

DDZ5000HD-DN/IR Series

Ultra high definition PTZ network camera, 2/8 MP, 1080p/2160p/30, H.264, H.265, day/night, integrated IR illumination, pan/tilt/zoom with 36x optical zoom, Hi-PoE, weatherproof housing



DDZ5236 DDZ5436

The cameras of the series DDZ5000HD-DN/IR are high-speed PTZ network cameras with **36x optical zoom**. They are equipped with a high-performance Pan-Tilt-Zoom mechanism and provide high-resolution video streams with up to **30 fps at a resolution of up to 2/8 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 **high 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.

Integrated IR illumination

The day/night operation is supported by an integrated **wide-ranging IR illumination** that is automatically adjusted to the selected zoom ratio. In the IR mode at night, the camera provides excellent results due to the high infrared sensitivity and thus meets even the most demanding requirements in a **24-hour operation**.

Variants

The camera is offered as **DDZ5436HD-DN/IR** with a **resolution up to 8 MP** and as **DDZ5236HD-DN/IR** with a **resolution up to 2 MP**. Both variants are installed in a weatherproof housing and are suitable for outdoor and indoor use. They can be supplied with an external power supply unit or conveniently with **Power over Ethernet (Hi-PoE)**.

Installation

The weatherproof housing is equipped with the innovative **Mountera® Plug** quick coupling and is therefore fully compatible with the wall and ceiling mounts of the unique **Mountera® Quick-Lock System**. Mountera® allows the camera to be easily latched in and also provides convenient fine adjustment and locking. In addition, the internal cable routing offers maximum safety and a harmonic appearance right up to the optional **Mountera® Box**.

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

- High-speed PTZ mechanism
- 36x optical zoom with autofocus
- Range of IR lighting up to 200 m
- Minimum illumination 0 lux (with IR LED On)
- Memory expansion with microSDXC card
- Digital Wide Dynamic Range (DWDR)
- Digital 3D Noise Reduction (3D-DNR)
- Video Compression H.264, H.265, MJPEG
- 300 programmable preset positions
- 8 tours (up to 32 presets per tour)
- 4 patterns (recording time up to 10 minutes per pattern)
- Functions for data protection and data security (GDPR-compliant)
- Weatherproof (IP66) housing
- Housing coating tested for seawater resistance
- Simple installation with innovative quick lock coupling
- Fully compatible with the Mountera® Quick-Lock System

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Variants	
007090	 DDZ5236HD-DN/IR High definition PTZ network camera, 2MP, 1080p/30, H.264, H.265, day/night, integrated IR illumination, pan/tilt/zoom with 36x optical zoom, Hi-PoE, weatherproof (IP66) housing, F1.5 – F4.5 / 7.5 – 270 mm
007091	 DDZ5436HD-DN/IR Ultra High Definition PTZ network camera, 8 MP, 2160p/30, H.264, H.265, day/night, integrated IR illumination, pan/tilt/zoom with 36x optical zoom, Hi-PoE, weatherproof (IP66) housing, F1.5 – F4.5 / 7.5 – 270 mm
Accessories	
007054	 Mountera® Box with PSU Mountera® Box with power supply unit, 48V DC, 5,4 A, 260 W, IP66, white
006979	 Mountera® Wall Bracket Mountera® bracket for the installation of camera systems on walls or on a Mountera® Box, Quick-Lock System included, robust aluminium construction, internal cable routing, vandal-resistant, powder-coated, white
006980	 Mountera® Ceiling Bracket Mountera® bracket for installation of camera systems on ceilings, Quick-Lock System included, robust aluminium construction, internal cable routing, vandal-resistant, powder-coated, white
Cable Set	
007428	 Mountera® Cable Set C Preassembled cable set for the connection of a camera system to a Mountera® Box, 1x cable seal, 1x cable power supply/grounding, 1x cable network (copper RJ45), each with matching plug, UV-resistant and flexible, length 80 cm

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Sensor	DDZ5236HD-DN/IR	DDZ5436HD-DN/IR
Type	1/1.9" CMOS	2/3" CMOS
Number of sensor pixels	2MP	8MP
Light sensitivity	IR LED OFF: 0.002lux (F1.5, AGC ON) IR LED On: 0lux	IR LED OFF: 0.005lux (F1.5, AGC ON) IR LED On: 0lux
Dynamic range	Wide Dynamic Range (digital)	
Signal to noise ration	> 50 dB	

Lens	
Zoom	36x optical, 16x digital
Focal length	7.5 – 270 mm
Aperture range	F1.5 – F4.5
Minimum object distance at wide end	0.01
Minimum object distance at tele end	1.5 m
Available angle of view (H x V) at wide end ¹⁾	Approx. 56.1° – 33.4°
Available angle of view (H x V) at tele end ¹⁾	Approx. 2.0° – 1.1°
Zoom speed (wide – tele)	Approx. 8 sec

PTZ Functions	
Pan range	360° endless
Tilt range	-20° to 90° (Auto Flip) ²⁾
Pan speed	Manual speed 0.1° – 210°/sec Preset speed 280°/sec
Tilt speed	Manual speed 0.1° – 150°/sec Preset speed 250°/sec
Proportional zoom	Rotation speed can be adjusted automatically according to zoom
Number of presets	300
Patrol	8 tours (up to 32 presets per tour)
Pattern	4 patterns (recording time up to 10 minutes per pattern)

Format and Encoding	DDZ5236HD-DN/IR	DDZ5436HD-DN/IR
Video standard	SDTV (PAL/NTSC) HDTV (SMPTE 296M, SMPTE 274M)	
Resolution 4:3	1.5 MP (1440 x 1080) @ 25/30 fps 1.2 MP (1280 x 960) @ 25/30 fps 704 x 576, 704 x 480, 640 x 480 @ 25/30 fps	5 MP (2592 x 1920) @ 25/30 fps 4 MP (2336 x 1744) @ 25/30 fps 3 MP (2048 x 1536) @ 25/30 fps 1.5 MP (1440 x 1080) @ 25/30 fps 1.2 MP (1280 x 960) @ 25/30 fps 704 x 576, 704 x 480, 640 x 480 @ 25/30 fps
Resolution 16:9	1080p (1920 x 1080) @ 25/30 fps 720p (1280 x 720) @ 25/30 fps	8 MP (3840 x 2160, 2160p) @ 25/30 fps (Ultra High Definition) 5.3 MP (3072 x 1728) @ 25/30 fps 1080p (1920 x 1080) @ 25/30 fps 720p (1280 x 720) @ 25/30 fps
Video compression	H.264, H.265, MJPEG	
Frame rate	Up to 30 fps	
Video bit rate	1 – 16 Mbps, CBR (constant bit rate), VBR (variable bit rate), with priority setting for image quality ³⁾	
Video streaming	Up to 3 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) At extreme inclination (towards -20°) and extreme wide angle setting, shadowing may occur at the edge of the picture. This is construction-related and does not constitute a defect.

3) 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 (optimized for distances from 10 m ⁴⁾)
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) Fix: 2800K, 4000K, 5000K
Privacy Zone Masking	Hiding/masking of up to 24 protected areas (up to 100% of the entire image), up to 8 protected areas per image section, 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	
Ethernet	1x RJ45, 10BASE-T/100BASE-TX (Hi-PoE)
Power IN	1x 48 V DC ±5%
Audio Line IN	1x
Audio Line OUT	1x
Contact IN	2x
Relay OUT	2x

Electrical Data	
Voltage supply	48 V DC ±5% / PoE with Hi-PoE Power Inserter
Power consumption	Max. 60 W

4) At an object distance of less than 10 m and a high zoom factor (greater than 25x), the autofocus may slow down. This is due to technical reasons and does not constitute a defect.

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).

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Mechanical Data	DDZ5236HD-DN/IR	DDZ5436HD-DN/IR
Dimensions (W × H × D)	Approx. 303 × 416 × 303 mm (11.9 × 16.4 × 11.9 inches)	
Weight	Approx. 16,2kg (35.7lb)	
Material	Aluminium	
Processing	Chromated	
Finish	Powder coating, tested for seawater resistance according to DIN EN 60068-2	
Color	Signal white (RAL 9003 ⁶⁾), housing Signal black (RAL 9004 ⁶⁾), PTZ unit	
Adjustment	Stepless alignment on 3-axes up to ±5°	
IK protection	IK10	IK10 (glass pane excluded)
IP rating	IP66	

Environmental Conditions	
Installation sites	Indoor and outdoor
Operating temperature	-30°C to +65°C (-22°F to 149°F)
Relative humidity	0% - 90% RH, non-condensing

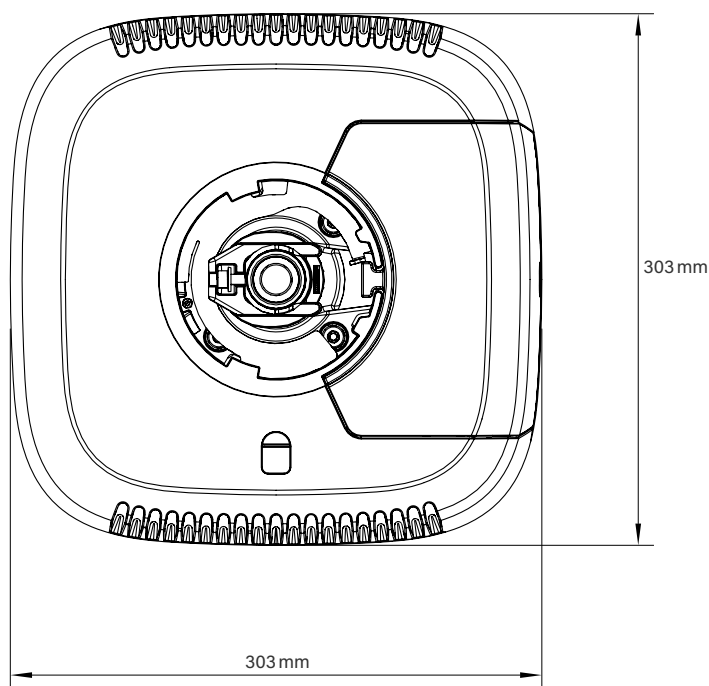
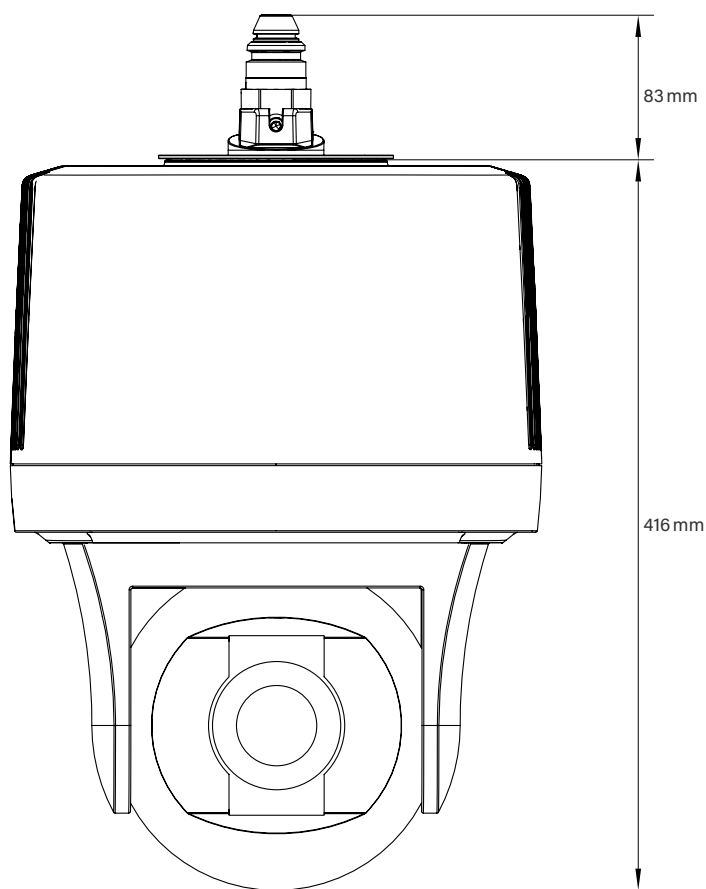
Miscellaneous	
Local memory	30 MB RAM memory
Memory extension	microSDXC 32/64 GB, Class 10, UHS-II (optional)
Configuration and live video	Via web browser (all major platforms)
Languages	German, English
Programming interface	Open platform for integration into 3rd party systems using API and ActiveX ⁷⁾
ONVIF compliance	Profile S
GDPR compliance	Supported

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

6) The color of the powder coating may differ slightly from the RAL color indicated. This is due to production and does not constitute a defect.
7) ActiveX is a trademark or registered trademark of Microsoft Corporation headquartered in Redmond, Washington, USA

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