

**LUPUS-Electronics LUPUSCAM HD – LE 102HD**  
**User's Manual**

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## Introduction

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Thank you for purchasing a LUPUSCAM HD® camera. Before you begin to use your camera, please carefully read the following security and installation instructions.

Keep the manual in order to be able to refer to it in case of any open questions in the future. Descriptions, figures, and technical data can change because of technological advancement. Hence, we advise you to download the latest PDF-version of this manual from our homepage.

## Disclaimer

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This manual was prepared with greatest care. If you notice omissions or inaccuracies, please inform us about these. LUPUS-Electronics GmbH assumes no liability for technical or typographical faults and reserves the right to make modifications to the product or user manual without a previous announcement at any time. The company is not liable or responsible for direct and indirect subsequent damages which are caused in connection with the equipment, the performance, and the use of this product.

Not guarantee for the content of this document is taken.

## Important safety advice

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The warranty will expire for damage due to non-compliance with these operating instructions.

LUPUS-Electronics will not be liable for any consequential loss!

LUPUS-Electronics will not accept liability for damage to property or personal injury caused by incorrect handling or non-compliance with the safety-instructions. In such cases the warranty will expire.

## Important Note

**Please read the manual carefully and completely before you use the camera. This should also be noted when this product is passed on to a third party.**

## Notes for usage and installation

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This camera is a high quality surveillance device. Please keep the following security information in mind:

- Do never angle the camera directly into the sun.
- Do never angle the camera directly into a spotlight.
- Handle with care. Strong vibrations or impacts could damage the camera.
- Never touch internal components of the camera.
- Do not install the camera close to any strong electrical wires. This could influence the quality of the images.
- Do not install the camera directly on an aluminium or iron pole. You need to insulate it with rubber coating. Otherwise, the video transmission can be disrupted.
- Keep in mind that the cameras are not designed to be operated in areas with extreme temperature and moisture conditions. Adhere to the limits specified in the technical data stated on our homepage.
- This device is not designed to be handled by persons (including children) with limited physical, sensorial, or mental abilities, as well as, persons who are lacking the necessary knowledge. Only if they are supervised or instructed by someone responsible for their security, these persons should handle this device. Children should be supervised in order to make sure that they do not play with the device.
- Do not leave packing material lying around. Plastic bags, sheeting, etc. can pose a danger to children if played with. The camera includes cables which can lead to strangulation if handled improperly. The camera contains small parts which could be swallowed, and should be kept out of reach of children for safety reasons. Install the camera in a position in which children cannot reach it.
- Please pay attention to the safety information and user guides of the other connected devices.
- Adhere to the operating voltage limits specified in the technical data. Higher voltages could destroy the device and pose a health risk (electric shock).

## In case you encounter an error

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In case you encounter an error, disconnect the camera from its power source and contact your distributor. Additional usage increases the danger of a fire or of an electrical shock.

## Designated use

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When you install the camera, make sure that you do not violate the personal rights of others. Any usage which is not described in this manual is not allowed and leads to a loss of warranty, as well as, a decline of liability. This also includes modifications.

## 1. General Introduction

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### 1.1. Overview

The LUPUSCAM HD LE 102HD conforms to the HD-CVI standard. It supports long distance, high speed video signal transmission without any delay. It can be controlled by DVRs conforming to the HD-CVI standard.

### 1.2. Features

- High-performance CMOS image sensor.
- Supports coaxial HD and SD video transmission.
- Supports 75-3 coaxial cable transmission without any quality loss.
- Transmission range: ~500m / 546 yards
- Long distance, high speed transmission in real time.
- Supports HD-CVI and analogue output in HD and SD quality.
- Supports framerates of 25 and 30 frames per second in 1080P. Additionally, the camera can also be operated in 720P mode and then supports framerates of 25 and 50 frames per second.
- Supports high performance noise reduction.
- Performs excellently in low illumination.
- Supports ICR switch to allow surveillance by day and by night.
- Focal length: depends upon used lens
- Features an OSD (on-screen-display) to allow individual setup.
- Runs on a DC 12V power supply.

## 2. Framework and Dimensions of the LUPUSCAM HD – LE 102HD

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Please refer to the following figures for dimension information. All measurements are given in mm.

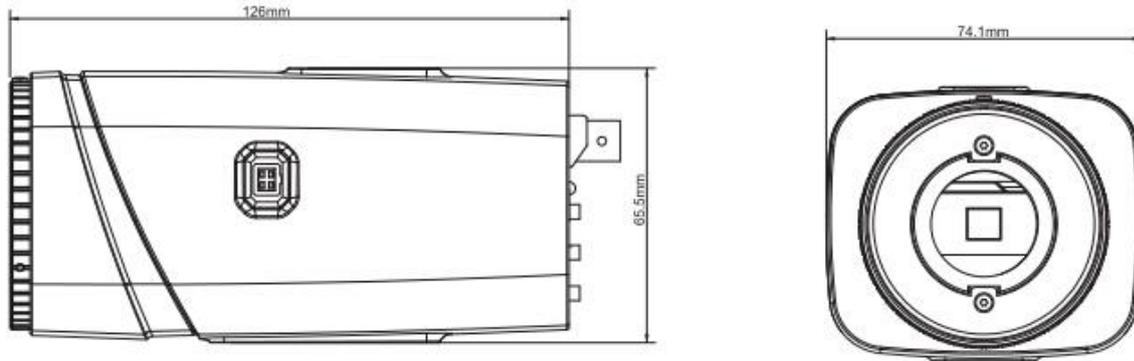


Figure 2-1 LUPUSCAM HD – LE 102HD

The cameras will transmit a high definition video signal. If you press the middle button of the directional pad for approx. 7 seconds, the camera will switch to a standard definition video signal. The current signal mode is displayed by the led: green = HD; red = SD.

## 3. Installation of the LUPUSCAM HD – LE 102HD

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- **IMPORTANT:**

**Before you install the camera, please make sure that the surface on which you install the camera can at least support 3x the weight of the camera.**

**Step 1:**

Remove the protection cap from the lens and screw a C/CS lens onto the camera. To connect a C lens, you need to use the included C lens adapter. Connect the power cord of the lens with the power outlet at the side of the camera.

**Step 2:**

Use a coaxial cable with BCN connector to connect your camera with your HDTV recorder.

**Step 3:**

Connect the included power adapter cable with the mains adapter. Connect the power adapter cable to the camera's power input. The red wire with – (minus) and the red/black wire with + (plus).

**Step 4:**

Plug the mains adapter into a socket. The camera will boot and after a brief period, you will see the live image. If the status LED is green, an HD signal is transmitted. If the status LED is

red, an SD signal is transmitted. You can change between HD and SD by pressing the middle button of the directional pad for approx. 7 seconds.

### **Step 5:**

Now you can adjust the zoom and the focus of your lens.

## **4. In- and outputs**

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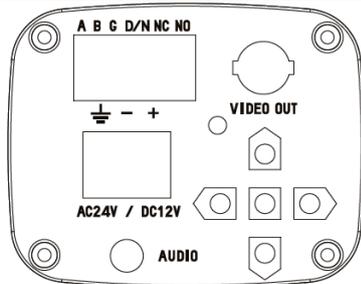


Figure 4.1 LUPUSCAM HD – LE102 HD in- and outputs

- The two inputs labelled **A** and **B** are RS485 inputs. These can allow you to e.g. gain access to the cameras OSD with a non-HD recorder.
- **G** stands for GND / Ground.
- **D/N** allows you to connect an external device to trigger the day / night switch. In order to use this function, you need to set day/night in the OSD to trigger high or trigger low.
- The digital inputs of the LUPUSCAM HD – LE 102HD are labelled **NC** and **NO**.
- The status LED displays the quality of the current video signal. Green = HD; red = SD.
- The video out allows you to connect the camera with your HDTV recorder by means of a coaxial cable with BNC connector.
- The input marked with the  $\perp$  symbol is the GND / Ground of the power connection.
- The inputs marked with **-** and **+** are the power inputs for 12 or 24V.
- The directional pad allows you to open and control the OSD menu, as well as, to change the video output of the camera (press the middle button for 5 seconds to open the OSD menu; press the middle button for ~7 seconds to change the video output).

## **5. OSD – menu**

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It is possible to change camera settings via the OSD menu. Factory-provided, the camera has the optimal settings to ensure the best possible image. However, if you want to change some settings, please proceed as follows.

- To open the OSD menu, right click on the image while in single picture mode. In the menu, click on “Pan / Tilt / Zoom.” The following Menu will appear:

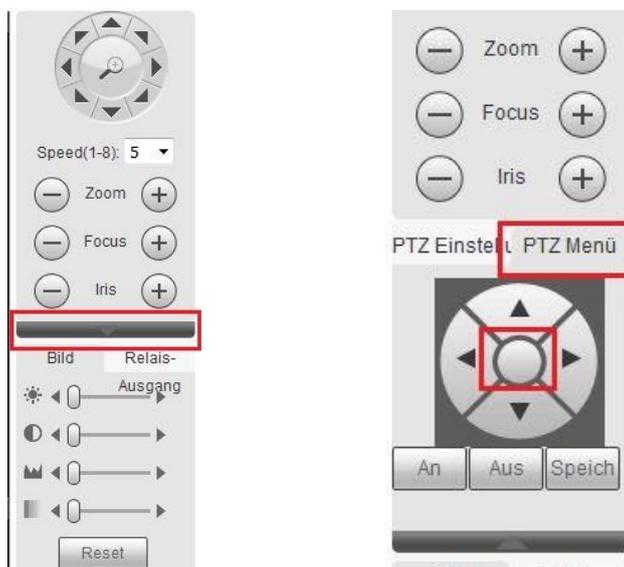


Figure 3-6 OSD menu

- Click on the arrow at the right edge of the menu. In the expanded menu, click on “Enter menu” in the upper right corner. In the following menu, click on enter to open the OSD menu.
- Additionally, you can open the OSD menu by pressing the middle button of the directional pad of the LE 102HD for 5 seconds.

To open the OSD menu via the Web interface of your HDTV recorder, please proceed as follows:

- Open the single image via of a camera and click on the black bar on the right to open the PTZ options
- Select “PTZ menu” and click on the middle button of the directional pad.



## 5.1. OSD menu overview

If you are not familiar with the function of the following settings, we advise you not to change any settings in the OSD menu.

<b>Format</b>	PAL			
	NTSC			
<b>Video Mode</b>	1080p @25 FPs			
	720p @ 20 FPS			
	720p @ 50 FPS			
<b>Backlight Mode</b>	Off			
	BLC	On		
		Off		
	WDR	0 – 5		
	HLC	0 – 5		
	<b>Image Adjustment</b>	Image Mode	Standard	
Soft				
Vivid				
Sharpness		0 - 100		
Brightness		0 - 100		
Contrast		0 – 100		
Saturation		0 – 100		
Sharp suppression		0 – 100		
Chroma suppression		0 – 100		
Gamma		0 – 15		
2DNR		0 - 100		
3DNR		0 – 100		
<b>Exposure</b>		Auto	Gain max	0 – 100
			Gain min	0 – 100
	Low noise	Gain max	0 – 100	
		Low motion blur	Shutter max	0ms – 40ms
	Manual	Shutter	1/25 – 1/10000	
			Gain max	0 – 100
			Gain min	0 – 100
	Exposure level	0 – 14		
	Exposure speed	0 – 7		
	Anti-flicker	Outdoor		
		50Hz		
		60Hz		
	<b>White balance</b>	Auto		
Manual		Blue gain	1 – 100	
		Red gain	1 – 100	
Day				
Night				
Indoor				
Outdoor				

<b>Day / night</b>	Auto	Day / night	1 – 100
		Waiting time	1 – 15
	B/W		
	Trigger low		
	Trigger high		
	Color		
<b>Language</b>			
<b>Advanced</b>	Camera title		
	Mirror	Horizontal mirror	
		Vertical mirror	
	D-Zoom	1 – 10	
	Lens type	Manual	
		DC	
	ABF	Auto focus	
		Reset	
	Self-adaption	On	
		Off	
	Audio mode	Off	
		External	
		Built-in	
	Privacy mask	Off	
		on	Area selection
			Display
			Area setup
			Restore default
	RS485 Setup	Address	
		Apply	
	System information	Version	
<b>Reset</b>			
<b>Exit</b>			

**Please note:**

- **This manual is for reference only. Slight differences may be found in your user interface.**
- **All designs and software shown here are subject to change without any prior written notice.**
- **All trademarks and registered trademarks mentioned are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please contact us directly.**
- **Please visit our website or contact your local service engineer for more information.**

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