

AXIS M4216-LV Dome Camera

Varifocal 4 MP dome with IR and deep learning

Featuring Lightfinder, WDR, and OptimizedIR, this compact and discreet dome delivers great image quality—day and night, even in low light. 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, WDR, and OptimizedIR**
- > **Analytics with deep learning**
- > **HDMI output for public viewing monitors**



AXIS M4216-LV Dome Camera

Camera

Image sensor

1/2.7" progressive scan RGB CMOS¹

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, 0 lux when IR illumination is on

Shutter speed

1/37500 s to 1/5 s

Camera adjustment

Pan $\pm 180^\circ$, tilt -40 to $+65^\circ$, rotation $\pm 105^\circ$
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.265²

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

1. The native resolution of the image sensor is 5 MP

2. Reduced frame rate in Motion JPEG

Network

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS³, TLS³, 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, Syslog, 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

Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX.

Video management systems

Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at axis.com/vms.

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
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

Built-in installation aids

Remote zoom, remote focus

Analytics

Applications

Included

AXIS Live Privacy Shield⁴, AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, AXIS Face Detector

Supported

AXIS People Counter

AXIS Queue Monitor

Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

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

Other features: triggered objects visualized with color-coded bounding boxes

Polygon include/exclude areas

Perspective configuration

ONVIF Motion Alarm event

AXIS Scene Metadata

Object classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates

Object attributes: vehicle color, upper/lower clothing color, confidence, position

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

IEC 62471

3. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (ey@cryptsoft.com).

4. 16:9 capture mode required

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, BSI IT Security Label

Cybersecurity

Edge security

Software: Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 Client Credential Flow/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)⁵, IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS⁵, TLS v1.2/v1.3⁵, 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 3

Typical 5 W, max 9.7 W

Connectors

RJ45 10BASE-T/100BASE-TX PoE

HDMI type D

Audio: Audio and I/O connectivity via portcast technology

IR illumination

Optimized IR with power-efficient, long-life 855 nm IR LEDs

Range of reach 20 m (65.6 ft) or more depending on the scene

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

375 g (0.83 lb)

Included accessories

Installation guide, Windows® decoder 1-user license

5. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

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*

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*

Highlighted capabilities

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 offer features to protect the device's identity, safeguard its integrity and protect sensitive information from unauthorized access. For instance, **secure boot** ensures that a device can boot only with **signed OS**, which prevents physical supply chain tampering. With signed OS, the device is also able to validate new device software before accepting to install it. And 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 and secure connections are provided through a Common Criteria or FIPS 140 certified hardware-based cryptographic computing module.

Furthermore, signed video ensures that video evidence can be verified as untampered. Each camera uses its unique video signing key, which is securely stored in the secure keystore, to add a signature into the video stream allowing video to be traced back to the Axis camera from where it originated.

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.

OptimizedIR

Axis OptimizedIR provides a unique and powerful combination of camera intelligence and sophisticated LED technology, resulting in our most advanced camera-integrated IR solutions for complete darkness. In our pan-tilt-zoom (PTZ) cameras with OptimizedIR, the IR

beam automatically adapts and becomes wider or narrower as the camera zooms in and out to make sure that the entire field of view is always evenly illuminated.

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