

AXIS Q1972-E Thermal Camera

High-resolution thermal imaging

AXIS Q1972-E delivers a high-resolution thermal video stream for reliable detection 24/7. Ideal for perimeter security, it includes AXIS Motion Guard, AXIS Fence Guard, and AXIS Loitering Guard for proactive surveillance. With a powerful analytics platform, it's easy to add third-party analytics. Built-in cybersecurity features prevent unauthorized access and safeguard your system. For instance, Axis Edge Vault protects your Axis device ID and simplifies authorization of Axis products on your network. AXIS Q1972-E also includes a Trusted Platform Module (TPM) that is FIPS 140-2 level 2 certified. Furthermore, this halogen-free, compact camera is robust and suitable even for harsh conditions.

- > [Reliable detection 24/7](#)
- > [Built-in cybersecurity features](#)
- > [Compact, robust, halogen-free design](#)
- > [Support for AI-based analytics](#)
- > [Electronic image stabilization \(EIS\)](#)



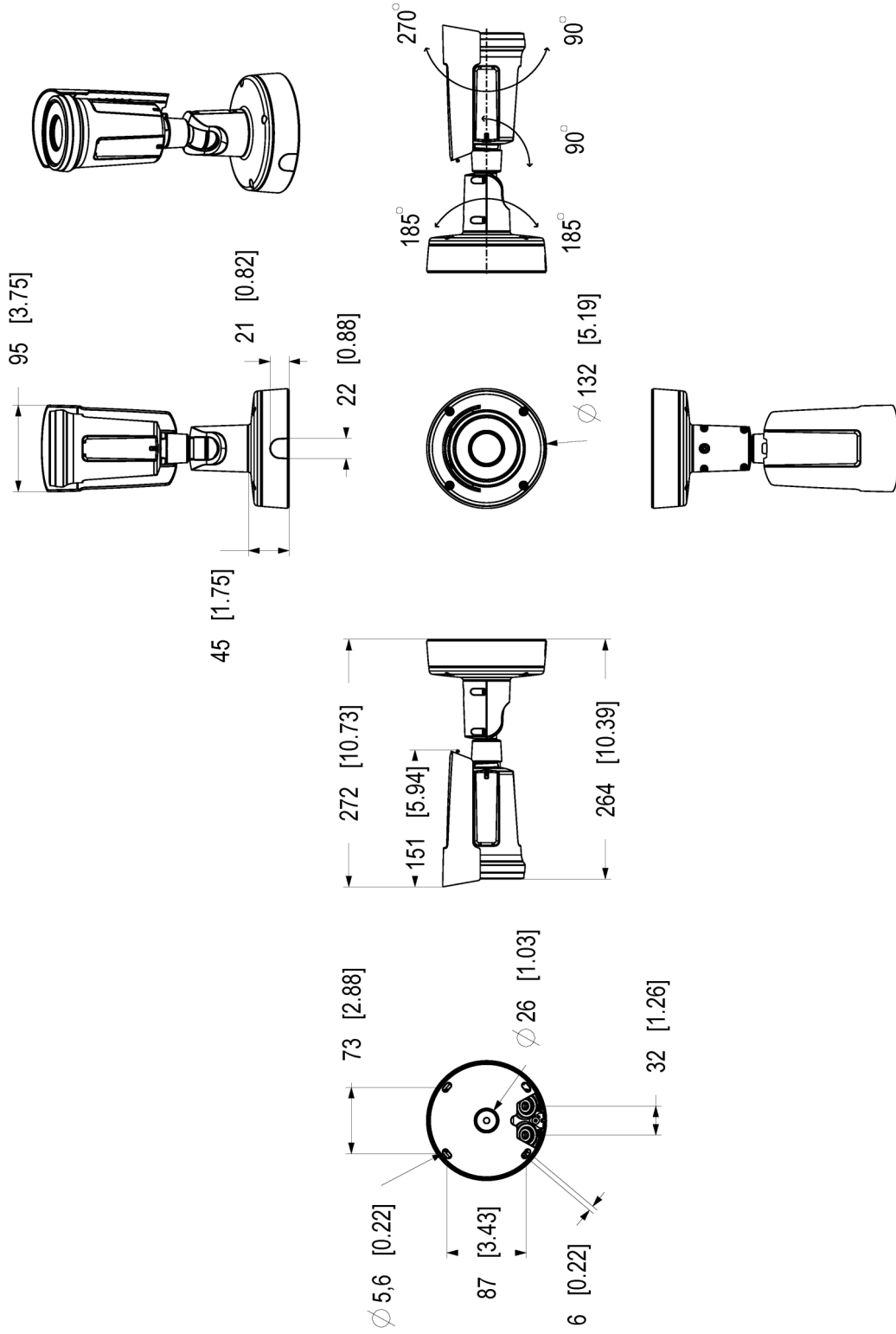
AXIS Q1972-E Thermal Camera

Camera		
Variants	AXIS Q1972-E 10 mm AXIS Q1972-E 19 mm AXIS Q1972-E 25 mm AXIS Q1972-E 35 mm	One-click cloud connection ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at onvif.org
Image sensor	Uncooled microbolometer 640x480 pixels, pixel size: 17 µm. Spectral range: 8-14 µm	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 .
Lens	Athermalized 10 mm, F1.2 Horizontal field of view: 63° Near focus distance: 2.8 m (9.2 ft) 19 mm, F1.0 Horizontal field of view: 31° Near focus distance: 8.5 m (28 ft) 25 mm, F1.0 Horizontal field of view: 24° Near focus distance: 18.5 m (61 ft) 35 mm, F1.2 Horizontal field of view: 17° Near focus distance: 33 m (108 ft)	Onscreen controls Electronic image stabilization Video streaming indicator Privacy masks Media clip Heater
Sensitivity	NETD <20 mK @25 °C, F1.0	Edge-to-edge Speaker pairing
System on chip (SoC)		Event conditions Audio: audio detection, audio clip playing, audio clip currently playing Device status: above/below/within operating temperature, IP address removed, new IP address, network lost, system ready, ring power overcurrent protection, live stream active, casing open, fan failure, shock detected Digital audio input status Edge storage: recording ongoing, storage disruption, storage health issues detected I/O: digital input, manual trigger, virtual input MQTT: stateless Scheduled and recurring: schedule Video: average bitrate degradation, tampering
Model	ARTPEC-8	Event actions Audio clips: play, stop I/O: toggle I/O once, toggle I/O while the rule is active MQTT: publish Notification: HTTP, HTTPS, TCP and email Overlay text Pre- and post-alarm video or image buffering for recording or upload Recordings: SD card and network share SNMP traps: send, send while the rule is active Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email
Memory	2048 MB RAM, 8192 MB Flash	Built-in installation aids Pixel counter
Compute capabilities	Deep learning processing unit (DLPU)	Analytics
Video		Applications Included AXIS Video Motion Detection, AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard, active tampering alarm, audio detection Supported AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap
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	Approvals
Resolution	Sensor is 640x480. Image can be scaled up to 800x600 (SVGA).	Product markings CSA, UL/cUL, CE, KC
Frame rate	Up to 8.3 fps and 30 fps	Supply chain TAA compliant
Video streaming	Up to 20 unique and configurable video streams ^a Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265 Video streaming indicator	EMC CISPR 35, CISPR 32 Class A, EN 55035, EN 55032 Class A, EN 50121-4, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2 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
Image settings	Contrast, brightness, sharpness, exposure zones, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, dynamic text and image overlay, polygon privacy mask, electronic image stabilization, thermal palettes	Safety CAN/CSA C22.2 No. 62368-1 ed. 3, IEC/EN/UL 62368-1 ed. 3, IS 13252
Image processing	Axis Zipstream	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°, ISO 21207 Method B, MIL-STD-810H (Method 501.7, 502.7, 505.7, 506.6, 507.6, 509.7, 510.7, 514.8, 516.8, 521.4), NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)
Audio		Network NIST SP500-267
Audio features	Automatic gain control Speaker pairing Spectrum visualizer ^b	
Audio streaming	Configurable duplex: Two-way (half duplex, full duplex)	
Audio input	10-band graphic equalizer Input for external unbalanced microphone, optional 5 V microphone power Digital input, optional 12 V ring power Unbalanced line input	
Audio output	Output via speaker pairing	
Audio encoding	24bit LPCM, AAC-LC 8/16/32/48 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, HTTPSC, HTTP/2, TLS ^d , QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP ^e , SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, DHCPv4/v6, 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 .	

Cybersecurity	ETSI EN 303 645, BSI IT Security Label
Cybersecurity	
Edge security	<p>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</p> <p>Hardware: Axis Edge Vault cybersecurity platform TPM 2.0 (CC EAL4+, FIPS 140-2 Level 2), 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)</p>
Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2) ^f , IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS ^g , TLS v1.2/v1.3 ^h , Network Time Security (NTS), X.509 Certificate PKI, host-based firewall
Documentation	<p><i>AXIS OS Hardening Guide</i></p> <p><i>Axis Vulnerability Management Policy</i></p> <p><i>Axis Security Development Model</i></p> <p>AXIS OS Software Bill of Material (SBOM)</p> <p>To download documents, go to axis.com/support/cybersecurity/resources</p> <p>To read more about Axis cybersecurity support, go to axis.com/cybersecurity</p>
General	
Casing	<p>IP66/IP67-, NEMA 4X- and IK10-ratedⁱ</p> <p>Aluminum and polycarbonate (PC), germanium window</p> <p>Color: white NCS S 1002-B</p> <p>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.</p>
Power	<p>Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3</p> <p>Typical 5.0 W, max 12.95 W</p> <p>12–28 V DC, typical 4.8 W, max 12.95 W</p>
Connectors	<p>Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE</p> <p>Audio: 3.5 mm mic/line in</p> <p>Power: DC input, terminal block</p> <p>I/O: Terminal block for 1 supervised alarm input and 1 output (12 V DC output, max. load 50 mA)</p>
Storage	<p>Support for microSD/microSDHC/microSDXC card</p> <p>Recording to network-attached storage (NAS)</p> <p>For SD card and NAS recommendations see axis.com</p>
Operating conditions	<p>–40 °C to 60 °C (–40 °F to 140 °F)</p> <p>Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)</p> <p>Humidity 10–100% RH (condensing)</p>
Storage conditions	<p>–40 °C to 65 °C (–40 °F to 149 °F)</p> <p>Humidity 5–95% RH (non-condensing)</p>
Dimensions	<p>For the overall product dimensions, see the dimension drawing in this datasheet.</p> <p>Effective Projected Area (EPA): 0.022 m² (0.24 ft²)</p>
Weight	1.4 kg (3.1 lb)
Box content	Camera, installation guide, drill template, TORX® L-keys, RESISTORX® L-key, terminal block connector, connector guard, cable gaskets, owner authentication key

Optional accessories	<p>AXIS T94F01M J-Box/Gang Box Plate, AXIS T91A47 Pole Mount, AXIS T94P01B Corner Bracket, AXIS T94F01P Conduit Back Box, AXIS Weather Shield K, Axis PoE Midspans</p> <p>AXIS T8415 Wireless Installation Tool</p> <p>AXIS Surveillance Cards</p> <p>For more accessories, go to axis.com/products/axis-q1972-e#accessories</p>
System tools	<p>AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator</p> <p>Available at axis.com</p>
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
Export control	This product is subject to export control regulations, and you should always comply with all applicable national and international export or re-export control regulations.
Part numbers	Available at axis.com/products/axis-q1972-e#part-numbers
Sustainability	
Substance control	<p>PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709</p> <p>RoHS in accordance with EU RoHS Directive 2011/65/EU and EN 63000:2018</p> <p>REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see echa.europa.eu</p>
Materials	<p>Screened for conflict minerals in accordance with OECD guidelines</p> <p>To read more about sustainability at Axis, go to axis.com/about-axis/sustainability</p>
Environmental responsibility	<p>axis.com/environmental-responsibility</p> <p>Axis Communications is a signatory of the UN Global Compact, read more at unglobalcompact.org</p>

- 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.
- Feature available with ACAP
- 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).
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- Excluding front window
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Dimensions in mm [inch]

Date	Version	Scale
2024 Dec-17	M1.1	1:4
Drawing Number	Size	Sheet
3222659	A3	1(1)

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Highlighted capabilities

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](https://www.axis.com/solutions/edge-vault).

Electronic image stabilization

Electronic image stabilization (EIS) provides smooth video in situations where a camera is subject to vibrations. Built-in gyroscopic sensors continuously detect the camera's movements and vibrations, and they automatically adjust the frame to ensure you always capture the details you need. Electronic image stabilization relies on different algorithms for modeling camera motion, which are used to correct the images.

Thermal palettes

A mode that allows the user to select a color range to show relative temperature differences in a scene. The user can choose between black-and-white ranges, color ranges, or a mix between the two. The same input (measured thermal radiation) can result in different visual appearance depending on how each pixel value is mapped to a color range.

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](https://www.axis.com/glossary)