Full Manual

IP Camera

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ABOUT THIS DOCUMENT

In this document you will find a comprehensive description of a specific series of units, which has been prepared with great care and accuracy to give you a detailed insight into the general functions and features that characterise this series of units.

Please note, however, that the detailed characterisation in this document refers to the general product line. The individual scope of functions of individual models or versions within this series may vary depending on the configuration.

These variations may be reflected in an extended or restricted range of functions and features, so that the actual specifications of individual products may differ in some respects from the designs presented in this document.

For this reason, it is strongly recommended to carefully read the specific data sheet for the respective product. The data sheet contains specific and detailed information tailored to the particular model. It is the primary reference document that provides the most authentic and accurate information about the individual functions and features of each specific product in our appliance series.

We thank you for your understanding and willingness to invest time to gain accurate knowledge about your selected product of our appliance series. Please do not hesitate to contact us if you have any further questions or require additional information.

We would also like to draw your attention to the following information:
The screenshots in this file are in German.
However, the relevant 'click positions' are marked and should assist with navigation.
Thank you for your understanding.

INTRODUCTION

- In this manual, the term 'IP camera' refers to network cameras.
- A click means that you click with the left mouse button.
- A double click means that you click twice with the left mouse button.
- The default IP address of an IP camera is 192.168.1.168.
- When using the IP camera for the first time, you must set the password as instructed. You can log in with admin (lowercase) as the username and set the password as described in section 4.2.
- The web port number is 80 by default. The ONVIF port number is the same as the web port number. The media port number is 9000 by default.

Note

Some information in this manual may differ from the actual product. If you encounter any problems that cannot be resolved using this manual, please contact our technical support or an authorised representative.

This manual is subject to change without notice due to firmware updates or other reasons.

Notes within the document are presented as follows:

Warning!

Here is a warning notice.

Note!

Here is some information.

Example

Here is an example.

OPEN SOURCE SOFTWARE LICENSE INFORMATION

The software components provided with eneo products may contain copyrighted software that is licensed under various open source software licenses.

For detailed information about the contained open source software packages, the used package versions, license information and complete license terms, please refer to…

- the open source information included in your products user interface,
- the product detail pages on the eneo website (**www.eneo-security.com**),
- the eneo download portal (**https://datacloud.videor.com/s/eneodownloadportal**). In case that previous link is broken, the latest link to the eneo download portal can be found on the respective eneo product page at **www.eneo-security.com**.
- the download package of your firmware. The complete open source software license information of your product is included in the corresponding software download package that can be found in our download portal.

If you are missing any information, please contact **opensource@eneo-security.com**, we will of course be happy to provide you with the missing information and will also make the missing information available to the public.

If you want to get access to the open source components (source codes) used in our products, please contact **opensource@eneo-security.com**.

SAFETY INSTRUCTIONS

Read the safety instructions and operating instructions carefully before installing the product.

Depending on the product type, some points may not apply.

Warnings, data protection & legal notices

- Make sure visitors are aware that they are being recorded by displaying clearly visible notices.
- If necessary, point out any rules of conduct.
- Ensure that the cameras are positioned in such a way that privacy is not violated, e.g. by recording neighbours or public areas.
- Observe local laws and regulations on video surveillance and data protection (GDPR).

Security

- Use strong passwords for all cameras and devices to prevent unauthorised access.
- Keep the firmware of the devices up to date to minimise security vulnerabilities.
- Protect (remote) access to the devices using secure methods such as encrypted connections or VPN.

Mounting & installation

- Ensure that the intended mounting location is suitable for the respective product (e.g. in terms of weight).
- Secure the products at the locations and surfaces recommended by the manufacturer to ensure stability and safety.
- Ensure that the products are weatherproof if they are installed outdoors and protect cameras, for example, from direct sunlight or extreme temperatures.
- Ensure that any ventilation slots are not blocked to ensure adequate air circulation and cooling.
- Ensure that cameras, switches, etc. are installed at a safe distance from flammable materials, power sources, running water, etc.
- Installation, commissioning and maintenance must only be carried out by authorised personnel in accordance with the relevant standards and guidelines.

Power supply & cabling

- To ensure a safe power supply, only use power supplies and cables recommended by the manufacturer.
- Ensure that the cables are laid correctly and protected against tampering and damage (e.g. kinking) to prevent power failures or short circuits (e.g. due to moisture ingress).
- Ensure that cables are not routed through doors, windows or other moving parts to prevent damage and trip hazards.
- To disconnect the system from the power supply, pull the cable only by the plug and never directly by the cable.
- Wire end ferrules must be used when shortening flexible connection cables.

Operation

- The devices must only be operated within the temperature and humidity ranges specified in the data sheet.
- Adequate ventilation must be provided to prevent overheating. This applies in particular to devices such as recorders and switches that can generate heat.
- Ensure that no sight lines are blocked and that accessories do not cover areas used by other devices or persons.
- Ensure that cameras are positioned so that they provide a clear view of the desired area without compromising the privacy of individuals.

Cleaning & maintenance

- Clean the camera lenses and housings regularly to ensure a clear view.
- Keep the ventilation slots clean and free of dust to ensure efficient cooling.
- Use a mild cleaning agent for cleaning. Harsh cleaning agents such as thinners or petrol can permanently damage the surface.
- Check the product regularly for damage and signs of wear.
- Only use original spare parts (e.g. connection cables) or accessories from VIDEOR E. Hartig GmbH.
- Any warranty claims will be void if the product is tampered with by unauthorised persons.
- Disconnect the power supply before opening the housing.

1 – OVERVIEW

1.1 – Product description

An IP camera is a digital network surveillance camera that can operate independently with an integrated web server and can be used from anywhere in the world with a web browser or client software for real-time monitoring.

Based on state-of-the-art digital technology, the IP camera is an integrated media processing platform for audio/video capture, compression and network transmission on a single board. It complies with the H.264/H.265 High Profile encoding standard.

By entering the IP address or domain name of the IP camera in a web browser, any user can monitor the camera in real time. The IP camera solution is suitable for residential and business environments, as well as a variety of locations where network-based video surveillance and transmission is required. The product is easy to install and user-friendly.

The software allows multiple users with different permissions to be set up for easy management.

The camera has a motion detection function and actively sends emails, recorded images or alarm videos when an event occurs, and stores the alarm video on the inserted memory card for easy retrieval.

1.2 – Operating requirements

System: Windows 10 / 11

CPU: Intel i3 or higher

Memory: 8 GB or more

Display: 1024 x 768 or higher

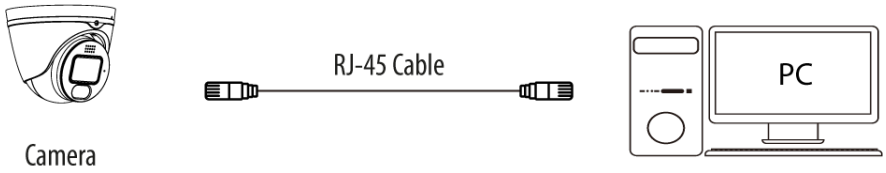
Browser: latest version of Chrome, Firefox, Edge or Safari

2 – DEVICE CONNECTION

2.1 – to a PC

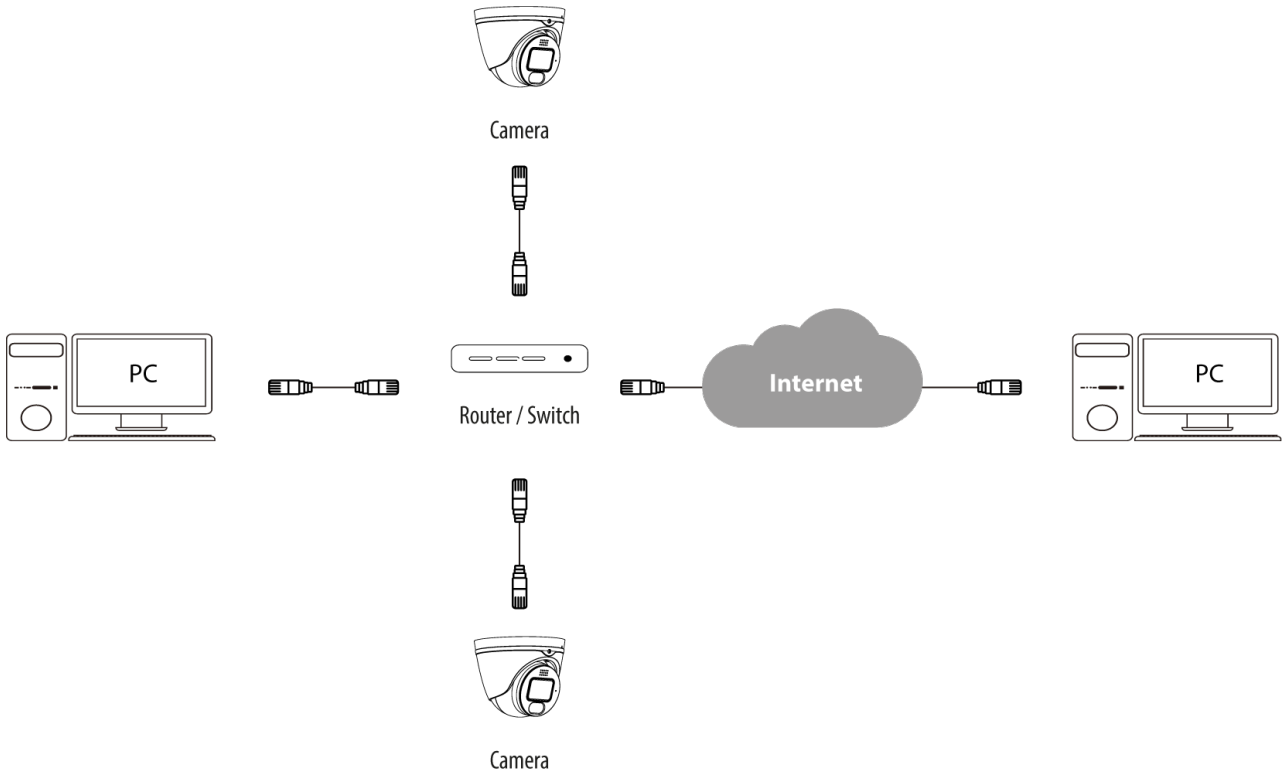
Connect an IP camera directly to a PC using a network cable, connect the power input to the 12 V DC adapter, and set the IP addresses of the PC and IP camera to the same network segment.

If the network is functioning properly, the IP camera will communicate with the PC within one minute after being turned on.



2.2 – to a Router/Switch

This connection method is used when an IP camera needs to be connected to the Internet, whereby the IP camera and the PC are connected to the LAN ports of a router/switch and the camera's gateway is set to the IP address of the router.



3 – CAMERA ACCESS

3.1 – eneo Site Manager

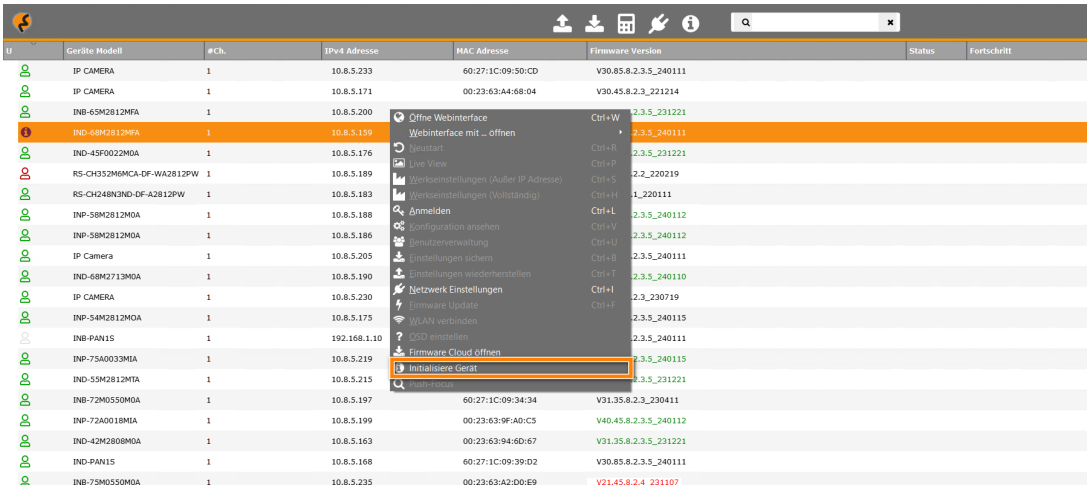
Download and install the eneo Site Manager app.

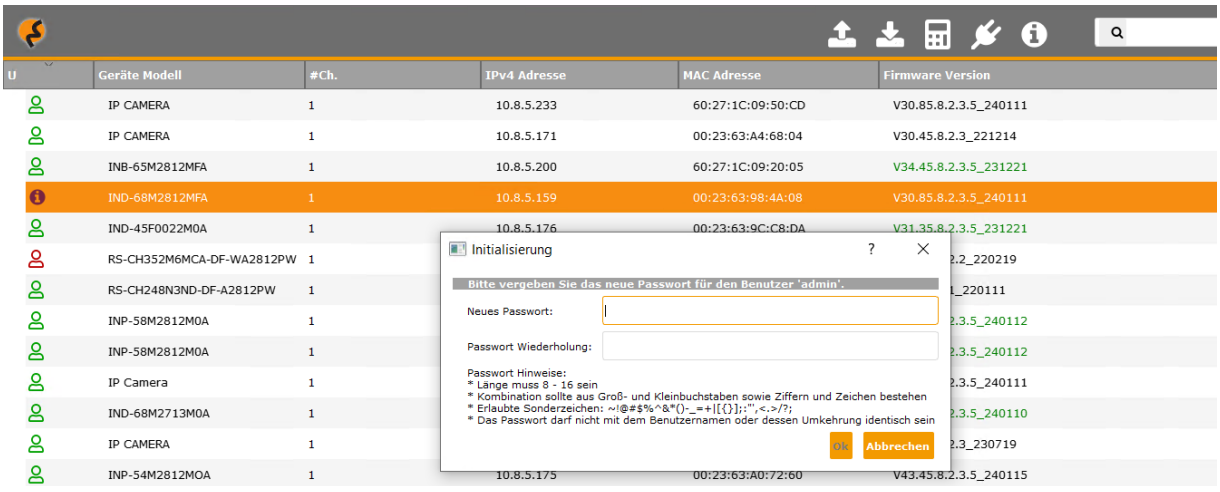
You can find it at: https://eneo-security.com/en/eneo-site-manager.html

3.1.1 – Use

If the device is on the same network as the computer on which the app was installed, the new device will be detected immediately. You can access the device from here.

1. Right-click on the device in the list to open the context menu.
2. Select Initialise device to assign a new password.

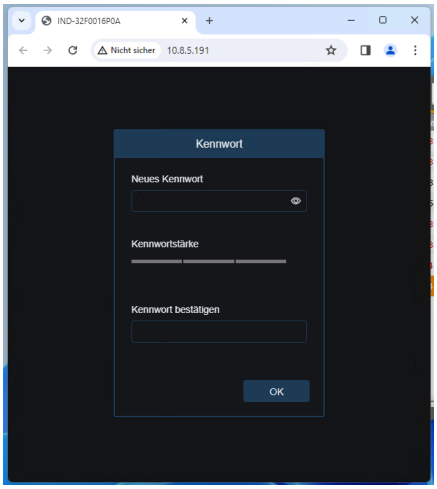




3.2 – Web Client

Alternatively, you can open the device via the context menu in your browser and change the password via the web interface. You can then access the remaining functions.

Once you have updated the password, you can log in to the device.



Here you can configure the device settings according to your preferences and view the various device streams.

3.3 – Password

Since the camera's default password is easy to guess, the program displays the screen shown below and prompts you to set a more complex password.

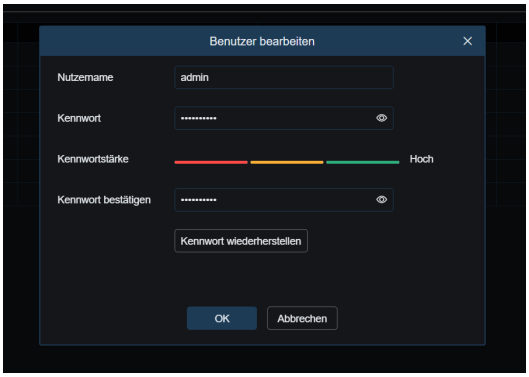
3.3.1 – Rules

- A password **must** be between 8 and 15 characters long and contain letters, numbers and special characters.
- The password and username **must not** be identical.

3.3.2 – Password change

We recommend that you change your password regularly, especially in high-security systems. To better protect your products, the system records when you have changed your password. After 90 days, the system will prompt you to change your password.

1. Go to **User Management**
2. Open **Password Management**
3. Enter a new password and confirm it in the next line
4. Click **OK** to save.



3.3.3 – Security

For security reasons, we recommend that you add an extra step to change your password. You can choose between **security questions** and an **authorisation certificate**.

3.3.3.1 – Security questions

Please select **three** of the 15 security questions provided and answer them using a maximum of 64 characters. Please ensure that you use the correct spelling when changing your password in future to avoid malfunctions.

3.3.3.2 – Certificate of authorisation

To use the authorisation certificate for future password changes, please select **Export** and save the file named **certificate.txt** in a secure location on your computer for future password changes.

3.3.3.3 – Password recovery

If a user has forgotten their password and the password recovery feature is enabled for that user, the password can be reset using the previously selected security questions or the authorisation certificate.

Please click on **Reset password** to open a window where you can choose between security questions and authorisation certificate.

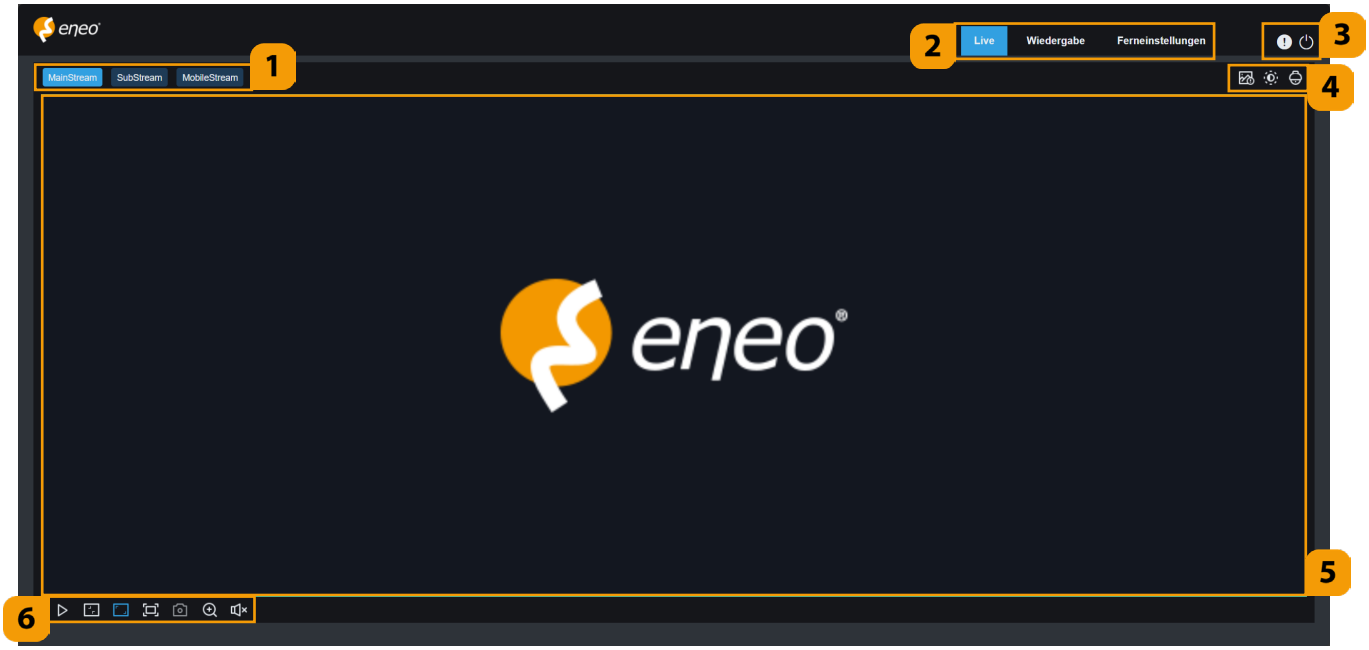
Security questions

Enter the appropriate answers to the security questions, assign a new password and confirm by clicking **OK**.

Certificate of authorisation

Import the saved authorisation certificate **certificate.txt**, assign a new password and confirm by clicking **OK**.

4 – LIVE - VIEW



Note!

The view may vary depending on the camera model.

1. **Stream switch**

   Mainstream: HD image, but higher bandwidth and PC performance requirements.

   Substream: Lower image quality, but moderate requirements.

   Mobile stream: Lowest picture quality, but lowest requirements.

2. **View switch**

   Live: The current view.

   Playback: View of recordings and recordings.

   Remote settings: View of settings.

3. **Info**

   Information: Displays information about the active user and the web version, for example.

   Exit: Log out.

4. **Live functions**

   Manual/AI alarm: Opens the alarm push bar.

   Colour: Adjusts the current image settings.

   PTZ control: Opens the PTZ control.

5. **Livestream**

6. **Live control**

   Recording & Alarm Status: Displays the alarm and recording status of the camera.

   Pause/Play: Allows you to pause and play the preview of the current stream.

   Original Proportions: Displays the current live view in its original proportions.

   Stretch: Displays the current live view so that the display area is stretched.

   Full screen: Displays the live view in full screen. You can double-click the screen to enable or disable this feature and press Esc to exit full screen mode.

   Record: Allows you to manually record the stream in the preview.

   Capture: Allows you to manually capture the image of the current stream.

   Digital zoom: Allows you to zoom in on a specific area of the screen.

   Audio: Used to turn the sound in the preview on or off or to adjust it.

   Voice control: Allows you to communicate with the camera.

   Warning light: Used to manually turn the white light on and off.

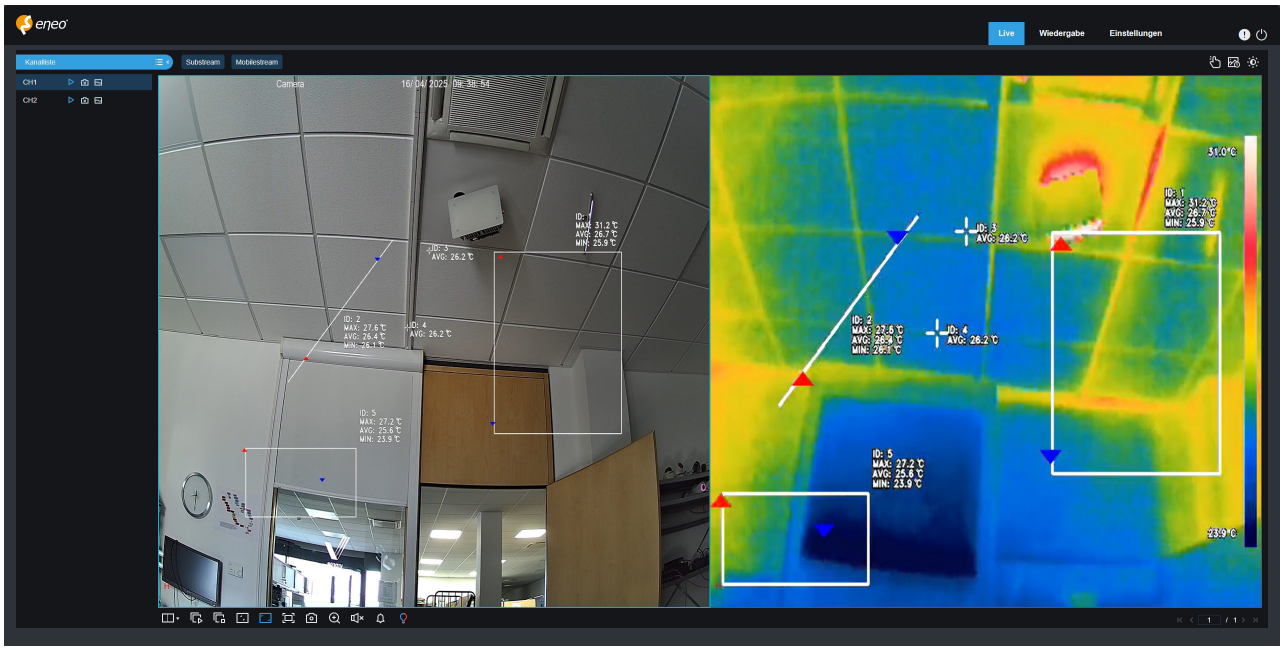
   Siren: Used to manually turn the siren on and off.

   Pixel counter: Used to select an area to check the pixel size in the stream.

   Pop-up info: Displays the current alarm level in the lower right corner.

4.1 – Channel list

For special cameras, such as **multi-sensor** or **thermal** cameras, you can show or hide the channel list and switch between the different channels to view them or adjust settings.



4.2 – Recording status

The recording status provides a simple overview of the current alarm status on the web client and indicates whether the recording is running properly. It is possible to save multiple alarms simultaneously, as described in the table below:

No symbol	Memory card OK, no recording.
R (red)	The camera is recording normally.
H (red)	Memory card faulty. Please check.
M (green)	Active motion alarm, no recording.
M (red)	Active motion alarm, recording in progress.
I (green)	Active I/O alarm, no recording.
I (red)	Active I/O alarm, recording in progress.
PIR (green)	Active PIR alarm, no recording.
PIR (red)	Active PIR alarm, recording in progress.
S (green)	Active intelligent alarm, no recording.
S (red)	Active intelligent alarm, recording in progress.

4.3 – PTZ control

4.3.1 – Buttons

1. You can use the **direction buttons** to pan and tilt the device horizontally and vertically.

2. By clicking in the **center**, you can rotate the camera horizontally. Clicking again stops the rotation and the icon turns dark blue again.

3. The **speed** of the pan/tilt movement can be adjusted using a slider on a scale of 10 levels, with higher values representing higher speeds.

4. The buttons on the left are used to **zoom** in and out. Press and hold the lower button to retract the lens and enlarge the scene. Press and hold the upper button to extend the lens and reduce the scene.

5. The buttons in the middle **focus** the lens. Press and hold the upper button to focus the lens on the near side. The nearby object becomes sharp, while distant objects gradually become blurred. Press and hold the lower button to bring distant objects into focus, while nearby objects gradually become blurred.

6. The buttons on the right correspond to the 'Iris' and 'Iris+' functions. If the screen content is relatively dark, you can press and hold the lower button to increase the **aperture**. Otherwise, you can press and hold the upper button to decrease the aperture.

7. Help functions (3D position, autofocus, PTZ reset, observer mode)

8. Mode

4.3.2 – 3D-Position

You can activate or deactivate this function by pressing the button for 3D position.
The function is activated when the button has a light blue background. The following options are available:

1. Click anywhere on the preview screen. The camera will focus on that point as the center of the video.

2. Drag a rectangular area from left to right (up or down) with the mouse, and the camera will focus on that area and zoom in.

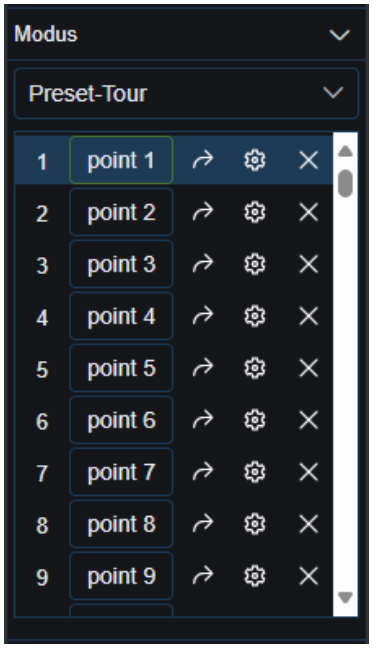
3. Drag a rectangular area from right to left (up or down) with the mouse, and the camera will focus on that area and zoom out.

4.3.3 – Mode

There are various modes available, each with different functions and different ways of use.

4.3.3.1 – Preset

A preset refers to a predefined image position. You can create a tour using several preset positions.



1. Use the PTZ control buttons to move the lens to the desired position.

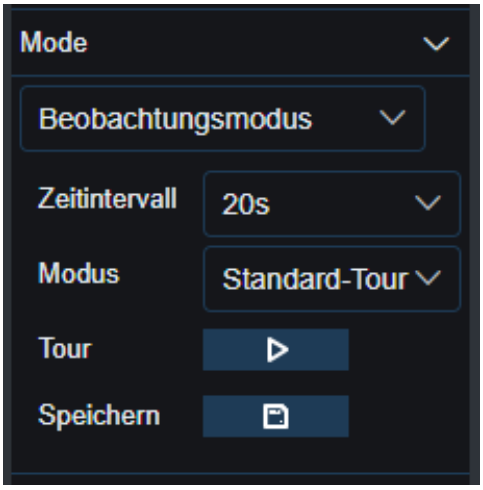
2. Click on the gear icon (Add Preset) to define a position (maximum 255).

3. Click on point 1 to edit the name of the position.

4. Click on the arrow (Go to) to call up the position. The camera will move to this position.

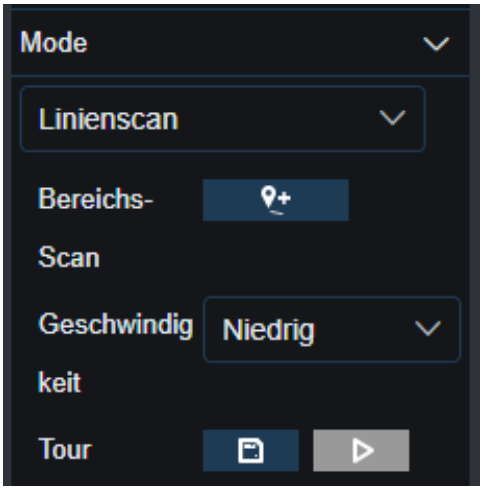
5. Click on the X to delete the position.

4.3.3.2 – Observation mode



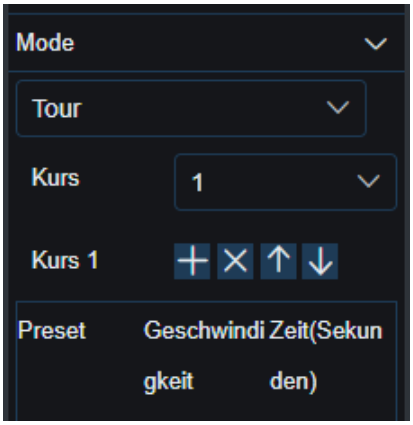
1. Select the observation mode (only one mode can be selected at a time).
2. Select the desired time interval between 15 s and 240 s.
3. Then select the mode. The options available are Standard Tour, Set Observation Point, Line Scan, Tour and Pattern Scan.
4. Clicking on the corresponding mode starts the tour. If Standard Tour is selected, the camera starts a 360° tour counterclockwise at a constant speed.

4.3.3.3 – Line Scan



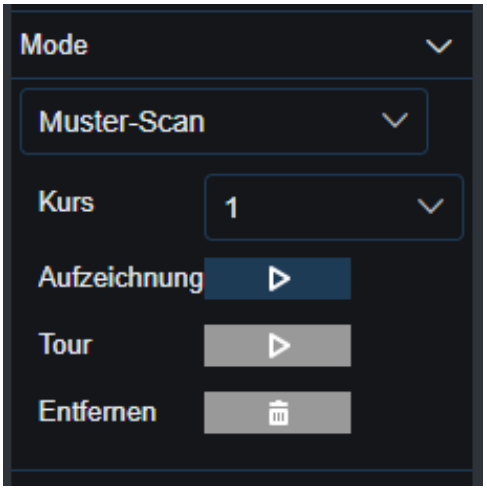
1. Use the direction buttons to align the device.
2. Click the Start button to set the starting position.
3. Use the direction buttons to align the device.
4. Click the End button to set the end position.
5. Click Start Tour. The camera moves back and forth between the start and end positions at a constant speed.

4.3.3.4 – Tour



1. Select the course. You can set up to 32 presets for up to four courses.
2. Set the time interval for each preset.
3. Use the course functions to add, delete or change the order of presets.
4. Click Start tour. The camera will follow the set sequence of presets at the set time intervals.

4.3.3.5 – Pattern scan



1. Select the course. You can set up to four courses.
2. Click Record to start recording the search pattern.
3. During recording, you can perform any PTZ operations.
4. Click Record again to stop recording.
5. Click Start Tour to start the recorded search pattern. The camera will follow the recorded search pattern.

5 – PLAYBACK

The camera must not only be able to show us images in real time, but also store the image information so that we can retrieve it when needed.

5.1 – General

The playback function mainly includes general video search and AI search.

1. **Search mode selection**
2. **Filter**

   Date: Set the date for the search.

   Search type: Displays the search types supported by the camera.
   If necessary, you can search for a specific part of the recorded files.

   Channel list: Select the relevant channel

   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Playback window**

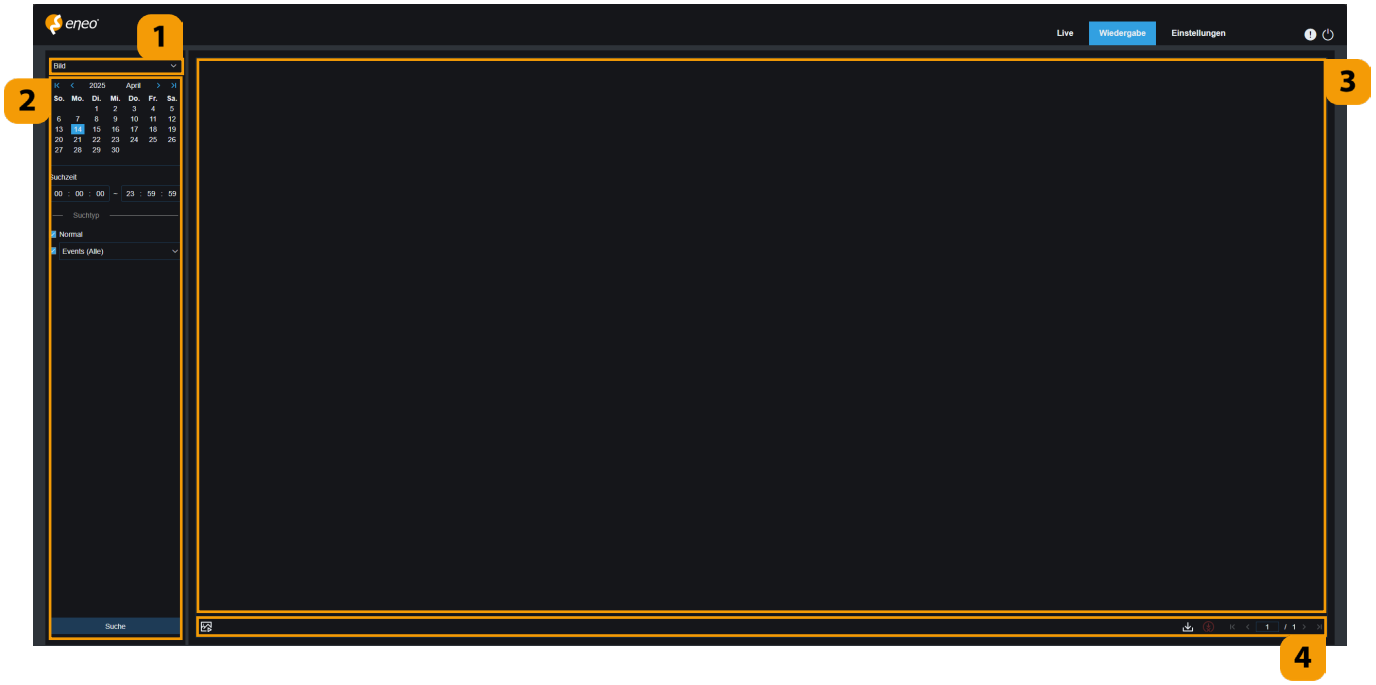
4. **View control:** You can control playback as you would with a video player. You can also download recordings that have already been made, take snapshots and use other functions.

5. **Playback timeline**

   Progress: By default, the timeline shows the progress within 24 hours. You can jump to the corresponding playback position more accurately by zooming in or out of the progress bar with the mouse wheel.

5.2 – Picture

When automatic recording is enabled, you can search for and play back images using this user interface.



1. **Search mode selection**
2. **Filter**

   Date: Set the date for the search.

   Search time: Set the time period for the search.

   Search type: Displays the search types supported by the camera.
   If necessary, you can search for a specific part of the recorded files.

   Channel list: Select the respective channel

   Search: Displays the recordings stored on the memory card according to the search settings.
3. **Search results**
4. **View control:** Scroll between pages.

5.3 – Smart

This feature is used to detect whether an alarm was triggered by a person during everyday use. If this happens, the alarm is displayed in blue in the playback timeline at the bottom.

1. **Search mode selection**
2. **Filter**

   Date: Set the date for the search.

   Search type: Displays the search types supported by the camera.
   If necessary, you can search for a specific part of the recorded files.

   Channel list: Select the relevant channel

   Search: Displays the recordings stored on the memory card according to the search settings.

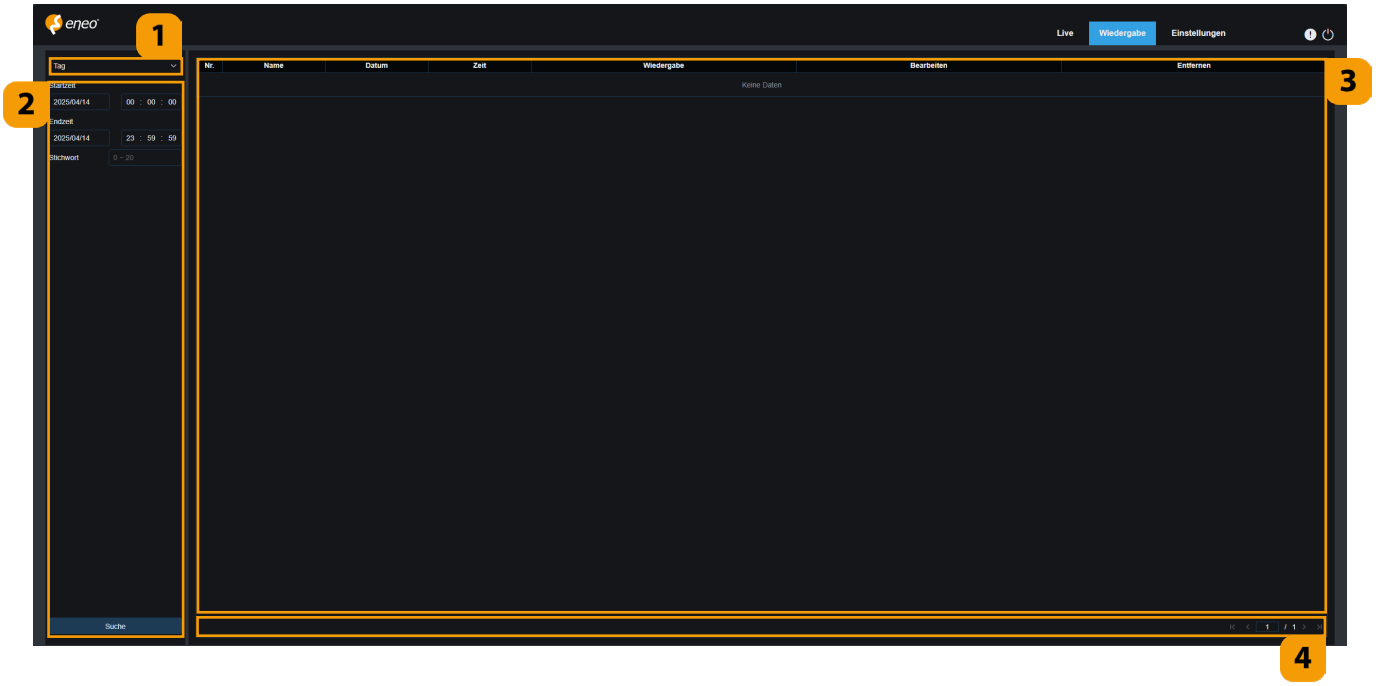
3. **Playback window**
4. **View control:** You can control playback as you would with a video player. You can also download recordings that have already been made, take snapshots and use other functions.

5. **Timeline for playback**

   Progress: By default, the timeline shows the progress within 24 hours. You can jump more precisely to the corresponding playback position by zooming in or out of the progress bar with the mouse wheel.

5.4 – Tag

On this screen, you can view, edit, play back or delete all previously added markers.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Keyword: This function allows you to search for markers using previously defined keywords.

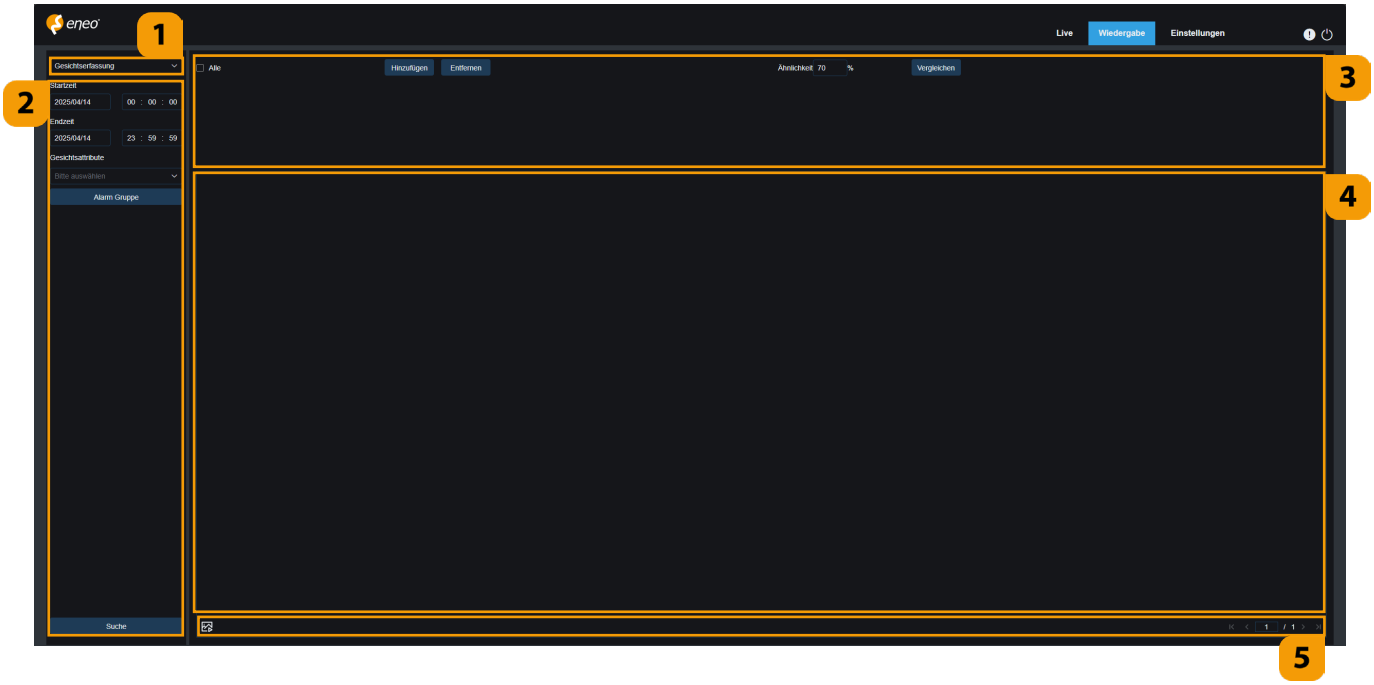
   Channel list: Select the respective channel

   Search: Displays the recordings stored on the memory card according to the search settings.
3. **Search results**
4. **View control:** Scroll between pages.

5.5 – AI

5.5.1 – Face recognition

The camera performs face recognition and stores the acquired face information on the SD card. Recorded faces that meet the user's requirements can be quickly retrieved and associated videos easily found. The face search and playback screen is displayed at the bottom.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Face attributes: This function is disabled by default. If you select one or more attributes, the search will be filtered according to the selected details.

   Alarm group: The camera assigns images to the respective group in the database according to the settings when they are recorded. With this setting, you can only search for images from the desired groups.

   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Organisation**

   Add: Add images to the image display area for comparison. Both local and captured images can be added.

   Remove: Delete currently added images.

   Similarity: Determine the lowest similarity of the feature values of matching faces when using the 'Compare' function.

   Compare: Search for recorded faces according to the set search time, the group in which the recorded images are located, and the selected reference face for comparison.

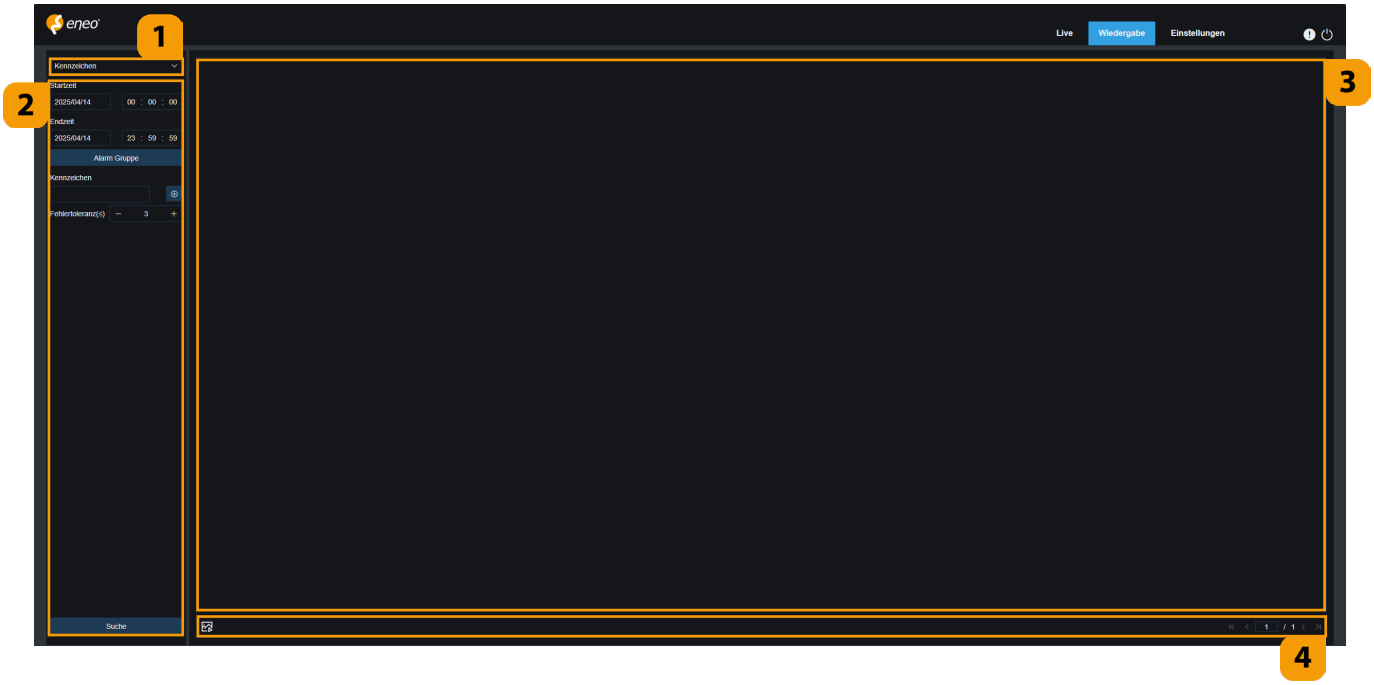
   Image display area: Displays images that have been added and are available for comparison.

4. **Search results display area:** Displays the desired search or comparison results. If you double-click on an image, the video before and after the image is played.

5. **View control:** Scroll between pages.en.

5.5.2 – License Plates

When license plate recognition is enabled for the camera, an alarm is triggered as soon as a license plate is detected. Images or videos are also recorded to facilitate searching and display.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Alarm group: The camera assigns images to the respective group in the database according to the settings. With this setting, you can search only for images from the desired groups.

   Licence plate: Filter and query licence plates.

   Error tolerance: In this example, three characters have been defined as the tolerance rate.
   If a license plate is in the approval list of the selected group B594SB, an alarm is also triggered when the vehicle with the license plate B734KB approaches the surveillance area. This means that a license plate that differs by up to 3 characters from the license plate in the database is recognised.

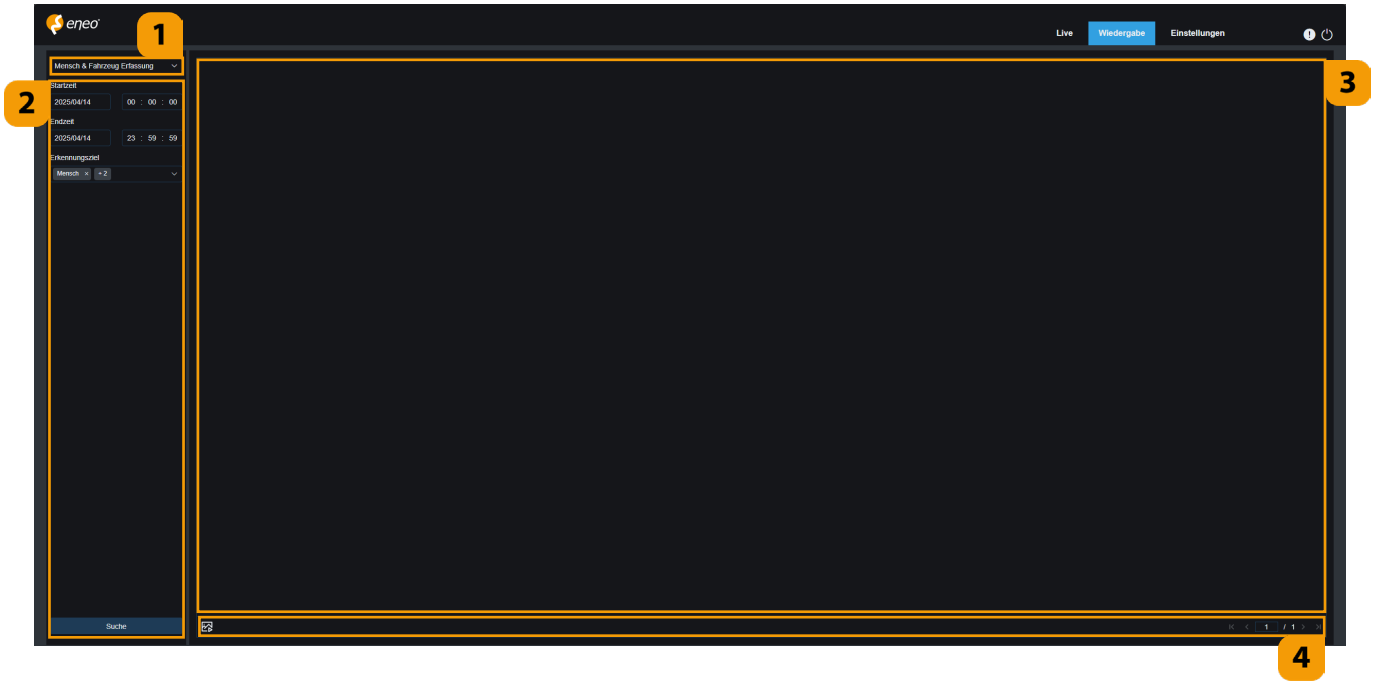
   Search: Displays the records stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. Double-clicking on an image plays the video before and after the image.

4. **View control**: Scroll between pages.

5.5.3 – Human & vehicle detection

Similar to facial recognition, the camera can distinguish between people and vehicles and record them according to your requirements.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Detection type: Here you can select people, vehicles or both, depending on your requirements.

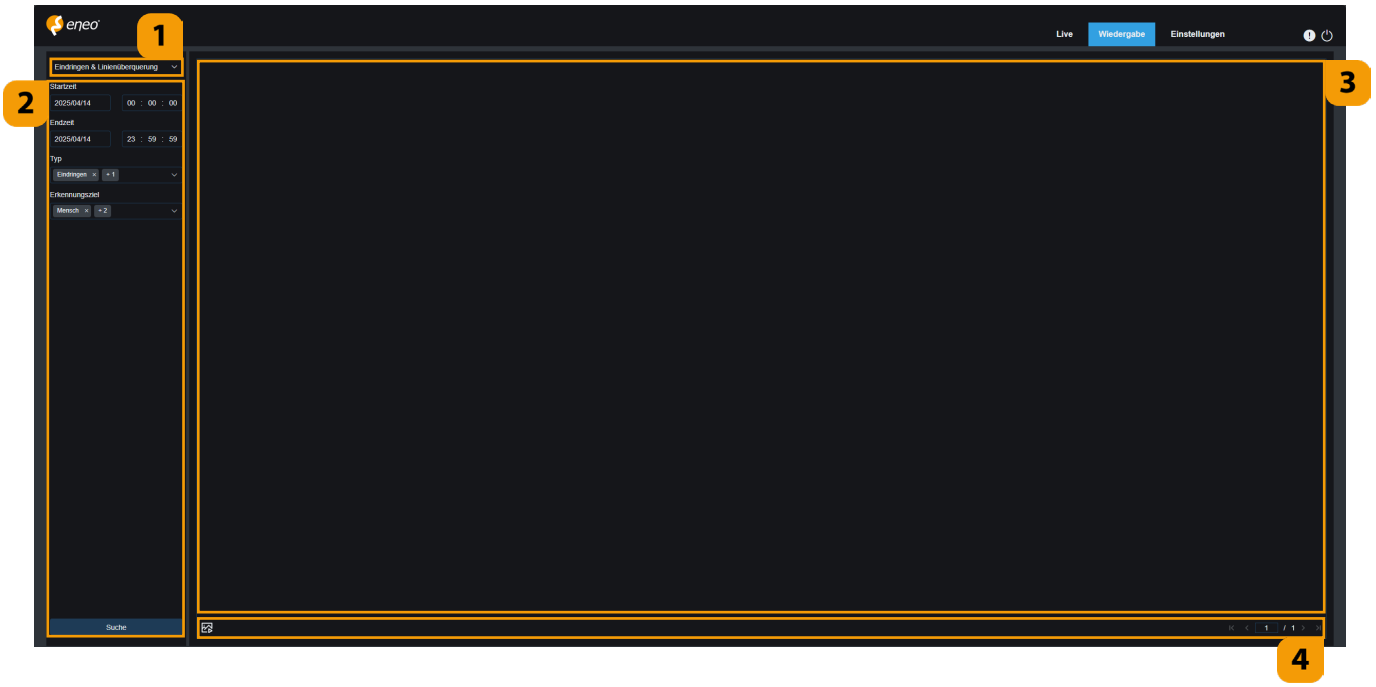
   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click on an image, the video before and after the image is played back.

4. **View control:** Scroll between pages.

5.5.4 – Eindringen & Linienüberquerung

Thanks to a change in the AI functions, Intrusion & Line Crossing now has a function for detecting people and vehicles in addition to the existing intrusion detection function, which triggers an alarm and records the event only when they are detected.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Type: The type is selected automatically and you can make adjustments if necessary.

   Detection target: Here you can select people, vehicles or both, as required.

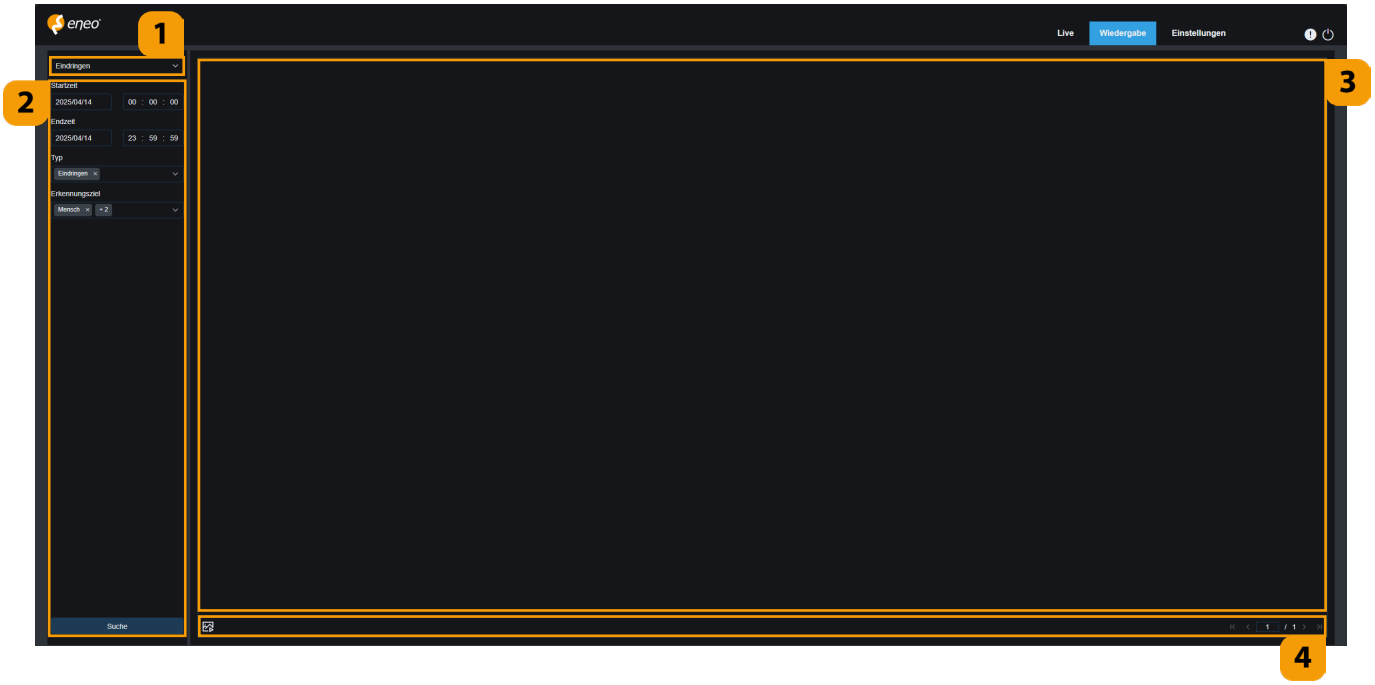
   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click on an image, the video before and after the image is played back.

4. **View control:** Scroll between pages.

5.5.5 – Intrusion

When the camera's intrusion detection feature is enabled, an alarm is triggered as soon as an intrusion into the preset area is detected. Images and videos are also recorded to facilitate search and display.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Type: The type is selected automatically and you can make adjustments if necessary.

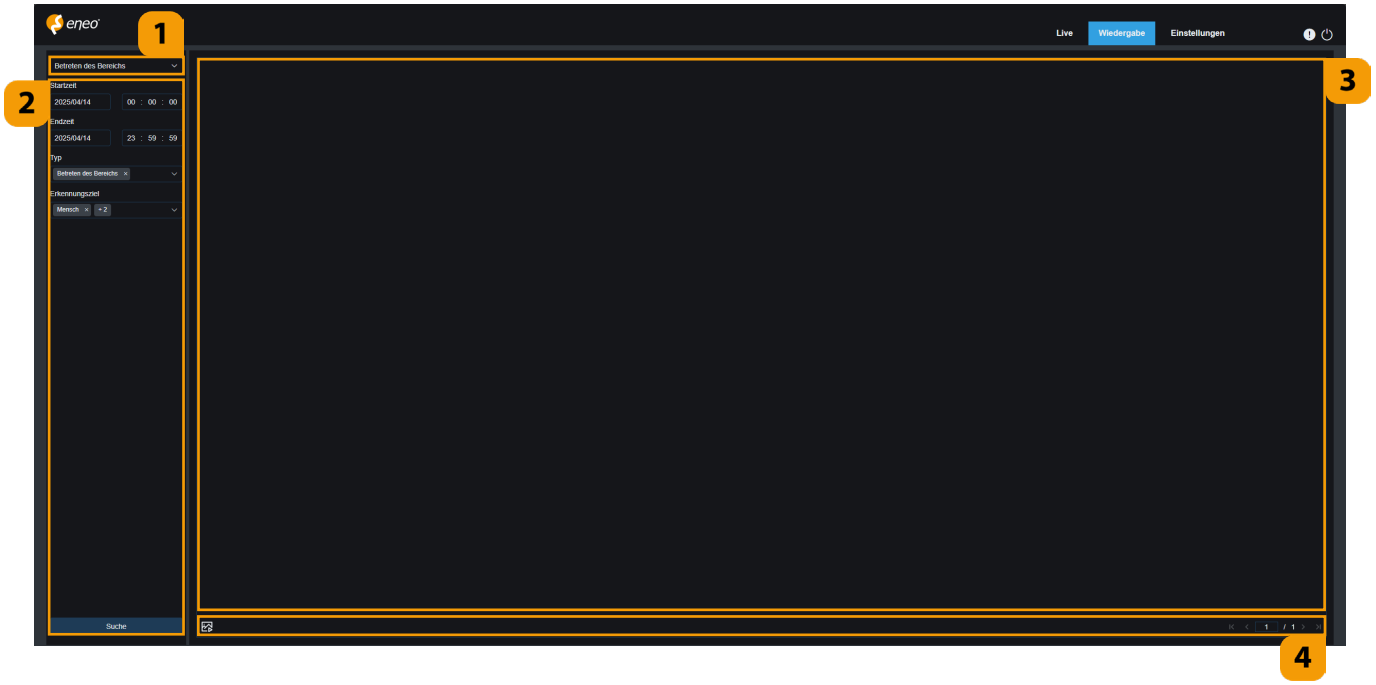
   Detection target: Here you can select people, vehicles or both, as required.

   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click on an image, the video before and after the image is played back.
4. **View control:** Scroll between pages.

5.5.6 – Region Entry

When the camera's enter area function is activated, an alarm is triggered as soon as someone enters the preset area. Images and videos are also recorded to facilitate searching and viewing.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Type: The type is selected automatically and you can make adjustments if necessary.

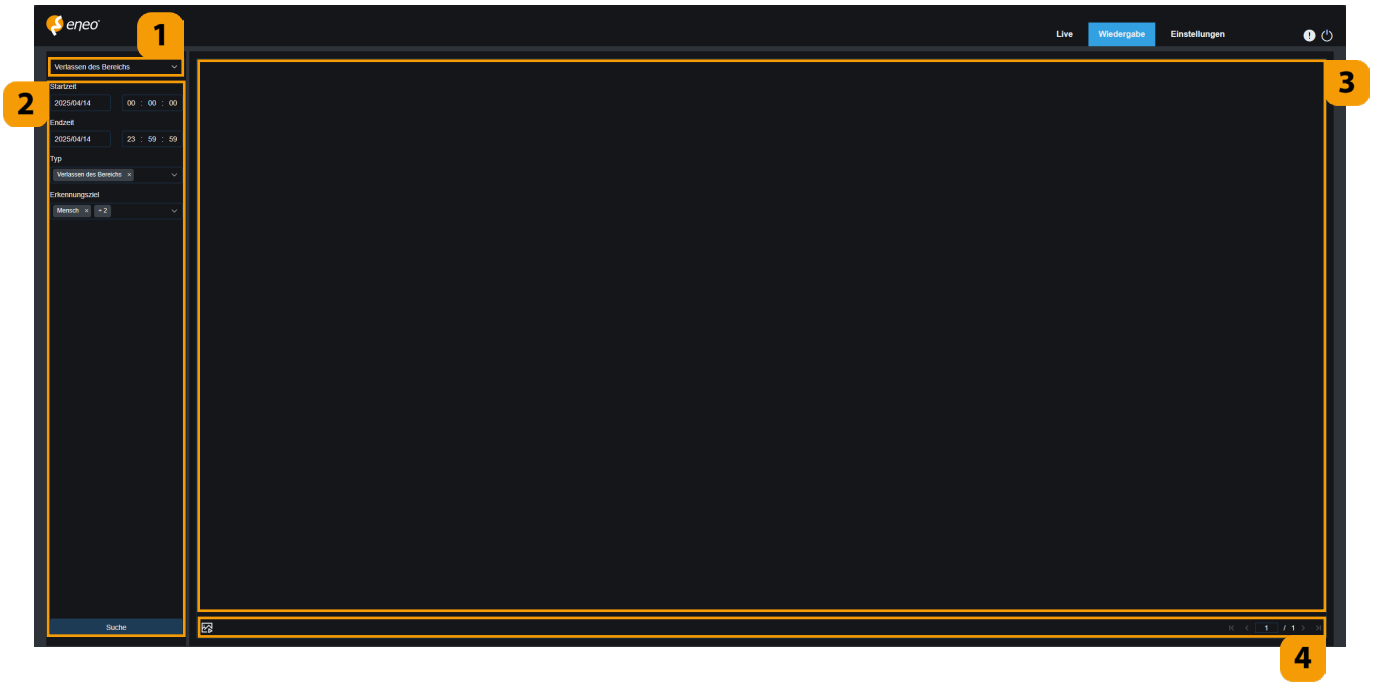
   Detection target: Here you can select people, vehicles or both, as required.

   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click on an image, the video before and after the image is played back.
4. **View control:** Scroll between pages.

5.5.7 – Region Exit

If the Region Exiting function of the camera is enabled, an alarm is triggered as soon as a departure from the preset region is detected. In addition, images and videos are recorded to facilitate search and display.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Type: The type is selected automatically and you can make adjustments if necessary.

   Detection target: Here you can select people, vehicles or both, as required.

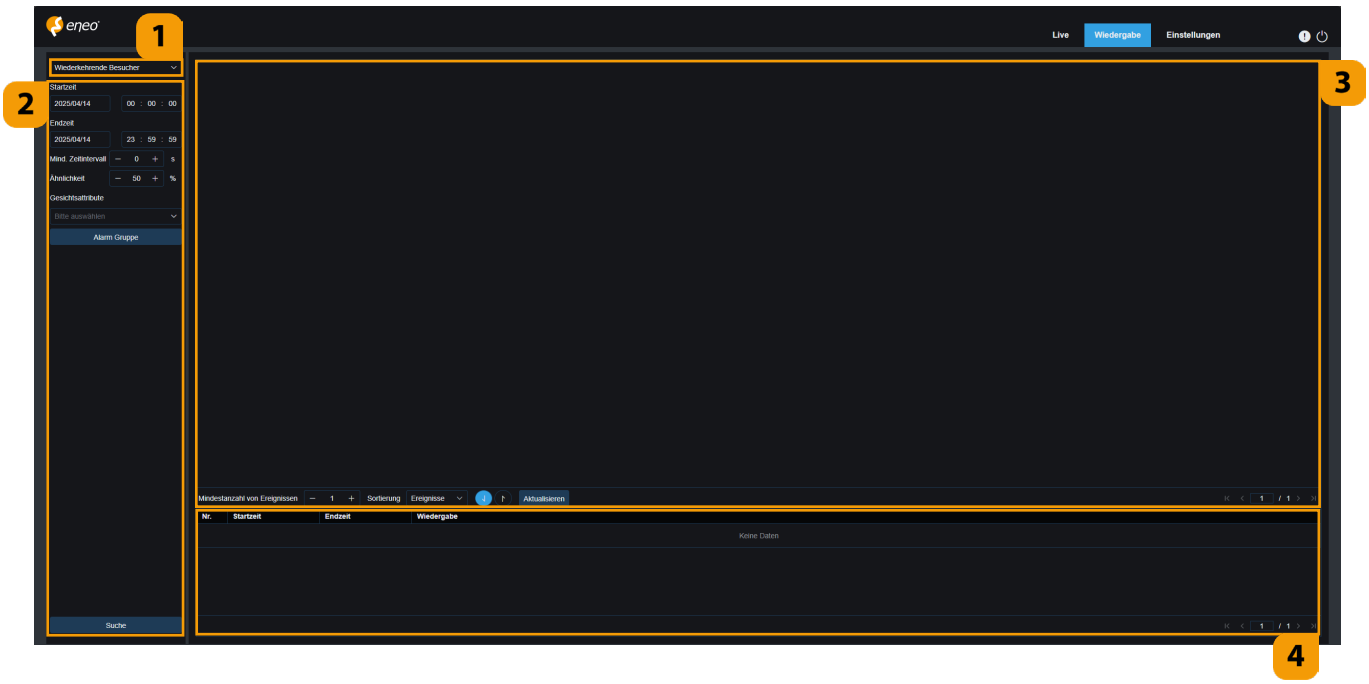
   Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click on an image, the video before and after the image is played.

4. **View control:** Scroll between pages.

5.5.8 – Repeat Visitors

The face recognition feature not only enables alarms to be triggered in real time, but also allows the recorded data to be evaluated. For example, the recurring visitor feature can be used in a shopping centre to check whether a customer is stopping in a specific area to examine goods. It is also possible to monitor an area to determine how often a suspicious person appears there.



1. **Search mode selection**
2. **Filter**

   Start time / End time: Here you can set the time period for the search.

   Minimum time interval: The search accuracy can be increased by adjusting the time interval between detections of the same object.

   Similarity: Here you can set the similarity to the reference image. Please note that the similarity specified describes the lowest level for comparison

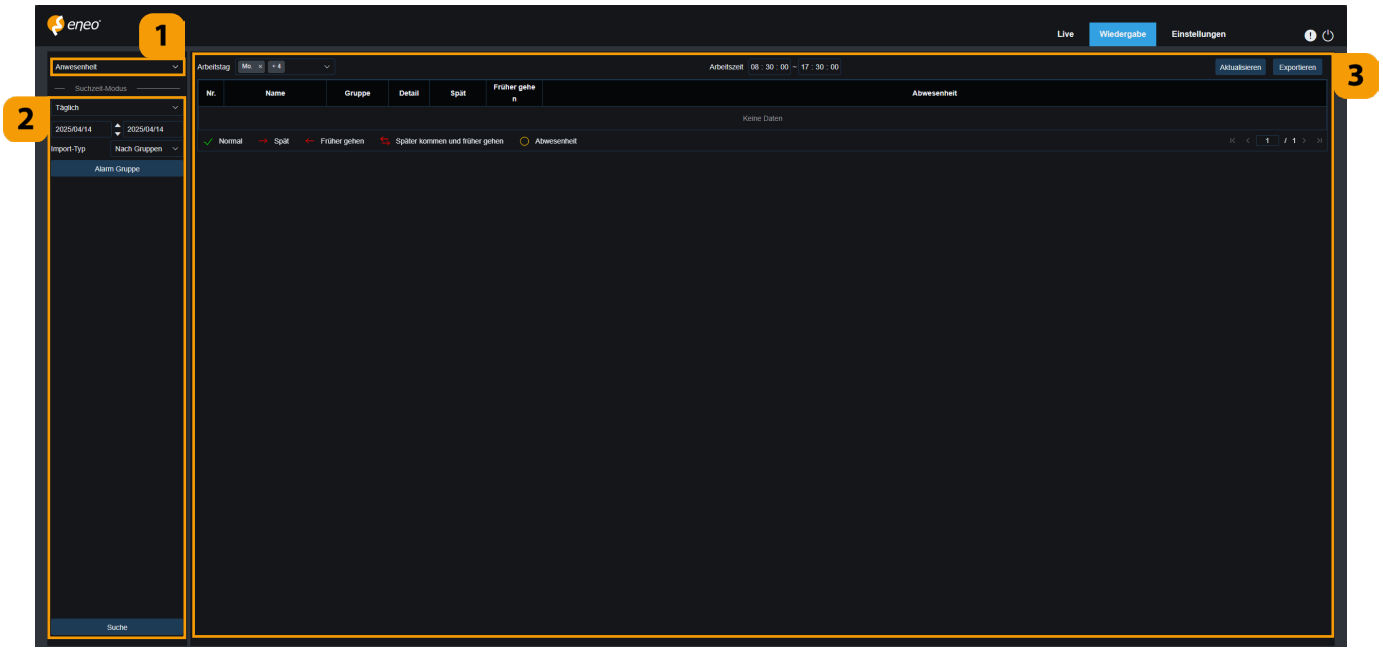
   Face attribute: Here you can filter the search for images based on face attributes.

   Alarm group: The camera assigns images to groups in the database when captured. This setting allows searching for images from specific groups.

   Search: Displays the recordings stored on the memory card according to the search settings.
3. **Search results display area:** Displays the desired search results. If you double-click an image, the video before and after the image will be played.
4. **View controls:** Scroll between pages.

5.5.9 – Face Attendance

This function is used to retrieve the face match status in different groups – with the exception of the 'Stranger' group – for a specific period of time on the memory card and to generate an attendance result based on the records.



1. **Search mode selection**
2. **Filter**

   Search time: Here you can set the time period for the search. Select a type to automatically change the start and end dates.

   If you select **Day**, the end and start dates will be synchronised automatically.

   If you select **Week**, the start and end dates will be automatically changed to Monday and Sunday of the week to which the selected date belongs.

   If you select **Month**, the start and end dates will be changed to the first and last day of the month to which the selected date belongs.

   If you select **Custom**, the search date can be adjusted.

   If you select **Today**, the start and end dates will be changed to the current date.

   Import type: Here you can select the type of import. If you select By face, you can select images.

   Select images: Select the face to be recognised and click on it.

Click on **Alarm group** to select a group and then click on **Search** again to search for all images in this group. Select the image for presence detection and click on **OK**. The image is added to the Selected list. Click on **Cancel** to close the window.

Selected: Displays a list of selected face images.
Select a face image and click Delete. The face image is removed from the list. You can also click All to select all face images. You can click Cancel to close this window.

Search: Displays the recordings stored on the memory card according to the search settings.

3. **Search results display area:** Displays the desired search results. If you double-click an image, the video before and after the image is played.

   Working day: Here you can set the working day.

   Working time: Here you can set the working time.

   Refresh: After changing the attendance parameters, you can click Refresh to refresh the search results.

   Export: Click Export to export the results to your PC.

   Marking: The green lines indicate the start and end of attendance.

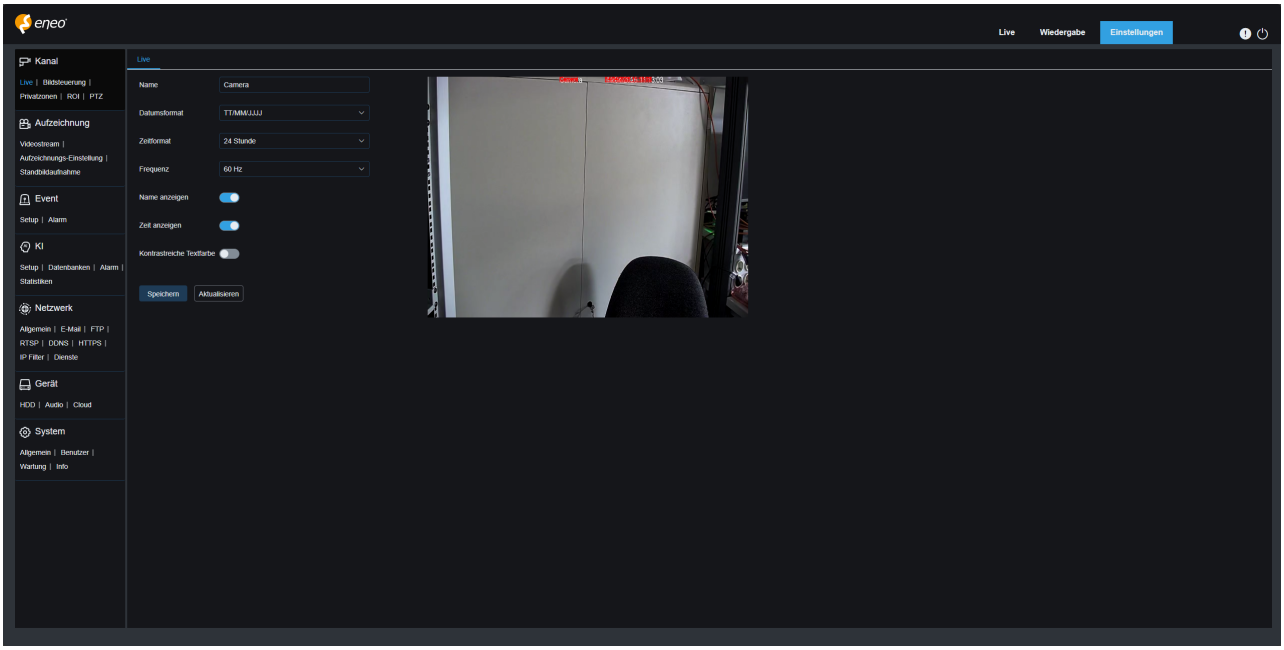
   When you click on a person, detailed time information is displayed at the bottom right.
   The times belonging to this person are marked with a red bar.
   When you click on the red bar, you will be taken to the corresponding quick view.
   You can click on the detail icon to check the details.
   You can click on the play icon to go to quick playback.

6 – SETTINGS

6.1 – Channel

6.1.1 – Live

You can change basic camera settings in the channel's live settings.



Name: Sets the channel name of the camera.

Date format: Sets the date format of the camera. You can choose between MM/DD/YYYY, YYYY-MM-DD and DD/MM/YYYY.

Time format: Sets the time format of the camera. You can choose between 12-hour and 24-hour format.

Display name: Here you can set whether the camera name should be displayed on the images.

Frequency: Sets the local network frequency for the anti-flicker function.

Show name: Here you can set whether the camera name should be displayed on the images.

Show time: Here you can set whether the channel time should be displayed on the images.

High-contrast text colour: The OSD font colour for the camera time and camera name is self-adaptive. The colour changes between white and black depending on the image background to ensure clear display.

Position of additional information: You can change the position of the camera name and date on the image. To do this, drag the red text on the preview image to the desired position.

Alarm statistics display position: Here you can set the position where the alarm statistics are displayed by moving the position in the image. This setting is only available if the alarm statistics display is enabled.

Save: Saves the current changes.

Refresh: Refreshes the parameters of the current view.

6.1.2 – Image Control

The image control is used to directly control and change graphic parameters such as colour/black mode, wide dynamic range, backlight compensation, etc.

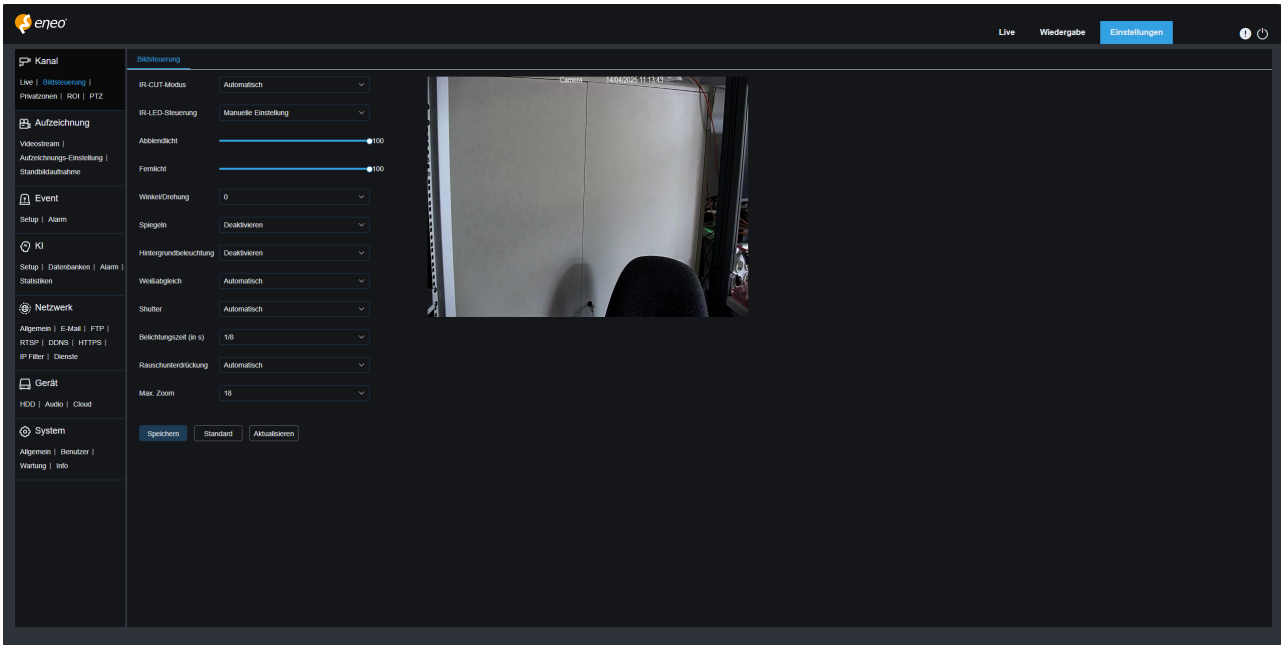


Image settings: Set the camera mode.

Colour mode: The camera operates in full colour mode.

Day/night mode: The camera operates in day/night mode.

Schedule: In schedule mode, the white light is switched on and off automatically according to a schedule.

White light: Set the fill light for the white light in full colour mode.

Automatic: In automatic mode, the camera automatically adjusts the intensity of the fill light to the ambient lighting.

Manual: In manual mode, the fill light is applied to the environment with a fixed brightness value.

Schedule: In schedule mode, the white light is automatically switched on and off according to a schedule.

Off: Disables the white light.

Sensitivity: Sensitivity 0-3. The degree to which the camera responds to ambient light. The higher the value, the higher the sensitivity.

IR-CUT mode: Used to set the day/night switching mode.

Automatic: Automatic control of the switching mode. The switch from colour to black and white is determined based on the images, and the switch from black and white to colour is determined based on the light sensitivity to ambient light.

Colour mode: When colour mode is enabled, the camera does not switch to black and white.

Black and white mode: When black and white mode is enabled, the camera does not switch to colour.

Image mode: Similar to automatic mode, the camera switches between colour and black and white based on the images.

Schedule: Switch between black and white and colour according to a schedule. When this function is enabled, you must set the start and end times for night vision.

IR LED control: Controls the brightening effect of the IR light during night vision.

Manual setting: Intelligent control of the brightening intensity of the IR light according to the focal length and overexposure conditions.

Low beam: Manual adjustment of the brightness of the IR light of the first group (0 to 100, where 0 means that the IR light is off and 100 represents the highest brightness level).

High beam: Manual adjustment of the brightness of the IR light of the second group (only possible with cameras with a varifocal lens) (0 to 100, where 0 means that the IR light is off and 100 indicates the highest brightness level).

Smart IR: Manual mode in which the fill light is used with the set intensity of the IR light.

Corridor mode: Activates corridor mode.

Angle/rotation: Setting the image rotation. In some application scenarios, the camera is used in reverse to the default setting. For example, the camera is designed to be hung overhead, but in practice it is used flat.

Mirror: Set the mirror mode according to the desired image effects.

Disable: Disables mirror mode.

Vertical: Aligns the mirror mode in the vertical direction to move the image up and down on the image.

Horizontal: Aligns the mirror mode horizontally to move the image up and down on the image.

All: Enables both Vertical and Horizontal to be activated at the same time. The effect is similar to a 180-degree rotation, but a different implementation principle is used.

Backlight: Determines the behaviour of the firmware when the backlight is on.

WDR: Wide Dynamic Range, which balances the image evenly depending on the setting and allows both bright and dark areas to be clearly distinguished.

HLC: Highlight Compensation, which makes objects in the highlight area of the image appear clearer.

BLC: Backlight Compensation, which makes objects in dark areas of the image more clearly visible.

Disable: The image is not optimised when backlight is enabled.

White balance: White balance is a measure of the accuracy of white produced by mixing red, green and blue.

Auto: Adjusts the white light using the default parameters.

Manual: Adjust the white light from red, green and blue.

Shutter: Adjusts the shutter speed.

Auto: The programme automatically selects a suitable exposure time according to the long exposure setting.

Manual: Allows you to use the long exposure setting directly.

Note!

Disable the 'Flicker-free' option for the exposure time in manual shutter mode and enable the option in automatic shutter mode.
When you switch the shutter to manual mode, the exposure time is automatically set to 1/100 or 1/120.

Exposure time: Set the camera's exposure time and use this parameter in combination with the shutter. If the exposure time is too long, the image may be overexposed. If the exposure time is too short, the image may be too dark.

Noise reduction: Use this parameter to reduce image noise and obtain a clearer image.

Off: Disables noise reduction.

Automatic: In this mode, the camera automatically selects the noise reduction effect according to the algorithms.

Manual: Allows you to manually adjust the noise reduction coefficient to reduce image noise.

Improvement: The manually set parameters improve the details of the thermal channel. Higher values improve the image more.

Improve image area: Select 'Area' or adjust an area to improve the image effect on the thermal channel screen.

Palette: Set the pseudo-colour mode of the thermal channel to display temperature differences using different colours.

Fusion: You can choose whether the image from the optical channel should be merged and superimposed on the image from the thermal channel.

Normal: The image from the optical channel and the image from the thermal channel are not integrated and are displayed independently of each other.

Overlay: The image from the optical channel is merged with the image from the thermal channel and overlaid so that the image from the thermal channel shows more details of the optical image.

Image fusion value: The image fusion ratio represents the ratio of screen to screen. The higher the value, the larger the proportion of the optical screen and the closer the merged image effect. Conversely, the smaller the value, the closer the merged image effect is to the thermal image channel. Edge fusion value: The higher the value of the parameter, the sharper the objects in the merged image. The smaller the value, the blurrier the image becomes.

Fusion distance: The distance between the image of the optical channel and the image of the thermal image channel.

Horizontal cut: Adjusts the horizontal position of the optical channel image relative to the thermal image channel image in the merged image.

Vertical cut: Vertical adjustment: Adjusts the vertical position of the optical channel image relative to the thermal image channel image in the merged image.

Background correction: Background correction to optimise the thermal image channel effect: Place a barrier with a uniform temperature in front of the lens, e.g. uniform foam or cardboard. The device optimises the image based on the uniform barrier.

Shutter correction: Manual correction to optimise the thermal image channel effect.

Save: Save changes to the image parameters.

Default: Reset image parameters to default values.

Refresh: Refresh image parameters.

6.1.3 – Privacy Zones

This function is used to hide areas that are visible to the camera but are not to be monitored or recorded.
Depending on the camera model, this function can be used to create up to 6 privacy zones of any size and position.

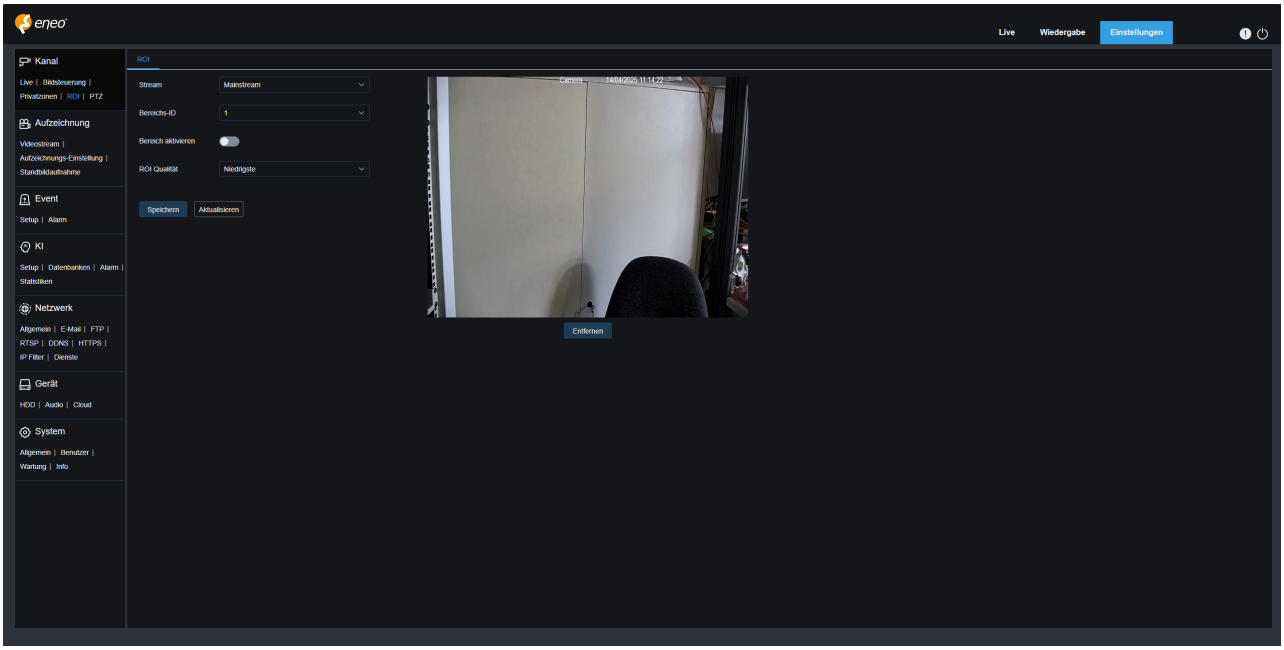
Activate: Activates the function.

Setting private zones: Define the areas on the monitoring screen that are not to be monitored. The protected areas are displayed in red during setup and black after activation.

Delete: Delete selected private zones.

6.1.4 – ROI

ROI (Region of Interest) is a relevant area in the video image. A different frame rate and sharpness can be set for this area than for the unselected area.



Stream: Select the desired video stream.

Area ID: Select area IDs. You can set up to eight regions.

Enable region: The region ID and the 'Enable region' option are separate for each region and must be enabled, disabled or set separately.

ROI quality: Set the image quality in the regions. The higher the quality, the higher the resolution and frame rate.

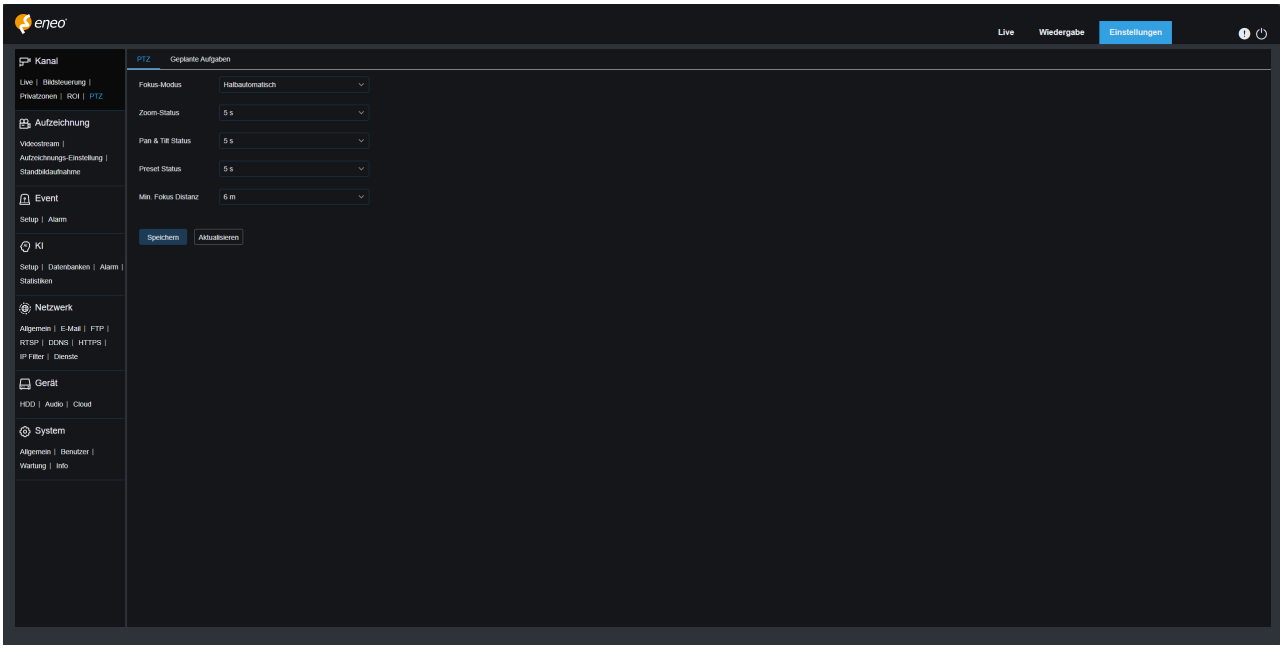
FPS outside ROI: Set the frame rate outside the relevant area.

Note!

If the video codec type is H264+ or H265+, the ROI function and type are mutually exclusive.

6.1.5 – PTZ

The following functions are only available when viewing a PTZ camera.



Focus mode: Choose between Automatic, Semi-automatic and Manual.

Zoom status: Specifies how long the display is shown during operation.

Pan & Tilt Status: Specifies how long the display is shown during operation.

Preset status: Specifies how long the display remains visible during operation.

2 s: 2 seconds

5 s: 5 seconds

10 s: 10 seconds

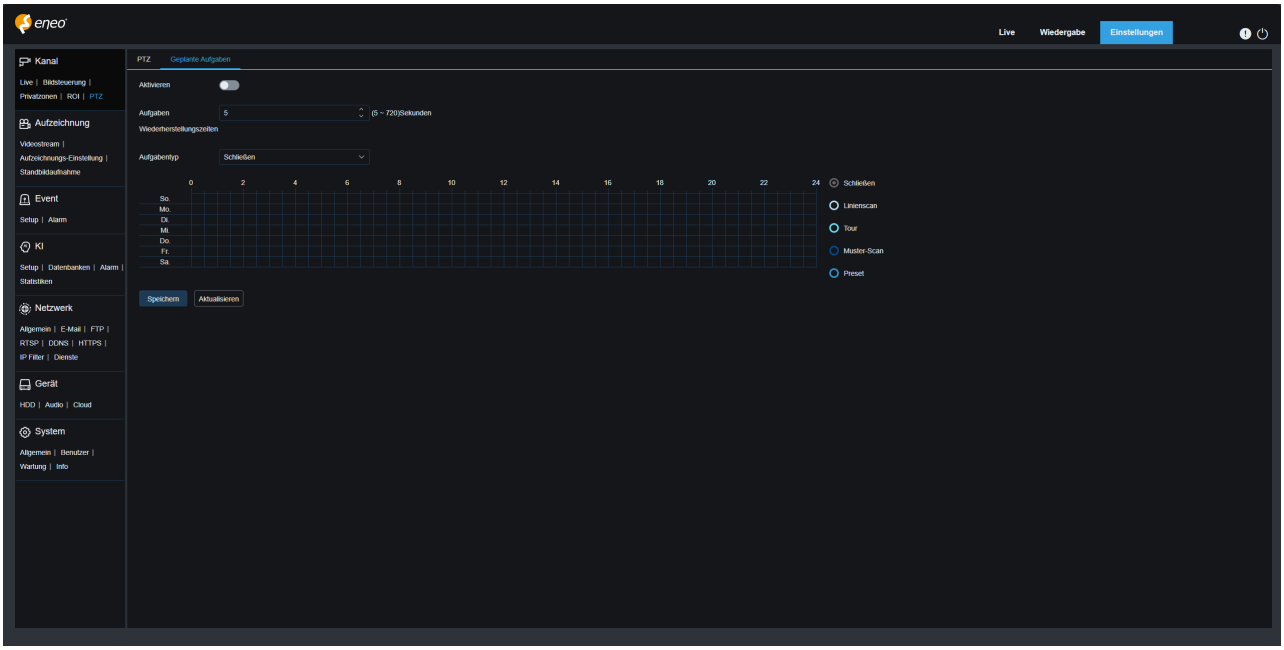
Normally open: Always display

Normally closed: Never display

Min. focus distance: Describes the minimum distance to the object for focusing.

6.1.5.1 – Scheduled Tasks

Set the time period during which scheduled tasks should be executed automatically.



Recovery times: Describes the time after which the task is triggered again. With manual control, the camera waits the same amount of time before resuming the scheduled tasks.

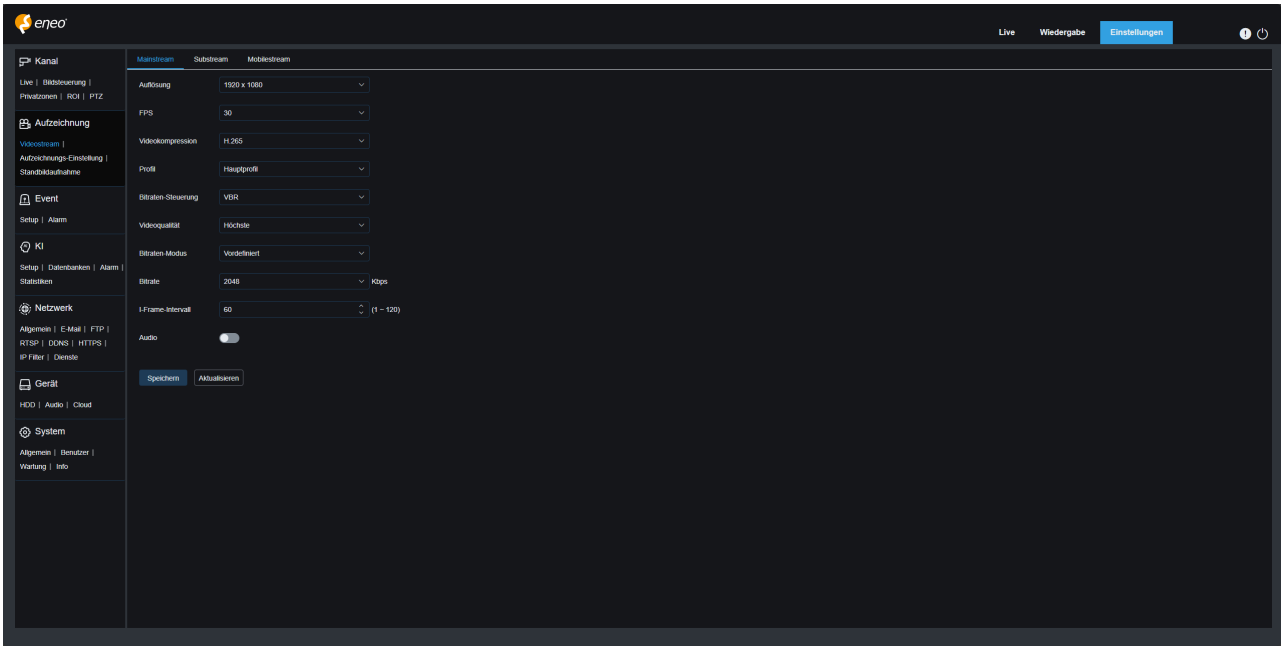
Task type: Select which task is to be scheduled. Only one task can be triggered per time segment. Each time segment is 30 minutes from the start of a full hour.

6.2 – Record

This menu allows you to configure the preview and recording parameters.

6.2.1 – Videostream

This menu allows you to configure the image quality for video recordings or network transmissions.



Mainstream defines the quality parameters of recorded videos that are stored on the hard drive.

Substream defines the quality parameters of live videos that are accessed remotely, for example via the web client and CMS.

Mobilestream (can be disabled) defines the quality parameters of live views that are accessed remotely and viewed from mobile devices.

Resolution: This parameter defines the resolution of the recorded image.

FPS: This parameter defines the frame rate of the recording in your IPC.

Video compression: Type of channel decoding. Possible options are H.264, H.265, H.264+, H.265+ and MJPEG (MJPEG is only available in substream mode).

Profile: You can choose between the following profiles

Baseline: A basic profile that uses only some of the H.264 encoding techniques. It was designed for devices with low power consumption, such as older mobile phones, which require less processing power for decoding. Advanced features are missing, so it may be less suitable for high-resolution or demanding video formats.

Main Profile: Offers a good balance between complexity and compression and is suitable for modern devices and web streaming. Compared to Baseline, it includes more advanced features that result in higher compression efficiency. The Main Profile is typically supported by set-top boxes and other devices.

High Profile: Supports all H.264 encoding methods, enabling the highest possible video quality. Ideal for encoding HD and Full HD content such as Blu-ray and HD satellite broadcasts. Compared to other profiles, it requires more resources and is therefore less suitable for devices with limited processing power.

Bitrate control: Select the bitrate level. A constant bit rate is preferable for a plastered wall, while a variable bit rate is better for a busy street.

VBR: Variable Bit Rate (VBR) means that the video is streamed at a variable and adaptive bit rate. For example, if you set the average bit rate to 5 Mbit/s, the video will adjust the bit rate depending on the complexity or movement of the scene. VBR is more flexible and intelligent because it can allocate more data to scenes that require more data and less data to scenes that require less data.

CBR: Constant Bit Rate (CBR) means that the video is streamed at a fixed and constant bitrate throughout its duration. For example, if you set the bitrate to 5 Mbit/s, 5 Mbit/s will be used for every second of the video, regardless of how complex or moving the scene is. CBR is easy to set up and predictable, as you know exactly how much data you need to store or transmit your video.

Video quality: Select the desired quality of the recording.

Bitrate mode: Select 'Custom' mode to set a bitrate manually. Select 'Preset' mode to choose a preset bitrate.

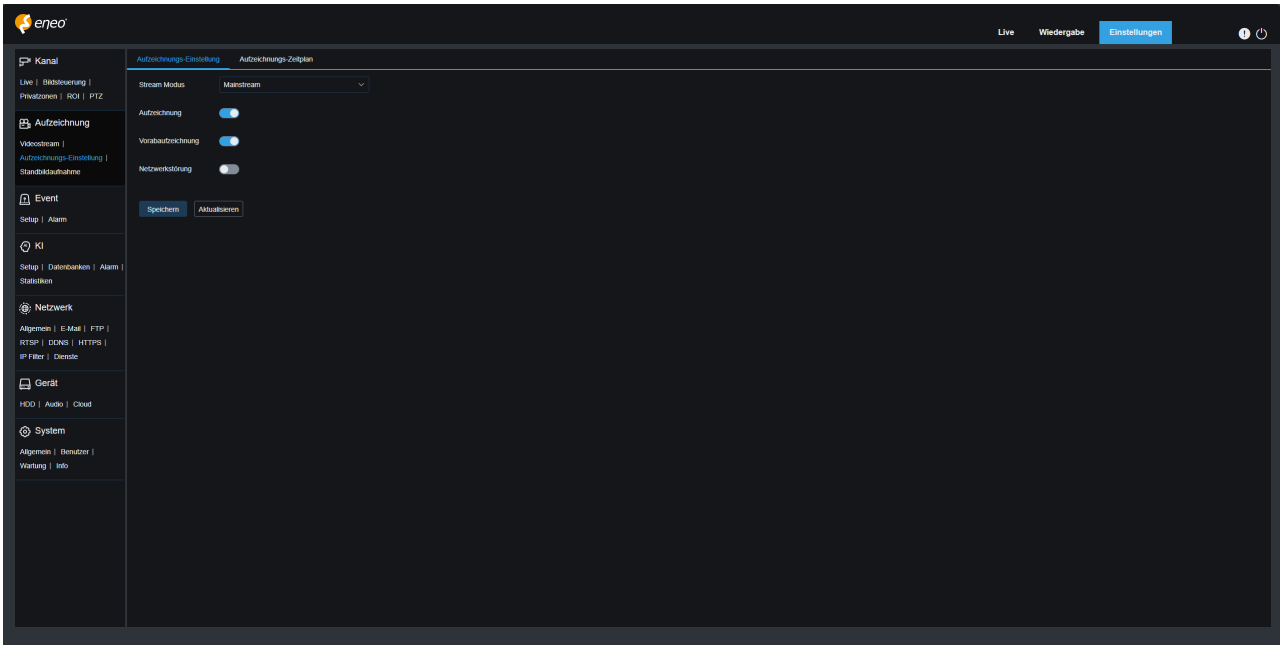
Bitrate: This parameter corresponds to the data transfer rate used by the IPC to record a video. A higher bitrate results in better image quality.

I-frame interval: The I-frame interval controls the number of partial frames between complete frames. A higher I-frame interval saves bandwidth but may reduce video quality. A lower I-frame interval improves video quality but requires more bandwidth.

Audio: Select this option if you want to record both audio and video and connect your microphone to the IPC or use a camera with audio capability.

6.2.2 – Record Settings

In this menu, you can configure the parameters for recording.



Stream mode: Here you can select the video stream that you want to save to the memory card. The main stream is selected by default.

Recording: Activate recording.

Pre-recording: If you enable pre-recording, the camera will start recording a few seconds before an alarm event occurs.
This option is recommended if your main recording type is based on motion detection or I/O alarm.

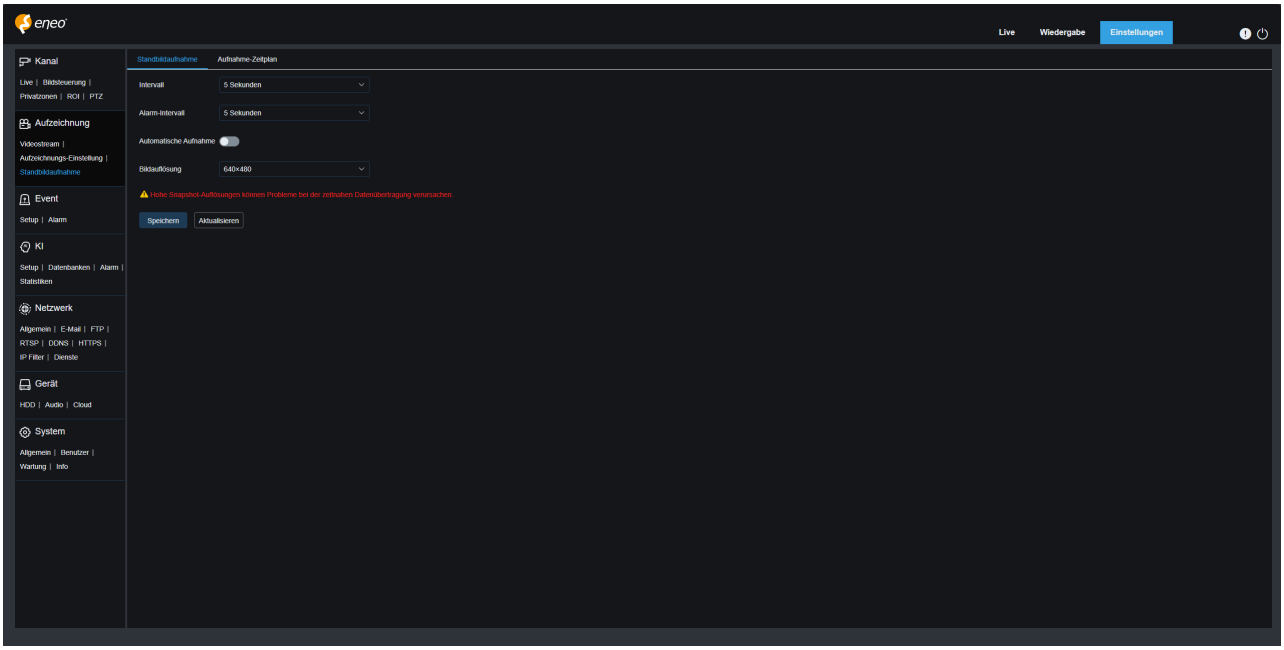
Network failure: If you enable this option, recording will continue even if the network connection is interrupted or a network error occurs.

6.2.2.1 – Record Schedule

In this menu, you can specify when the camera starts recording. In the recording schedule, you can set a recording schedule. Recording will only take place within the selected time period. You also have the option of dragging the cursor to mark areas.

6.2.3 – Capture

In this menu, you can configure the parameters for automatic capture.



Interval: Select the capture interval here.

Alarm interval: The alarm interval refers to the interval at which an alarm is recorded.
It is used to set the capture interval when motion detection, the I/O alarm or the PIR is triggered.

Automatic capture: Activate automatic capture.

Image resolution: Select the image resolution that suits your needs. You can choose between 1920*1080, 1280*720, 800*600, 640*480, 320*320, etc.

6.2.3.1 – Capture Schedule

In this menu, you can specify when the IP camera captures images. You can define a recording schedule in the Recording schedule. Recording only takes place within the selected time period. You can drag the cursor to mark areas.

Normal: If the area is marked green, the channel performs normal detection in this area during the corresponding period.

Motion: If the area is marked yellow, the channel performs motion detection in this area during the corresponding period.

I/O: If the area is marked red, the channel performs I/O alarm detection in this area during the corresponding period.

PIR: If the area is marked purple, the channel performs PIR alarm detection for the area during the corresponding period.

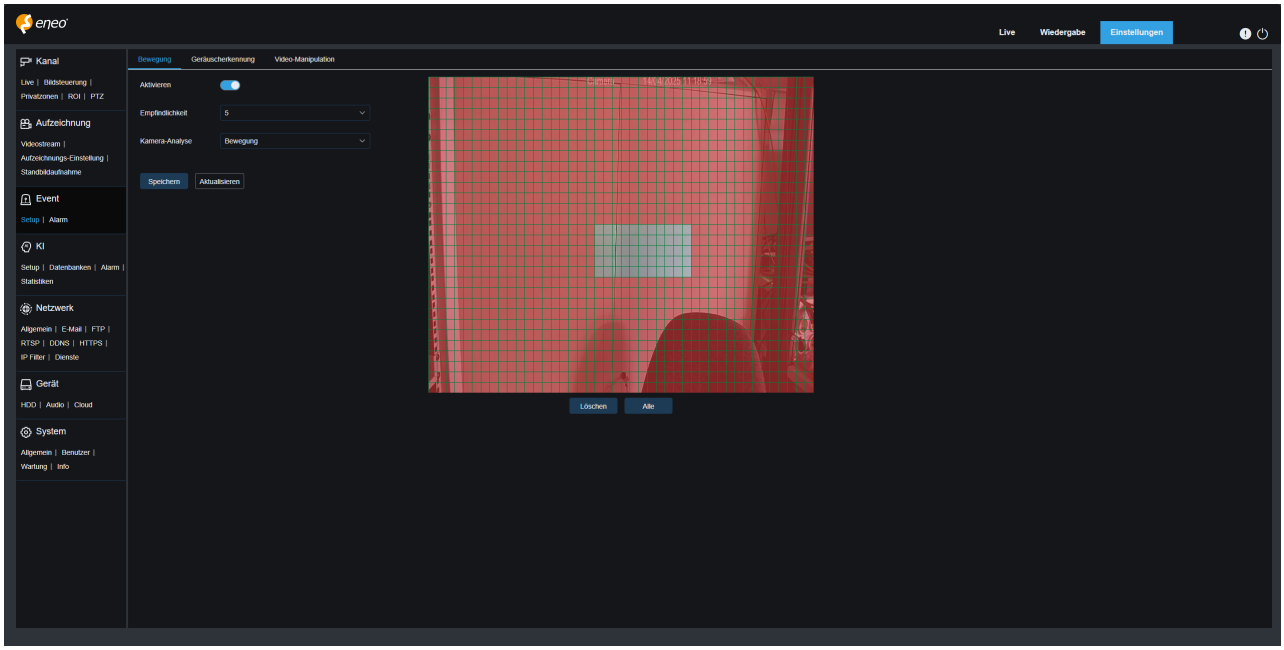
No detection: If the area is marked black, the channel does not perform any detection during this period.

6.3 – Event

6.3.1 – Setup

6.3.1.1 – Motion

In this menu, you can configure the parameters for motion detection. When motion is detected, a series of alarms are triggered, such as sending an email notification with attached images from the camera (if this option is enabled) and a push notification via the app.



The detection area can be limited in the right window by holding down the left mouse button. The alarm is only triggered if movement is detected in this area.

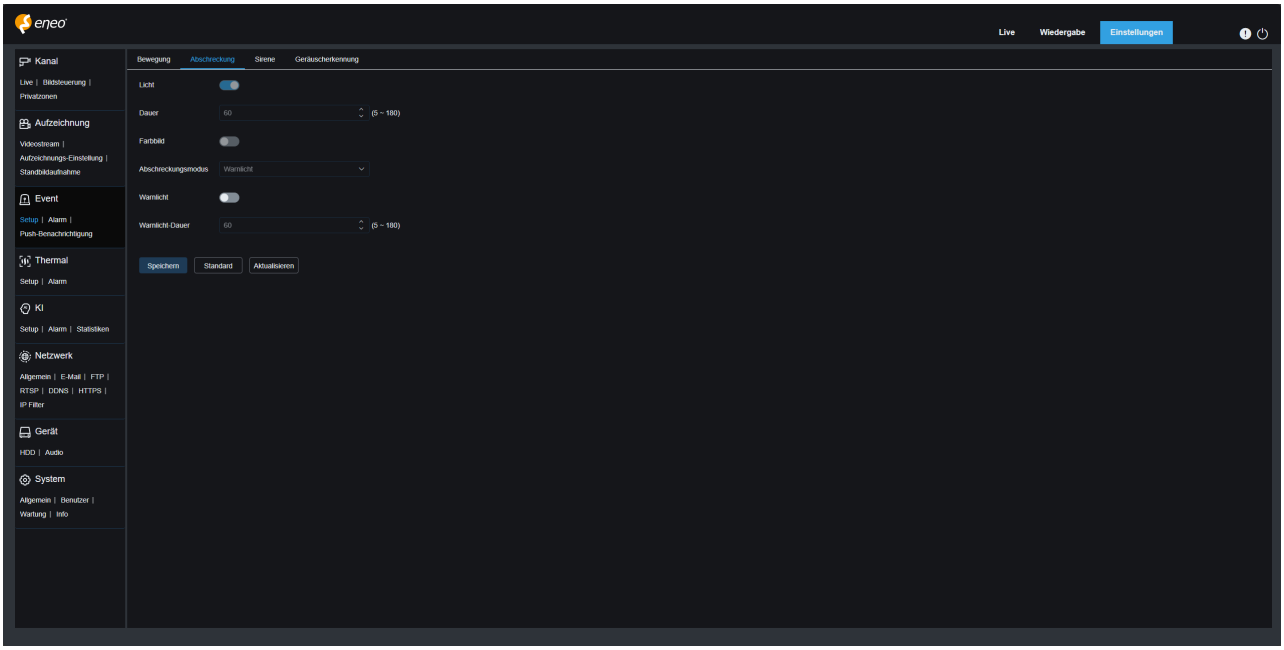
Activate: Activate motion detection.

Sensitivity: Here you can set the sensitivity of the motion detection. The higher the value, the higher the sensitivity.

Camera analysis: This is where the motion is analysed. You can set the type and range of target detection. Detected motion in the target detection range can trigger an alarm.
The detection type includes the following four options: Motion, Person, Vehicle and Person/Vehicle.

6.3.1.2 – Deterrence

This menu allows you to configure the parameters for white light suppression if the camera supports white light and the image control is set to day/night mode.



Note!

If the camera supports white light and the image control is set to full colour mode, the white light parameters, such as light, are not available.
If the image control is set to day/night mode, all parameters on this screen are available. If the image control is set to Smart IR, all parameters on this interface are greyed out and cannot be adjusted.

Light: Switch for white light warning.

Duration: Set the duration of the white light warning.

Warning mode: Mode for the white light warning.

Warning light: The white light flashes continuously during the warning.

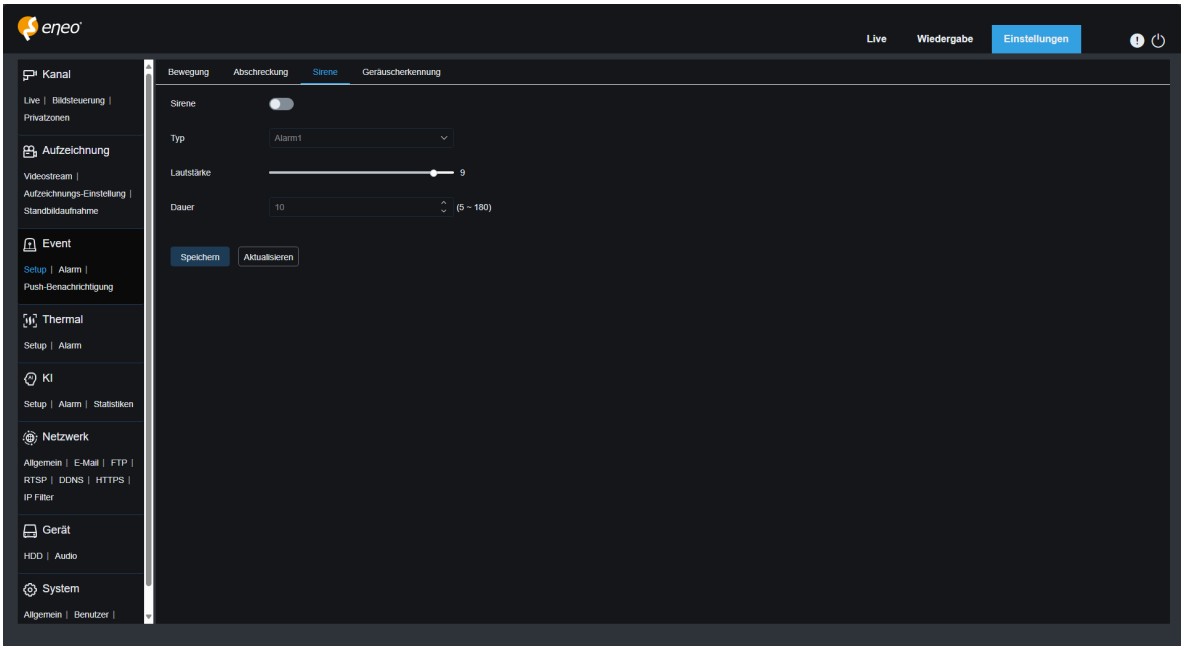
Strobe: The white light flashes at a set frequency during quenching.

Warning light: Switches the warning light on or off.

Warning light duration: Set the duration of the warning light.

6.3.1.3 – Siren

If the camera supports a siren, you can set the parameters for siren deterrence on this screen. When an alarm linked to deterrence is triggered, the siren is automatically activated for deterrence.



Siren: Enable or disable the siren.

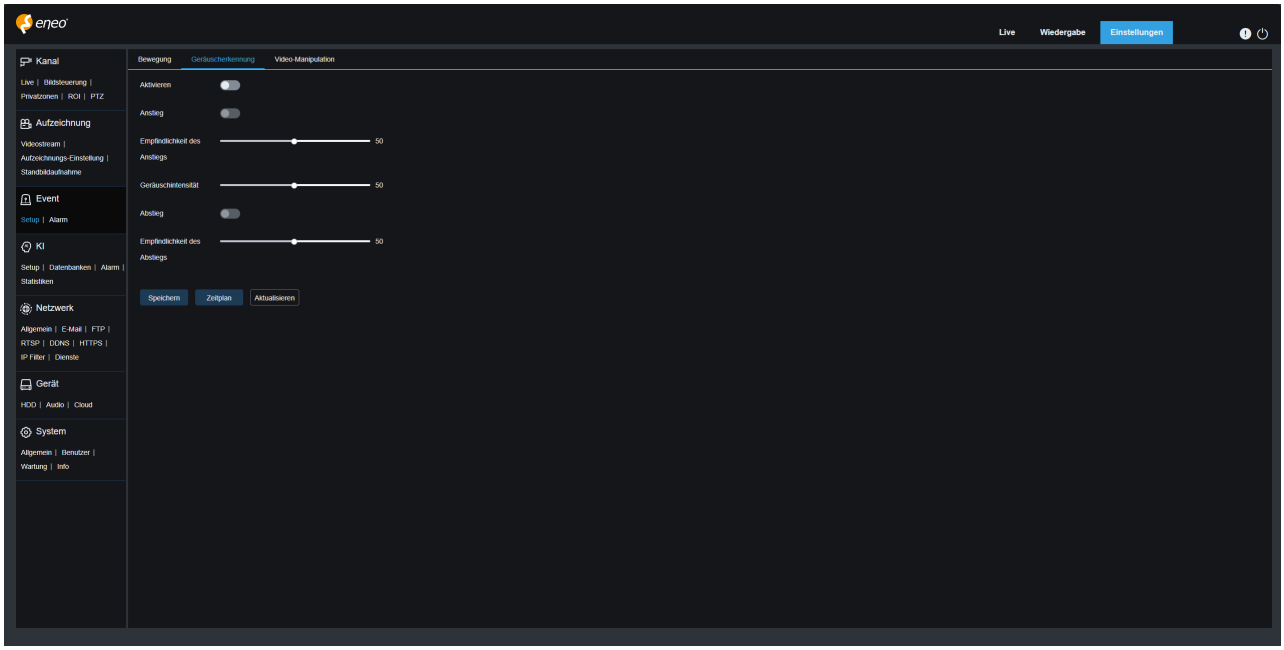
Siren type: Specify the type of siren file.
By default, two files are available for configuration.
You can customise and import three siren audio files (the audio file formats must be .wav and .pcm, the audio sampling rate must not exceed 8000 Hz and the file size must not exceed 256 KB).

Level: Set the siren level.

Duration: Set the duration of the siren.

6.3.1.4 – Sound Detection

The alarm is triggered when the camera detects that the connected audio has changed and the condition for alarm detection is met.



Activate: Turn noise detection on or off.

Rise: When this option is enabled, an alarm is only triggered if the volume increases significantly.

Rise sensitivity: The higher the value, the sooner an alarm will be triggered.

Noise intensity: This setting is the acoustic threshold. The higher the threshold value, the louder the sound must be to trigger a rise alarm, and vice versa.

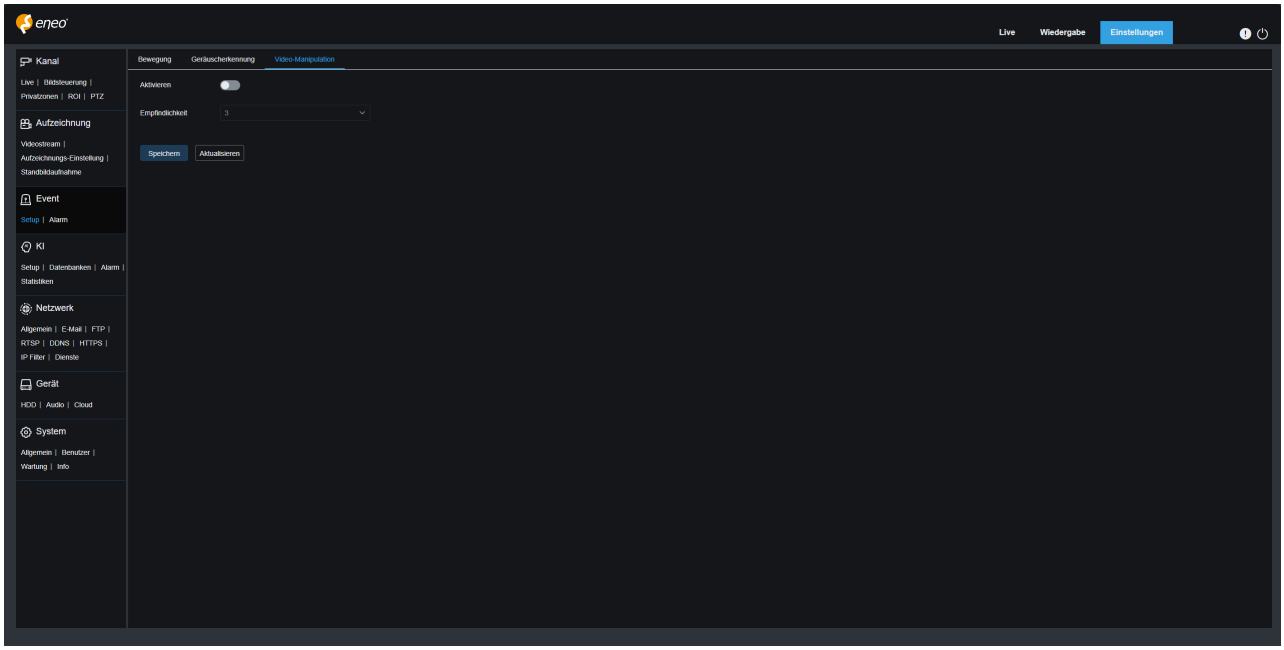
Decrease: If this option is enabled, an alarm will only be triggered if the volume decreases significantly.

Decrease sensitivity: The higher the value, the sooner an alarm will be triggered.

Schedule: Set a schedule for the audible alarm. An audible alarm will only be triggered within the set time.

6.3.1.5 – Video-Tampering

Detect tampering in live view and trigger an alarm.



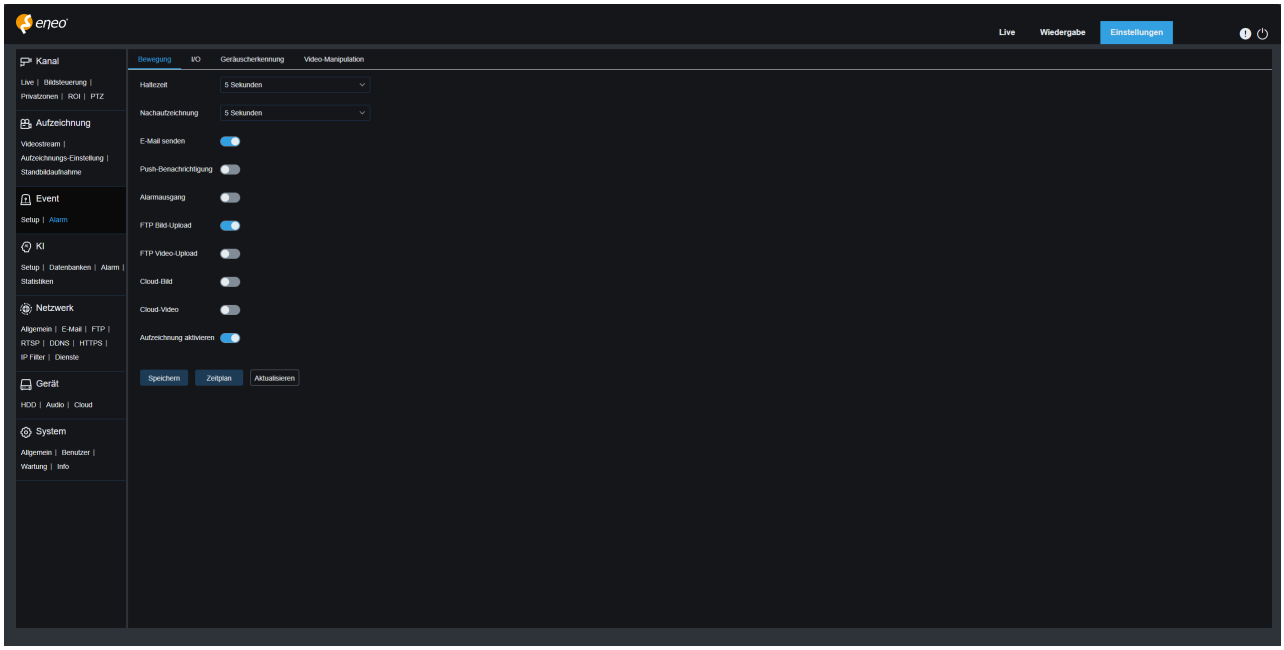
Activate: Activate or deactivate tamper detection.

Sensitivity: Adjust the sensitivity. The higher the setting, the more sensitive the detection.

6.3.2 – Alarm

In this menu, you can define actions to be performed in the event of an alarm.

6.3.2.1 – Motion



Hold time: Set the duration for triggering an external alarm when motion is detected.

Post-recording: Set the duration of continuous recording after an event. Options include 5 s, 10 s, 20 s and 30 s. The default duration is 5 s, but the maximum duration can be set to 30 s.

Send email: The device automatically sends an email when it detects motion.

Push notification: When this option is set to ON, this information is sent to the client when an alarm is triggered.

Alarm output: Optional. If your device supports connection to an external alarm device, you can turn this switch ON to activate the external alarm device.

Light: When this option is set to ON, the white light is turned on as a deterrent when an alarm is triggered.

Warning light: When this option is set to ON, the warning light is activated as a deterrent when an alarm is triggered.

Siren: When this option is set to ON, the siren is activated as a deterrent when an alarm is triggered.

FTP image upload: Upload alarm images to the FTP server.

FTP video upload: Upload alarm videos to the FTP server.

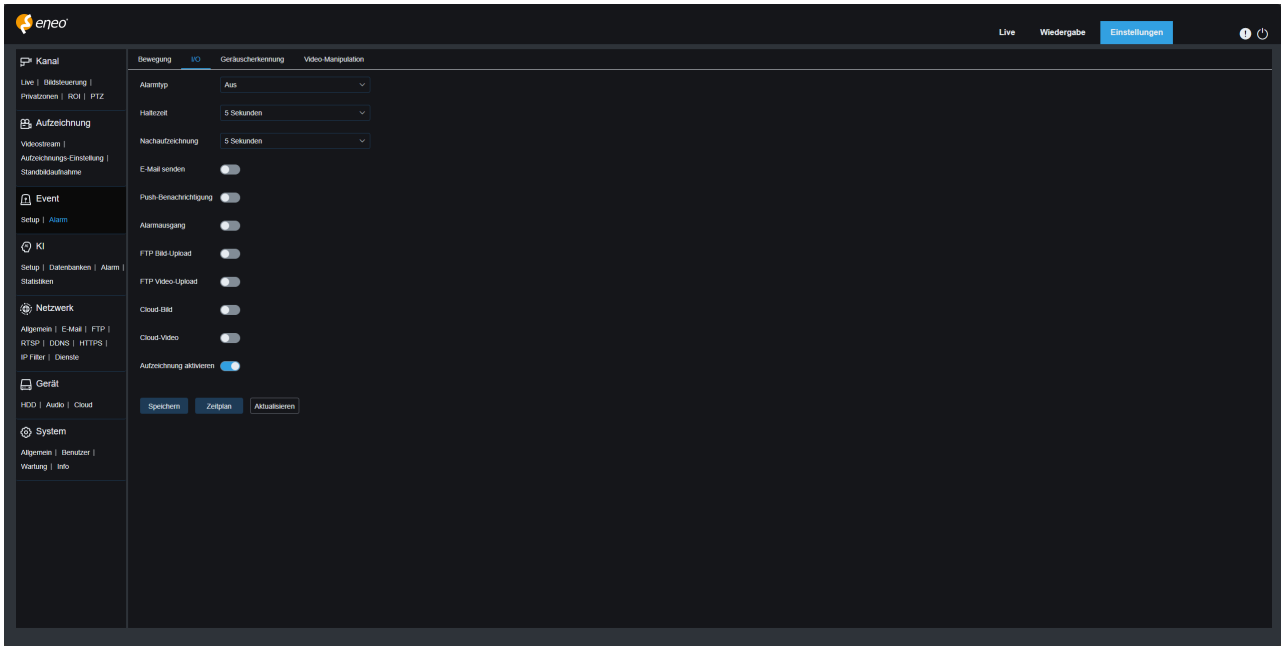
Cloud Image: Upload alarm images to the Dropbox cloud.

Cloud Video: Upload alarm videos to the Dropbox cloud.

Enable Recording: When this option is enabled, this type of recording is enabled when an alarm is triggered.

Schedule: Set the scheduled time at which an alarm is triggered. A series of alarm actions are only triggered within the scheduled time.

6.3.2.2 – I/O



Alarm type: Normally open, Normally closed, Off.

Hold time: Set the duration for triggering an external alarm when an external alarm device is detected.

Post-recording: Set the duration of continuous recording after an event occurs. The options are 5 s, 10 s, 20 s and 30 s. The default duration is 5 s, and the maximum duration can be set to 30 s.

Send email: The device automatically sends you an email when it detects an external alarm device.

Push notification: If this option is set to ON, this information is sent to the client when an alarm is triggered.

Alarm output: Optional. If your device supports connection to an external alarm device, you can activate this switch to activate the external alarm device.

Light: When this option is set to ON, the white light is turned on as a deterrent when an alarm is triggered.

Warning light: When this option is set to ON, the warning light is turned on as a deterrent when an alarm is triggered.

Siren: When this option is set to ON, the siren is activated as a deterrent when an alarm is triggered.

FTP image upload: Uploads alarm images to the FTP server.

FTP video upload: Uploads alarm videos to the FTP server.

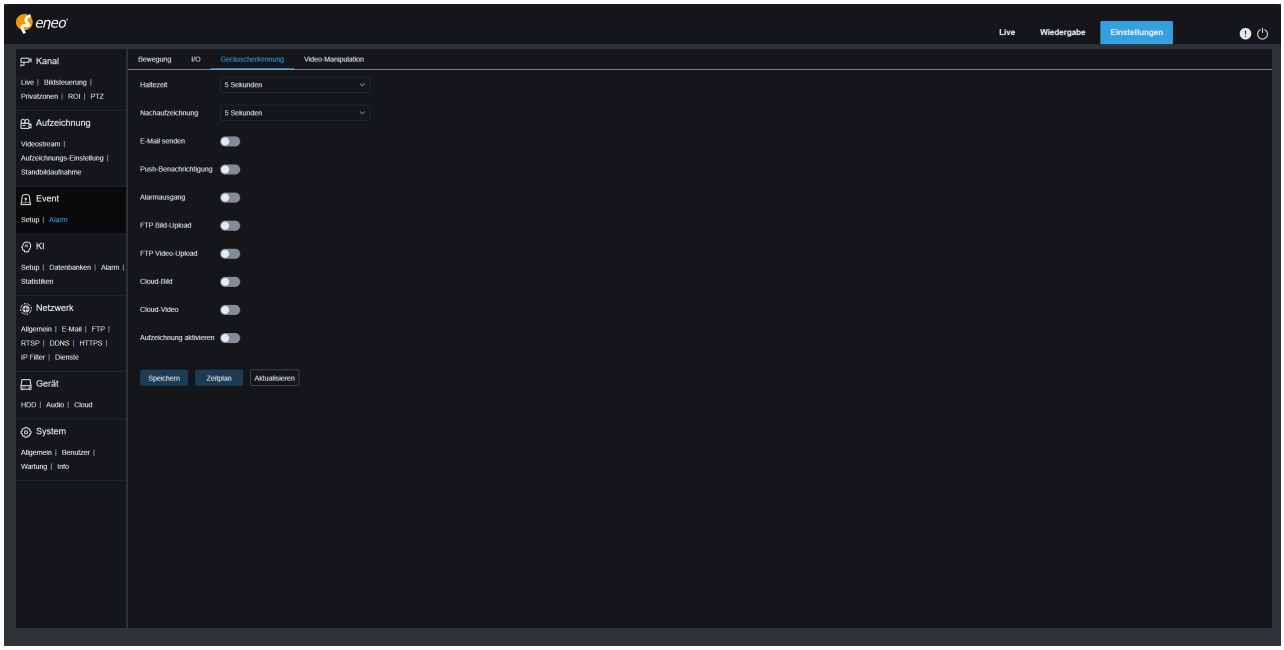
Cloud image: Uploads alarm images to the Dropbox cloud.

Cloud video: Uploads alarm videos to the Dropbox cloud.

Enable recording: When this option is enabled, recording is activated when an alarm is triggered.

Schedule: Set the scheduled time at which an alarm should be triggered. A series of alarm actions will only be triggered within the scheduled time.

6.3.2.3 – Sound detection



Hold time: Set the time before an external alarm is triggered when an audible alarm is triggered.

Post-recording: Set the duration of continuous recording after an event. The options are 5 s, 10 s, 20 s and 30 s. The default duration is 5 s, and the maximum duration can be set to 30 s.

Send email: The device automatically sends an email when it detects an audible alarm.

Push notification: When set to ON, the information is sent to the client when an alarm is triggered.

Alarm output: Optional. If your device supports connection to an external alarm device, you can activate this switch to activate the external alarm device.

FTP image upload: Upload alarm images to the FTP server.

FTP image video: Upload alarm videos to the FTP server.

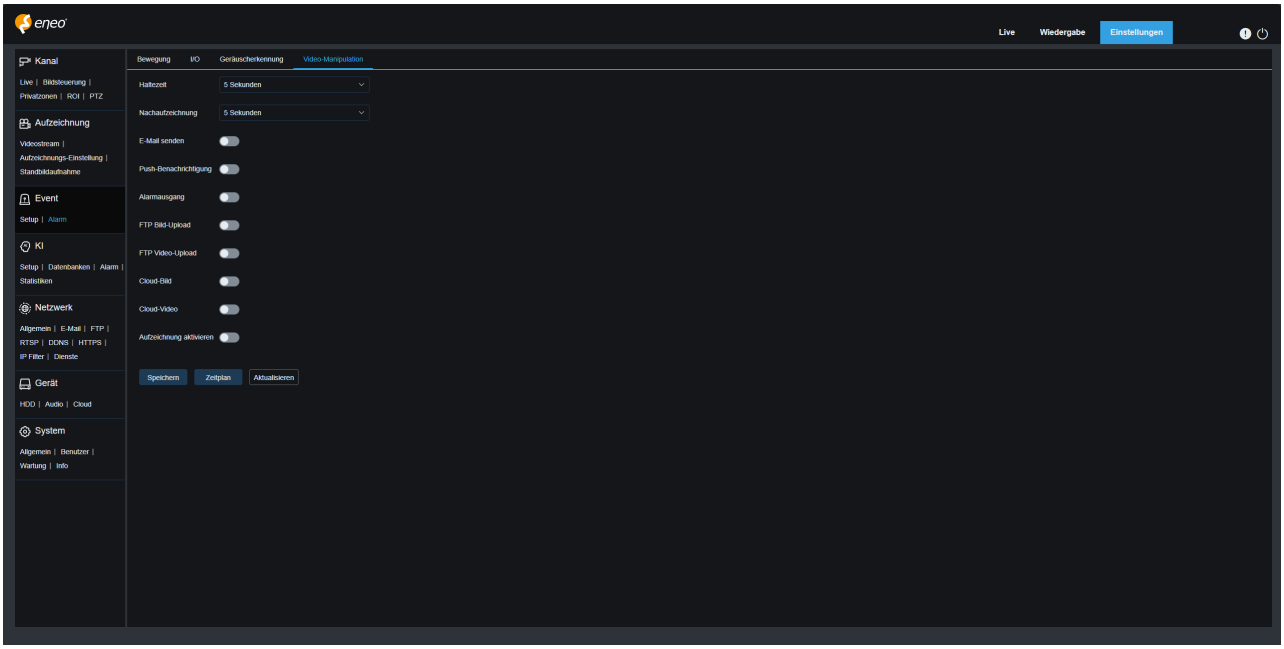
Cloud image: Upload alarm images to the Dropbox cloud.

Cloud video: Upload alarm videos to the Dropbox cloud.

Enable recording: When this option is enabled, recording is activated when an alarm is triggered.

Schedule: Set the scheduled time at which an alarm should be triggered. A series of alarm actions will only be triggered within the scheduled time.

6.3.2.4 – Video-Tampering



Hold time: Set the time before an external alarm is triggered when an audible alarm is triggered.

Post-recording: Set the duration of continuous recording after an event. The options are 5 s, 10 s, 20 s and 30 s. The default duration is 5 s, and the maximum duration can be set to 30 s.

Send email: The device automatically sends an email when it detects an audible alarm.

Push notification: When set to ON, the information is sent to the client when an alarm is triggered.

Alarm output: Optional. If your device supports connection to an external alarm device, you can activate this switch to activate the external alarm device.

Light: When this option is set to ON, the white light is turned on as a deterrent when an alarm is triggered.

Warning light: When this option is set to ON, the warning light is turned on as a deterrent when an alarm is triggered.

Siren: When this option is set to ON, the siren is activated as a deterrent when an alarm is triggered.

FTP image upload: Upload alarm images to the FTP server.

FTP image video: Upload alarm videos to the FTP server.

Cloud Image: Upload alarm images to the Dropbox cloud.

Cloud Video: Upload alarm videos to the Dropbox cloud.

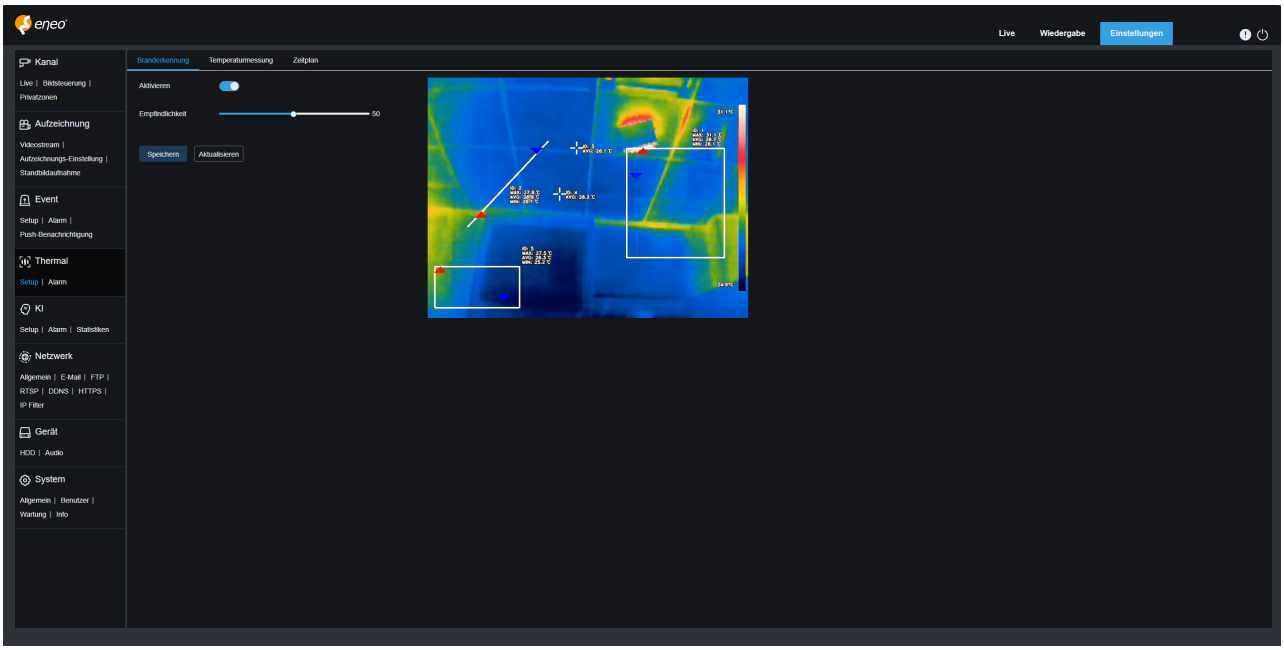
Enable Recording: When this option is enabled, recording is activated when an alarm is triggered.

Schedule: Set the scheduled time at which an alarm should be triggered. A series of alarm actions will only be triggered within the scheduled time.

6.4 – Thermal

6.4.1 – Setup

6.4.1.1 – Fire Detection



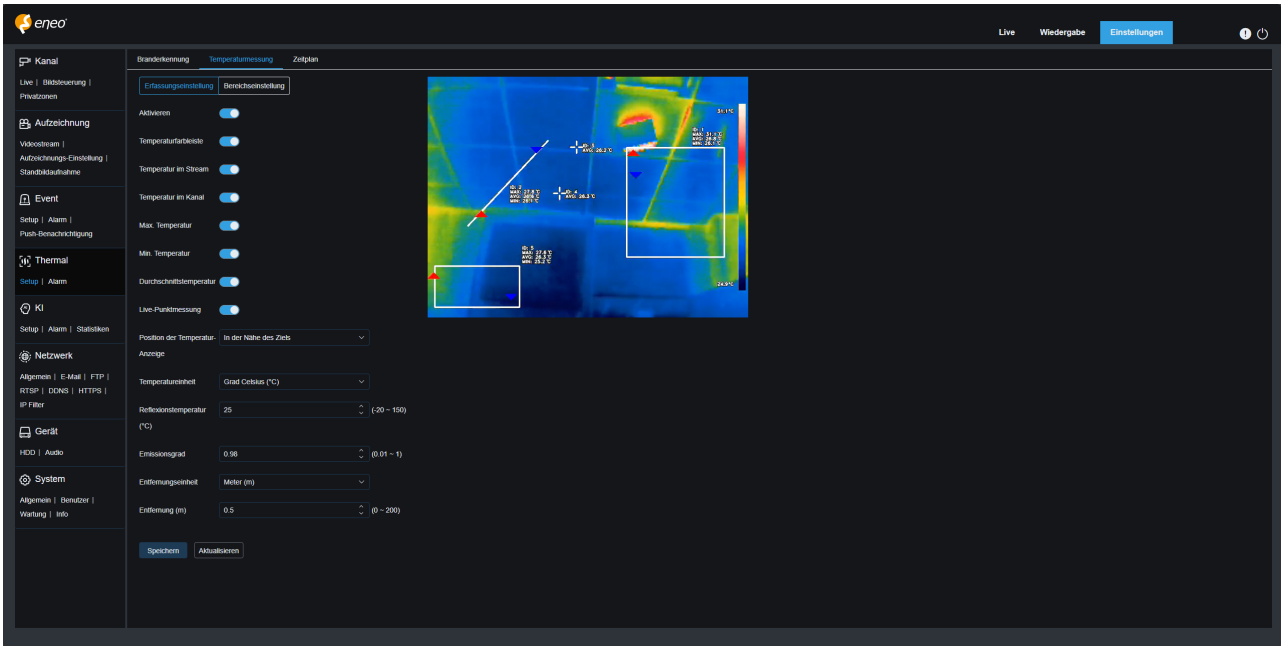
Activate: Activate or deactivate fire detection.

Sensitivity: The lower the sensitivity, the higher the temperature must be to trigger the fire alarm. The higher the sensitivity, the lower the temperature must be to trigger the fire alarm.

6.4.1.2 – Temperature measurement

Temperature measurement is used for real-time monitoring of the temperature at specific locations. If the alarm threshold is exceeded, an alarm is triggered to establish a link.

Capture settings



Enable: Enable or disable the temperature measurement function.

Temperature color bar: When this option is enabled, a color bar is displayed on the right side of the live view of the heat channel, showing the different temperatures, with the maximum and minimum temperatures displayed.

Temperature in Stream: When this option is enabled, the temperature measurement range and monitored temperature are displayed in the live view of the thermal channel.

Temperature in Channel: When this option is enabled, the temperature measurement range and monitored temperature are displayed simultaneously in the live view of the optical channel.

Max. Temperature: When this option is enabled, the maximum temperature is displayed on the preview screen, and the switch for displaying temperature information must first be enabled.

Min. Temperature: When this option is enabled, the minimum temperature is displayed on the preview screen. The switch for displaying temperature information must first be enabled.

Average temperature: When this option is enabled, the average temperature is displayed in the live view. The switch for displaying temperature information must be enabled beforehand.

Note!

If the temperature measurement range is limited by a point, only the average temperature of the point is displayed and the maximum and minimum temperatures are not displayed.

Spot measurement: Temperature measurement at a single point. After switching on, click with the left mouse button on any area in the preview of the thermal channel to perform a single-point measurement.

Position of the temperature display: Position of the temperature information. You can set the position of the temperature information in the preview.

Near the target: Temperature display next to the individual monitoring areas.

Top left: Temperature display in the upper left corner of the preview screen.

Temperature unit: Set the units in which the temperature information is to be displayed. Choose between Celsius, Fahrenheit, and Kelvin.

Reflection temperature: Set the ambient temperature of the camera.

Note!

The reflected temperature is defined as the temperature of the environment reflected by the surface of the object being measured. When thermal radiation is reflected from the surface of an object, it is influenced by the ambient temperature. The reflected temperature is therefore the temperature of the reflected thermal radiation.
The thermal imaging camera uses the reflected temperature to measure the temperature of an object's surface with high accuracy. By measuring the ambient temperature, it is possible to distinguish between the thermal radiation emitted by the object and the thermal radiation reflected by the environment, thereby accurately calculating the surface temperature of the object.

Emissivity: Here you can set the appropriate emissivity depending on the type of temperature target to be measured.

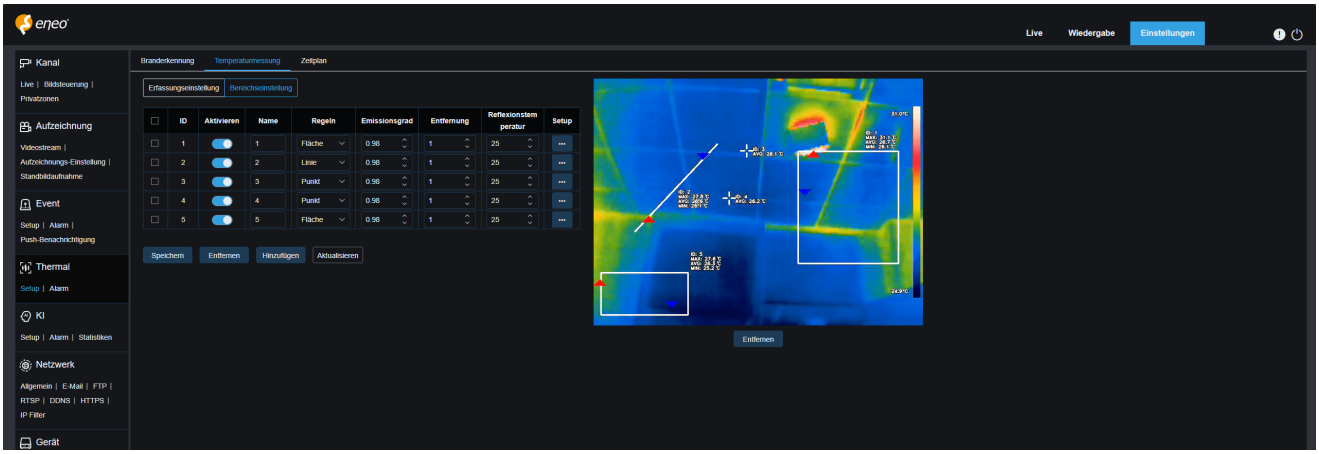
Note!

Emissivity describes the ability of the surface of the object being measured to emit infrared radiation. It is an important factor that influences the accuracy of the thermal imaging camera when measuring the surface temperature of the object. Different emissivity values can lead to different degrees of reflection and absorption of infrared radiation by the object and thus to different measurement results.

Distance unit: Choose between meters and inches.

Distance: Indicates the straight-line distance between the temperature target to be measured and the device, which should be set according to the actual situation.

Area Setting



1. Click **Add** to add temperature rules. The maximum number of temperature rules is 20.
2. Select a temperature rule and activate it with **Activate**.
3. Customise the name of the rule in the Name column.
4. Select temperature rules, choose between Point, Line and Area.
5. You can draw the rules and determine the location of the temperature measurement on the right side of the configuration screen, tick the rule and click Delete to delete the drawn temperature rules at the bottom of the configuration screen.

Point: Click anywhere on the configuration screen on the right to set the temperature measurement for the selected point. The preview screen displays the control and average temperature for the point.

Line: Click anywhere on the configuration screen on your side, hold down the mouse button, and drag the mouse to another location to draw a temperature measurement line indicating that the temperature measurement will be taken at the position on the line segment. Click the control line check box to adjust the length, angle, and position of the control line. The preview screen displays the control and temperature information for this temperature measurement line segment.

Area: Click anywhere on the configuration screen on your side, hold down the mouse button, and drag the mouse to another location to draw a square temperature measurement line indicating that the temperature will be measured in this area. Click the control area checkbox to adjust the size and position of the control area. The rules and temperature information for the temperature measurement area are displayed in the preview.

6. Set the appropriate emissivity according to the type of temperature target to be measured.
7. Set the straight-line distance between the temperature target and the device.
8. Set the ambient temperature of the camera.
9. Click to open the alarm rule setting page and set the alarm rules according to each temperature measurement rule.

Alarm rules: The following alarm rules apply

Above (Max. Temperature): The maximum temperature is greater than.

Below (Max. Temperature): The maximum temperature is less than.

Above (Min. Temperature): The minimum temperature is greater than.

Below (Min. Temperature): The minimum temperature is less than.

Above (average temperature): The average temperature is greater than.

Below (average temperature): The average temperature is less than.

Above (temperature difference): The difference between the maximum and minimum temperatures is greater than.

Below (temperature difference): The difference between the maximum and minimum temperatures is less than.Alarm temperature: Set the temperature threshold for the alarm.

Duration: Specifies the time during which the temperature of the measured object exceeds the temperature threshold. If this time is exceeded, the alarm is triggered.

Tolerance temperature: The tolerance temperature prevents temperature fluctuations from triggering false alarms. The higher the value, the more the temperature may fluctuate before an alarm is triggered.

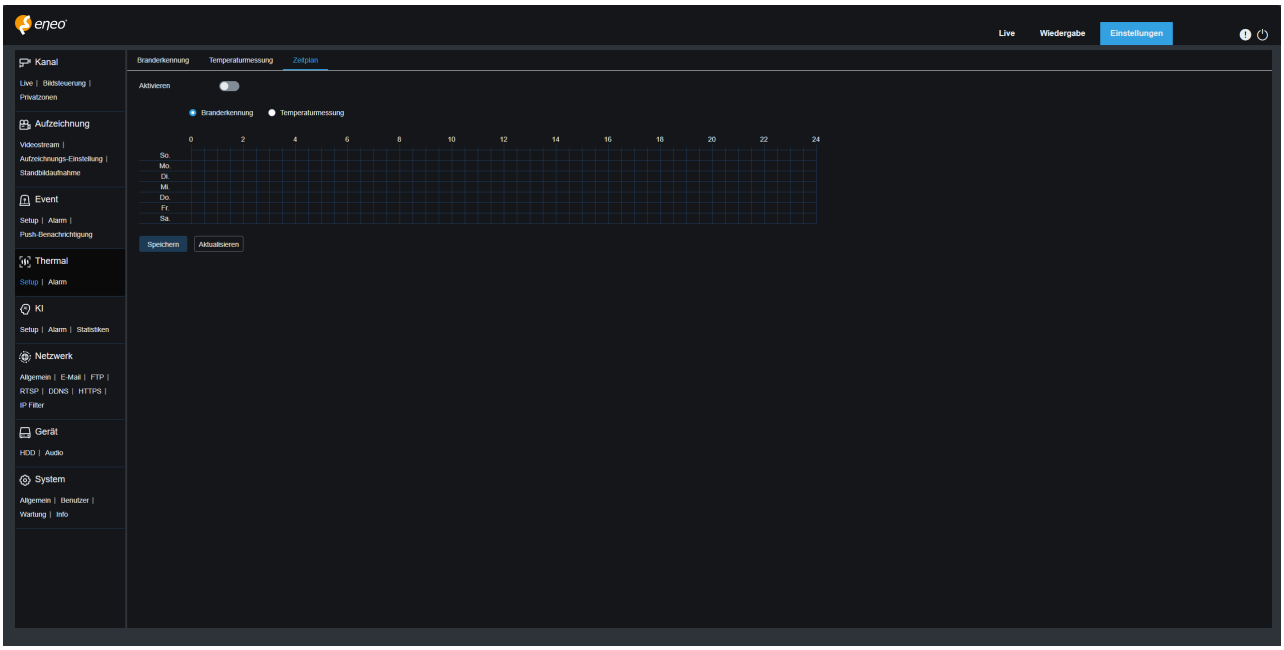
Example

At an alarm temperature of 40 °C and a duration of 3 seconds with a tolerance of 3 °C, an alarm is triggered if the average temperature in the area monitored by this temperature measurement rule exceeds 40 °C for at least 3 seconds.
However, if an average temperature of 37 °C or less is measured in the monitored area, the alarm is cancelled.

10. Check the temperature measurement rule and click Delete to delete it.

6.4.1.3 – Schedule

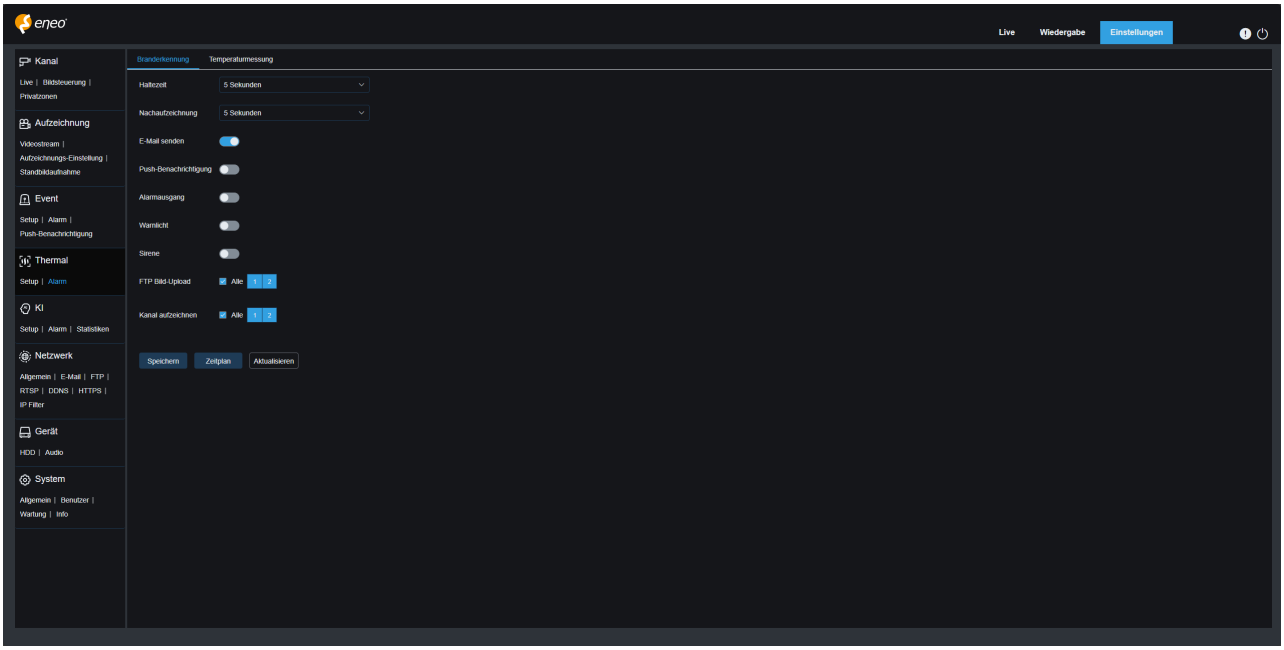
When the thermal alarm schedule function is activated, the device performs thermal fire detection or the temperature measurement alarm function according to the time period set in the schedule.



Sensitivity: The lower the sensitivity, the higher the temperature must be to trigger the fire alarm. The higher the sensitivity, the lower the temperature must be to trigger the fire alarm.

6.4.2 – Alarm

Set the function for detecting the thermal hotspot or for temperature measurement and the link actions to be performed after the alarm is triggered.



Lock time: Used to set the duration for triggering an external alarm when motion is detected.

After capture: You can set the duration of continuous recording after an event occurs. Options include 5 s, 10 s, 20 s and 30 s. The default duration is 5 s, but the maximum duration can be set to 30 s.

Send email: You can have the device automatically send you an email when it detects motion.

Push events: When this option is set to ON, this information is sent to the client when an alarm is triggered.

Alarm output: Switch to activate the lock time setting. If the device does not support the I/O output function, it will not be displayed.

Light: When this option is set to ON, the white light is turned on as a deterrent when an alarm is triggered.

Warning light: When this option is set to ON, the warning light is turned on as a deterrent when an alarm is triggered.

Siren: When this option is set to ON, the siren is turned on as a deterrent when an alarm is triggered.

FTP Image Upload: After the alarm is triggered, alarm images are uploaded to the FTP server depending on the selected channel.

Record Channel: Depending on the selected channel, this type of video is recorded when an alarm is triggered.

Schedule: Set the scheduled time at which an alarm is triggered. A series of alarm actions are only triggered within the scheduled time.

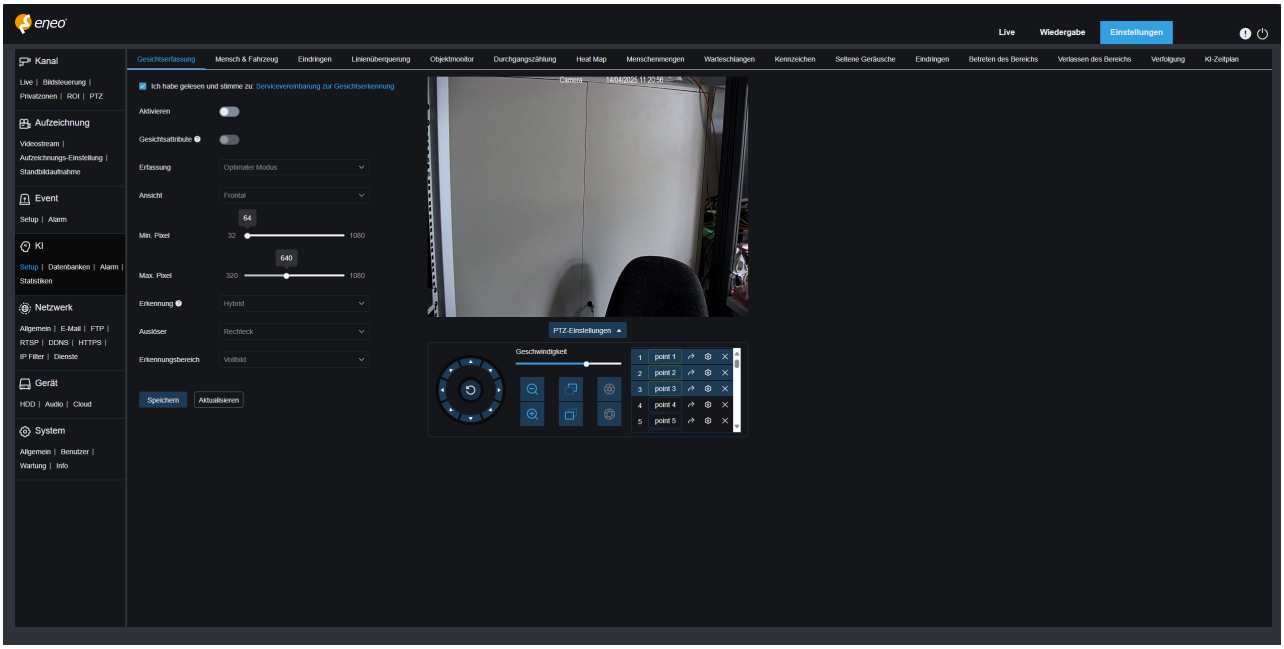
6.5 – AI

6.5.1 – Setup

Activating this function consumes the camera's processing power. Due to the camera's limited performance, some AI functions cannot be activated simultaneously. Please note the relevant restrictions for the respective model.

6.5.1.1 – Face Detection

First, the camera captures the face and creates a capture image that meets the requirements. The facial feature data from the capture image is then calculated using the facial model algorithm and compared with the data in the facial database. Finally, an alarm is triggered. To do this, the facial recognition function must be activated.



Service Agreement: The agreement for the face recognition algorithm is automatically displayed when you first log in and can be accepted or rejected by the user. Before you can activate face recognition, you must agree to the agreement, otherwise face recognition cannot be used.
If you do not click the Save button, it will be displayed every time you log in.

Enable: Turns the feature on.

Dynamic Marking: Recognised targets are marked with a frame.

Optimise Face: Face enhancement switch to improve the detection of moving objects. It also adjusts the brightness of the recognised face closest to the camera to optimise the capture effect (supported by some models).

Face features: Recognises the features of the detected face image, including age, gender, mask, glasses, facial expression, etc. Light: When this option is set to ON, the white light is turned on as a deterrent when an alarm is triggered.

Snapshot mode: You can receive push notifications in the live view or connect an NVR to check the image.

Optimal mode: The camera only sends the image it considers to be the best, from the moment the object is detected until it disappears.

Real-time mode: When the camera detects an object, it immediately sends an image and then the best image when the object disappears.

Interval mode: Set the number of snapshots and the interval between snapshots and push images as required. The options for the number of snapshots are 1, 2, 3 and unlimited. The snapshot frequency ranges from 1 s to 255 s. For example, if the snapshot frequency is set to 5 s, an image will be transmitted after 5 s, 10 s and 15 s when the object is detected.

Check: Check the captured images. This means that only the captured images that correspond to the angle setting will be transferred.

Frontal: Only the frontal view of an object is transferred.

Extended angle: Select this option to transfer only images that contain side views.

Custom: Adjust the angle of an object from which images can be transferred.

- **Roll range:** Sets the roll range of the captured face image in the 3D model. If the angle is outside the roll range, face recognition can be performed, but the image will not be rolled.

- **Pitch range:** Sets the pitch range of the captured face image in the 3D model. If the angle does not match the setting limit, face recognition can be performed, but the image will not be shifted.

- **Yaw range:** Sets the yaw angle of the captured face image in the 3D model. If the angle does not correspond to the setting limit value, face recognition can be performed, but the image will not be pressed.

- **Image quality:** High-quality images are well suited for filtering out recognised non-face images.

  Frontal: Selecting Custom displays the control that automatically sets the values.
  Roll range: 30 | Pitch range: 30 | Yaw range: 45 | Image quality: 100

  Extended angle: Selecting Custom displays the control used to automatically set the values.
  Roll range: 180 | Pitch range: 180 | Yaw range: 180 | Image quality: 100

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size you can set. The pixel frame disappears when the mouse is not moving.

Detection: Filters the performance of detected objects in the camera.

Hybrid: Enables face detection for all objects in the view.

Motion: Enables filtering of motionless faces such as portraits and statues in the scene.

Trigger: Define the line type of the detection rule.

Rectangle: Only face objects within the defined area are detected.

Line: In this mode, face objects are only tracked when the detection line is crossed according to the settings.

Detection: The settings are changed when the detection area is used for object detection by default.
Full screen: All areas that can be monitored by the camera are detected.

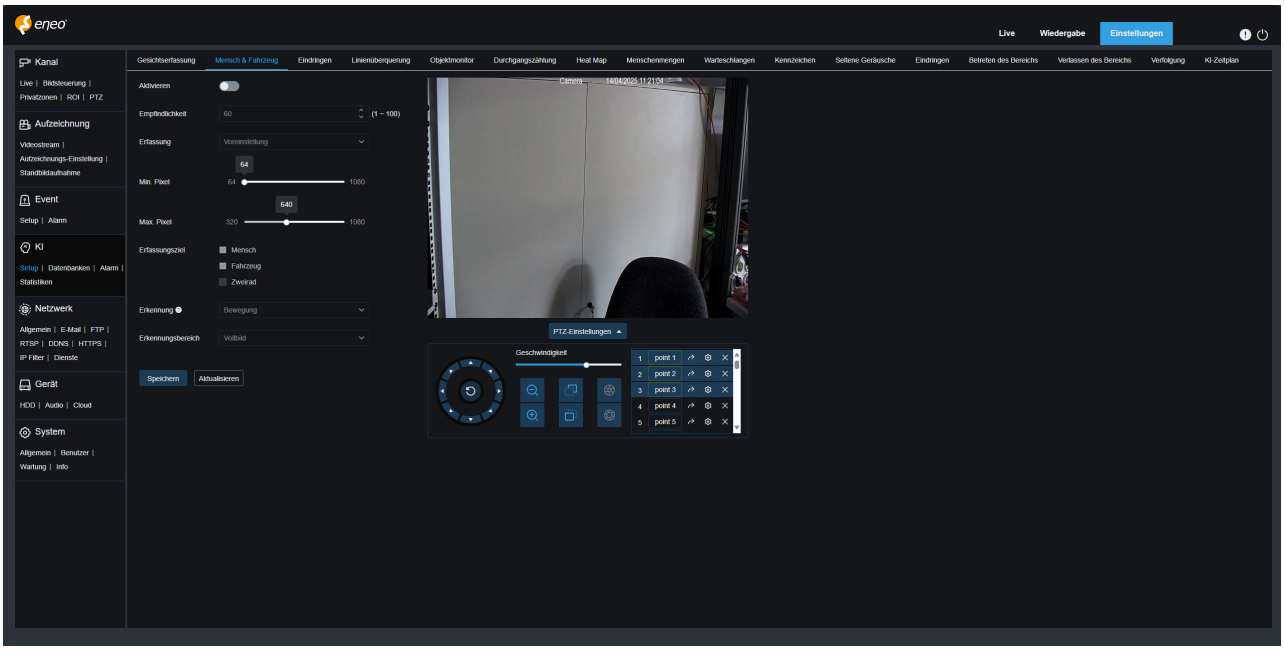
Custom: Only custom, framed areas are detected.

The 'Rule Type' setting option is only available when the 'Line Crossing' detection mode is used. There are two trigger modes: A→B and B→A.

Rule Range: Allows you to set the detection range from 3 to 8 sides or to detect the trigger line.

6.5.1.2 – Human & Vehicle

The functions for detecting people and vehicles are used to detect pedestrians or vehicles in the field of view, trigger an alarm, and, depending on the function settings, capture images.



Enable: Turns the feature on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic Marking: Detected targets are marked with a frame.

Capture: Set the capture mode. You can receive push notifications in Live View or connect an NVR to check the image quality.

Default setting: The camera only sends an image of the pedestrian or vehicle from the moment the object is detected until it disappears.

Real-time mode: When an object is detected, the camera immediately sends an image and another when the object disappears.

Interval mode: Push images at a specified interval.

- **Number:** Images of the same object recognized by the camera are transmitted 1, 2, 3, or an unlimited number of times at an interval determined by the frequency.

- **Frequency:** Images are transmitted based on the time an object appears or since the last transmission.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size you can set. The pixel frame disappears when the mouse is not moving.

Detection target: Selection from Human, Vehicle, Bike

Human: The event alarm is triggered when a human enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Detection: Filters the behavior of objects in the detection area.

Hybrid: Enables detection of all humans or vehicles in the view.

Motion: Enables filtering out motionless humans or vehicles.

Detection area: Setting of the detection area.

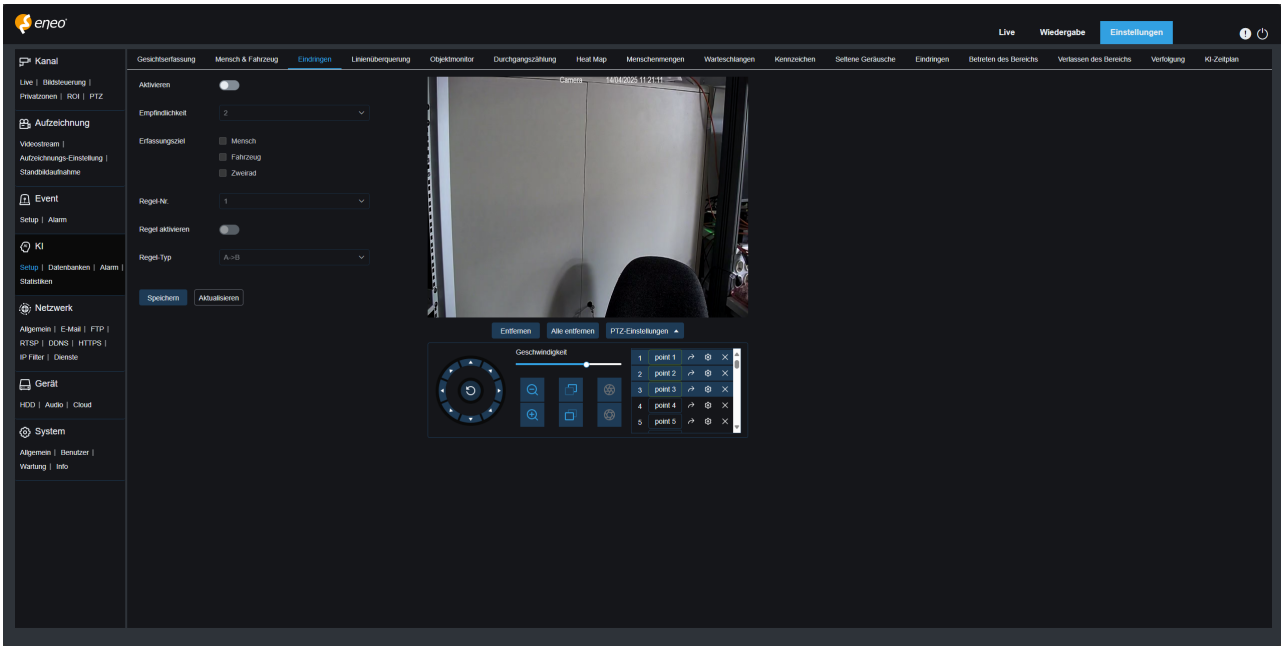
Full screen: All areas that can be monitored by the camera are detected.

Custom: Only custom, framed areas are detected.

- **Area selection:** You can create detection areas from 3 to 8 sides by simply clicking on the preview image and selecting the edges.

6.5.1.3 – Intrusion

Intruder detection. The alarm is triggered when a specific object enters or leaves the warning area.



Activate: Turns on the feature.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Detection target: Selection from human, vehicle, bike

Human: The event alarm is triggered when a human enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Rule No.: Select a rule range. Up to four rule ranges can be defined.

Activate rule: Activate or deactivate rule ranges. Each rule range has an independent activation switch that is linked to the currently selected rule number.

Rule type: Specifies the rule that triggers the rule area. There are A→B, B→A, and A↔B, whose settings are linked to the currently selected rule number.

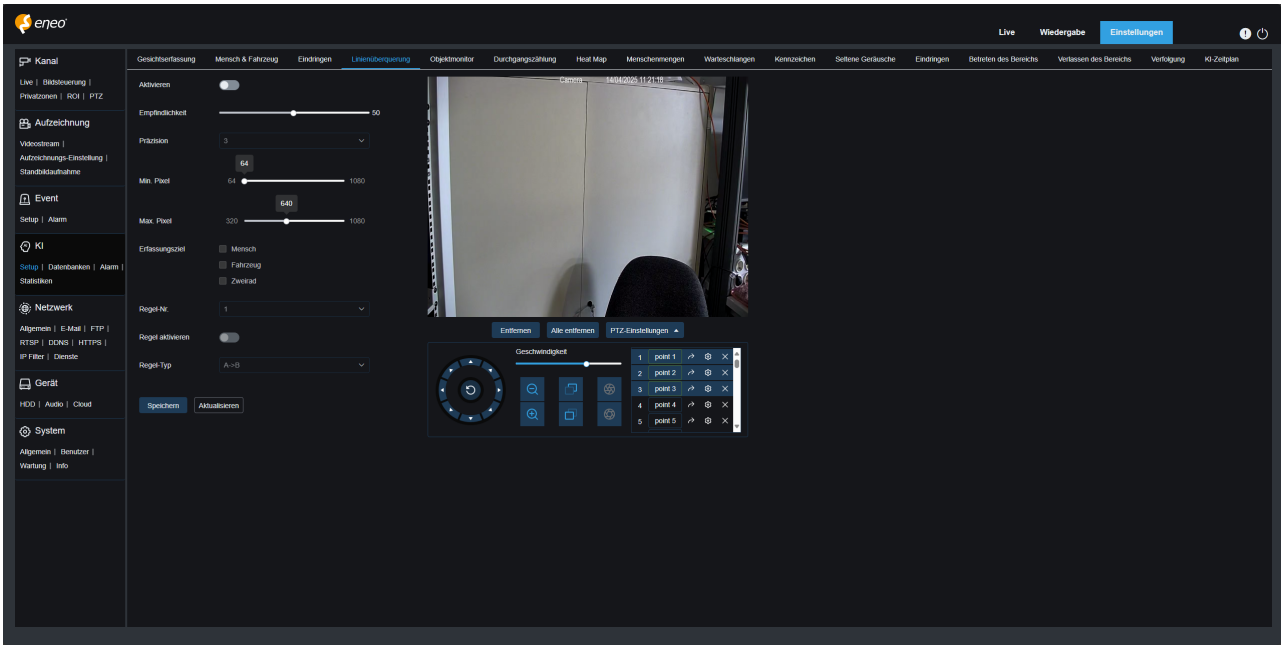
Range selection: Allows you to define and display rule ranges.

Delete: Allows you to delete the rule ranges selected in the preview image.

Delete all: Allows you to delete all rule ranges.

6.5.1.4 – Line Crossing

Function for detecting line crossings. An alarm is triggered when a specific object crosses the preset detection line.



Activate: Turns the function on.

Sensitivity: A higher detection sensitivity can make detection easier, but can also easily lead to false alarms. At a setting of 100%, for example, the alarm is triggered when the detection target touches the boundary of the specified area. At a setting of 50%, the alarm is triggered when 50% of the detection target has exceeded the specified range limit.

Dynamic marking: Detected targets are marked with a frame.

Precision: The similarity between the detection target and the specified detection type.

1 stands for a similarity of 80% or more,

2 stands for a similarity of 60% or more,

3 stands for a similarity of 40% or more,

4 stands for a similarity of 20% or more.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size you can set. The pixel frame disappears when the mouse is not moving.

Detection target: Select from human, vehicle, bike

Human: The event alarm is triggered when a pedestrian enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Rule No.: Select a rule area. Up to four rule areas can be defined.

Activate rule: Activate or deactivate rule areas. Each rule area has an independent activation switch that is linked to the currently selected rule number.

Rule type: Specifies the rule that triggers the rule area. There are A→B, B→A, and A↔B, whose settings are linked to the currently selected rule number.

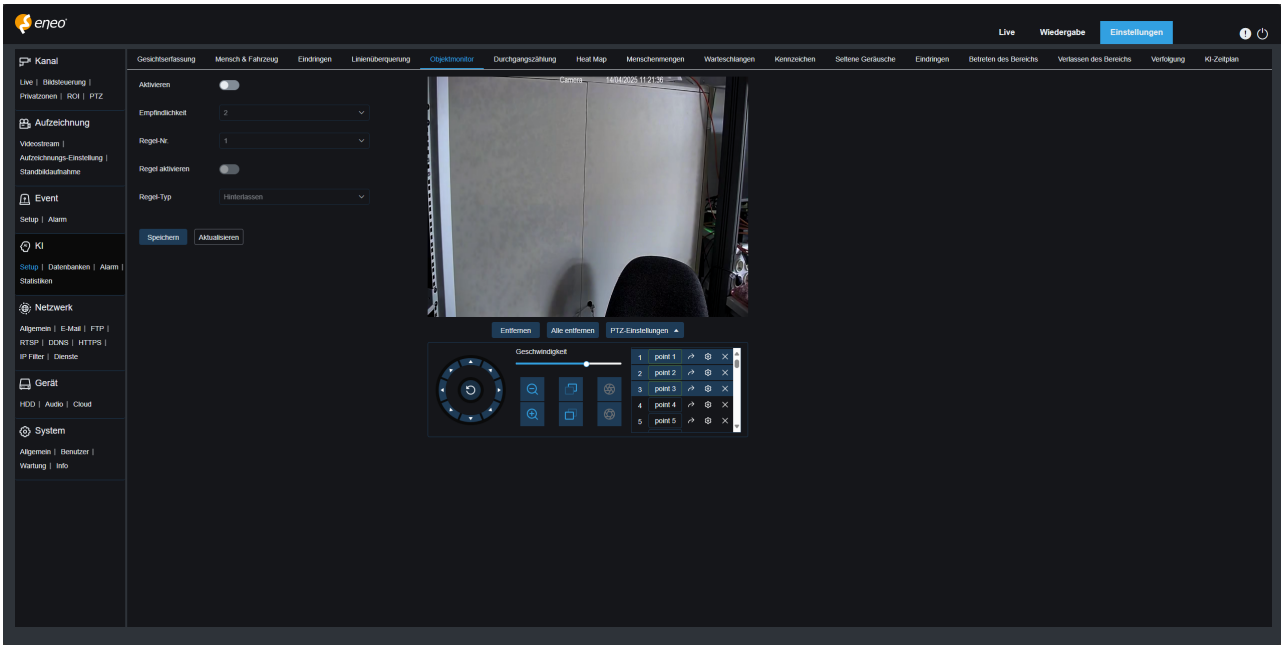
Range selection: Allows you to define and display control ranges.

Delete: Allows you to delete the control ranges selected in the preview image.

Delete all: Allows you to delete all control ranges.

6.5.1.5 – Object Monitor

Detection of suspicious objects. An alarm is triggered when objects are left behind or lost in the monitored image area.



Enable: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms. With higher sensitivity, you can check smaller objects.

Dynamic Marking: Detected targets are marked with a frame.

Rule No.: Selection of a rule range. Up to four rule ranges can be defined.

Rule Type: The rule triggers an alarm in the surveillance area when an object is left behind or lost. There are three rules, including "Missing," "Lost," and "Lost & Missing," whose settings refer to the currently selected rule number.
You can choose between "Left Behind," "Removed," and "Removed and Left Behind."

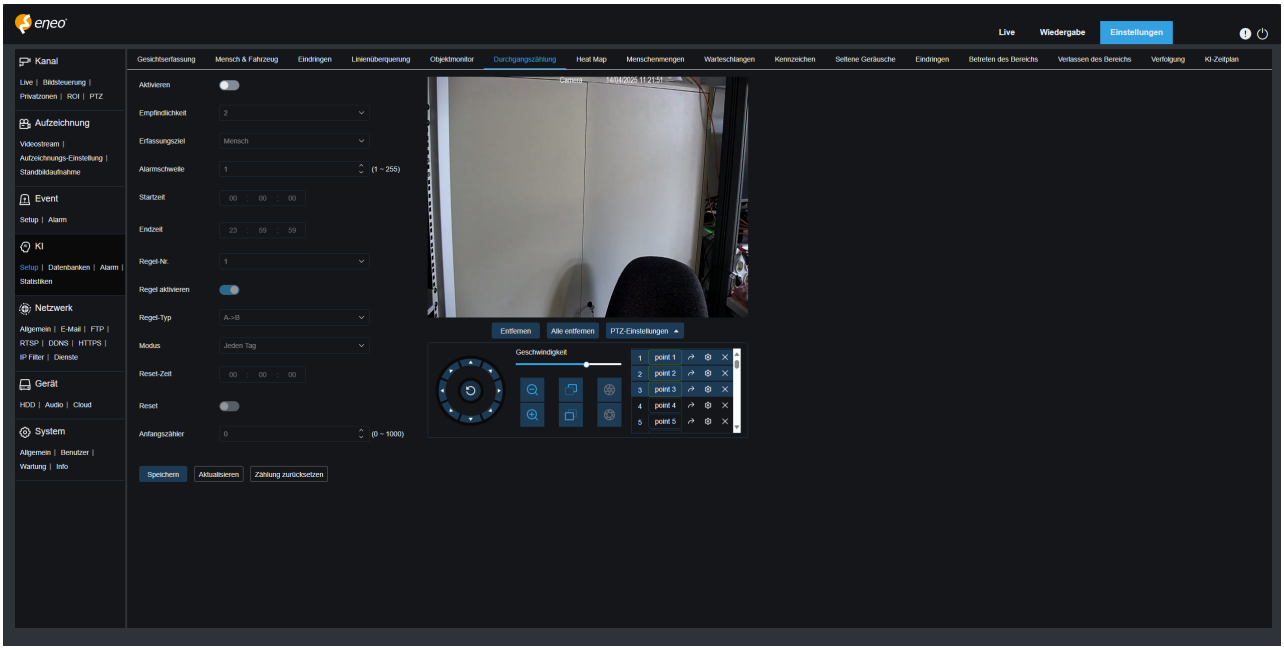
Area Selection: Allows you to define and display rule areas.

Delete: Allows you to delete the rule areas selected in the preview image.

Delete All: Allows you to delete all rule areas.

6.5.1.6 – Cross Counting

Crossing count function: Records information about line crossings.
Define a crossing line with areas A and B. The trigger rule for the monitoring line is, for example, A→B. If an object comes from A and crosses the line, "in" is increased by 1; if it leaves B, "out" is increased by 1. An alarm is only triggered if the difference between the IN and OUT count values is greater than or equal to the alarm number.



Activate: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Detection target: Select from movement, human, vehicle, bike

Movement: All objects, including people, vehicles, and boxes, are detected.

Human: The event alarm is triggered when a pedestrian enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Alarm threshold: Defines the conditions under which an alarm should be triggered. The camera triggers an overrun alarm when the count is updated and the number of entries minus the number of exits is greater than or equal to the current setting.

Start time: The time at which line crossing detection begins each day.

End time: The time at which line crossing detection ends each day.

Rule No.: Selection of a rule range. Only 1 rule range can be defined.

Activate rule: Activates or deactivates the current rule line.

Rule type: Select the direction to increase the number of in/out triggers, i.e., A→B and B→A. For example, if A→B is selected, the number of on triggers is increased when the monitored object enters area A and exits area B, and the number of off triggers is increased when the monitored object enters area B and exits area A.

Mode: You can choose between Every month, Every week, or Every day.

Reset time: Depending on your selection under Mode, you have more setting options for resetting the counter to a desired value.

Every month: Select the month, week, and day of the week.

Every week: Select the day of the week.

Every day: Select the time.

Reset: When activated, the counter is automatically reset to the desired value.

Initial counter: Enter the desired initial counter here.

Reset count: Deletes the currently displayed count.

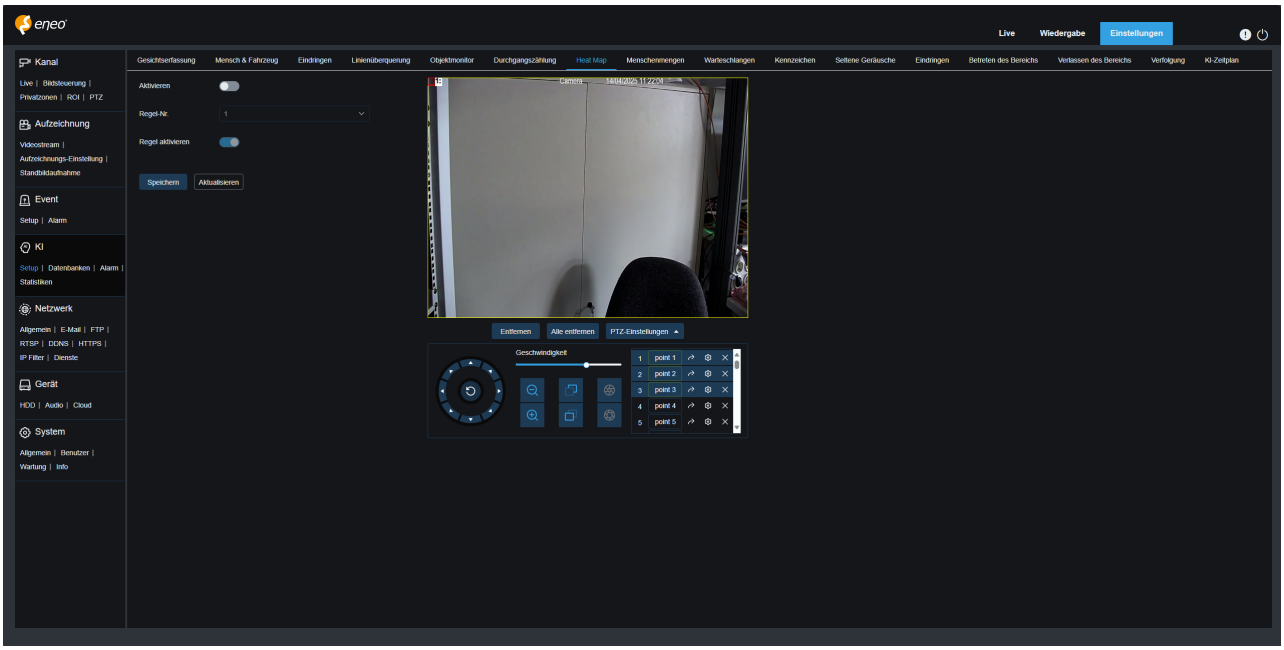
Range selection: Allows you to define and display control ranges.

Delete: Allows you to delete the control ranges selected in the preview image.

Delete all: Allows you to delete all control ranges.

6.5.1.7 – Heat Map

The heat map can intuitively display the distribution of people in temporal and spatial dimensions to understand the activity level in each area of the scene. This feature only supports data recording, not alerting.



Activate: Turns the function on.

Rule No.: Selects a rule area. Only 1 rule area can be defined.

Activate rule: Activates or deactivates the current rule line.

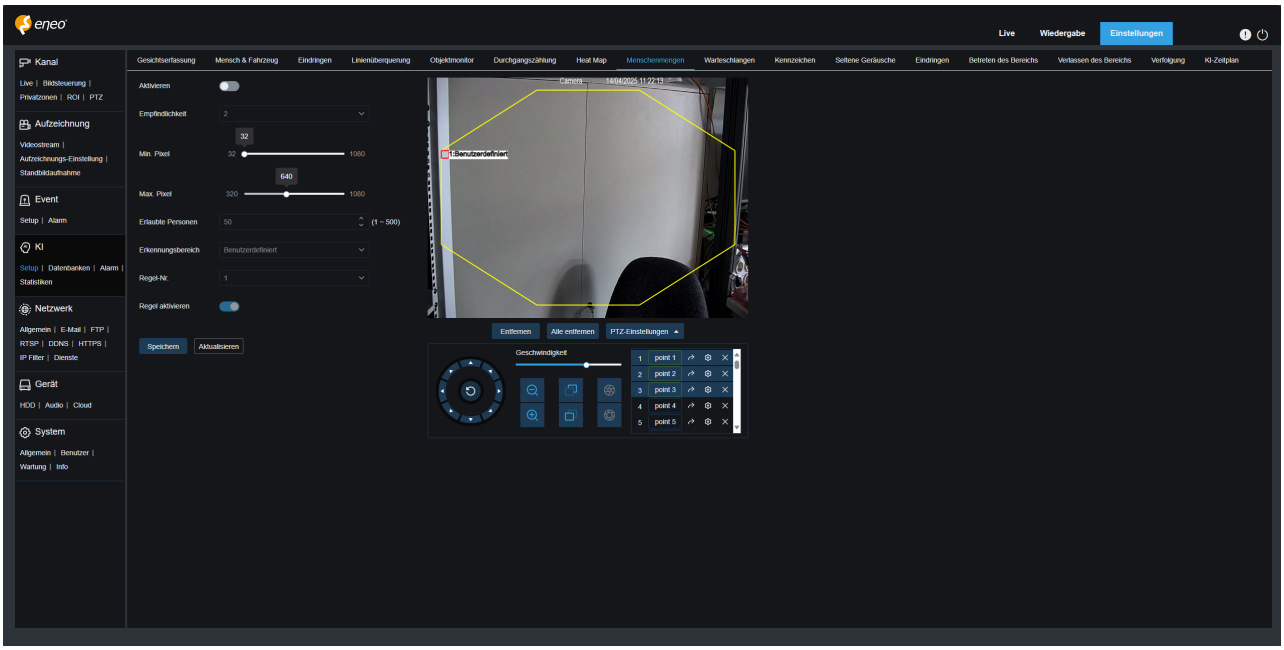
Range selection: Allows you to define and display rule ranges.

Delete: Allows you to delete the rule ranges selected in the preview image.

Delete all: Allows you to delete all rule ranges.

6.5.1.8 – Crowd Density

Person counting function. Perform a person count and determine the number of people in the monitored area. The alarm is triggered when the number of people exceeds the preset value.



Activate: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Permitted persons: Maximum number of heads that may be in the detection area at the same time. If this value is exceeded, an alarm is triggered.

Detection area: Defines the area in which the crowd detection function is to be applied.

Full screen: In this mode, all areas captured by the camera are detected.

Custom: Only custom, framed areas are detected.

- **Rule number:** Number of the rule line. This number is displayed when you define a custom detection area. One detection rule line is supported.

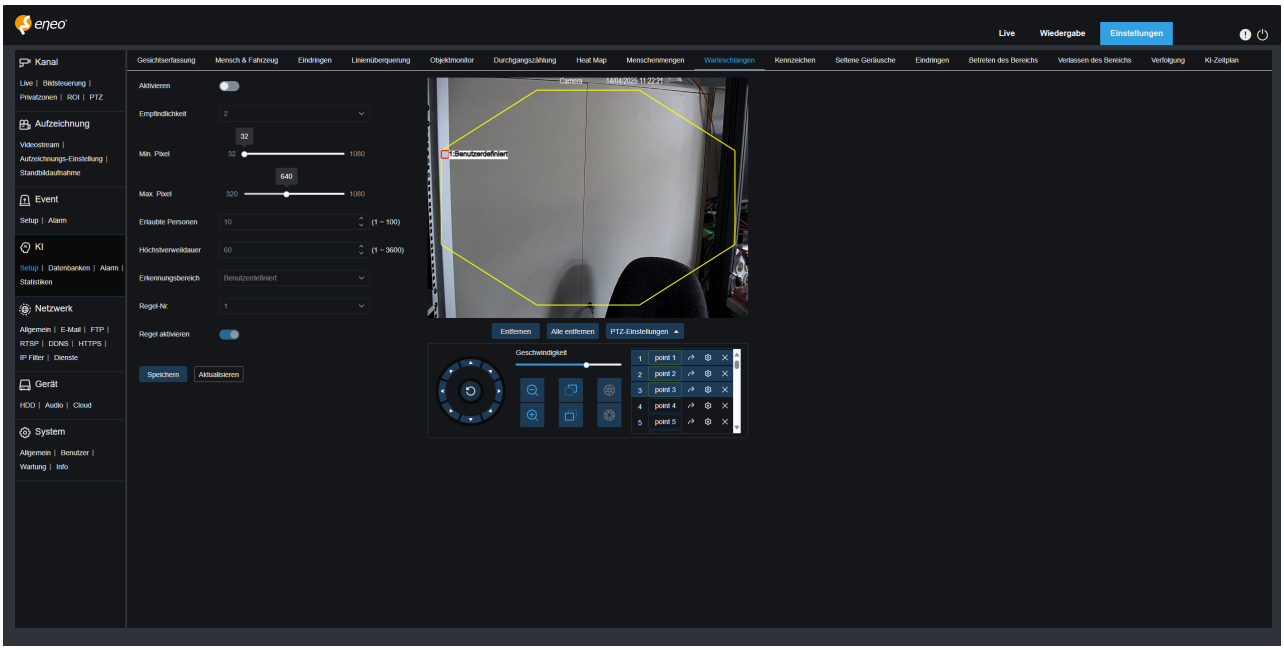
Enable rule: Enables or disables the current rule line. This switch is displayed when you define a custom detection area.

Set detection area: This setting is available when you define a custom detection area. Supports setting the detection area from 3 to 8 pages.

Show count area: Shows the number of people in the currently monitored area.

6.5.1.9 – Queue Length

The queue length detection function determines the number of people in the queue and the waiting time. If the queue is too long or the waiting time is too long, an alarm is triggered.



Activate: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Permitted persons: Maximum number of heads that may be in the detection area at the same time. If this value is exceeded, an alarm is triggered.

Maximum dwell time: Maximum dwell time for persons in the detection area.
The alarm is triggered if the set time is exceeded and no one leaves the detection area. This time begins when the last person leaves the detection area.
If no one exits the area within the set time, the processing is considered a timeout and an alarm is triggered.

Note!

Counting only restarts when a target leaves the detection area. Counting is ignored if the target suddenly disappears from the detection area. Counting only starts when a target is detected in the detection area.

Recognition area: Specifies the area in which the queue recognition function should be applied.

Full screen: In this mode, all areas captured by the camera are detected.

Custom: Only custom, framed areas are detected.

- **Rule number:** Number of the rule line. This number is displayed when you define a user-defined detection area. One detection rule line is supported.

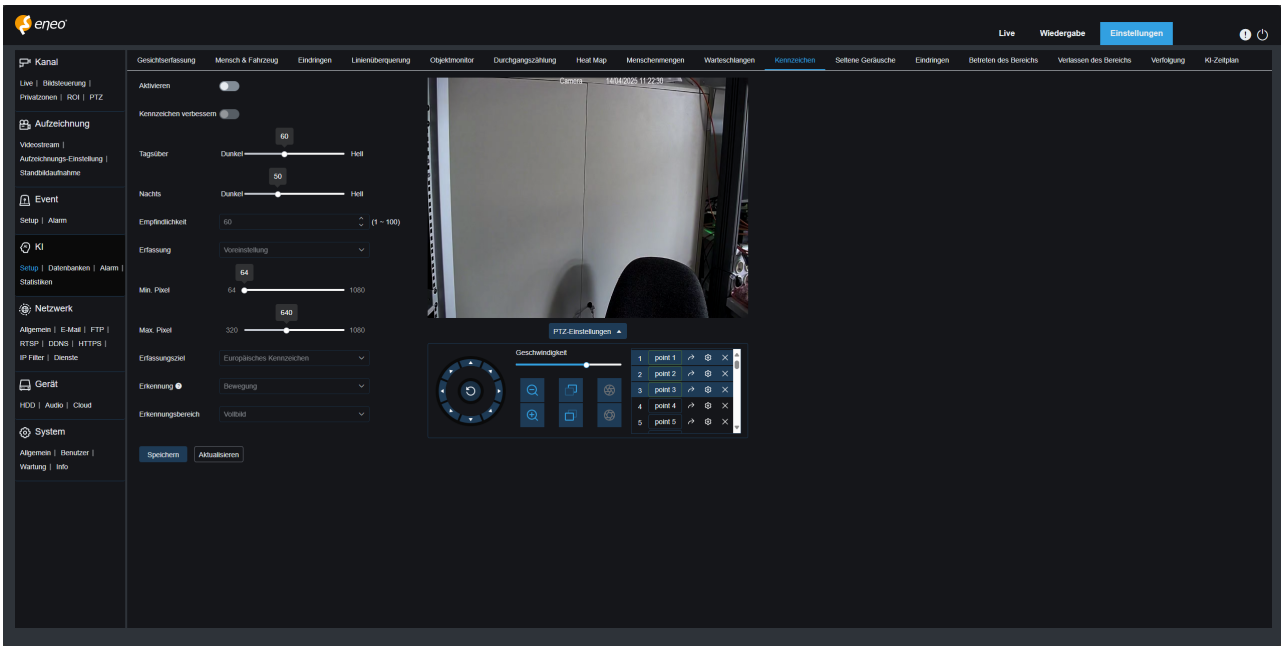
Enable rule: Enables or disables the current rule line. This switch is displayed when you define a custom detection area.

Set detection area: This setting is available when you define a custom detection area. Supports setting the detection area from 3 to 8 pages.

Show count range: Shows the number of people in the currently monitored area.

6.5.1.10 – License Plates

Recognition of the license plates of passing vehicles to determine whether or not the vehicles are registered in the database. If necessary, an alarm is triggered. License plate recognition must be activated for this to work.
License plate recognition is currently only available for Europe and the US.



Enable: Turns on the function.

Improve Marker: This function and WDR, HLC, and BLC are mutually exclusive. Therefore, they cannot be enabled at the same time. When this function is enabled, the shutter mode and exposure time cannot be adjusted.

Daytime: When the camera's IR illumination is turned off, a higher value produces a brighter image, while a lower value produces a darker image. The available step values range from 0 to 255 or 150.

At night: When the camera's IR illumination is activated, a higher value produces a brighter image, while a lower value produces a darker image. The available step values range from 0 to 255 or 150.

Note!

The level can only be adjusted when the "License plate" and "Improve license plate" modes are activated and the modes change automatically. Modes change depending on IR light activation.
The "Improve license plate" and "Exposure compensation" modes are mutually exclusive, as are "Exposure time" and "Manual shutter mode."

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Capture: You can receive push notifications in the live view or connect an NVR to review the image.

Default setting: The camera only sends a marker image when an object is detected until the object disappears.

Real-time mode: The camera sends an image immediately when an object is detected and another image when the object disappears.

Interval mode: Images are sent at a specified interval.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Recognition target: Type of license plate to be recognized.

European license plate: License plates in European regions.

American license plate: License plates in American regions.

Recognition: Mode for license plate recognition.

Hybrid: In this mode, static license plates in the field of view are recognized.

Motion: In this mode, stationary vehicles and their license plates are filtered out and only moving license plates are recognized.

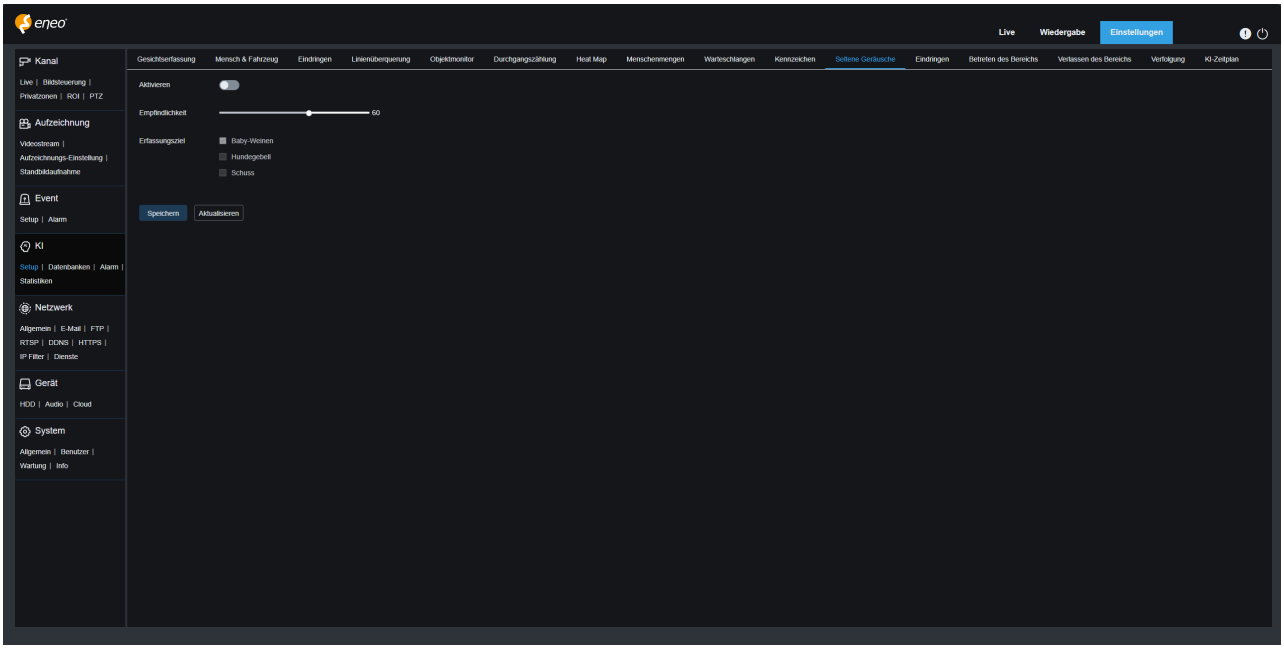
Recognition area: Specify the area in which license plate recognition should be applied.

Full screen: Recognition takes place in full screen mode.

Custom: Only custom, framed areas are recognized. Supports setting the recognition area from 3 to 8 pages.

6.5.1.11 – Rare Sound

Depending on the requirements of the application, various detection requirements can be defined, e.g., baby crying, gunshots, and dogs barking.



Enable: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Detection target: Select from baby crying, dog barking, and gunshots.

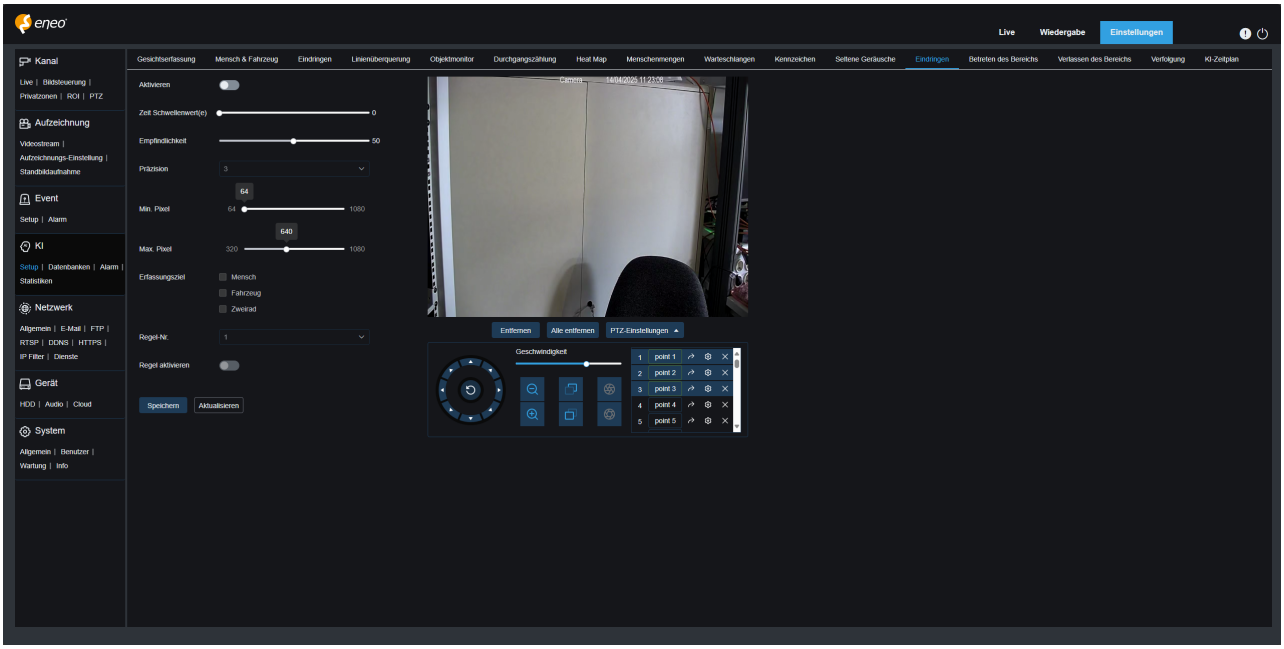
Baby crying: Baby crying can be detected when this checkbox is enabled.

Dog barking: Dog barking can be detected when this checkbox is enabled.

Gunshots: Gunshot sounds can be detected when this checkbox is enabled.

6.5.1.12 – Intrusion

The function analyzes the video material and determines whether an object is located in the restricted area. An alarm is triggered based on the results of this analysis.



Enable: Turns the function on.

Time threshold(s): The threshold specifies the time after which the alarm is triggered. For example, if the threshold is 1, the alarm is triggered immediately as soon as the target enters the area for one second. The maximum time span can be set to 10 seconds.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic Marking: Detected targets are marked with a frame.

Precision: The similarity between the detection target and the specified detection type.

1 stands for a similarity of 80% or more,

2 stands for a similarity of 60% or more,

3 stands for a similarity of 40% or more,

4 stands for a similarity of 20% or more.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Detection target: Select from human, vehicle, bike

Human: The event alarm is triggered when a pedestrian enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Rule no.: Select a rule area. Up to 4 rule areas can be defined.

Activate rule: Activates or deactivates the current rule line.

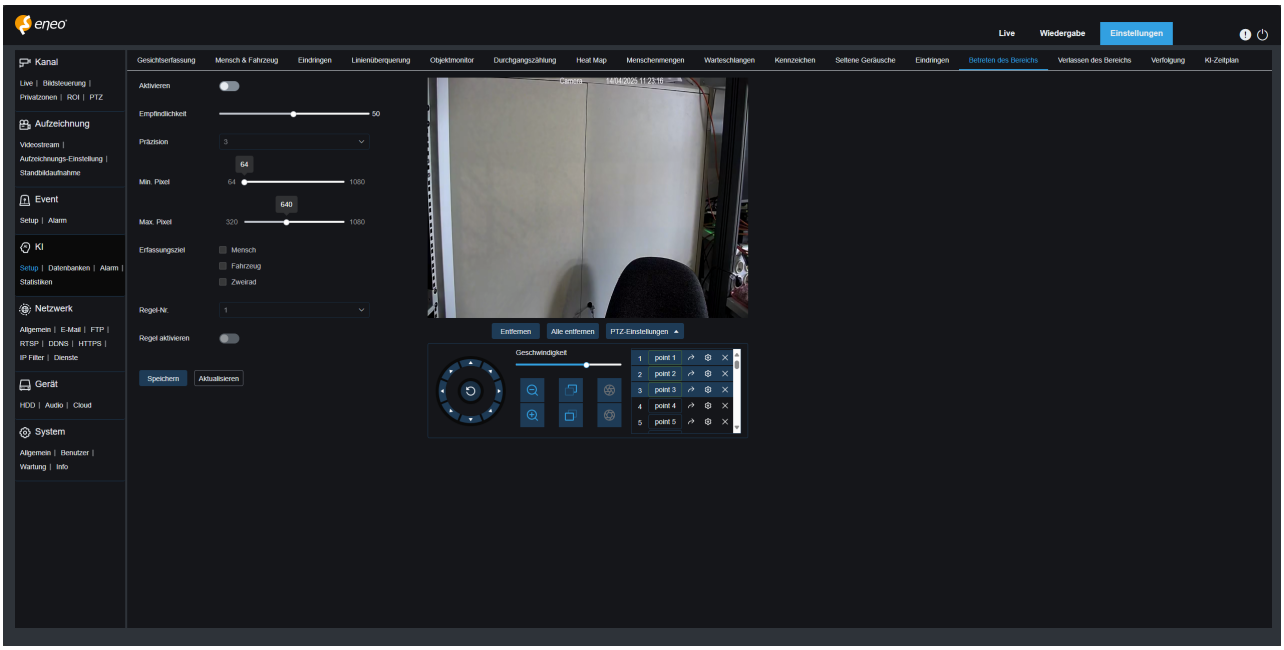
Area selection: Allows you to define and display rule areas.

Delete: Allows you to delete the rule areas selected in the preview image.

Delete all: Allows you to delete all rule areas.

6.5.1.13 – Region Entrance

This function identifies targets that enter the defined area from outside and does not generate targets that trigger an alarm within this area. The assessment result is linked to the alarm accordingly.



Enable: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic Marking: Detected targets are marked with a frame.

Precision: The similarity between the detection target and the specified detection type.

1 stands for a similarity of 80% or more,

2 stands for a similarity of 60% or more,

3 stands for a similarity of 40% or more,

4 stands for a similarity of 20% or more.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Detection target: Select from human, vehicle, bike

Human: The event alarm is triggered when a pedestrian enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Rule no.: Select a rule area. Up to 4 rule areas can be defined.

Activate rule: Activates or deactivates the current rule line.

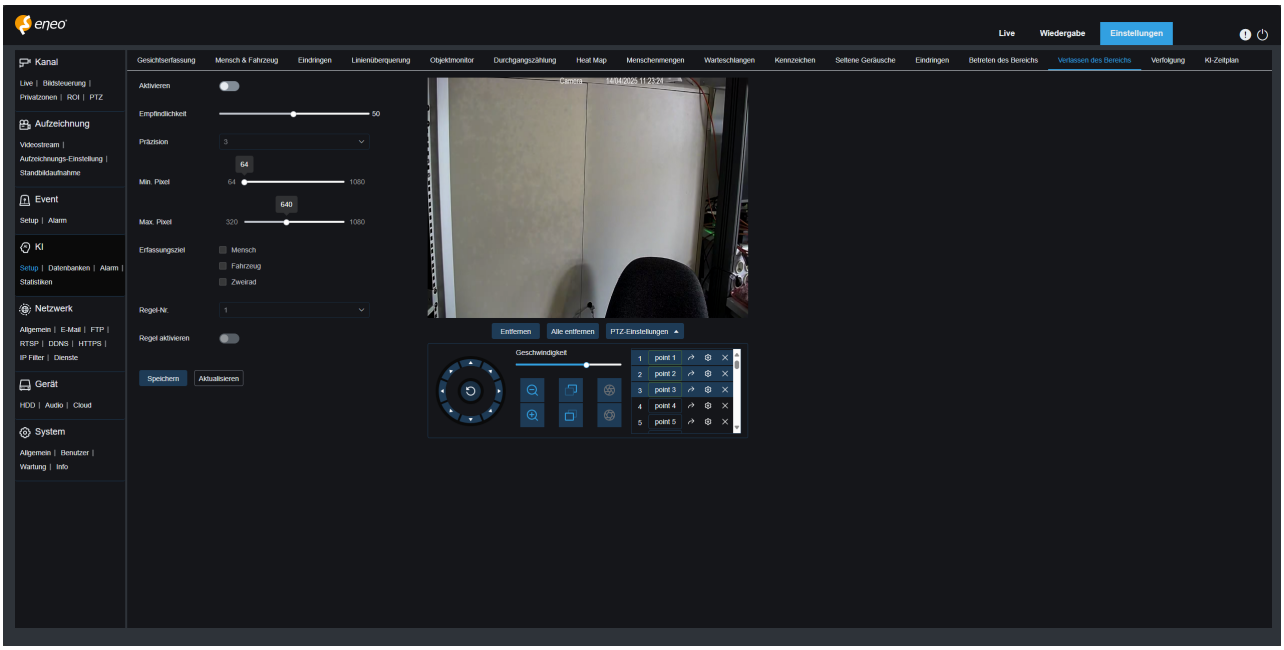
Area selection: Allows you to define and display rule areas.

Delete: Allows you to delete the rule areas selected in the preview image.

Delete all: Allows you to delete all rule areas.

6.5.1.14 – Region Exiting

This function identifies targets that exit the defined region and does not generate targets within this region that trigger an alarm. The assessment result is linked to the alarm accordingly.



Enable: Turns the function on.

Sensitivity: Higher detection sensitivity can make detection easier, but can also easily lead to false alarms.

Dynamic marking: Detected targets are marked with a frame.

Precision: The similarity between the detection target and the specified detection type.

1 stands for a similarity of 80% or more,

2 stands for a similarity of 60% or more,

3 stands for a similarity of 40% or more,

4 stands for a similarity of 20% or more.

Min Pixel: The 1080p resolution filters out small objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Max Pixel: The 1080p resolution filters out large objects. The image preview on the right shows the pixel size that you can set. The pixel frame disappears when the mouse is not moving.

Detection target: Select from human, vehicle, bike

Human: The event alarm is triggered when a pedestrian enters the area.

Vehicle: The event alarm is triggered when a motor vehicle enters the area.

Bike: The event alarm is triggered when a non-motorized bike, such as a bicycle, enters the area.

Rule no.: Select a rule area. Up to 4 rule areas can be defined.

Activate rule: Activates or deactivates the current rule line.

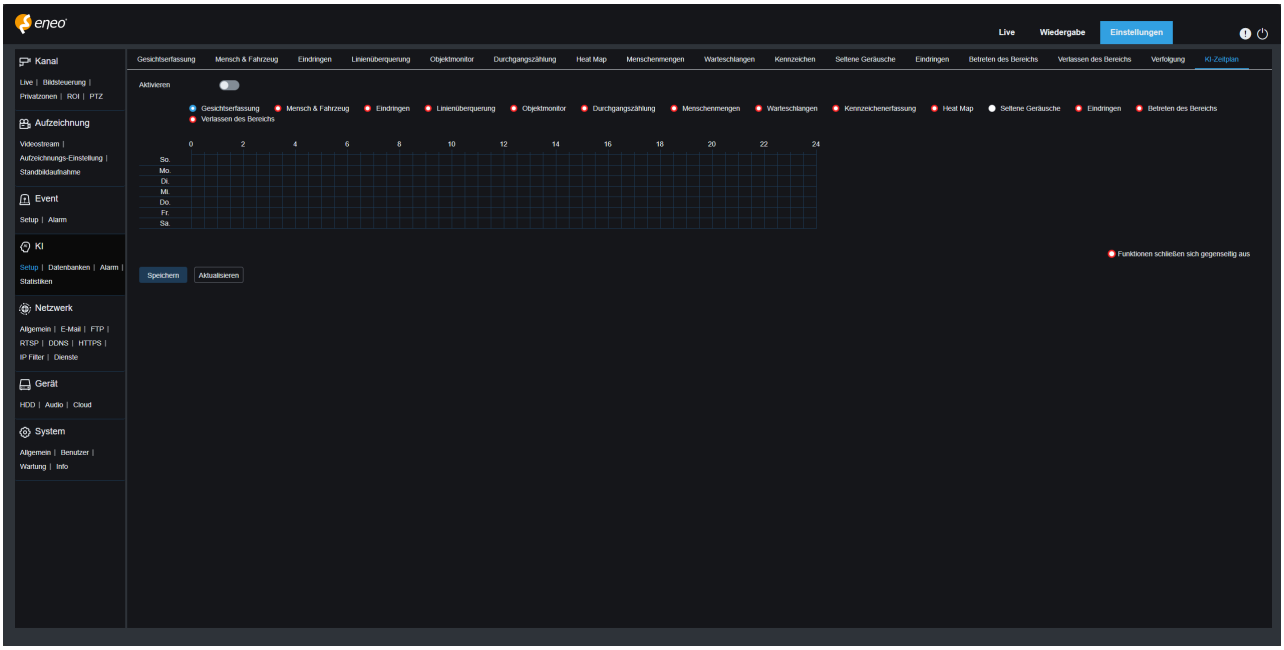
Area selection: Allows you to define and display rule areas.

Delete: Allows you to delete the rule areas selected in the preview image.

Delete all: Allows you to delete all rule areas.

6.5.1.15 – AI Schedule

You have the option to enable or disable the functions and set a schedule for them.



Enable: Turns the function on.

Mutual exclusion: Some functions are mutually exclusive. This means that they cannot be used at the same time.

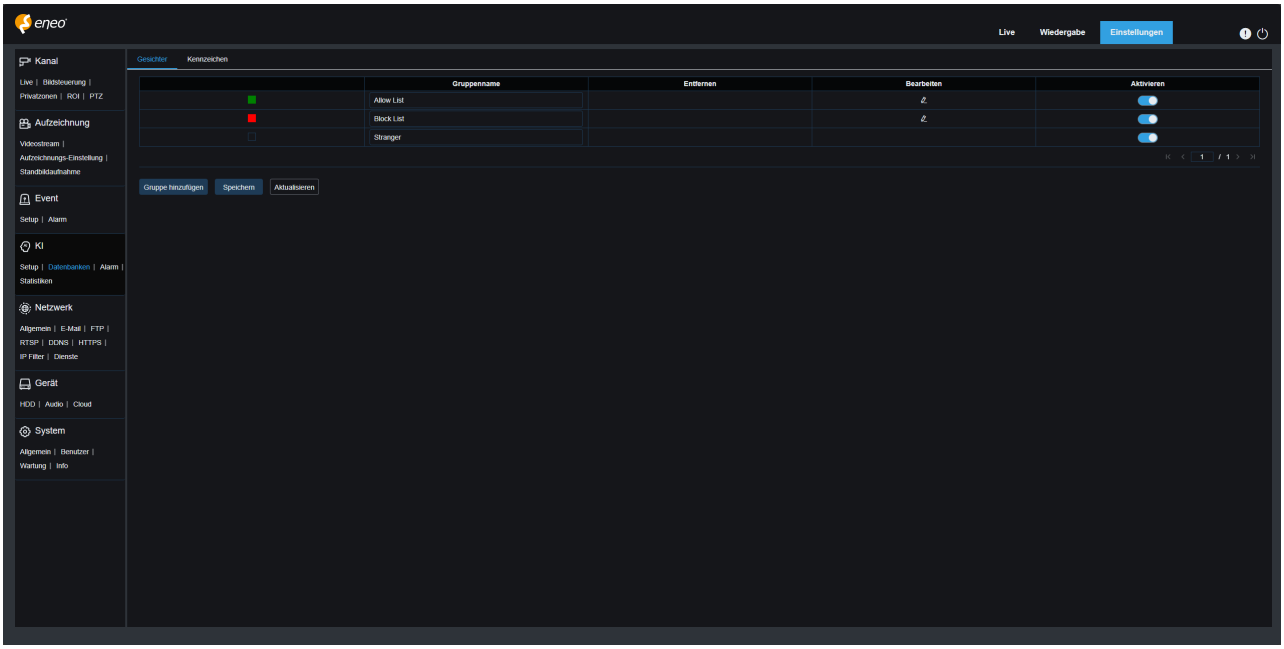
Note!

Functions that are mutually exclusive cannot be activated at the same time.
Restrictions apply to this user interface.
Once the AI schedule is activated, all AI function switches for the channel are controlled by the schedule and can no longer be activated or deactivated manually. However, parameters such as sensitivity can be edited.
When the face detection schedule is set up for the first time, the user is prompted to read and accept the privacy agreement for faces.

6.5.2 – Databases

6.5.2.1 – Faces

The face recognition function is used to identify the identity of a recognized object. Comparison values are determined based on the captured data. A database for face matching is created using the database management function.



Alarm policy display: This is only used as a policy in the camera. Green indicates the authorization list, red indicates the block list, and no color indicates the "strangers" group.

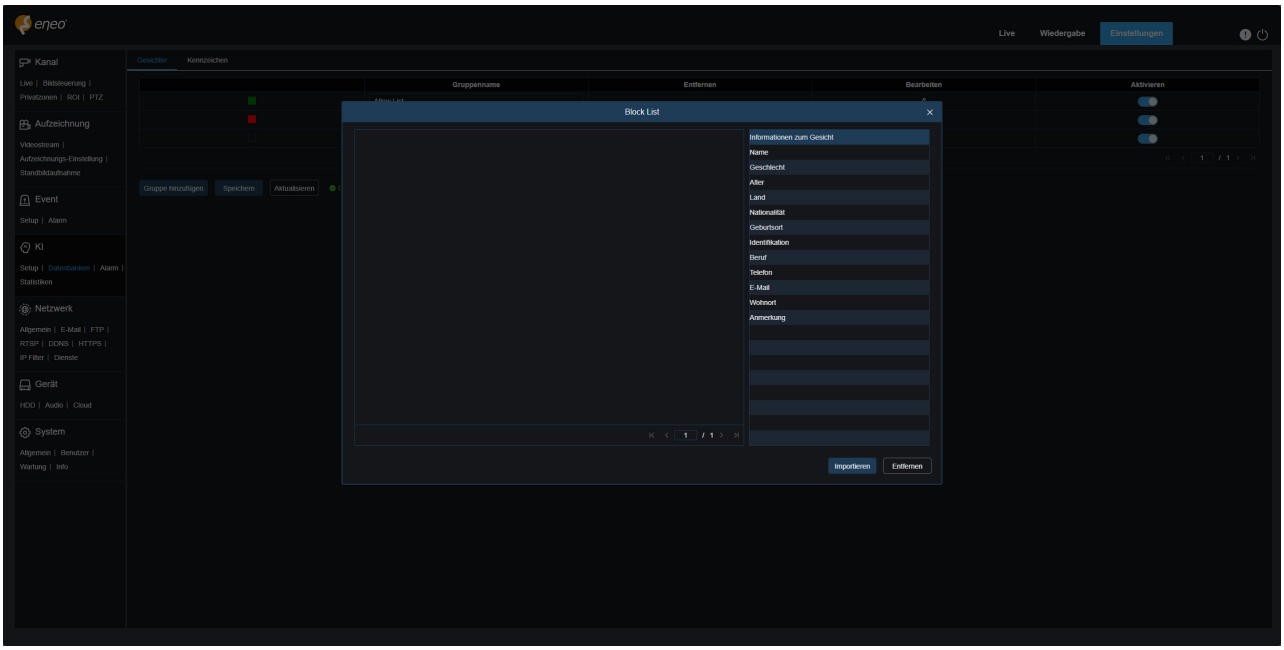
Group name: Edit, change, and display the current group name. The group name is sent together with an alarm.

Remove: Delete a group. The first three groups cannot be deleted.

Edit: Opens the image settings dialog for this group. For more information, edit the content of the next image.

Enable: Enables the face recognition function for data comparison between groups.

Add Group: Adds a new database group. Up to 16 database groups can be added. Click the edit icon to set the reference data for the corresponding group.



Display added images: Displays images that have been added to groups in the face database.

Info: Displays the editing information for the selected image.

Detailed information: Right-click on the event to display the information for the selected image.

Move: Right-click on the event to move the selected image to other groups.

Edit: Right-click on the event to open the editing interface of the selected image and edit the information again.

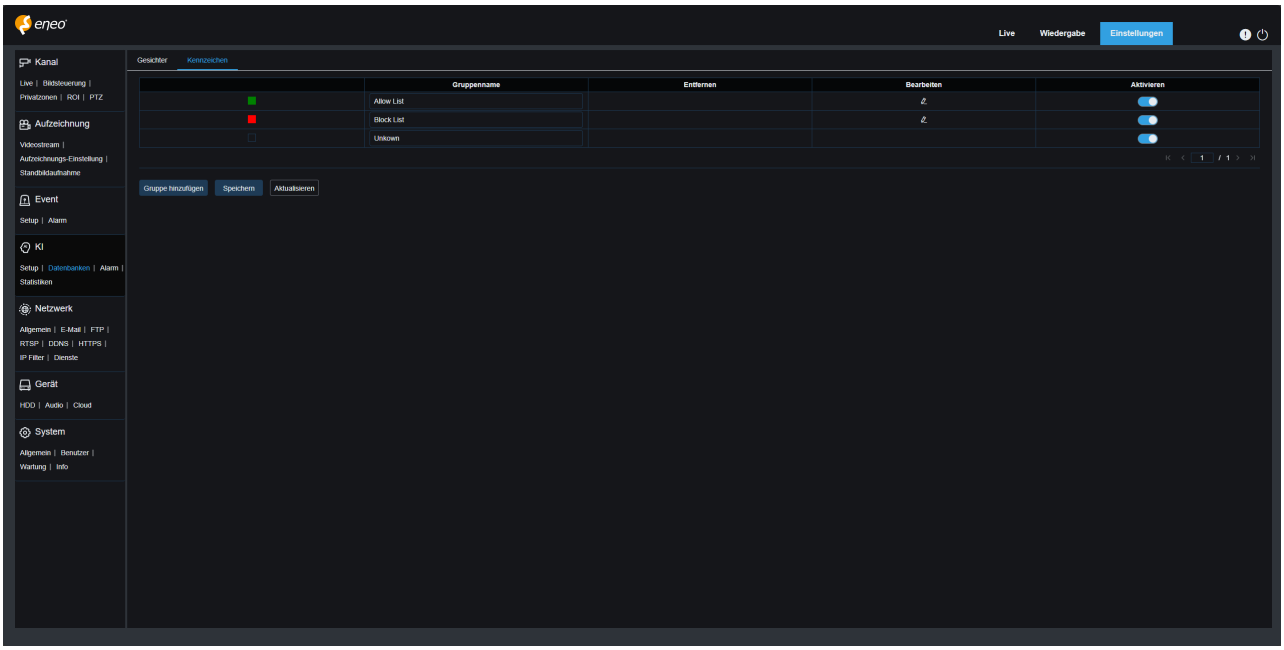
Delete: Right-click on the event to delete the selected image.

Import: Adds new face data to the current group and imports local or camera-captured images.

Remove: Deletes face data from the database. You can click this icon, select the image to be deleted, and then click the "Delete" icon again to delete the image.

6.5.2.2 – License Plates

License plate recognition focuses on identifying the identity of a recognized object and using basic data for comparison. The program uses the database management function to create a database for license plate matching.



Alarm policy display: This serves only as a policy in the camera. Green indicates the authorization list, red indicates the block list, and no color indicates the "strangers" group.

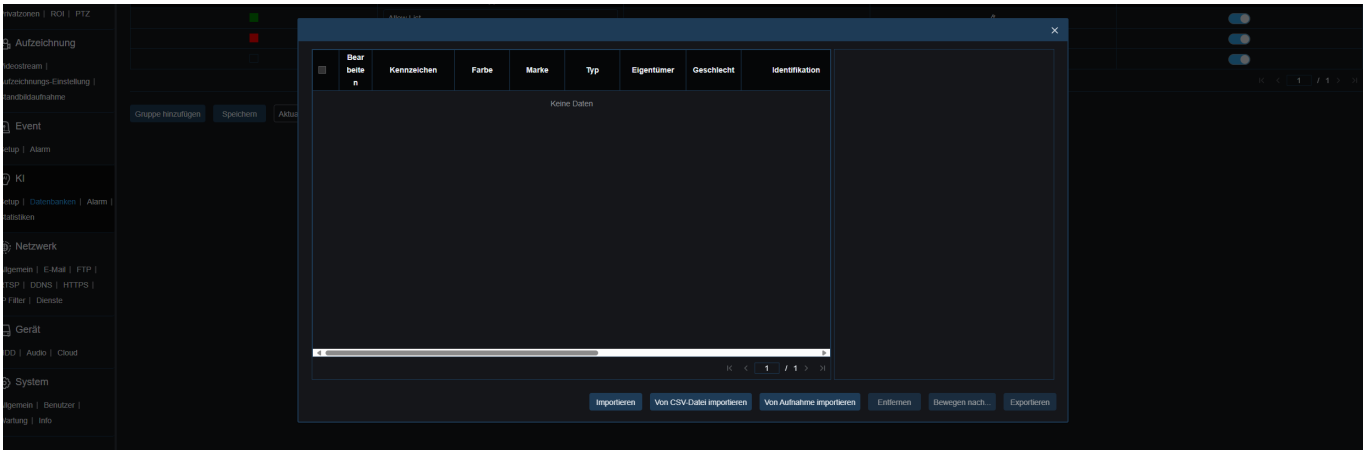
Group name: Edit, change, and display the current group name. The group name is sent together with an alarm.

Remove: Delete a group. The first three groups cannot be deleted.

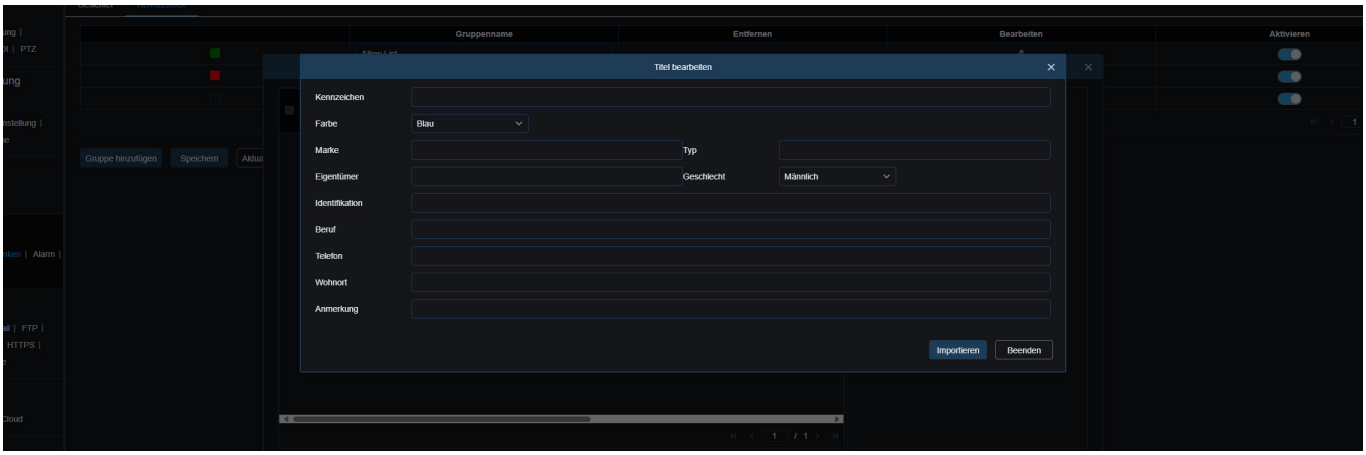
Edit: Opens the image settings dialog for this group.

Import: There are three ways to add license plates.

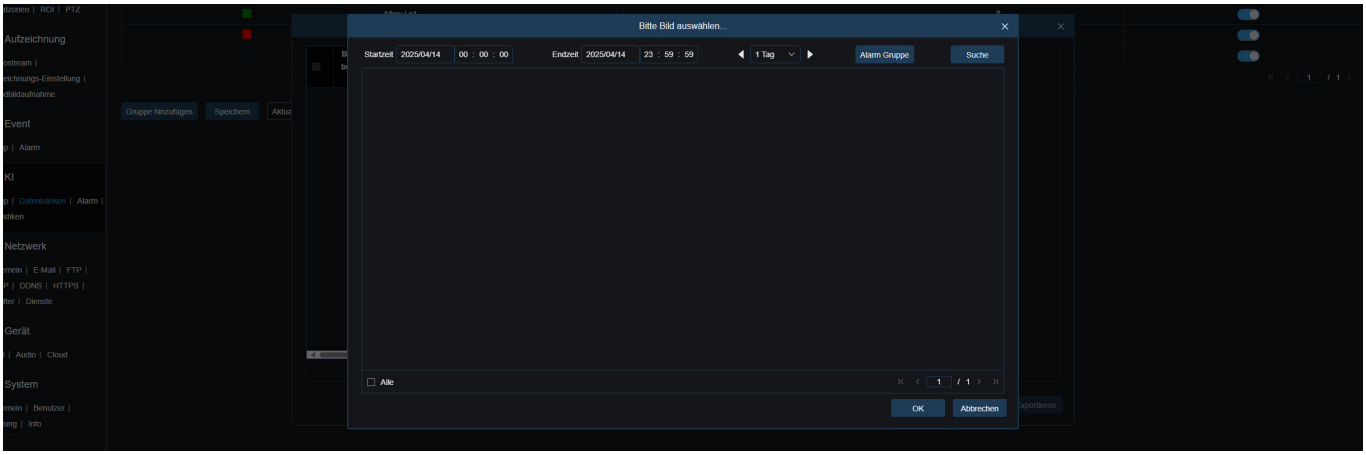
- **Import:** Click this button to manually add individual entries.
- **Import from CSV file:** Click this button to open Explorer and select a CSV file.
- **Import from Capture:** Clicking this button opens a search window where you can select the relevant parameters and search for recordings within a specific time period. Here you have the option of adding the data automatically.



Remove: Select the checkbox next to the vehicle registration information, then click this button to delete the information.



Move to...: Select the checkbox next to the vehicle registration information, then click this button to move the information to another group.



Export: Select the checkbox next to the vehicle registration information, then click this button to export the information as a CSV file.

6.5.3 – Alarm

Category I

This category includes face detection, face attributes, human and vehicles, intrusion, line crossing, object monitor, passage counting, crowds, queues, license plates, rare sounds, intrusion, Region Entrance, Region Exiting.
The alarm response is triggered directly when the alarm conditions defined by the camera are met.

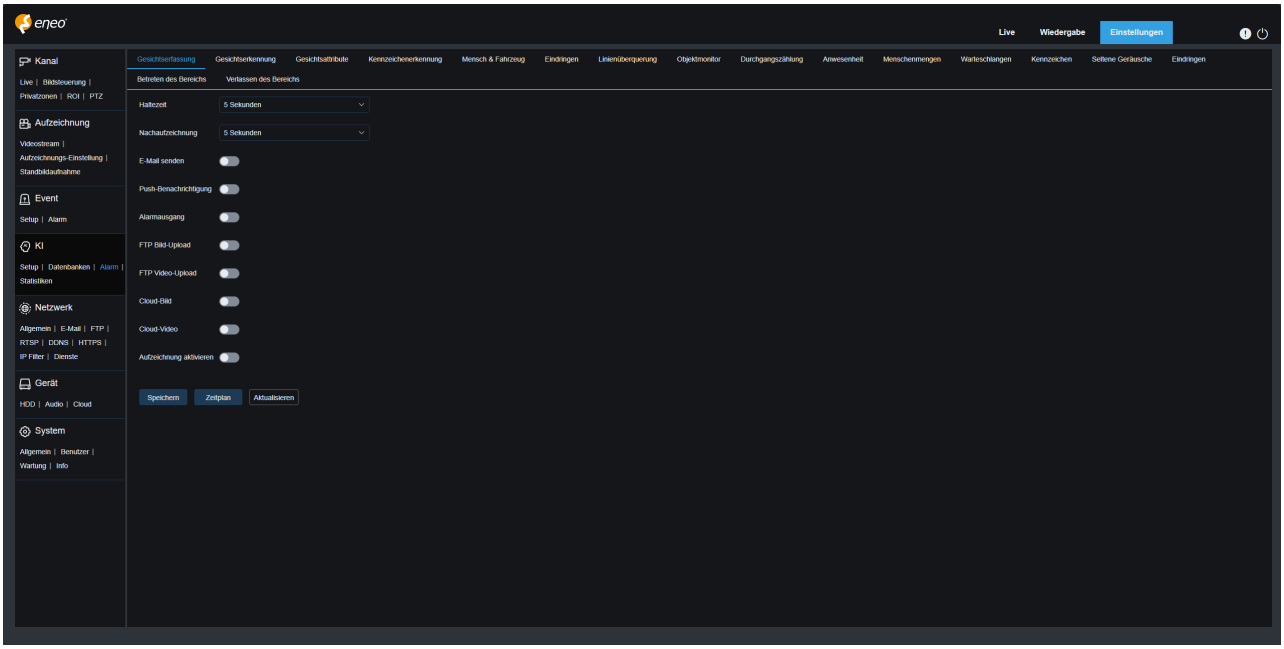
Category II

This category includes face and license plate recognition.
The camera captures an alarm image and recognizes the value of the facial features or license plate information in the image, compares them with the information in the database, and finally generates an alarm response according to the alarm group settings.

Category III

This category includes the presence of faces.
Data is automatically searched for at a specific point in time to generate an alarm push email.

6.5.3.1 – Category I



Alarm type: An alarm is triggered when the detected object is wearing (or not wearing) a mask.

Close: Alarms based on facial features are disabled.

No mask: An alarm is triggered when the detected object is not wearing a mask.

Wearing mask: An alarm is triggered when the detected object is wearing a mask.

Hold time: Set the duration for triggering an external alarm when motion is detected.

Post-recording: Set the duration of continuous recording after an event. Options include 5 s, 10 s, 20 s, and 30 s. The default duration is 5 s, but the maximum duration can be set to 30 s.

Send Email: The device automatically sends an email when it detects motion.

Push Notification: When set to ON, this information is sent to the client when an alarm is triggered.

Alarm Output: Optional. If your device supports connection to an external alarm device, you can turn on this switch to activate the external alarm device.

FTP Image Upload: Upload alarm images to the FTP server.

FTP Video Upload: Upload alarm videos to the FTP server.

Enable Recording: When this option is enabled, this type of recording is activated when an alarm is triggered.

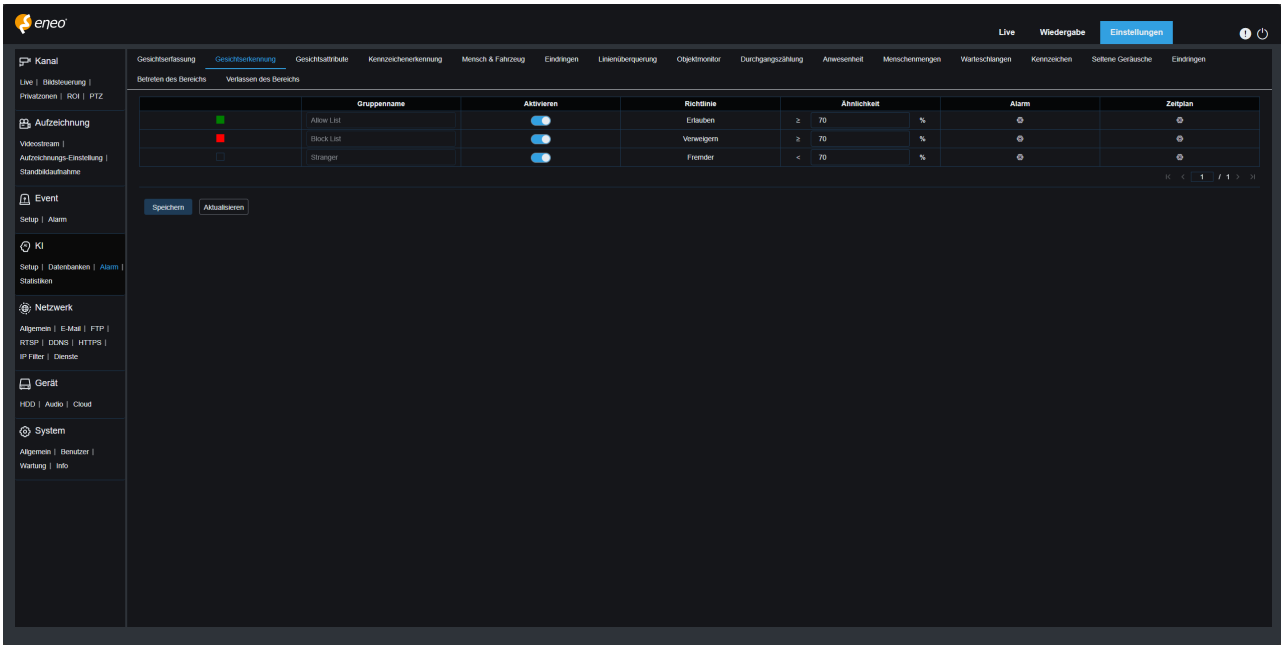
6.5.3.2 – Category II

The camera's face recognition function captures a face image and retrieves matching face data from the database to determine the group in which the object is located. The camera then generates an alarm by triggering the alarm setting in that group.

Group name: Displays the name of the group in the database.

Enable: Turns the function on.

Policy: Sets the policy for the group. The first three groups cannot be changed.



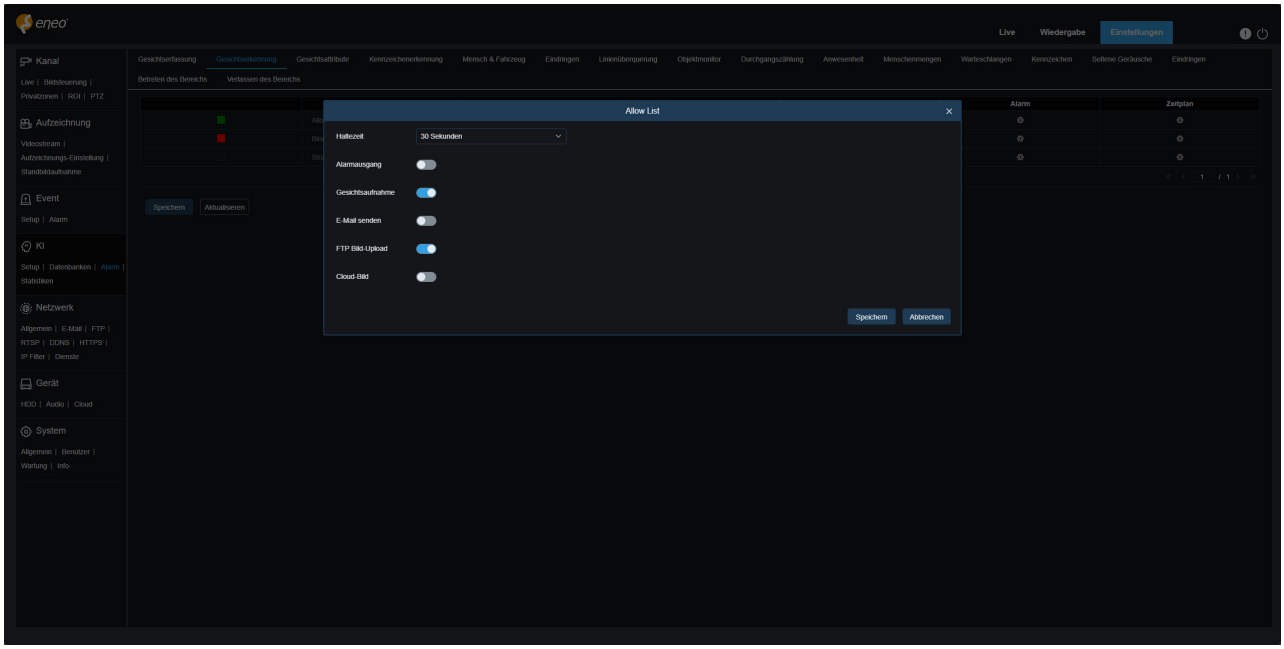
Similarity: The alarm is triggered when the similarity during face comparison exceeds the threshold value.

Alarm: Determines whether the settings for the group alarm should be activated.

Hold time: This is the period of time that elapses after the camera has captured an image and found it in the database. The camera must support the I/O function and the working time is controlled by the schedule.

Alarm output: Determines whether settings should be activated.

Face capture: Determines whether face images should be saved to the memory card. This setting is not controlled by the activation status.



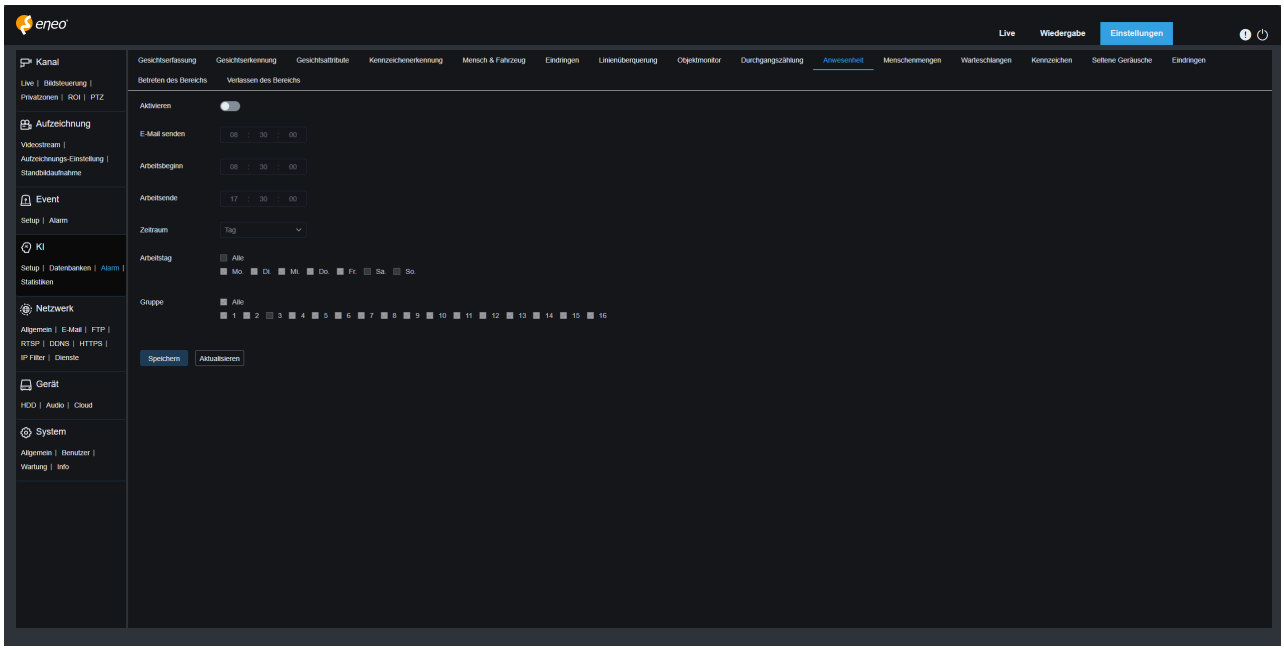
Send email: Determines whether an email should be sent when faces are recognized and matched in the group. The working time is also controlled by the schedule.

FTP Image Upload: Determines whether images should be sent to the assigned FTP server when faces are recognized and compared in the group. The actual time is also controlled by the schedule, and the FTP server must be assigned in advance.

Cloud image: Determines whether images should be sent to the assigned cloud storage server when faces are recognized and compared in the group. The actual time is also controlled by the schedule, and the cloud storage server must be assigned in advance.

6.5.3.3 – Category III

The attendance control function retrieves the status of facial recognition in various groups stored on the memory card. In addition, it can be used to create attendance files, which are stored according to capture records and sent to an email address.



Enable: Turns the function on.

Send email: Sets the time at which statuses are to be sent. If this time is exceeded, a file is automatically created and an email is sent. If the data is missing, no email is sent.

Start of work: Specifies the time at which the attendance file is to be created.

End of work: Specifies the time at which the attendance file is to be created.

Period: Specifies when the attendance file is to be created and sent.

Day: Sends the attendance list from the previous day.

Week: If, for example, Wednesday is set, the attendance information from Wednesday of the previous week to Tuesday of this week will be sent on Wednesday of the current week.

Month: If, for example, the 15th day is set, the attendance information from the 15th of the last month to the 14th of the current month will be sent on the 15th of each month.

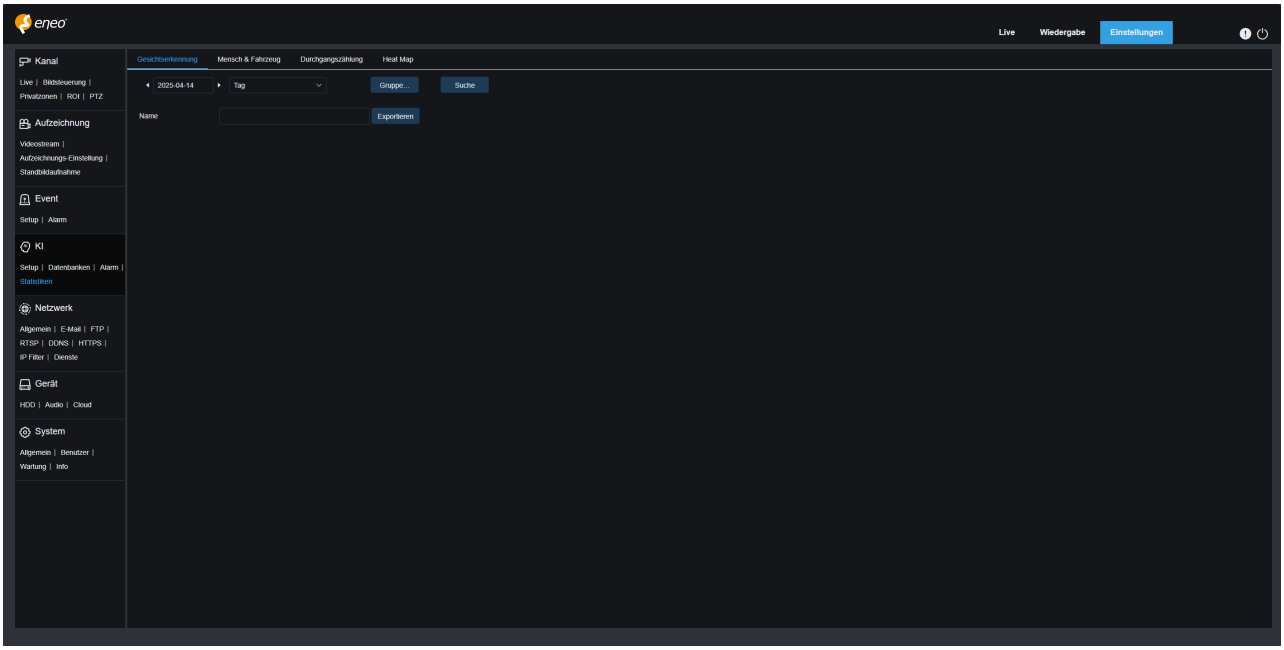
Workday: Specifies the reference workdays for the service to create an attendance file.

Group: Specifies the group that is checked when creating an attendance file. The "Strangers" group cannot use this function. For group 3, it is disabled by default.

6.5.4 – Statistics

6.5.4.1 – Face Detection

Function for statistical analysis of facial images: This function allows you to retrieve facial data statistics stored on the memory card according to the search settings.



Time: Specifies the reference time for the search mode.

Search mode: Specify the time range for data retrieval.

Group: Specifies the group to be queried when querying statistical data.

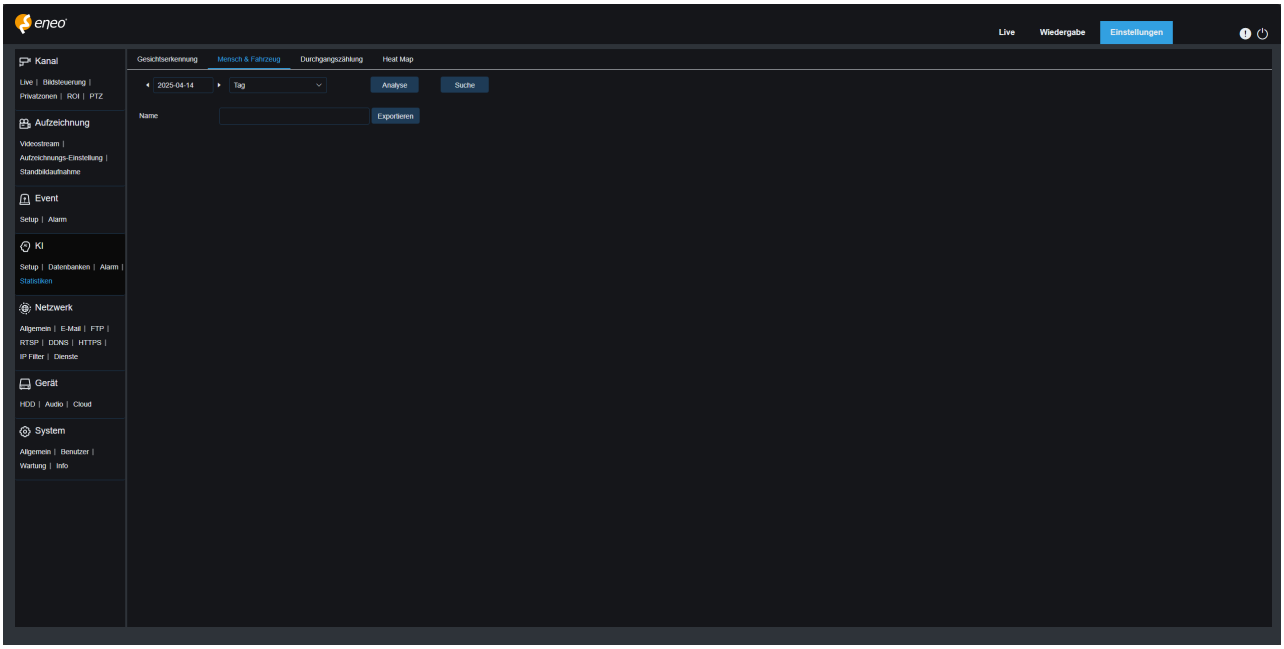
Search: Allows you to restart the data query according to the current search settings.

Export: You must give an exported file a name. Export the current search results to an Excel file.

Display area: Display the search results in a chart.

6.5.4.2 – Human & Vehicle

Statistics on people and vehicles, including humans and vehicles, intrusion, line crossing, intrusion, Region Entrance, Region Exiting.



Time: Specifies the reference time for the search mode.

Search mode: Specify the time range for the data query.

Analysis: Select the appropriate tag types for the search.

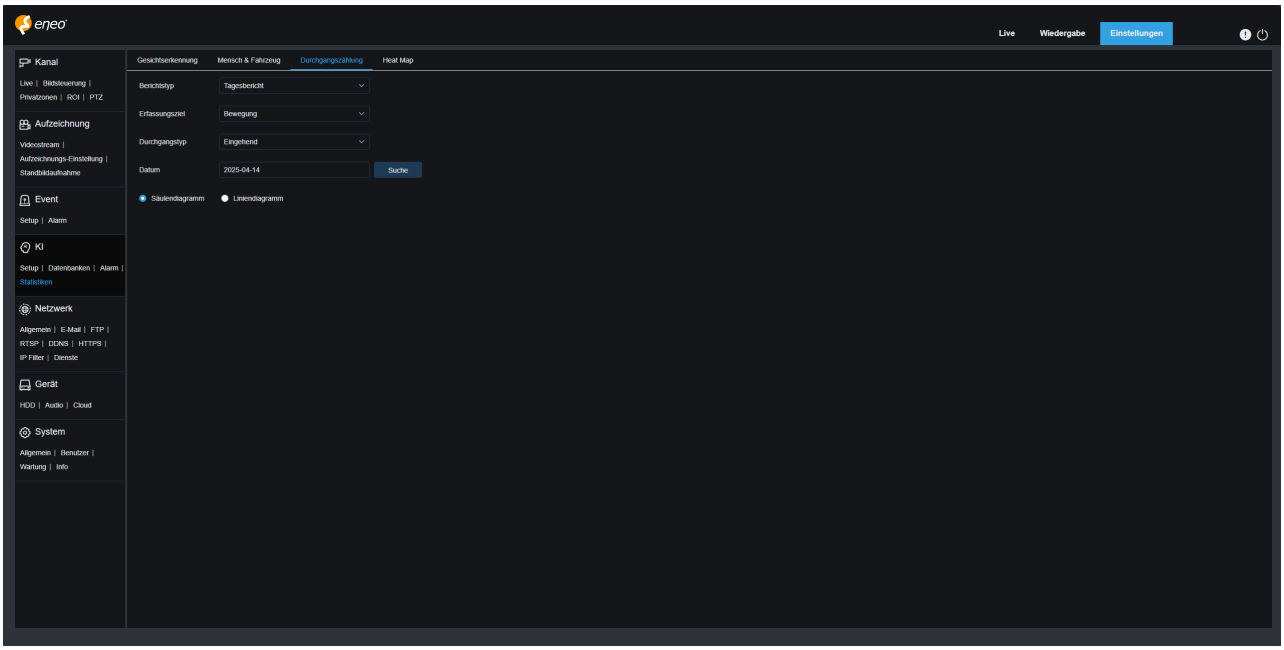
Search: Allows you to restart the data query according to the current search settings.

Export: You must give an exported file a name. Export the current search results to an Excel file.

Display area: Display the search results in a chart.

6.5.4.3 – Cross Counting

Face image statistical analysis function: This function allows you to retrieve face data statistics stored on the memory card according to the search settings.



Report type: Options include daily report, weekly report, monthly report, and annual report.

Detection target: Set the desired alarm model. Choose between motion, human, vehicle, and bike.

Warning!

If a detection target other than motion is set, you cannot retrieve motion-controlled data!

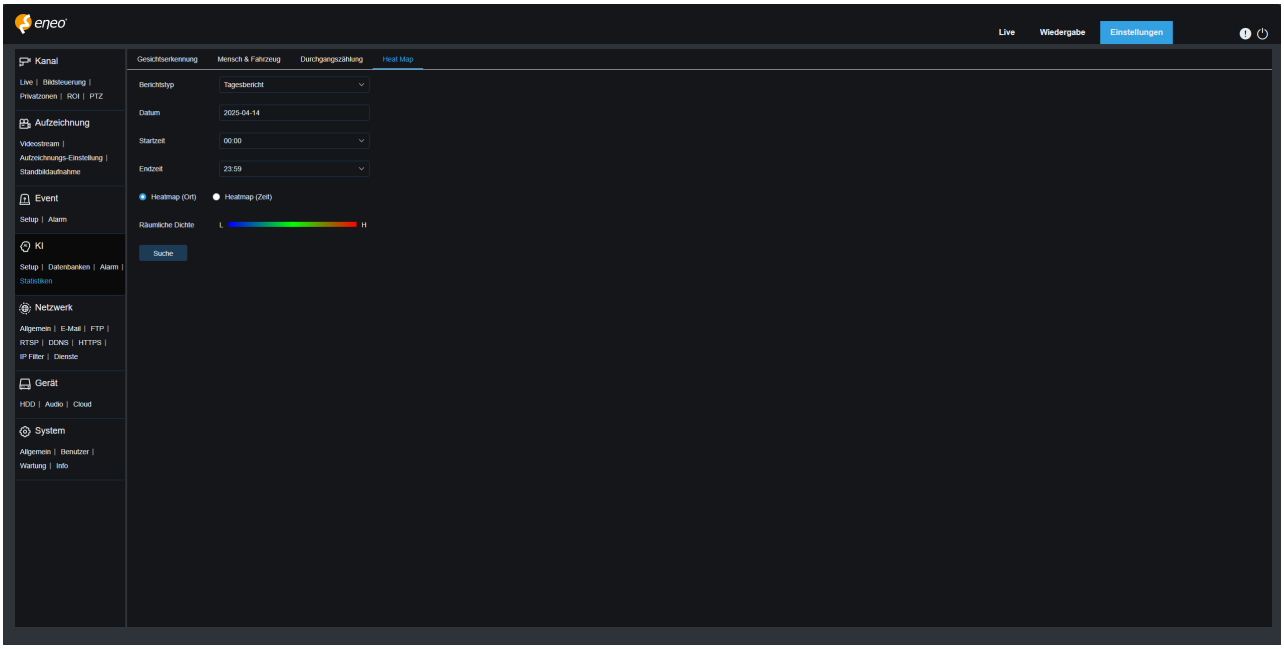
Passage type: Allows you to search for data according to passage count statistics. Choose between "Incoming" and "Outgoing."

Search: Searches for data according to the current settings. You can then export the data.

Export: You must give an exported file a name. Export the current search results to an Excel file.

6.5.4.4 – Heat Map

The heat map can intuitively display the distribution of people in temporal or spatial dimensions. This function is only available with a memory card installed.



Report type: Options include daily report, weekly report, monthly report, and annual report.

Date: Sets the reference date for the data search.

Start time: This option is only available for the daily report and is used to set the hour at which the search should start.

End time: This option is only available for the daily report and is used to set the hour at which the search should end.

Mode: Choose between Heatmap (location) and Heatmap (time).

Location: The graph shows the level of activity of humans in different areas.
Red = high, blue = low.

Time: The graph illustrates the level of activity of humans at different times. The value shown on the Y-axis indicates the length of stay and not the number of people.

Display range: Display the search results in a chart.

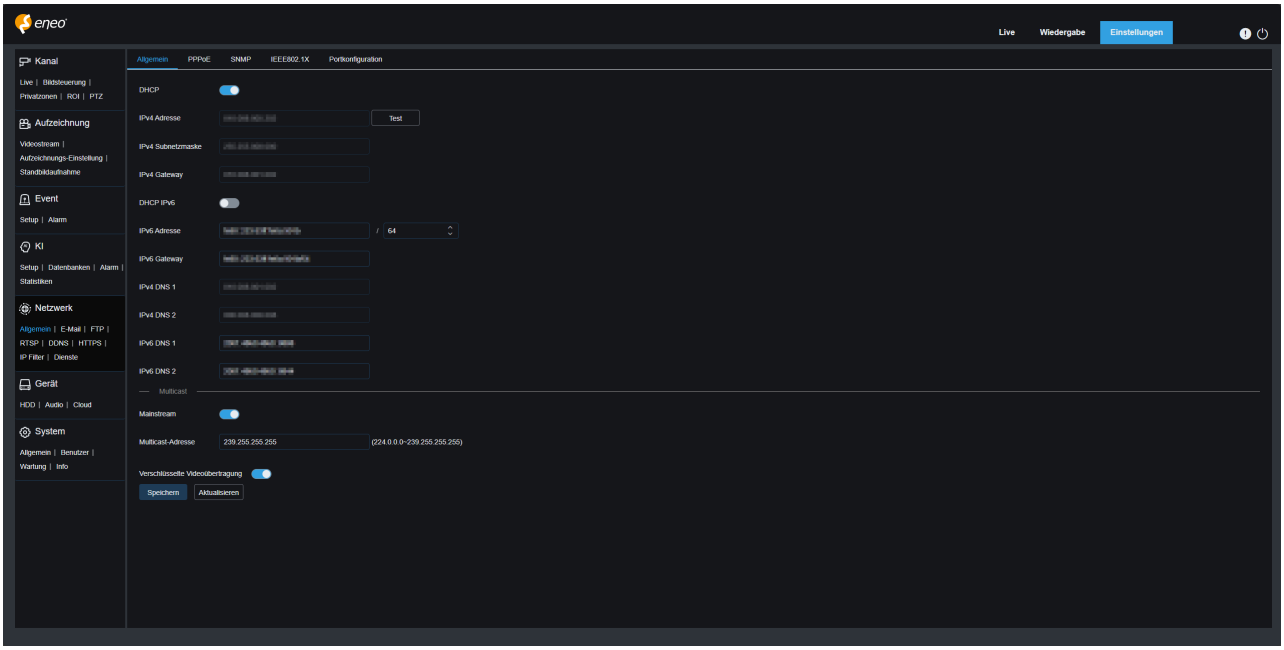
6.6 – Network

This menu allows you to configure network parameters such as PPPoE, DHCP, and SNMP, with DHCP being the most commonly used. In most cases, the network type is DHCP unless the static IP address is set manually. If you need an authenticated username and password to connect to the network, select PPPoE.

6.6.1 – General

6.6.1.1 – General

To connect to a router that supports DHCP, select the "DHCP" check box. The router automatically assigns all network parameters to the device. The following network parameters can also be set manually.



IPv4 address: The IP address is the identifier of the IPC in the network. It consists of four numbers between 0 and 255 separated by dots, e.g., "192.168.001.100."

Subnet mask: A subnet mask is a network parameter that defines the range of IP addresses that can be used on the network. If you compare the IP address to a street, then the subnet mask is the street. A subnet address also consists of four numbers separated by dots, e.g., "255.255.000.000."

Gateway: This address allows the IPC to access the network. The format of a gateway address is the same as that of an IP address, e.g., "192.168.001.001."

IPv6 address: The IPv6 address is the identifier of the IPC on the network. It consists of eight numbers between 0 and FFFF separated by colons, e.g., "ABCD:EF01:2345:6789:ABCD:EF01:2345:6789."

DNS1/DNS2: DNS1 is the active DNS server and DNS2 is the standby DNS server. Normally, you only need to enter the address of the DNS1 server.

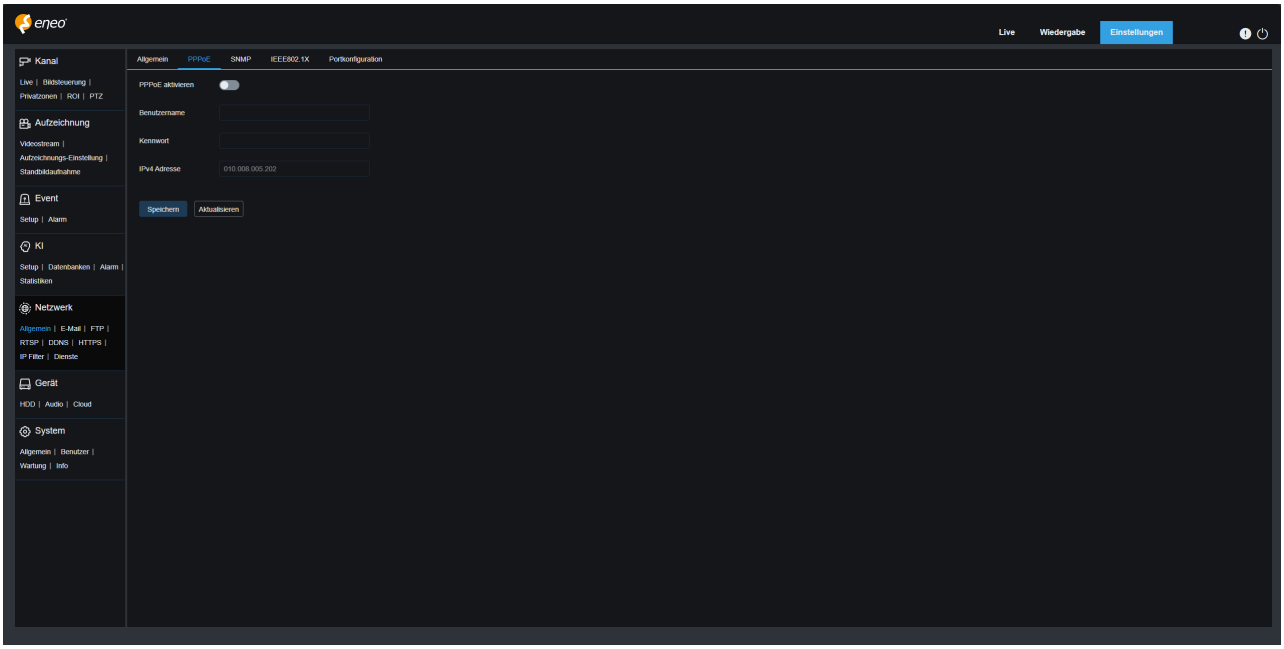
Mainstream: When this option is enabled, the main stream can be used for multicast.

Multicast address: Specifies a multicast address. A third-party player can request the camera to send a multicast media stream via the RTSP protocol.

Encrypted Video Transmission: Specifies the audio/video encryption transmission.
If the camera has the IP duplication alarm for the same network segment, click the Test button when reusing the IP address.

6.6.1.2 – PPPoE

This is an extended protocol that allows the camera to connect to the network more easily via DSL modems.

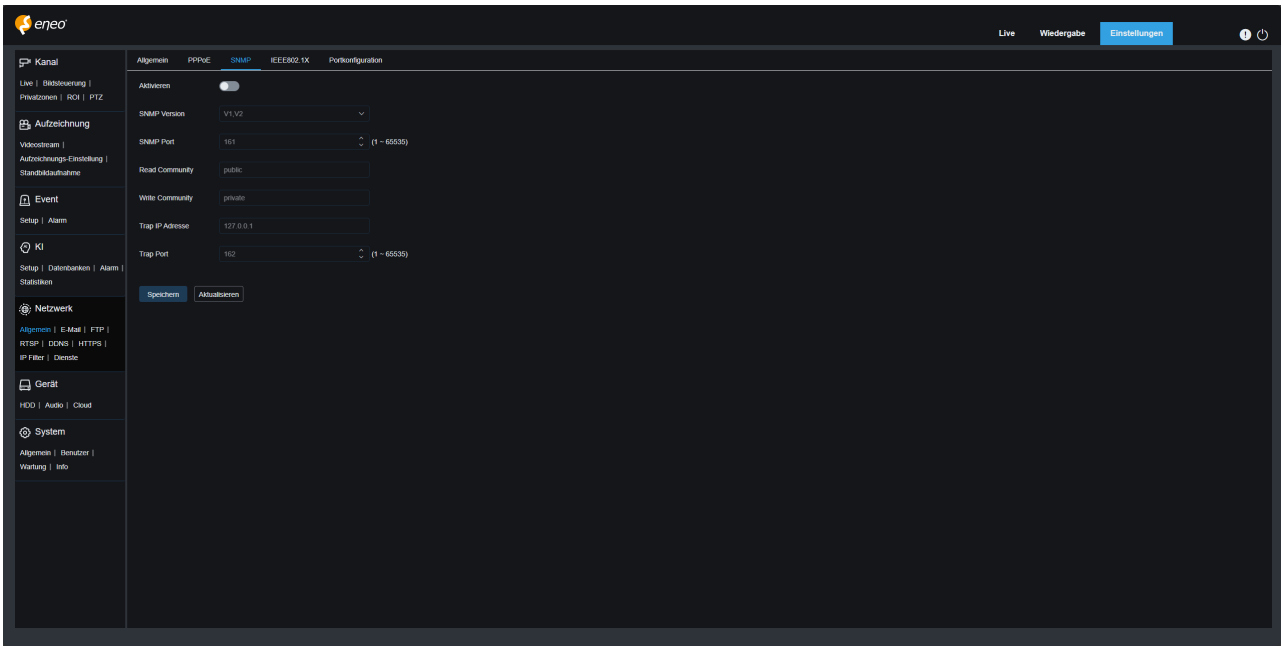


Select the **Enable PPPoE** checkbox and then enter the PPPoE username and password.

Click **Apply** to save the data. The system will restart to apply the PPPoE settings.

6.6.1.3 – SNMP

The Simple Network Management Protocol (SNMP) is a standard application-level protocol designed for managing nodes such as servers, workstations, routers, switches, and hubs in IP networks.
Enable: Enables or disables SNMP.



SNMP Version: Displays the version of the SNMP server.
Possible options are V1, V2, and V1, V2, and V3.

SNMP Port: Specifies the port number of the SNMP server.

Read Community: Specifies the read community of the SNMP server.

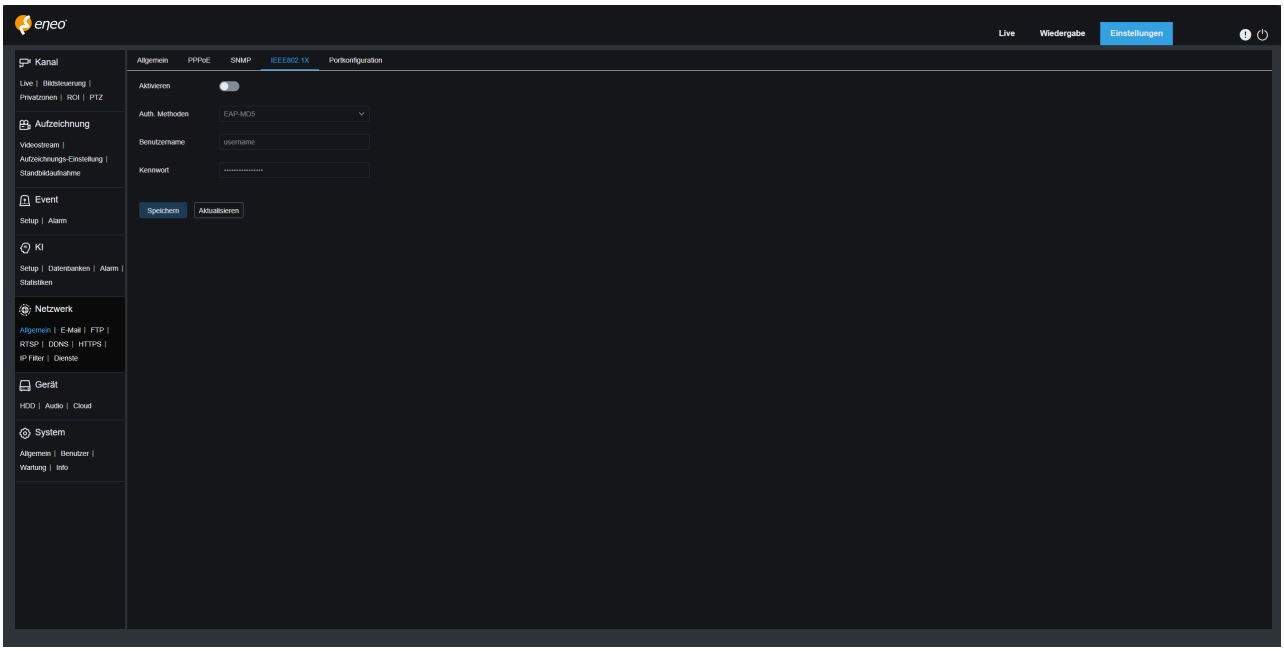
Write Community: Specifies the write community of the SNMP server.

Trap IP Address: Specifies the trap IP address of the SNMP server.

Trap Port: Specifies the trap port number of the SNMP server.

6.6.1.4 – IEEE802.1X

The 802.1x protocol is often used in Ethernet as an access control mechanism for LAN ports, primarily to solve authentication and security issues in Ethernet. The 802.1x protocol is a port-based network access control protocol. "Port-based network access control" refers to the authentication and control of accessing user devices at the port level of the LAN access device. User devices connected to the port can access resources on the LAN if they pass authentication. If they fail authentication, they cannot access resources on the LAN.



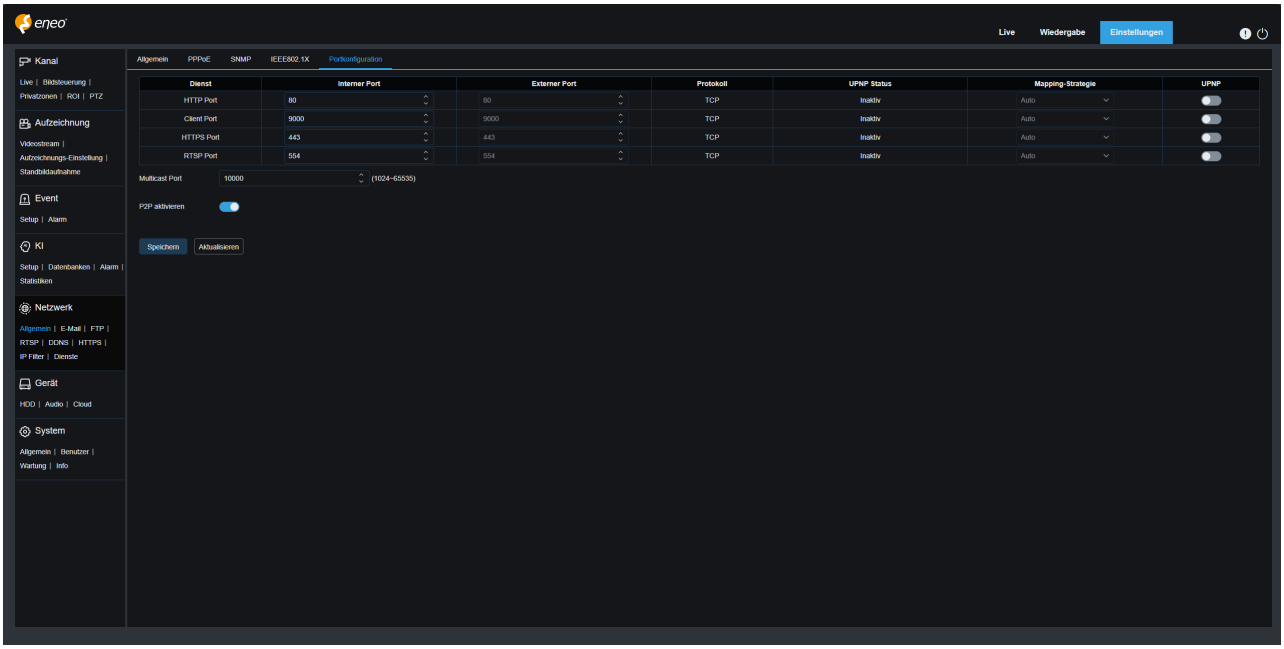
Enable: Enable or disable IEEE802.1X.

Authentication Methods: Set the authentication methods for IEEE802.1X.

Username: Set the username for IEEE802.1X authentication.

Password: Set the password for IEEE 802.1X authentication.

6.6.1.5 – Port Configuration



Client port: This is the port through which the IP camera sends messages (e.g., via a mobile application). If the default port 9000 is already in use by other applications, change the port number.

RTSP port: The default port number is 554. If this is already in use by other applications, change the port number.

HTTPS: This is an HTTP channel designed for security. Based on HTTP, transmission encryption and identity authentication are used to ensure the security of the transmission.

UPnP: To log in to the device remotely from a web client, perform port forwarding on the router. Enable this option if your router supports UPnP. In this case, you do not need to manually configure port forwarding on the router. If your router does not support UPnP, make sure to manually configure port forwarding on your router.

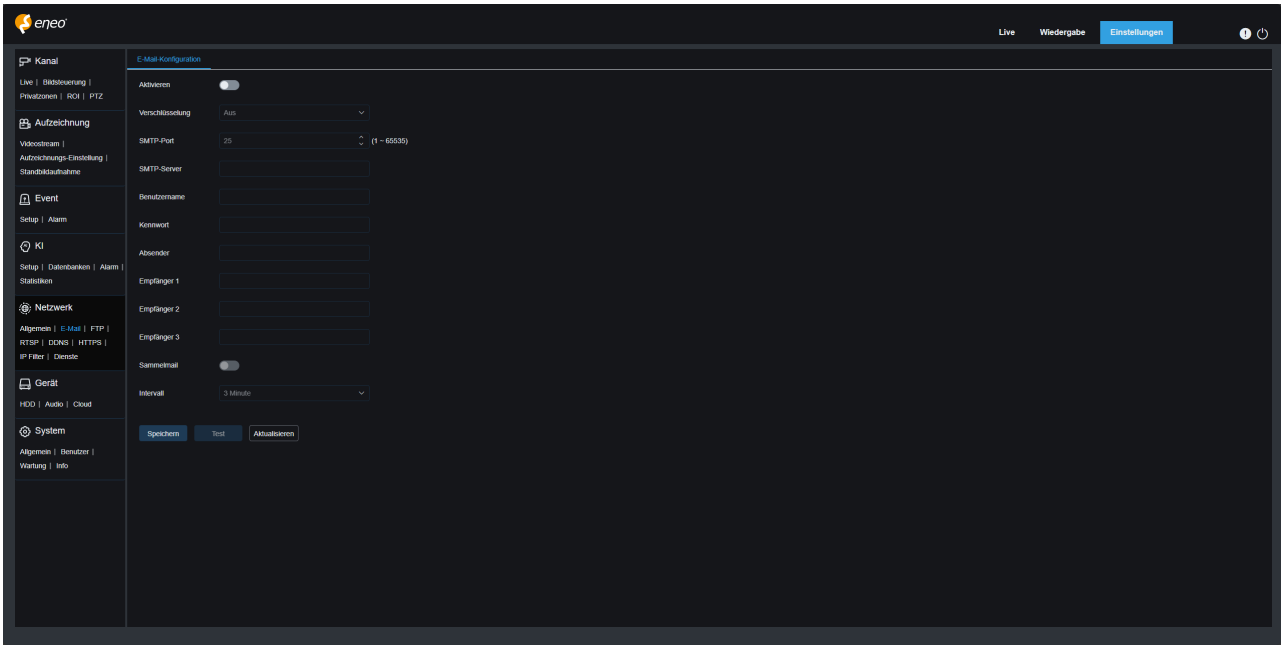
Multicast port: Specifies a multicast port.

P2P switch: P2P is ineffective when this switch is turned off.

6.6.2 – E-Mail

6.6.2.1 – Configuration

Configure these settings if you want to receive system notifications via email when an alarm is triggered or your hard drive is full.



Email: Enable or disable the email function.

Encryption: Enable this option if your email server requires SSL or TLS authentication. Select "Automatic" if you are unsure.

SMTP Port: Specifies the SMTP port number of the email server.

SMTP Server: Specifies the address of the SMTP server.

Username: Specifies your email address.

Password: Specifies your email password.

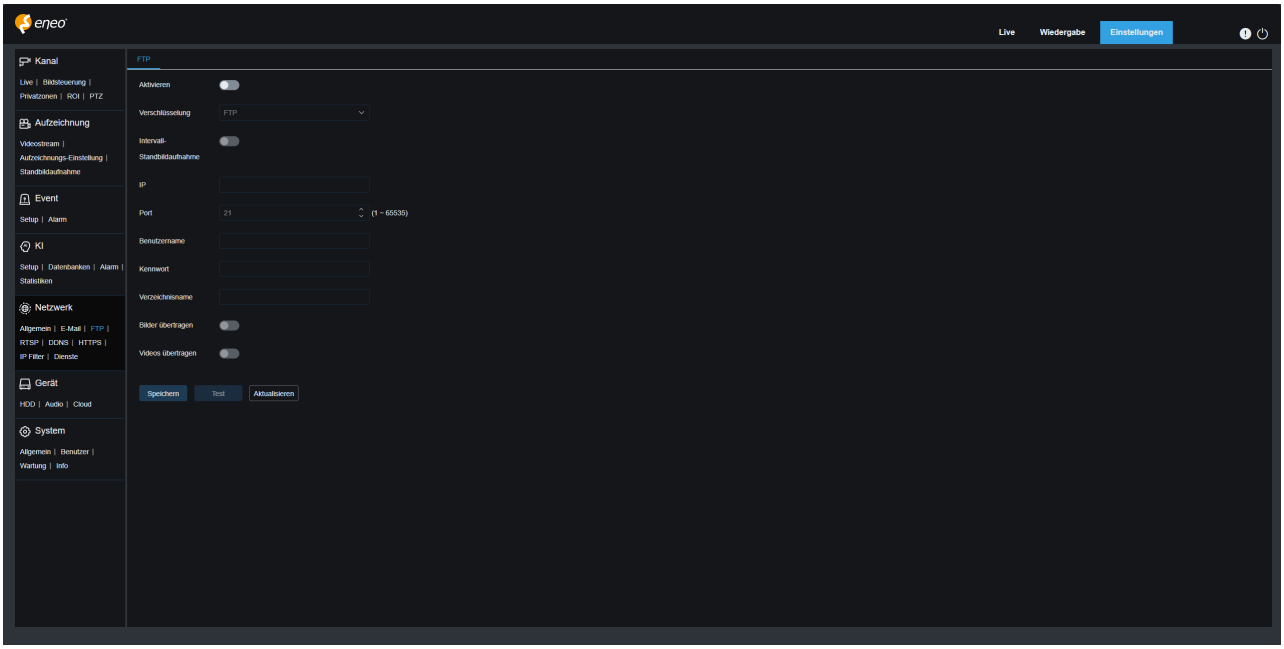
Recipient 1~3: Specify the email addresses from which you want to receive event notifications from the IP camera.

Interval: Specify the interval between notification emails from the IP camera.

To ensure that all settings are correct, click **Test.** The system will send an email to your inbox. If you receive a test email, the configuration parameters are correct.

6.6.3 – FTP

Use this menu to enable the FTP server to view images and videos uploaded from the IP camera to your FTP server.



Enable FTP: Click this icon to enable the FTP function.

Encryption Mode: Select the FTP and SFTP protocol.

Server: Specifies the IP address or domain name of your FTP server.

Port: Specifies the port number of your FTP server.

Username/Password: Specifies the username and password of your FTP server.

Directory Name: Customize to create an upload directory.

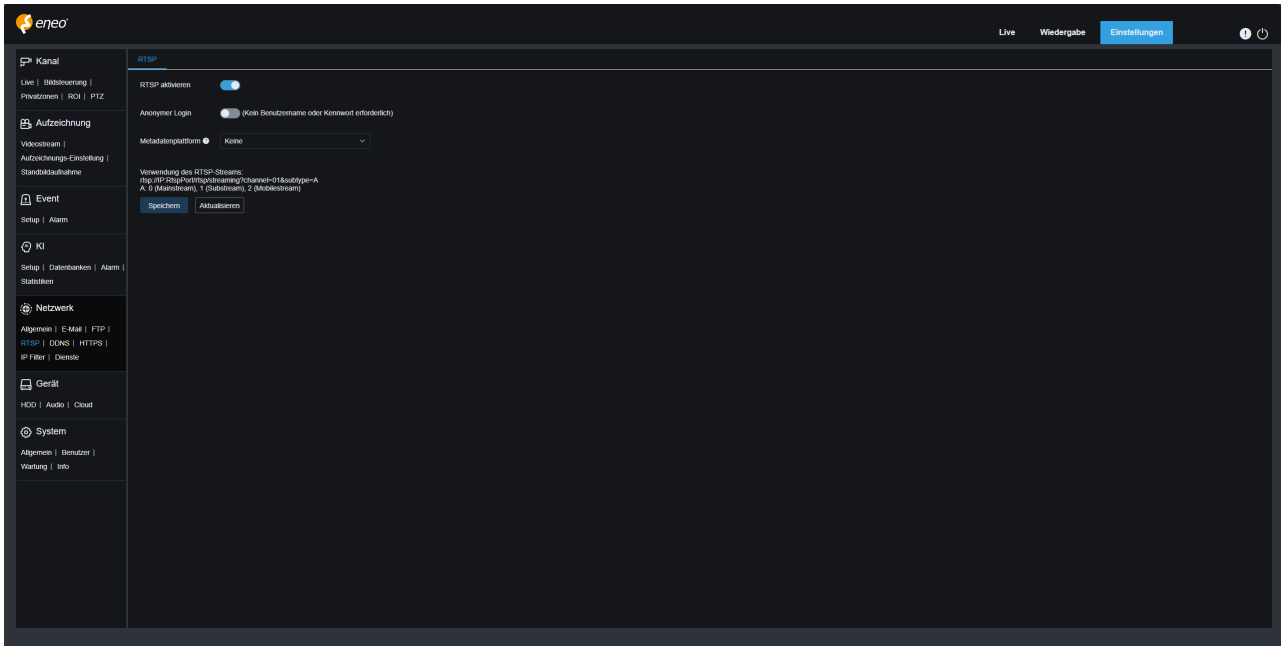
Transfer images: If this option is enabled, alarm images will be uploaded to the FTP server. Otherwise, only alarm texts will be uploaded.

Transfer videos: If this option is enabled, alarm videos will be uploaded to the FTP server.

6.6.4 – RTSP

6.6.4.1 – Configuration

The Real Time Streaming Protocol (RTSP), RFC2326, is an application layer protocol in the TCP/IP protocol architecture. This protocol defines how one-to-many applications can efficiently transfer multimedia data over IP networks. Images can be displayed in real time using a video player.



Enable RTSP: Enables or disables RTSP.

Anonymous login: Allow login as an anonymous user. When this option is enabled, no authentication is required to use this protocol.

Metadata platform: Enable or disable metadata push when the camera requests a connection to a third-party VMS. Three models are available, including "None/General/Milestone."

None: RTSP stream without metadata.

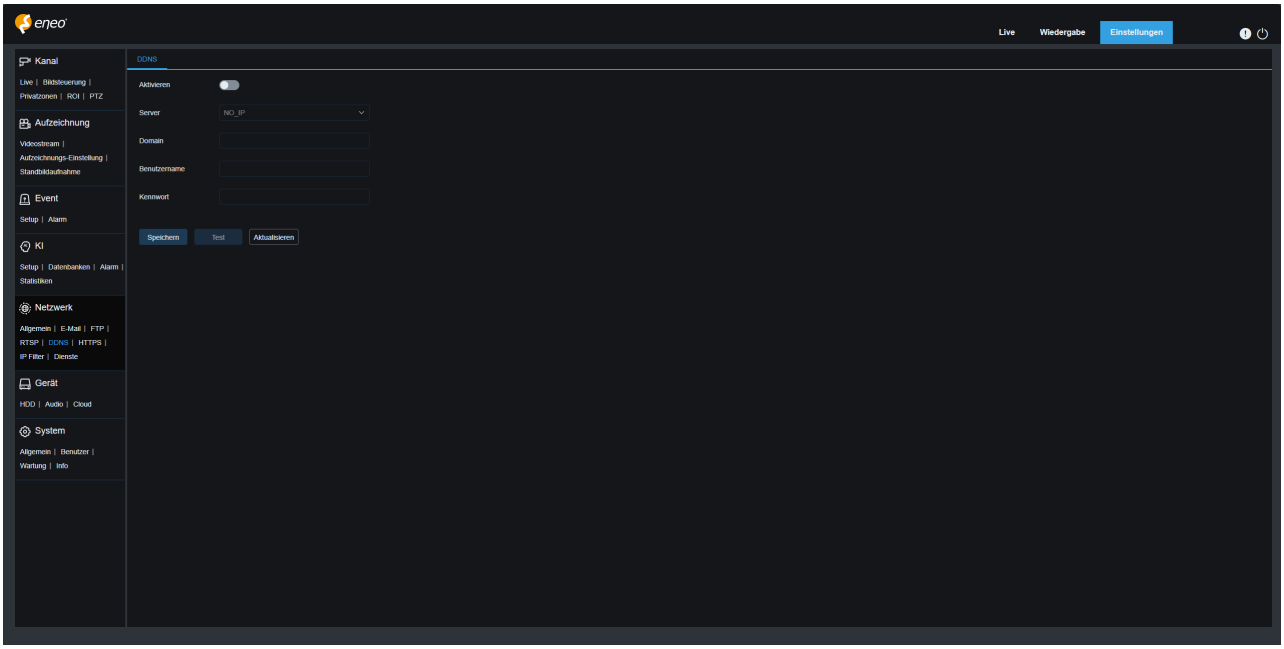
General: RTSP stream with metadata, suitable for most integrated VMS.

Milestone: RTSP stream with metadata, suitable for Milestone VMS.

6.6.5 – DDNS

6.6.5.1 – Configuration

This menu allows you to configure DDNS settings. DDNS provides a static address to simplify remote connection to the IP camera. To use DDNS, you must first set up an account on the DDNS service provider's website.



DDNS: Enable or disable DDNS.

Server: Specify your preferred DDNS server.

Hostname: Specify the domain name you created on the DDNS service provider's website. This is the address you enter in the URL bar when you want to connect to the IP camera remotely from your PC.

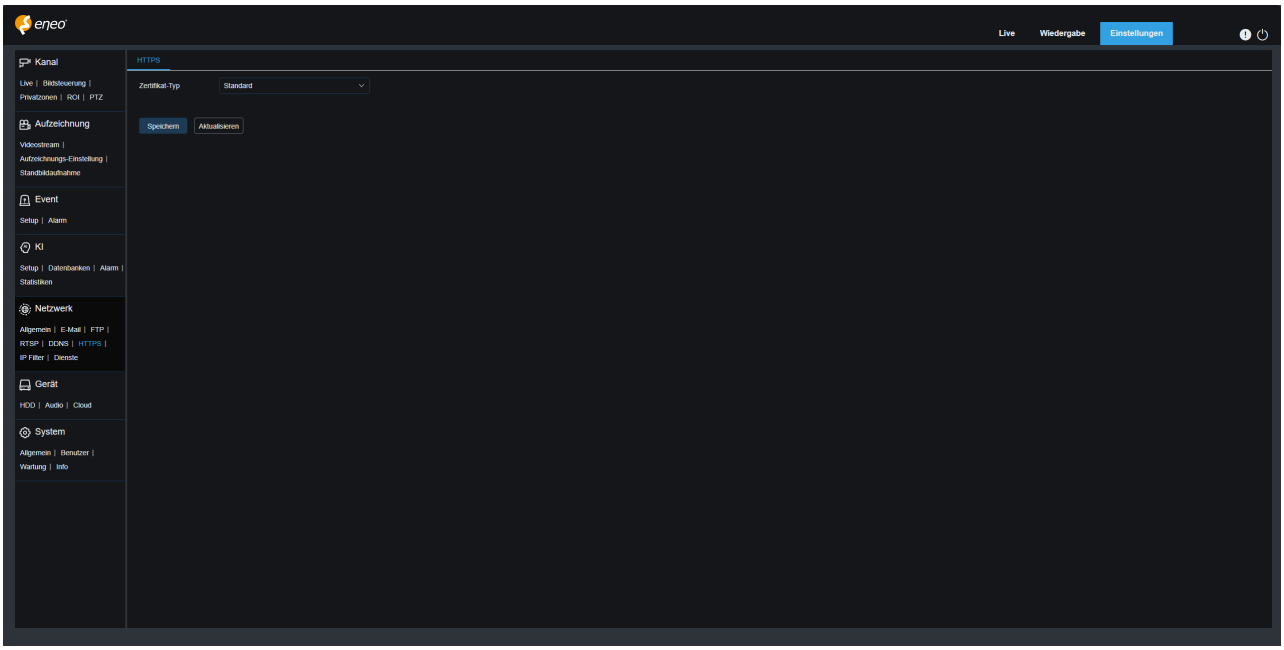
Username/Password: Specifies the username and password you receive when you create an account on the DDNS service provider's website.

Enter all parameters and click **Test** to test the DDNS settings. If the test result is "Unreachable or DNS error," check whether the network is functioning normally or whether the DDNS information is correct.

6.6.6 – HTTPS

6.6.6.1 – Configuration

In this menu, you can set up HTTPS. You can connect your device via HTTPS.



Certificate type: There are two options: Standard and Custom. The Custom option allows you to connect devices with your own certificate.

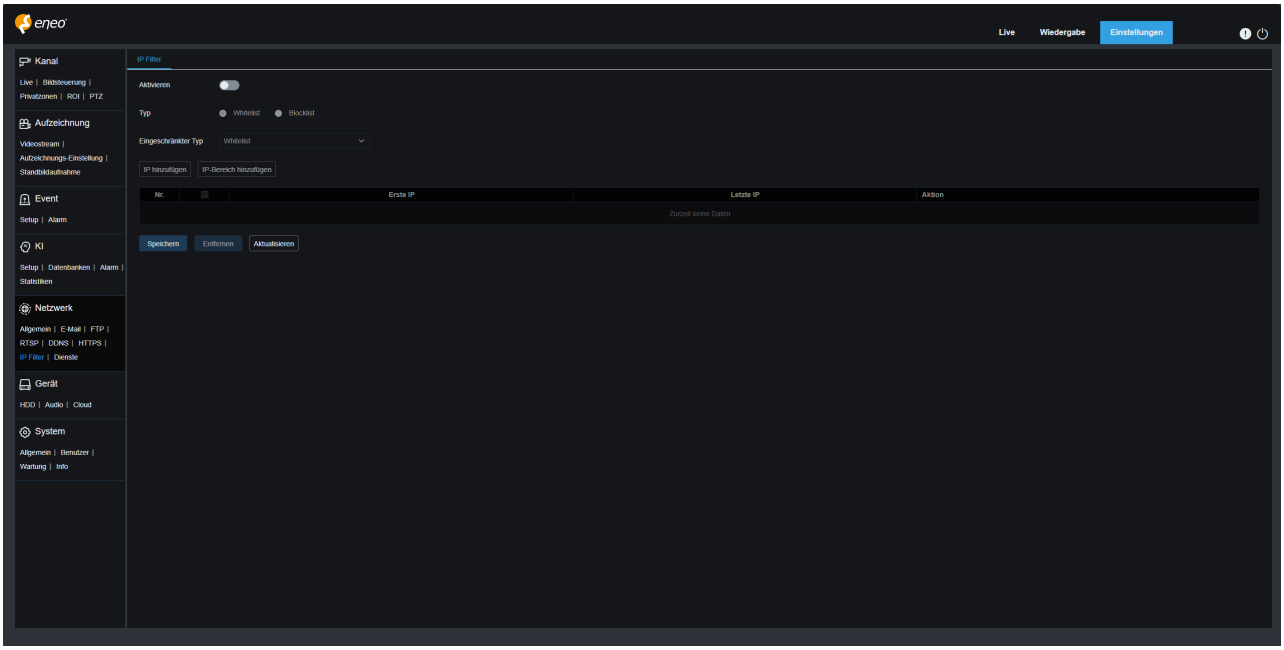
Certificate: Select an individual certificate if the Individual option is selected.

Key: Select an individual key file if the Individual option is selected.

6.6.7 – IP Filter

6.6.7.1 – Configuration

The IP filter can be used to specify the allow and block lists for devices to be connected.



Enable: Turns the IP filter on or off. When this option is enabled, you can activate the blacklist or whitelist.

Restricted type: Select the list to be set up (blacklist or whitelist).

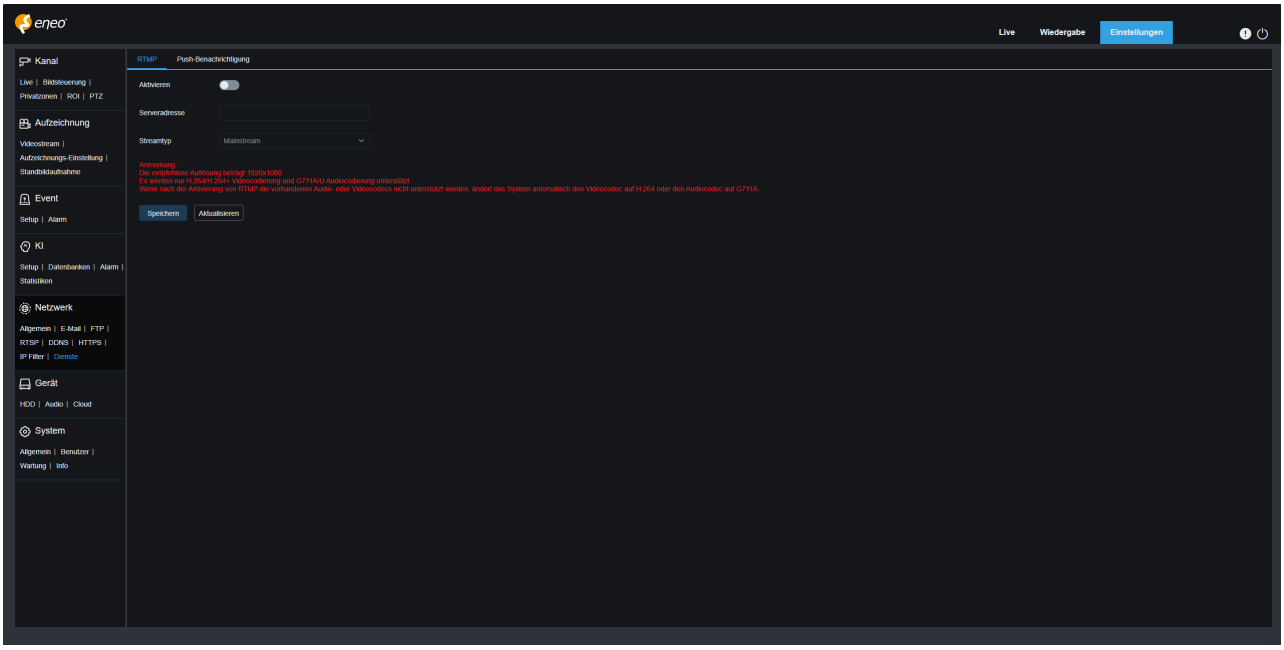
Start Address: Specifies the start address.

End Address: Specifies the end address.

6.6.8 – Services

6.6.8.1 – RTMP

Enable RTMP, enter the correct server address, and you're ready to stream audio and video from your device to the YouTube Live server.



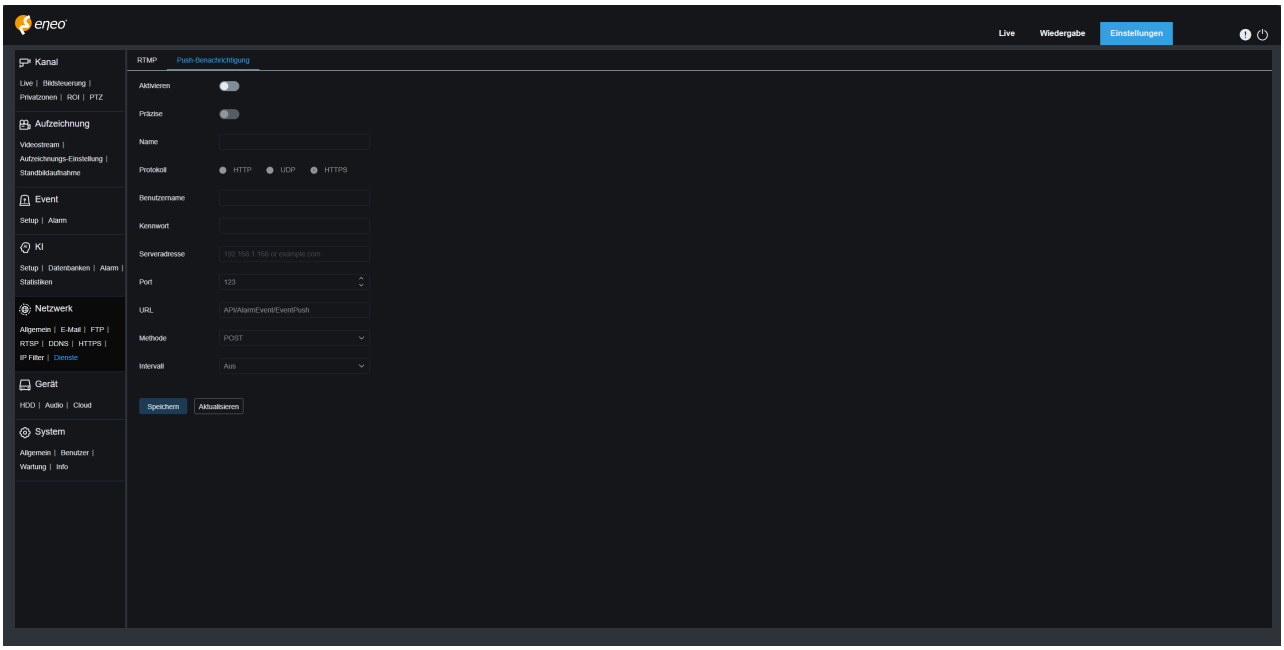
Enable: Enables or disables the RTMP feature.

Server address: The address of the server to which you want to push.

Stream type: Select the video stream you want to push to the server.

6.6.8.2 – Push Notification

Event Push can be implemented in two modes: HTTP Push mode and UDP Push mode. HTTP Push mode offers the POST method and the GET method. UDP Push mode offers the Unicast, Multicast, and Broadcast methods.



Enable: Enable or disable the Event Push function.

Precise: Enable or disable the Precise function. When enabled, a push signal is sent once when an alarm is triggered and again when the alarm ends. When disabled, a push signal is sent only once when the alarm is triggered.

Name: Enter the name of the channel.

Push Method: Define the push mode. Both HTTP push mode and UDP push mode are supported. You can select HTTP or UDP as needed.

HTTP/HTTPS

Username: Specify the username. If there is no username, it can be set to NULL.

Password: Set the password here. If there is no password, it can be set to NULL.

Server address: Enter the server address.

Port: Enter the server port. (Port number range: 1-65535.)

URL: Enter the server API. It can be set to NULL if none exists.

Method: Specify the HTTP push method. Both the POST and GET methods are supported. Only the HTTP POST method supports image push. Other methods only transmit notifications. The alarm type for image push is the same as in the alarm column of the live view in the web client.

Interval: Specify the keep-alive interval. The keep-alive mechanism ensures that a notification is sent to the client at regular intervals according to the set time, while normal alarm push is not affected. In UDP mode, there is no keep-alive mechanism.

UDP

Set the UDP push method. There are three options: Unicast, Multicast, and Broadcast.

Unicast: Enter the IP address and port number of the UDP client server that should receive push notifications. Notifications can only be received via this address.

Multicast: Multiple clients in the same network segment whose UDP servers use the same UDP address and port number can receive notifications. Other UDP addresses cannot receive notifications.

Broadcast: All UDP servers in the same network segment can receive notifications.

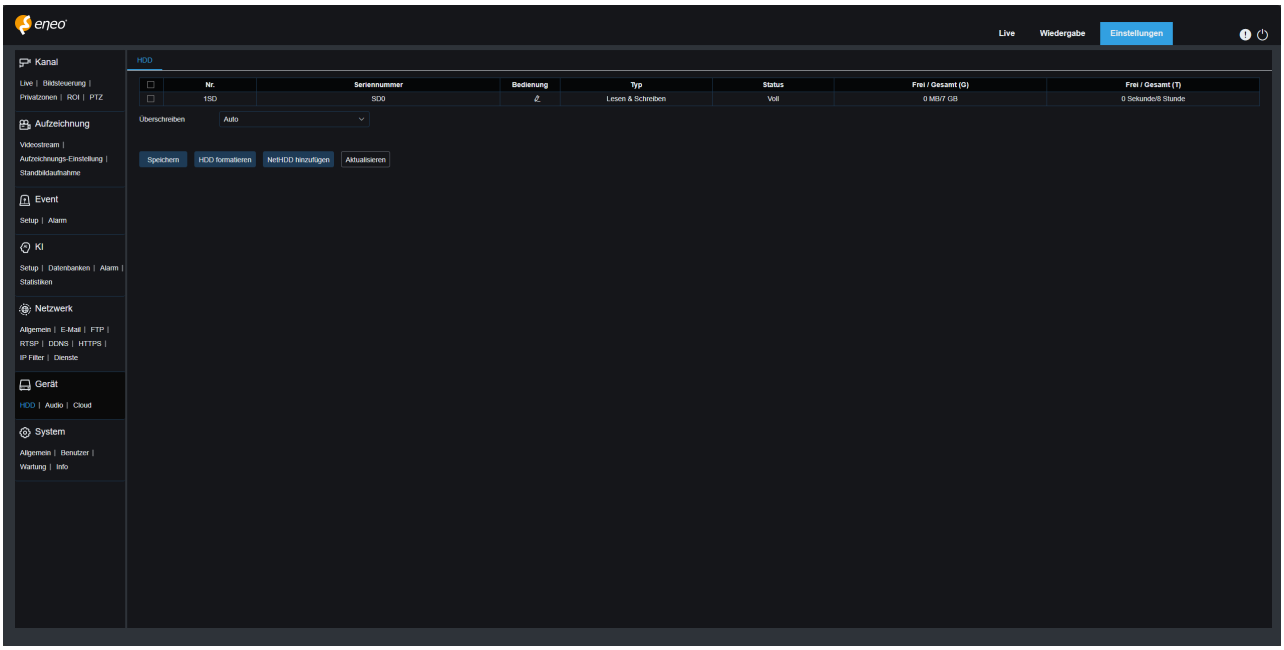
UDP address: Specify the address of the UDP server.

UDP port: Specify the UDP server port. (Port number range: 1-65535)

6.7 – Device

6.7.1 – HDD

This menu allows you to check and configure the internal memory card. Formatting is only necessary when accessing the memory card for the first time and when using a new memory card.



Overwrite: This option allows you to overwrite old recordings on the memory card when the memory card is full. If you select "Auto," the oldest data will be automatically overwritten when the memory card is full. Select "OFF" if you do not want old recordings to be overwritten. If this function is disabled, check the status of the memory card regularly to ensure that it is not full.

Format HDD: Select the memory card to be formatted and click "Format Memory Card." To start formatting, enter your username and password and click "OK."

Add NetHDD: This function allows you to add a network hard drive. After configuring a network hard drive (NAS), you can connect the NAS to the Internet to record videos from channels or capture images. The AI face database can only be stored on the hard drive.

Connection type: There are two options, including NFS and SMB/CIFS protocol V1/V2/V3. NFS does not require a username and password, while SMB/CIFS does.

Username: Specifies the username of the NAS (not required in NFS mode).

Password: Specifies the password of the NAS (not required in NFS mode).

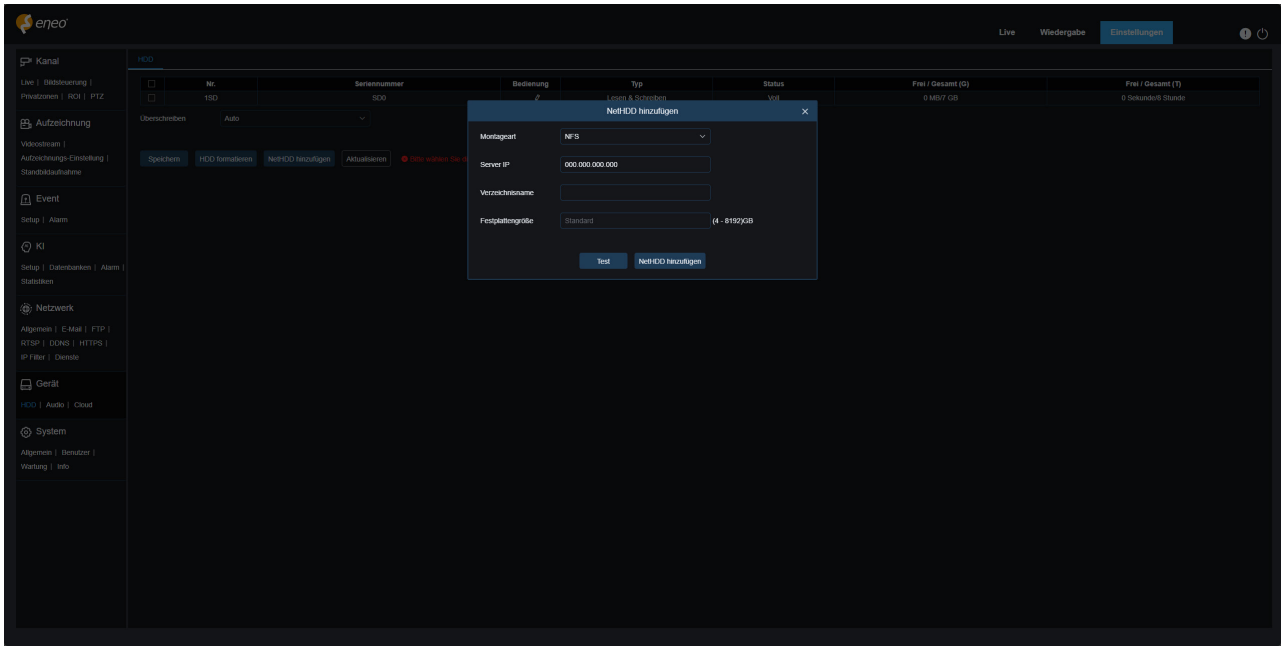
Server IP: Specifies the IP address of the NAS.

Directory Name: Specifies the folder where you want to store data on the NAS.

Hard Drive Size: Specifies the size of the network hard drive.

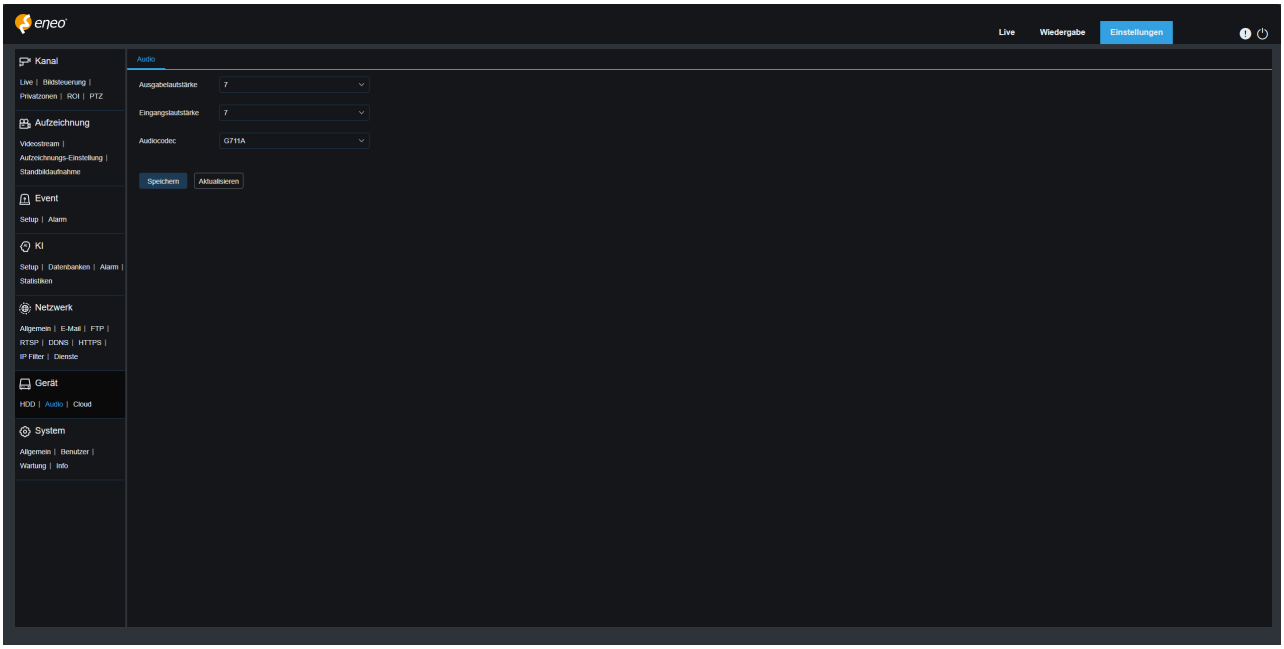
Test: Test the connectivity of the NAS.

Add NetHDD: Click this option to add NAS.



6.7.2 – Audio

Use this menu to adjust the volume of your device.



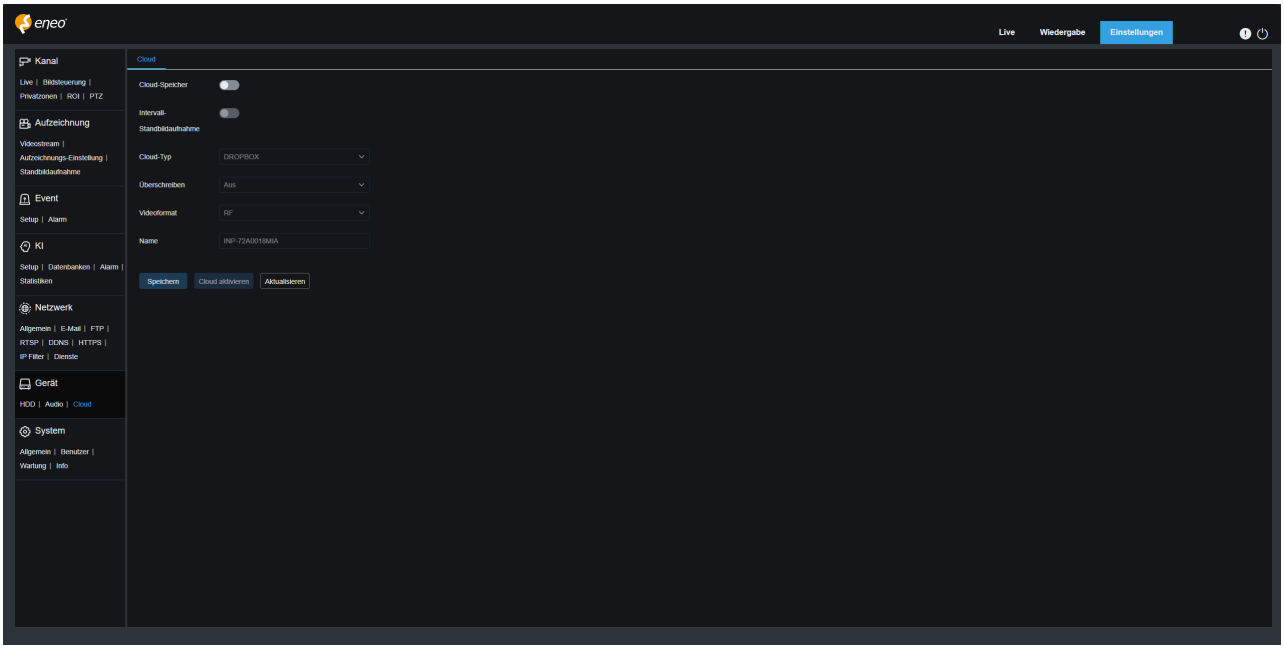
Output Volume: Sets the volume of the audio output.

Input Volume: Sets the volume of the audio input.

Audio Codec: Sets the audio encoding type. There are two options, including G711A and G711U.

6.7.3 – Cloud

This menu sets the cloud storage function to Dropbox.



Cloud storage: Enable or disable the cloud storage function.

Interval snapshot: Automatic snapshot and upload to Dropbox at a specified time interval.

Cloud type: Currently, only Dropbox is available.

Cloud overwrite: Overwrite storage space on the Dropbox drive. There are several options, such as Automatic, 1/3/7/14/30/90 days.

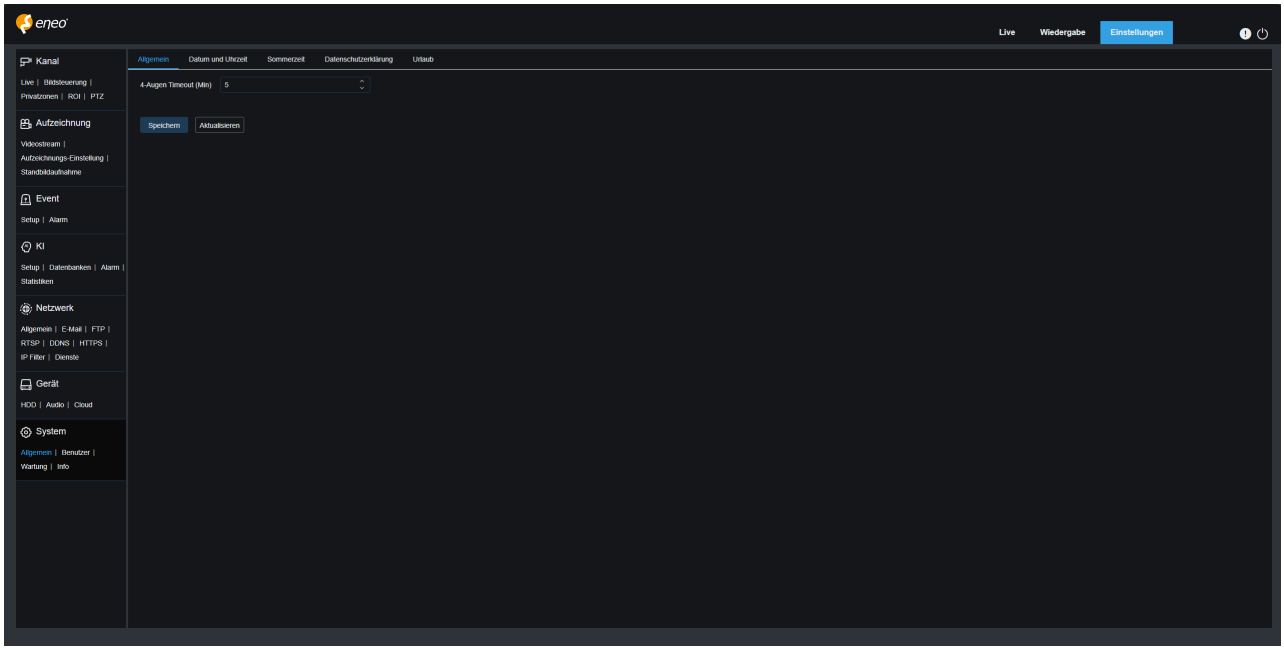
Video type: The type of video codec to be uploaded includes RF/AVI/MP4.

Driver name: Individual creation of the upload directory name.

6.8 – System

6.8.1 – General

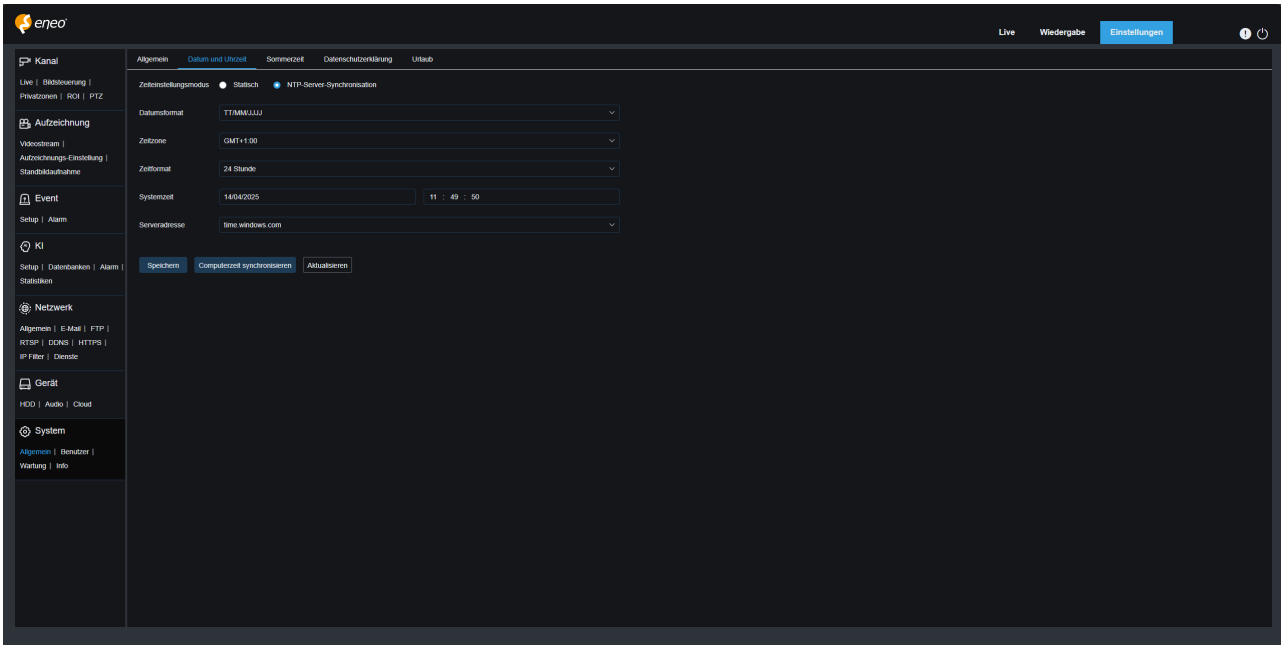
You can modify system information such as date and time, as well as areas, and change the password and permissions.



Dual control timeout: The dual control login function refers to a secure login mechanism that requires at least two users to participate in the verification process. This option is applied to the playback function of the monitoring system.

For example, when the device performs dual-user playback on eneo InSight, eneo InSight must be manually stopped to ensure the security of dual-user login. Therefore, a logout time must be set. If the device does not perform any operations on eneo InSight for a certain period of time, it will be logged out of the eneo InSight playback interface.

6.8.2 – Date and Time



Time setting mode: There are two options: "Static" and "NTP server synchronization." If 'Static' is selected, the time must be set manually. If "NTP server synchronization" is selected, the time is synchronized with the network time.

Date format: Sets the date format.

Time zone: Sets the time zone for your region or city.

Time format: Sets the preferred time format.

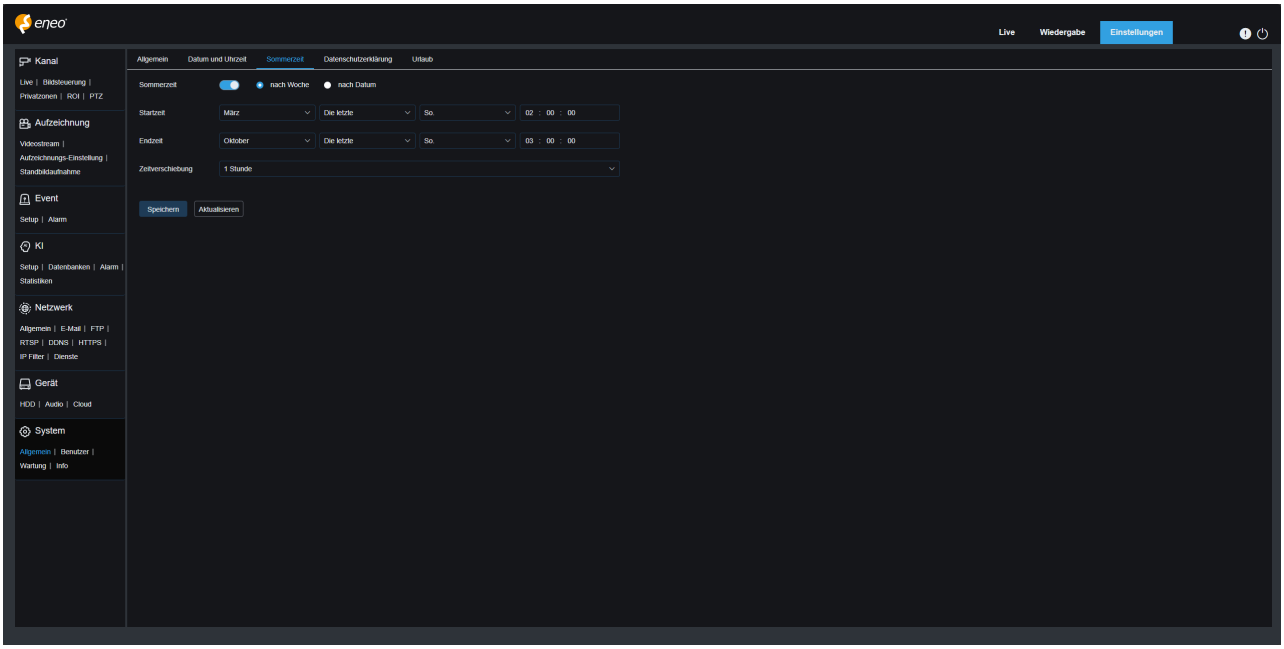
System time: Click the checkbox to change the date and time.

Server address: Specifies the website for automatic time synchronization.

Synchronize computer time: Here you can synchronize the time with your computer time.

6.8.2.1 – Daylight Saving Time (DST)

The DST function activates daylight saving time for a specific time zone or area.



Daylight saving time: Enable or disable this option if daylight saving time applies in your time zone.

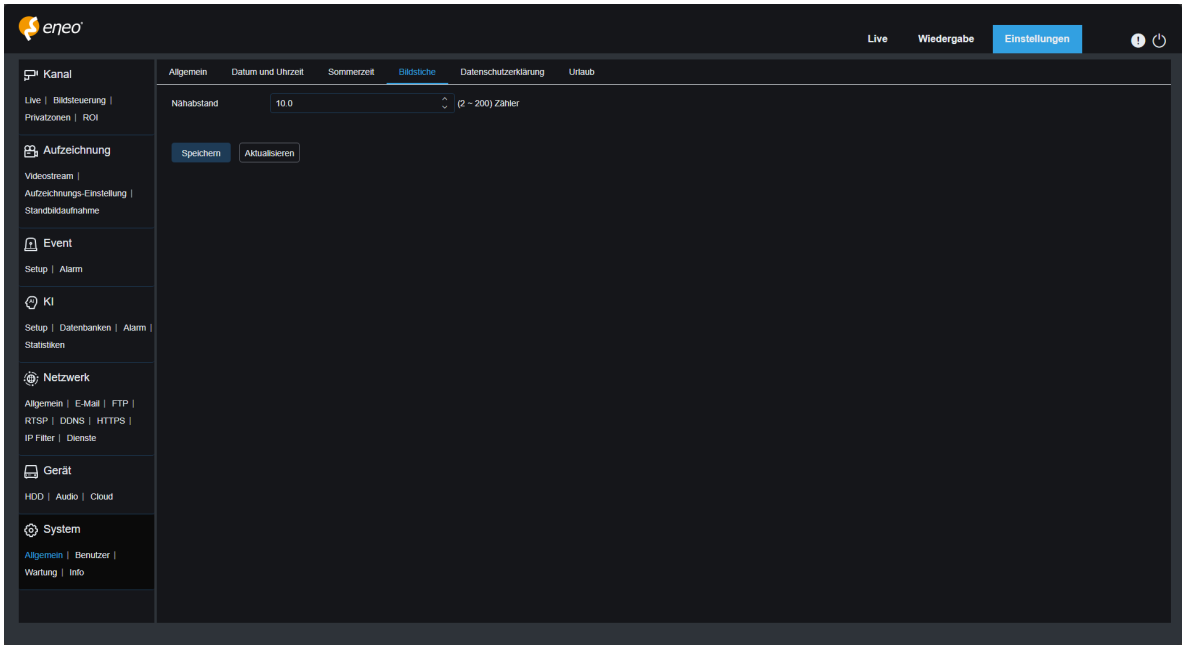
By week: Specifies the month, day of the week, and time when daylight saving time begins and ends, e.g., 2:00 a.m. on the first Sunday of the month.

By date: Specifies the date and time when daylight saving time begins and ends.

Start/end time: Specifies the start and end time of daylight saving time.

Time offset: Specifies the time that daylight saving time adds to your time zone. This is the difference between Coordinated Universal Time (UTC) and your local time.

6.8.2.2 – Image Stitching



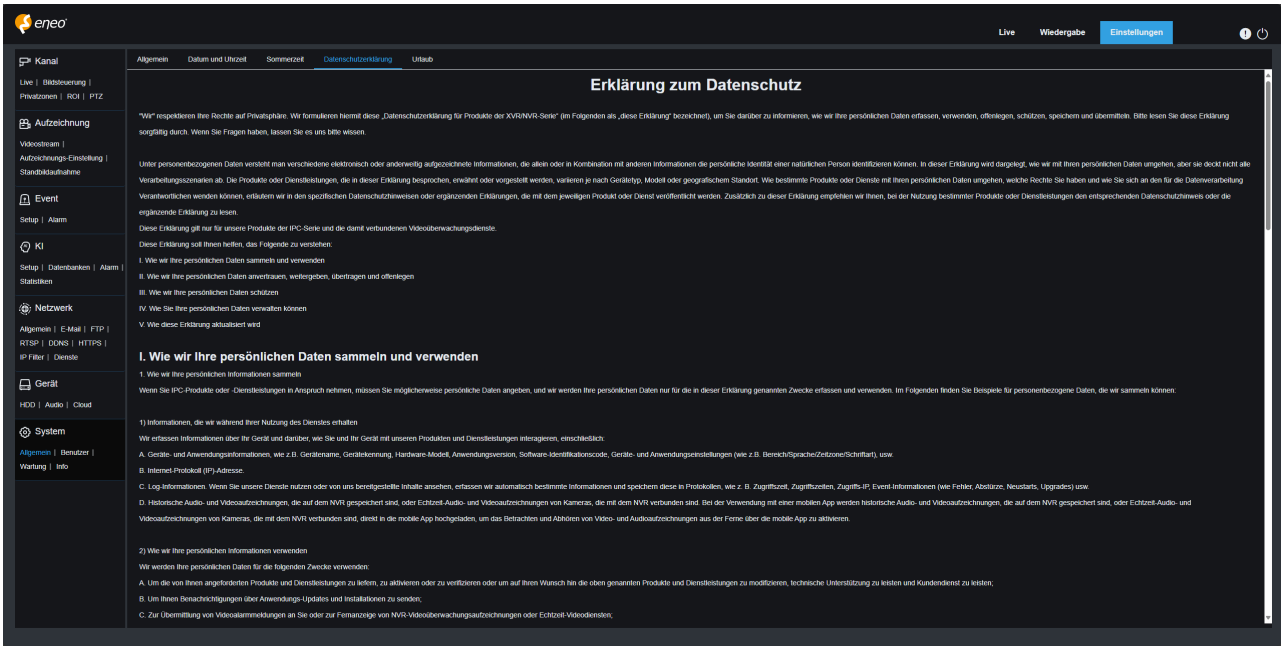
Sewing distance: The sewing distance indicates the cross-sectional distance at which the best imaging effect is achieved after the images are joined together. The further the splice point is from this distance, the poorer the effect of the joined image.

Example

If you set the stitching distance to 30 meters, the scene will be stitched together best at a distance of 30 meters from the lens. The stitching effect at a distance of 20 meters or 40 meters from the lens is relatively poor, and at a distance of 10 meters or 50 meters, it is even worse.

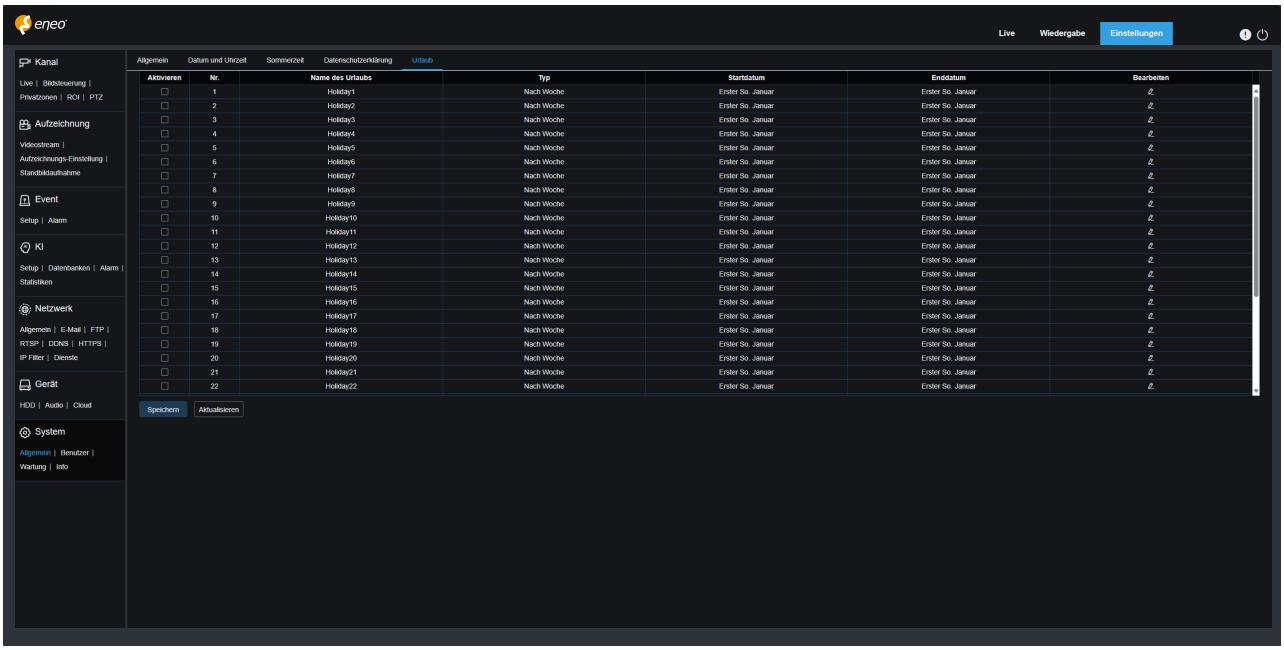
6.8.2.3 – Privacy Policy

To ensure that you fully understand our privacy policy, we provide you with this privacy statement. In it, you will find information about how we collect, use, and protect your personal data.



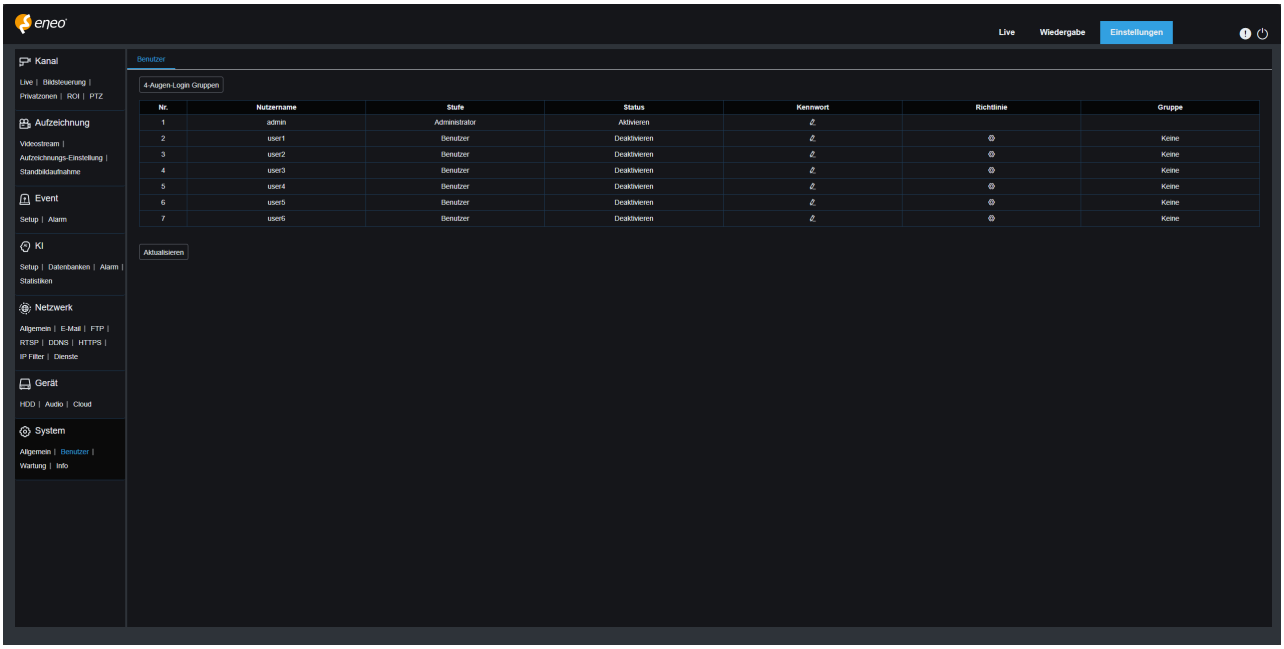
6.8.2.4 – Holiday

The user can customize the holiday schedule for recording. Up to 32 holidays are supported. The holiday function supports creation by date and week type. This function has a higher priority than the "Recording Schedule" option.



6.8.3 – Multi-User

In this menu, you can configure username, passwords, and permissions.



Dual-control login groups: Create different groups for the "dual-control login groups" function.

User types:

Administrator: The system administrator can fully configure the system, change passwords for administrators and users, and enable/disable password protection.

User: Normal users only have access to preview, search, playback, and other appropriate functions. You can define multiple users with different access rights.

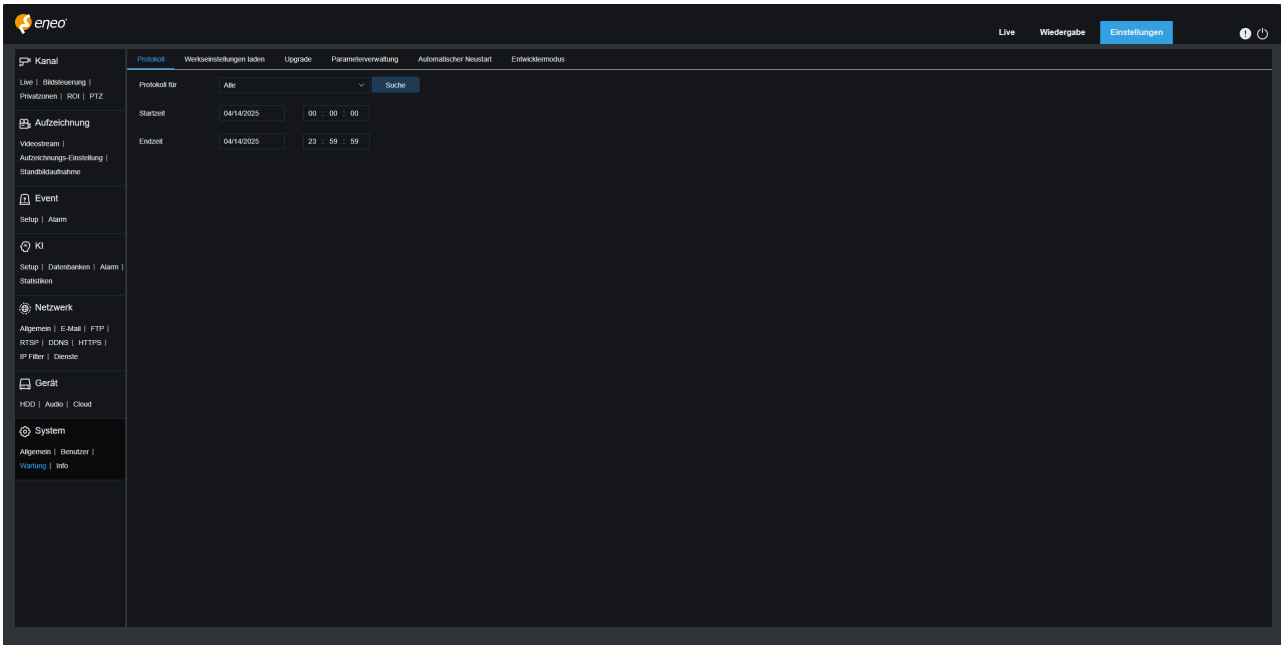
Change password: Here you can change the passwords of all users. You need the administrator password to confirm. ► See **3.3 – Password on page 13**

6.8.4 – Maintenance

This menu allows you to search for and view system logs, restore factory settings, update the system, export and import system parameters, and configure automatic system restart.

6.8.4.1 – Log

The system log displays important system events such as motion alarms and system warnings. You can easily import backup files within a specific time period into the system log on your computer.



Log for: From the drop-down list next to "Log Type," select the event type you want to search for, or select "All" to view the entire system log for the selected time period.

Subtype: Select the event type from the drop-down list or select "All" to view the entire system log.

Log and subtypes:

System: System startup, system restart, automatic restart, upgrade, system time change, NTP, All Configuration: FTP, DDNS, HTTPS, Audio, Cloud Storage, Maintenance, Video Manipulation Setting, I/O Alarm, All

Alarm: Noise Detection (Start), Noise Detection (End), Intrusion (Start), Intrusion (End), Region Entrance (Start), Region Entrance (End), Region Exiting (Start), Region Exiting (End), All

Account: Login, Logout, Locked, Change User, Dual Login, All

Recording: Search, Playback, Backup, All

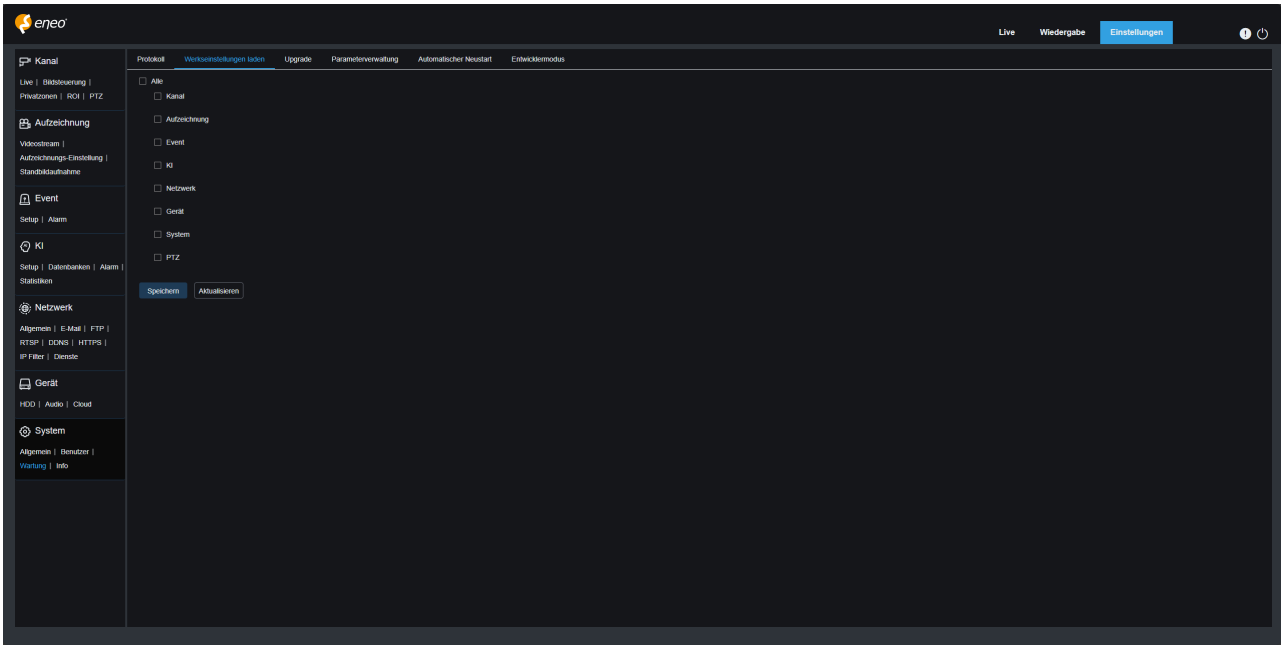
Storage: HDD Format, No Storage Space, HDD Error, All

Network: No Connection, Network Connection, Network Error, Network Change Mode, All

Start/End Time: Set the start and end times for the desired log.

6.8.4.2 – Load Default

Resets the device to its factory settings. You can either reset all settings at once or reset the settings for a specific menu.

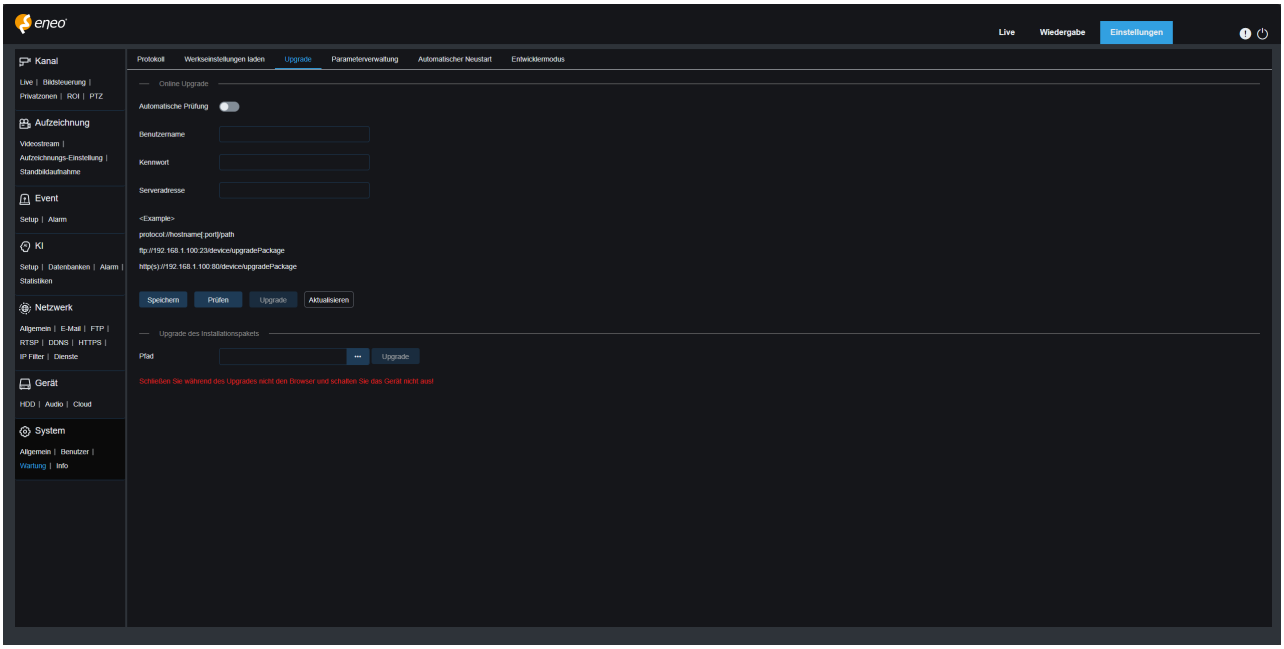


Note!

Restoring the default settings will not delete the videos and snapshots stored on the memory card.

6.8.4.3 – Upgrade

Resets the device to its factory settings. You can either reset all settings at once or reset the settings for a specific menu.



Automatic Check: Enable to automatically detect available updates.

Username: Specifies the username for your FTP server.

Password: Specifies the password for your FTP server.

Server Address: Specifies the address for the over-the-air upgrade (username and password are not required for upgrades via HTTP).

Note!

The FTP address has the following format:
ftp:// {IP address of the FTP server:port}/{name of the upgrade folder}

Save: Click this button to save the current settings.

Check: After the update file has been uploaded and the update path has been set, you can click "Check" to manually detect the OTA update file. If updates are available, a message will be displayed.

Performing an Upgrade

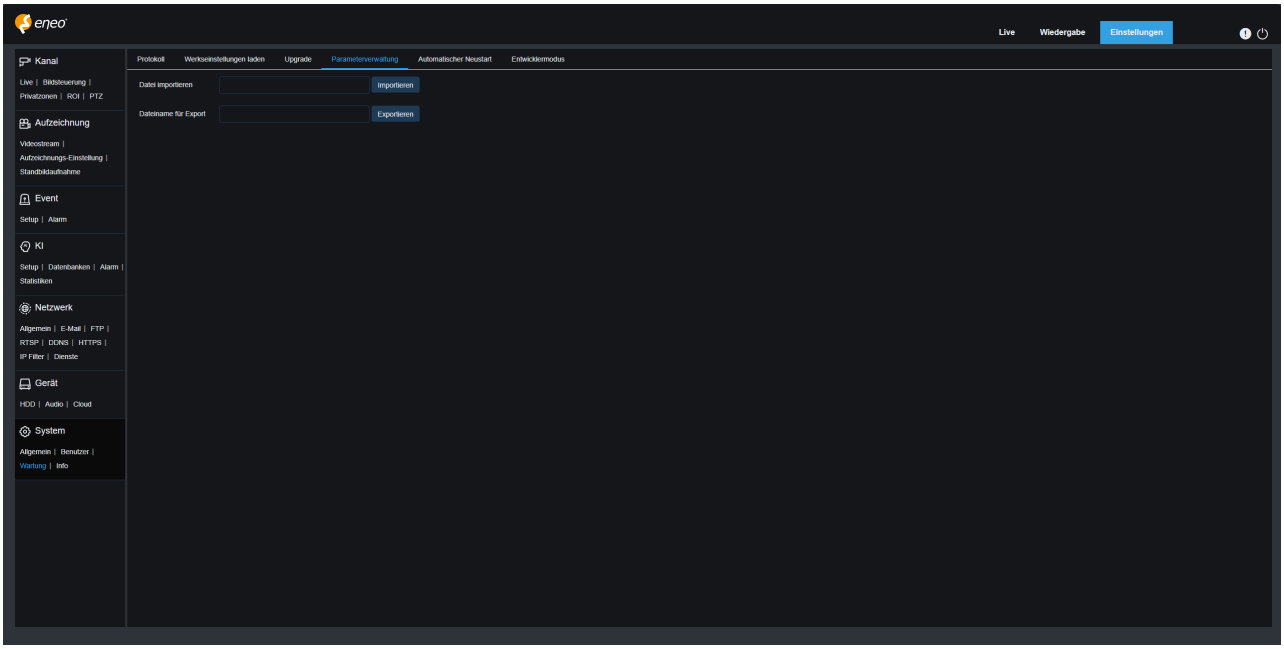
1. Save the firmware file (.saw) to your PC's hard drive.
2. Click "..." next to Path to select the firmware file on your PC.
3. Click the "Upgrade" button to start the system upgrade.

Note!

The system upgrade takes approximately 2-3 minutes.
Do not close the browser or turn off the device during the upgrade!

6.8.4.4 – Parameter Management

You can export the configured parameters to your PC or import the exported configuration file from your PC to the device.

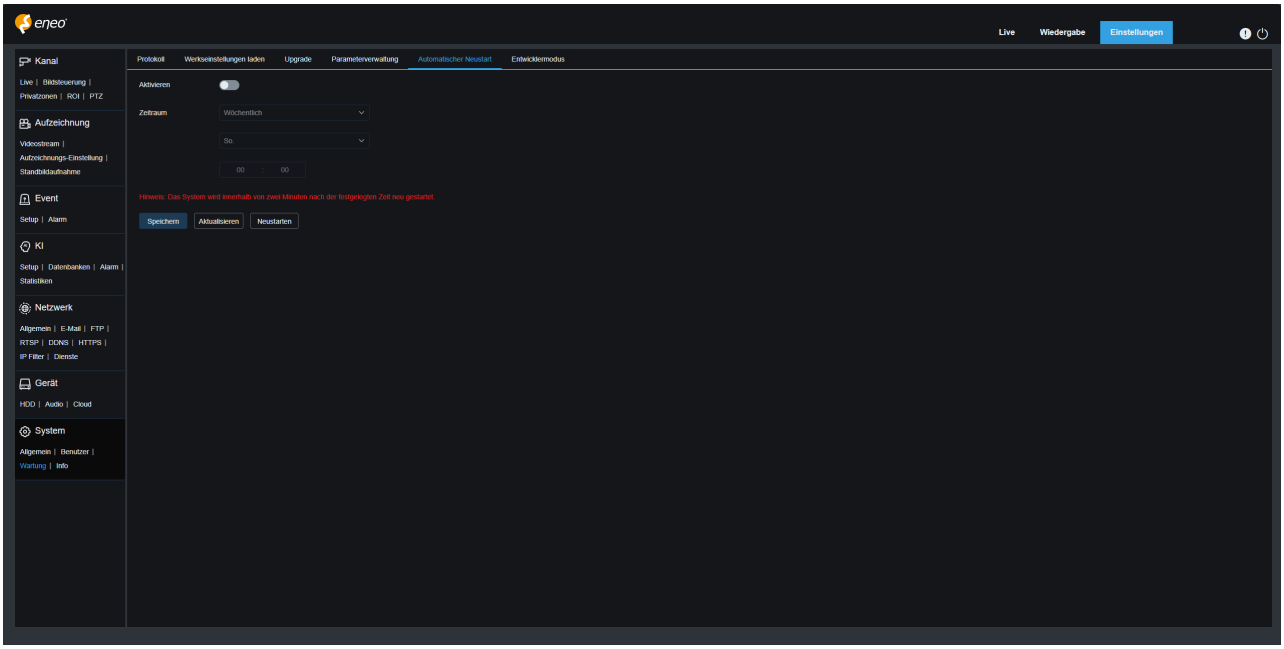


Import file: Click the field to display the path window. Select the parameter file and click "Import" to start importing the parameters.

File name for export: Click the field to enter the name of the file to which the parameters are to be exported. Click "Export" to export the parameters.

6.8.4.5 – Auto Reboot

This menu allows you to automatically restart the system. We recommend activating this function to ensure stable operation of the device.

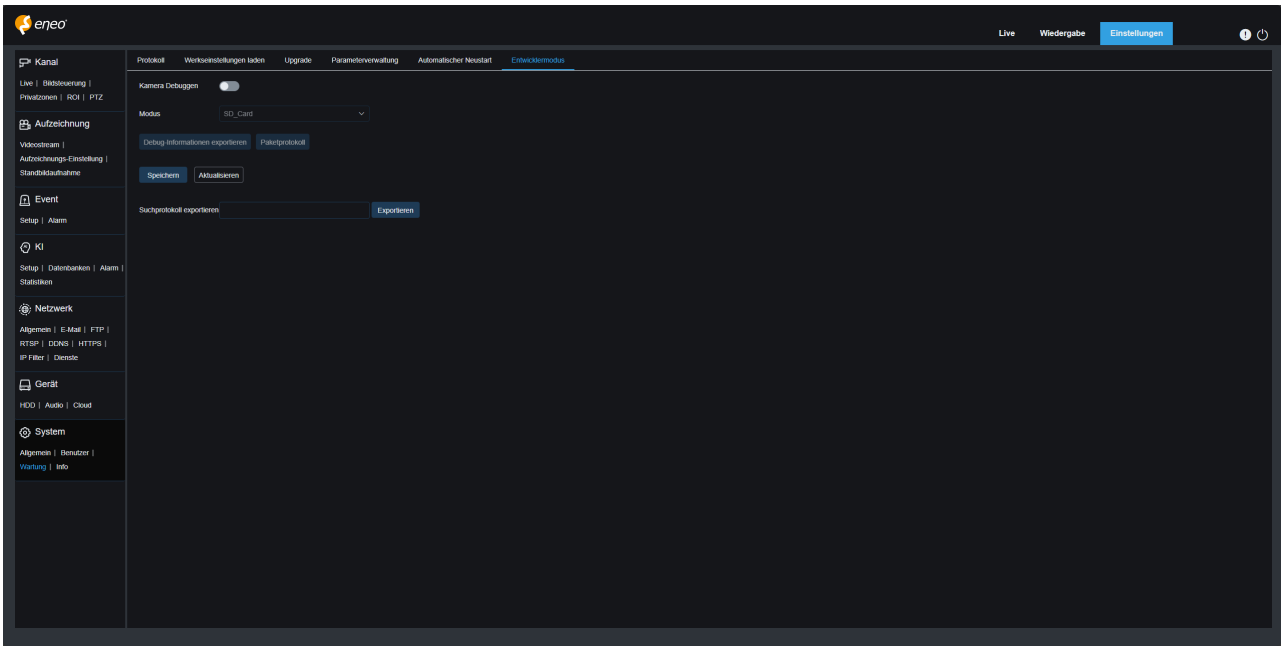


Activate: Activate or deactivate the automatic restart.

Period: Select the interval at which the camera should be restarted. You can also set the exact period (e.g., weekday and time).

6.8.4.6 – Developer Mode

Enabling developer mode collects and records log information for debugging devices. It is a useful tool for developers to collect and record log information for debugging devices.



Camera debug: Enable or disable the camera debug function.

Mode: Select the mode for collecting debug information. There are three modes available: NVR, SD card, and FTP.

Export debug information: Select SD card mode, click the "Export debug information" button, and enter the correct password to export the debug information stored on the SD card to a local computer.

Package log: Select NVR or FTP mode and click the button. The device uploads the log information to the FTP server.

Export log: Enter the file name of the log information and click the "Export Search Log" button to export all log files stored on the device to the local computer.

6.8.5 – Information

6.8.5.1 – System Information

This menu can be used to display system information such as device ID, device model, MAC address, firmware version, etc.

Enable: Enable or disable automatic restart.

Period: Select the interval at which the camera should be restarted. You can also set the exact period (e.g., weekday and time).

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Amtsgericht Offenbach am Main | Aufsichtsratsvorsitzende/Chairwoman of the Supervisory Board: Ina Hauck

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