

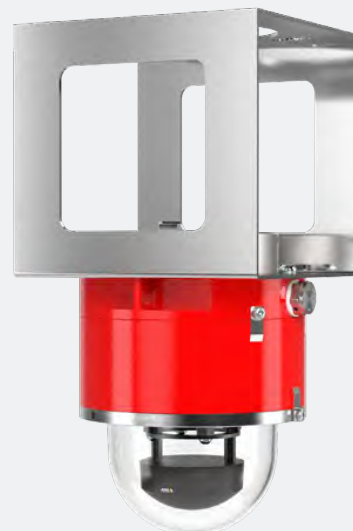
Spectrum D101-X-M4328-P-BD

Explosion-Proof 12MP indoor fisheye camera with deep learning

EXPLSION
PROOF CAMERA

Key Features

- 12 MP
- 180°/360° Panoramic views at up to 30 fps
- Forensic WDR, Day/Night Functionality
- Zipstream supporting H.264 and H.265
- Reliable Securing Kit included
- Made in USA
- NDAA-Compliant
- cFMus, Class I/II/III, Division 1, Zone 1/21, IECEx, ATEX, INMETRO, UKCA and PESO approved.
- Operating Temperature: 0°C to +40°C (32°F to 104°F)
- Digital roll for easy installation
- Support for digital PTZ views
- Support for advanced analytics

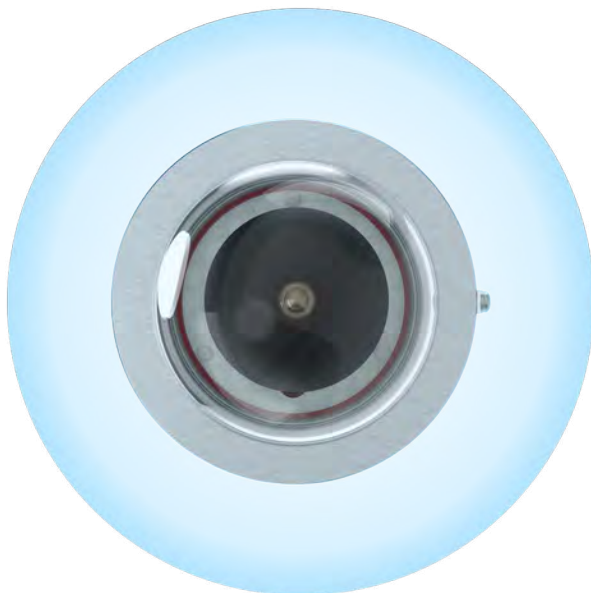


Axis Camera Inside



Description

Spectrum D101-X-M4328-P-BD delivers 180° and 360° panoramic views along with a variety of de-warped views with no blind spots. The camera can stream up to four individual view areas simultaneously, with support for digital PTZ. Built on ARTPEC-8, it offers powerful artificial intelligence and deep learning analytics. Plus, thanks to AXIS Object Analytics, it can accurately detect and classify moving objects for more effective monitoring. Enclosed in a patented stainless-steel or red aluminum explosion-proof housing, it's certified (cFMus, IECEx, ATEX, INMETRO, UKCA and PESO approved) for use in potentially combustible environments. Sensitivity in poor light is improved with support for day/night functionality. Also, Axis Forensic WDR delivers clarity even when there's both light and dark areas in the scene. Spectrum D101-X-M4328-P-BD is delivered factory focused and features digital roll functionality for easy installation.



Specifications

Spectrum D101-X-M4328-P-BD

Camera		ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at onvif.org Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX.
Image sensor	1/2.3" progressive scan RGB CMOS	
Lens	1.2 mm, F2.2 Horizontal field of view: 182° Vertical field of view: 182° Fixed iris, fixed focus, IR corrected	
Day and night	Automatic IR-cut filter	
Minimum illumination	Color: 0.19 lux at 50 IRE, F2.2 B/W: 0.04 lux at 50 IRE, F2.2	
Shutter speed	1/8100 s to 1/2 s	
Camera angle adjustment	Digital roll: ±180°	
System on chip (SoC)		
Model	ARTPEC-8	
Memory	2048 MB RAM, 8192 MB Flash	
Compute capabilities	Deep learning processing unit (DLPU)	
Video		
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG	
Resolution	Overview: 2992x2992 to 160x160 (1:1) Panorama: 3840x2160 to 192x72 (8:3, 16:9 or 32:9) Double panorama: 3584x2688 to 384x288 (4:3 or 16:9) Quad view: 3584x2688 to 384x288 (4:3 or 16:9) View area 1-4: 2048x1536 to 256x144 (4:3 or 16:9) Corner left/right: 3200x1600 to 192x72 (2:1 or 8:3) Double corner: 2880x2880 to 384x288 (1:1 or 4:3) Corridor: 2560x1920 to 256x144 (4:3 or 16:9)	
Frame rate	360° overview only up to max resolution without WDR: 25/30 fps @ 50/60 Hz 360° overview and 4 dewarped views up to max resolution with WDR: up to 25/20 fps @ 50/60 Hz	
Video streaming	Multiple, individually configurable streams in H.264, H.265, and Motion JPEG Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265 Video streaming indicator	
WDR	Forensic WDR: Up to 120 dB depending on scene	
Noise reduction	Spatial filter (2D noise reduction) Temporal filter (3D noise reduction)	
Image settings	Saturation, contrast, brightness, sharpness, local contrast, tone mapping, white balance, day/night threshold, exposure mode, exposure zones, compression, mirroring, dynamic text and image overlay, and polygon privacy mask	
Image processing	Axis Zipstream, Forensic WDR	
Pan/Tilt/Zoom	Digital PTZ of view areas, digital PT of panorama, corner, corridor and quad views, preset positions, guard tours	
Audio		
Audio features	Network speaker pairing	
Audio input/output	Audio features through portcast technology: two-way audio connectivity, voice enhancer	
Network		
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS ^a , HTTP/2, TLS ^a , QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP [®] , SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP, TCP, UDP, IGMPv1/v2/v3, RTCP, DHCPv4/v6, SSH, LLDP, CDP, MQTT v3.1.1, Syslog, Link-Local address (ZeroConf), IEEE 802.1X (EAP-TLS), IEEE 802.1AR	
System integration		
Application Programming Interface	Open API for software integration, including VAPIX [®] , metadata and AXIS Camera Application Platform (ACAP); specifications at axis.com/developer-community . ACAP includes Native SDK and Computer Vision SDK. One-click cloud connection	
Video management systems	Compatible with AXIS Companion, AXIS Camera Station, video management software from Axis' Application Development Partners available at axis.com/vms	
Onscreen controls	Privacy masks Media clip	
Event conditions	Device status: above operating temperature, above or below operating temperature, below operating temperature, within operating temperature, IP address removed, new IP address, network lost, system ready, live stream active Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: manual trigger, virtual input MQTT: subscribe Scheduled and recurring: schedule Video: average bitrate degradation, day-night mode, tampering	
Event actions	Day-night mode MQTT: publish Notification: HTTP, HTTPS, TCP and email Overlay text Recordings: SD card and network share SNMP traps: send, send while the rule is active Status LED Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email WDR mode	
Built-in installation aids	Pixel counter, digital roll, level grid	
Analytics		
AXIS Object Analytics	Object classes: humans, vehicles (types: cars, buses, trucks, bikes) Features: line crossing, object in area Up to 10 scenarios Metadata visualized with trajectories, color-coded bounding boxes and tables Polygon include/exclude areas ONVIF Motion Alarm event	
Metadata	Object data: Classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates Confidence, position Event data: Producer reference, scenarios, trigger conditions	
Applications	Included AXIS Object Analytics, AXIS Video Motion Detection, active tampering alarm Supported Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap	
Approvals		
Product markings	CSA, UL/cUL, BIS, UKCA, CE, KC	
Supply chain	TAA compliant	
EMC	EN 55032 Class A, EN 55035, EN 61000-6-1, EN 61000-6-2 Australia/New Zealand: RCM AS/NZS CISPR 32 Class A Canada: ICES-3(A)/NMB-3(A) Japan: VCCI Class A Korea: KS C 9835, KS C 9832 Class A USA: FCC Part 15 Subpart B Class A	
Safety	IEC/EN/UL 62368-1 ed. 3, CAN/CSA C22.2 No. 62368-1 ed. 3, IS 13252	
Environment	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78	
Network	NIST SP500-267	
Cybersecurity		
Edge security	Software: Signed firmware, brute force delay protection, digest authentication, password protection, AES-XTS-Plain64 256bit SD card encryption Hardware: Axis Edge Vault cybersecurity platform Secure element (CC EAL 6+), system-on-chip security (TEE), Axis device ID, secure keystore, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)	

Specifications (continued)

Network security	IEEE 802.1X (EAP-TLS) ^a , IEEE 802.1AR, HTTPS/HSTS ^a , TLS v1.2/v1.3a, Network Time Security (NTS), X.509 Certificate PKI, IP address filtering	Video Management Software	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at axis.com/vms
General		Languages (Camera)	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
Casing (x)	A = Aluminum S = Stainless Steel		
Weight	A = 19 lbs (8.61 kg) S = 27 lbs (8.6 kg)		
Dimensions	Height: 11.5 in (292 mm) ø 8.6 in (218 mm)		
Power	44-57 Vdc 6.49W		
Storage Conditions	-40°C to 65 °C (-40°F to 149°F) Humidity 5-95% RH (non-condensing)		
Operating Conditions	0°C to +40°C (32°F to 104°F) Humidity 10-100% RH (condensing)		
Warranty	5-year limited warranty, see spectrumcamera.com/warranty		
Approvals	<p>Hazardous Area FM3600, FM3615, ANSI/ISA/EN/IEC/CAN/CSA-C22.2 60079-0, ANSI/UL/EN/IEC/CAN/CSA-C22.2 60079-1, ANSI/UL/IEC/CAN/CSA-C22.2 60079-31</p> <p>EMC EN 55032 Class A, EN 50121-4, IEC 62236-4, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 32 Class A, KC KN32 Class A, KC KN35</p> <p>Safety IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252</p> <p>Environment IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)</p> <p>Network NIST SP500-267</p>		
Explosion-proof Certifications	<p>USA (Divisions): Class I Division 1 Groups B,C,D T6, type 4X, IP66/67 Class II/III, Division 1, Groups E,F,G T6 Ta = 0°C to +40°C Certificate: FM17US0156X</p> <p>USA and Canada (Zones): Class I, Zone 1, AEx/Ex db IIB+H2 T6 Gb Ta 0°C to +40°C, Type 4X, IP66/67 Zone 21, AEx/Ex tb IIIC T85 °C Db Ta = 0°C to +40°C, Type 4X, IP66/67 Certificate: FM17US0156X and FM18CA0103X</p> <p>ATEX: II 2 G Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, IP66/67 II 2 D Ex tb IIIC T85 °C Db Ta = 0°C to +40°C, IP66/67 Certificate: FM18ATEX0057X</p> <p>IECEx: Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, IP66/67 Ex tb IIIC T85 °C Db Ta = 0°C to +40°C, IP66/67 Certificate: FMG 18.0020X</p> <p>INMETRO: Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, IP66/67 Ex tb IIIC Db T85 °C Ta = 0°C to +40°C, IP66/67 Certificate number: NCC 20.0083 X</p> <p>PESO: Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, IP66/67 Ex tb IIIC T85 °C Db Ta = 0°C to +40°C, IP66/67 Certificate: FMG 18.0020X Approval No: A/P/HQ/MH/104/7899 (P578984)</p>		

Approvals & Dimensions

SPECTRUM
CAMERA SOLUTIONS

FABRICADO NO EUA
CERT NO. NCC 20.0083 X
MODELO: D101-X-M4328-P-BD
ALIMENTAÇÃO: IEEE 802.3af/802.3at 5.1W

SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY
8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA
No. SERIE: TIME-DY-MN-YEAR

Segurança
NCC 20.0083 X
Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C
Ex tb IIIC T85°C Db Ta = 0°C to +40°C
IP66

ATENÇÃO:
- ENTRADAS DE CABOS M20 X 1.5
- NÃO ABRA ENQUANTO UMA ATMOSFERA EXPLOSIVA PUDE ESTAR PRESENTE
- INSTALAR ANEL DE VEDAÇÃO NAS ENTRADAS
- NÃO ABRIR QUANDO ENERGIZADO
- RISCO POTENCIAL DE CARGA ELETROSTÁTICA - VER INSTRUÇÕES

-Patente EUA 9917428
-Patente EUA D858611

FM
APPROVED

SPECTRUM
CAMERA SOLUTIONS

8935 ALMEDA GENOA RD.
HOUSTON, TEXAS 77075
USA

CERT NO. FM17US0156X
INPUT: IEEE 802.3af/802.3at 5.1W
MODEL NUMBER: D101-X-M4328-P-BD SERIAL:
Class I Division 1 Groups B,C,D T6, Type 4X, IP66
Class II/III, Division 1, Groups E,F,G T6

-WARNINGS: Ta = 0°C to +40°C
-NOT INCLUDING KETONE OR ESTER ATMOSPHERES
-CONDUIT ENTRIES ARE M20 X 1.5
-DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT
-INSTALL SEAL AT ENCLOSURE ENTRY

US Patent 9917428
US Patent D858611

SPECTRUM
CAMERA SOLUTIONS

FM
APPROVED

MADE IN USA
CERT NO.
FM17US0156X
FM18CA0103X

CE
UK
CA
2809
1725

SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY
8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA

MODEL: D101-X-M4328-P-BD
INPUT: IEEE 802.3af/802.3at 5.1W
SERIAL:
Class I, Zone 1, AEx/Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, Type 4X, IP66
Zone 21, AEx/Ex tb IIIC T85°C Db Ta = 0°C to +40°C, Type 4X, IP66

II 2 G Ex db IIB+H2 T6 Gb Ta = 0°C to +40°C, IP66
II 2 D Ex tb IIIC T85°C Db Ta = 0°C to +40°C, IP66

CERT NO. FM18ATEX0057X, IECEx FMG 18.0020X, FM22UKEX0028X
WARNING: DO NOT OPEN WHEN ENERGIZED OR WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT
INSTALL SEAL AT ENCLOSURE ENTRY

www.spectrumcamera.com
US Patent 9917428
US Patent D858611

