

DDZ4200HD Camera Series

High Definition Camera, 2 MP, 1080p/30, H.264, Day/Night (ICR), Pan/Tilt/Zoom with 20x/30x Optical Zoom, PoE+, Dome Housing



The cameras of the series DDZ4200HD are high-speed PTZ dome network cameras with **20x/30x optical zoom**. They are equipped with a high-performance Pan-Tilt-Zoom mechanism and provide real-time high-definition video with up to **30 fps at a resolution of up to 2 MP**. The most **advanced sensor and encoder technology** and the sophisticated **image processing** provide recordings with excellent contrast, brilliant clarity as well as highest detail resolution and color fidelity.

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 **good infrared sensitivity**.

Automatic switching of presets

The camera is equipped with 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.

Variants

The dome cameras DDZ4220HD and DDZ4230HD are available in an in-ceiling, surface or weatherproof housing. They can be conventionally supplied with an external power supply unit or conveniently with **Power over Ethernet (PoE+)**.

Plenum Rated

The **in-ceiling variant** of the camera is tested according to the stringent **requirements of the UL 2043** relating to flame retardancy and low smoke emission. Thus, it is approved for **installation in air-conducting spaces** and can be mounted for example in false ceilings dissipating the air to a central air conditioning.

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

- 1/2.8" CMOS image sensor
- High-speed PTZ dome
- 20x/30x optical zoom with auto-focus
- Day/Night switching with removable IR cut filter (ICR)
- Day/Night switching with change of presets
- Memory expansion with microSDXC card
- Digital WDR (Wide Dynamic Range)
- 3D Digital Noise Reduction (3D DNR)
- Resolution up to 2 MP (1920 × 1080) at 30fps
- Video compression H.264 / MJPEG
- 128 programmable preset positions
- 32 patrols (up to 32 presets per patrol)
- 16 patterns (recording time up to 10 minutes per pattern)
- Functions for data protection and data security (GDPR-compliant)
- Voltage supply of the camera with PoE+ or 24V AC
- IK10 and IP67 protection (weatherproof variant)
- UL 2043 "plenum rated" compliant (in-ceiling variant)

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In-Ceiling Variants

005323.402



DDZ4220HD Indoor IM

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 20× optical zoom, PoE+, dome housing, in-ceiling mount variant, F1.6 – F3.5 / 4.7 – 94 mm

005313.402



DDZ4230HD Indoor IM

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 30× optical zoom, PoE+, dome housing, in-ceiling mount variant, F1.6 – F5.0 / 4.3 – 129 mm

Surface Variants

005323.403



DDZ4220HD Indoor SM

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 20× optical zoom, PoE+, dome housing, surface mount variant, F1.6 – F3.5 / 4.7 – 94 mm

005313.403



DDZ4230HD Indoor SM

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 30× optical zoom, PoE+, dome housing, surface mount variant, F1.6 – F5.0 / 4.3 – 129 mm

Weatherproof Variants (Standard)

005324.401



DDZ4220HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 20× optical zoom, PoE+, dome housing, weatherproof variant, cable 0.5 m, F1.6 – F3.5 / 4.7 – 94 mm

005314.401



DDZ4230HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 30× optical zoom, PoE+, dome housing, weatherproof variant, cable 0.5 m, F1.6 – F5.0 / 4.3 – 129 mm

Weatherproof Variants (long connection cables¹⁾)

005324.402



DDZ4220HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 20× optical zoom, PoE+, dome housing, weatherproof variant, cable 2.5 m²⁾, F1.6 – F3.5 / 4.7 – 94 mm

005314.402



DDZ4230HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 30× optical zoom, PoE+, dome housing, weatherproof variant, cable 2.5 m²⁾, F1.6 – F5.0 / 4.3 – 129 mm

005324.403



DDZ4220HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 20× optical zoom, PoE+, dome housing, weatherproof variant, cable 6.0 m, F1.6 – F3.5 / 4.7 – 94 mm

005314.403











DDZ4230HD Outdoor

High Definition Camera, 2 MP, 1080p/30, H.264, day/night (ICR), pan/tilt/zoom with 30× optical zoom, PoE+, dome housing, weatherproof variant, cable 6.0 m, F1.6 – F5.0 / 4.3 – 129 mm

1) The longer connection cables are fitted ex factory. Field replacement is not possible.
2) Suitable for (001116) Roof Mount Bracket (swan neck).

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Accessories	
006324	 VMC Joystick Joystick module of the VMC control panel as stand-alone device, 1x 2 m USB cable 2.0
004316	 PoE Midspan 30 W Midspan power supply unit, 1x Ethernet-Port, 10/100/1000Base-T, 802.3at, 802.3af, 30 W
Mounting accessories for weather-proof variant	
003847	 Junction Box DJB-115W Outdoor, white, for weather-proof housing
001115	 Mounting Plate Outdoor, white, for Wall Mount Bracket (surface mounting), for Ceiling Mount Bracket (surface mounting), for Junction Box DJB-115W (corner and pole mounting)
001112	 Corner Mount Bracket Outdoor, white, for weather-proof housing
001111	 Pole Mount Bracket Outdoor, white, poles with 76 – 230 mm diameter, for weather-proof housing
001109	 Wall Mount Bracket Outdoor, white, for weather-proof housing
001117	 Ceiling Mount Bracket Outdoor, white, for weather-proof housing
001116	 Roof Mount Bracket³⁾ Swan neck, outdoor, white, for weather-proof housing

3) Not compatible with Junction Box DJB-115W (003847) and Mounting Plate (001115).

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Sensor	
Type	1/2.8" CMOS
Number of sensor pixels	2MP
Light sensitivity	0.4lux (F1.6, 1/30s, 50 IRE, AGC On) 0.05lux (F1.6, 1/1s, 50 IRE, AGC On)
Dynamic range	Wide Dynamic Range (digital)
Signal to noise ration	> 50 dB

Lens	20×	30×
Focal length	4.7 – 94 mm	4.3 – 129 mm
Aperture range	F1.6 – F3.5	F1.6 – F5.0
Minimum object distance (wide – tele)	0.01 – 1.5 m	0.01 – 1.5 m
Angle of view at full resolution (wide – tele)	Approx. 58° – 3°	Approx. 66° – 2°
Zoom speed (wide – tele)	Approx. 2.7s	Approx. 3s

PTZ Functions	
Pan range	360° endless
Tilt range	–5° to 90° (Auto Flip)
Pan speed	Manual speed 0.1° – 300°/s Preset speed 540°/s
Tilt speed	Manual speed 0.1° – 240°/s Preset speed 400°/s
Proportional zoom	Rotation speed can be adjusted automatically according to zoom
Number of presets	128
Patrol	32 patrols (up to 32 presets per patrol)
Pattern	16 patterns (recording time up to 10 minutes per pattern)
Home actions	Preset, Patrol and Pattern

Format and Encoding	
Video standard	SDTV (PAL/NTSC) HDTV (SMPTE 296M, SMPTE 274M)
Resolution 4:3	704 × 480 @ 25/30 fps 640 × 480 @ 25/30 fps 320 × 240 @ 25/30 fps 352 × 240 @ 25/30 fps
Resolution 16:9	1080p (1920 × 1080) @ 25/30 fps 720p (1280 × 720) @ 25/30 fps
Video compression	H.264, MJPEG
Frame rate	Up to 30 fps
Video bit rate	1 – 8 Mbps, CBR (constant bit rate), VBR (variable bit rate), with priority setting for image quality ⁴⁾
Audio compression	G.711
Audio bit rate	64 kbps
Live streaming transmission method	Unicast, Multicast
Number of live streams / clients	Up to 2 streams with up to 8 Mbps simultaneously

4) If the total available bit rate is not sufficient, not the image quality but the number of frames is adjusted.

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Functions	
Day/Night switching	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 – 1/30,000 s
Slow Shutter Limit	1/1 – 1/1,000 s
Lens control	Auto focus
Digital flip function	Horizontal, vertical or both axes
Digital Noise Reduction	3D-DNR (adjustable by 10 levels)
Backlight Compensation (BLC)	Supported
Highlight Compensation (HLC)	Supported
Exposure presets	Universal, Indoor, Outdoor, Casino, Low-Light, User-Defined (with automatic day/night switching)
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) Fixed: 2800K, 4000K, 5000K
Privacy Zone Masking	Hiding/masking of up to 24 protected areas (up to 100% of the entire image), different colors, squares, polygons
Alarm notification	Via DaVid protocol to PGuard advance
Alarm trigger	EdgeStorage status

Protocols	
Ethernet protocols	IPv4 (ARP, ICMP, IGMPv2/IGMPv3), UDP, TCP, LLDP, CDP (v1,v2), DSCP (QoS), DNS, DHCP, NTP, HTTP/HTTPS ⁵⁾ , 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 ⁵⁾ encryption, SSL/TLS ⁵⁾ 1.2 (AES), network access control according to IEEE 802.1X ⁵⁾

Connections	Surface Variants and In-Ceiling Variants	Weatherproof Variants
Preview output	--	1x BNC (CVBS, 1.0 V _{p-p} , 75 Ω), 704 × 576 @50 Hz, 704 × 480 @60 Hz (4:3), on breakout cable
Audio Line IN	1x 3.5 mm phone jack (mono TS) Input level: 2 – 2.4 V _{p-p} Input impedance: 1 kΩ	1x 3.5 mm phone plug (mono TS) Input level: 2 – 2.4 V _{p-p} Input impedance: 1 kΩ
Audio Line OUT	1x 3.5 mm phone jack (mono TS) Output impedance: 600 Ω	1x 3.5 mm phone plug (mono TS) Output impedance: 600 Ω
Contact IN	3x on Weidmüller male connector S2L 3.50/12/90G	3x on breakout cable
Relay OUT	1x on Weidmüller male connector S2L 3.50/12/90G	1x on breakout cable
Serial interface ⁶⁾	1x RS485 on Weidmüller male connector S2L 3.50/12/90G (half duplex)	1x RS485 on breakout cable (half duplex)
Ethernet	1x RJ45, 10BASE-T/100BASE-TX (PoE+)	
Power IN	1x 24 V AC on Weidmüller male connector SL 3.50/02/90G	1x 24 V AC on breakout cable

Electrical Data	Surface Variants and In-Ceiling Variants	Weatherproof Variants
Voltage supply	24 V AC ±10% (50/60 Hz) PoE+	
PoE standard	IEEE 802.3at	
Power consumption	Max. 25 W	Max. 25 W (camera) Max. 89 W (with fan/heater)

5) 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 (ey@cryptsoft.com).
6) Function in preparation

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Mechanical Data	Surface Variants	In-Ceiling Variants	Weatherproof Variants
Dimensions	Approx. Ø 179 × H 266 mm Ø 7.0 × H 10.5 inches	Approx. Ø 245 × H 267 mm Ø 9.6 × H 10.5 inches	Approx. Ø 258 × H 329 mm Ø 10.2 × H 13.0 inches
Weight	Approx. 3.5 kg	Approx. 3.1 kg	Approx. 5.0 kg
Bubble	Clear		
Vandal-resistant	--	--	Yes
IK protection	--	--	IK10 (up to 20 Joules)
Rating	--	Plenum Rated (UL 2043)	IP67
Color	Black	Black with white housing ring	White

Environmental Conditions	Surface Variants	In-Ceiling Variants	Weatherproof Variants
Operating temperature	-10°C to +50°C (14°F to 122°F)	-10°C to +50°C (14°F to 122°F)	-40°C to +50°C (-40°F to 122°F)
Relative humidity	0% - 90% RH, non-condensing		

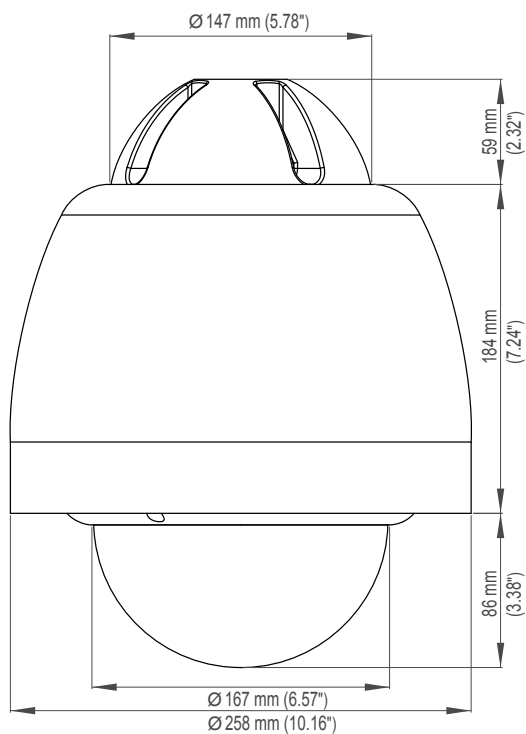
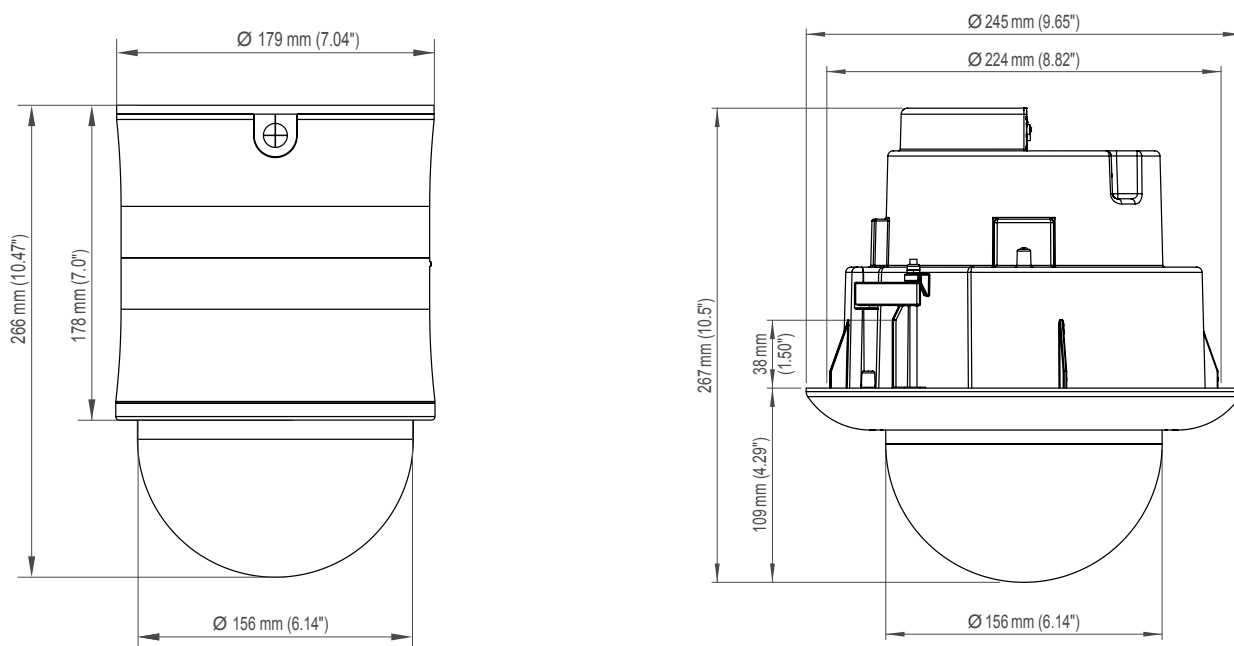
Miscellaneous	
Local memory	30 MB RAM memory
Memory extension	microSDXC 32 GB, Class 10, UHS-II (optional)
Configuration and live video	Via web browser (all major platforms)
Languages	German, English
Programming interface	Open platform for integration into 3rd party systems using API and ActiveX ⁷⁾
ONVIF compliance	Profile S
GDPR compliance	Supported

Approvals/Certifications	
Type	CE, 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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