DF5400HD-DN/IR
Commissioning
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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org) and cryptographic software written by Eric Young (eay@cryptsoft.com).
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1  Validity

This document applies to the following device:

• DF5400HD-DN/IR

For reasons of simplification, the term “device” or “camera” is used in the following.
Figures in this document may differ from the actual product.

2  Documents

The product documentation for the device contains several documents which are included in the scope of delivery in a printed form and/or on a digital medium. Additional information, if available, is provided exclusively on the website www.dallmeier.com.

Read the complete product documentation for the device carefully and thoroughly before using the device.
Always observe and follow the contained instructions, notes and warnings as well as the technical data in the currently valid product specification.

Keep all documents in legible condition and in a suitable location for future reference.

Regularly check the website www.dallmeier.com for the latest product documentation updates.
This Document

Commissioning
The document entitled “Commissioning” (this document) contains detailed information concerning the installation, connection and commissioning of the device as well as safety instructions and general notes. The target audience of this document is trained system integrators (video security/surveillance systems installation contractors).

Other Applicable Documents

Product Specification
The product specification contains detailed technical data, features and characteristics of the device. The target audience of the document is trained system integrators (video security/surveillance systems installation contractors).

Configuration
The document entitled “Configuration” contains detailed information concerning the configuration of the device. The target audience of the document is trained system integrators (video security/surveillance systems installation contractors).
3 Typographical Conventions

This document may contain various warning words and symbols that indicate potential sources of danger:

⚠️ **DANGER**

DANGER indicates a hazardous situation which, if not avoided, *will* result in death or serious injury.

⚠️ **WARNING**

WARNING indicates a hazardous situation which, if not avoided, *could* result in death or serious injury.

⚠️ **CAUTION**

CAUTION indicates a hazardous situation which, if not avoided, *could* result in minor or moderate injury.

**NOTICE**

NOTICE addresses practices not related to physical injury and indicates measures to prevent device and/or property damage due to improper installation, assembly, wiring, operation, configuration or maintenance of the device.
For reasons of clarity and readability, various text formatting elements and types of emphasis are used in this documentation:

Instructions are indicated by arrows (➡).
➡ Always carry out instructions one after the other in the sequence described.

“Expressions” in quotation marks usually refer to individual components of the device (housing parts, mounting elements, connections/interfaces, etc.) or to control elements of the device’s web-based graphical user interface (menu items, buttons, etc.).

ℹ️ *Paragraphs in italics provide information on basic principles, special features and efficient procedures as well as general recommendations.*
4 Safety Instructions

Only use the device if it is in technically perfect condition, according to the intended purpose, in a safety and hazard conscious manner and in compliance with the following safety instructions:

• Qualified Personnel
  The assembly, installation, connection, commissioning and configuration of the device may only be carried out by qualified personnel. This also applies to the maintenance, inspection and repair of the device in complying with the regulations of the DIN VDE 0701-0702 series of standards (VDE 0701-0702: “Inspection after repair, modification of electrical appliances – Periodic inspection on electrical appliances – General requirements for electrical safety”).

• Regulations
  The use of video and audio security/surveillance systems is, in general, strictly regulated. Before using the device, inform yourself about the currently valid laws and regulations regarding data, worker and environmental protection and ensure compliance with them.

• System Components
  Only use internal components that have been tested and approved by Dallmeier. Inappropriate internal components may cause malfunctions, damage and data loss and may result in the loss of warranty.

• Modifications to the Device
  Do not make any modifications to the hardware or software of the device that have not been tested and approved by Dallmeier. Inappropriate modifications may cause malfunctions, damage and data loss and may result in the loss of warranty.
• **Product Documentation**
  The product documentation for the device contains several documents which are included in the scope of delivery in a printed form and/or on a digital medium.
  Additional information, if available, is provided exclusively on the website www.dallmeier.com.
  Read the complete product documentation for the device carefully and thoroughly before using the device. Always observe and follow the contained instructions, notes and warnings as well as the technical data in the currently valid product specification.
  Keep all documents in legible condition and in a suitable location for future reference.
  Regularly check the website www.dallmeier.com for the latest product documentation updates.

• **Condensation**
  If the device is brought from a cold to a warm environment, resulting condensation may cause malfunctions and damage. In this case, wait until the device has reached room temperature (up to 8 hours) before commissioning.

• **Eye Protection When Using IR Radiation**
  When looking directly into the switched on infrared (IR) LEDs in a dark environment, ensure a minimum safety distance of 1 meter and short exposure times in order to avoid eye damage.

• **Earthing & Equipotential Bonding**
  For the safety of persons (protection against dangerous contact voltages) and devices (protection against over-voltages) as well as for the immunity of information and communication technology equipment to electromagnetic interferences (EMI), all protective measures, which are specified by the currently valid DIN, VDE and ISO standards and which provide for a standard-compliant earthing and a correct equipotential bonding of electrical and electronic devices, are mandatory and must be fulfilled by all means.
• **Lightning Storms**
  To avoid damage to the device by electrical surge during lightning storms, all protective measures, which are specified by the currently valid DIN, VDE and ISO standards and which provide for a standard-compliant lightning protection equipotential bonding, are mandatory and must be fulfilled by all means.

• **Operating Conditions**
  Unfavorable operating conditions may shorten the lifetime of the device, may cause malfunctions, damage and data loss and may result in the loss of warranty.
  Observe the specifications given in the technical data, the operating condition requirements and the maintenance instructions.

• **Foreign Bodies in the Device**
  If objects or liquids get into the device, immediately disconnect it from the power supply (pull out the power plug or disconnect the device from the PoE enabled PSE port).
  Contact the sales partner responsible for your area.

• **Burnt Smell from the Device**
  If you notice burnt smell or a formation of smoke coming from the device, immediately disconnect it from the power supply (pull out the power plug or disconnect the device from the PoE enabled PSE port).
  Contact the sales partner responsible for your area.

• **Opening the Device**
  The device may only be opened by qualified personnel for commissioning, inspection, maintenance and repair.

• **Disposal of the Device**
  Do not dispose waste electrical and electronic equipment into the household trash.
  Disconnect the device from the power supply.
  Remove all connected devices.
  Return the device to the sales partner responsible for your area.
5 General Notes

Scope of Delivery

Included in the standard scope of delivery is:

- 1× Outdoor wall mount bracket with internal cable routing
- 1× Flat gasket (adhesive-backed) for outdoor wall mount bracket
- 1× Drilling template for outdoor wall mount bracket
- 4× Chipboard screw Ø 5 × 40 mm
  (partly threaded, pan head, 6-lobe drive/Torx® T25)
- 4× Plain washer (VA, DIN 9021 / ISO 7093, inner diameter: 5.3 mm)
- 4× Expansion nylon plug S6 (drill hole diameter: 6 mm,
  min. drill hole depth: 40 mm, anchor length: 30 mm)
- 1× Hexagon socket head cap screw
  (fully threaded, DIN 912 / ISO 4762, M8 × 12, for hex key size: 6 mm)
- 1× Hex key L-wrench for hexagon socket screws (key size: 6 mm)
- 1× Hexalobular L-wrench (Torx T8)
- 1× E-DAT modul Cat.6 A 8(8) jack, T568A
- 1× Cat.5e RJ45 inline coupler STP
- 1× IR lens hood
- Product documentation (published in print and/or on DVD-ROM)

The scope of delivery may differ depending on the ordered equipment, device variant or country of destination.

The functional range of the device depends on the ordered equipment or device variant and may differ from this document’s content.

Certain functions and features may require the purchase of an additional license.
Transportation and Packaging

Store the original packaging for later transportation. Dallmeier is not responsible for any damage resulting from unprofessional/improper transportation. The device should only be shipped in the original packaging. If the original packaging is no longer available, ensure that the used packaging sufficiently protects the device against damage, moisture, heat and cold.

Warranty

The terms and conditions valid at time the contract was signed shall apply.

Appropriate Use

The DF5400HD-DN/IR is a weather-proof 4K UHD (Ultra High Definition) color network camera for an IP-based 24-hour video surveillance with automatic day/night operation that is supported by ambient light sensing, a mechanically removable infrared (IR)-cut filter (ICR) as well as an integrated IR illumination.

The camera is equipped with an ambient light sensor that measures the intensity of visible light. Depending on the lighting conditions, the camera automatically switches between day and night mode (switching threshold level adjustable; manual switching additionally possible). In day mode, the incorporated mechanically removable IR-cut filter blocks out unwanted IR light and only allows visible light to pass through so that colors in the image are reproduced without distortion (as the human eye sees them). In night mode (when the amount of visible light drops), the camera switches from color mode to the more light-sensitive black-and-white mode, while automatically removing the IR-cut filter so that near-infrared light (with a wavelength of 850 nanometers) can reach the image sensor. The night mode is supported by the integrated homogeneous IR illumination that is provided by semi-covert 850 nm high power LEDs. This allows for a round-the-clock video monitoring even in totally dark environments.
The camera features a fast (large maximum aperture) and IR-corrected motor-driven megapixel varifocal lens with P-Iris technology which enables the control of optical zoom (focal length), focus and iris (optimum aperture) remotely over the network by using a web browser. The focus position can be automatically set by using the one-push autofocus function and manually adjusted if needed.

Built into an IP66-rated weather-proof enclosure and delivered with an outdoor wall mount bracket that features internal cable routing, the camera is designed for residential, public, commercial and industrial use (24/7/365 continuous operation) in both indoor and outdoor areas.

The camera is operated via Power over Ethernet (PoE, Class 0) and is compatible with all IEEE 802.3af compliant Power Sourcing Equipment (PSE).

**Operation**

- ➡ Observe the following notes for operating the device:

- If the device or the cables connected to the device are located near sources with strong radiation, the video image may be distorted.
- The device is equipped with Automatic Gain Control (AGC). In low-light conditions the image may be altered (e.g. noise). This is not a malfunction.
- The quality of the video image depends on the lighting conditions and the used monitor.
- The accuracy of the Automatic White Balance (AWB) algorithm depends on the used lighting. Mixed light (consisting of artificial light and daylight) may cause color distortions (inaccurate color reproduction).
- Poor lighting can lead to an incorrect white balance.
Formation of Condensation – Fogging of the Front Glass

Condensation forms mainly due to temperature or pressure fluctuations. If the device is transported between locations with high temperature differences, condensation may form on the outside of the housing as well as inside the device. In this case, wait until the temperature of the device will have slowly adapted to the ambient temperature prior to commissioning.

Pressure Equalization Element
The device is equipped with a pressure equalization element. Pressure equalization elements are used to prevent the formation of condensation in sealed enclosures, where humidity normally cannot escape to the outside.

Fig. 1
Pressure equalization element
The built-in pressure equalization element of the device continuously equalizes the internal pressure of the device to the ambient pressure. Thus, the temperature and humidity difference between the housing interior and the ambient air is balanced, and hence the formation of condensation is largely prevented.

**Condensation Inside the Housing**
Despite the built-in pressure equalization element, a sudden drop in temperature (e.g. based on heavy showers or thunderstorms) may temporarily cause water vapor (moisture) inside the housing, resulting in condensation on the inner surface of the front glass.

In this case, activate the integrated IR lighting via the device’s WebConfig user interface. Set the IR power to the highest level until the glass is free of condensation due to the self-heating generated by the IR LEDs.

*This phenomenon also occurs during winter commissioning when the unit is brought from a warm storage room to the outside area.  
As a result of the residual moisture inside the housing due to storage, the glass may take longer (than during operation) to become fog-free again.*

**Condensation on the Outside of the Housing**
Condensation on the outside of the housing may form temporarily – usually in the early morning when the humidity level is high, as the ambient air is warming faster than the outer surface of the housing. This results in condensation on the outer surface of the front glass (like dew on the grass). This phenomenon is due to physical reasons and, therefore, does not constitute a defect.
Approvals/Certifications

The following approvals/certifications were valid for the device at the time of this document’s compilation:

- CE
- FCC
- RCM
- UL
- DIN 50130-4 compliant
- IEC/EN 62471 compliant

Visit www.dallmeier.com for possible updates.

Note (USA)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
6 Requirements

Ambient Conditions

The device is designed for both indoor and outdoor use. However, note that unfavorable local conditions may shorten the lifetime of the product and may cause malfunctions or damages.

➡ Do not install/operate the device in places

• with a large amount of dust and dirt,
• with steam or oil vapors (e.g. kitchen),
• with direct sunlight,
• with strong heat emissions (e.g. radiator),
• with improper ambient temperatures,
• near sources with strong radiation (e.g. radio transmitters, magnetic fields),
• with corrosive surroundings (e.g. gases, salt water),
• with insufficient air ventilation (e.g. closed cabinet).
Power Supply

The device is operated via Power over Ethernet (PoE, Class 0) and is compatible with all IEEE 802.3af compliant Power Sourcing Equipment (PSE).

⚠️ WARNING

Personal injury from electrical shock as well as property damage caused by lightning strikes, over-voltages (electrical surges) and electromagnetic interferences

Risk of death or serious injury as well as damage to the device or malfunctions

➡️ For the safety of persons (protection against dangerous contact voltages) and devices (protection against lightning strikes and over-voltages/electrical surges) as well as for the immunity of information and communication technology equipment to electromagnetic interferences (EMI), all protective measures, which are specified by the currently valid DIN, VDE and ISO standards and which provide for a standard-compliant earthing and a correct (lightning protection) equipotential bonding of electrical and electronic devices, are mandatory and must be fulfilled by all means.
Observe the following notes on using Power over Ethernet (PoE):

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| **Damage to the contacts of the RJ45 connectors by contact erosion when un-mating the jack-plug connection under PoE load**  
Un-mating the jack-plug connection while transmitting PoE power causes erosion and pitting by electrical arcs on both the jack and plug contacts (especially when repeatedly un-mating the jack-plug connection under PoE load).  
Electrical arcs are generated, since the electric potential difference (voltage) and therefore the intensity of the electric field between the contacts rises sharply when un-mating the jack-plug connection.  
The more un-mating cycles are carried out under PoE load, the higher the loss of contact material due to metal evaporation by electrical arcs, which in turn accelerates the material erosion process on the contact surfaces.  
Damaged contacts with an increased contact resistance may lead to a reduced data transfer rate, unreliable network connectivity or even total device failure.  
➡ Always disable PoE on the relevant port of your PoE switch (or PoE midspan device) or disconnect the used single-port PoE injector from the power supply before un-mating the jack-plug connection in order to prevent damage to the contacts of the RJ45 connectors by contact erosion. |
7 Maintenance and Cleaning

Maintenance and Inspection of the Device
Maintenance and inspection of the device may only be carried out by qualified personnel in compliance with the regulations of the DIN VDE 0701-0702 series of standards (VDE 0701-0702: “Inspection after repair, modification of electrical appliances – Periodic inspection on electrical appliances – General requirements for electrical safety”).

Cleaning the Device
If it is necessary to clean the device, observe the following notes:

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damage to the surface of the device due to improper cleaning practices</td>
</tr>
<tr>
<td>➡ Clean the housing (outside) with a clean, soft, dry and antistatic cloth.</td>
</tr>
<tr>
<td>• Do not use detergents.</td>
</tr>
<tr>
<td>• Do not use microfiber cleaning cloths.</td>
</tr>
<tr>
<td>➡ Clean the acrylic front glass with water and some hand dishwashing liquid using a clean, soft and non-linting cloth or sponge.</td>
</tr>
<tr>
<td>• Do not rub the acrylic front glass with a dry cloth.</td>
</tr>
<tr>
<td>• Do not use common glass cleaners.</td>
</tr>
<tr>
<td>• Do not use microfiber cleaning cloths.</td>
</tr>
<tr>
<td>• Avoid excessive rubbing.</td>
</tr>
<tr>
<td>• To dry the acrylic front glass, dab it carefully and gently with a clean, soft, dry and antistatic cloth (e.g. a glasses cleaning cloth) to avoid scratching the surface.</td>
</tr>
</tbody>
</table>
8 Installation and Commissioning

The installation and commissioning of the device may only be carried out by qualified personnel.

⚠️ WARNING

Personal injury caused by falling device or collapsing supporting structure
Risk of death or serious injury
➡️ Before installing the device, observe the manufacturer’s instructions regarding the maximum permissible carrying capacity of the supporting structure.
➡️ To mount the device, only use screws and, if necessary, dowels that are suitable for the wall type and construction material, such as for example:
• Plastic screw anchors for solid masonry materials (concrete/brick)
• Gravity or spring toggle anchors for use in drywall systems (plaster)

⚠️ CAUTION

Infrared (IR) radiation emitted from the device
May be harmful to the eye
➡️ Do not stare at operating IR-LEDs.
➡️ Use an appropriate shielding or eye protection.
➡️ Ensure a minimum safety distance of 1 meter and short exposure times.
The following tools/accessories are required for the installation:

- Drilling template (included in delivery)
- Marking tool (e.g. center punch or awl)
- Drilling machine (for expansion nylon plug S6)
- Torx (6-lobe drive) screwdriver (T25)
- Hex key L-wrench (key size: 6 mm; included in delivery)
- Hexalobular L-wrench (Torx T8; included in delivery)
1

- Remove the paper backing from the self-adhesive gasket.
- Adhere the gasket to the back of the outdoor wall mount bracket while ensuring that the gasket is aligned as illustrated in Fig. 2.
Attach the provided IR lens hood to the sunshield as illustrated in Fig. 3 and Fig. 4.
The IR lens hood helps to prevent unwanted infrared (IR) light from reflecting back onto the camera during activation of the built-in IR-LEDs and, thus, to eliminate the so-called halo effect and other undesirable effects that may lead to blurry/foggy images.

Note that otherwise (i.e. without the use of the IR lens hood) some IR light will be reflected back from the inside finish of the sunshield during activation of the built-in IR-LEDs which will considerably reduce the overall image quality in night mode.
A 4× Chipboard screw Ø 5 × 40 mm
(partly threaded, pan head, 6-lobe drive/Torx, T25)

B 4× Plain washer (VA, DIN 9021 / ISO 7093, inner diameter: 5.3 mm)

C 4× Expansion nylon plug S6 (drill hole diameter: 6 mm,
min. drill hole depth: 40 mm, anchor length: 30 mm)

D Ethernet cable of your local area network (LAN)
**NOTICE**

**Damage to the device due to water penetration or other environmental influences**

➡ Check whether the provided gasket is properly adhered to the outdoor wall mount bracket (as illustrated in Fig. 2).
➡ Protect the device from direct influence of weather conditions (rainfall, direct sunlight, etc.).
   • Always use a protected installation site for outdoor installations (e.g. under a projecting roof).

➡ Run the Ethernet cable that is coming out of your wall from the rear through the outdoor wall mount bracket (Fig. 5).
➡ Mount the wall mount bracket to the wall as illustrated in Fig. 5 and Fig. 6 (use the provided drilling template).

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**Fig. 6**
Open the flap on the bottom side of the wall mount bracket. For this, loosen the captive Torx screw [B] counter-clockwise with the provided hexalobular L-wrench [A].
Ethernet cable of your local area network (LAN)
A Pre-assembled Cat.5e S/UTP patch cable terminated with RJ45 (8P8C) modular plug (male connector)

B Hexagon socket head cap screw
   (fully threaded, DIN 912 / ISO 4762, M8 × 12, for hex key size: 6 mm)

C Hex key L-wrench (key size: 6 mm)
Run the pre-assembled RJ45 patch cable **A** of the camera through the outdoor wall mount bracket.

Assemble the camera housing to the outdoor wall mount bracket as illustrated in Fig. 9 and Fig. 10.

Tighten the provided hexagon socket head cap screw **B** with the provided hex key **C**.
Connect the pre-assembled RJ45 patch cable of the camera (Fig. 10 - A) to an IEEE 802.3af compliant PoE switch or PoE injector (midspan device) in your local area network (LAN).

There are different ways to connect the camera to your LAN:
• Use the provided “Cat.5e RJ45 inline coupler STP” (Fig. 11 and Fig. 13) if the patch cable that is coming out of your wall is terminated with an RJ45 (8P8C) modular plug (male connector).
• Use the provided “E-DAT modul Cat.6 ā 8(8) jack, T568A” (Fig. 12) if the patch cable that is coming out of your wall ends in bare wires.
### NOTICE

**Damage to RJ45 plugs/jacks caused by moisture, dust and dirt**

If using the provided “Cat.5e RJ45 inline coupler STP” (Fig. 11) or the provided “E-DAT modul Cat.6A 8(8) jack, T568A” (Fig. 12), the cable/connector transitions have to be wrapped with a self-amalgamating tape in order to avoid damage to the RJ45 plugs/jacks caused by moisture, dust and dirt.

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*For an optimum protection against moisture, dust and dirt, we recommend the use of a waterproof and dust-proof (IP67 rated) RJ45 coupler or the use of an IP67 rated outdoor junction box in conjunction with a waterproof and dust-proof CAT.5e cable gland.*

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Fig. 13

“Cat.5e RJ45 inline coupler STP” inserted into outdoor wall mount bracket
A Hexalobular L-wrench (Torx T8; included in delivery)
B Captive Torx screw (T8)
C Flap sealing (see Fig. 15 and Fig. 16)

» Close the flap on the bottom side of the wall mount bracket while ensuring that the flap sealing [C] is properly seated as illustrated in Fig. 15 and Fig. 16.
» Finally, tighten the captive Torx screw [B] clockwise with the provided hexalobular L-wrench [A].
Fig. 15

C

Fig. 16

C
➡ Connect your PoE switch or PoE injector (midspan device) to the mains socket and switch it on.
➡ Establish an Ethernet connection to the camera with a web browser (see chapter “Connection and Login” on page 42).
➡ Log in to the user interface of the camera (see section “Login” on page 44).
➡ Open the “Lens control” dialog of the camera.
➡ Point the camera at your scene (loosen the respective hexagon socket head cap screw with the provided hex key L-wrench as illustrated in Fig. 17 and Fig. 18 and tighten it again when finished).
➡ Adjust the focal length (zoom) and the focus position in the “Lens control” dialog of the camera.
➡ Repeat the last two steps until the captured scene meets your requirements.
Detailed descriptions of the camera configuration (such as zoom, focus and IR illumination settings) can be found in separate documentations that are available on www.dallmeier.com.
9 Front View of Camera

- **A** Motor-driven P-Iris megapixel varifocal lens
- **B** Semi-covert 850 nm high-power LED for homogeneous IR illumination
- **C** Ambient light sensor
- **D** Integrated microphone

Fig. 19
10  Wire Color Code for Pre-assembled Patch Cable

Fig. 20
Pre-assembled Cat.5e S/UTP patch cable terminated with RJ45 (8P8C) modular plug (male connector)

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Pair</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Red</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Orange</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Black</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Blue</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>White</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>Green</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Yellow</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>Brown</td>
</tr>
</tbody>
</table>
11 Connection and Login

The configuration of the device is carried out with a PC and web browser over the local area network (LAN).

Alternatively, the device can be connected directly to the PC via an Ethernet crossover cable. In this case, a single-port PoE injector is required to power the device.

System Requirements

To configure the device, the client PC must meet the following system requirements:

<table>
<thead>
<tr>
<th>System Requirements</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system (OS)</td>
<td>Microsoft*) Windows*) 7 / 10 (each with latest service pack)</td>
</tr>
<tr>
<td>Web browser</td>
<td>Microsoft Internet Explorer*) 11 (Windows 7)</td>
</tr>
<tr>
<td></td>
<td>Microsoft Edge*) (Windows 10)</td>
</tr>
<tr>
<td></td>
<td>Google <em>) Chrome</em>)</td>
</tr>
<tr>
<td></td>
<td>Mozilla*) Firefox*)</td>
</tr>
<tr>
<td></td>
<td>(latest available version of each browser)</td>
</tr>
<tr>
<td>Browser settings</td>
<td>JavaScript*) enabled</td>
</tr>
<tr>
<td>Ethernet</td>
<td>100 Mbps (or more)</td>
</tr>
<tr>
<td>Sound</td>
<td>Sound card or on-board sound chip (min. 16 bit)</td>
</tr>
</tbody>
</table>
Connection

The factory default IP address of the device is:

**192.168.2.28**

➡ Ensure that your PC/web browser can establish an Ethernet connection to the device (if necessary, contact your network administrator for more information and assistance).

➡ Start the web browser.

➡ Enter the IP address of the device into the address bar of the web browser.

➡ Confirm the input.

The connection to the device is then established. After the successful connection to the device, the login dialog is displayed.

*The language of the graphical user interface (GUI) can be switched in the top-left corner of the screen without having to log in before.*
Login

The web-based graphical user interface (GUI) of the configuration mode is displayed for authenticated and authorized users only.

The factory default login credentials of the administrator account are:

User name: **admin**
Password: **3**

**NOTICE**

Risk of unauthorized access to the device and intentional misuse of the system

➤ Change the default login credentials of the administrator account as soon as possible.

➤ Enter your login credentials.
➤ Confirm with “OK”.

After the successful login, the graphical user interface of the configuration mode is displayed.

➤ Configure all required settings (such as zoom and focus).
➤ Finally, click “LOGOUT” to properly log out of the device.

*Detailed descriptions of the camera configuration (such as zoom, focus and IR illumination settings) can be found in separate documents that are available on www.dallmeier.com.*
## 12 Technical Product Specification

### Connections/Interfaces

<table>
<thead>
<tr>
<th>Power &amp; Ethernet</th>
<th>1× Pre-assembled Cat.5e S/UTP patch cable terminated with RJ45 (8P8C) modular plug (male connector):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• 10BASE-T</td>
</tr>
<tr>
<td></td>
<td>• 100BASE-T</td>
</tr>
<tr>
<td></td>
<td>• 1000BASE-T</td>
</tr>
<tr>
<td></td>
<td>• PoE (IEEE 802.3af)</td>
</tr>
</tbody>
</table>

### IR Illumination

<table>
<thead>
<tr>
<th>Type</th>
<th>Semi-covert 850 nm high power LEDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR intensity</td>
<td>Adjustable</td>
</tr>
<tr>
<td>Photocell</td>
<td>Adjustable Day/Night switching threshold level</td>
</tr>
<tr>
<td>Range</td>
<td>Up to approx. 30 m (98 ft)</td>
</tr>
<tr>
<td>Beam angle</td>
<td>Homogeneous illumination up to approx. 90°</td>
</tr>
</tbody>
</table>

### Additional Features

<table>
<thead>
<tr>
<th>Ambient light sensor</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio In</td>
<td>Integrated microphone</td>
</tr>
</tbody>
</table>

### Electrical Data

<table>
<thead>
<tr>
<th>Power In</th>
<th>Power over Ethernet (PoE, Class 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PoE standard</td>
<td>IEEE 802.3af</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Max. 12.95 W</td>
</tr>
</tbody>
</table>
### Mechanical Data

<table>
<thead>
<tr>
<th>Adjustment</th>
<th>2-axis (pan/tilt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black, white</td>
</tr>
<tr>
<td>IP rating</td>
<td>IP66</td>
</tr>
<tr>
<td>Dimensions</td>
<td>See chapter “Dimensions” on page 48.</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 2.2 kg (4.85 lbs) with wall mount bracket</td>
</tr>
</tbody>
</table>

### Environmental Conditions

<table>
<thead>
<tr>
<th>Suitable installation sites</th>
<th>Indoor and outdoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>−40°C to +50°C (−40°F to 122°F), minimum start-up temperature: −30°C (−22°F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>0%–90% RH, non-condensing</td>
</tr>
</tbody>
</table>

### Approvals/Certifications

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CE</td>
</tr>
<tr>
<td>• FCC</td>
</tr>
<tr>
<td>• RCM</td>
</tr>
<tr>
<td>• UL</td>
</tr>
<tr>
<td>• DIN 50130-4 compliant</td>
</tr>
<tr>
<td>• IEC/EN 62471 compliant</td>
</tr>
</tbody>
</table>

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ℹ️ **The technical product specification (basic data) in this document is based on the information at the time of this document’s compilation.**

**Detailed information and possible updates can be found in the currently valid product specification on www.dallmeier.com.**
13 Dimensions

Fig. 21