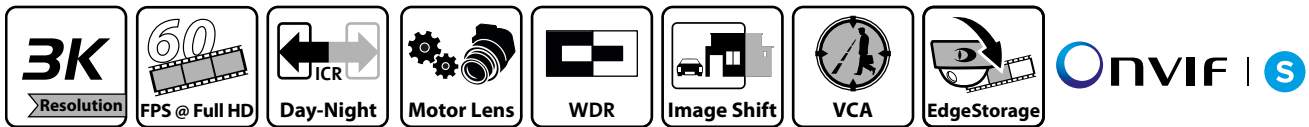# DF5300HD-DN

Topline

3K High Definition Camera, 6 MP, 1080p/60, 720p/120, H.264, Day/Night (ICR), WDR, Motor-driven Varifocal Lens, PoE, Box Housing

3K Resolution | **60** FPS @ Full HD | **ICR** Day-Night | Motor Lens | WDR | Image Shift | VCA | EdgeStorage | **ONVIF | S**

The cameras of the **Topline series** have been designed for applications that require **high resolution in real-time** and simultaneously a **good light sensitivity**. The most **advanced sensor and encoder technology** and the sophisticated **image processing** provide recordings with a resolution of up to **3K High Definition** at excellent contrast, brilliant clarity as well as highest detail resolution and color fidelity.

The **DF5300HD-DN** is available with an **integrated lens** in a **compact box housing**. It can be conventionally supplied with an external power supply unit or conveniently with **Power over Ethernet**.

Very good Low-Light characteristics
The **very good light sensitivity** of the sensor and the sophisticated **image processing** ensure crisp **color images** even in low lighting. In night mode, the camera also provides outstanding results due to the **very good infrared sensitivity**.

Automatic switching of presets
The camera is equipped with an **ambient light sensor** and a **removable IR cut filter** and can automatically switch between **day and night mode**. In addition, **different day and night presets** can be defined and adjusted for the exposure settings.

Motor-driven varifocal lens with P-Iris
The camera has a **motor-driven varifocal lens** that is perfectly tuned to the image sensor. The adjustment of **zoom, focus and iris** is made conveniently using a **web browser**. The manual lens setting directly at the installation site of the camera is not required.

Digital Image Shift
The **Digital Image Shift** function allows a comfortable **fine adjustment of the captured image section** (horizontal and vertical at 4:3 resolutions, horizontal at 2560 × 1920 resolution) via a **web browser**. Depending on the selected resolution, the used area on the image sensor can be moved and adapted to the local conditions. The **manual fine alignment** of the camera directly at the installation site is **not necessary**.

Video Content Analysis
The integrated **Video Content Analysis** (VCA) detects **movements and objects** in the uncompressed image and analyzes them in real-time (depending on the analysis resolution) with highly developed analysis functions such as **Intrusion Detection** or **Line Crossing**. The detected **events** can be used to trigger the recording of a **SMAVIA recording system**. Together with the detected objects and the corresponding metadata, they are stored in a database. This allows the targeted search and evaluation of the recordings by **SMAVIA Viewing Client** with the **SmartFinder** function.

EdgeStorage
The camera is equipped with a **RAM memory** that is used by the **EdgeStorage** function to store the video stream in case of a network failure (e.g. Spanning Tree, Bursts). When the network is restored, the **SmartBackfill** function ensures fast transmission to the **SMAVIA recording system**. This stores the video stream with high speed and then continues to record the live stream seamlessly.

Further features
- 1/1.8" 3K HD CMOS image sensor
- Very good light sensitivity 0.01 lux
- Memory expansion with microSDHC card
- Frame rate of 60 fps at 1080p
- Analog video preview output
- Video compression H.264, MJPEG
- Privacy Zone Masking
- Digital flip function
- Wide Dynamic Range (WDR)
- 3D Digital Noise Reduction (3D-DNR)
- Voltage supply with PoE (Class 0)
- Compact box housing

DF5300HD-DN

Topline

3K High Definition Camera, 6 MP, 1080p/60, 720p/120, H.264, Day/Night (ICR), WDR,
Motor-driven Varifocal Lens, PoE, Box Housing

	Variants	
005169.409		**DF5300HD-DN** 3K High Definition camera, 6 MP, 1080p/60, 720p/120, H.264, day/night (ICR), WDR, motor-driven varifocal lens, PoE, box housing, F1.6 / 4.5 – 10 mm
005169.410		**DF5300HD-DN** 3K High Definition camera, 6 MP, 1080p/60, 720p/120, H.264, day/night (ICR), WDR, motor-driven varifocal lens, PoE, box housing, F1.6 / 12 – 40 mm

	Extension	
004923		**Interface Board RS485 & Contact IN/OUT** 1× serial interface RS485 (full duplex), 1× contact IN, 1× contact OUT; ex factory only

	Accessories	
004316		**PoE Midspan 30 W** Midspan power supply unit, 1× Ethernet port, 10/100/1000Base-T, 802.3at, 802.3af, 30 W
003952		**Wall Mount Bracket Indoor (HD Box)** Grey, 1/4" tripod screw, for HD box cameras

DF5300HD-DN

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Sensor	
Type	1/1.8" CMOS
Number of sensor pixels	6MP
Light sensitivity	0.01lux (F1.6, AGC ON)
Dynamic range	92 dB
Signal to noise ration	> 50 dB

Lens	F1.6 / 4.5 – 10 mm	F1.6 / 12 – 40 mm
Type	Motor-driven varifocal lens	
Format / Mount	1/1.8" Board Lens	
Focal length	4.5 – 10 mm	12 – 40 mm
Iris range	F1.6 – Closed	
Iris control	P-Iris (motor-driven)	
Zoom / Focus control	Motor-driven	
Minimum object distance	0.3 m	0.6 m
IR corrected	Yes	
Available angles of view[1] (H × V) at wide end	88° × 48° in mode 3072 × 1728 72° × 58° in mode 2560 × 2048	34° × 19° in mode 3072 × 1728 28° × 23° in mode 2560 × 2048
Available angles of view[1] (H × V) at tele end	45° × 25° in mode 3072 × 1728 37° × 30° in mode 2560 × 2048	12° × 7° in mode 3072 × 1728 10° × 8° in mode 2560 × 2048

Format and Encoding	
Video standard	SDTV (PAL/NTSC) HDTV (SMPTE 296M, SMPTE 274M)
Resolution in mode 3072 × 1728 (16:9)	5 MP/3K (3072 × 1728) @ 25/30 fps 2 MP/1080p (1920 × 1080) @ 25/30 fps 720p (1280 × 720) @ 25/30 fps 480p (640 × 480, anamorphic) @ 25/30 fps
Resolution in mode 2560 × 2048 (4:3)	5 MP (2560 × 1920) @ 25/30 fps 4 MP (2336 × 1744) @ 25/30 fps 3 MP (2048 × 1536) @ 25/30 fps 1 MP (1280 × 960) @ 25/30 fps 480p (640 × 480) @ 25/30 fps
Resolution in mode 1080p (16:9)	2 MP/1080p (1920 × 1080) @ 50/60 fps 720p (1280 × 720) @ 50/60 fps 720p (1280 × 720) @ 120 fps[2] 480p (640 × 480, anamorphic) @ 50/60 fps
Video compression	H.264, MJPEG
Frame rate	Up to 120 fps[2]
Video bit rate	1 – 50 Mbps, CBR (constant bit rate), VBR (variable bit rate), with priority setting for image quality[3]
Video streaming	Up to 4 streams with different settings simultaneously
Audio compression	G.711
Audio bit rate	64 kbps
Live streaming transmission method	Unicast, Multicast
Number of live streams / clients	Up to 5 streams with up to 16 Mbps simultaneously

1) All specifications ±5%. Minor deviations with lenses may be a result of manufacturing tolerances and do not constitute a defect.
2) Function in preparation
3) If the total available bit rate is not sufficient, not the image quality but the number of frames is adjusted.

DF5300HD-DN

3K High Definition Camera, 6 MP, 1080p/60, 720p/120, H.264, Day/Night (ICR), WDR,
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Functions	
Day/Night switching	Ambient light sensing and removable IR cut filter (ICR), switching threshold level adjustable
Black-and-white mode	Automatic (at low light or in night mode), On, Off
Automatic Electronic Shutter	1/1 – 1/8000 s
Slow Shutter Limit	1/1 – 1/1000 s
Lens control	Zoom control (Tele – Wide), Focus control (Far – Near, One-Push AF), Iris control (P-Iris) via web browser
Digital flip function	Horizontal, vertical or both axes
Digital Image Shift	Horizontal and vertical at 4:3 resolutions, horizontal at 2560 × 1920 resolution
Digital Noise Reduction	3D-DNR (adjustable by 10 levels)
Exposure presets	Universal, Indoor, Outdoor, Casino, Low-Light, User-Defined (with automatic day/night switching)
Exposure compensation	-2 EV (Exposure Value) to + 2 EV (adjustable by 200 levels)
Exposure metering	Average metering (light information from entire scene), center-weighted average metering, spot metering
Brightness adjustment	Automatic (ALC), Manual
Gain control	Automatic (AGC) with adjustable Gain Limit
White balance	Auto: ATW (Auto Tracking White Balance), One-Push AWB (Automatic White Balance) Fix: 2800K, 4000K, 5000K, 6500K and 7500K
Privacy Zone Masking	Hiding/masking of any number of protected areas (up to 100% of the entire image)
Alarm notification	Via DaVid protocol to PGuard advance, via E-Mail and FTP image upload in preparation
Alarm trigger	Application restart, EdgeStorage status
Video Content Analysis [4]	Intrusion Detection (detection of access to a defined area) Line Crossing (detection of a virtual line crossing) Tamper Detection (detection of manipulations on the camera) Object Classification (classification of objects) Face Detection (detection of faces) [5]

Protocols	
Ethernet protocols	IPv4 (ARP, ICMP, IGMPv2/IGMPv3), UDP, TCP, LLDP, CDP (v1,v2), DSCP (QoS), DNS, DHCP, NTP, HTTP/HTTPS, RTSP/RTP/RTCP, SNMP (v1,v2c,v3)
Ethernet protocols in preparation	IPv6 (NDP, ICMPv6, MLDv1/MLDv2, SLAAC, RDNSS), UDPv6, TCPv6, DNSv6, DHCPv6, LDAP, IEEE 802.1X

Connections	
Video preview output	1× BNC (CVBS, 1.0 V_{p-p}, 75 Ω), 704 × 576 @50 Hz, 704 × 480 @60 Hz (4:3) 1× HDMI micro connector (type D), 1080p (1920 × 1080) @ 25/30 fps (16:9)
Audio Line IN	1× 3.5 mm phone jack for stereo plug Input level: max. 2.83 V_{p-p} Input impedance: 29 kΩ
Audio Line OUT	1× 3.5 mm phone jack for stereo plug Output level at 10 kΩ load: max. 3.11 V_{p-p} Output impedance: 320 Ω
Ethernet	1× RJ45, 10BASE-T-/100BASE-TX PoE/1000BASE-TX PoE
Serial interface [6]	1× RS485 (full duplex)
Contact I/O interface [6]	1× Contact IN, 1× Contact OUT
Power IN	1× Weidmüller male connector SL 3.50/02/90G (mating connector Weidmüller BL 3.50/02/180 SN)

Electrical Data	
Voltage supply	24 V DC PoE (Class 0)
PoE standard	IEEE 802.3af
Power consumption	Approx. 6 W

4) Video content analysis is not available if more than 2 streams or bit rates > 16 Mbps are configured.
5) The function detects the presence of a face (Face Detection). The analysis of visible features and the link to person data (Face Recognition) are not supported.
6) In connection with the optional Interface Board RS485 & Contact IN/OUT (004923).

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Mechanical Data	
Dimensions (W × H × L)	Approx. 71 × 66 × 176 mm 2.8 × 2.6 × 6.9 inches
Weight	Approx. 300 g 0.7 lb
Color	Black/grey

Environmental Conditions	
Operating temperature	−20°C to +50°C (−4°F to 122°F)
Relative humidity	0% – 90% RH, non-condensing

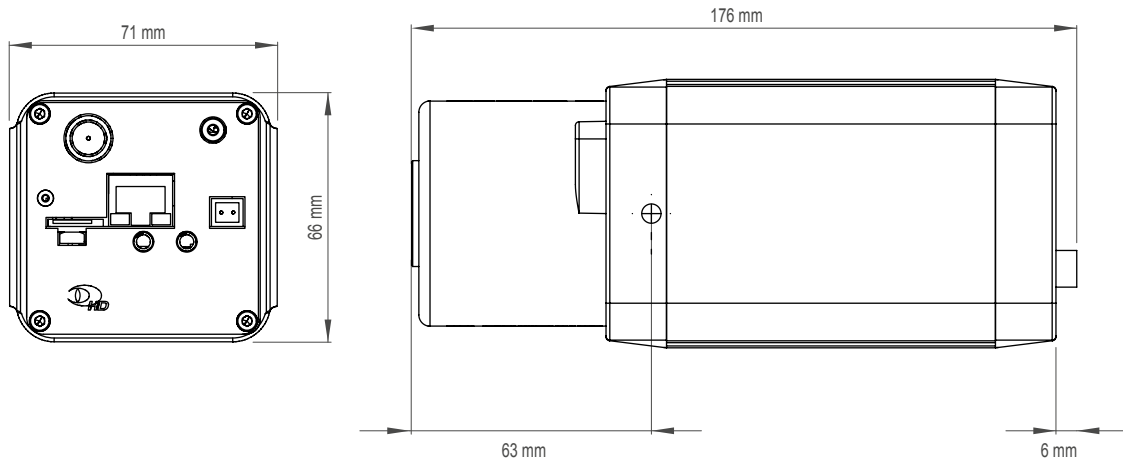| Miscellaneous	
Ambient light sensor	Integrated
Local memory	50 MB RAM memory
Memory extension	microSDHC 32 GB, Class 10, UHS-I (optional)
Configuration and live video	Via web browser (all major platforms)
Languages	German, English
Programming interface	Open platform for integration into 3rd party systems using API and ActiveX[7]
ONVIF compliance	Profile S

Approvals/Certifications	
Type	CE, FCC, RCM, UL, DIN EN 50130-4 compliant

7) ActiveX is a trademark or registered trademark of Microsoft Corporation headquartered in Redmond, Washington, USA

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71 mm

66 mm

176 mm

63 mm

6 mm

See more.

Dallmeier

MADE IN GERMANY