

AXIS P9117-PV Corner Camera

6 MP corner camera with no blind spots

AXIS P9117-PV is a ligature-resistant (anti-ligature) corner camera that delivers 360° panoramic view with no blind spots. This 6 MP corner-mounted camera includes Axis Lightfinder and Axis Forensic WDR for true colors and great details in challenging light or near darkness. AXIS TP9801 Cover Steel is also available as an accessory. Featuring a deep learning processing unit, it's possible to run powerful analytics on the edge. For instance, AXIS Object Analytics can detect and classify different objects of interest. With a built-in microphone, it's out-of-the-box-ready for AXIS Audio Analytics. Furthermore, Axis Edge Vault, a hardware-based cybersecurity platform, safeguards the device.

- > Full coverage and no blind spots
- > 6 MP with stereographic lens
- > Built-in microphone and Axis Audio Analytics
- > Vandal-resistant (IK10) and IP66-rated dust protection
- > Built-in cybersecurity with Axis Edge Vault



AXIS P9117-PV Corner Camera

Camera

Image sensor

1/1.8" progressive scan RGB CMOS

Lens

1.1 mm, F2.2

Overview (1:1) :

Horizontal field of view: 176°

Vertical field of view: 176°

Corner View (4:3) :

Horizontal field of view: 115°

Vertical field of view: 100°

Fixed iris, fixed focus, IR corrected

Day and night

Automatic IR-cut filter

Minimum illumination

Color: 0.17 lux at 50 IRE, F2.2

B/W: 0.04 lux at 50 IRE, F2.2

Shutter speed

1/33500 s to 1/5 s

Camera adjustment

Digital roll: $\pm 180^\circ$

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: 2160x2160 to 160x160 (1:1)

Corner View: 2048x1536 to 320x240 (4:3)

Corner View: 2048x1152 to 256x144 (16:9)

Frame rate

without WDR: 50/60 fps @ 50/60 Hz

with WDR: up to 25/30 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 corner, preset positions, guard tours

Audio

Features

Automatic gain control

Speaker pairing

Audio privacy control

Streaming

Two-way (full duplex)

Audio analytics even when audio streaming is off

Input

Input through speaker pairing or portcast technology
10-band graphic equalizer
Built-in microphone (disabled by default): MEMS microphone

Output

Output through speaker pairing or portcast technology

Encoding

24bit LPCM, AAC-LC 8/16/32/44.1/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz
Configurable bit rate

Network

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS¹, HTTP/2, TLS¹, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, 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.
One-click cloud connection
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.

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.

Onscreen controls

Privacy masks
Media clip

Event conditions

Audio: audio detection
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

1. 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).

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

Applications

Included

AXIS Object Analytics, AXIS Image Health Analytics, AXIS Audio Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, Active tampering alarm, Elevator door state detector

Supported

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, other)

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

AXIS Image Health Analytics

Detection settings:

Tampering: blocked image, redirected image

Image degradation: blurred image, underexposed image

Other features: sensitivity, validation period

AXIS Audio Analytics

Features: adaptive audio detection, audio classification

Audio classes: scream, shout, glass break, speech, coughing fit

Event metadata: audio detections, classifications, sound pressure level

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

Product markings

BIS, CE, ICES, KC, RCM, UKCA, UL/cUL, VCCI, WEEE

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/EN 60529 IP66, IEC/EN 62262 Class IK10,

IEC 60721-3-5 Class 5M3 (Vibration, Shock)

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

ETSI EN 303 645, BSI IT Security Label, FIPS-140

Cybersecurity

Edge security

Software: Signed OS, brute force delay protection, digest authentication, password protection, Axis Cryptographic Module (FIPS 140-2 level 1), 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)²,

IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS², TLS v1.2/v1.3², Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

2. 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).

Documentation

AXIS OS Hardening Guide

Axis Vulnerability Management Policy

Axis Security Development Model

To download documents, go to axis.com/support/cybersecurity/resources

To read more about Axis cybersecurity support, go to axis.com/cybersecurity

General

Casing

IP66, IK10-rated

Polycarbonate hard-coated dome

Color: White NCS S 1002-B

For repainting instructions and impact on warranty, contact your Axis partner

Mounting

Corner mounting on 3 or 2 surfaces (wall + wall or wall + ceiling)

Power

Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3

Typical 3.7 W, max 5.3 W

Connectors

Network: Shielded RJ45 10BASE-T/100BASE-TX PoE

Audio: Audio and I/O connectivity via AXIS T61 Mk II

Audio and I/O Interfaces with portcast technology

Storage

Support for microSD/microSDHC/microSDXC card

Recording to network-attached storage (NAS)

For SD card and NAS recommendations, see axis.com

Operating conditions

-15 °C to 50 °C (5 °F to 122 °F)

Humidity 10–85% RH (non-condensing)

Maximum operating temperature (intermittent): 55 °C (131 °F)

Minimum startup temperature: -15 °C (5 °F)

Storage conditions

-40 °C to 65 °C (-40 °F to 149 °F)

Dimensions

Height: 92 mm (3.62 in)

Width: 146 mm (5.75 in)

Depth: 122 mm (4.80 in)

Weight

760 g (1.68 lb)

Box content

Camera, installation guide, RJ45 tool mounting, extra screw gaskets, extra cable gasket, owner authentication key

Optional accessories

AXIS TP9801 Cover Steel

AXIS TP9601 Conduit Top Box

AXIS T6101 Mk II Audio and I/O Interface

AXIS T6112 Mk II Audio and I/O Interface

AXIS T864 PoE+ over Coax Series

2N® 2WIRE

AXIS T8415 Wireless Installation Tool

AXIS Surveillance Cards

For more accessories, go to axis.com/products/axis-p9117-pv#accessories

System tools

AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator

Available at axis.com

Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Traditional Chinese, Portuguese, Polish

Warranty

5-year warranty, see axis.com/warranty

Part numbers

Available at axis.com/products/axis-p9117-pv#part-numbers

Sustainability

Substance control

PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709

RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018

REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see axis.com/partner.

Materials

Renewable carbon-based plastic content: 73% (recycled)

Screened for conflict minerals in accordance with OECD guidelines

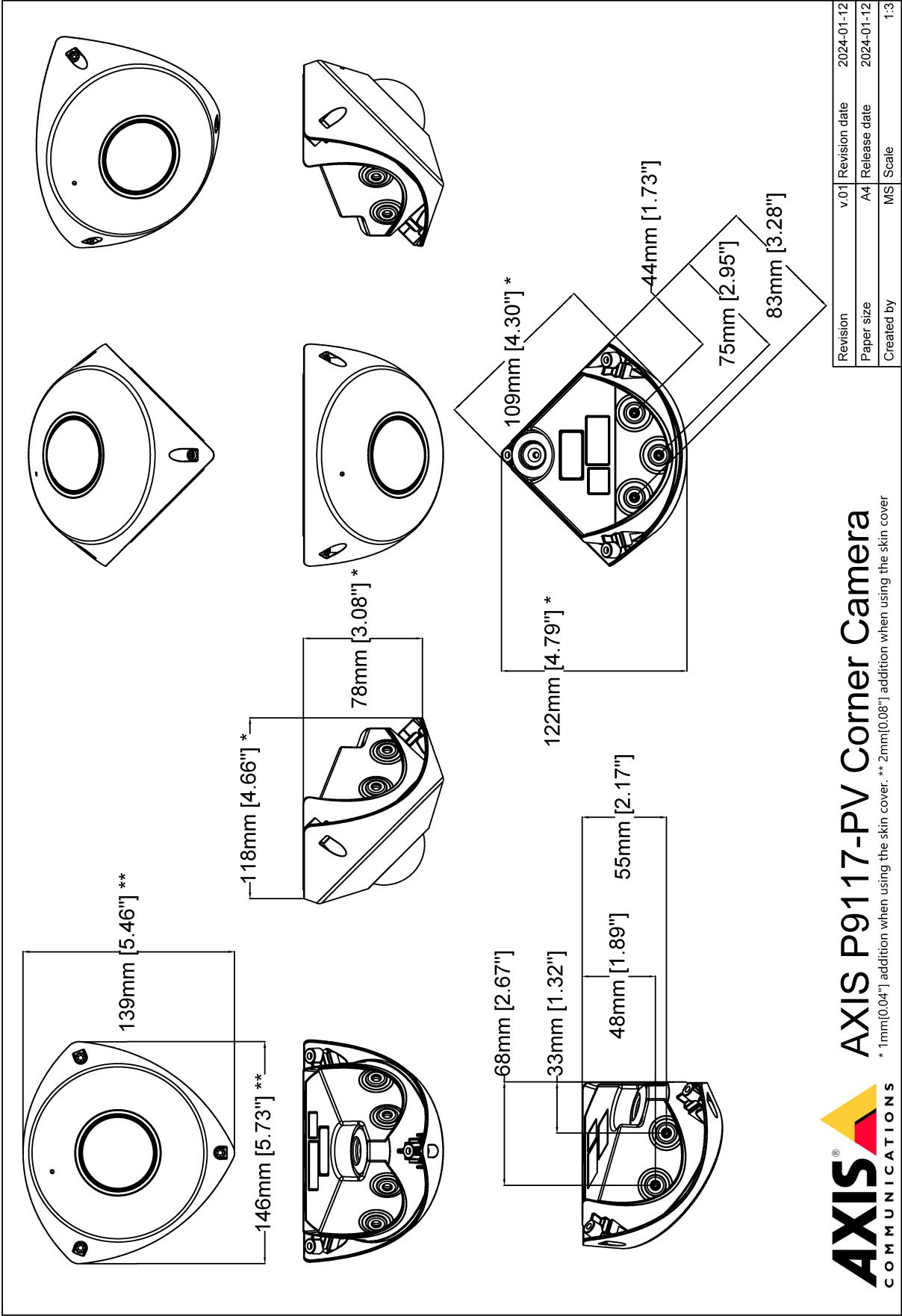
To read more about sustainability at Axis, go to axis.com/about-axis/sustainability

Environmental responsibility

axis.com/environmental-responsibility

Axis Communications is a signatory of the UN Global Compact, read more at unglobalcompact.org

Dimension drawing



Detect, Observe, Recognize, Identify (DORI)

Center	DORI definition	Distance
Detect	25 px/m (8 px/ft)	21.3 m (69.9 ft)
Observe	63 px/m (19 px/ft)	8.5 m (27.9 ft)
Recognize	125 px/m (38 px/ft)	3.6 m (11.8 ft)
Identify	250 px/m (76 px/ft)	2.1 m (6.9 ft)

The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.

Corner	DORI definition	Distance
Detect	25 px/m (8 px/ft)	30.2 m (99.1 ft)
Observe	63 px/m (19 px/ft)	12.0 m (39.4 ft)
Recognize	125 px/m (38 px/ft)	6.0 m (19.7 ft)
Identify	250 px/m (76 px/ft)	3.0 m (9.8 ft)

The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the Corner of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.

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.

Forensic WDR

Axis cameras with wide dynamic range (WDR) technology make the difference between seeing important forensic details clearly and seeing nothing but a blur in challenging light conditions. The difference between the darkest and the brightest spots can spell trouble for image usability and clarity. Forensic WDR effectively reduces visible noise and artifacts to deliver video tuned for maximal forensic usability.

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