Camera

USER'S MANUAL

HD CVI Camera

V.CVI2.0

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Contents

1 Notes

Read this manual carefully before use.

A. To reduce the risk of electric shock, do not open the machine and maintain by yourself, please consult a professional service person.

B. To prevent fire or shock hazard, use the power after safety certification, the input voltage, current, voltage polarity and operating temperature must meet the requirements of this camera.

C. Please note the operating temperature and environmental requirements of the camera, avoid too low or too high temperature. General operating temperature range of -10℃～+50℃ (Fahrenheit temperature is 14℉～122℉). Avoid flooding and rain, minimize dust and moisture erosion, otherwise camera would be damaged.

D. Cameras in use should avoid direct sunlight, glare, otherwise the sensor will be damaged.

E. Do not touch the sensor surface, if any foreign objects exits, a cotton swab or lens cloth can be used to wipe, if it is difficult to remove, a neutral detergent diluted with water would be useful. Do not use corrosive solution.

F. In order to make the camera work smoothly and obtain a satisfactory image, the power cord and video connection cannot be too long; otherwise the increase of line loss will lead to the inadequate magnitude of the operating voltage of the camera or video signal.

G. In order to prevent the camera from falling, please do not place the camera on an unstable bracket, base or other unstable objects. Otherwise it will lead to injury, at the same time, the camera will be damaged.

H. The camera can not be placed near the radiator or heating resistor.

2 Product Introduction

2.1 Production Instruction

This series of cameras are adopted CMOS image sensor with high performance, which provides mega pixel resolution and supports HD video. Moreover, it supports monitoring signals coaxial transmission. Transmission distance can reach up to 500M using RG-59 coaxial cable. The series can support both CVI/CVBS 960H output as well as realize high speed, long distance and real time video transmission.

2.2 Product Feature

- Coaxial cable adopted，BNC connector as cable standard。HD VCI/CVBS dual output
- Auto Day/Night（ICR）
- Auto Defog
- Digital WDR
- 8X Digital Zooming
- Motion Detection, Privacy Mask
- Auto Iris（Specific models）
- Back-end support optical zoom (motorized zoom lens models)
- Voltage Input: DC 12V

3 Product Structure

3.1 Dimensions

The following are the HD-CVI Camera dimensions.

Photo: ELI-ACVI-ED21-4R

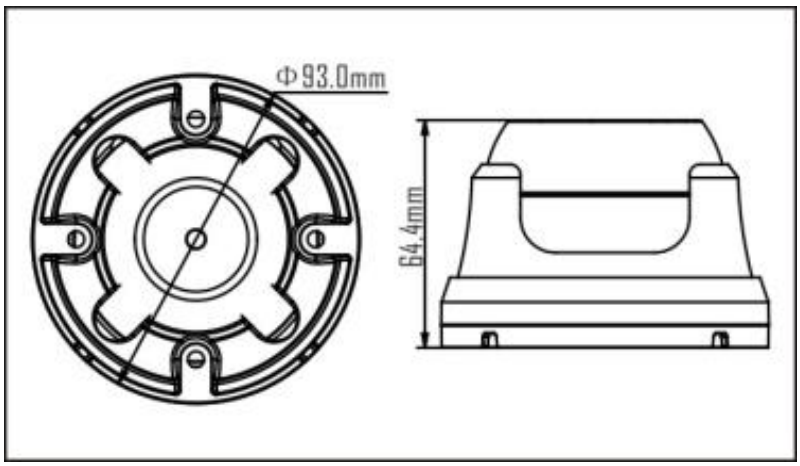
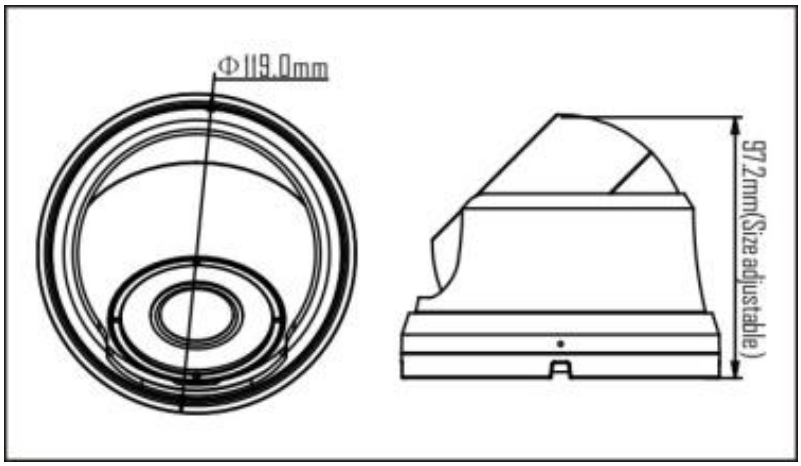


Photo: ELI-ACVI-ED21-312MR



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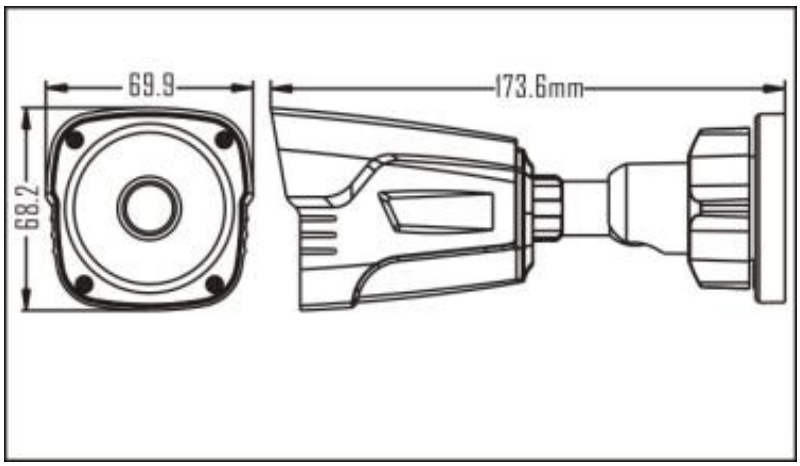
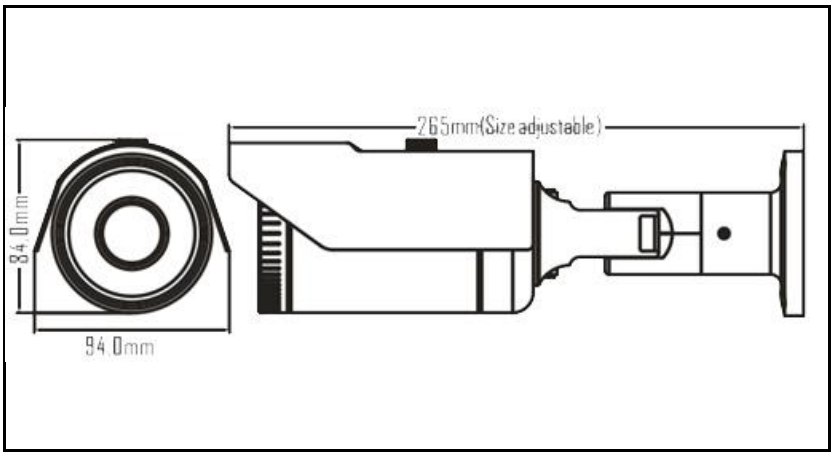


Photo: ELI-ACVI-B21-312MR



4 Technical Parameters

4.1 1080P HD CVI Camera

Image Sensor	1/2.8” 2.0MP SONY Exmor CMOS
Image	
Effective Pixels	1984(H)×1105(V)
Resolution	Digital: 1920×1080p;Analog: 700TVL
S/N Ratio	≥50dB (AGC Off)
Min. Illumination	0.1Lux@(F2.0，AGC ON);0Lux IR ON
Scanning System	Progressive
Video Output	Digital: HD-CVI ;Analog: 1Vp-p Composite Output(75Ω/BNC)
Function	
Day&Night	EXTERN,COLOR, B&W, AUTO
Exposure	Auto
White Balance	Auto
Backlight Compensation	Auto
Defog	OFF/ON
DNR	2D+3D NR
WDR	OFF/LOW/MIDDLE/HIGH
Smart IR Level	Optional
Privacy Mask	ON/OFF (16 Areas)
Motion Detection	ON/OFF (4 Areas)
General specification	
Input Voltage	DC12V±10%
Operation temp	-10℃～+50℃(14℉~122℉)
Operation humidity	＜85%RH (Non-condensation)

5 Menu Instruction

5.1 CAMERA MENU SETTING

MAIN MENU

MENU	
> LENS	ELC ↵
EXPOSURE	↵
WHITE BAL	AUTO
BACKLIGHT	WDR↵
DNR	LOW
DAY&NIGHT	↵
IMAGE	↵
SPECIAL	↵
RESET	ON▼
EXIT	

EXPOSURE SETTING

EXPOSURE	
> BRIGHTNESS	10
SHUTTER	AUTO
SENS-UP	X2
AGC	10
RETURN	

WHITE BALANCE SETTING

MANUAL	
> KELVIN	MIDDLE
R-GAIN	10
B-GAIN	10
RETURN	

DAY & NIGHT SETTING

DAY&NIGHT	
> MODE	EXTERN
DELAY	5
D→N LEVEL	---
N→D LEVEL	---
IR LED	OFF
SMART-IR LEVEL	---
RETURN	

IMAGE SETTING

IMAGE	
> SHARPNESS	5
COLOR GAIN	10
FREEZE	OFF
FLIP	OFF
D-ZOOM	1.0X
ACE	OFF
GAMMA	0.55
DEFOG	OFF
RETURN	

SPECIAL SETTING

SPECIAL	
> SYSTEM	↵
COMM ADJ	↵
LANGUAGE	ENG
ZOOM DIS	OFF
PRIVACY	OFF
MOTION	OFF
SHADING	OFF
ADJUST	↵
RETURN	

SPECIAL-SYSTEM SETTING

1080P

SYSTEM	
> OUTPUT MODE	1080P
COLOR SPACE	HD-CbCr
FRAME RATE	25 FPS
CVBS	PAL
BLACK LEVEL	FULL
VERSION	V1.0.1

SPECIAL-COMMUNICATIONS SETTING

COMM ADJ	
> CAM ID	1
BAUDRATE	9600
RETURN	

SPECIAL-PRIVACY SETTING

PRIVACY	
> ZONE NUM	0
ZONE DISP	ON
H-POS	12
V-POS	2
H-SIZE	3
V-SIZE	3
Y LEVEL	10
CR LEVEL	10
CB LEVEL	10
RETURN	

SPECIAL-MOTION DETECTION SETTING

MOTION	
> SENSITIVITY	0
WINDOW TONE	0
WINDOW USE	0
WINDOW ZONE	OFF
DET H-POS	0
DET V-POS	0
DET H-SIZE	28
DET V-SIZE	15
ALARN	OFF
RETURN	

SPECIAL-SHADING HOMOGENIZATION

SHADING	
> WEIGHT	100%
RETURN	

SPECIAL-ADJUSTMENT SETTING

ADJUST	
> FOCUS ADJ	OFF
DEFECT DET	↵
SHADING DET	ON▼
COLORBAR	OFF
RETURN	

6 Product Installation

6.1 Note

1) Make sure the unit is powered off before installation.
2) Check power supply voltage consistent with the electric voltage to prevent voltage shortage, resulting in damage to the device.
3) Do not use in an environment beyond the boundaries of the temperature -10℃～+50℃ (14℉~122℉), and maintain good ventilation to prevent moisture build up, and to reduce the risk of fire or electric shock.
4) The installation and maintenance of this product should be professional, please do not in any way remove or modify the equipment; only use the accessories recommended by the manufacturer. Problems caused by unauthorized repair are at your own risk.

6.2 Installation Tools and Information

Prepare the required engineering data and instructions. Before installation please prepare the following tools and instrumentation: A straight or a Phillips-head screwdriver, multi-meter, scissors, needle nose pliers, tape measure, and writing utensils.

6.3 Installation Method

1. Check the equipment to make sure it is not damaged. (Contact your retailer if equipment is damaged)
2. Mounting bracket or base.
   ① Cement wall installation: Install the expansion screws (expansion screw holes need stand or base hole), and then mount bracket or base.
   ② Wood/ Dry wall Installation: use self-tapping screws to mount.
3. Mounting the camera

   a. Dome Camera

   Adjust the lens position and aim it at the monitoring points to present a clear picture, manually fix lens location and adjust the hemisphere cover. Re-examine the screen to make sure visual image meets the requirements. Tighten the hemisphere cover.

   b. Bullet Camera

   Adjust the body so that the lens aims at the monitoring points and presents a clear picture. Tighten the screws, to ensure that it does not move.

Installation method above is for reference only.

Note:

The wall needs to bear at least 3X weight of bracket (base) and camera.

7 Monitoring Equipment Connection

7.1 Cable Connection Diagram

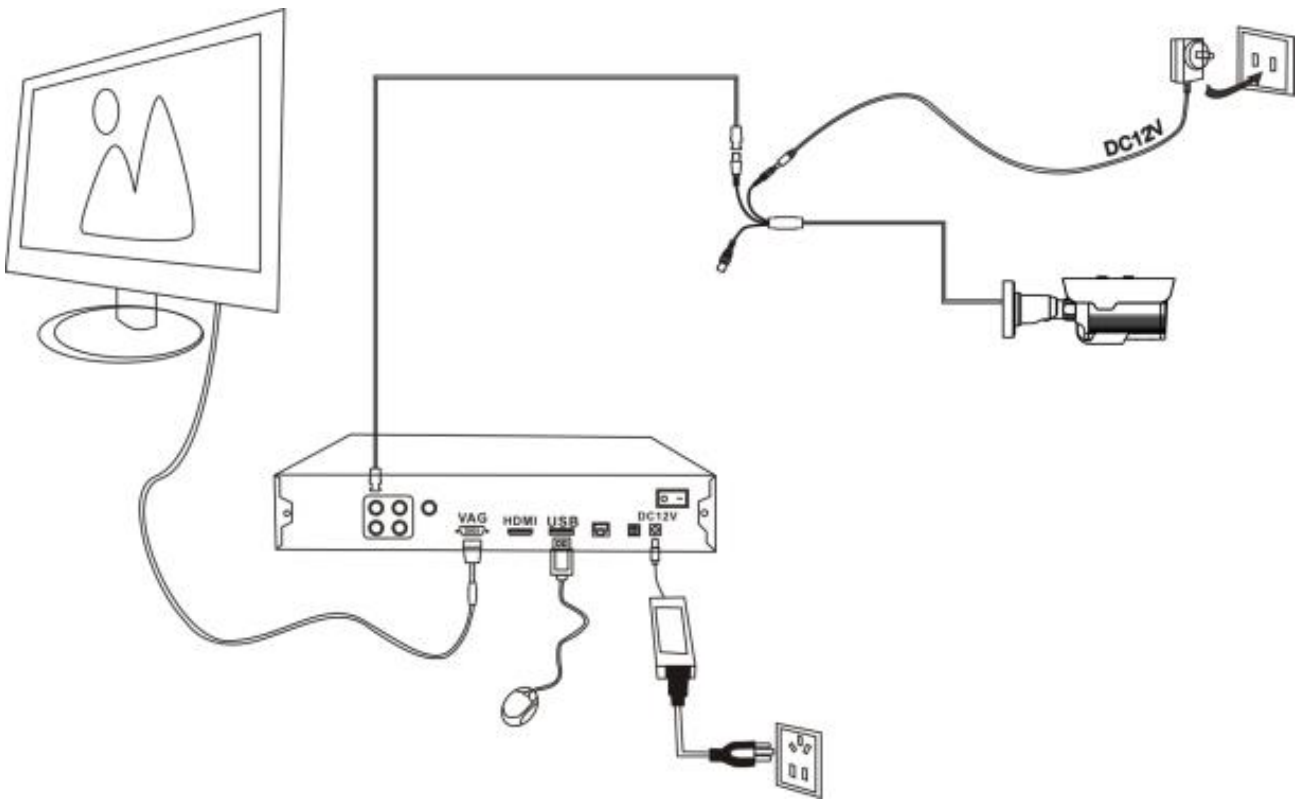


Photo 7-1

* Note: HDCVI interface connects HD CVI DVR

CVBS interface connects 960H DVR

The cable connection diagram above is for reference only. Pls go by actual equipment for the concrete operation.

8 Appendix: FAQ

Q: No picture with device powered on

A: May result from abnormal power supply. Please check if the power supply voltage and polarity are correct. Check to see if wires/ cable connections and monitors are secure.

Q: Unclear image output

A: Can be caused by incomplete adjustment of the lens back focus. Loosen the fixed screw of the lens until it turns clear. If that does not work, please check to see if the lens is in good condition. Also check for foreign objects on the lens surface and sensor surface. If foreign objects exits, it can be wiped away by cotton swab or lens paper.

Q: Horizontal interference fringes on image

A: This phenomenon is generally caused by too strong of hum from power supply, which should to be filtered out. This issue may also be related to the type of monitor used or peripheral devices.

Q: Constant change of ground color of image

A: This phenomenon is caused by color scrolling, which is mainly due to alternating electromagnetic fields generated by fluorescent lamps. It can be weakened with two methods: one is to reduce the usage of fluorescents. The other is to enlarge the distance between the camera and the fluorescent lamp. To overcome it thoroughly, please select LL synchronization camera.

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