【RESET】, then press one of the number (0-9) to remove a preset that corresponds to the NUMBER.

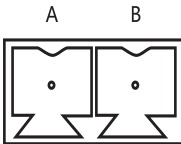


6.6 RS-232 Interface Distribution



6.7 RS-485 Interface Distribution

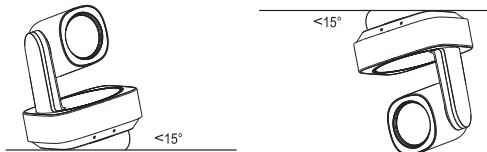
PIN NUM	FUNCTION
A	DTR IN+ (connect to RS-485)
B	DSR IN- (connect to RS-485)



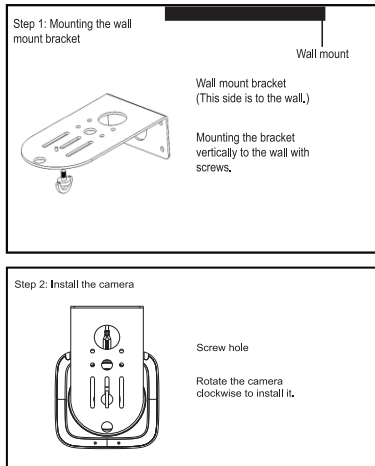
7. Installation Instructions

7.1 Surface Installation

Put the camera on the desk flatly, and make sure the camera is in a horizontal position. If you want to put the camera on an oblique surface, please make sure the angle of inclination is less than 15 degrees to ensure the camera pan and tilt work in normal operation.



7.2 Wall Mount Installtion



8. Trouble Shooting

Before requesting service to service engineer, please refer to the following methods to remove failures. If the failures still can't be solved, please contact us for assistance.

Q: The video of the camera cannot be displayed on the screen.

A: Please check the connection between power cable, video cable, camera and monitor, fix the connector on each end.

Q: It's unable to Pan, Tilt and Zoom camera.

A: Because the menu was displayed on monitor. Please re-operate after exiting the menu.

Q: Why the camera rotates for about 10 seconds after power on?

A: This is the normal self-test of the camera.

Q: Poor Image quality while using in church or other low-light conditions.

A: Press menu (ON/OFF) to adjust backlight effect to suit the church lighting properly.

Q: Remote control is not working or insensitive.

A: ①Not work, please replace batteries.

②Not sensitive: Choose the correct "IR select" number to corrspond to the camera. Control the camera within 10m (32.8ft). Remove the obstacles. Aim at the sensor which is in front of the camera when controlling it.

Q: USB interface is not identifiable.

A: Please check if the USB cable and extension cable are well connected or not. If yes, change to another USB interface and try to connect again.

Q: It won't be controlled via RS-232/RS-485 when camera connect to PC.

A: Make sure it is a correct connection between the camera and PC. (Refer to RS-485 and RS-232 Pins distribution on page 12).

Q: Why no ceiling mount bracket?

A: Camera comes with wall mount only. Ceiling mount or tripod brackets need to buy separately.

Q: Does this camera has built-in mic?

A: No, this camera comes with no built-in mic.

Q: Can we control the camera only by the remote control?

A: You can control the camera by remote control, keyboard controller (joystick), and software.

9. Maintenance Services

All products purchased from our company are guaranteed to keep in good repair for 36 months. If there are any quality problems during the guarantee period, we will maintain them for free.

Under any of the following warranties, related maintenance costs will be collected:

- Product was not normally used.
- Fire, electric shock, outside object collapse or other natural disasters causing the equipment damaged.
- Unauthorized repair, misuse, abuse or change.