AXIS M4216–V Dome Camera

Varifocal 4 MP dome with deep learning

Featuring WDR and Lightfinder, this compact and discreet dome delivers great image quality in challenging light conditions. A deep learning processing unit (DLPU) lets you take advantage of intelligent analytics based on deep learning on the edge. Designed to blend into any environment, it can be repainted and offers a range of accessories for discreet monitoring. Plus, it features an HDMI port and the flexibility to add audio and I/O connectivity using AXIS T61 Series. Furthermore, Axis Edge Vault protects your Axis device ID and simplifies authorization of Axis devices on your network.

- > Great image quality in 4 MP
- > Varifocal lens with remote zoom and focus
- > Lightfinder and WDR
- > Analytics with deep learning
- > HDMI output for public viewing monitors





AXIS M4216–V Dome Camera

Camera

Image sensor	1/2.7" progressive scan RGB CMOS
Lens	Varifocal, 3–6 mm, F1.9 - 2.7 Horizontal field of view: 100°–45° Vertical field of view: 72°–34° Remote focus and zoom, fixed iris
Day and night	Automatic IR-cut filter
Minimum illumination	**With Lightfinder:** **Color:** 0.18 lux at 50 IRE F2.0 **B/W:** 0.03 lux at 50 IRE F2.0
Shutter speed	1/37500 s to 1/5 s
Camera angle adjustment	Pan ±180°, tilt -40 to +65°, rotation ±105° Can be directed in any direction and see the wall/ceiling

System on chip (SoC)

Model	CV25
Memory	1024 MB RAM, 512 MB Flash
Compute capabilities	Deep learning processing unit (DLPU)

Video

Video compression	H.264 (MPEG-4 Part 10/AVC) Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main and High Profiles Motion JPEG
Resolution	2304x1728 to 320x240
Frame rate	Up to 25/30 fps with power line frequency 50/60 Hz in H.264 and H.265[a]
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/MBR H.264/H.265 Low latency mode HDMI
Multi-view streaming	Up to 2 individually cropped out view areas in full frame rate
HDMI output	HDMI 1080p (16:9) @25/30 Hz refresh rate HDMI 720p (16:9) @50/60 Hz refresh rate
Image settings	Compression, color, brightness, sharpness, contrast, white balance, exposure control, motion-adaptive exposure, WDR: up to 110 dB depending on scene, text and image overlay, mirroring of images, privacy mask Rotation: 0°, 90°, 180°, 270°, including Corridor Format
Pan/Tilt/Zoom	Digital PTZ

Audio

Audio input/output	Audio features through portcast technology: two-way audio connectivity, voice enhancer

Network

Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS, TLS, 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/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCP, ARP, SSH, HDMI, LLDP, CDP, MQTT v3.1.1, Link-Local address (ZeroConf)

System integration

Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at *axis.com* One-click cloud connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at *onvif.org*
Event conditions	Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, system ready, within operating temperature Edge storage: recording ongoing, storage disruption I/O: manual trigger, virtual input, digital input via AXIS T61 Audio and I/O Interfaces with portcast technology MQTT subscribe MQTT subscribe Scheduled and recurring: scheduled event Video: live stream open
Event actions	MQTT publish Notification: email, HTTP, HTTPS, TCP and SNMP trap Overlay text, zoom preset, day/night mode Pre- and post-alarm video or image buffering for recording or upload Record video: SD card and network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email External output activation via AXIS T61 Audio and I/O Interfaces with portcast technology MQTT publish
Built-in installation aids	Remote zoom, remote focus

Analytics

AXIS Object Analytics	**Object classes**: humans, vehicles (types: cars, buses, trucks, bikes) **Scenarios**: line crossing, object in area, crossline counting, occupancy in area, time in area Up to 10 scenarios Metadata visualized with color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Metadata	**Object data**: Classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates **Attributes**: Vehicle color, upper/lower clothing color, confidence, position **Event data**: Producer reference, scenarios, trigger conditions
Applications	**Included** AXIS Live Privacy Shield, AXIS Object Analytics, AXIS Video Motion Detection, AXIS Face Detector, active tampering alarm **Supported** AXIS People Counter AXIS Queue Monitor Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Approvals

EMC	EN 55032 Class A, EN 55035, EN 61000-6-1, EN 61000-6-2 **Australia/New Zealand:** CISPR 24, CISPR 35, RCM AS/NZS CISPR 32 Class A **Canada:** ICES-3(A)/NMB-3(A) **Japan:** VCCI Class A **Korea:** KC KN32 Class A, KC KN35 **USA:** FCC Part 15 Subpart B Class A
Safety	IEC/EN/UL 62368-1, CAN/CSA C22.2 No. 62368-1, IS 13252
Environment	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-6, IEC/EN 60529 IP42, IEC/EN 62262 IK08
Network	NIST SP500-267
Cybersecurity	ETSI EN 303 645

Cybersecurity

Edge security	**Software:** Signed firmware, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, 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)
Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2), IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall
Documentation	*AXIS OS Hardening Guide* *Axis Vulnerability Management Policy* *Axis Security Development Model* AXIS OS Software Bill of Material (SBOM) To download documents, go to *axis.com/support/cybersecurity/resources*

	To read more about Axis cybersecurity support, go to *axis.com/cybersecurity*
General	
Casing	IP42 water- and dust-resistant, IK08 impact-resistant, polycarbonate and aluminum casing with hard-coated dome Encapsulated electronics Color: white NCS S 1002-B For repainting instructions of casing and impact on warranty, contact your Axis partner.
Sustainability	PVC free, BFR/CFR free, 43% recycled plastics
Power	Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 2 Typical 2.8 W, max 4.4 W
Connectors	RJ45 10BASE-T/100BASE-TX PoE HDMI type D Audio: Audio and I/O connectivity via portcast technology
Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption Support for recording to network-attached storage (NAS) For SD card and NAS recommendations see *axis.com*
Operating conditions	0 °C to 45 °C (32 °F to 113 °F) Humidity 10–85% RH (non-condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
Dimensions	Height: 71 mm (2.8 in) ø 121 mm (4.76 in)
Weight	350 g (0.77 lb)
Included accessories	Installation guide, Windows® decoder 1-user license
Optional accessories	AXIS TM3207 Recessed Mount AXIS T94C01L Recessed Mount AXIS T94C01U Universal Mount AXIS T94C01M J-Box/Gang Box Plate AXIS M42 Casing A Black 4P AXIS M42 Smoked Dome A 4P AXIS T91A33 Lighting Track Mount AXIS T91A23 Tile Grid Ceiling Mount AXIS TM3101 Pendant Wall Mount AXIS Surveillance Cards For more accessories, see *axis.com*
Video management software	AXIS Companion, AXIS Camera Station and video management software from Axis Application Development Partners. For more information, see *axis.com/vms*
Languages	English, German, French, Spanish, Italian, Russian, Japanese, Korean, Portuguese, Simplified Chinese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
Warranty	5-year warranty, see *axis.com/warranty*

a. *Reduced frame rate in Motion JPEG*

Key features and technologies

AXIS Object Analytics

AXIS Object Analytics is a preinstalled, multifeatured video analytics that detects and classifies humans, vehicles, and types of vehicles. Thanks to AI-based algorithms and behavioral conditions, it analyzes the scene and their spatial behavior within – all tailored to your specific needs. Scalable and edge-based, it requires minimum effort to set up and supports various scenarios running simultaneously.

Axis Edge Vault

Axis Edge Vault is the hardware-based cybersecurity platform that safeguards the Axis device. It forms the foundation that all secure operations depend on and offers features to protect the device's identity, safeguard its integrity from factory and protect sensitive information from unauthorized access.

Establishing the root of trust starts at the device's boot process. In Axis devices, the hardware-based mechanism **secure boot** verifies the operating system (AXIS OS) that the device is booting from. AXIS OS, in turn, is cryptographically signed (**signed firmware**) during the build process. Secure boot and signed firmware tie into each other and ensure that the firmware has not been tampered with during the lifecycle of the device and that the device only boots from authorized firmware. This creates an unbroken chain of cryptographically validated software for the chain of trust that all secure operations depend on.

From a security aspect, the **secure keystore** is the critical building-block for protecting cryptographic information used for secure communication (IEEE 802.1X, HTTPS, Axis device ID, access control keys etc..) against malicious extraction in the event of a security breach. The secure keystore is provided through a Common Criteria and/or FIPS 140 certified hardware-based cryptographic computing module. Depending on security requirements, an Axis device can have either one or multiple such modules, like a TPM 2.0 (Trusted Platform Module) or a secure element, and/or a system-on-chip (SoC) embedded Trusted Execution Environment (TEE).

Signed video ensures that video evidence can be verified as untampered without proving the chain of custody of the video file. Each camera uses its unique video signing key, which is securely stored in the secure keystore, to add a signature into the video stream. This allows video to be traced back to the Axis camera from where it originated, so it's possible to verify that the footage has not been tampered with after it left the camera.

To read more about Axis Edge Vault, go to *axis.com/solutions/edge-vault*.

Lightfinder

The Axis Lightfinder technology delivers high-resolution, full-color video with a minimum of motion blur even in near darkness. Because it strips away noise, Lightfinder makes dark areas in a scene visible and captures details in very low light. Cameras with Lightfinder discern color in low light better than the human eye. In surveillance, color may be the critical factor to identify a person, an object, or a vehicle.

Zipstream

The Axis Zipstream technology preserves all the important forensic in the video stream while lowering bandwidth and storage requirements by an average of 50%. Zipstream also includes three intelligent algorithms, which ensure that relevant forensic information is identified, recorded, and sent in full resolution and frame rate.

For more information, see *axis.com/glossary*

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