DMS 2400

SMAVIA Appliance for up to 24 HD Channels, 2× 3.5" HDD, 3HU

SMAVIA PRELOADED

DIN DIN EN 50130-4

ONVIF

| Server Hardware | Stand-alone | Up to 24 HD Channels | SMAVIA Integrated |

The **DMS 2400** is a high performance appliance with a processing capacity for up to 24 HD video channels. In conjunction with the dedicated software **SMAVIA Recording Server** it is the best and cascadable IP security solution e. g. for retail stores, gas stations or company premises.

The **DMS 2400** is a stand-alone device and can be installed in a 19" rack using the optionally available 19" bracket.

Features Hardware

- High performance server hardware with Multi-Core CPU
- Flash memory for operating system
- Suitable for up to 24 SD or HD video channels
- Upgrade for **hybrid use** with up to 24 analogue channels **optional**
- Supports **one local playback** of one camera (analogue, SD-IP or HD-IP)
- Supports **local live display** of analogue, SD-IP and HD-IP cameras in the multi split
- High recording speed due to concerted components
- Easy-change functionality for hard disk drives

Features SMAVIA Recording Server

- Basic version with **8 channels** expandable to up to 24 channels
- One **access license for SMAVIA Viewing Client** included (basic license)
- Resolution SD (up to D1), HD (up to 1080p) and Megapixel (up to 8 MP)
- Supports **RTSP cameras**[1] and ONVIF compliant cameras[2]
- Connection to **Active Directory** via LDAP
- Evaluation with **SMAVIA Viewing Client** or SeMSy® via Ethernet (LAN/WAN)
- Supports **PRemote HD in real-time**

	Hardware
003777	**DMS 2400** SMAVIA appliance for up to 24 HD channels, incl. SMAVIA Recording Server (preinstalled) with licenses for 8 channels, without HDDs

	Options Hardware
000107	**HDD 500 GB, SATA, 3.5"**[3]
000077	**HDD 1000 GB, SATA, 3.5"**[3]
000084	**HDD 2000 GB, SATA, 3.5"**[3]
000178	**Mounting of a HDD** Mounting of a HDD, incl. function, long-term-, and final test, acceptance and approval
003816	**Encoder Board for 8 Analogue Channels** Encoder board for 8 analogue video channels in hybrid operation, incl. Audio IN Adapter, without additional channel licenses
003815	**Mounting Kit for 24 Analogue Channels** Extension kit for 24 analogue channels, 1× BNC Video IN Panel, 1× internal Coax cable set, 2× cable fittings, UTC-24 module (ex factory only)
003814	**RS485-Kit Full Duplex** Serial interface RS485 for the connection and control of analogue Dallmeier PTZ cameras, incl. DCCP license (ex factory only)
003772	**DVD-RW Drive SATA (Teac)** Burner DVD-RW, SATA, slimline, tray load
003912	**SATA OUT for DMS 2400** SATA interface for the connection of a DAS-4 Eco storage expansion (ex factory only)
000231	**DAS-4 Eco** External storage expansion, up to 4 HDDs, incl. ODU cable, without HDDs

1) Optional, license 003802
2) Function in preparation
3) Daily prices for hard disks can be found in the Dallmeier Partner Forum.

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Integrated SMAVIA Recording Server Licenses	
DLC - 8 Recording Channel License for the use of 8 channels for recording with SMAVIA Recording Server	
DLC - 1 Basic Client Access License for the access of a SMAVIA Viewing Client to a SMAVIA Recording Server (basic license)	
DLC - Software Maintenance 12 Month License for the update of the SMAVIA software for 12 month	
DLC - SEDOR® Camera Sabotage Protection Detection and reporting of covering, defocusing and twisting of cameras	
DLC - SNMP License for the integration into a central SNMP device management system	

	Optional SMAVIA Recording Server Licenses
003782	**DLC - 1 Additional Client Access** License for the simultaneous access of a further SMAVIA Viewing Client on SMAVIA Recording Server (floating license)
003783	**DLC - 1 Additional Recording Channel** License for the use of 1 additional channel for recording with SMAVIA Recording Server
003784	**DLC - 2 Additional Recording Channel** License for the use of 2 additional channels for recording with SMAVIA Recording Server
003785	**DLC - 4 Additional Recording Channel** License for the use of 4 additional channels for recording with SMAVIA Recording Server
003786	**DLC - 8 Additional Recording Channel** License for the use of 8 additional channels for recording with SMAVIA Recording Server
003800	**RAID 1** [4] License for the recording with RAID 1, 2× HDDs of the same capacity required (ex factory only)
003801	**DLC - PRemote HD** License for the transmission of SD and HD video at low bandwidth
003802	**DLC - Real-Time Recording for IP Channels** License for real-time recording for all IP channels (regardless of the resolution) and support of RTSP cameras
003803	**DLC - ViProxy** License for the use of the second Ethernet interface
003910	**DLC - SATA OUT Interface** License for the use of the SATA interface in connection with a DAS-4 Eco storage expansion

	Maintenance and Warranty
003793	**DCP - Software Maintenance 12 Month** License for the update of the SMAVIA software for further 12 month
003794	**DCP - 36 Month Warranty** Extension of the warranty period (without HDDs) to 36 month in total
003795	**DCP - 48 Month Warranty** Extension of the warranty period (without HDDs) to 48 month in total
003796	**DCP - 60 Month Warranty** Extension of the warranty period (without HDDs) to 60 month in total
003797	**DCP - 36 Month Warranty and Software Maintenance** Extension of the warranty period (without HDDs) to 36 month in total, incl. license for the update of the SMAVIA software
003798	**DCP - 48 Month Warranty and Software Maintenance** Extension of the warranty period (without HDDs) to 48 month in total, incl. license for the update of the SMAVIA software
003799	**DCP - 60 Month Warranty and Software Maintenance** Extension of the warranty period (without HDDs) to 60 month in total, incl. license for the update of the SMAVIA software

4) When using the RAID configuration, a connection to an UPS is necessary

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Specifications

Components

CPU	Multi-Core
RAM	4 GB
Flash module	2 GB (for operating system only)
Hard disks	Max. 2× 3.5" HDD (optional)
Max. storage capacity	Currently up to 4 TB (without RAID)
	Currently up to 12 TB in connection with a DAS-4 Eco storage expansion (without RAID)
Fan	3× with automatic speed adaptation
Power supply module	Integrated

Software

Operating system	Linux (proprietary, hardened)
Application	SMAVIA Recording Server
Application language	English, German, French, Spanish, Italian (others on request)
External management software	SMAVIA Viewing Client, SeMSy® III
External configuration software	NetConfig, PService

Performance in Connection with SMAVIA Recording Server

Channels	Up to 24× HD channels
Supported cameras	IP cameras by Dallmeier and IP cameras by third-party suppliers via HTTP
	Analogue cameras by Dallmeier and by third-party suppliers (optional, Mounting Kit 003815 and Encoder 003816)
	RTSP cameras by Dallmeier and by third-party suppliers (optional, license 003802)
Video/Audio compression	H.264 / G.722.1
Recording mode	Permanent, motion, contact, timer, variable recording mode (VRM)
Resolutions	Analogue (4CIF, DCIF, 2CIF, CIF, QCIF)
	SD (up to D1)
	HD (720p, 1080i, 1080p)
	Megapixel (up to 8 MP)
Frame rate per analog channel	6,25 / 12,5 / 25 fps at CIF
	6,25 / 12,5 fps at 4CIF
Frame rate per SD IP channel	6,25 / 12,5 fps (25 fps optional, license 003802)
Frame rate per HD IP channel	6,25 / 12,5 fps (25 fps optional, license 003802)
Frame rate per RTSP IP channel	Up to 25 fps (optional, license 003802, depending on the camera)
Max. total bit rate	Up to 120 Mbps
Bit rate per analogue channel	Up to 2 Mbps
Bit rate per SD IP channel	Up to 4 Mbps
Bit rate per HD IP channel	Up to 6 Mbps

Integrated Functions

Track modes	Automatic
UTC control	Integrated (for analogue cameras by Dallmeier)
Privacy Zones	Integrated (for analogue cameras)
Motion detection	Integrated (for analogue cameras and Dallmeier IP cameras)
SmartFinder	Integrated (for analogue cameras and Dallmeier IP cameras)
iPhone server	Integrated (PRemote HD required)

Interfaces

Video IN analogue	24× CVBS/BNC, with loop-through (optional, Mounting Kit 003815)
Video OUT	1× VGA (resolution 1920 × 1080)
	1× DVI-I (resolution 1920 × 1080)
AUX / Line IN	1× 3.5 mm phone jack
Microphone	1× 3.5 mm phone jack
Audio OUT	1× 3.5 mm phone jack
USB	8× USB 2.0 (7× rear side, 1× front side)
Ethernet 1	RJ45, 10/100/1000 Mbps
Ethernet 2	RJ45, 10/100/1000 Mbps (optional)
Ethernet protocols	IPv4, TCP, UDP, ARP, ICMP, DHCP, NTP, HTTP
Contact IN camera	24×, with 4 functions each (for analogue cameras and IP cameras)
Contact IN global	6×, with 4 functions each
Relay OUT	5×, as NC or NO
SATA	1× SATA OUT (optional, for DAS-4 Eco)
12 V DC OUT	1× ODU socket
Serial	2× RS232
	1× RS485 (optional, RS485 Kit 003815)
PS/2	Mouse, keyboard

Electrical Data

Voltage supply	115/230 V AC ±10%, 50/60 Hz
Power consumption	Max. 145 W (operation without encoder board for analogue channels)
	Max. 170 W (operation with 3 encoder boards for 24 analogue channels in total)
Thermal output	Max. 580 BTU/h

Mechanical Data

Dimensions (W × H × D)	Approx. 425 × 130 × 446 mm (16.6" × 5.1" × 17.5") (with feet)
	Approx. 425 × 122 × 446 mm (16.6" × 4.8" × 17.5") (without feet)
Weight	Approx. 12 kg (26 lbs) with 2 HDDs

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   CE, UL[5], FCC, ACA, LGC Forensics[5], DGUV Kassen[5], DIN EN 50130-4
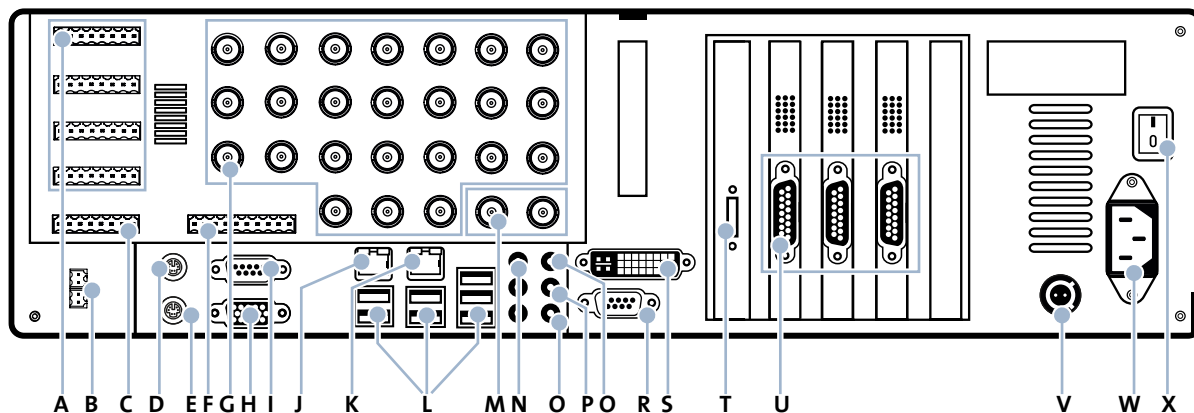
5)   Scheduled approval / certification

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Connections

The number of the connections can differ depending on the ordered equipment or device variant.
The following description refers to a device with full equipment and optional connectors.

A   **Contact IN Cameras (1-6/7-12/13-18/19-24)**
4× Weidmüller, 8 pins

B   **Serial Interface COM 3**
2× Weidmüller 2 pins, 1× RS485 Full Duplex (optional)

C   **Contact IN global (1-6)**
Weidmüller, 8 pins

D   **Mouse**
PS/2, green

E   **Keyboard**
PS/2, violet

F   **Relais OUT (1-5)**
Weidmüller, 10 pins

G   **Video IN (1-16)**
BNC, 75 Ohm, $1 V_{pp}$, with loop-through, CVBS

H   **Video OUT**
Mini-D-SUB, 15 pole, 1920 × 1080

I   **Serial Interface COM 1**
D-SUB, 9 pins, 1× RS232

J   **Ethernet Interface 2**
RJ45, 10/100/1000 Mbps

K   **Ethernet Interface 1**
RJ45, 10/100/1000 Mbps

L   **USB Interface**
7× USB 2.0, type A

M   **BNC**
2×, not active

N   **3,5 mm Phone Jack**
3×, not active

O   **Microphone IN**
3,5 mm phone jack, red, 4,3 kOhm, $2,828 V_{pp}$

P   **Audio OUT**
3,5 mm phone jack, green, 1 kOhm, $2,828 V_{pp}$

Q   **AUX / Line IN**
3,5 mm phone jack, blue, 16 kOhm, $2,828 V_{pp}$

R   **Serial Interface COM 2**
D-SUB, 9 pins, 1× RS232

S   **Video OUT DVI**
Dual Link (24 + 5), DVI-I, 1920 × 1080 (not suitable for VGA adapter)

T   **SATA interface**
SATA OUT (optional, for DAS-4 Eco)

U   **Audio IN for analogue cameras (1-8/9-16)**
D-SUB, 15 pole, 1 kOhm, $2,828 V_{pp}$ (for D-SUB/Cinch adapter cable)

V   **12 V DC OUT**
ODU socket, 2-pole, 12 V DC (for DAS-4 Eco)

W   **Mains Connection**
IEC C14 socket, 115/230 V AC ±10%, 50/60 Hz

X   **Mains Switch**

Dimensions

133 mm (4.8")
445 mm (17.5")
425 mm (16.7")

431 mm (17.0")
427 mm (16.8")
424 mm (16.7")
133 mm (5.1")
95 mm (3.6")
38 mm (1.5")

V1.0.3   2012-05-22   Specifications subject to change without notice. Errors and misprints excepted.   © 2012 Dallmeier electronic