AUTODOME IP 5000 HD

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BOSCH
Invented for life

- ▶ 30x optical zoom with Bosch imaging platform specially designed and tuned for accurate color reproduction in applications requiring 24/7 surveillance in scenes with varying lighting levels from day to night

- ▶ Identify people as far away as 190 m without loss of any details

- ▶ Simple single cable installation with POE+ support for indoor/outdoor application

- ▶ High-speed PTZ control for tracking people and vehicles in large indoor/outdoor scene

- ▶ Exceptional low bit rates in static scenes to save the storage cost by up to 50% compared to any equivalent dome in the market

With the AUTODOME IP 5000 HD, you can capture full details of your surveillance space while effectively tracking moving targets. The camera uses robust algorithms to ensure the subject stays in full focus when the camera is zooming in or tracking to assist security staff in identifying activity details in the scene. The high 30x zoom lens ensures a sufficient magnification ratio to identify people easily from a distance of up to 280 m.

The new AUTODOME IP family, in combination with Bosch's video security app, makes it easier for you to stay in control of your security even when you're on the go. You can easily stream H.264 video and PAN/TILT/ZOOM the camera remotely through cellular networks from your smart phones or tablets. With Bosch transcoding technology, remote operators can easily pause and search recorded clips to view high-resolution HD details, such as a face or an object.

Functions

Superior imaging performance
Designed using Bosch's imaging platform, the AUTODOME IP 5000 HD delivers high-resolution, zoomed-in views for indoor and outdoor applications with large coverage areas.

The camera comes with three (3) pre-tuned scene modes to match various lighting conditions. Users can complete the configuration without going through multiple imaging settings.

Sodium vapor lamp white balance
The camera is an exceptional performer when capturing video under a sodium vapor lamp (a street lamp or tunnel lamp, for example). Uncorrected images under these conditions have a yellowish tint, which can make identification difficult. In the Sodium Vapor White Balance mode, the camera automatically compensates for the light from a sodium vapor lamp to restore objects to their original color.

Three (3) pre-programmed user modes
- Indoor: general day-to-night changes without sun highlights and street lighting
- Outdoor: general day-to-night changes with sun highlights and street lighting
- Vibrant: enhanced contrast, sharpness and saturation

Superior privacy masking
For installations in public places where privacy of private property is of high concern, the camera provides 24 individual, easy-to-configure privacy masks, with up to 8 displayed in the same scene. As the camera is zoomed, each mask changes size smoothly and quickly, ensuring that the covered object cannot be seen in most cases.

PTZ drive and mechanism
The camera supports 256 pre-positions and two styles of Guard Tours: Preset and Record/Playback. The preset tour has capability for up to 256 pre-positions with a configurable dwell time between pre-positions and can be customized as to the order and frequency each preset is visited. The camera also provides support for two (2) recorded tours, which have a total duration of 30 minutes of movements. These are recorded macros of an operator's movements, including pan, tilt, and zoom activities, and can be played back in a continuous manner.
Pan and tilt preset repeatability are accurate to within ±0.2 degrees to ensure that the correct scene is captured every time. The camera delivers maximum pan speed of 300 degrees per second and maximum tilt speed of 200 degrees per second. The camera is capable of manual speeds (pan and tilt) of 0.1 to 120 degrees per second. The camera provides a pan range of up to 360 degrees continuous rotation.
The camera's tilt angle is from 0° to +90°.

Intelligent Dynamic Noise Reduction reduces bandwidth and storage requirements
The camera uses Intelligent Dynamic Noise Reduction which actively analyzes the contents of a scene and reduces noise artifacts accordingly.
The low-noise image and the efficient H.264 compression technology provide clear images while reducing bandwidth and storage by up to 50% compared to other H.264 cameras. This results in reduced-bandwidth streams that still retain a high image quality and smooth motion. The camera provides the most usable image possible by cleverly optimizing the detail-to-bandwidth ratio.

Area-based encoding
Area-based encoding is another feature which reduces bandwidth. Compression parameters for up to eight user-definable regions can be set. This allows uninteresting regions to be highly compressed, leaving more bandwidth for important parts of the scene.

User can configure area-based encoding for every configured preset, allowing important parts of the scene to be encoded at high resolution and unimportant parts (such as the sky, trees in the background, etc.) to be encoded at lower quality. The average typical optimized bandwidth in kbits/s for various image rates is shown in the table:

IPS	1080p	720p	480p
30			
15			
12			
5			
2			

Intelligent Defog
Users can configure the mode to activate automatically when the global contrast enhancement method in the camera detects fog and adds light to the video image (and then deactivates when the fog clears or the scene changes).

Advanced streaming
The camera offers advanced streaming capabilities so that you can configure the camera to take advantage of the latest network technology.
The camera is designed on the most efficient and powerful H.264 encoding platform capable of delivering high-quality HD video with very low network load. The new intelligent encoding capabilities drops the bandwidth consumption to extremely low levels if the camera detects no motion in the scene.
The camera is capable of quad streaming which allows the camera to be configured to deliver independent, configurable streams for live viewing, recording, or remote monitoring on constrained bandwidths.

Recording and storage management
A memory card (a maximum of 32GB microSDHC / 64GB microSDXC) can be used for local alarm recording or for scheduled local recording to improve the overall recording reliability. Recording management can be controlled by the Bosch Video Recording Manager (VRM), or the camera can use iSCSI targets directly without any recording software.

Alarm handling and Motion Detection
A wide range of configuration options is available for alarms signaling the camera. A built-in algorithm for detecting movement on presets can also be used for alarm signaling, or the camera can interface to an external alarm source using the built-in alarm I/O ports. In addition, a user can also schedule virtual alarms. Any of the available external alarm, motion alarm or scheduled virtual alarms can then be used to trigger a relay output or to force the camera to do certain tasks (for example, to start a guard tour or to go to a preset location).

Access security
Password protection with three levels and 802.1x authentication is supported. To secure Web browser access, use HTTPS with a SSL certificate stored in the camera. The video and audio communication channels can be independently AES encrypted with 128-bit keys by installing the optional encryption site license.

Complete viewing software
There are many ways to access the camera's features: using a web browser, with the Bosch Video Management System, with the free-of-charge Bosch Video Client, with the video security mobile app, or via third-party software.

Video security App
The Bosch video security mobile App has been developed to enable **Anywhere** access to HD surveillance images allowing you to view live images from any location. The App is designed to give you complete control of all your cameras, from panning and tilting to zoom and focus functions. It's like taking your control room with you.
This App, together with the separately available Bosch transcoder, will allow you to fully utilize our dynamic transcoding features so you can play back images even over low-bandwidth connections.

System integration
The camera conforms to the ONVIF Profile S and Profile G specifications. This guarantees interoperability between network video products regardless of manufacturer.
Third-party integrators can easily access the internal feature set of the camera for integration into large projects. Visit the Bosch Integration Partner Program (IPP) website (ipp.boschsecurity.com) for more information.

Ease of installation and servicing
The camera has been designed for quick and easy installation, a key feature from Bosch CCTV products. Bosch designed the camera with the knowledge that field cables and mounts are installed before the camera is mounted. The new installation concept allows a single person to connect the cables directly to the camera without re-routing cables. The camera is easily secured to the mount with a single screw. The three-step installation process can save up to 5 minutes per camera installation compared to any conventional PTZ dome.
Indoor/outdoor pendant housings are rated to provide IP66 protection and offer an operating temperature range down to -30 °C (-22 °F). The indoor/outdoor camera comes fully assembled with a sunshield and ready for wall or pipe applications with the proper mounting hardware (sold separately). You can easily convert the outdoor pendant for indoor applications by removing the sunshield.

Bosch offers a full complement of hardware and accessories (sold separately) for wall, corner, mast, roof, pipe mount, and in-ceiling applications for indoor and outdoor environments, which allow the camera to be adapted easily to individual site requirements.

Dual power options
All models can be powered by a High Power-over-Ethernet (Bosch High PoE)-compliant network using a Bosch High PoE Midspan (sold separately) over a single network cable and/or a 24VAC power supply. When powered using High PoE or PoE+ (IEEE 802.3at class 4) configuration, only a single cable connection is required to power and to control the camera while also viewing images from the camera. For additional system reliability, users also have the option to connect the 24 VAC power supply to the camera while using High PoE.

Easy upgrade
Remotely upgrade the camera whenever new firmware becomes available. This ensures up-to-date products, thus protecting investment with little effort.

Unsurpassed reliability
As with all Bosch products, the camera is designed using the industry's best design process and is subjected to the most stringent testing standards such as HALT (highly accelerated life testing), which pushes the limits of products to ensure reliability throughout their lifetime.

Certifications and approvals

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations, including latest versions of EN 50130-4, EN 55022:2006 inc. AL:2007, EN 61000-3-2, EN 61000-3-3
Product Safety	Complies with UL, CE, CSA, EN, and IEC Standards 60950-1
Other	RoHS C-Tick / RCM
Ingress Protection Rating / Standard	IP66 (pendant model) IP51 (in-ceiling model)

Parts included

1	AUTODOME IP 5000 HD camera
1	Quick Installation Guide
4	MAC address labels

(additional parts TBD)

Technical specifications

AUTODOME IP 5000 HD camera

Imager	1/2.8" progressive scan CMOS
Total sensor pixels	2.48M pixels
Effective pixels	1984 (H) x 1225 (V) approx. 2.43M pixels
Lens Focal Length	30x Zoom 4.3 mm–129 mm (F 1.6 - F 5.0)
Field of View (FOV)	2.3°–65°
Focus	Automatic with manual override
Iris	Automatic with manual override
Digital Zoom	16x
Sensitivity / Minimum Illumination (typical)	Day Mode (Color): 0.16 Lux (AGC on) Night Mode (Black and white (monochrome)): 0.034 Lux (AGC on)
WDR	Digital Tone mapping
Noise Reduction	Intelligent Dynamic Noise Reduction
Backlight Compensation (BC)	On/Off
White Balance	Standard Auto, Sodium Vapor Auto, Basic Auto, Manual, Hold, Dominant Color Auto
Day/Night	Mechanical switchable IR filter (Auto/On/Off) Monochrome

Mechanical

Pan Range	360° continuous
Tilt Range	0°–90°
Pan/Tilt Modes	Normal: 0.1°/s - 120°/s Turbo: Pan: 0.1°/s - 300°/s; Tilt: 0.1°/s - 200°/s
Preset Speed	Pan: 300°/s Tilt: 200°/s
Presets	256
Tours	Two (2) types of tours: • Recorded tours – two (2), maximum total duration 15 minutes (depending on the amount of commands sent during recording) • Preset tour – one (1) consecutive, one (1) custom

Electrical

Input Voltage	24VAC and POE+
Power Consumption	24VAC: 13W, 23W (Heater on) POE+: 25W (Heater on) (IEEE standard)

Network

Video compression	H.264 (ISO/IEC 14496-10) M-JPEG
Streaming Capability	Quad Stream (2x H.264, 1x MJPEG, 1x i- Frame only)
Resolution	1080P (1920×1080) 720P (1280×720) D1 (704×576/704×480)
Frame Rate	1080P (1 - 25/30fps) 720P (1 - 25/30fps)
Ethernet	10/100Base-T
Protocols	IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/ RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, Telnet, ARP, DHCP, SNTP, SNMP (V1,MIB II), 802.1x, DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, no- ip.com),SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS),LLDP, SOAP, Dropbox, CHAP, digest authentication
ONVIF	ONVIF Profiles S & G

Audio

Compression	G.711, 8kHz sampling rate L16, 16kHz sampling rate AAC, 16kHz sampling rate
Interface	1/1 Channel In/Out

Local Storage

Local storage	Supports up to 32GB microSDHC / 64GB microSDXC card. (An SD card of Class 6 or higher is recommended for HD recording.)

Miscellaneous

Sectors / Titling	16 independent sectors with 20 characters per title
Privacy Masking	24 individually configurable privacy masks
Supported Languages	English, German, Spanish, French, Italian, Dutch, Polish, Portuguese, Russian, Japanese, Chinese (simplified)

User Connections

Power, Network	RJ-45 (10/100BASE-T)
Power, Camera	24 VAC
Alarm Inputs	2
Alarm Outputs	1 relay output

Environmental

Ingress Protection Rating / Standard	IP66 (pendant model) IP51 (in-ceiling model)

Operating Temperature	-30 ºC to +60 ºC (-22 ºF to +140 ºF)
Humidity	Less than 90% RH

Construction

Dimensions (D x H)	Φ 190 mm x 304 mm (≈7.5 in. x ≈12.0 in.)
With Sunshield	Φ 207 mm x 304 mm (≈8.2 in. x ≈12.0 in.)
In-ceiling	197.9 mm x 176.6 mm (7.8 in. x ≈7.0 in.)
Weight	Less than 4.5 Kg
Construction Material	Aluminum
Standard Colors	White (RAL 9003)
Standard Finish	

Dimensional Drawings
(Pending)

Ordering information

NEZ-5130-EPCW4
AUTODOME IP 5000 HD, 30x 720p30 HD camera with outdoor pendant housing and sunshield, clear bubble
Order number **NEZ-5130-EPCW4**

NEZ-5230-EPCW4
AUTODOME IP 5000 HD, 30x 1080p30 HD camera with outdoor pendant housing and sunshield, clear bubble
Order number **NEZ-5230-EPCW4**

NEZ-5130-PPCW4
AUTODOME IP 5000 HD, 30x 720p30 HD camera with indoor housing suitable for pendant installation, clear bubble
Order number **NEZ-5130-PPCW4**

NEZ-5130-PPTW4
AUTODOME IP 5000 HD, 30x 720p30 HD camera with indoor housing suitable for pendant installation, tinted bubble
Order number **NEZ-5130-PPTW4**

NEZ-5230-PPCW4
AUTODOME IP 5000 HD, 30x 1080p30 HD camera with indoor housing suitable for pendant installation, clear bubble
Order number **NEZ-5230-PPCW4**

NEZ-5230-PPTW4
AUTODOME IP 5000 HD, 30x 1080p30 HD camera with indoor housing suitable for pendant installation, tinted bubble
Order number **NEZ-5230-PPTW4**

NEZ-5230-CPCW4
AUTODOME IP 5000 HD, 30x 1080p30 HD camera with indoor housing suitable for in-ceiling installation, clear bubble
Order number **NEZ-5230-CPCW4**

Accessories

NEZ-A5-BUB-CTIA
Tinted bubble for in-ceiling housing.
Order number **NEZ-A5-BUB-CTIA**

NEZ-A5-BUB-PTIA
Tinted bubble for pendant housing.
Order number **NEZ-A5-BUB-PTIA**

UPA-2450-50 Power Supply, 220 V, 50 Hz
Indoor power supply for camera. 220 VAC, 50 Hz In; 24 VAC, 50 VA Out
Order number **UPA-2450-50**

UPA-2450-60 Power Supply, 120 V, 60 Hz
Indoor power supply for camera. 120 VAC, 60 Hz In; 24 VAC, 50 VA Out
Order number **UPA-2450-60**

VEZ-A5-WMB Wall Mount Bracket
Order number **VEZ-A5-WMB**

VEZ-A5-PP AUTODOME 5000 Pipe Mount
Mount for installing an AUTODOME 5000 camera onto a pipe.
Order number **VEZ-A5-PP**