DDF5100HD Series

Primeline

High Definition Camera, 2/4 MP, 1080p/60, H.264, H.265, Day/Night (ICR), HDR,
Motor-driven Varifocal Lens, PoE, Dome Housing

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2MP Resolution	**4MP** Resolution	**60** FPS @ Full HD	ICR Day-Night	Motor Lens	HDR	Image Shift	VCA	**H265** Encoding	EdgeStorage
DDF5120	DDF5140								

The cameras of the **Primeline series** offer an economical and balanced **compromise between** the extreme characteristics of the Nightline and Topline series. Having a **very good light sensitivity**, the high-resolution image sensor provides **detailed color images** even under low light conditions. The combination of the **most advanced encoder technology** and the **sophisticated image processing** results in **real-time recordings with high resolution** at excellent contrast, brilliant clarity and highest color fidelity.

Resolution and frame rate

The **high resolution** of the sensor and the sophisticated **image processing** allow for real-time recordings with a **frame rate of 60 fps (1080p/60)** or, depending on the variant, with up to 30 fps at a resolution of 4 MP. Thus, the camera is ideal for all applications that require the capture of very fast movements in high resolution.

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 **digital fine alignment of the image section** for all resolutions below 4 MP, **using a web browser** for a convenient final adjustment. This ensures a quick and easy installation of the camera.

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

- 1/3" 4 MP HD CMOS image sensor
- High light sensitivity 0.05 lux
- Memory expansion with microSDXC card
- Video compression H.264, H.265, MJPEG
- Privacy Zone Masking
- Digital flip function
- High Dynamic Range (HDR)
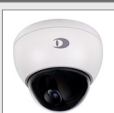- 3D Digital Noise Reduction (3D-DNR)
- Voltage supply with PoE (Class 0)

DDF5100HD Series

High Definition Camera, 2/4 MP, 1080p/60, H.264, H.265, Day/Night (ICR), HDR,
Motor-driven Varifocal Lens, PoE, Dome Housing

HDV In-Ceiling Variants

006607.414		**DDF5120HDV-DN-IM** High Definition Camera, 2 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, in-ceiling mount variant, F1.4 / 3 – 10 mm
006607.415		**DDF5120HDV-DN-IM** High Definition Camera, 2 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, in-ceiling mount variant, F1.8 / 12 – 40 mm
006599.414		**DDF5140HDV-DN-IM** High Definition Camera, 4 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, in-ceiling mount variant, F1.4 / 3 – 10 mm
006599.415		**DDF5140HDV-DN-IM** High Definition Camera, 4 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, in-ceiling mount variant, F1.8 / 12 – 40 mm

HDV Surface Variants

006608.414		**DDF5120HDV-DN-SM** High Definition Camera, 2 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, surface mount variant, F1.4 / 3 – 10 mm
006608.415		**DDF5120HDV-DN-SM** High Definition Camera, 2 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, surface mount variant, F1.8 / 12 – 40 mm
006600.414		**DDF5140HDV-DN-SM** High Definition Camera, 4 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, surface mount variant, F1.4 / 3 – 10 mm
006600.415		**DDF5140HDV-DN-SM** High Definition Camera, 4 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, dome housing, surface mount variant, F1.8 / 12 – 40 mm

HD Surface Variants (Indoor)

006927		**DDF5120HD-DN-SM (Indoor)** High Definition Camera, 2 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, indoor dome housing, surface mount, F1.4 / 3 – 10 mm
006928		**DDF5140HD-DN-SM (Indoor)** High Definition Camera, 4 MP, 1080p/60, H.264, H.265, day/night (ICR), HDR, motor-driven varifocal lens, PoE, indoor dome housing, surface mount, F1.4 / 3 – 10 mm

DDF5100HD Series

High Definition Camera, 2/4 MP, 1080p/60, H.264, H.265, Day/Night (ICR), HDR,
Motor-driven Varifocal Lens, PoE, Dome Housing

Primeline

	Extension for HDV Variants	
006612		**Interface Board Series 5100**[1)] 1× audio IN, 1× audio OUT, 1× serial interface RS485 (full duplex, half duplex), 2× contact IN, 2× contact OUT, Power supply 12 V DC, ex factory only (for HDV variants)

	Accessories	
006050		**Tinted Bubble 4.5"** For in-ceiling and surface mount variant, 4.5" (for HDV variants)
001041		**Tinted Bubble 4.0"** For surface mount variant, 4" (for indoor HD variants)
001678		**Power Supply Unit (110 – 240 V AC -> 12 V DC)** Universal power supply, 110 – 240 V AC to 12 V DC, 850 mA, plug adapter EU/UK/US/AUS (for HDV variants)
004316		**PoE Midspan 30 W** Midspan power supply unit, 1× Ethernet port, 10/100/1000Base-T, 802.3at, 802.3af, 30 W
005017		**Wall Mount Bracket (SM Housing)** Wall mount bracket with seals and internal cable routing, for HDV dome surface-mount housing (152 mm)

[1)] The interface is fitted and calibrated ex factory. Field fitting or replacement is not possible.

DDF5100HD Series

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High Definition Camera, 2/4 MP, 1080p/60, H.264, H.265, Day/Night (ICR), HDR,
Motor-driven Varifocal Lens, PoE, Dome Housing

Sensor	
Type	1/3" CMOS
Number of sensor pixels	4MP (2688 × 1520)
Light sensitivity	<0.05lux
Dynamic range	> 100 dB
Signal to noise ration	> 50 dB

Lens F1.4 / 3 – 10 mm	DDF5120HDV-DN and DDF5120HD-DN (Indoor)	DDF5140HDV-DN and DDF5140HD-DN (Indoor)
Type	Motor-driven varifocal lens	
Format / Mount	1/3" Board Lens	
Focal length	3 – 10 mm	
Iris range	F1.4 – Closed	
Iris control	P-Iris (motor-driven)	
Zoom / Focus control	Motor-driven	
Minimum object distance	0.5 m	
IR corrected	Yes	
Available angles of view[2] (H × V) at wide end	Approx. 59° x 44° @ 1.5 MP (1440 × 1080) Approx. 52° x 39° @ 1.2 MP (1280 × 960) Approx. 116° x 62° @ 1080p (1920 × 1080) @ 720p (1280 × 720)	Approx. 84° x 62° @ 3 MP (2016 × 1504) Approx. 59° x 44° @ 1.5 MP (1440 × 1080) Approx. 52° x 39° @ 1.2 MP (1280 × 960) Approx. 116° x 62° @ 4 MP (2688 × 1512) @ 1080p (1920 × 1080) @ 720p (1280 × 720)
Available angles of view[2] (H × V) at tele end	Approx. 18° x 13° @ 1.5 MP (1440 × 1080) Approx. 16° x 12° @ 1.2 MP (1280 × 960) Approx. 32° x 19° @ 1080p (1920 × 1080) @ 720p (1280 × 720)	Approx. 25° x 19° @ 3 MP (2016 × 1504) Approx. 18° x 13° @ 1.5 MP (1440 × 1080) Approx. 16° x 12° @ 1.2 MP (1280 × 960) Approx. 32° x 19° @ 4 MP (2688 × 1512) @ 1080p (1920 × 1080) @ 720p (1280 × 720)

Lens F1.8 / 12 – 40 mm	DDF5120HDV-DN	DDF5140HDV-DN
Type	Motor-driven varifocal lens	
Format / Mount	1/3" Board Lens	
Focal length	12 – 40 mm	
Iris range	F1.8 – Closed	
Iris control	P-Iris (motor-driven)	
Zoom / Focus control	Motor-driven	
Minimum object distance	2.5 m	
IR corrected	Yes	
Available angles of view[2] (H × V) at wide end	Approx. 13° x 10° @ 1.5 MP (1440 × 1080) Approx. 12° x 9° @ 1.2 MP (1280 × 960) Approx. 25° x 14° @ 1080p (1920 × 1080) @ 720p (1280 × 720)	Approx. 18° x 14° @ 3 MP (2016 × 1504) Approx. 13° x 10° @ 1.5 MP (1440 × 1080) Approx. 12° x 9° @ 1.2 MP (1280 × 960) Approx. 25° x 14° @ 4 MP (2688 × 1512) @ 1080p (1920 × 1080) @ 720p (1280 × 720)
Available angles of view[2] (H × V) at tele end	Approx. 5° x 3° @ 1.5 MP (1440 × 1080) Approx. 4° x 3° @ 1.2 MP (1280 × 960) Approx. 9° x 5° @ 1080p (1920 × 1080) @ 720p (1280 × 720)	Approx. 6° x 5° @ 3 MP (2016 × 1504) Approx. 5° x 3° @ 1.5 MP (1440 × 1080) Approx. 4° x 3° @ 1.2 MP (1280 × 960) Approx. 9° x 5° @ 4 MP (2688 × 1512) @ 1080p (1920 × 1080) @ 720p (1280 × 720)

[2] All specifications ±5%. Minor deviations with lenses may be a result of manufacturing tolerances and do not constitute a defect.

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Format and Encoding	DDF5120HDV-DN and DDF5120HD-DN (Indoor)	DDF5140HDV-DN and DDF5140HD-DN (Indoor)
Video standard	SDTV (PAL/NTSC) HDTV (SMPTE 296M, SMPTE 274M)	
Resolution 4:3	1.5 MP (1440 × 1080) @ 50/60 fps 1.2 MP (1280 × 960) @ 50/60 fps 640 × 480, 320 × 240 @ 50/60 fps	3 MP (2016 × 1504) @ 25/30 fps 1.5 MP (1440 × 1080) @ 50/60 fps 1.2 MP (1280 × 960) @ 50/60 fps 640 × 480, 320 × 240 @ 50/60 fps
Resolution 16:9	1080p (1920 × 1080) @ 50/60 fps 720p (1280 × 720) @ 50/60 fps 640 × 480, 640 × 368, 480 × 272, 320 × 240 @ 50/60 fps	4 MP (2688 × 1512) @ 25/30 fps 1080p (1920 × 1080) @ 50/60 fps 720p (1280 × 720) @ 50/60 fps 640 × 480, 640 × 368, 480 × 272, 320 × 240 @ 50/60 fps
Video compression	H.264, H.265, MJPEG	
Frame rate	Up to 60 fps	
Video bit rate	1 – 12 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[4]	G.711	
Audio bit rate[4]	64 kbps	
Live streaming transmission method	Unicast, Multicast	
Number of live streams / clients	Up to 4 streams with up to 12 Mbps simultaneously	

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 all resolutions below 4 MP	
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) Fixed: 2800K, 4000K, 5000K, 6500K and 7500K	
Privacy Zone Masking	Hiding/masking of up to 16 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[5]	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)[6]	

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	
Communication protocols	DaVid, DaVidS, ONVIF Profile S, SNMP (v1, v2c, v3)	
Security	HTTPS encryption, SSL/TLS 1.2 (AES), network access control according to IEEE 802.1X	

3) If the total available bit rate is not sufficient, not the image quality but the number of frames is adjusted.
4) Only for HDV variants in connection with the optional Interface Board Series 5100 (006612).
5) Depending on the CPU load.
6) 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.

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Connections	
Video preview output[7]	1× BNC (CVBS, 1.0 V$_{p-p}$, 75 Ω), 704 × 576 @50 Hz, 704 × 480 @60 Hz (4:3)
Audio Line IN[8]	1× 3.5 mm phone jack for stereo plug Input level: max. 2.83 V$_{p-p}$ Input impedance: 29 kΩ
Audio Line OUT[8]	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
Serial interface[8]	1× RS485 (half duplex and full duplex)
Contact I/O interface[8]	2× Contact IN 2× Contact OUT
Power IN[8]	1× Weidmüller male connector SL 3.50/02/90G (mating connector Weidmüller BL 3.50/02/180 SN)

Electrical Data	
Voltage supply	12 V DC[8] PoE (Class 0)
PoE standard	IEEE 802.3af
Power consumption	Approx. 6 W

Mechanical Data	HDV In-Ceiling Variants	HDV Surface Variants	HD Surface Variants (Indoor)
Dimensions	Approx. Ø 170 × H 135 mm Ø 6.7 × H 5.3 inches	Approx. Ø 152 × H 133 mm Ø 6.0 × H 5.3 inches	Approx. Ø 149 × H 124 mm Ø 6.0 × H 4.9 inches
Weight	Approx. 1200 g 2.6 lb	Approx. 1100 g 2.4 lb	Approx. 700 g 1.5 lb
Adjustment	3-axes		
Bubble	Clear (with black inner liner)		
Construction material	Aluminium		ABS polymer
Vandal-resistant	Yes		--
IK protection	IK10 (up to 20 joules)		--
IP rating	--	IP67	--
Color	Black with white housing ring	White	White

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	microSDXC 64 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[9]
ONVIF compliance	Profile S

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

7) Only for HDV variants, not provided for HD variants (Indoor). Function not available if Video Content Analysis (VCA) is activated.
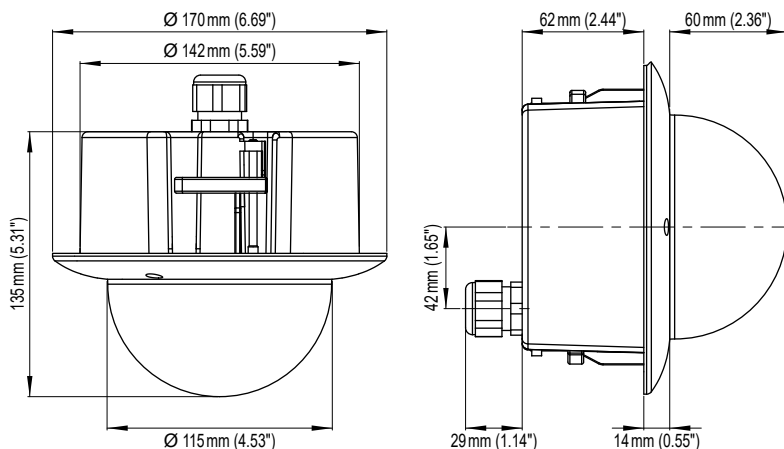8) Only for HDV variants in connection with the optional Interface Board Series 5100 (006612).
9) ActiveX is a trademark or registered trademark of Microsoft Corporation headquartered in Redmond, Washington, USA
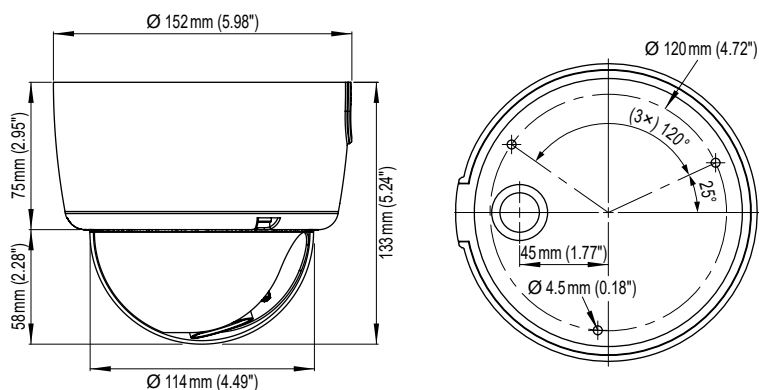
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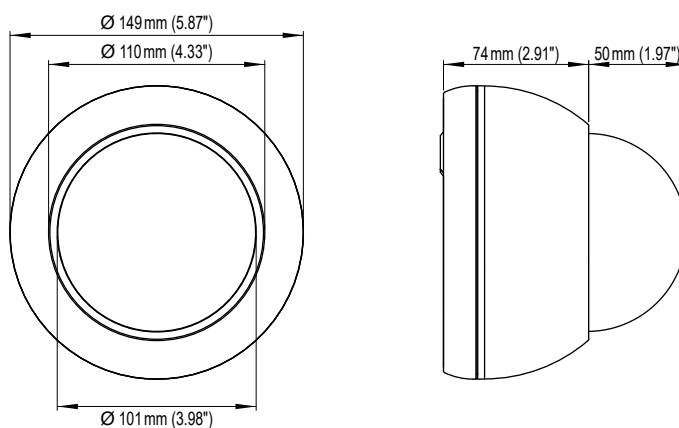Motor-driven Varifocal Lens, PoE, Dome Housing

HDV In-Ceiling Variants

HDV Surface Variants

HD Surface Variants (Indoor)

See more.

Dallmeier

MADE IN GERMANY