

DDZ4020-YY/HS/HD DOMERA®

High-Speed IP Network PTZ Dome Camera, Full HD, 1080p/30, 20× Optical Zoom, Auto-focus, Wide Dynamic Range, Day/Night, PoE+

DOMERA®
High-Definition

ONVIF **DIN**
DIN EN 50130-4



DOMERA® High-Definition HS is a modular Full HD high-speed PTZ dome camera system.

The high-resolution IP network PTZ dome camera DDZ4020-YY/HS/HD with 20× optical zoom, auto-focus, Wide Dynamic Range and Dallmeier Cam_inPIX® technology provides real-time Full High-Definition video and is available in three mounting variants (in-ceiling mount, surface mount, weather-proof).

Features

- 1/3" Full HD CMOS image sensor with Cam_inPIX® technology
- Pure Digital Signal Processing
- High-speed PTZ dome
- 20× optical zoom
- 12× digital zoom
- ICR¹⁾ function for Day/Night switching
- Comprehensive set of image optimization functions like AWB, AGC, BLC and Slow Shutter
- Auto-focus with manual override
- Wide Dynamic Range (WDR)²⁾
- Digitale Noise Reduction (DNR)
- Resolution: SD (NTSC/PAL), HD (up to 1080p/30)
- Video compression: H.264, MJPEG
- Frame rate up to 60 fps³⁾
- Simultaneous Dual-Streaming (video compression, resolutions, frame and bit rates of each stream independently adjustable)
- Privacy Zone Masking (hiding/masking of up to 8 protected areas)
- Motion detection⁴⁾ with selectable sensitivity
- Alarm notification via DaVid protocol, e-mail⁴⁾ and FTP image upload⁴⁾
- Bidirectional audio (intercom)
- Local video memory⁴⁾ (USB/SDHC port)
- 64 MB RAM video buffer
- High-performance Pan/Tilt/Zoom mechanism
- 248 programmable preset positions, 16 programmable scans
- 8 programmable tours, 8 programmable pattern
- Voltage supply with PoE+ or 24/28V AC
- Three available mounting variants (IP I/O interface integrated): in-ceiling mount (IM), surface mount (SM) or weather-proof (WM)
- Easy and quick installation
- IP67 (weather-proof variant)
- ONVIF compliant
- DIN EN 50130-4 compliant

Variants	
000486.002756	DDZ4020-IM/HS/HD DOMERA® High-speed IP network PTZ dome camera, Full HD, 1080p/30, 20× optical zoom, WDR, in-ceiling mount variant
000487.002756	DDZ4020-SM/HS/HD DOMERA® High-speed IP network PTZ dome camera, Full HD, 1080p/30, 20× optical zoom, WDR, surface mount variant
000481.002717	DDZ4020-WM/HS/HD DOMERA® High-speed IP network PTZ dome camera, Full HD, 1080p/30, 20× optical zoom, WDR, weather-proof variant

Options	
000401	Wall Mount Bracket Indoor Black, for DOMERA® HD surface mount variant
001035	Tinted Bubble White cover ring, for DOMERA® SD/HD in-ceiling mount variant
001109	Wall Mount Bracket Outdoor White, for weather-proof housing
001111	Pole Mount Bracket Outdoor, white, for weather-proof housing
001112	Corner Mount Bracket Outdoor, white, for weather-proof housing
001113	Junction Box DJB-115W Outdoor, white, for weather-proof housing
001115	Mounting Plate Outdoor, white, for Wall Mount Bracket Outdoor (surface mounting), for Ceiling Mount Bracket (surface mounting), for Junction Box DJB-115W (corner and pole mounting)
001116	Roof Mount Bracket Swan neck, outdoor, white, for weather-proof housing
001117	Ceiling Mount Bracket Outdoor, white, for weather-proof housing
002192	VMC Joystick (with 200 cm USB cable)
001431	EvC-1 High-Speed Ethernet data transmission via coaxial cable
001562	PoE+ Power Supply 1-Port 30W (Midspan)

1) ICR = IR Cut Filter Removable

2) Provides enhanced colour reproduction and detail resolution even in scenes with a wide range of contrast and strong backlighting.

3) Depending on the set resolution.

4) Function is in preparation.

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Specifications

Sensor

Type	1/3" Full High-Definition CMOS image sensor with Cam_inPIX® technology
Effective pixels	Approx. 2 000 000 (2 Megapixels)
Signal processing	Pure Digital Signal Processing
Image capture	Progressive Scan
Minimum illumination	ICR ⁵⁾ Off: 0.5 lux (F1.6, 50 IRE) ICR On: 0.095 lux (F1.6, 50 IRE)
Signal to noise ratio (SNR)	More than 50 dB

Lens

Type	F1.6–F3.5/f=4.7 mm–94.0 mm (20× optical zoom)
Aperture control	Autoiris
Horizontal angle of view	At 1080p: approx. 55.4° (wide end) to 2.9° (tele end) At 720p: approx. 37.6° (wide end) to 2.0° (tele end)
Minimum object distance	10 mm (wide end) to 800 mm (tele end)

Functions

Digital zoom	12× (240× with optical zoom)
Focus control	Auto-focus (AF sensitivity: Normal, Low), One-Push AF, Manual, Infinity mode (∞), AF near limit selectable On/Off/Auto
Wide Dynamic Range (WDR)	ICR function (adjustable switching threshold level)
Day/Night switching	Automatic (in Night mode), Manual (using Effects setting)
Black-and-white mode	1/2 to 1/10000 s (21 steps), slow shutter limit selectable
Electronic (slow) shutter	Automatic (AE), Manual, Shutter Priority, Iris Priority, Bright
Exposure control	–10.5 dB to +10.5 dB (15 steps, 1.5 dB increments)
Exposure compensation	Automatic (AGC)/Manual (–3 to +28 dB, 16 steps)
Gain control	On (4 levels)/Off
Digital Noise Reduction (DNR)	Auto (AWB), ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto), One-Push, Manual
White balance (WB)	Standard, Gamma 1, S-Curve Low, S-Curve Mid, S-Curve High
Gamma correction	On/Off
Backlight compensation (BLC)	Yes
Flip function	Hiding/Masking of up to 8 protected areas (Block, Video Off, Mosaik)
Privacy Zone Masking	B/W (black-and-white), Negative
Effects	With selectable sensitivity (5 levels)
Motion detection (VMD) ⁶⁾	Via DaVid protocol (Dallmeier Video Protocol) to PGuard advance, e-mail ⁶⁾ , FTP image upload ⁶⁾
Alarm notification	Contact IN status change, Contact OUT remote status change (via DaVid protocol), video signal loss
Alarm trigger	PTZ alarm action, Contact OUT status change
Alarm actions	With web browser
Configuration IP I/O interface	Via OSD ⁷⁾ with PView7
Configuration/control PTZ dome camera	English, German, French, Spanish, Italian
Languages	

PTZ Functions

Pan/Tilt	360° continuous/0°–180° Variable speed: Pan: 120°/s, Tilt: 120°/s (Turbo: 420°/s) Preset speed: Pan: 420°/s, Tilt: 420°/s (±0.1°)
Programmable presets	248 positions with camera status (16-character title)
Programmable scans	16 scans (including diagonal scans), 1 Auto Pan (360° continuous panning)
Programmable tours	8
Programmable pattern	8 (total up to 480 seconds)
Alarm actions at Contact IN status change	Automatic execution of stored functions (presets, scans, tours or pattern), Contact OUT status change

Format and Encoding

Video standard	SDTV (PAL/NTSC), HDTV (SMPTE 296M, SMPTE 274M)
Resolution SD	4CIF (704 × 576), CIF (352 × 288), QCIF (176 × 144), 4SIF (704 × 480), SIF (352 × 240), QSIF (176 × 112), VGA (640 × 480), QVGA (320 × 240), 1080p (1920 × 1080), HD H (1920 × 540), HD D (1440 × 720), 720p (1280 × 720)
Resolution HD	H.264, MJPEG
Video compression	MPEG-1/2 Layer 2, G.711, G.722.1
Audio compression	Up to 60 fps at resolution SD and 720p Up to 30 fps at 1080p, HD H, HD D
Frame rate	0.25–8 Mbps, CBR (constant bit rate) or VBR (variable bit rate) 32–160 kbps (MPEG-1/2 Layer 2), 64 kbps (G.711), 16 kbps (G.722.1)
Video bit rate	Simultaneous Dual-Streaming: Video compression, resolutions, frame and bit rates of each stream independently adjustable (maximum total frame rate of all streams 30 fps with maximum resolution)
Audio bit rate	Progressive (full image)
Video streaming	Unicast, Multicast
Transfer format	
Live streaming transmission method	

5) ICR = IR Cut Filter Removable

6) Function is in preparation.

7) OSD = On Screen Display

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Interfaces

Audio IN (stereo)	1× 3.5 mm phone jack (Line IN)
Audio OUT (stereo)	1× 3.5 mm phone jack
Contact IN	3×
Contact OUT	1×
Serial interface	1× RS485 (full duplex, half duplex)
Local video memory	USB/SDHC port integrated ⁸⁾ (adapter for SDHC card separately available)
Ethernet	1× RJ45, 10BASE-T/100BASE-TX-PoE
Programming interface	Open API for 3rd party systems integration via Dallmeier control for ActiveX* (ONVIF compliant)

Protocols

Ethernet protocols	IPv4, TCP, UDP, ARP, ICMP, DHCP, NTP, HTTP, RTSP, IGMP V2, FTP ⁸⁾ , SMTP ⁸⁾ , RTP, RTCP
PTZ control protocols	Dallmeier DCCP, Pelco D

Miscellaneous

Video buffer	64 MB RAM ring storage (pre- and post alarm, network failure compensation)
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Electrical Data

Voltage supply	24/28 V AC ±10% (50/60 Hz), PoE+
PoE standard	IEEE 802.3at
Power consumption	In-ceiling mount variant: max. 25 W Surface mount variant: max. 25 W Weather-proof variant: max. 89 W (with ventilator/heater)

Mechanical Data

Dimensions	In-ceiling mount variant: approx. Ø227 × H248 mm (Ø8.94 × H9.76 inches) Surface mount variant: approx. Ø166 × H244 mm (Ø6.54 × H9.61 inches) Weather-proof variant: approx. Ø258.5 × H330 mm (Ø10.18 × H12.99 inches)
Weight	In-ceiling mount variant: approx. 2025 g (4.46 lb) Surface mount variant: approx. 1755 g (3.87 lb) Weather-proof variant: approx. 4425 g (9.76 lb)
Colour	In-ceiling mount variant: black housing, white cover ring Surface mount variant: black Weather-proof variant: white
Bubble	Clear

Environmental Conditions

Operating temperature	In-ceiling mount variant: 0°C to +35°C (32°F to 95°F) (Indoor) Surface mount variant: -10°C to +40°C (14°F to 104°F) (Indoor) Weather-proof variant: -30°C to +50°C (-22°F to 122°F) (Outdoor)
Relative humidity	0%–90% RH, non-condensing
IP rating	IP67 (weather-proof variant)

Approvals/Certifications

Type	CE, FCC, UL, ACA, CB, DIN EN 50130-4 compliant
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8) Function is in preparation.

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Dimensions

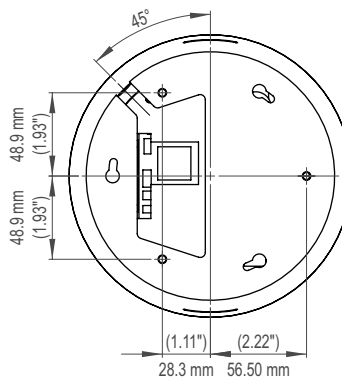
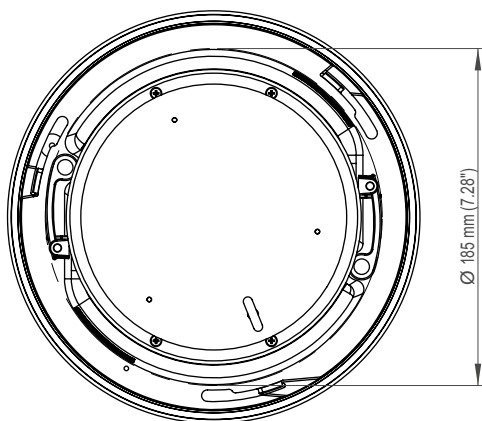
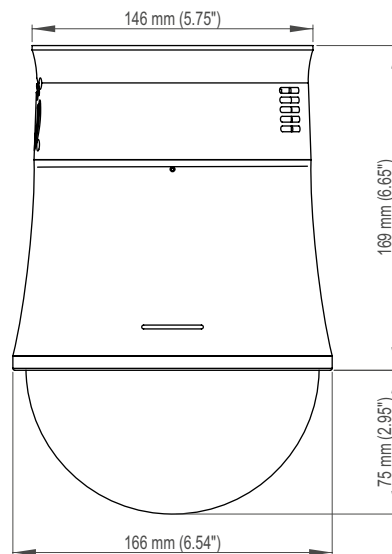
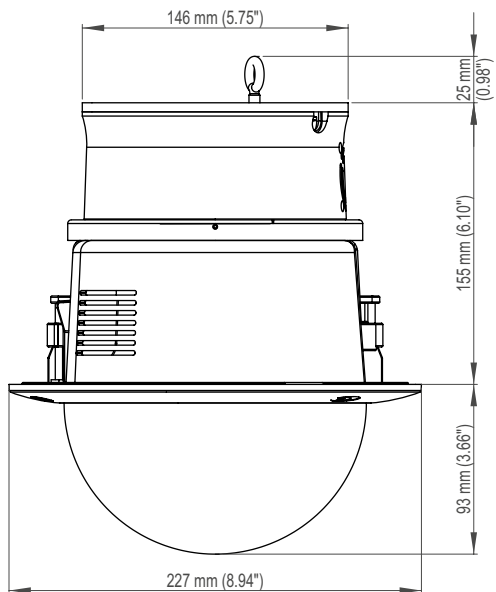


Fig. 1: In-ceiling mount variant

Fig. 2: Surface mount variant

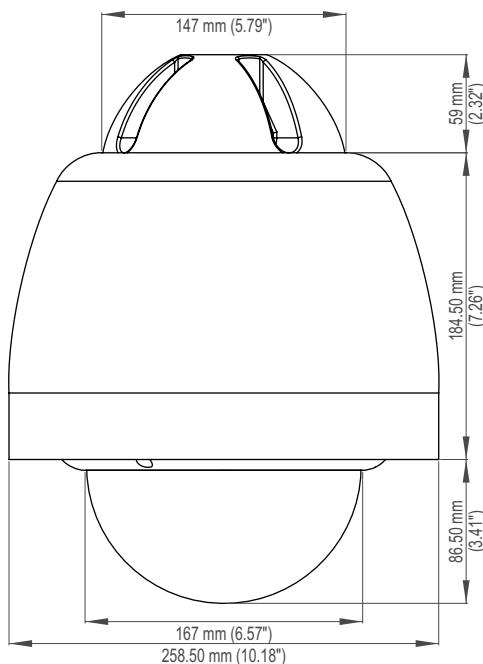


Fig. 3: Weather-proof variant