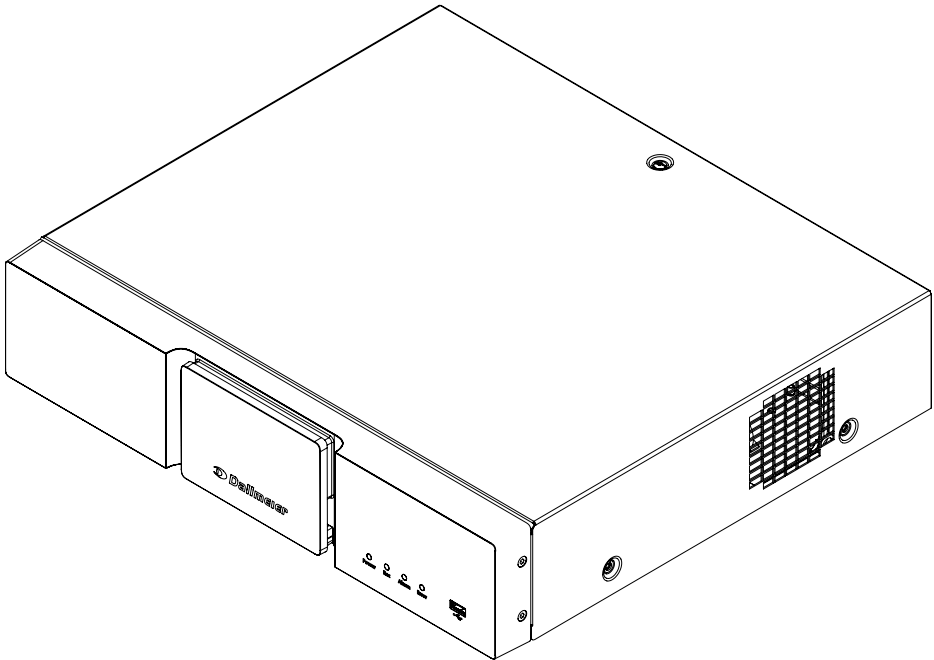


DMS 2400 (MK3)

COMMISSIONING



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This product may include software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<https://www.openssl.org>) and cryptographic software written by Eric Young (eyay@cryptsoft.com).

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1 Validity

This document applies to the **DMS 2400 (MK3)** appliance.

Figures in this document may differ from the actual product.

2 Documents

The product documentation contains several documents, which are included in the scope of delivery in a printed form and/or on a digital medium.

Read all documents included in the scope of delivery carefully and thoroughly before using the device.

Always follow the contained instructions, notes and warnings and observe the technical specifications.

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

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

This Document

Commissioning

The document “Commissioning” (this document) contains detailed descriptions on 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.

Other Applicable Documents

Specification

The document “Specification” contains detailed technical specifications, features and characteristics of the device.

The target audience of the document is trained system integrators.

Configuration

The document “Configuration” contains detailed descriptions on the configuration of the device.

The target audience of the document is trained system integrators.

Operation

The document “Operation” contains instructions for using all software functions.

The target audience of the document is operators without technical knowledge.

Service

The “Service” document contains detailed information on how to maintain the appliance.

The target audience of this document is trained video security system integrators.

3 Typographical Conventions

The document highlights important content with special text elements:

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 is used to address practices not related to physical injury.

Instructions are indicated by arrows (➡).

Bold expressions generally indicate a **control element** on the device (switches or labels) or on its user interface (buttons, menu items).

 *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 technically in proper working condition and for the intended purpose while keeping safety and potential dangers in mind.

Qualified Personnel

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

This also applies to the maintenance, testing and repair, whereby the regulations of the DIN VDE 0701 series of standards (repair, modification and inspection of electrical appliances) must be followed.

Regulations

The use of video and audio surveillance systems is, in general, strictly regulated. Inform yourself about the currently valid laws and regulations regarding data, worker and environmental protection before using the device 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, damages and data loss and may result in the loss of warranty.

Modifications

Do not make any modifications to the hardware or software that have not been tested and approved by Dallmeier.

Inappropriate modifications may cause malfunctions, damages and data loss and may result in the loss of warranty.

Documentation

The product documentation contains several documents which are included in the scope of delivery in a printed form and/or on a digital medium.

Read the documents included in the delivery carefully and thoroughly.

Always follow the contained instructions, notes and warnings and observe the technical data in the “Specification” document.

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

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

Condensation Water

If the device is brought from a cold to a warm environment, resulting condensation water may cause malfunctions and damages.

In this case, wait (up to 8 hours) until the device has reached room temperature before commissioning.

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 life of the device and may cause malfunctions, damages 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.

Shocks

Shocks can cause malfunctions and damages. The unit must not be moved during operation.

Foreign Bodies

If objects or liquids get into the device, immediately disconnect it from the power supply (pull out the power plug).

Contact the sales partner responsible for your area.

Burnt Smell

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).

Contact the sales partner responsible for your area.

Opening

The device may only be opened by qualified personnel for commissioning, inspection, maintenance and repair.

Disposal



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 your respective sales partner.

5 General Notes

Scope of Delivery

Included in the standard scope of delivery is:

- 1× DMS 2400 (MK3) appliance
- 1× Power cord (IEC 60320 C-13 connector to European plug)
- 1× Weidmüller plug-in connector B2L 3.50
- 1× Corded optical mouse
- 1× Replacement dust filter set
- 1× 006883 DP to HDMI-female



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 DMS 2400 (MK3) appliance combines the recording software SeMSy® Recording Server with reliable and compact server hardware. Well-matched components ensure high storage speed and allow recording of up to 24 high-resolution video streams at a frame rate of 30 fps. This makes the appliance ideally suited for video security systems in stores, gas stations or private homes that require the highest recording quality in a small footprint.

Approvals/Certifications

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

- CE / UKCA
- FCC
- DIN EN 50130-4



Visit www.dallmeier.com for possible updates.

6 Requirements

Ambient conditions

Unfavourable ambient conditions may shorten the lifetime of the product and may cause malfunctions or damages.

- ➔ Do not operate the DMS 2400 (MK3) appliance in places with:
- a large amount of dust and dirt
 - steam or oil vapors (e.g. kitchen)
 - unsuitable ambient temperatures
 - insufficient ventilation (e.g. closed cabinet)
 - direct sunlight
 - sources of strong heat dissipation (e.g. radiator)
 - sources of strong radiation (e.g. radio transmitter, magnetic field)
 - corrosive surroundings (e.g. gas, salt water)

Stand-alone operation

The appliance is designed for stand-alone operation. It can usually be set up and operated at any place that meets the above requirements. In addition, observe the following requirements and notes:

Computer room

This DMS 2400 (MK3) appliance is not suitable for use in a computer room, as defined in the US fire protection regulation “Standard for Protection of Electronic Computer/Data Processing Equipment, ANSI/NFPA 75”.

Secured room

Risk of manipulation and sabotage. A stand-alone installation should only be operated in secured rooms with restricted access.

Socket outlet

The used socket outlet has to be installed near the DMS 2400 MK3 appliance. It has to be easily accessible.

Secure Earthing

➔ Ensure a proper grounding at all times, preferably by grounding the rack directly.

Power Supply

- ➔ Operate the device with 115/230 V AC, 50/60 Hz.
- ➔ Use an uninterruptible power supply (UPS) to protect the device from voltage spikes and to keep it in operation in case of power failure.

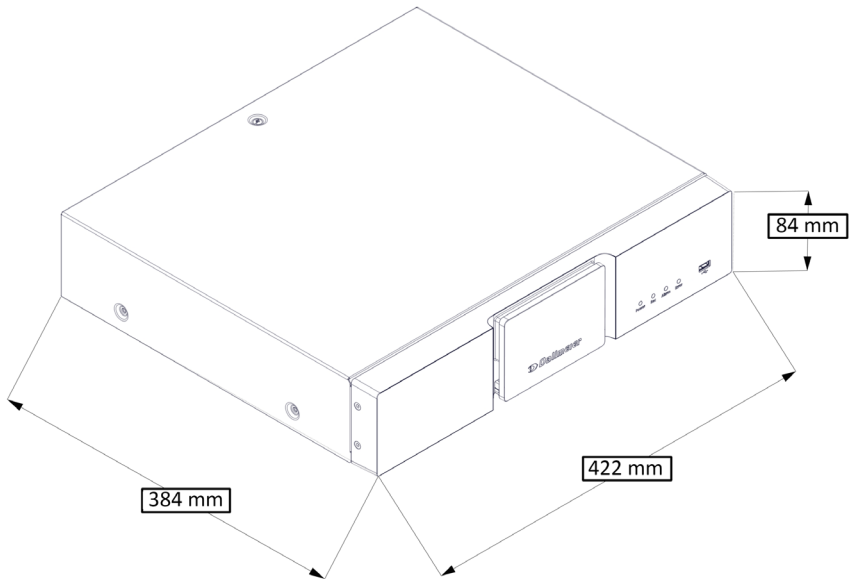
NOTICE

Danger due to difficult separation from the circuit

The plug of the supply line serves as a separator from the supply circuit.

- ➔ Use an outlet installed close to the device.
 - ➔ Make sure the outlet is easily accessible.
-

7 Dimensions



8 Installation

NOTICE

Risk of damages

- ➔ Ensure that sufficient air circulation is provided at the place of installation for proper cooling of the **DMS 2400 (MK3)** appliance.
-
- ➔ Put the DMS 2400 (MK3) appliance top-down on a stable, nonslip surface.

9 HDD Mounting

The following tools are needed for the mounting of the hard drives:

- Star screwdriver (T10)

➔ Ensure that all HDDs match the following criteria:

- tested and released for mounting by Dallmeier (see HDD whitelist under „Support“ at www.dallmeier.com).
- not formatted
- not partitioned.
- same capacity (number of sectors).
- same production series with identical firmware.

NOTICE

Risk of damage

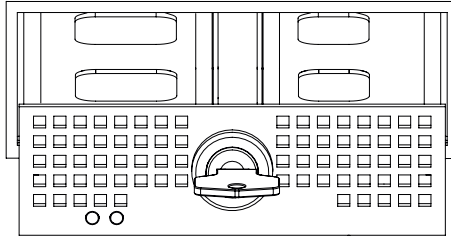
➔ Ensure that the device is disconnected from the mains supply.

NOTICE

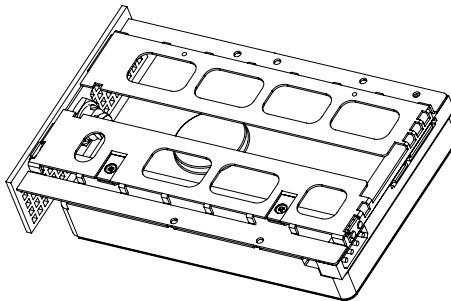
No Hot-Plug/Hot-Swap possible: Risk of damage and loss of data

➔ Only replace HDDs for service purposes.

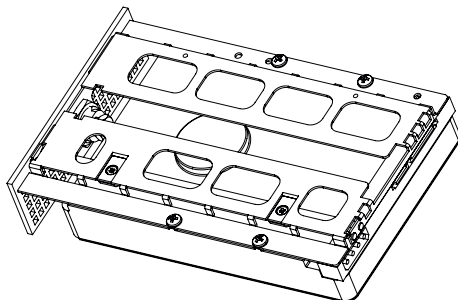
- ➔ Start with the mounting of the hard drive in the HDD bay 1 (back side, left bay).
- ➔ Mount the hard drives in a sequentially.



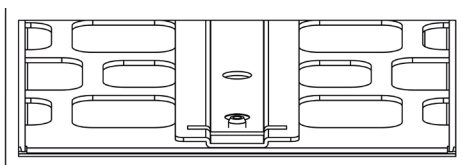
- ➔ Unlock the HDD tray with the key.
- ➔ Pull the HDD tray carefully out of the bay.
- ➔ Remove the cover panel mounted on the HDD tray.
- ➔ Place the HDD tray on the bottom side of the HDD.
- ➔ Ensure that the connections of the HDD are positioned at the rear side of the HDD tray.
- ➔ Ensure that HDD and HDD tray are flush at the rear side.



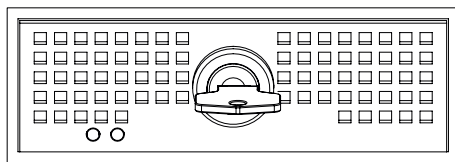
- ➔ Mount the HDD tray on the HDD with 4 screws.



- ➔ Place the HDD tray into the guidance rail.



- ➔ Slide the HDD tray carefully into the housing.



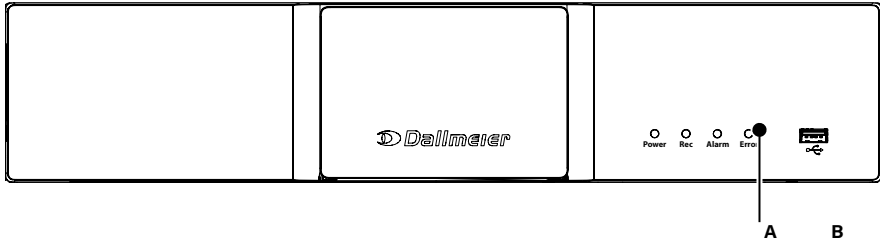
- ➔ Ensure that the HDD tray and housing are flush.
- ➔ Lock the HDD tray with the key.

The HDD will be initialized and set into operation during the first start of the device.

i *Depending on the number and properties of the mounted hard disk drives, various messages and dialogs are displayed during the first start and the initialization.*

- ➔ Confirm the messages if required.
- ➔ Observe the instructions given in the dialogs.
- ➔ Note the appropriate “Configuration” documentation.
- ➔ Load the “Default System Parameters” as first step of the configuration.

10 Connections and Status

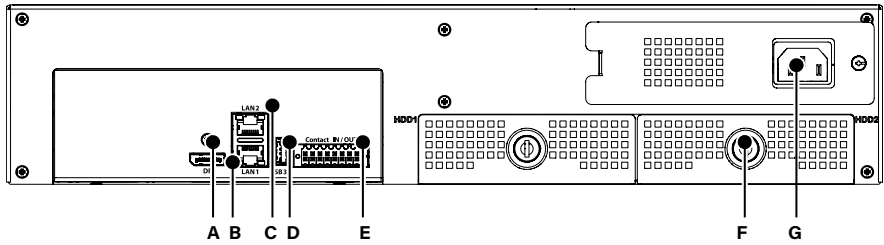


Front

A	Status LED	Indicates the status of the device
B	USB Interface	USB 2.0, Type A

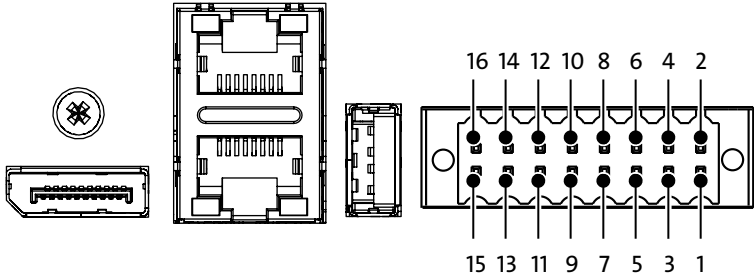
Status LED

Status	Color	Signal
LED Er. (Error)	Red	The device indicates an Error
LED Al. (Alarm)	Orange	The device is in Alarm Mode
LED St. (Record)	Green	The device is recording
LED Po. (Power)	Blue	The device is in operation



Back

A	Video Out	DisplayPort eDP 1.3
B	Ethernet 1	RJ 45, 10/100/1000 Mbps
C	Ethernet 2	RJ 45, 10/100/1000 Mbps (optional, subject to license)
D	USB Interface	USB 3.0, Type A
E	Contact IN - Relay Out	Weidmüller Socket, 16 Pins
F	HDDs	Up to two 3.5" HDD
G	Power Supply	115-230 V AC ±5%, 50/60 Hz



Contact IN

PIN	Function
2/4	+5VDC isolated (SELV)
6	Contact 1
8	Contact 2
10	Contact 3
12	Contact 4
14/16	GND isolate: galvanic isolation, only for switch/push button (dry contact), 4 functions each

Relay OUT (galvanic isolation, max. 12V DC / 24V AC / 0.5A, 150 mOhm as NC or N)

PIN	Function
1/3	Relay 1
5/7	Relay 2
9/11	Relay 3
13/15	Relay 4

11 Commissioning and Local Login


Commissioning

- ➔ Connect the device to the voltage supply.
- ➔ Ensure that a monitor and mouse are connected.
- ➔ Switch on the monitor and the device.

The user interface is displayed in its initial state as soon as the start up is complete.

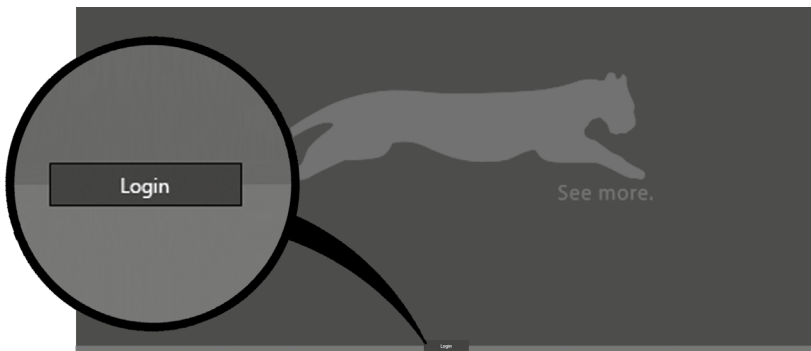
Local Login

In the initial state a login without password is possible. The rights of the Administrator group are valid.

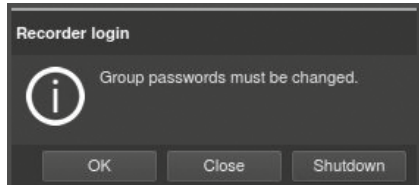
 *The definition of passwords and network parameters is necessary for remote access with Dallmeier Client Software.*

- ➔ Drag the mouse pointer to the lower screen edge.

The task bar with the **Login** button is displayed.

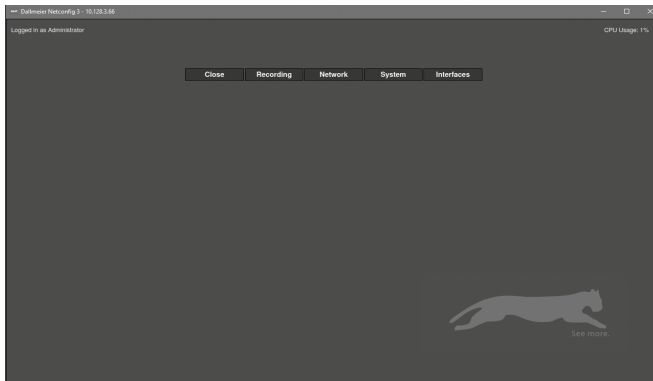


➔ Click the **Login** button.



➔ Click **Later** to login without changing a password.

The configuration interface is displayed.




➔ Refer to the corresponding “Configuration” document.

12 Commissioning and Remote Login

Commissioning

- ➔ Connect the device to the network.
- ➔ Connect the device to the power supply.
- ➔ Switch on the device.

The device is ready for remote configuration via Ethernet as soon as the startup is complete (up to approx. 5 minutes).

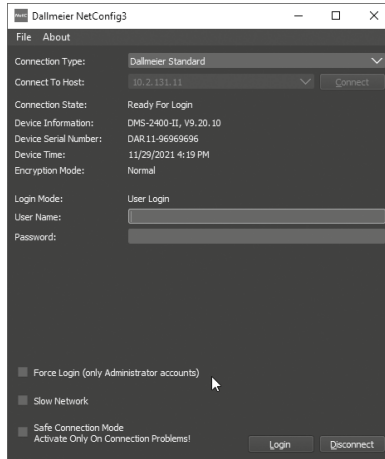
 *The IP address of the device (default 192.168.2.230) can be changed without login using the Dallmeier Device Manager software.*

Remote Login

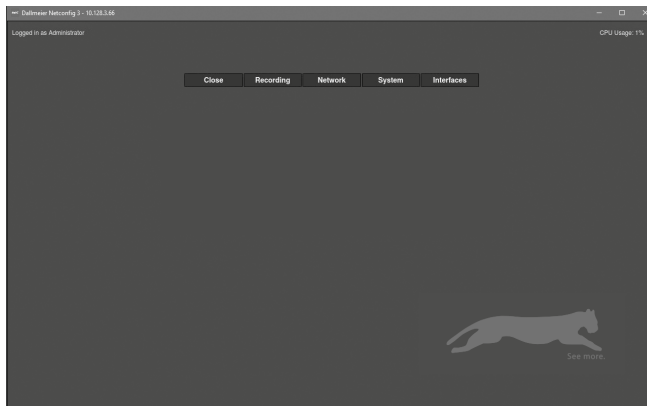
In the initial state a remote login is possible using the serial number as password. The rights of the Administrator group are valid.


- ➔ Observe the “Operation” documentation for **Dallmeier Device Manager**.
- ➔ Select the device from the scanner list.
- ➔ Start the **NetConfig3** function over the context menu.

The connection is established and device information is displayed.



- ➔ Enter the serial number (e.g. DAV8-12345678) as the **Password**.
- ➔ Confirm with **Login**.



-  *The configuration interface is compressed for narrowband connections before transmission if the **Slow Network** check-box is activated.*
- ➔ Refer to the corresponding “Configuration” documentation.

13 Specifications

Components	
CPU	Quad-Core
RAM	4 GB
Flash module	32 GB (for operating system and application)
Hard disks	Up to 2× 3.5" HDD (optional, see HDD whitelist, min. 7200 rpm and 128 MB cache)
Max. storage capacity	Currently up to 36 TB (90% video stream storage, 10% EdgeAnalytics database)
Fan	1× with automatic speed adjustment
Power supply unit	Internal PSU, 115/230 V AC

Interfaces	
Video OUT	1× DisplayPort eDP 1.3
USB	1× USB 3.0, type A 1× USB 2.0, type A
Ethernet 1	RJ45, 10/100/1000 Mbps
Ethernet 2	RJ45, 10/100/1000 Mbps (optional, license DLC - ViProxy Plus (00xxxx) required)
Contact IN	4×, with galvanic isolation, only for switch / push button (dry contact), 4 functions each
Relay OUT	4×, with galvanic isolation, max. 12 V DC / 24 V AC / 0,5 A, 150 mOhm, as NC or NO

Protocols	
Ethernet protocols	IPv4 (ARP, ICMP, IGMPv2/IGMPv3), UDP, TCP
Ethernet protocols in preparation	IPv6 (NDP, ICMPv6, MLDv1/MLDv2, SLAAC, RDNS), UDPv6, TCPv6, SNMPv3v
Communication protocols	DaVid, DaVidS, HTTP, HTTPS ³⁾ , DNS, DHCP, LDAP, NTP, RTSP, RTP, RTCP, SNMP (v1, v2c)
Security	HTTPS encryption, SSL/TLS 1.2 (AES), network access control according to IEEE 802.1X

Electrical Data	
Voltage supply	115-230 V AC ±5%, 50/60 Hz
Power consumption	Max. 50W
Thermal output	Approx. 171 BTU/h

Mechanical Data

Dimensions (W × H × D)	Approx. 425 × 88 × 384 mm
Weight	Approx. 9 kg with two hard disks
Color	Black (anodized)

Ambient Data

Temperature	+ 5°C up to +40°C (41°F – 104°F)
Recommended temperature	+20°C up to + 25°C (68°F – 77°F)
Humidity	5 – 70% RH, non-condensing
Atmospheric load	Dust-free

Approvals and Certifications

Type	CE, UKCA, FCC, DIN EN 50130-4
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Detailed technical data and possible updates can be found in the current „Specification“ document at www.dallmeier.com.

14 Maintenance

The device may only be opened by qualified personnel for commissioning, inspection, maintenance and repair.

WARNING

Danger of electric stroke

The device is equipped with an external power supply unit.

- ➔ Ensure that the supply line is disconnected from the supply circuit.

CAUTION

Danger of explosion if battery is incorrectly replaced

- ➔ Replace and discard the battery of the main board in accordance with the instructions of the manufacturer.

Cleaning

If it becomes necessary to clean the device, observe the following notes:

NOTICE

Damage to the surface of the device

- ➔ Clean the housing (outside) with a soft, dry and anti static cloth.
- ➔ Do not use detergents.



HEADQUARTERS

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