

IPS 2400 II

SMAVIA Appliance for up to 24 IP Channels, 8x 3.5" HDD, 3RU



Up to 24 Channels

Storage System

SeMSy® III Integration

Open Platform

The **IPS 2400 II** is a high performance appliance with a processing capacity for up to **24 IP video channels** and an integrated **storage system**. In conjunction with the dedicated software **SMAVIA Recording Server** it is optimally suited for all applications which require a high recording speed, enhanced storage capacity and low power consumption while providing maximum security.

Storage System

The IPS2400 II has **eight HDD bays** on the front side. Equipped with eight of the optionally offered 12TB server hard disk drives, a **RAID 6 storage capacity of 72TB** can be achieved for the recordings.

SeMSy® III Integration

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

SMAVIA Viewing Client

The software **SMAVIA Viewing Client** allows for the independent and convenient evaluation of the recordings over Ethernet (LAN/WAN). It can be run on devices with a Windows operating system and is included in the scope of delivery together with an access license.

DMVC Server

The optional **DMVC Server** function allows access with the mobile app **Dallmeier Mobile Video Center**, that is available for iOS or Android operating systems. The display of live images and playback of recordings follow a special procedure which is **independent of the recording settings** of the appliance.

Open Platform

The pre-installed software **SMAVIA Recording Server** is designed as an open platform. Together with the according licenses, **3rd-party network cameras** can be recorded with **motion detection** and configured over the **ONVIF protocol**.

Features Hardware

- High performance server hardware with **Multi-Core CPU**
- **Flash module** for operating system and application
- Suitable for up to 24 SD, HD or megapixel video channels
- High storage capacity due to integrated **storage system**
- High recording speed due to concerted components
- Components optimized for **SMAVIA Recording Server**
- Bracket for 19" rack included in delivery
- Redundant power supply units optional¹⁾

Features SMAVIA Recording Server

- Recording of up to **24 HD channels** or **Panomera® Channels**
- Licenses for the recording of **8 Channels** included
- **Basic license** for the access of a **SMAVIA Viewing Client** included
- License for **updating the SMAVIA software** for 12 months included
- License for **SEDOR® Camera Sabotage Protection** included
- License for **EdgeStorage&SmartBackfill** included
- License for **multicast recording** included
- Recording of **third-party IP cameras** with **motion detection** optional
- Configuration of **third-party IP cameras** via **ONVIF protocol** optional
- Evaluation with **SMAVIA** or **SeMSy®** over the network (WAN/LAN)
- Evaluation with **DMVC App** over the network (WAN/LAN)²⁾

Appliance

005880	IPS 2400 II SMAVIA appliance for the recording of up to 24 channels, licenses for 8 channels included, license for one SMAVIA Viewing Clients included, without HDDs
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1) PSU 1 and 2 included in scope of delivery (no redundant operation). PSU 3 for redundant operation optionally (hardware 004064) available.
2) Optional license **PRemote-HD** (004762) required.

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Included SMAVIA Recording Server Licenses

DLC - 8 Recording Channel

License for the use of 8 channels for the recording of HD cameras or Panomera® Channels

DLC - 1 Basic Client Access

License for the access of a SMAVIA Viewing Client to SMAVIA Recording Server (basic license).
Free conversion of the basic license to a floating license on acquisition of additional access licenses.

DLC - Software Maintenance 12 Months

License for the update of the SMAVIA software for 12 months

DLC - SEDOR® Camera Sabotage Protection

License for the detection and reporting of covering, defocusing and twisting of cameras

DLC - EdgeStorage & SmartBackfill

License for the storage of video streams that have been buffered by Dallmeier IP cameras with EdgeStorage

DLC - SNMP

License for the integration into a central SNMP device management system

DLC - SeMSy® Flat

License for the integration into a SeMSy® III video management system

DLC - Multicast Streaming

License for the transmission of video streams via multicast in a SeMSy® III video management system

DLC - Multicast Recording

License for the recording of video streams of Dallmeier IP cameras using multicast transmission

DLC - Real-Time Recording

License for real-time recording for all IP channels (depending on the camera)

Optional SMAVIA Recording Server Licenses (Access)

003782 DLC - 1 Additional Client Access

License for the simultaneous access of a further SMAVIA Viewing Client on SMAVIA Recording Server (floating license)

004068 DLC - 5 Additional Client Access

License for the simultaneous access of five further SMAVIA Viewing Clients on SMAVIA Recording Server (floating license)

004069 DLC - 10+ Additional Client Access (Unlimited)

License for the simultaneous access of an unlimited number of SMAVIA Viewing Clients on SMAVIA Recording Server, depending on system load and bandwidth (floating license)

Optional SMAVIA Recording Server Licenses (Channels)

003783 DLC - 1 Additional Recording Channel

License for the use of one additional channel for the recording of HD cameras or Panomera® Channels

003784 DLC - 2 Additional Recording Channel

003785 DLC - 4 Additional Recording Channel

003786 DLC - 8 Additional Recording Channel

004079 DLC - 12 Additional Recording Channel

004080 DLC - 16 Additional Recording Channel

004412 DLC - 3rd Party Package for 1 IP Channel

License for the use of one existing HD channel for the recording (permanent or motion detection) of third-party IP cameras

004413 DLC - 3rd Party Package for 2 IP Channels

004414 DLC - 3rd Party Package for 4 IP Channels

004415 DLC - 3rd Party Package for 8 IP Channels

004416 DLC - 3rd Party Package for 12 IP Channels

004417 DLC - 3rd Party Package for 16 IP Channels

004418 DLC - 3rd Party Package for 24 IP Channels

Optional SMAVIA Recording Server Licenses (General)

003805 RAID 5

License for the recording with RAID 5

003804 RAID 6

License for the recording with RAID 6

003801 DLC - PRemote-HD

License for the transmission of SD and HD video with low bandwidth, including a dedicated access license³⁾ and the function for bidirectional audio transmission (intercom) via LAN/WAN

003803 DLC - ViProxy

License for the connection of a physically separate network for IP cameras, including authorisation management. In conjunction with SeMSy® III, multicast streaming can also be used

004685 DLC - LAN Interface for Data Reception

License for the reception of the data from third-party systems (AWEK POS systems and NPC II protocol converter) over the network interface; includes linking, storing and displaying the data with the video recordings

006293 DLC - High-Speed Recording >30 fps

License for the recording of Dallmeier IP cameras with a frame rate of more than 30 fps

3) The first PRemote client (master) is assigned active control over the PRemote stream; further PRemote clients (slaves) receive the stream passively.

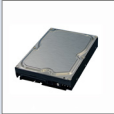

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Maintenance and Warranty

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

Options Hardware

000178	Mounting of a HDD Mounting of a HDD, incl. function, long-term-, and final test, acceptance and approval
006664	 HDD 2000 GB, SATA, 3.5"
006158	HDD 4000 GB, SATA, 3.5"
006596	HDD 6000 GB, SATA, 3.5"
006632	HDD 8000 GB, SATA, 3.5"
006961	HDD 10000 GB, SATA, 3.5"
006962	HDD 12000 GB, SATA, 3.5"
004064	 DPM-150W Power supply module 150 W, 115/230 V AC ±5%, 50/60 Hz

Option Network Contacts

005142	DLC - Ethernet I/O Interface for SMAVIA License for the use of the software interface for the connection of the Ethernet I/O interfaces MOXA ioLogik E1210 (16 contacts) or MOXA ioLogik E1214 (6 contacts, 6 relays).
001739	 Remote Ethernet I/O Interface Ethernet I/O Interface, 2× Ethernet, 6× contact, 6× relay (MOXA ioLogik E1214)

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Components	
CPU	Multi-Core
RAM	8 GB
Flash module	8 GB (for operating system and application)
Hard disks	Up to 8× 3.5" HDD (optional)
Max. storage capacity	Currently up to 72 TB (RAID 6)
Fan	3× with automatic speed adaptation
Power supply unit 1	Integrated
Power supply unit 2	Integrated
Power supply unit 3	Optional (hardware 004064, required for redundant operation)

Interfaces	
Video OUT	2× DisplayPort, only for configuration 1× DVI, only for configuration
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 (rear side) 6× USB 2.0 (rear side) 1× USB 2.0 (front side)
Ethernet 1	RJ45, 10/100/1000 Mbps
Ethernet 2	RJ45, 10/100/1000 Mbps (optional, license 003803)
Ethernet protocols	IPv4, TCP, UDP, ARP, ICMP, DHCP, NTP, HTTP
Contact IN	4×, with galvanic isolation, only for switch / push button (dry contact), with 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
Serial	1× RS232
PS/2	Mouse, keyboard

Electrical Data	
Voltage supply	115/230 V AC ±5%, 50/60 Hz
Power consumption	Max. 230 W
Thermal output	Max. 785 BTU/h

Mechanical Data	
Dimensions (W × H × D)	Approx. 483 × 133 × 533 mm (19.0 × 5.3 × 21.0 inches)
Weight	Approx. 20 kg (44 lbs) with 8 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	
Type	CE, UL, FCC, RCM, LGC Forensics, DIN EN 50130-4

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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 Workstation Software DMVC App (optional, license for PRemote-HD 003801 required)
External configuration software	PService
ONVIF compliance	Profile S

Performance in connection with IPS 2400 II	
Channels	Up to 24× IP channels (SD, HD, megapixel) Licenses for 8 channels included, expandable to up to 24 channels
Supported cameras	Dallmeier Panomera® multifocal sensor systems Dallmeier IP cameras over TCP/DaVid (Dallmeier video protocol) Third-party IP cameras with RTSP streaming over UDP/RTP or TCP ⁴⁾
Track mode	Automatic
Video/Audio compression	H.264 / G.722.1
Resolutions SD IP	QCIF (176 × 144), CIF (352 × 288), Half D1 (352 × 576), 2CIF (704 × 288), 4CIF (704 × 576), D1 (720 × 576)
Resolutions HD IP	720p (1280 × 720), SXGA (1280 × 960), 2 MP (1600 × 1200) 1080i (1920 × 1080), 1080p (1920 × 1080)
Resolutions megapixel	3 MP (2048 × 1536), 4 MP (2336 × 1744), 5 MP (2592 × 1944), up to 12 MP
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

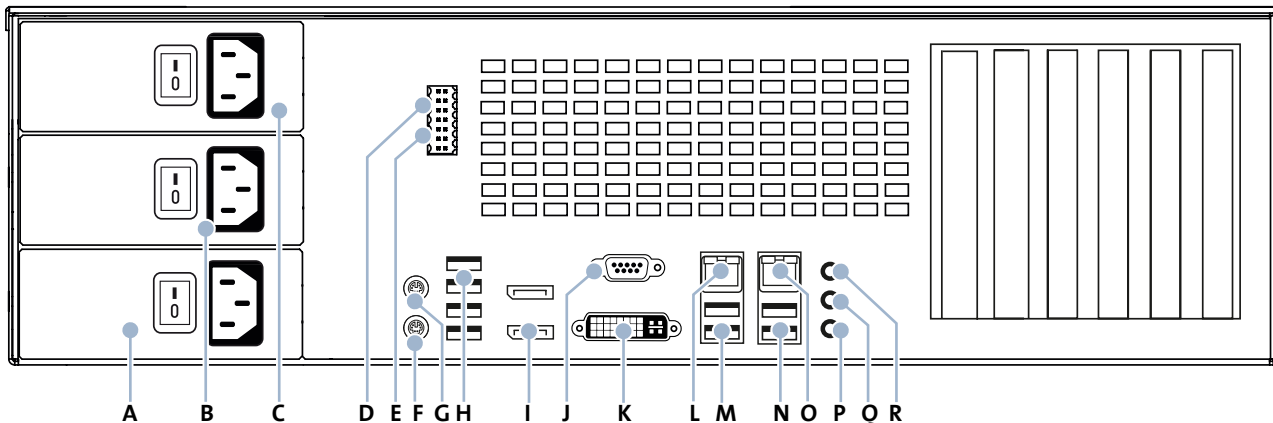
Recording ⁵⁾	3rd Party IP Camera	Dallmeier IP Camera
Transport protocol	RTP over UDP	TCP
Communications protocol	RTSP	DaVid
Recording control with timer	integrated	integrated
Recording mode Constant	integrated	integrated
Recording mode Contact	integrated	integrated
Recording mode Motion	integrated	integrated
Recording 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
Appliance as video proxy	integrated	integrated
Appliance as SeMSy® III multicast streamer	integrated	integrated
PRemote-HD	integrated	integrated
DMVC Server	integrated	integrated
PTZ control with SMAVIA Viewing Client	integrated	integrated
Camera configuration	integrated	integrated
Locking the camera configuration	--	integrated
Audio recording	--	integrated
Recording of multicast video streams	--	integrated
EdgeStorage&SmartBackfill	--	integrated
Network scan (IP Finder)	--	integrated
VCA database	--	integrated

4) Optional licenses required: **3rd Party Package** 004412 to 004418.
5) Data refer to a fully equipped appliance. Optional licenses are required.

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|---|--|
| <p>A Power Supply Unit 1
IEC C14 socket, 115/230V AC ±5%, 50/60 Hz</p> <p>B Power Supply Unit 2
IEC C14 socket, 115/230V AC ±5%, 50/60 Hz</p> <p>C Power Supply Unit 3
IEC C14 socket, 115/230V AC ±5%, 50/60 Hz (optional)</p> <p>D Relay OUT (1-4)
Weidmüller socket, 8 pins, max. 12V DC/24V AC/0,5A, 150 mOhm</p> <p>E Contact IN (1-4)
Weidmüller socket, 6 pins, only for switch/ push button (dry contact)</p> <p>F Keyboard
PS/2, purple</p> <p>G Mouse
PS/2, green</p> <p>H USB Interface
4× USB 2.0, type A</p> <p>I Video OUT Interface
2× DisplayPort (configuration)</p> <p>J Serial Interface COM 1
D-SUB, 9 pins, 1× RS232</p> | <p>K Video OUT Interface
DVI-D, Dual Link (24 + 5), 1920 × 1080 (configuration)</p> <p>L Ethernet Interface 2
RJ45, 10/100/1000 Mbps (optional)</p> <p>M USB Interface
2× USB 3.0, type A</p> <p>N USB Interface
2× USB 2.0, type A</p> <p>O Ethernet Interface 1
RJ45, 10/100/1000 Mbps</p> <p>P Microphone IN
3.5 mm phone jack, red, 4.3 kOhm, 2.828 V_{pp}</p> <p>Q Audio OUT
3.5 mm phone jack, green, 1 kOhm, 2.828 V_{pp}</p> <p>R AUX / Line IN
3.5 mm phone jack, blue, 16 kOhm, 2.828 V_{pp}</p> |
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