

NDP-7602-Z30C PTZ 2MP 30x starlight in-ceiling

AUTODOME inteox 7000i



- ▶ Open platform that allows third-party apps from the Application store from Security & Safety Things
- ▶ Starlight technology with excellent low-light performance and High dynamic range of 120 dB to see detail in difficult light conditions
- ▶ Flexible streaming capabilities powering three independent streams
- ▶ Built-in Intelligent Video Analytics alert operators in case of unusual scene activity
- ▶ Exceptional reliability with 3-year warranty (including on moving parts)

Certifications and approvals

For a full list of all related certifications/standards, refer to the Product Tests Report, available on the online catalog, on the Documents tab of the product page for your device. If the document is unavailable on the product page, contact your sales representative.

Electromagnetic compatibility (EMC)	FCC Part 15, ICES-003 EN 55024:2010 + A1:2015 EN 55032:2015/AC:2016
Product Safety	Complies with UL, CE, CSA, EN, and IEC standards including: UL 62368-1 EN 62368-1 EN 60950-1 CAN/CSA-C22.2 No. 62368-1-14 IEC 62368-1 Ed.2 IEC 60950-1 Ed.2 IEC 60950-22 Ed.2
Marks	UL, CE, WEEE, RCM, EAC, VCCI, FCC, RoHS

Region	Regulatory compliance/quality marks	
Europe	CE	Declaration of Conformity (DoC) - AUTODOME IP starlight 7000i

Parts included

Quantity	Component
1	AUTODOME inteox 7000i in-ceiling camera
1	Interface box
1	Optional black trim ring
1	Ceiling gasket (for IP54 conformance)
1	Safety instructions
1	Quick Installation Guide

Technical specifications

Imager	1/2.8 in. CMOS sensor
Effective Picture Elements (Pixels)	1944 x 1212 (2.35 MP)

Lens	30x motorized Zoom 4.3 mm to 129 mm F1.6 to F4.7
Field of View (FOV)	2.3° to 64.7°
Focus	Automatic with manual override
Iris	Automatic with manual override
Digital Zoom	12x
Day/Night switch	Automatic IR cut filter

Video performance - Sensitivity

(3100K, reflectivity 89%, 1/30, F1.6, 30 IRE)

Color	0.0077 lx
Monochrome	0.0008 lx

Video performance - Dynamic range

High dynamic range	120 dB WDR
Measured according to IEC 62676 Part 5	100 dB WDR

Firmware

Common Product Platform	CPP13
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DORI	Distance to object		
	WIDE 1X	TELE 30X	Scene width
Detection 25 px/m (8 px/ft)	61 m (200 ft)	1913 m (6276 ft)	77 m (252 t)
Observation 63 px/m (19 px/ft)	24 m (79 ft)	765 m (2510 ft)	31 m (100 ft)
Recognition 125 px/m (38 px/ft)	12 m (39 ft)	383 m (1255 ft)	15 m (50 ft)
Identification 250 px/m (76 px/ft)	6 m (20 ft)	191 m (628 ft)	8 m (25 ft)

Gain control	AGC, Fixed, Region per pre-position
Aperture Correction	Horizontal and vertical
Electronic Shutter Speed (AES)	1/1 sec to 1/30,000 sec (22 steps)
Signal-to-Noise Ratio (SNR)	>55 dB

Backlight compensation (BLC)	On / Off / Intelligent Auto Exposure (IAE)
White balance	2000 K to 10,000 K ATW, AWB Hold, Extended ATW, Manual, Sodium Lamp Auto, Sodium Lamp, indoor, outdoor
Day/Night	Monochrome, Color, Auto
Defog mode feature	Improves visibility when viewing foggy or other low-contrast scenes.

Noise Reduction	Intelligent Dynamic Noise Reduction
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Modes for viewing the video area of pre-position settings	Automatic exposure, either full-screen or defined to a specific area Focus
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Video content analysis

Analysis type	Intelligent Video Analytics
Configurations	Off / Global VCA / Profiles 1 - 16

Calibration	Automatic self-calibrating when height is set
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Alarm rules (combinable)	Any object, Object in field, Crossing line, Entering field, Leaving field, Loitering, Following route, Idle object, Removed object, Counter, Occupancy, Crowd detection, Condition change, Similarity search, Tampering
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Object filters	Duration, Size, Aspect ratio v/h, Speed, Direction, Object classes (Upright persons, Bikes, Cars, Trucks), Color
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Standard/Video compression	H.265, H.264 (ISO/IEC 14496), M-JPEG, JPEG
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Streaming	3 fully configurable streams, with the option to activate or deactivate VCA overlays on each stream
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Protocols	IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, noip.com), SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox™, CHAP, digest authentication
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Ethernet	100BASE-TX, auto-sensing, full duplex/auto negotiation, Auto-MDI-X
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Encryption	TLS1.0/1.2, AES128, AES256
Ethernet connector	RJ45
GOP structure	IP, IBP, IBBP
Overall IP Delay	30 fps: 233 ms (typical)
Interoperability	ONVIF Profile S, ONVIF Profile G, ONVIF Profile T

Resolution (H x V)	Pixels
1080p HD	1920 x 1080
720p HD	1280 x 720
432p SD	768 x 432
288p SD	512 x 288

The table that follows shows the average typical optimized bitrate, in kbits/s, for different frame rates: The average is for the highest resolution of the camera.

FPS	H.264	H.265
30	2470	2060
25	2410	1810
15	1690	1260
8	1090	820
4	670	500
2	420	310
1	260	190

Actual bitrate may vary depending on the scene, picture settings, and encoder profile settings.

Memory Card Slot	User-supplied full SD card (maximum 2 TB) Note: For this camera, Bosch does not recommend the use of microSD cards or of microSD to SD adapters.
Recording	Continuous recording of video and audio, alarm/ events/schedule recording
Pan Range	360° cont.
Tilt Angle	1° above horizon

Pre-position Speed	Pan: 400°/s Tilt: 300°/s
Pan/Tilt Modes	
• Turbo Mode (Manual Control)	Pan: 0.1°/s – 400°/s Tilt: 0.1°/s – 300°/s
• Normal Mode	0.1°/s-120°/s
Preset Accuracy	± 0.1° typ.

Input voltage	24 VAC 60 W (using the midspan accessory NPD-6001B, required to power the heater) 30 W (IEEE 802.3at, class 4 standard, when used without powering the heater)
Power Consumption (typical)	19.2 W / 33.6 VA (without heaters)
Current consumption, 24 VAC	~1.4A
Current consumption, 60 W	~0.343A
Redundant configuration	Connect a 30 W or a 60 W midspan ¹ and a separate 24 VAC power source. If either power source fails, the camera switches automatically to the other power source.
Surge suppression	Built-in surge suppression for power, data, and network interfaces (Refer to the A&E Specifications for details.)

1. Only when using the 60 W midspan from Bosch

Power, Network	RJ45 100Base-T
Power, Camera	24VAC, 50/60Hz
Alarm Inputs (7)	2 supervised, 5 non-supervised
Alarm Outputs (4)	1 dry contact relay, 3 open collector/transistor outputs Programmable for "normally open" or "normally closed" 32 VDC @ 150 mA maximum
Audio	1 x mono line in, 1 x mono line out Signal line in: 20 kOhm typical, 0.707 Vrms Signal line out: 0.707 Vrms at 16 Ohm, typical
Ingress Protection Rating/Standard	IP54, Plenum rated

Operating temperature	-10 to +40 °C (+14 to +104 °F)
Storage temperature	-40 to +60 °C (-40 to +140 °F)
Operating Humidity	0% to 90% RH (non-condensing)
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Dimensions	306.7 mm (12.07 in.) x 204.5 mm (8.05 in.)
Weight	2.6 kg (5.7 lb)
Bubble Size	153.1 mm diameter (6.03 in.)
Construction Material , Housing	Magnesium
Construction Material , Bubble	Acrylic
Standard Color	White (RAL 9003)
Standard Finish	Powder coated, sand finish

Ordering information

NDP-7602-Z30C PTZ 2MP 30x starlight in-ceiling
 PTZ dome camera, 2MP, 30x, starlight imaging, H.265,
 IVA, open camera platform
 Indoor, in-ceiling mount, clear bubble
 Order number **NDP-7602-Z30C | F.01U.381.161**

Services

EWE-AD7IIP-IW 12mths full wrty ext AD 7x00i Series
 12 months warranty extension
 Order number **EWE-AD7IIP-IW | F.01U.382.507**

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