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› ELP 4K USB HDMI USB Camera Manual Zoom Webcam Variable Focus PC Camera Mini Close-up Camera for Computer H.264 Telescope USB Security Camera 8mp IMX415 Industrial CCTV Camera (5-50mm 10X Zoom Lens)

ELP ELP-USB4KCAM01H-CFV

ELP 4K USB HDMI Camera Instruction Manual

Model: ELP-USB4KCAM01H-CFV | Brand: ELP

1. INTRODUCTION

This manual provides detailed instructions for the ELP 4K USB HDMI Camera (Model: ELP-USB4KCAM01H-CFV). This high-resolution camera is designed for various applications, including industrial inspection, security monitoring, and live streaming, offering flexible connectivity and precise manual controls.



Figure 1: ELP 4K USB HDMI Camera with 5-50mm 10X Zoom Lens

2. WHAT'S IN THE BOX

- 1 x ELP 4K USB HDMI Camera
- 1 x 1.2m USB Type-C Cable
- 1 x 1.5m HDMI Cable
- 1 x User Manual



4K Ultra HD 3840*2160P USB CAMERA



1PCS 1.2m Cable
with Type C port



1PCS 1.5m Cable
with HDMI Port

Figure 2: Package Contents and Camera Dimensions

3. KEY FEATURES

- **4K Resolution:** Max Resolution: 3840(H) * 2160(V), High Speed 2160P@30fps.
- **Dual Output:** Simultaneous USB and HDMI display.
- **Manual Zoom Lens:** Equipped with a 5-50mm variable focus lens for versatile distance shooting.
- **High-Quality Sensor:** Adopts a high quality 1/2.8" IMX415 image sensor.
- **Compression Formats:** H.264/MJPEG/YUY2 compression format optional.
- **UVC Compliant:** Plug & Play, no extra drivers needed for Windows, Linux, Mac, Raspberry Pi, etc.
- **Versatile Applications:** Suitable for research, technical projects, bird feeding/feeder recording, and industrial CCTV.



Figure 3: 4K HDMI & USB Camera with 10X Zoom Varifocal Lens

4. SETUP

The ELP 4K USB HDMI Camera offers flexible setup options for various uses:

4.1. USB Mode

Connect the camera directly to your PC, laptop, Android device, or Raspberry Pi using the provided 1.2m USB Type-C cable. The camera is UVC compliant, ensuring plug-and-play functionality without the need for additional drivers.

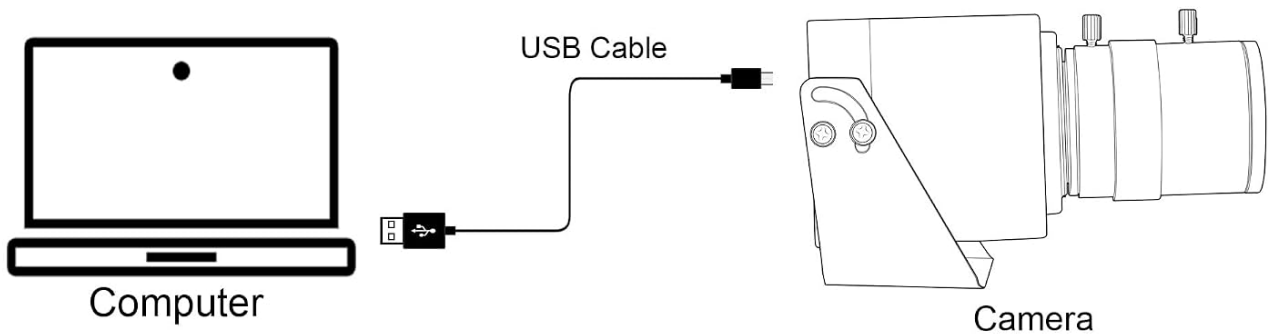
4.2. HDMI Mode

Connect the camera to an HDMI monitor or projector using the provided 1.5m HDMI cable. Ensure the camera receives power via its Type-C port, typically from a 5V 2A power bank or a 12V 1A USB power adapter.

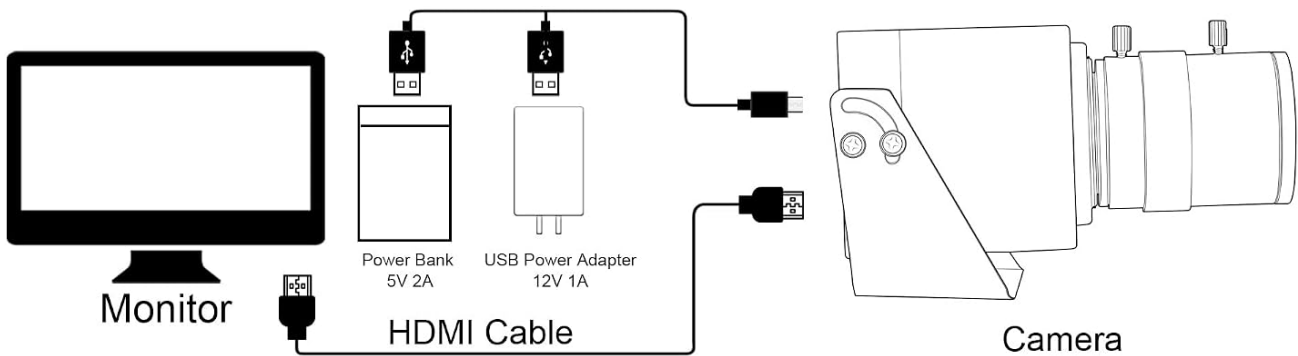
4.3. USB + HDMI Simultaneous Output Mode

For simultaneous display on both a computer and an HDMI monitor, connect both the USB Type-C cable to your computer and the HDMI cable to your monitor. Ensure the camera is powered as described in HDMI Mode.

USB Mode



HDMI Mode



USB+HDMI Mode Symultaneously Output

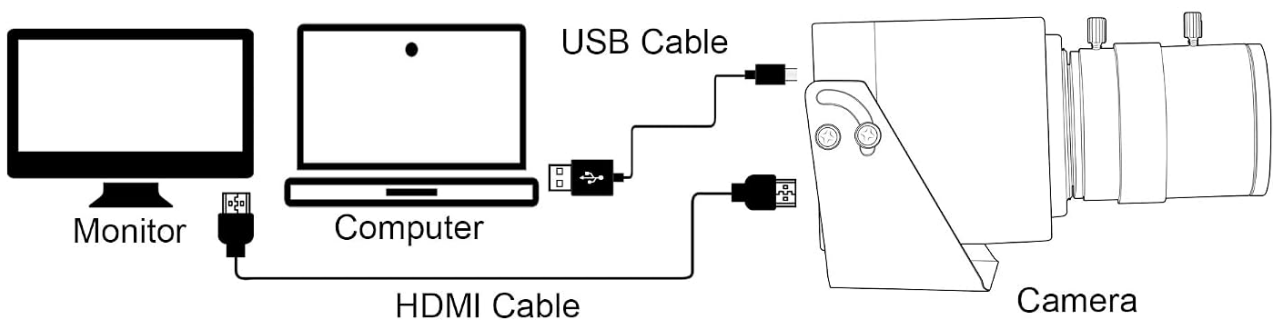


Figure 4: Connection Diagrams for Different Modes

5. OPERATING INSTRUCTIONS

The ELP 4K USB HDMI Camera features manual controls on its lens for precise adjustments:

5.1. Manual Lens Controls

4K HDMI&USB Industry Camera

5-50mm Telephoto Manual Zoom Lens

Manual Focus Zoom for Close-up or Long Distance Shooting



Figure 5: Manual Lens Controls

- **Adjust Focus (Clarity):** Rotate the focus ring (labeled 'NEAR' and 'FAR') to achieve sharp imagery at different distances.
- **Adjust Aperture (Iris):** Control the amount of light entering the lens by adjusting the iris ring (labeled 'OPEN' and 'CLOSE'). Opening the aperture allows more light, useful in dim conditions.
- **Adjust Focal Length (Zoom):** Rotate the zoom ring (labeled 'W' for Wide and 'T' for Telephoto) to change the field of view. The 5-50mm lens provides 10X optical zoom.



Figure 6: 10X Optical Zoom Capability

Upgraded 5–50mm 10X Optical Zoom 4K HDMI&USB SECURITY CAMERA



Figure 7: 10X Optical Zoom Technology for Detail

5.2. Video Demonstration and Tips

For a comprehensive overview of the camera's features and performance, especially in various lighting conditions and with manual controls, please watch the official product video:

Your browser does not support the video tag.

Video 1: Excellent for Live-Streamers! ELP 4k hdmi usb zoom camera (Source: ELP USB CAMERA)

Tips for Optimal Performance:

- **Lighting:** The camera performs well in various lighting. In darker environments, adjust the aperture to allow more light.
- **Software Integration:** When using with software like OBS, set the camera's output to 4K (3840x2160) at 30fps for the highest quality input. You can then downscale the resolution within your recording software to 1080p for a crisper final image compared to native 1080p capture.
- **Privacy:** Utilize the included lens cap for true privacy when the camera is not in use.

6. MAINTENANCE

To ensure the longevity and optimal performance of your ELP 4K USB HDMI Camera, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the camera body. For the lens, use a specialized lens cleaning cloth and solution to avoid scratches.
- **Storage:** When not in use, store the camera in a cool, dry place, away from direct sunlight and extreme temperatures. Always use the lens cap to protect the lens from dust and damage.
- **Handling:** Handle the camera with care to prevent drops or impacts that could damage internal components or the lens.

7. TROUBLESHOOTING

If you encounter issues with your ELP 4K USB HDMI Camera, consider the following:

- **Camera Disconnects or FPS Drops:** If the camera frequently disconnects or experiences significant frame rate drops, try unplugging and replugging the USB cable. Ensure you are using the provided cables or high-quality alternatives. Check your computer's USB port for stability and power delivery.
- **No Image/Poor Image Quality:**
 - Verify all cables (USB, HDMI) are securely connected.
 - Ensure the camera is receiving adequate power in HDMI mode.
 - Adjust the manual focus, aperture, and zoom rings on the lens to achieve a clear image and appropriate brightness.
 - Check lighting conditions in your environment.
- **Software Recognition Issues:** Ensure your operating system or software (e.g., OBS) is updated. As a UVC compliant device, the camera should be recognized automatically. Try restarting your computer.

8. SPECIFICATIONS

Feature	Specification
Brand Name	ELP
Item Model Number	ELP-USB4KCAM01H-CFV
Item Weight	1.12 pounds
Product Dimensions	1.65 x 1.69 x 4.8 inches
Country of Origin	China
Color Name	5-50mm 10X zoom lens
Special Features	5-50mm variable focus lens, H.264/MJPEG/YUY2 optional, 4K USB & HDMI camera, simultaneous output, Mini size, light weight
Photo Sensor Technology	CMOS

Video Capture Resolution	4K (3840x2160)
Maximum Focal Length	50 Millimeters
Maximum Aperture	50 Millimeters
Connectivity Technology	USB-Type C

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the seller directly. The seller for this product is ELP USB CAMERA.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question