

# AXIS XPQ1785 Explosion-Protected PTZ Camera

Globally certified explosion-protected positioning camera

AXIS XPQ1785 is a robust, stainless steel (316L) PTZ camera globally certified for use in potentially combustible environments according to Class I/II/III Div 1 and Zone 1,21 (NEC, CEC, IECEx, ATEX, and more). The built-in smoke alert analytic monitors for signs of smoke or fire. The camera offers total situational awareness with 360° continuous pan and +/- 90° tilt, both at up to 200°/sec. Axis Zipstream provides exceptional savings on bandwidth and storage requirements without compromising image quality. Ease of installation is supported by a compact and low-weight design, with both RJ45 and SFP for fiber or coax and 100–240 V AC power input.

- > [Worldwide hazardous area certifications](#)
- > [Smoke alert analytics](#)
- > [Zipstream and Lightfinder](#)
- > [HDTV 1080p with 32x optical zoom](#)
- > [-60 °C to 60 °C \(-76 °F to 140 °F\)](#)



# AXIS XPQ1785 Explosion-Protected PTZ Camera

## Camera

### Image sensor

1/2.8" progressive scan RGB CMOS

### Lens

4.3–137 mm, F1.4–4.0

Horizontal field of view: 60°–2.3°

Vertical field of view: 39°–1.3°

Autofocus

### Minimum illumination

Color: 0.16 lux at 50 IRE F1.4

B/W: 0.03 lux at 50 IRE F1.4

### Shutter speed

1/66500 s to 1 s

### Pan/Tilt/Zoom

Pan: 360° endless, 0.6 - 200°/s

Tilt: ±90°, 0.6 - 200°/s

32x optical zoom and 12x digital zoom, total 384x zoom

100 preset positions, preset accuracy ±0.05°, Guard Tour, Control queue

## System on chip (SoC)

### Model

ARTPEC-6

### Memory

1024 MB RAM, 512 MB Flash

## Video

### Video compression

H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles

Motion JPEG

### Resolution

1920x1080 HDTV 1080p to 160x90

Maximum pixel density with 32x optical zoom:

25 m (82 ft): 1912 px/m

50 m (164 ft): 956 px/m

250 m (820 ft): 191 px/m

### Frame rate

With WDR: Up to 25/30 fps (50/60 Hz) in all resolutions

Without WDR: Up to 50/60 fps (50/60 Hz) in all resolutions

### Video streaming

Multiple, individually configurable streams in H.264 and Motion JPEG

Axis Zipstream technology in H.264

Controllable frame rate and bandwidth

VBR/MBR H.264

### Image settings

Saturation, contrast, brightness, sharpness, Forensic WDR, defogging, white balance, exposure mode, exposure zones, compression, mirroring of images, electronic image stabilization, text and image overlay, dynamic text and image overlay

Rotation: 0°, 180°

Scene profiles: forensic, vivid, traffic overview, backlit entrance

## Network

### Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS<sup>1</sup>, HTTP/2, TLS<sup>1</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP<sup>®</sup>, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, NTS, RTSP, RTCP, 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<sup>®</sup> and AXIS Camera Application Platform (ACAP); specifications at [axis.com/developer-community](https://axis.com/developer-community).

One-click cloud connection

ONVIF<sup>®</sup> Profile G, ONVIF<sup>®</sup> Profile M, ONVIF<sup>®</sup> Profile S, and ONVIF<sup>®</sup> Profile T, specifications at [onvif.org](https://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](https://axis.com/vms).

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

## Event conditions

Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, storage failure, system ready, within operating temperature

Edge storage: recording ongoing, storage disruption, storage health issues detected

I/O: manual trigger, virtual input

MQTT: subscribe

PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready

Scheduled and recurring: schedule

Video: average bitrate degradation, day-night mode, live stream open, tampering

---

## Event actions

Day-night mode, defog, guard tours, overlay text, preset positions, SNMP trap messages, status LED, WDR mode

MQTT: publish

Notification: email, HTTP, HTTPS and TCP

Record video: SD card and network share

Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

---

## Data streaming

Event data

---

## Built-in installation aids

Pixel counter

## Analytics

### Applications

#### Included

Smoke alert, AXIS Video Motion Detection, AXIS Fence Guard, AXIS Loitering Guard, AXIS Motion Guard, active tampering alarm, gatekeeper

#### Supported

AXIS Perimeter Defender, AXIS Cross Line Detection  
Support for AXIS Camera Application Platform enabling installation of third-party applications, see [axis.com/acap](http://axis.com/acap)

## Approvals

### EMC

EN/IEC 55032 Class A, EN/IEC 61000-3-2,

EN/IEC 61000-3-3, EN/IEC 61000-6-1,

EN/IEC 61000-6-2, EN/IEC 55035

Australia/New Zealand: RCM AS/NZS CISPR 32 Class A

Canada: ICES(A)/NMB(A)

Japan: VCCI Class A

USA: FCC Part 15 Subpart B Class A

---

## Safety

EN/IEC 62368-1, UL 62368-1, CSA C22.2 No. 62368-1, IS 13252

---

## Environment

IEC/EN 60529 IP66, IP67, IP68

IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-64

EN/IEC 62262 IK10 (IK08 front glass), UL 50E/CSA C22.2 No 94.2 Type 4X

---

## Explosion

IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-31,

UL 60079-0, UL 60079-1, UL 60079-31,

CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-1,

CSA C22.2 No. 60079-31

CSA C22.2 No. 25, CSA C22.2 No. 30,

CSA C22.2 No 213, UL 1203, UL121201

---

## Certifications

Type P21

### ATEX:

I M2 Ex db I Mb

II 2 G Ex db IIC T5 Gb

II 2 D Ex tb IIIC T100°C Db

Certificate: ExVeritas 20ATEX0651X

### IECEX:

Ex db I Mb

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: IECEX EXV 20.0017X

### cMETus:

Class I Div 1 Groups B,C,D T5

Class II Div 1 Groups E,F,G T5

Class I Zone 1 AEx db IIC Gb

Zone 21 AEx tb IIIC

Certificate: MET E115198

### INMETRO:

Ex db I Mb

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: CPEX 22.0478 X

### IA:

Ex db I Mb

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: MASC MS/22-8127X

### OSHA Taiwan:

Ex db I Mb

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: TD100043

### PESO:

Ex db IIC T5 Gb

Certificate: 526087/4

### KCs:

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: 23-KA4BO-0066X and 23-KA4BO-0067X

### JPEX:

Ex db IIC T5 Gb

Ex tb IIIC T100°C Db

Certificate: DEK23.0064X

## 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

## Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>2</sup>,

IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS<sup>2</sup>, TLS

v1.2/v1.3<sup>2</sup>, 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)

AXIS OS Software Bill of Material (SBOM)

To download documents, go to [axis.com/support/cybersecurity/resources](https://axis.com/support/cybersecurity/resources)

To read more about Axis cybersecurity support, go to [axis.com/cybersecurity](https://axis.com/cybersecurity)

## General

### Casing

IP66-, IP67- and IP68-rated, electropolished ASTM 316L (EN 1.4404) stainless steel casing for maximum

corrosion protection

Wiper included

### Power

Max consumption: 150 W

Power input: 100–240 V AC

### Connectors

Two M25x1.5 cable entries

3-pole connector for power, 0.2 – 3.0 mm<sup>2</sup> (24 – 12 AWG)

2-pole connector for 48 V DC (max 14.4 W) AUX out, 0.2 – 3.0 mm<sup>2</sup> (24 – 12 AWG)

RJ45 10BASE-T/100BASE-TX

SFP cage for alternative network connection

### Storage

Pre-installed AXIS Surveillance microSDXC Card 128 GB

Support for SD card encryption

Recording to network-attached storage (NAS)

For SD card and NAS recommendations see [axis.com](https://axis.com)

### Operating conditions

–60 °C to 60 °C (–76 °F to 140 °F)

Start-up temperature: –40 °C

Humidity 10–100% RH (condensing)

### Storage conditions

–40 °C to 65 °C (–40 °F to 149 °F)

Humidity 0–98% RH (non-condensing)

2. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptosoft.com](mailto:ey@cryptosoft.com)).

## Dimensions

240 x 301 x 372 mm (9.45 x 11.85 x 14.63 in)

---

## Weight

23 kg (50.7 lb)

---

## Box content

Camera, installation guide, installation manual IM001, AXIS TQ1924-E Washer Nozzle, connector kit, installation kit, owner authentication key, Declaration of Conformity

AXIS TQ1917 Adapter M25x1.5-3/4 NPT (02278-001 only)

AXIS TQ1943-E Cable Gland Ex d Armored M25 (02278-005 only)

---

## Optional accessories

AXIS TQ1301-E Pole Mount 50-150 mm (material: stainless steel, weight: 5.3 kg, dimensions: 190 x 234 x 250 mm, maximum load: 150 kg)

AXIS TQ1001-E Wall Mount (material: stainless steel, weight: 3.8 kg, dimensions: 170 x 150 x 350 mm, maximum load: 150 kg)

AXIS TQ1301-E Pole Mount need to be combined with AXIS TQ1001-E Wall Mount.

For more accessories, see [axis.com](http://axis.com)

---

## Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

---

## Warranty

5-year warranty, see [axis.com/warranty](http://axis.com/warranty)

---

## Sustainability

### Environmental responsibility

[axis.com/environmental-responsibility](http://axis.com/environmental-responsibility)

Axis Communications is a signatory of the UN Global Compact, read more at [unglobalcompact.org](http://unglobalcompact.org)