# DMS 2400 II

SMAVIA appliance for the recording of up to 24 video streams, stand-alone, 3 RU, 2× 3.5" HDD

Stand-Alone | Hard Disks | Channels | FPS @ UHD | PRemote-HD | VCA Database | Recording | SmartBackfill | Privacy | Security

The **DMS 2400 II** is a high-performance appliance with a processing capacity for up to **24 video streams**. In combination with the dedicated software **SMAVIA Recording Server**, it is ideally suited for all applications that require high recording speed and low power consumption with maximum data security.

## SMAVIA Viewing Client

**SMAVIA Viewing Client** allows independent and convenient evaluation of the recordings over the network. The software can be installed on workstations with Windows operating system and adjusted individually. **Two licenses** for access with clients are already **included in the scope of delivery** of the appliance.

## SeMSy® Integration

The appliance is factory fitted with the **SeMSy® Flat** license. Thus, it is optimally equipped for integration into the storage system of a **SeMSy® Video Management System**. The appliance supports the complete SeMSy® functional range including convenient evaluation of recordings on a SeMSy® Workstation.

## PRemote-HD

The optional **PRemote-HD** function transcodes high-definition video streams (live and playback) for **transmission in low-bandwidth networks**. It allows the resource-conserving access with SeMSy® or SMAVIA Viewing Client which is independent of the recording settings. This license also includes the **DMVC Server** function for access with the mobile **Dallmeier Mobile Video Center** application.

## VCA Data Base

The appliance is equipped with a **database** for the analysis results of Dallmeier **network cameras with VCA technology**. The **events, objects and classes** sent by the camera are **stored** with the relevant metadata **almost in real-time**. **SMAVIA Viewing Client** is available for the targeted **search and evaluation** of the events with the **SmartFinder** function.

## Open Platform

The pre-installed **SMAVIA Recording Server** software is designed as an open platform. Together with the according licenses, **third-party network cameras** can be recorded with **motion detection** and configured over the **ONVIF protocol**.

## Features Hardware

- High performance server hardware
- Flash module for operating system and application
- High memory speed due to matched components
- Components optimized for SMAVIA Recording Server
- Mounting rails for 19" rack optional

## Features SMAVIA Recording Server

- Recording of up to 24 high-resolution video streams
- Licenses for the recording of 8 video streams included
- Licenses for access with 2 clients included
- Licenses for the update of the software for 12 months included
- License for SEDOR® Camera Sabotage Protection included
- License for SmartBackfill included
- License for multicast recording included
- Recording of third-party network cameras optional
- Evaluation with DMVC App over WAN/LAN optional
- Evaluation with SMAVIA or SeMSy® over WAN/LAN
- Basic license for integrated data protection and data security module (GDPR-compliant) included

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## Appliance

| | | |
|---|---|---|
| 005959 | | **DMS 2400 II**<br>SMAVIA appliance for the recording of up to 24 video streams,<br>licenses for the recording of 8 video streams included,<br>licenses for the access with 2 clients included,<br>without HDDs |

## Options Hardware

| | | |
|---|---|---|
| 000178 | | **Mounting of a HDD**<br>Mounting of a HDD, incl. function-, long-term-, and final test, acceptance and approval |
| 007521 | | **HDD 2000 GB, SATA, 3.5"** |
| 007305 | | **HDD 4000 GB, SATA, 3.5"** |
| 006596 | | **HDD 6000 GB, SATA, 3.5"** |
| 007914 | | **HDD 8000 GB, SATA, 3.5"** |
| 007988 | | **HDD 10000 GB, SATA, 3.5"** |
| 008204 | | **HDD 12000 GB, SATA, 3.5"** |
| 007800 | | **HDD 14000 GB, SATA, 3.5"** |
| 007801 | | **HDD 16000 GB, SATA, 3.5"** |
| 008055 | | **HDD 18000 GB, SATA, 3.5"** |
| 004429 | | **DVD-RW Drive SATA (Teac)**<br>Writer DVD-RW, SATA, slimline, tray load (ex factory) |
| 003877 | | **DVD-RW Drive SATA (Teac) Retrofit Kit**<br>Writer DVD-RW, SATA, slimline, tray load (retrofit kit) |

## Options Hybrid Upgrade

| | | |
|---|---|---|
| 003816 | | **Encoder Board for 8 Analog Channels**<br>Encoder board for 8 analog video channels in hybrid operation, incl. Audio IN Adapter,<br>without additional licenses |
| 003815 | | **Mounting Kit for 24 Analog Channels**<br>Extension kit for 24 analog channels, 1× BNC Video IN Panel, 1× internal Coax cable set,<br>2× cable fittings, UTC-24 module (ex factory only) |

## Option Network Contacts

| | | |
|---|---|---|
| 005142 | | **DLC - Ethernet I/O Interface**<br>License for the use of the software interface for the connection of the<br>Ethernet I/O interfaces MOXA ioLogik E1210 (16 contacts), E1212 (8 contacts, 8 DIOs) or<br>E1214 (6 contacts, 6 relays) |
| 001739 | | **Remote Ethernet I/O Interface**<br>Ethernet I/O Interface, 2× Ethernet, 6× contact, 6× relay (MOXA ioLogik E1214) |

## Option Bracket

| | | |
|---|---|---|
| 000010 | | **19 Inch Bracket (DMS, DVS, PVS IV, PVS 7)**<br>Bracket for mounting the device in a 19" rack |

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## Included Licenses

**DLC - 8 Recording Channels**
License for the recording of 8 high-definition video streams

**DLC - 2 Client Access**
License for the simultaneous access of two clients to SMAVIA Recording Server (floating license)

**DCP - Software Maintenance 12 Months**
License for the update of the SMAVIA software for 12 months

**DLC - SEDOR® Camera Sabotage Protection**
License for detection and reporting of covering, defocusing and twisting of cameras

**DLC - SmartBackfill**
License for the storage of video streams that have been buffered by Dallmeier network cameras with EdgeStorage
(not available in combination with DLC - Bank Package and for cameras with recording mode Contact)

**DLC - SNMP**
License for the integration into a central SNMP device management system

**DLC - SeMSy® Flat**
License for the integration into a SeMSy® Video Management System

**DLC - Multicast Streaming**
License for the transmission of video streams via multicast in a SeMSy® Video Management System

**DLC - Multicast Recording**
License for the recording of video streams of Dallmeier network cameras using multicast transmission

**DLC - Real-Time Recording**
License for real-time recording for all video streams (depending on the camera)

**DLC - LocalViewing**
License for the use of the integrated video player for the local playback of one camera (analog, SD IP or HD IP)
and the local live display of several cameras in a multi-split (analog, SD IP and HD IP)

**DLC - Data Protection and Data Security**
Basic license for use of the integrated data protection and data security module (GDPR-compliant)

## Optional Licenses (Access)

| | |
|---|---|
| 003782 | **DLC - 1 Additional Client Access**<br>License for the simultaneous access of a further client on SMAVIA Recording Server (floating license) |
| 004068 | **DLC - 5 Additional Client Access**<br>License for the simultaneous access of five further clients on SMAVIA Recording Server (floating license) |
| 004069 | **DLC - 10+ Additional Client Access (unlimited)**<br>License for the simultaneous access of an unlimited number of clients on SMAVIA Recording Server,<br>depending on system load and bandwidth (floating license) |

## Optional Licenses (Channels)

| | |
|---|---|
| 007640 | **DLC - 1 Additional Recording Channel (IPS/DMS 2400 II)**<br>License for the recording of a further high-definition video stream,<br>maximum 24 video streams in total |
| 007679 | **DLC - 3rd Party Package for 1 Recording Channel (IPS/DMS 2400 II)**<br>License for the use of one existing channel for the recording<br>(permanent, contact triggered or with motion detection) of third-party network cameras |

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| Optional Licenses (Functions) | |
|---|---|
| 007923 | **DLC - RAID 1 Recording (DMS 2400 II)**<br>License for the recording with RAID 1 in combination with two identical hard drives (HDDs)[1] |
| 003801 | **DLC - PRemote-HD**<br>License for the transmission of SD and HD video with low bandwidth, including a dedicated access license[2] as well as the function for access with a mobile app (DMVC Server) |
| 003806 | **DLC - Audio Recording for All Analog Channels**<br>License for the use of audio recordings for all analog channels (hardware 003815 and 003816 required)[3] |
| 004685 | **DLC - LAN Interface for Data Reception**<br>License for the reception of the data from third-party systems (AWEK cash desk systems and NPC II protocol converter) over the network interface; linking, storing and displaying the data with the video recordings included |
| 006293 | **DLC - High-Speed Recording >30 fps**<br>License for the recording of Dallmeier network cameras with a frame rate of more than 30 fps |
| 007642 | **DLC - ViProxy Plus (IPS/DMS 2400 II)**<br>License for the use of the second network interface in conjunction with one of the functions ViProxy (physically separated network for cameras, WebConfig Routing included), Link Redundancy (redundant connection of the appliance to two switches) or Data Throughput (bundling of both network interfaces to a channel with double data throughput) |
| 007652 | **DLC - Bank Package (DMS 2400 II)**<br>License for the use of the DGUV Test-compliant recording module, ATM activity monitoring and reference image transmission via e-mail included |

| Maintenance and Warranty | |
|---|---|
| 007643 | **DCP - SW Maintenance 12 Months (IPS/DMS 2400 II)**<br>License for the update of the SMAVIA software for further 12 months, maximum 60 months in total |
| 007644 | **DCP - HW Warranty and SW Maintenance 36 Months (IPS/DMS 2400 II)**<br>Extension of the bring-in warranty period (without HDDs) to 36 months in total, and extension of the license for the update of the SMAVIA software to 36 months in total |
| 007645 | **DCP - HW Warranty and SW Maintenance 48 Months (IPS/DMS 2400 II)**<br>Extension of the bring-in warranty period (without HDDs) to 48 months in total, and extension of the license for the update of the SMAVIA software to 48 months in total |
| 007646 | **DCP - HW Warranty and SW Maintenance 60 Months (IPS/DMS 2400 II)**<br>Extension of the bring-in warranty period (without HDDs) to 60 months in total, and extension of the license for the update of the SMAVIA software to 60 months in total |

1) When using the RAID configuration, a connection to a UPS is necessary.
2) The first PRemote client (master) is assigned active control over the PRemote stream; further PRemote clients (slaves) receive the stream passively.
3) Audio playback with SMAVIA Viewing Client over the network. Local audio playback with LocalViewing is not supported.


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| Components | |
|---|---|
| CPU | Multi-Core |
| RAM | 8 GB |
| Flash module | 8 GB (for operating system and application) |
| Hard disks | Up to 2× 3.5" HDD (optional, note HDD whitelist, min. 7200 rpm and 128 MB cache) |
| Max. storage capacity | Currently up to 36 TB (without RAID) |
| Fan | 3× with automatic speed adaptation |
| Power supply unit | Integrated |

| Interfaces | |
|---|---|
| Video IN analog | 24× CVBS/BNC, with loop-through (optional, Mounting Kit 003815) |
| Video OUT | 2× DisplayPort<br>1× DVI |
| AUX / Line IN | 1× 3.5 mm phone jack |
| Microphone IN | 1× 3.5 mm phone jack (for intercom, license 003801 required) |
| Audio OUT | 1× 3.5 mm phone jack (for intercom, license 003801 required) |
| USB | 2× USB 3.0 type A (rear side)<br>5× USB 2.0 type A (rear side)<br>1× USB 2.0 type A (front side) |
| Ethernet 1 | RJ45, 10/100/1000 Mbps |
| Ethernet 2 | RJ45, 10/100/1000 Mbps (optional, license DLC - ViProxy Plus (007642) required) |
| Contact IN | 30×, with galvanic isolation, only for switch / push button (dry contact), with 4 functions each |
| Relay OUT | 5×, with galvanic isolation, max. 12 V DC / 24 V AC / 0,5 A, 150 mOhm, as NC or NO |
| Serial | 2× RS232 |
| PS/2 | Mouse, keyboard |

| Protocols | |
|---|---|
| Ethernet protocols | IPv4 (ARP, ICMP, IGMPv2/IGMPv3), UDP, TCP |
| Ethernet protocols in preparation | IPv6 (NDP, ICMPv6, MLDv1/MLDv2, SLAAC, RDNSS), UDPv6, TCPv6 |
| Communication protocols | DaVid, DaVidS, HTTP, HTTPS[4)], DNS, DHCP, LDAP, NTP, RTSP, RTP, RTCP, SNMP (v1, v2c) |
| Security | HTTPS[4)] encryption, SSL/TLS[4)] 1.2 (AES), network access control according to IEEE 802.1X[4)] |

| Electrical Data | |
|---|---|
| Voltage supply | 115/230 V AC ±5%, 50/60 Hz |
| Power consumption | Max. 145 W (operation without encoder board for analog channels)<br>Max. 170 W (operation with 3 encoder boards for 24 analog channels in total) |
| Thermal output | Max. 580 BTU/h |

| Mechanical Data | |
|---|---|
| Dimensions (W × H × D) | Approx. 425 × 130 × 446 mm (16.7" × 5.1" × 17.6") with feet<br>Approx. 425 × 122 × 446 mm (16.7" × 4.8" × 17.6") without feet |
| Weight | Approx. 12 kg (26 lb) with 2 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, UL, FCC, RCM, LGC Forensics, DIN EN 50130-4 |

4) 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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| Software | |
|---|---|
| Operating system | Linux (proprietary, hardened) |
| Application | SMAVIA Recording Server (version 9.x.x) |
| Application language | English, German, French, Spanish, Italian (others on request) |
| External management software | SMAVIA Viewing Client<br>DMVC App (optional, license DLC - PRemote-HD (003801) required) |
| External configuration software | PService3 |
| ONVIF compliance | Profile S |
| GDPR compliance | Supported |

| Performance in connection with DMS 2400 II | |
|---|---|
| Channels | Up to 24× high definition video streams |
| Supported cameras | Dallmeier Panomera® multifocal sensor systems<br>Dallmeier network cameras over TCP/DaVid (Dallmeier video protocol)<br>Third-party network cameras with RTSP streaming over UDP/RTP or TCP (optional, license 007641 required)<br>Analog cameras (optional, mounting kit (003815), encoder card 1 to 3 (003816), licenses for channels 9 to 24 required) |
| Track mode | Automatic |
| Video/Audio compression | H.264, H.265 / G.722.1 |
| Resolutions | Up to 12 MP, depending on the camera |
| Frame rate per channel | Up to 25/30 fps, depending on the camera |
| Bit rate per channel | Up to 50 Mbps, depending on the camera |
| Max. total bit rate | Up to 144 Mbps |

| Optional analog cameras | | | |
|---|---|---|---|
| Resolutions | Up to 4CIF (704 × 576), depending on the camera | | |
| Frame rate per channel | 6,25 / 12,5 / 25 fps @ CIF<br>6,25 / 12,5 fps @ 4CIF<br>25 fps @ 4CIF in combination with 2 analog channels: | Encoder Board 1 | Encoder Board 2 | Encoder Board 3 |
| | Usable analog channels | 1, 3, 5, 7 | 9, 11, 13, 15 | 17, 19, 21, 23 |
| | Usable additional IP channels | 2, 4, 6, 8 | 10, 12, 14, 16 | 18, 20, 22, 24 |

| Recording[5] | 3rd Party IP Camera | Dallmeier IP Camera |
|---|---|---|
| Transport protocol | RTP over UDP | TCP |
| Communications protocol | RTSP | DaVid |
| Mode Timer | integrated | integrated |
| Mode Permanent | integrated | integrated |
| Mode Contact | integrated | integrated |
| Mode Motion | integrated | integrated |
| Mode Motion/Contact | integrated | integrated |
| Switching mode by timer | -- | integrated |

| Functions[5] | 3rd Party IP Camera | Dallmeier IP Camera |
|---|---|---|
| Motion detection | integrated | integrated |
| SmartFinder | integrated | integrated |
| Video proxy | integrated | integrated |
| SeMSy® multicast streamer | integrated | integrated |
| PRemote-HD | integrated | integrated |
| DMVC Server | integrated | integrated |
| PTZ control with SVC | integrated | integrated |
| Audio recording | integrated[6] | integrated |
| Camera configuration | integrated | integrated |
| Locking the camera configuration | -- | integrated |
| Recording multicast video streams | -- | integrated |
| EdgeStorage&SmartBackfill | -- | integrated |
| Network scan (IP Finder) | -- | integrated |
| VCA data base | -- | integrated |

5) Data refer to a fully equipped appliance. Optional licenses are required.
6) Depending on the camera. The audio stream has to be supplied in the format G.711.

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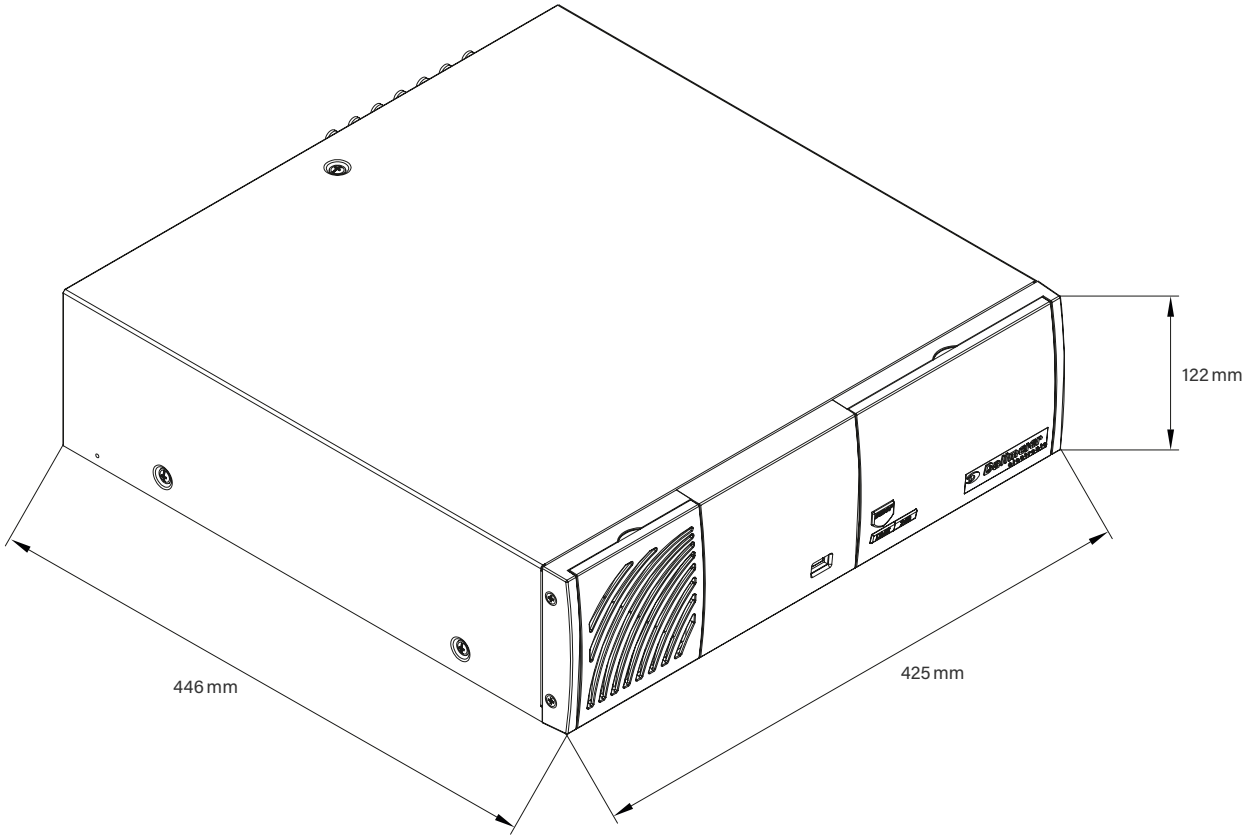


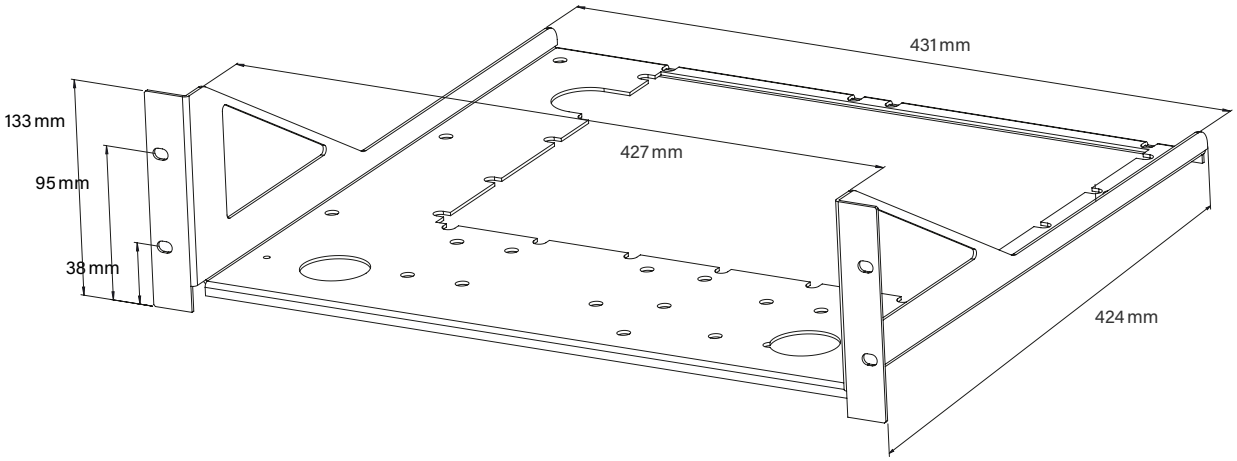


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