AXIS P1518-LE Box Camera

Wide-angle and close-up views in one with IR

This dual-sensor camera offers wide-angle and close-up views of the same scene. Lightfinder 2.0, Forensic WDR, and OptimizedIR ensure great forensic detail in all light conditions. It's easy to install and maintain and includes remote zoom and focus for fast and accurate installation. This IP66-, IP67-, IK10- and NEMA 4X-rated camera can withstand hurricane winds. AI-powered, it comes with AXIS Object Analytics preinstalled to detect, classify, track, and count humans, vehicles, and types of vehicles. Furthermore, Axis Edge Vault, a hardware-based cybersecurity platform, safeguards the device and offers FIPS 140-3 Level 3 certified secure key storage and operations.

- > Two sensors for wide-angle and close-up views
- > Excellent image quality in any light
- > AI-powered analytics
- > Low Total Cost of Ownership (TCO)
- > Built-in cybersecurity with Axis Edge Vault

AXIS P1518-LE Box Camera

Camera

Image sensor
8 MP: 1x 1/1.2" progressive scan RGB CMOS
2 MP: 1x 1/2.8" progressive scan RGB CMOS
Pixel size 2.9 µm

Lens
5.85 mm lens:
5.85 mm, F1.5
Horizontal field of view: 113.8°
Vertical field of view: 61.9°
Minimum focus distance: 1 m (3.3 ft)
IR corrected, remote focus, P-Iris control
29 mm lens:
Varifocal, 10.9–29 mm, F1.7
Horizontal field of view 29°–11°
Vertical field of view 16°–6°
Minimum focus distance: 2.5 m (8.2 ft)
Varifocal, IR corrected, remote focus and zoom, P-Iris control

Day and night
Automatic IR-cut filter

Minimum illumination
5.85 mm lens:
Color: 0.05 lux at 50 IRE, F1.5
B/W: 0.01 lux at 50 IRE, F1.5
0 lux with IR illumination on
29 mm lens:
Color: 0.06 lux, at 50 IRE F1.7
B/W: 0.01 lux, at 50 IRE F1.7
0 lux with IR illumination on

Shutter speed
5.85 mm lens:
With Forensic WDR: 1/33500 s to 2 s
No WDR: 1/66500 s to 2 s
29 mm lens:
With Forensic WDR: 1/37000 s to 2 s
No WDR: 1/71500 s to 2 s

Camera adjustment
29 mm lens:
Pan ±15°, tilt ±15°

System on chip (SoC)

Model
ARTPEC-8

Memory
2 GB RAM, 8 GB 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
5.85 mm lens:
16:9: 3840x2160 to 480x270
16:10: 2560x1600 to 640x400
4:3: 2592x1944 to 320x240
29 mm lens:
16:9: 1920x1080 to 480x270
16:10: 1280x800 to 640x400
4:3: 1280x960 to 320x240

Frame rate
With Forensic WDR: Up to 25/30 fps (50/60 Hz) in all resolutions
No WDR: Up to 50/60 fps (50/60 Hz) in all resolutions (for 29 mm lens only)

Video streaming
Up to 20 unique and configurable video streams[1]
Axis Zipstream technology in H.264 and H.265
Controllable frame rate and bandwidth
VBR/ABR/MBR H.264/H.265
Low latency mode
Video streaming indicator

Signal-to-noise ratio
>55 dB

WDR
Forensic WDR: Up to 120 dB depending on scene

1. *We recommend a maximum of 3 unique video streams per camera or channel, for optimized user experience, network bandwidth, and storage utilization. A unique video stream can be served to many video clients in the network using multicast or unicast transport method via built-in stream reuse functionality.*

Noise reduction
Spatial filter (2D noise reduction)
Temporal filter (3D noise reduction)

Image settings
Saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, defog, barrel distortion correction, compression, rotation: 0°, 90°, 180°, 270° including corridor format (for 5.85 mm lens only), mirroring, dynamic text and image overlay, polygon privacy mask
Scene profiles: forensic, vivid, traffic overview, license plate (for 29 mm lens only)

Image processing
Axis Zipstream, Forensic WDR, Lightfinder 2.0, OptimizedIR

Pan/Tilt/Zoom
Optical zoom, preset positions
Control queue

Audio

Audio features
Automatic gain control
Speaker pairing
Microphone pairing
Spectrum visualizer[2]

Audio streaming
Configurable duplex:
Two-way (half duplex, full duplex)

Audio input
Input through microphone pairing
Input for external unbalanced microphone, optional 5 V microphone power
Digital input, optional 12 V ring power
Unbalanced line input

Audio output
Output through speaker pairing

Audio 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 bitrate

Network

Network protocols
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS[3], HTTP/2, TLS[3], 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, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

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*

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
IR illumination
Privacy masks
Media clip

Edge-to-edge
Microphone pairing
Radar pairing
Speaker pairing

2. *Feature available with ACAP*
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 (eay@cryptsoft.com).*

Event conditions
Device status: above/below/within operating temperature, casing open, IP address blocked, IP address removed, live stream active, network lost, new IP address, ring power overcurrent protection, system ready
Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal okay
Edge storage: recording ongoing, storage disruption, storage health issues detected
I/O: digital input/output, manual trigger, virtual input
MQTT: client connected, stateless
Scheduled and recurring: schedule
Video: average bitrate degradation, day-night mode, tampering

Event actions
Day-night mode: use day-night mode
Defog: set defog mode
I/O: toggle I/O
Illumination: use lights
Images: send images through FTP, SFTP, HTTP, HTTPS, network share and email
MQTT: publish
Notification: send notifications through HTTP, HTTPS, TCP and email
Overlay text: use overlay text
Recordings: record video
Security: erase configuration
SNMP traps: send SNMP traps message
Video clips: send video clips through FTP, SFTP, HTTP, HTTPS, network share and email
WDR mode: set WDR mode

Built-in installation aids
Pixel counter, remote focus, level grid, remote zoom (for 29 mm lens only), remote pan and tilt (for 29 mm lens only), traffic camera installation assistance

Analytics

Applications
Included
AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, active tampering alarm, audio detection
Supported
AXIS License Plate Verifier (for 29 mm lens only)
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, other)
Scenarios: line crossing, object in area, time in area, crossline counting, occupancy in area, tailgating detection, PPE monitoring[BETA], motion in area, motion line crossing
Up to 10 scenarios
Other features: triggered objects visualized with trajectories, color-coded bounding boxes and tables
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

Product markings
CSA, UL/cUL, CE, KC, EAC, VCCI, RCM

Supply chain
TAA compliant

EMC
CISPR 35, CISPR 32 Class A, EN 55035,
EN 55032 Class A, EN 50121-4, EN 50121-3-2,
EN 61000-3-2, EN 61000-3-3, EN 61000-6-1,
EN 61000-6-2
Australia/New Zealand: RCM AS/NZS CISPR 32 Class A
Canada: ICES(A)/NMB(A)
Japan: VCCI Class A
Korea: KS C 9835, KS C 9832 Class A
USA: FCC Part 15 Subpart B Class A
Railway: IEC 62236-4

Safety
CAN/CSA C22.2 No. 62368-1 ed. 3,
IEC/EN/UL 62368-1 ed. 3, IEC/EN 62471 risk group exempt

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

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 and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection
Hardware: Axis Edge Vault cybersecurity platform
Secure keystore: secure element (CC EAL 6+, FIPS 140-3 Level 3), system-on-chip security (TEE)
Axis device ID, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

Network security
IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)[4], IEEE 802.1AR, HTTPS/HSTS[4], TLS v1.2/v1.3[4], 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
IP66/67-, NEMA 4X- and IK10-rated
Aluminum and plastic casing
Color: white NCS S 1002-B
For repainting instructions, go to the product's support page. For information about the impact on warranty, go to *axis.com/warranty-implication-when-repainting*.

Power
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 4
Typical 13.2 W, max 25.5 W
10–28 V DC, typical 13.3 W, max 25.5 W
Features: power profiles, power meter

Connectors
Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE
Audio: 3.5 mm mic/line in
Serial communication: RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block
Power: DC input, terminal block
I/O: Terminal block for two configurable supervised inputs / digital outputs (12 V DC output, max load 50 mA)

IR illumination
OptimizedIR with power-efficient, long-life 850 nm IR LEDs
Range of reach 50 m (164 ft) or more depending on the scene

Storage
Support for microSD/microSDHC/microSDXC card
Support for SD card encryption (AES-XTS-Plain64 256bit)
Recording to network-attached storage (NAS)
For SD card and NAS recommendations see *axis.com*

Operating conditions
Temperature with full power: -40 °C to 60 °C (-40 °F to 140 °F)
Temperature with low power: -5 °C to 60 °C (23 °F to 140 °F)
Start-up temperature: -30 °C
Wind speed (sustained): 60 m/s (134 mph)
Humidity: 10–100% RH (condensing)

Storage conditions
Temperature: -40 °C to 65 °C (-40 °F to 149 °F)
Humidity: 5–95% RH (non-condensing)

Dimensions
For the overall product dimensions, see the dimension drawing in this datasheet.
Effective Projected Area (EPA): 0.08193 m^2 (0.88 ft^2)

Weight
3850 g (8.5 lb)

Box content
Camera, installation guide, AXIS TQ1003-E Wall Mount, terminal block connectors, connector guard, cable gaskets, owner authentication key

4. *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 IR Illuminator Kits
AXIS T8415 Wireless Installation Tool, AXIS Surveillance Cards
For more accessories, go to *axis.com/products/axis-p1518-le#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, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

Warranty
5-year warranty, see *axis.com/warranty*

Part numbers
Available at *axis.com/products/axis-p1518-le#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 2015/863, and standard EN IEC 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu*

Materials
Renewable carbon-based plastic content: 67% (recycled: 10%, bio-based: 56%, carbon capture based: 1%)
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*

Detect, Observe, Recognize, Identify (DORI)

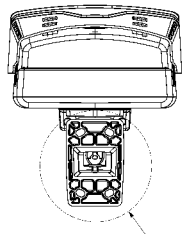
5.85 mm

	DORI definition	Distance
Detect	25 px/m (8 px/ft)	39.9 m (130.9 ft)
Observe	63 px/m (19 px/ft)	15.8 m (51.8 ft)
Recognize	125 px/m (38 px/ft)	8 m (26.2 ft)
Identify	250 px/m (76 px/ft)	4 m (13.1 ft)

29 mm

	DORI definition	Distance (wide)	Distance (tele)
Detect	25 px/m (8 px/ft)	149.3 m (489.7 ft)	400.7 m (1314.3 ft)
Observe	63 px/m (19 px/ft)	59.2 m (194.2 ft)	159 m (521.5 ft)
Recognize	125 px/m (38 px/ft)	29.9 m (98.1 ft)	80.1 m (262.7 ft)
Identify	250 px/m (76 px/ft)	14.9 m (48.9 ft)	40.1 m (131.5 ft)

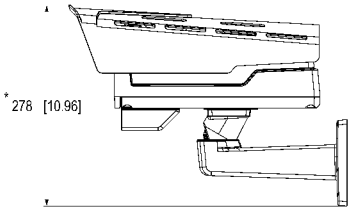
The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such 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.



See Detail A
Sheet 2

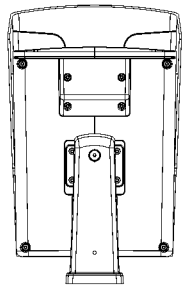
* Depending on Weather Cover position:

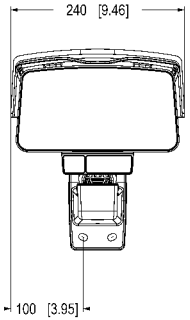
Max: 279,5 [11.04]
Min: 276,5 [10.89]

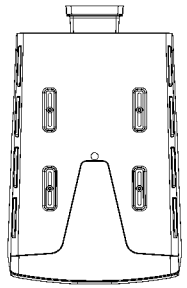


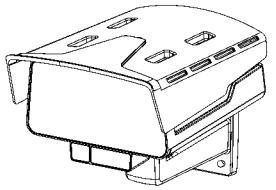
** Depending on Weather Cover position:

Max: 407 [16.02]
Min: 365 [14.37]



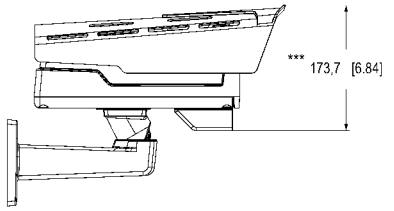






*** Depending on Weather Cover position:

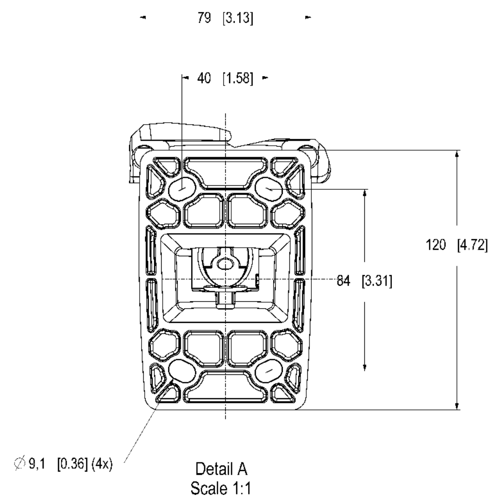
Max: 175 [6.89]
Min: 172,3 [6.78]



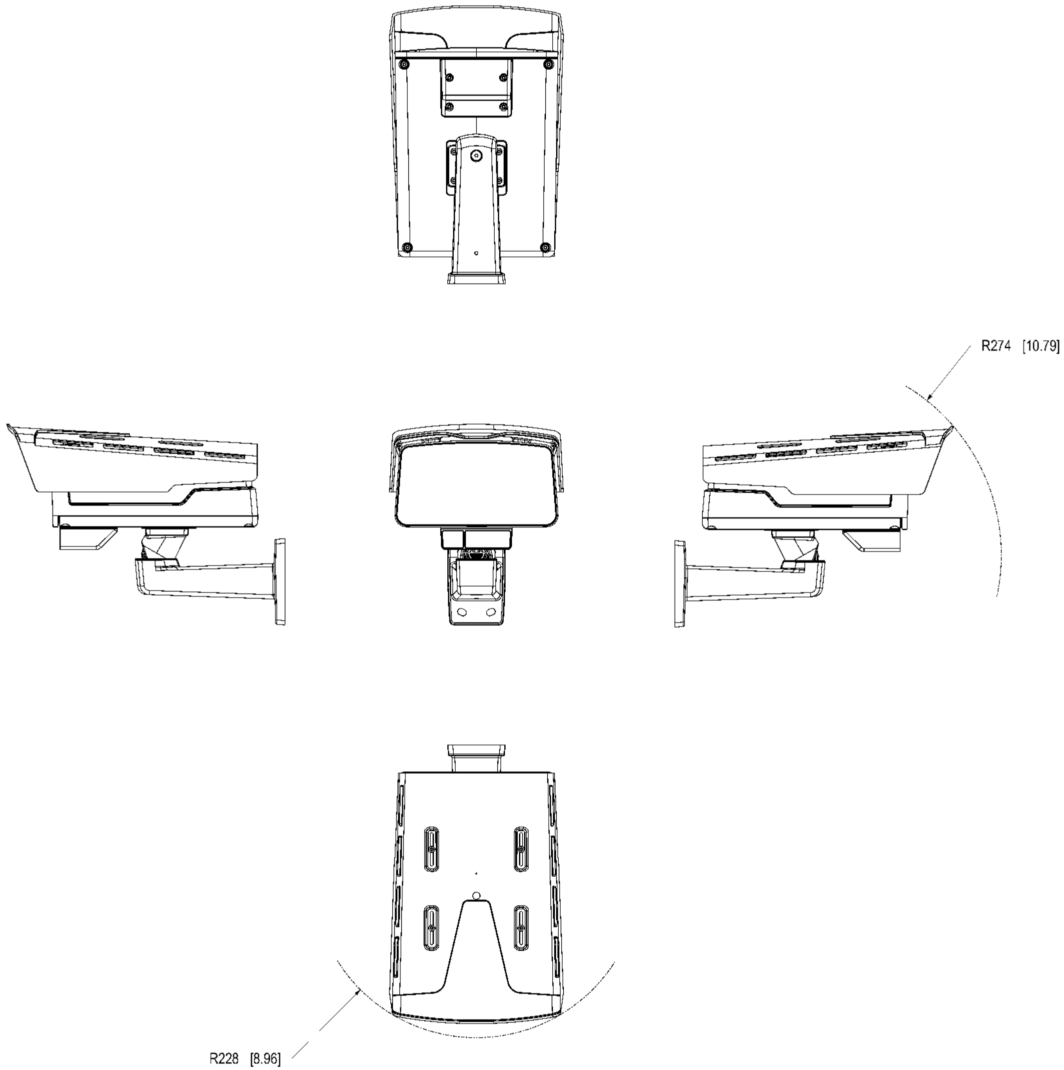
AXIS P1518-LE Box Camera

Dimensions in mm [inch]

Date	Rev	Scale
2025 Jan-15	M1.10	1:3
Part number	Sh.	Rev.
5198785	A1	1(2)



Detail A
Scale 1:1



AXIS P1518-LE Box Camera

Dimensions in mm [inch]

Date	Version	Scale
2025 Jan-15	M1.10	1:3
Drawing Number	Size	Sheet
3198783	A1	2(2)

AXIS COMMUNICATIONS

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.

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