GEUTEBRÜCK

G-Cam/EWPC-2271

Full HD IR Bullet IP Camera

Installation

Preface

The information given in this manual was current when published. The company reserves the right to revise and improve its products. All specifications are subject to change without notice.

Copyright

Notice

Mounting instructions for Dome Systems and permanently mounted Cameras especially for Pole Mount.

Please note that the place of mounting should be stiff enough to counter strong wind or other vibrations!
Otherwise all VCA functions like Motion Detection, Privacy Masking, etc. either in cameras or with DVRs could be disturbed heavily and can cause unliked and often alarms. In some cases mechanical problems or defects can be the result of such vibrations, like overheating of focus motors caused by persistant mast shaking!

This manual provides the installation information for the Outdoor 4K UHD Fix Dome IP Camera. To work with the Dome Cameras, any installer or technician must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical hookups
- A basic knowledge of network system setting
- Have read this manual completely

Important Information

Before proceeding, please read and observe all instructions and warnings in this manual. Retain this manual with the original bill of sale for future reference and, if necessary, warranty service. When unpacking the unit, check for missing or damaged items. If any item is missing, or if damage is evident, DO NOT INSTALL OR OPERATE THIS PRODUCT. Contact the dealer for assistance.

Regulation

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste in accordance with Directive 2002 / 96 / EC. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By proper waste handling of this product, please ensure that it has no negative consequences for the environment and human health, which could otherwise be caused if this product is thrown into the garbage bin. The recycling of materials will help to conserve natural resources.
For more details information about recycling of this product, please contact the local city office, household waste disposal service or the shop which purchased the product.

Compliance is evidenced by written declaration from our suppliers, assuring that any potential trace contamination levels of restricted substances are below the maximum level set by EU Directive 2002 / 95 / EC, or are exempted due to their application.

Warnings and Cautions

- **Handle the camera carefully**

Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handing or storage.

- **Installing electricity wiring carefully**

Ask qualified personnel of electrical wiring for the installation. Please note the technical specifications for correct power supply at the end of this manual.

- **Do not disassemble the camera**

To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Ask a qualified service person for servicing.

- **Do not operate the camera beyond the specified temperature, humidity or power source ratings**

Use the camera under conditions which are described in the technical specifications.

- **Do not use strong or abrasive detergents when cleaning the camera body**

Use a dry cloth to clean the camera when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the camera gently.

- **Never face the camera towards the sun**

Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, the camera may be smeared or damaged.

Mounting instructions for Cameras especially for Pole Mount.

Please note that the place of mounting should be stiff enough to counter strong wind or other vibrations!
Otherwise all VCA functions like Motion Detection, Privacy Masking, etc. either in cameras or with DVRs could be disturbed heavily and can cause unliked and often alarms.
In some cases mechanical problems or defects can be the result of such vibrations, like overheating of focus motors caused by persistant mast shaking!

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1. FEATURES

Camera

- 1/2.9” 1080p CMOS Sony STARVIS Image Sensor
- True Day / Night
- DC Auto Iris Lens
- WDR
- Embedded IR Illuminator
- Remote Zoom/Focus Control (One Click AF)
- Weather proof (IP66)

Video

- H.264 Baseline, Main, High Profile (MPEG-4 Part 10/AVC), MJPEG (Motion JPEG)
- Max 30fps in 1080p
- Text Overlay
- Analog video output

Network

- 10 / 100 Base-T Ethernet

Integration

- Software Development Kit (SDK) available
- ONVIF Compliant (Profile S & Profile G)

General

- Micro SD/SDHC slot
  Power Over Ethernet (PoE+)

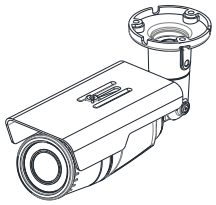
Video Contents Analytics (VCA)

- VCA Presence (Standard)
  * Licenses with higher specifications than VCA Presence are optional.

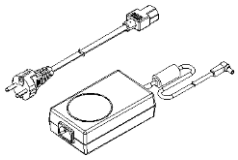
2. PACKAGE CONTENTS

Please unpack the package carefully and handle the equipment with care.
The packaging contains:

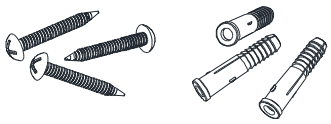
Camera



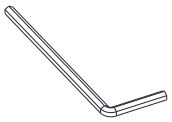
DC Power Adaptor & Plugs



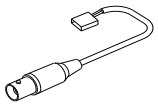
Screws (M4x30) and Plastic Anchors



Hex Wrench (3mm)



Video Output Cable

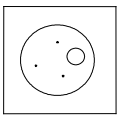


Silicon Waterproof Band

Ferrite Core

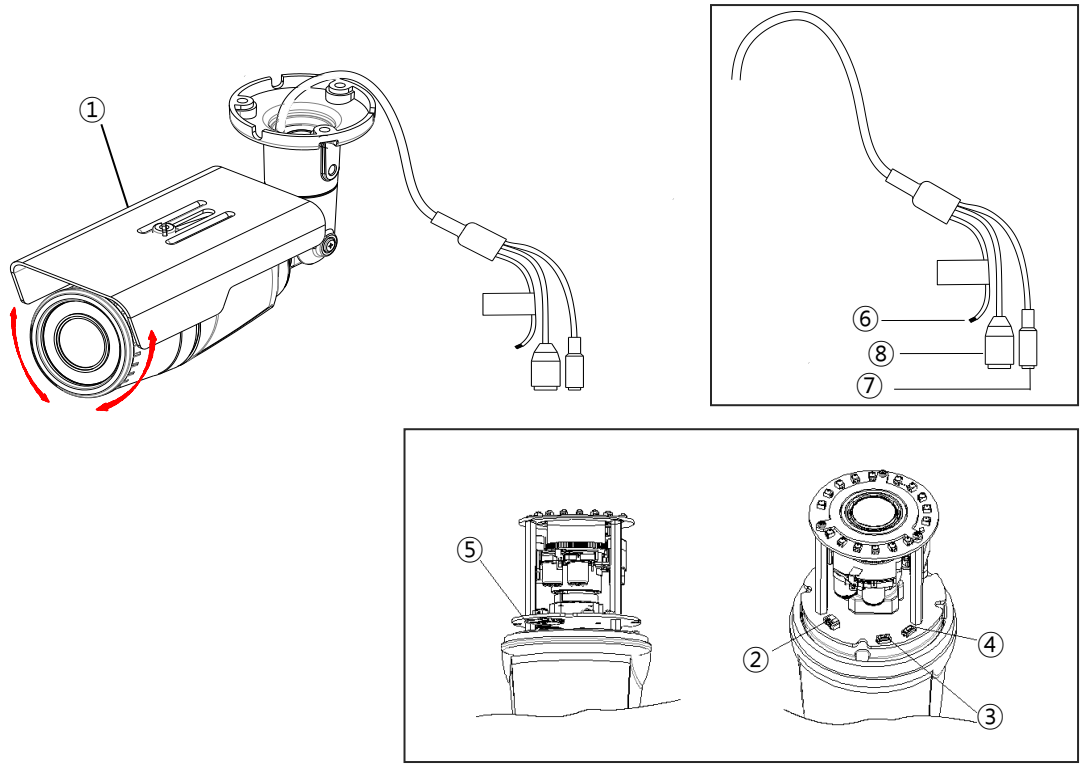
Quick installation guide
(Software and Documentation)

Installation Template



The above contents are subject to change without prior notice.

3. PART NAMES



* Models herein and their appearance are subject to change without any prior

① Sunshield

Position the sunshield to prevent direct sunshine.

② Video Out Cable socket

Socket for the video output cable included in the package (CVBS: 1.0Vp-p / 75Ω BNC)

③ PAL/NTSC button

Pressing the PAL/NTSC button each time changes the mode as follows.

*No video output -> PAL-> NTSC**

* Steady output of video until you change the video output mode by pressing the button.

④ Reset button

Use the button to restart the device or to reset it to Factory Default. Refer *to* **6.3. Reboot** and **6.4. Factory Default** for more details.

⑤ microSD memory card slot

Camera supports up to 32GB. A card with Class 4 and higher is recommended for HD recordings.

⑥ Terminal Connector

Connector for cables of digital input/output and audio input/output.

⑦ Power Adaptor Connector

Use DC12V for the power supply.

⑧ LAN connector

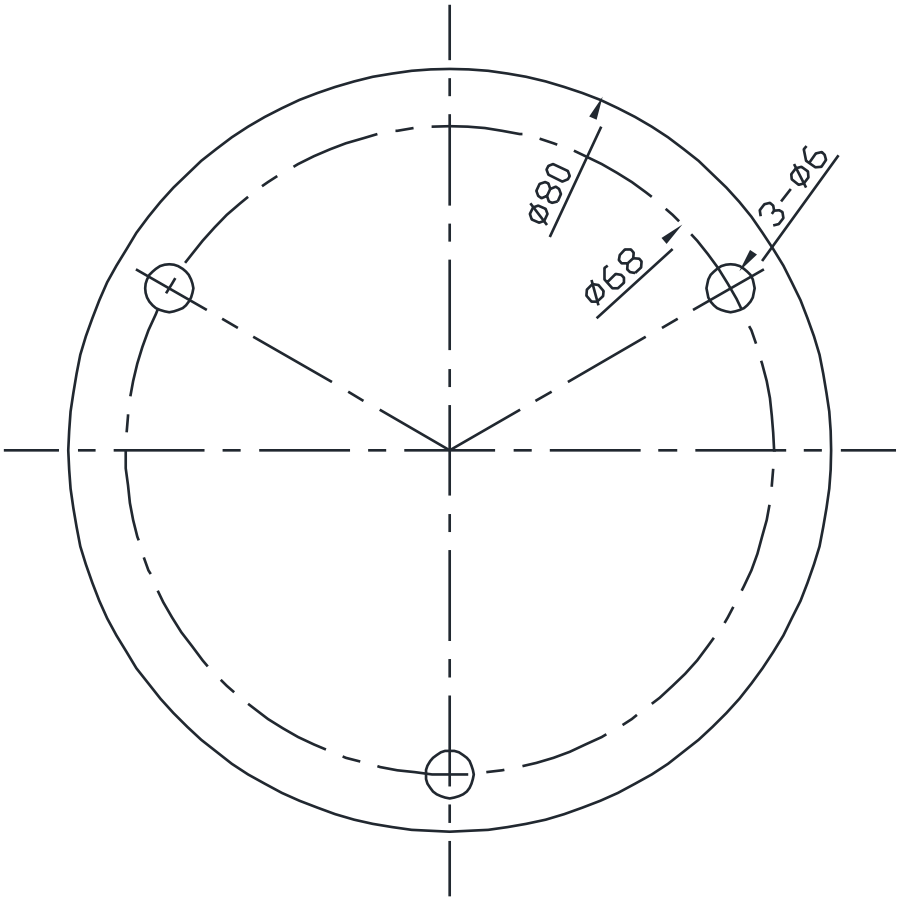
RJ45 LAN connector for 10/100 Base-T Ethernet (PoE supported).

4. INSTALLATION

4.1. Installing the camera

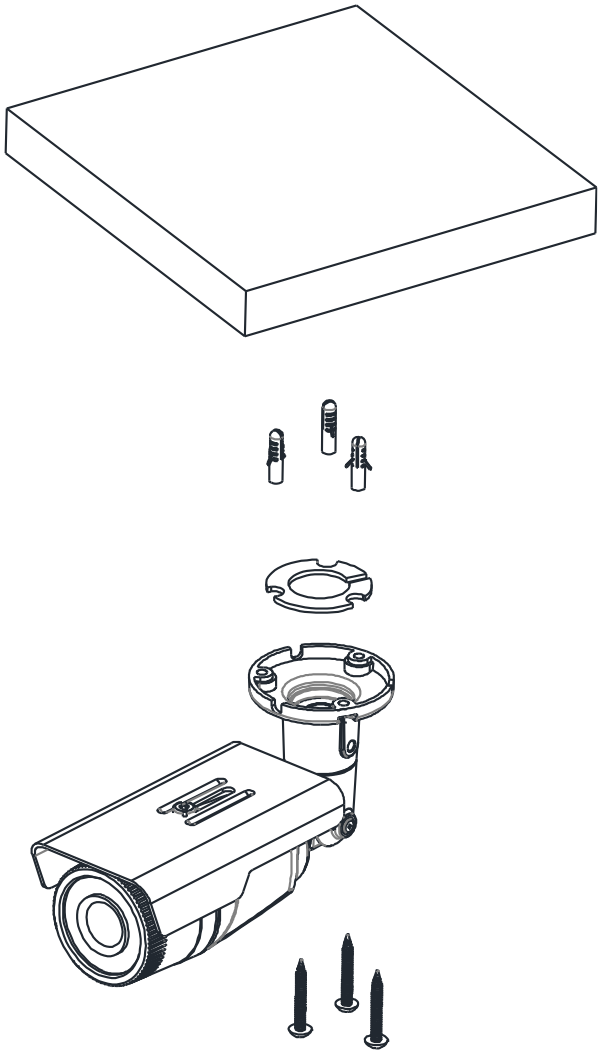
4.1.1. Installation without bracket

Installation Template



(Unit: mm)

Installation template's image size scale in this installation guide is not 1:1.
The correct-size template design paper can be found inside the package se parately.



1) Place the installation template included in the package on the desired installation surface.

2) Drill three holes in correct positions based on the template paper, and insert the anchor blocks into the holes.

3) Attach the silicon waterproof band included in the package to the camera's mounting surface by aligning it with the three alignment holes.

4) Install the provided ferrite core on the cable. For the detailed instructions, refer to the note on the next page.

5) Connect the required cables to the device. Refer to the image on **5. CONNECTIONS** for the proper connections.

6) Place the camera body on the installation surface by matching three alignment holes with already inserted plastic anchors.

7) Tighten the plastic anchors with the screws (M4 x 30) included in the package.

8) Adjust the heading direction of the camera.

9) To adjust zoom and focus, refer to **4. Adjust Zoom and Focus** for the instructions.

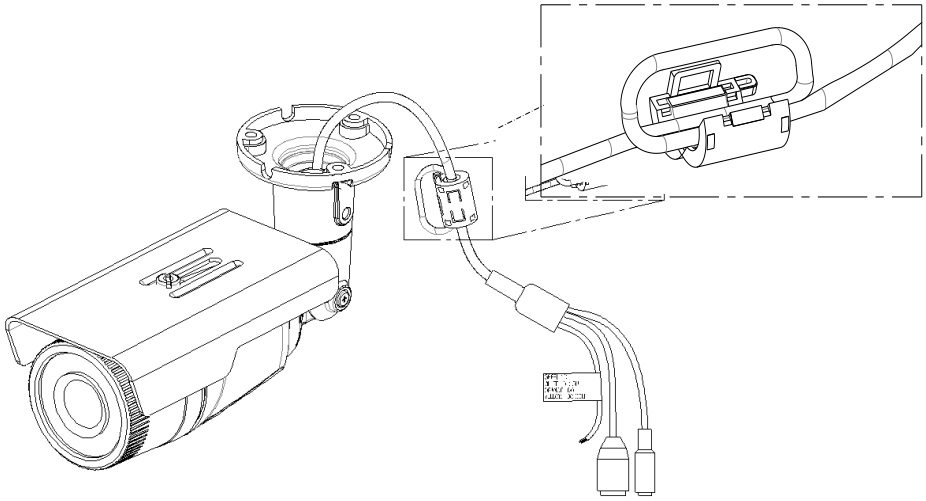
Sealing gaps is recommended as gaps may appear after the camera installation. Gaps may cause problems such as moisture, water leakage and etc., which negatively affect the operation of the camera if gaps remain unsealed.

To prevent products from damage, place the camera on a stable and non-vibrating surface. If the stability is in doubt, consult safety personnel for reinforcements, and then proceed with the installation.

Installation of Ferrite Core

Installing the ferrite core is highly recommended to reduce high frequency noise level.
The instructions and the image below explain how to install the ferrite core on the cable.

1. Open the ferrite core by lifting the clip.
2. Make one loop with the cable through the ferrite core like the enlarged square image below.
3. Close the ferrite core to hold the cable loop into place.



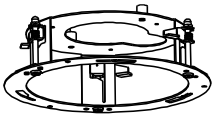
4.1.2. Compatible accessories

- 5.02071: G-Cam/EBFC-002 (in-ceiling adapter for outdoor fixdome)

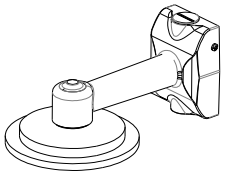
- 5.02072: G-Cam/EBWM-001 (Wall mount bracket for E2 EFD) in comb. with 5.02083, G-Cam/ECMA-002 corner mount adapter or 5.02082, G-Cam/EPMA-004 Pole mount adapter)

- 5.02080: G-Cam/EBWM-005 (Wall mount bracket for E2) with adapter 5.02085, G-Cam/EBDA-200 only. The bracket also fits on 5.02090, G-Cam/EJBX-001 (E2 Junction Box) or on 5.02083, G-Cam/ECMA-002 (corner mount adapter) or on 5.02082, G-Cam/EPMA-004 (pole mount adapter), each with adapter 5.02085 (see above)

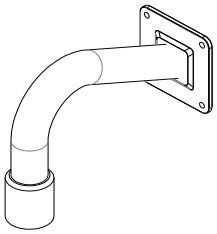
- 5.02081: G-Cam/EBCE-003 (bracket ceiling extension) with adapter 5.02085, G- Cam/EBDA-200 only.



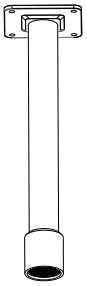
G-Cam/EBFC-002



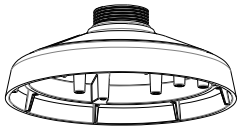
G-Cam/EBWM-001



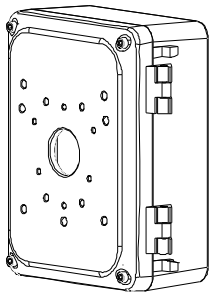
G-Cam/EBWM-005



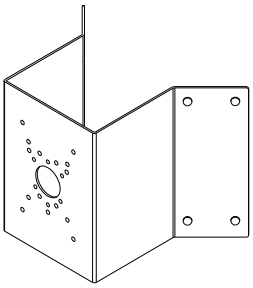
G-Cam/EBCE-003



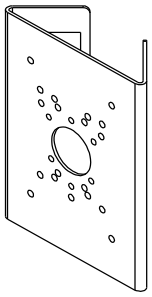
G-Cam-EBDA-200



G-Cam/EJBX-001



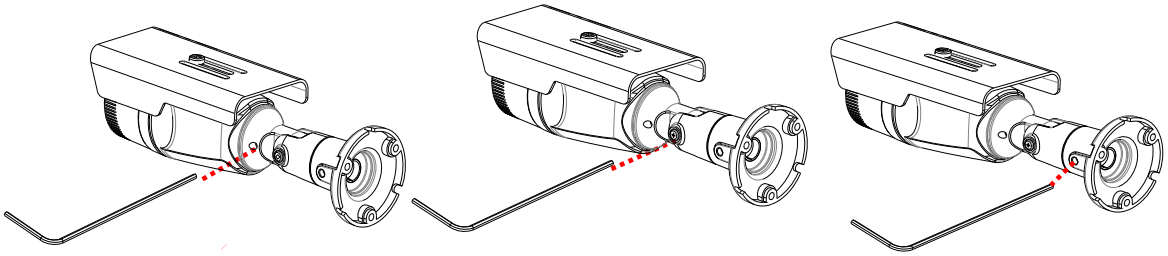
G-Cam/ECMA-002



G-Cam/EPMA-004

4.2. Adjusting angle of the camera

1. Adjust the camera to the desired angle by unscrewing the joints referring to the following pictures.

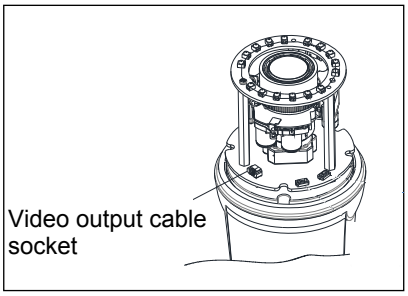


Adjust the joint to install the camera on

Adjust the joint to tilt the camera angle.

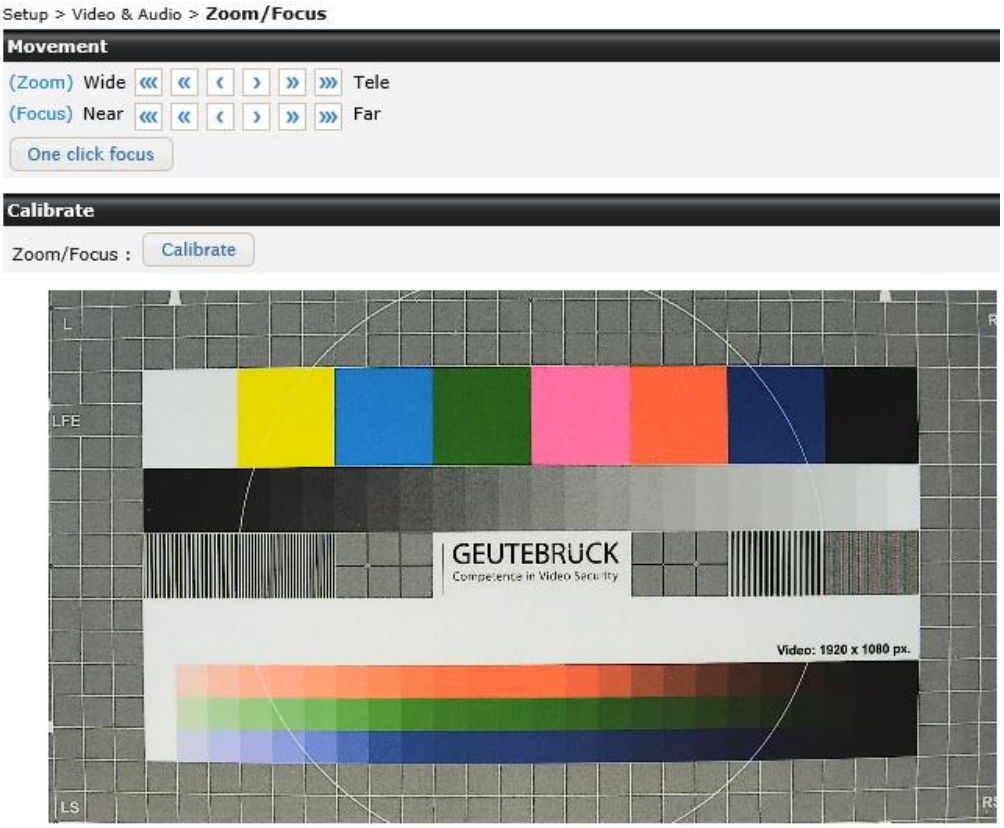
Adjust the joint to delicately

2. Insert the video output cable (included in the package) to the video output cable socket, and connect it to an analogue video test monitor to check if the camera angle has been set as intended. If the angle is appropriate, disconnect the camera from the analogue monitor, and then remove the video output cable from the camera.



4.3. Adjusting zoom and focus

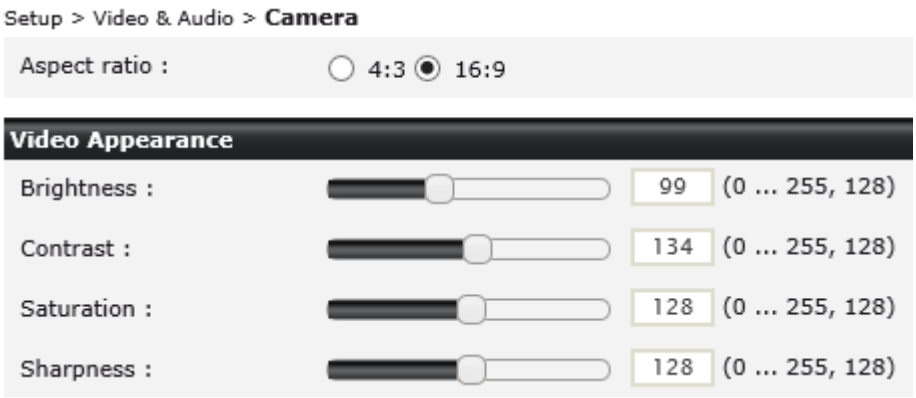
To be able to adjust zoom and focus, it is necessary to connect the device to a network. Please refer to **6.CONFIGURATION** for the detailed method of network connection.
Once the device is on the network and the webpage is open, go to **Setup**> **Video & Audio** > **Zoom/Focus**. Then, the features shown below will appear.



1. Adjust zoom and focus by clicking arrow buttons: the buttons « » move the lens more extensively than the buttons ‹ ›.
2. Click **One Click Focus** to automatically set the lens focus.
3. If focus point is considered misaligned, reset it to a zero point by clicking **Calibrate**.

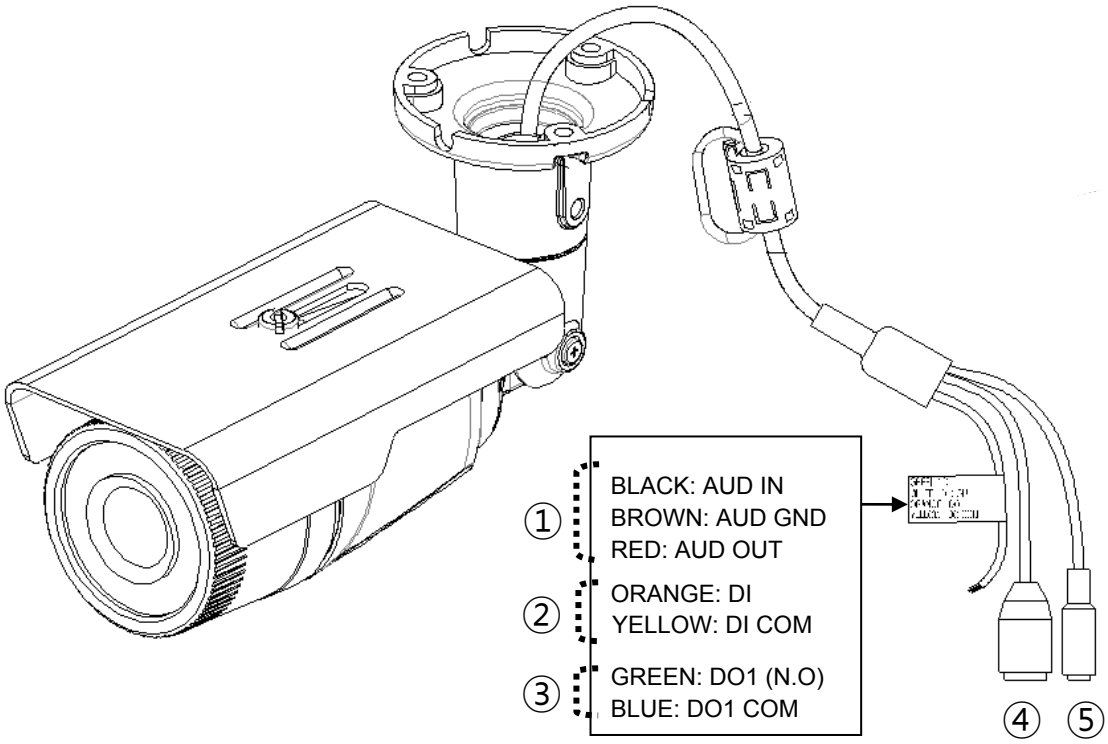
4.4. Setting the Image Attributes

On the camera's webpage, users can configure the image attributes. The menu of the image attributes is available at "Video Appearance" via the path **Setup > Video & Audio > Camera**.
The following features can be adjusted: Brightness, Contrast, Saturation, and Sharpness.



For more detailed information, refer to the webpage user's manual.

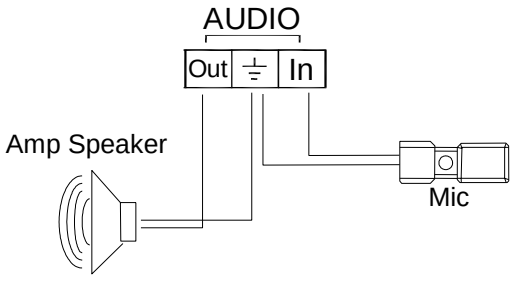
5. CONNECTIONS



① Audio Connection

The camera provides a mono audio input and output. Due to low audio output power, an amplified speaker is recommended for enhanced sound (Refrain from connecting a headphone or an earphone directly to the camera).

- **Microphone In:** Max 2 Vp-p, 20KΩ (90dB)
- **Loudspeaker Out:** 60mW, 16Ω (95dB)

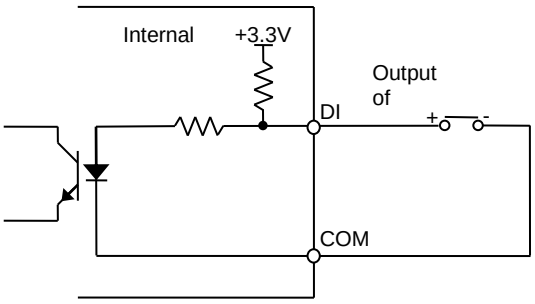


② Sensor (DI) connection

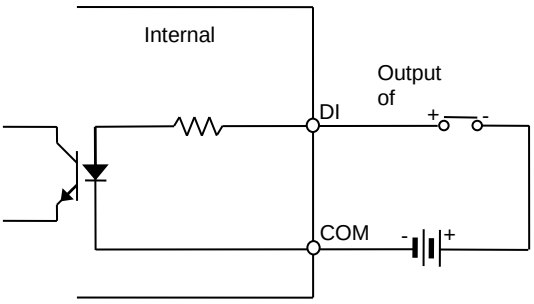
Sensor (DI) can be connected to either a voltage type sensor or a relay type sensor. Settings can be done through the camera's webpage.

Input voltage range: 0VDC minimum to 5 VDC maximum, max. 50mA.

Do not exceed the maximum input voltage or relay rate.



Relay Type



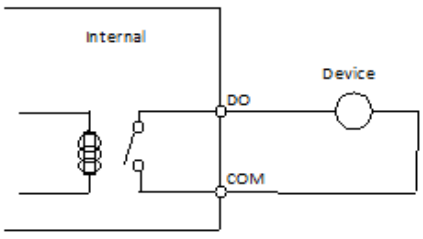
Voltage Type

③ Alarm (DO) connection

Only the relay type is supported.

Relay Rating: Max 24 VDC 50mA

Do not exceed the maximum relay rating.

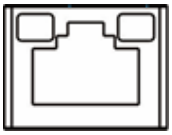


Relay Type

④ LAN connection

This is a RJ45 LAN connector for 10/100 Base-T Ethernet. Use the Ethernet cable (RJ45) to connect the device to a hub or a router in the network. When the device is connected in network, the orange LED blinks while green LED .

Green LED Orange LED



Refer to "**Appendix (B) Power over Ethernet**" for more information.

⑤ Power Connection

The camera can be powered by either 12 VDC or PoE+. If the camera is powered via PoE+, refer to "**Appendix (B) Power over Ethernet***"* for more information.

6. CONFIGURATION

6.1. Set up network environment

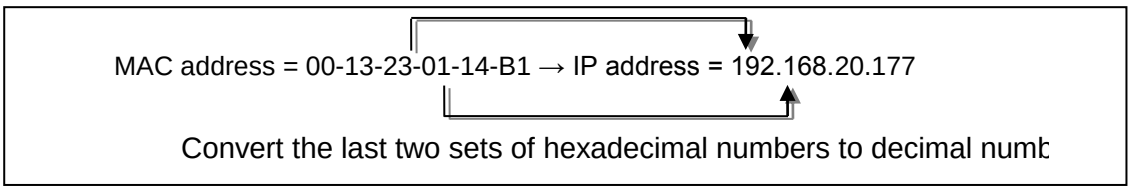
The default IP address of the device is 192.168.XXX.XXX. Users can identify the IP address of the device from converting the MAC address's hexadecimal numbers, which is attached to the device. Be sure that the device and PC are on a same area network before running the installation.

IP address: **192.168.xxx.xxx**
Subnet mask: **255.255.0.0**

Generic IP Environment

In case of generic private network environment where IP addresses 192.168.XXX.XXX are used, users may view the live streaming images on a web page using the device's default IP address:

1. Convert the device's MAC address to the IP address. Refer to the Hexadecimal-Decimal Conversion chart at the end of the manual.
   (The MAC address of the device is attached on the side or bottom of the device.)



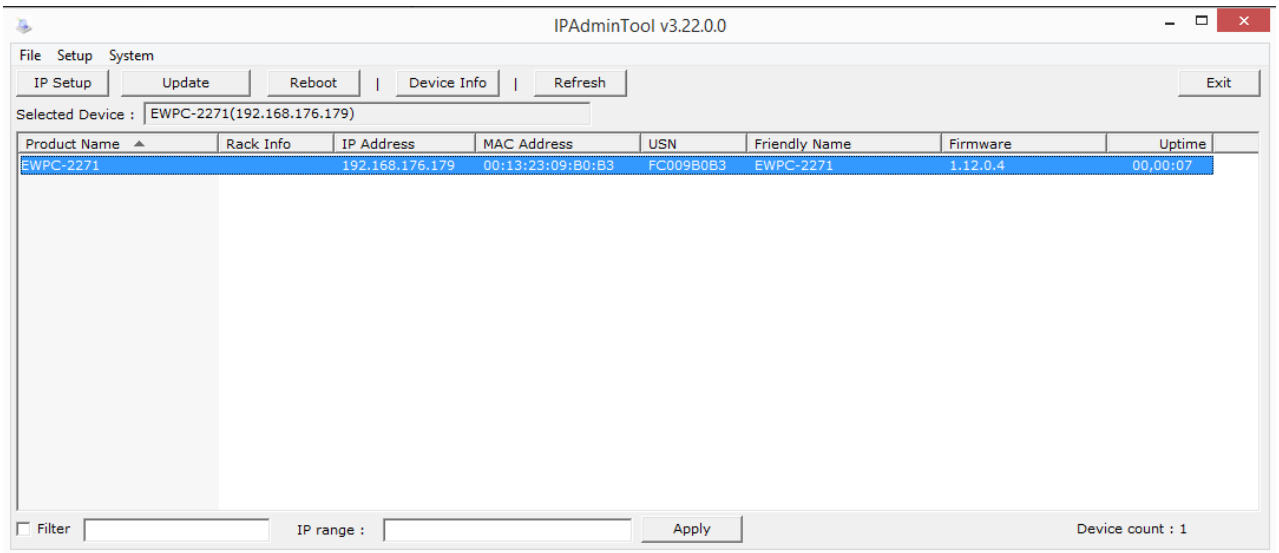
„B1" means: 1x 16^0 + 11x (B) 16^1 = 1 + 176 = 177.
„14" means: 4x 16^0 + 1x 16^1 = 4 + 16 = 20.

2. Start the Microsoft® Internet Explorer web browser, and enter the IP address of the device.

3. Web streaming and device configurations are supported through ActiveX program. When the ActiveX installation window appears, authorize and install the ActiveX.

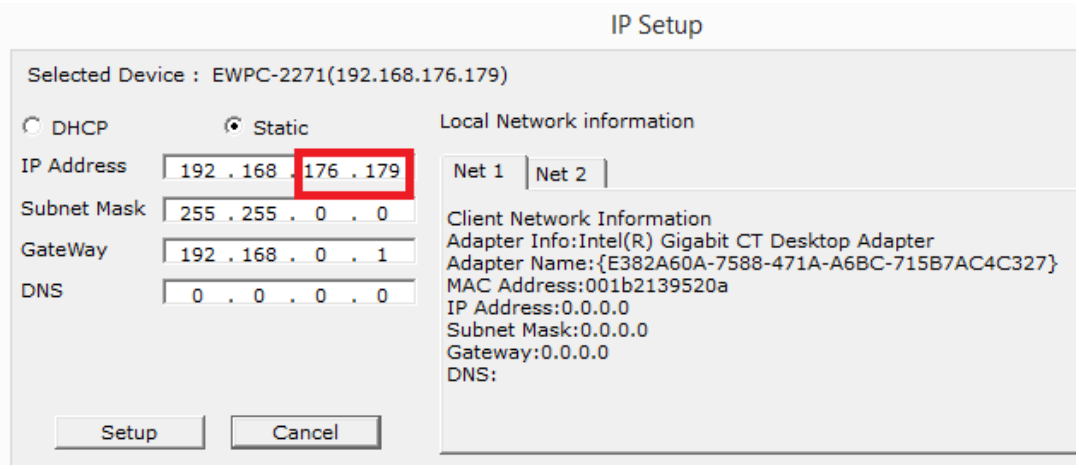
Custom IP Environment

IPAdminTool is a management tool, which automatically scans all network products for users to perform administrative tasks, which includes network configurations, firmware update, device reboot, and device organizations.



To modify the device's default IP address for customized network area:

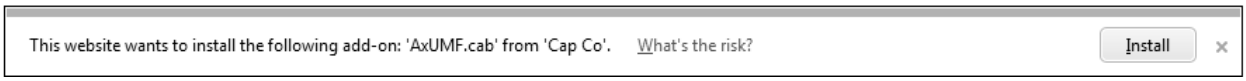
1. Find the device from the IPAdminTool's list and highlight the device's name.
2. Right-click the mouse, select **IP Address**. The IP Setup window appears.



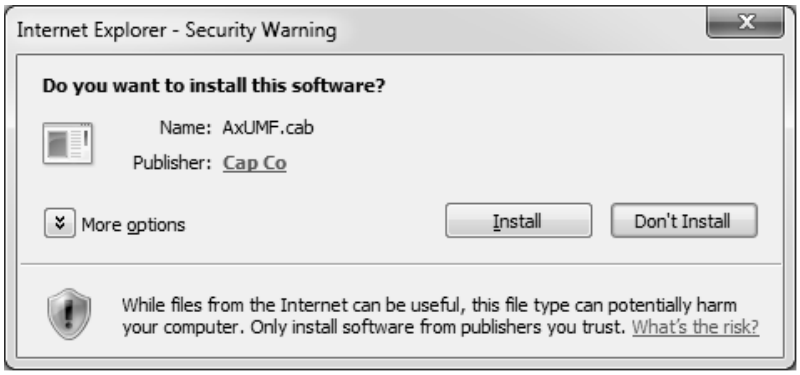
3. Modify the last two digits of the device's IP address, and modify the rest parts including subnet mask, gateway, and DNS if necessary by checking the user / PC network area information.
4. Click on "Setup" to save the changes.
5. Later changes can be executed via Microsoft® Internet Explorer.
6. Streaming and configuration are realized with ActiveX. If you are asked for installation, apply this.

6.2. View video on web page

Type in the proper IP address to view the live streaming images. For first access this window may open:



1. When the browser asks to install the AxUMF software, click **Install** to proceed.



2. When the Setup installation pop-up window appears, click **Install** to proceed with the rest of the installations.

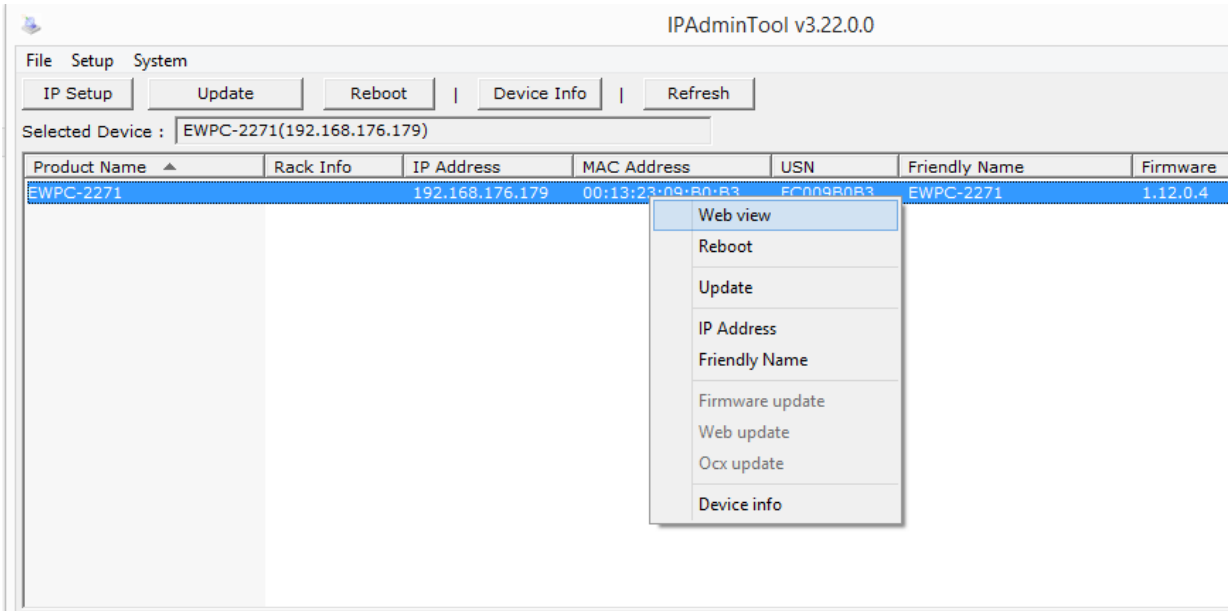
Depending on system OS and Internet Explorer version, installation experience may differ from one another. Figures described above are from Windows 7, Internet Explorer 9 environment.

6.2.1. View video using IPAdmin Tool

IPAdminTool automatically searches all activated network encoders and IP cameras and shows the product name, IP address, MAC address, etc. (IPAdminTool -> CD).

1. From the IPAdminTool's product list, select the device by highlighting it.

2. Right-click the mouse, and select **Web View**. The system's default web browser opens the device's address.



3. The IP camera´s IP address will be inserted into the web browsers´s input box.

This page opens after clicking on “Setup” on the home page.

Whether directly accessing the streaming video by typing the IP address on a web page or taking steps through IPAdminTool, ActiveX is needed to be installed for Microsoft® Internet Explorer to have the complete configuration privileges.

6.3. Reboot

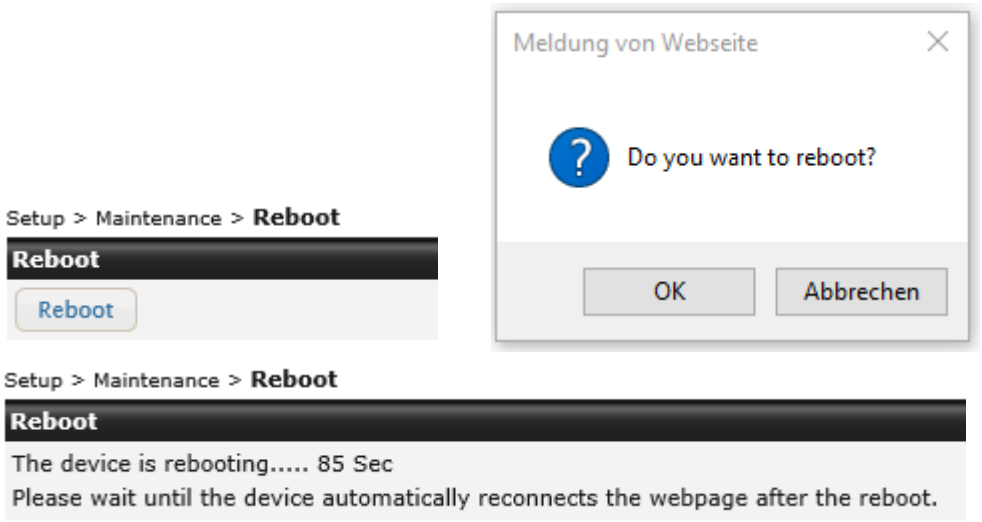
Perform the following procedures to reset your device.

On the camera

1. Press the reset button for 2 seconds when the device is powered on.
2. Wait for the system to reboot.

Do not press the reset button for more than 2 seconds. Otherwise, the camera may be switched to its factory default settings.

On the webpage



1. Go to **Setup > Maintenance > Reboot** on the camera's webpage.
2. Click **Reboot**. A dialog box will appear to ask you if you really want to reboot.
3. Click **OK**, and wait for the system to complete booting.

NOTE: In both cases it may come to a timeout. Refresh the homepage by pressing F5 button or the refresh icon in the IE´s input box.

6.4. Factory Default

Resetting the device back to the factory default will initialize all the parameters of the device. However, the factory default on the webpage allows certain main parameters to be preserved.

On the camera

1. Press the reset button for 10 seconds by making sure that booting is complete on the device.
2. Wait for the system to reboot.
   Then, all the parameters of the device will be initialized.

On the webpage

1. Go to **Setup > Maintenance > Reset All Settings** on the camera's webpage.
2. Select the items among network settings, user account information and time zone setting to keep from the factory default.
3. Click **Reset All Settings**. A dialog box will appear to ask you if you want to reset all settings.
4. Click **OK**, and wait until the **Reset All Settings** page is refreshed after the reboot.
   Then, all the parameters except for the unchecked items will be initialized.

The factory default settings can be inferred with the following information:

IP address:	192.168.xx.yy
Network mask:	255.255.0.0
Gateway:	192.168.0.1
User ID:	root
Password:	admin

NOTE: In both cases it may come to a timeout. Refresh the homepage by pressing F5 button or the refresh icon in the IE´s input box.

6.5. Safe Mode

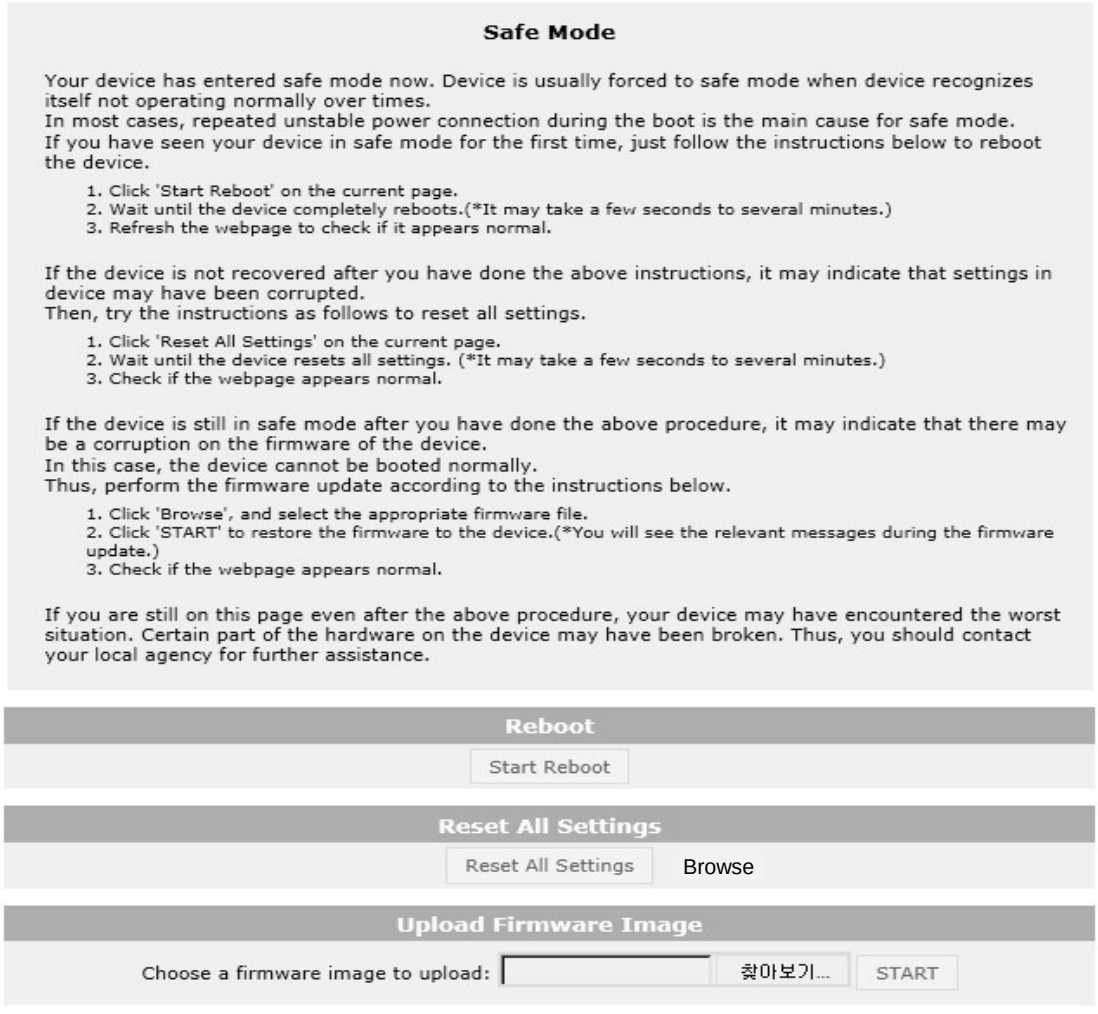
There may be certain occasions that your camera repeatedly fails to boot. Then, your camera may enter safe mode to be recovered from the occasions.

What may have caused Safe Mode?

Here below are the main typical causes:

* The power supply is continually unplugged certain times in the middle of system booting.
* The firmware files required for system booting are damaged.
* There are conflicts in the system settings.

How to recover your system from Safe Mode?



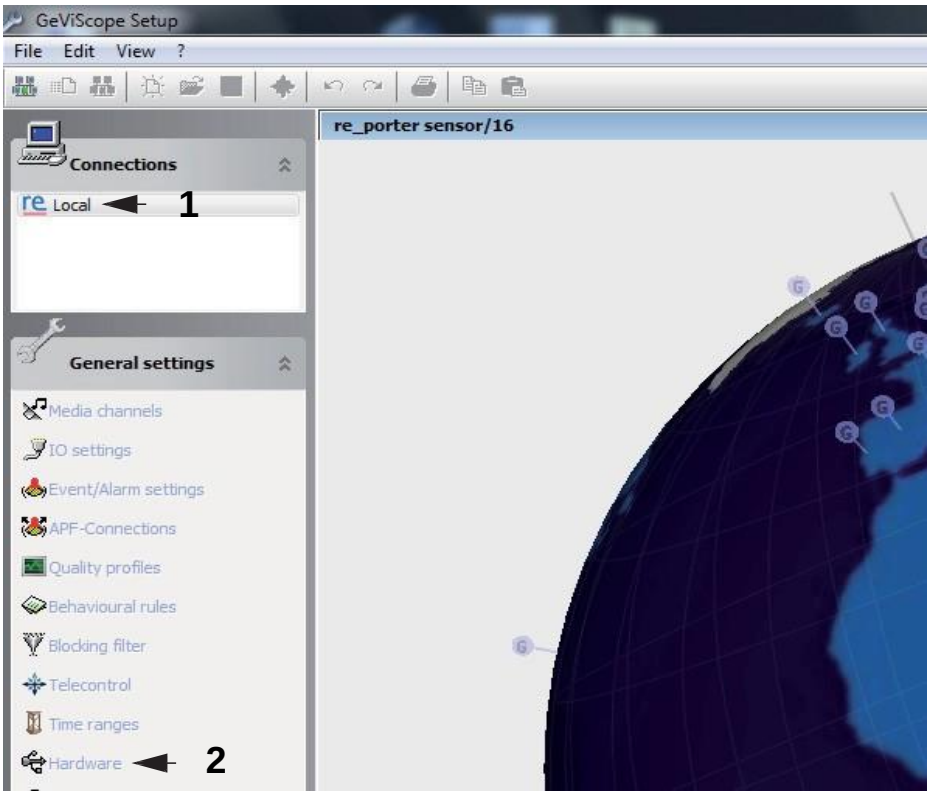
The messages above will appear on the webpage when your device has been rebooted in safe mode. Then, you should follow the instructions on the webpage according to each step.

There is another method to update firmware, which is using IPAdminTool.
Please refer to 'IPAdminTool User's Manual.pdf' for the detailed procedure.

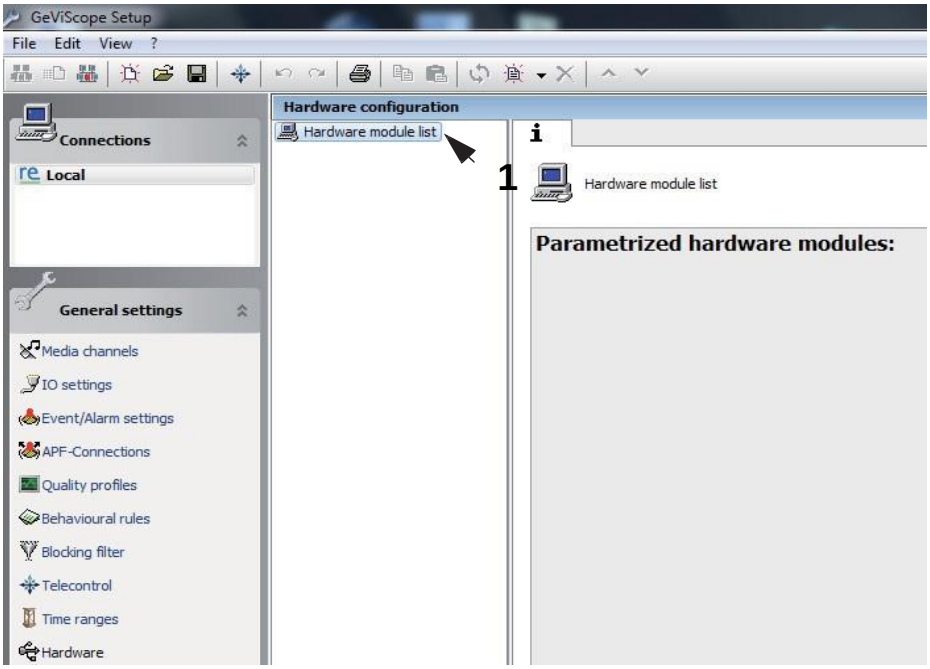
If your device is still in safe mode after trying to update firmware, please contact your local agency to get further assistance.

6.6. Configuration in GEUTEBRÜCK GscSetup

Start the software "**GscSetup**" by double clicking on the desktop icon.

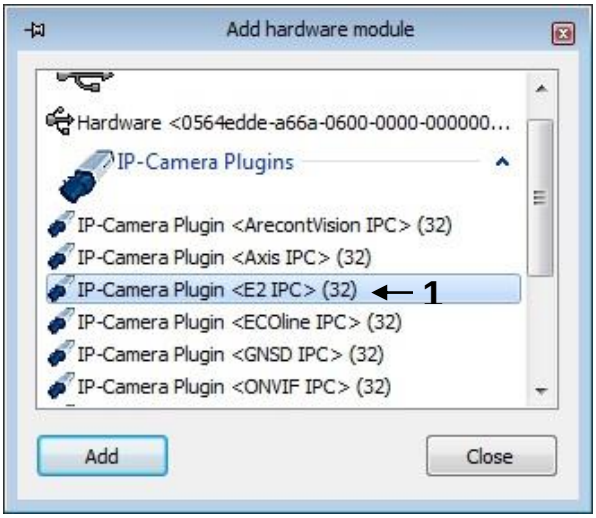


Double click on "**local**" (**1**). Click on "**Hardware**" (**2**).
The “Hardware module list” will open.

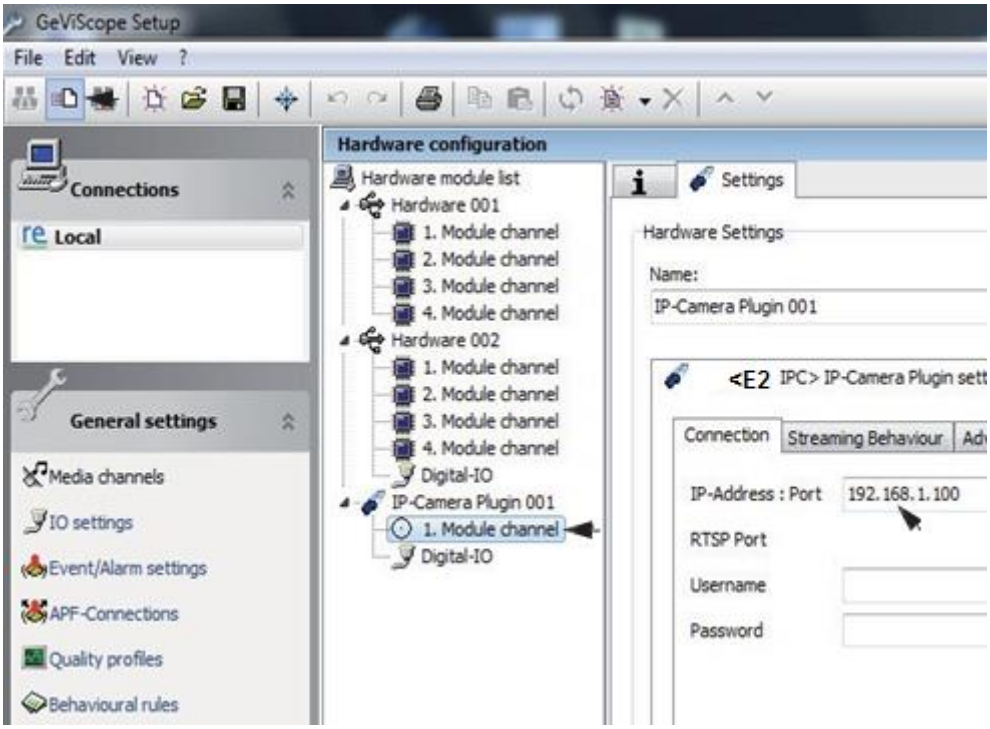


With a right click on "**Hardware module list**" (**1**) you will open a pop up window.
Click on button "**Add**". A second pop up window appears.

Click here also on Button "**Add**". A list with the available hardware modules opens (see following figure).



Please scroll to the camera Plugin <**E2 IPC> (32)** and doubleclick on it.
The chosen module (**1**) appears as "**IP-Camera Plugin 001**" in the "Hardware module list" (see next figure).



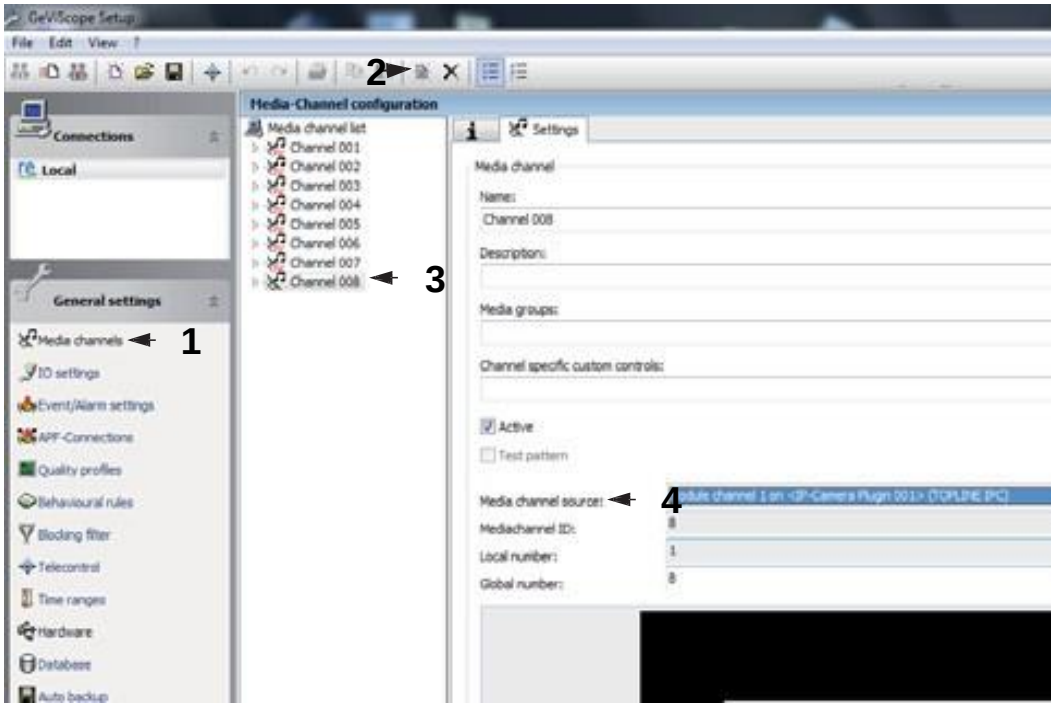
The name can be changed (e.g. G-Cam_E001 Camera 1).

Click the icon  on the toolbar to send your choice to the server (**1**).

Click on the camera's module channel (**2**) and insert the new IP-adress of your G-Cam/EXX camera in the connection menu (**3**).

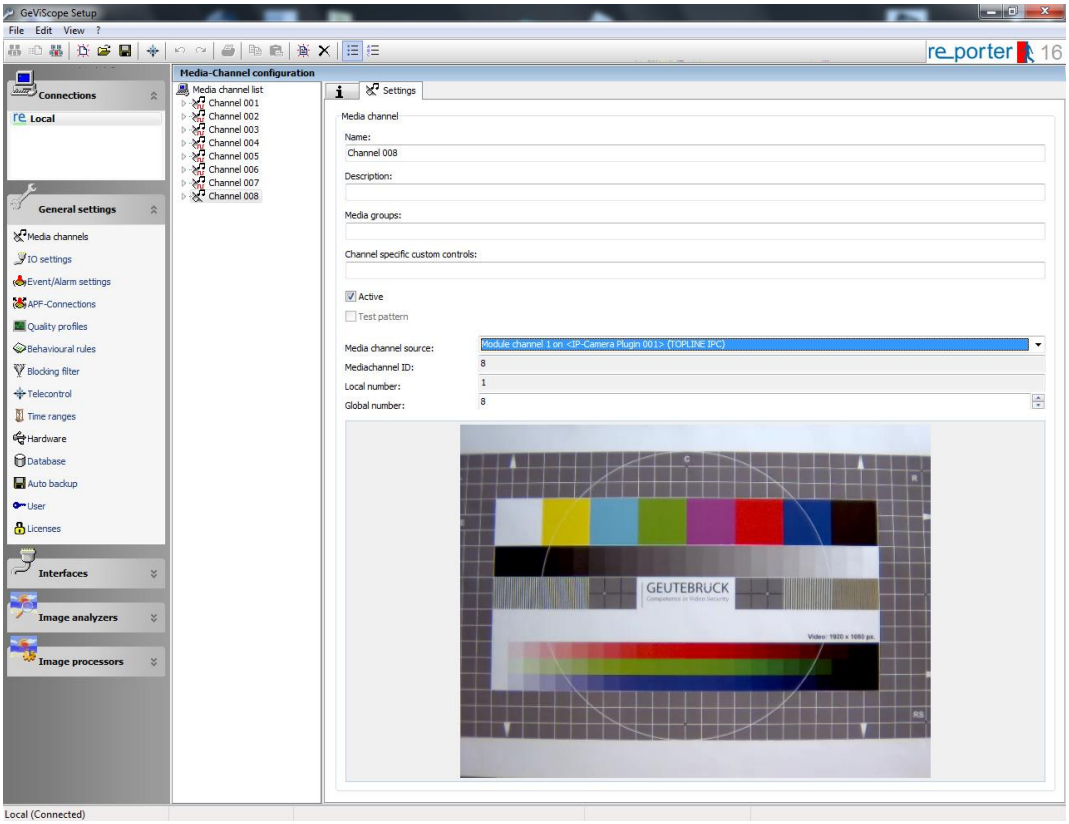
Click the icon  on the toolbar again to send your modifications to the server (**1**).

Now you must assign a **media channel** to transmit the camera's pictures.
Please click in "General settings" on the menu item "Media channels" (**1**).
A list of the available media channels appears.
Click the icon "Add" (**2**) on the toolbar to add a new media channel.



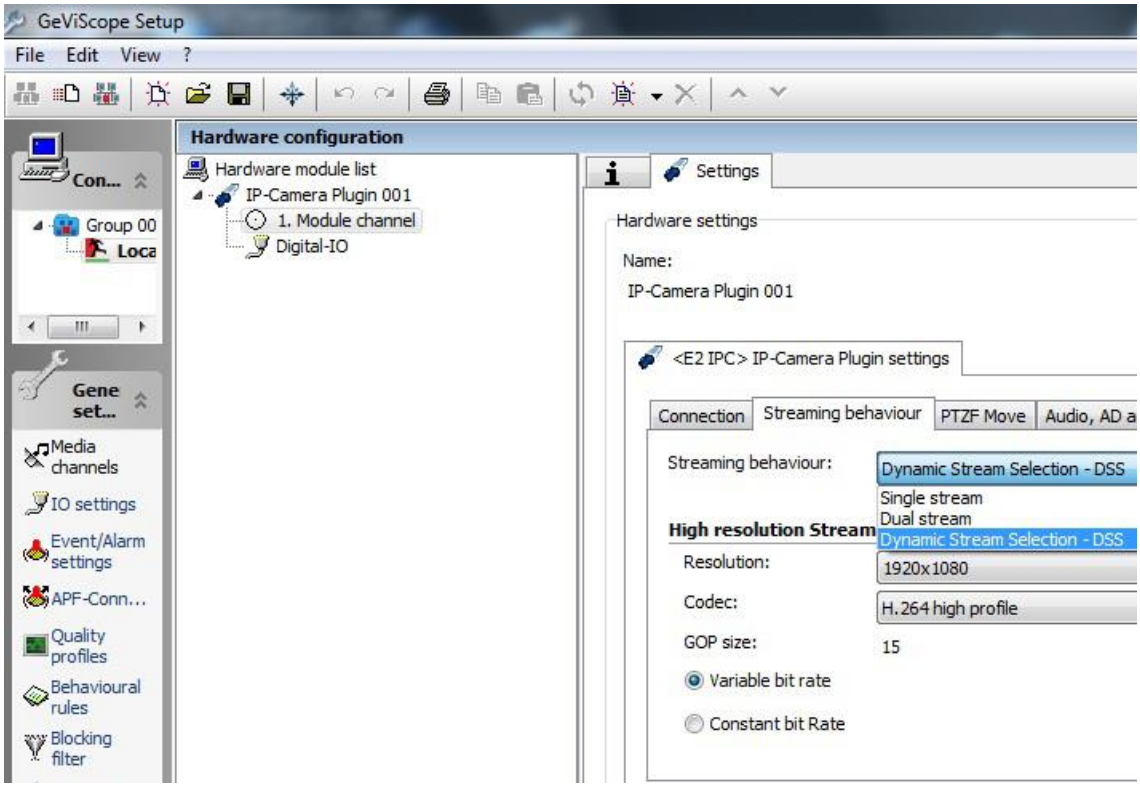
Mark the new media channel with click. (**3**).
Choose "**IP camera plugin (E2 IPC)**" in the menu "Media channel source" (**4**).

Click the icon  on the toolbar to send your choice to the server.
Now the camera's picture stream appears in the viewer (see next figure).

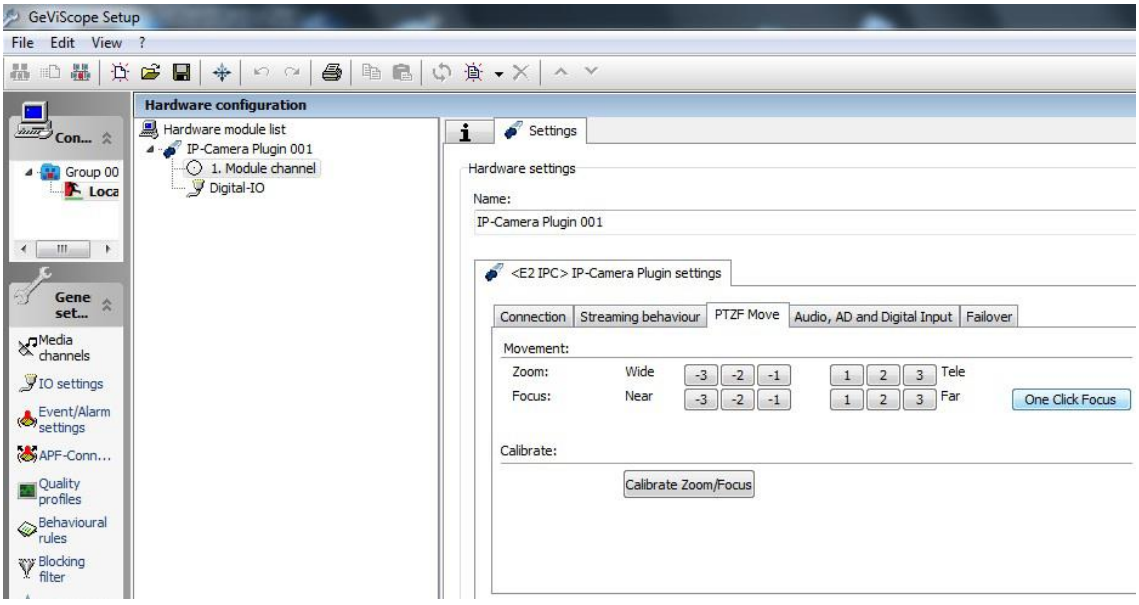


6.4.1. Advanced configuration

In the hardware configuration you can make advanced settings like the streaming behaviour (see following screenshots).

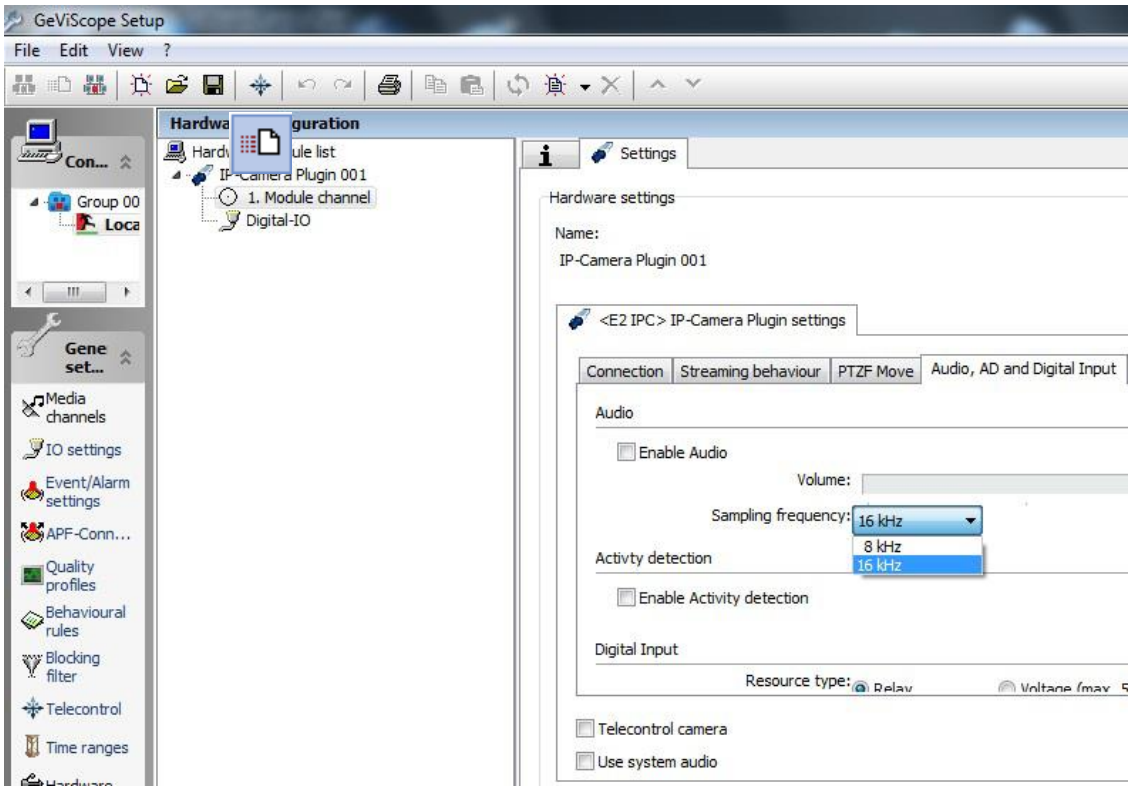


Please note, that the configurations made here will **overwrite** the webbrowser configurations!



PTZF Move doesn't apply to **Box cameras**.

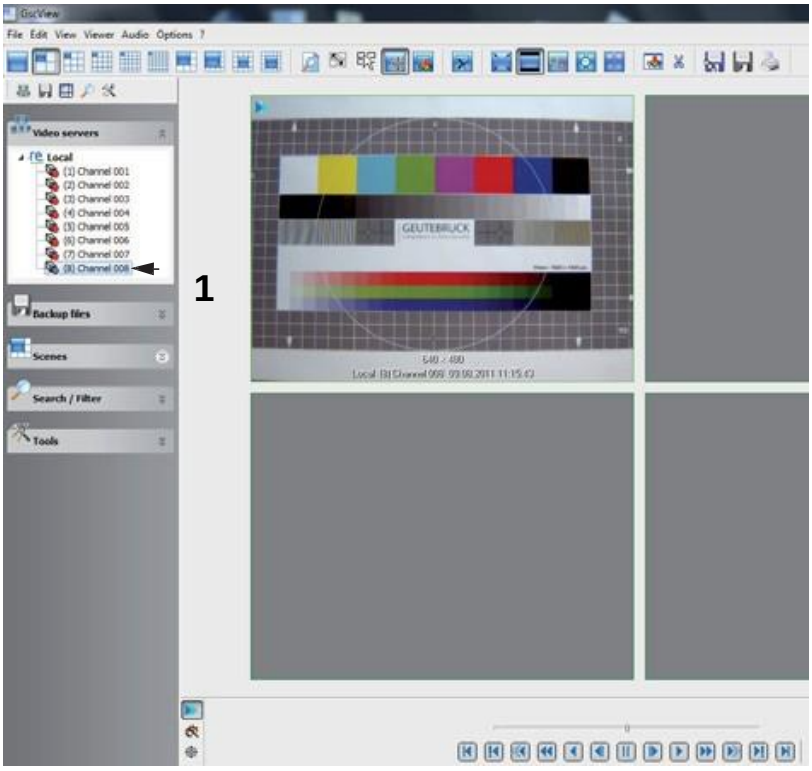
Please note, that the configurations made here will **overwrite** the webbrowser configurations!



Click the icon  on the toolbar to send your choice to the server. **Please note**, that the configurations made here will **overwrite** the webbrowser configurations!

Close the GSCSetup software.

Start the GSCView software with a double click on the desktop icon GSCView.



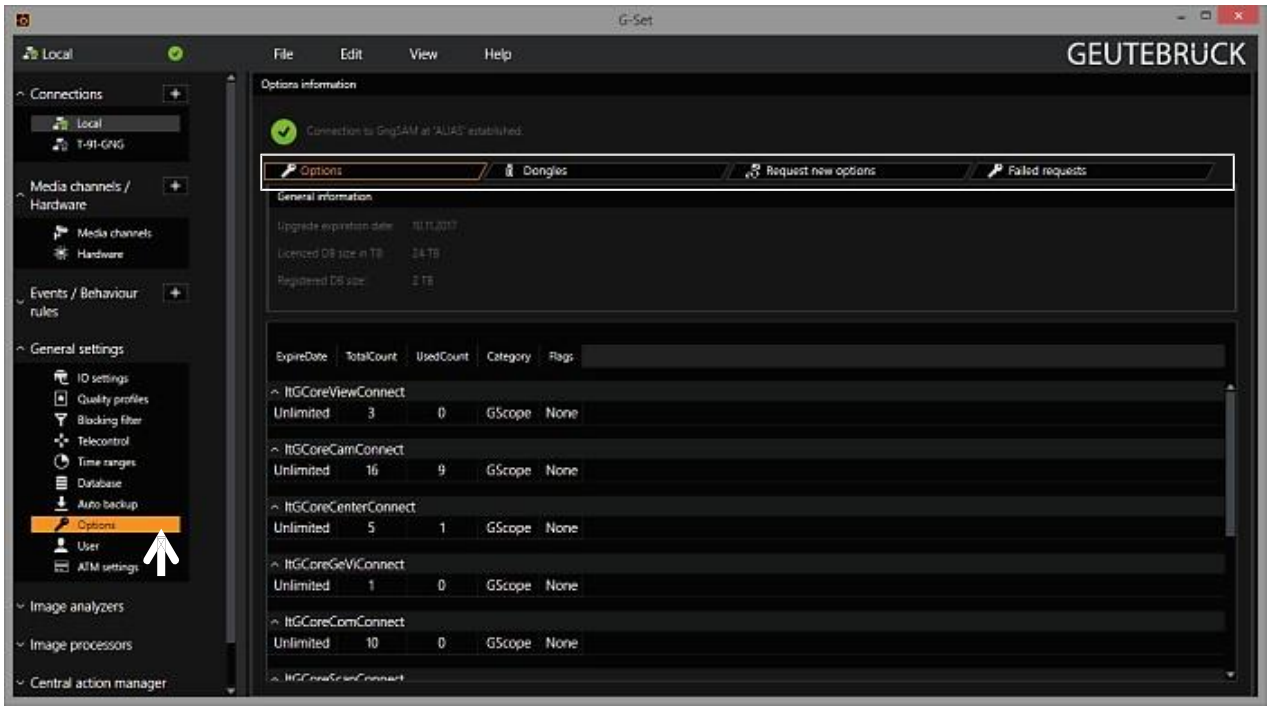
By click on the camera's media channel (**1**) the camera's video stream will be shown on the selected viewer.

6.7. Configuration in GEUTEBRÜCK G-Set

NOTE: For correct installation of IP cameras one **Option G-Core/CamConnect** must be available for each camera.
Available options are shown in G-Set at *General settings* - *Options*.

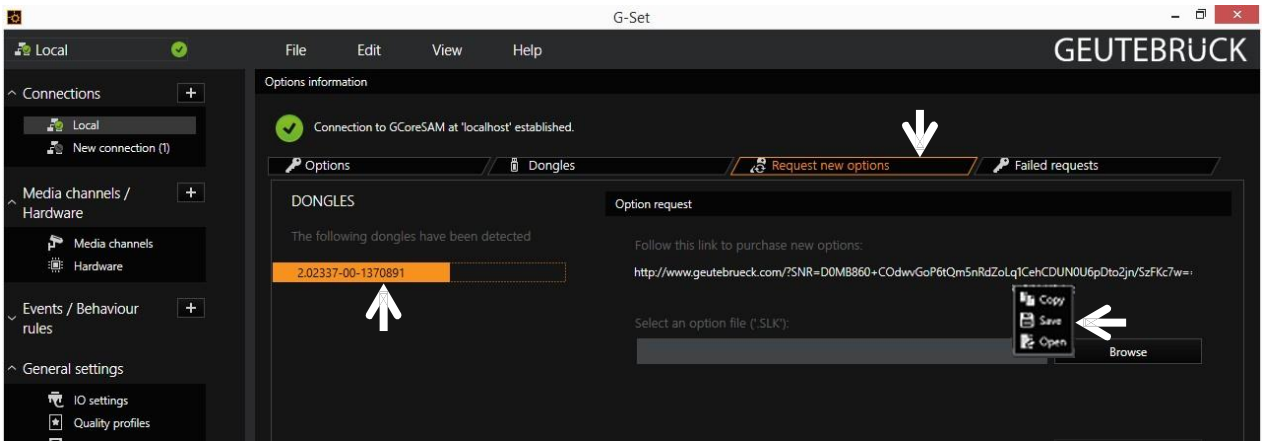
Required options can be ordered using *General settings* - *Options* in G-Set.

After clicking on *Options*, the options dialog opens with the first tab, which shows an overview of the available options.



The dialog shows the four tabs *Options*, *Dongles*, *Request new options* and *Failed requests*.

Request new options



New options can be requested using this dialog. When you click the dongle that will be assigned the new options, an URL appears in the field *Follow this link to purchase new options*.

Right clicking this URL opens a menu in which the URL can be copied, saved or opened in the default browser.
After passing the URL to a browser, follow the instructions on the GEUTEBRÜCK website.

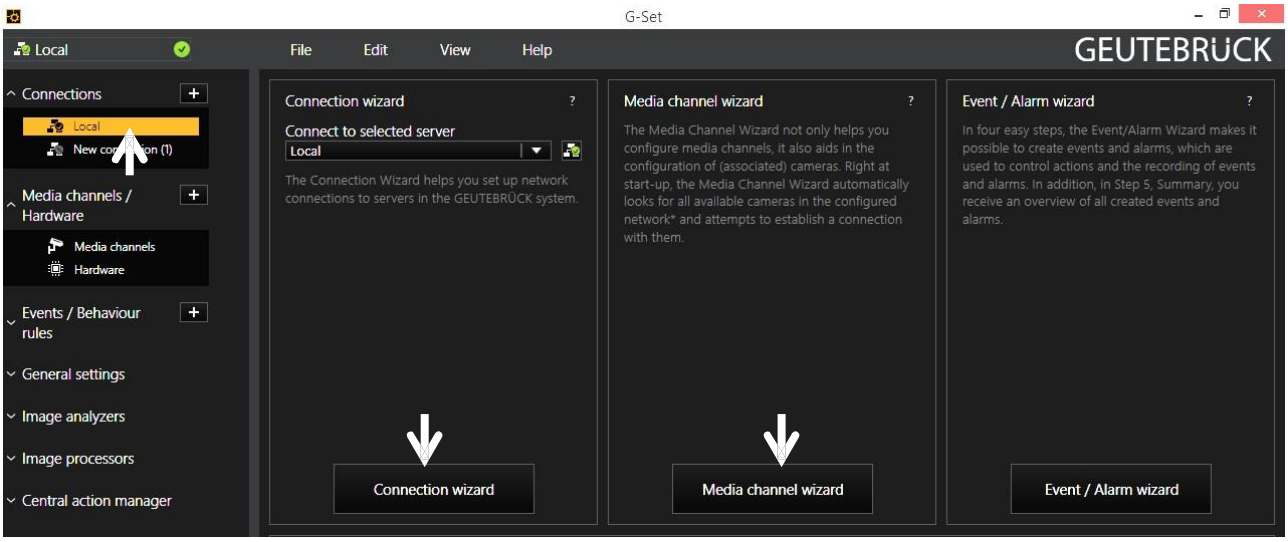
Adding IP Cameras

Please double click at desktop on the G-Set icon to open the G-Set configuration menu.

Step 1: Connection to a server

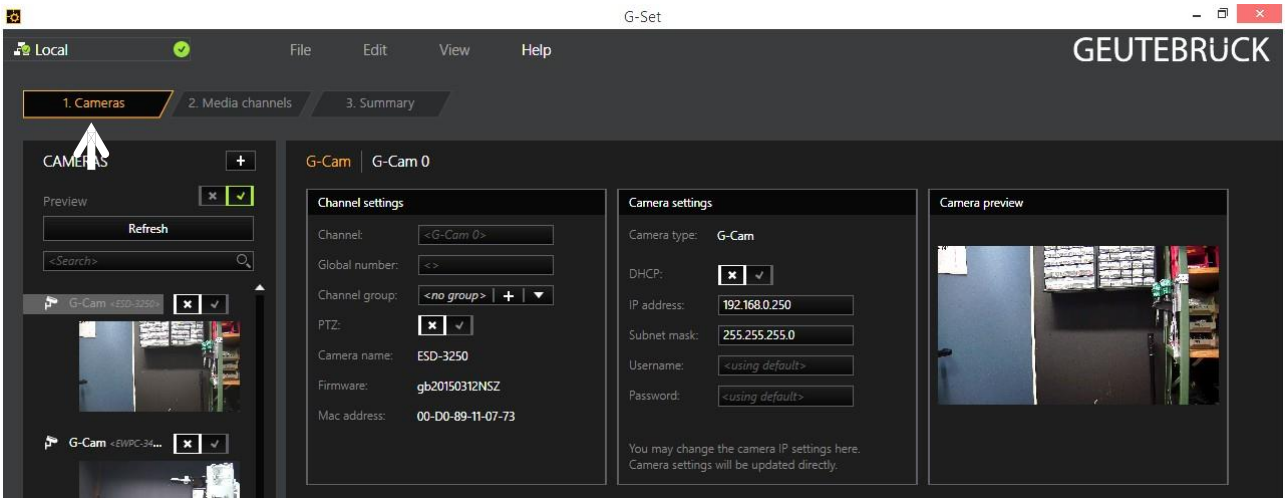
To connect G-Core with a (local or remote) server,

- Double-click on a connection available under *Connections* in the selection menu or
- In the Connection wizard dialog select a server from the list and click on the icon.
- By clicking *Connection wizard*, you can also configure new server connections.

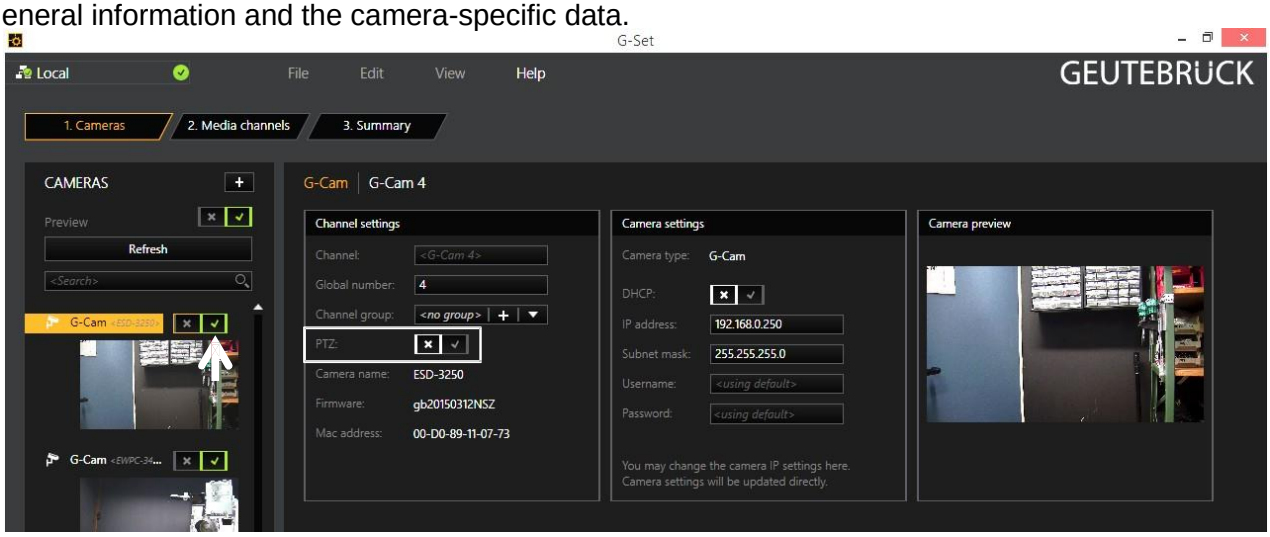


Step 2: Activation and configuration of Media channels.

Left mouse click at *Media channel wizard* and click on tab *Cameras* opens the following window:



The Media Channel Wizard automatically searches for existing network cameras and displays them in the first column.
Cameras for which access rights are available are also displayed with a small camera image.
You can now select the desired camera by clicking the tick box (changes to green) and edit the general information and the camera-specific data.



NOTE: If you want to control a PTZ camera, the **tick box PTZ** in the menu *Channel Settings* **must** be activated.

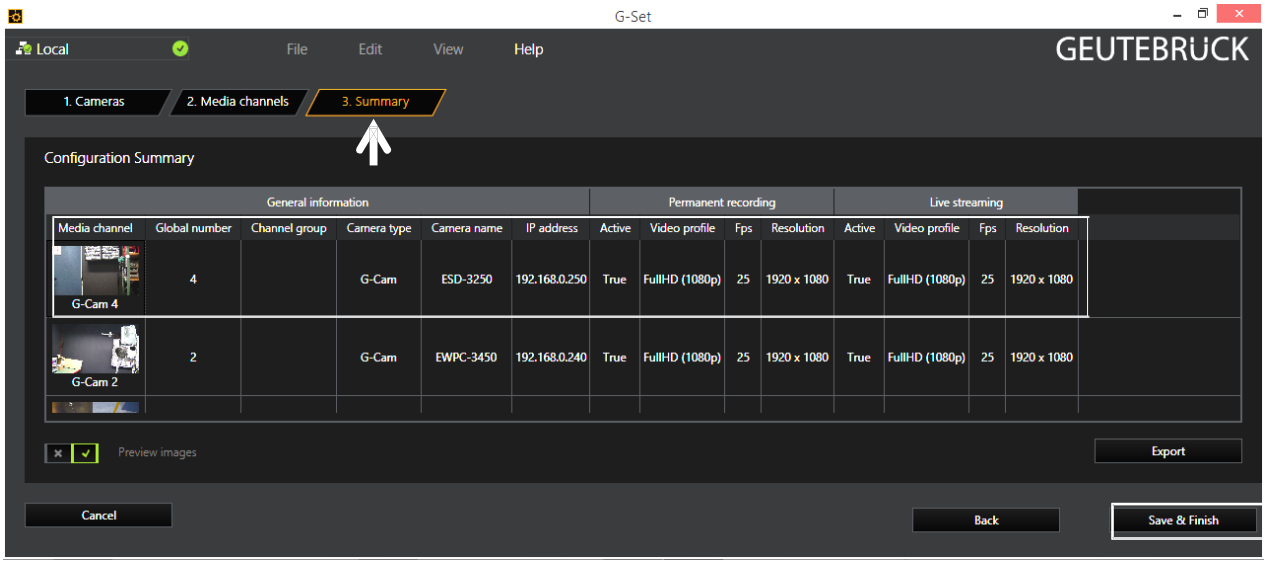
Left click on the tab *Media channels* opens the configuration window.

At left column (camera tree) please choose the desired camera.

In the camera menus you can make the desired settings for *Permanent Recording* and *Live Stream.*

Step 3: Summary (check settings, confirm and transfer settings to the server).

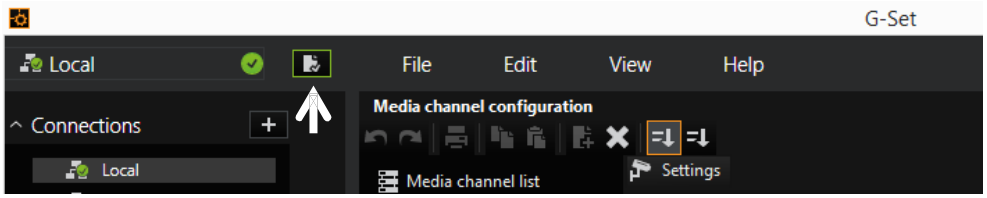
Mouse click on tab *Summary* provides you with an overview of all the settings that have been defined for your cameras.



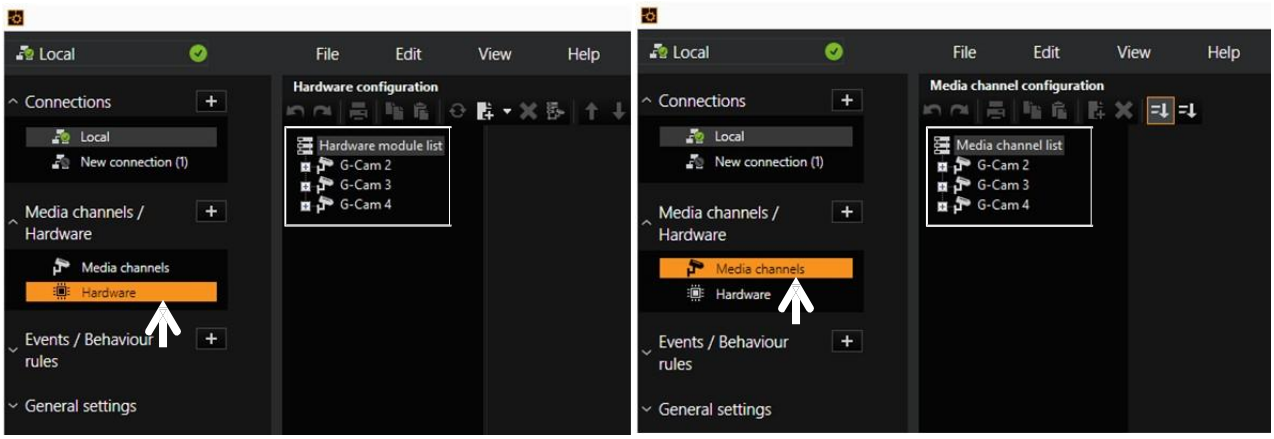
Please confirm your settings by clicking the button *Save & Finish*.

IMPORTANT: For settings to take effect, they **must** be sent to the server by clicking the icon  .

You can find the *transfer button*  on the *command bar* of G-Set.



Finally, with click at *Hardware* and *Media Channels,* you can check whether the camera is present in the network and the media channels are configured correctly.



Technical data

Mega pixel	2 MP (Full HD)
Image sensor	1/2,9“ CMOS (SONY Starvis Exmor)
Pixel size	17 µm
Picture Format	16:9
Lens	f = 2.8 mm to 12.0 mm (variable), w remote controllable zoom + focus, DC version
Auto Focus	Automatic, Manual, One Touch Function
Auto Back Focus	No
F-Stop	F1.4 (w) ~ F2.6 (t)
Angle of view	f = 2.8 mm / 90° (H) x 50° (V) f = 12.0 mm / 35° (H) x 20° (V)
Minimum sensitivity	0.2 Lux (color) 0 Lux (B/W, IR LEDs on)
Day/Night function	Removable IR cut filter: On (Smart IR), Off, manual (0 ~ 255)
IR-LED	850 nm / 35 m
Wide Dynamic Range	True WDR (100 dB max.)
White balance	ATW, One Push, Manual
Exposure	+ 1,0 ~ -1,0
Shutter	Automatic (1/30s ~ 1/10,000 s) / Manual (1/2 s ~ 1/5,000 s)
Backlight Compensation	Yes
Digital Noise Reduction	automatic (adjustable level 0 ~ 15)
Text overlay	Yes
OSD Menu	English, German, French, Italian, Korean, Simplified Chinese, Traditional Chinese, Russian, Spanish, Japanese, Portugese
Image rotation	0°, 90°, 180°, 270°
Compression	H264CCTV (Geutebrück) H.264 w/ VBR/CBR (Baseline, main, high profile, MPEG-4 Part 10/AVC), MJPEG
Picture rate (full resolution)	MJPEG: 30 fps, H.264: 30 fps
Resolution	1920 x 1080, 1280 x 720, 960 x 540, 640 x 360
Video Streaming	Single, Dual
Protocols	QoS Layer 3 DiffServ, TCP, UDP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, SMTP, IGMP, DHCP, UPnP, NTP, DNS, DynDNS, SSLv2v3, SNMPv1/v2c/v3 (MIB-II), ICMP, TLSv1, SRTP, RTMP
Network security	IP-Filter, HTTPS (SSL), IEEE802.1x
ONVIF compatible	Profile S, Profile G
Motion detection	8 Zones
Privacy masking	4 Zones
Alarm In/Output	1x In, 1x Out
VCA on board	with licence packs only
Audio	Line-in, Line-out, G.711
Picture memory	µSD slot (32 GB max.)
Operating Temperature	-40 °C to + 50 °C (@ 12 VDC or @ PoE)
Heater	Yes
Fan	No
Connectors	RJ-45 for 10/100 BASE-T Ethernet, full or half duplex; 3.5 mm plug for power supply; 9 wire cable for audio in/out and digital I/O
Voltage supply	12 VDC or PoE+ (IEEE 802.3at, 30 W)
Power consumption	Max. 19 W @ 12 VDC (heater on, IR LEDs on)
Housing	86 mm x 83,5 mm x 280 mm / 880 g
IP class / vandalism proof	IP 66
Certification	FCC, CE, RoHS
Licensing	unit dependent (Gsc or G-Core)
Application area	Outdoor
Brand	Geutebrück
Order No.	5.02041

APPENDIX (B): POWER OVER ETHERNET

The Power over Ethernet (PoE) is designed to extract power from a conventional twisted pair Category 5 Ethernet cable, conforming to the IEEE 802.3af Power-over-Ethernet (PoE) standard.
IEEE 802.3af allows for two power options for Category 5 cables.
The IEEE 802.3af-2003 standard allows up to 15.4 W to device. However, 12.95 W is the maximum available power as some of the power gets lost in the cable.
PoE has advantages over conventional power in such places where AC powers cannot be reached or is expensive to wire.

Power Comparison

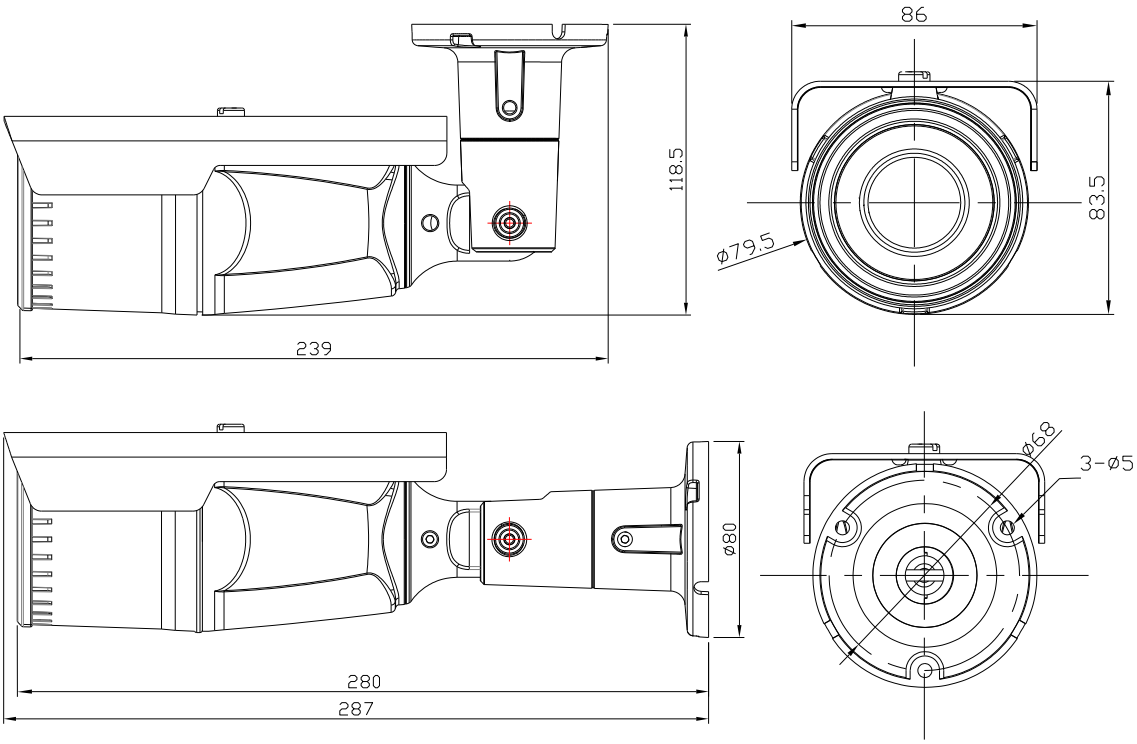
Property	802.3af	802.3at
Available Power	12.95 W	25.50 W
Max. Power by PSE	15.40 W	34.20 W
Max. Current	350 mA	600 mA
Supported Cable	Category 3 or higher	Category 5 or higher

For proper activation of PoE, the Category 5 cable must be shorter than 100 m and conform to the PoE standard.

With non-Power Sourcing Equipment (non-PSE)
When it is connected with non PSE, the power adaptor should be connected.

With power adaptor
Connecting both PSE and power adaptor does not do any harm to the product.
Disconnecting PSE or power adaptor from device does not reboot the device as long as either one is connected to the device.

APPENDIX (C): DIMENSIONS



(Unit: mm)

APPENDIX (D): HEXADECIMAL-DECIMAL CONVERSION TABLE

Refer to the following table when you convert the MAC address of your device to IP address.

Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec
0	0	25	37	4A	74	6F	111	94	148	B9	185	DE	222
1	1	26	38	4B	75	70	112	95	149	BA	186	DF	223
2	2	27	39	4C	76	71	113	96	150	BB	187	E0	224
3	3	28	40	4D	77	72	114	97	151	BC	188	E1	225
4	4	29	41	4E	78	73	115	98	152	BD	189	E2	226
5	5	2A	42	4F	79	74	116	99	153	BE	190	E3	227
6	6	2B	43	50	80	75	117	9A	154	BF	191	E4	228
7	7	2C	44	51	81	76	118	9B	155	C0	192	E5	229
8	8	2D	45	52	82	77	119	9C	156	C1	193	E6	230
9	9	2E	46	53	83	78	120	9D	157	C2	194	E7	231
0A	10	2F	47	54	84	79	121	9E	158	C3	195	E8	232
0B	11	30	48	55	85	7A	122	9F	159	C4	196	E9	233
0C	12	31	49	56	86	7B	123	A0	160	C5	197	EA	234
0D	13	32	50	57	87	7C	124	A1	161	C6	198	EB	235
0E	14	33	51	58	88	7D	125	A2	162	C7	199	EC	236
0F	15	34	52	59	89	7E	126	A3	163	C8	200	ED	237
10	16	35	53	5A	90	7F	127	A4	164	C9	201	EE	238
11	17	36	54	5B	91	80	128	A5	165	CA	202	EF	239
12	18	37	55	5C	92	81	129	A6	166	CB	203	F0	240
13	19	38	56	5D	93	82	130	A7	167	CC	204	F1	241
14	20	39	57	5E	94	83	131	A8	168	CD	205	F2	242
15	21	3A	58	5F	95	84	132	A9	169	CE	206	F3	243
16	22	3B	59	60	96	85	133	AA	170	CF	207	F4	244
17	23	3C	60	61	97	86	134	AB	171	D0	208	F5	245
18	24	3D	61	62	98	87	135	AC	172	D1	209	F6	246
19	25	3E	62	63	99	88	136	AD	173	D2	210	F7	247
1A	26	3F	63	64	100	89	137	AE	174	D3	211	F8	248
1B	27	40	64	65	101	8A	138	AF	175	D4	212	F9	249
1C	28	41	65	66	102	8B	139	B0	176	D5	213	FA	250
1D	29	42	66	67	103	8C	140	B1	177	D6	214	FB	251
1E	30	43	67	68	104	8D	141	B2	178	D7	215	FC	252
1F	31	44	68	69	105	8E	142	B3	179	D8	216	FD	253
20	32	45	69	6A	106	8F	143	B4	180	D9	217	FE	254
21	33	46	70	6B	107	90	144	B5	181	DA	218	FF	255
22	34	47	71	6C	108	91	145	B6	182	DB	219		
23	35	48	72	6D	109	92	146	B7	183	DC	220		
24	36	49	73	6E	110	93	147	B8	184	DD	221		

APPENDIX (E): VCA Video Content Analytics

Introduction

VCA (**V**ideo **C**ontent **A**nalysis) is a real-time video analytics engine that utilizes advanced image processing algorithms to turn video into actionable intelligence. At the core of the product is an advanced object tracking engine that continually tracks moving and stationary targets. The tracking engine features built-in robustness to environmental nuisance conditions such as changing illumination, moving foliage, rippling water, etc.

VCA is a generic name for a suite of analytics products that include:

- **VCAcount:** continually tracks moving and stationary targets and generates real-time alerts of object presence in multiple overlapping detection zones.

	**Counting**		**Tamper detection**

- **VCAdetect:** continually tracks and classifies moving and stationary targets and features a full suite of rule-based filters including: enter, exit, appear, disappear, stopped objects, directionality constraints, object counting, loitering, object type and object speed. Multiple filters are supported on any combination of multiple overlapping detection zones.

	**Intrusion detection**		**Shake cancellation**
	**Enter&exit filters**		**Dwell filter**
	**Direction filter**		**Zones & lines**
	**Speed filter**		**3D calibration**

- **VCAadvanced:** includes all of the features of VC, in addition to an advanced people tracking engine optimized for tracking people in cluttered indoor scenes such as retail scenarios. Includes specific high-accuracy counting functions optimized for use in busy scenes.

	**Counting**		**Tamper detection**
	**Intrusion detection**		**Shake cancellation**
	**Enter&exit filters**		**Dwell filter**
	**Direction filter**		**Zones & lines**
	**Speed filter**		**3D calibration**
	**Apperar & disappar filters**		**Stopping filter**
	**Abandoned Objektfilter**		**Removed filter**
	**Tallgating filter**		**Logical rules**

- **VCAprofessional** (full range of packages): optimized for specific scenarios. Contact your supplier for up to date information about the packages available for different platforms.

	**Counting**		**Tamper detection**
	**Intrusion detection**		**Shake cancellation**
	**Enter&exit filters**		**Dwell filter**
	**Direction filter**		**Zones & lines**
	**Speed filter**		**3D calibration**
	**Apperar & disappar filters**		**Stopping filter**
	**Abandoned Objectfilter**		**Removed filter**
	**Tallgating filter**		**Logical rules**
	**People tracker**		**Colour filter**
	**(Heat map)**		

Using the intuitive web-based configuration application, it's possible to quickly and easily define rules that generate real-time alerts when triggered. The alerts are available in all formats supported by the hardware on which it is enabled.

Information about VCA are available at GEUTEBRÜCK Homepage: **www.geutebrueck.com**

Product informations about VCA and the Installation/User Manual can be found at the supplied CDRom.

G-Cam/EWPC-2271_IA_EN 22.02.2021

Technical alterations reserved.

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