XF40-Q2901 Explosion-Protected Temperature Alarm Camera

Temperature detection in hazardous areas

XF40-Q2901 Explosion-Protected Temperature Alarm Camera is suitable for onshore, offshore, marine and heavy industrial environments. The stainless steel housing is certified for hazardous areas, and prevents any inside sparks or explosions from escaping and igniting vapors, gases, dust or fibers in the surrounding air. The camera supports temperature alarm zones triggering alarms based on deviation of the temperature. It tells the temperature of a particular area. Easy visualization of hot spots with isothermal palettes to identify overheated equipment or areas. The network camera offers a high level of integration with other equipment, such as access control and fire alarms.

> Stainless steel (SAE 316L) housing
> 336x256 thermal resolution
> Temperature alarm and isothermal palettes
> Spot temperature reading
> Wide temperature range
XF40-Q2901 Explosion-Protected Temperature Alarm Camera

Models
XF40-Q2901
XF40-Q2901 -60 C
XF40-Q2901 -50 C UL
All models are available in different versions depending on the regional requirements for hazardous equipment certification.

Certification part code
XF40-Q2901/AXIS-Q2901 -60 C: 1410-T1-50
Delivered in 1410 series explosion-protected housing.
XF40-Q2901 -50 C UL: 0XALIS-UL1410-T1-50
Delivered in UL1410 series explosion-protected housing.

Camera
Image sensor
Uncooled Micro bolometer 336x256 pixels, Pixel size 17 µm
Spectral range: 8-14 µm

Lens
Athermalized
19 mm, F1.25
Horizontal field of view: 17°
Min focus distance: 9.5 m [354.3 in]

Detection range
The size of a monitored object is recommended to cover at least 10x10 pixels in 336x256.

Sensitivity
NETD < 50 mK

Thermography
Object temperature range
-40 °C to 550 °C (-40 °F to 1022 °F)

Temperature accuracy
Below 100 °C [212 °F]: +/- 5 °C (+/- 9 °F) accuracy
Below 150 °C [302 °F]: +/- 5% accuracy
Above 150 °C [302 °F]: +/- 20% accuracy

Video
Video compression
H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles Motion JPEG
Resolution
Sensor is 336x256. Image can be scaled up to 720x576.
Frame rate
Up to 8.3 fps

Video streaming
3 individual streams in H.264 and Motion JPEG: simultaneous, individually configured streams in max. resolution at 8.3 fps Controllable frame rate and bandwidth VBR/CBR H.264

Image settings
Sharpness, automatic gain control, exposure zones, max gain, rotation, palette, iso thermal palette, compression, mirroring, text and image overlay, privacy masks

Network
Security
Password protection, IP address filtering, HTTPS encryption, Digest authentication, User access log, Centralized Certificate Management

Supported protocols
IPv4/v6, HTTP, HTTPS, SSL/TLS; QoS Layer 3 DiffServ, FTP, CIF/SISMB, SMTP, Bonjour, UPnP/IP, SNMP v1/v2c/v3 (MB-III), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH

System integration
Application Programming Interface
Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at www.axis.com
AXIS Video Hosting System (AVHS) with One-Click Connection ONVIF® Profile S and ONVIF® Profile G, specification at www.onvif.org

Analytics
AXIS Video Motion Detection, Shock detection Support for AXIS Camera Application Platform, see www.axis.com/acap

Event triggers
Analytics, Temperature detection (6 alarm zones), Hardware temperature, Edge storage events, Time scheduled, Motion Detection

Event actions
Overlay text, video recording to edge storage, pre- and post-alarm video buffering, send SNMP trap
File upload via FTP, FTP, HTTP, HTTPS network share and email Notification via email, HTTP, HTTPS and TCP

Data streaming
Event data

Built-in installation aids
Pixel counter

Casing
IP66-, IP67-rated electropolished SAE 316L stainless steel casing for maximum corrosion protection Germainian protective window

Memory
256 MB RAM, 128 MB Flash

Power
Max consumption, 24 V AC: 28 W

Connectors
XF40-Q2901 models: Three M20 cable entry for cable conduits
XF40-Q2901 UL: Three 3/4” NPT conduit entries

Storage
Support for microSD/microSDHC/microSDXC card
Support for recording to network-attached storage (NAS)
For SD card and NAS recommendations see www.axis.com

Operating conditions
Temperatures depend on the certifications. See Certifications section.
XF40-Q2901: -40 °C to 70 °C (-40 °F to 158 °F)
XF40-Q2901 -60 C: -60 °C to 40 °C (-76 °F to 104 °F)
XF40-Q2901 -50 C UL: -50 °C to 70 °C (-58 °F to 158 °F)
Humidity 10–100% RH (condensing)

Storage conditions
-40 °C to 65 °C (-40 °F to 149 °F)

Approvals
EMC
EN 55022 Class A, EN 55024 Class A, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A
Safety
UL, CSA, EN 60065

Explosion
IEC/EN 60529 IP66, IP67

Certiﬁcations
ATEX II 2 G Ex db IIC T4, II 2 D Ex tb IIC T135°C Db IP66/67 IECEx: Ex d IIC T4 - 60°C ≤ Ta ≤ +70°C Gb, Ex tb IIC T135°C Db IP66/67
Inmetro: Ex d IIC T4 - 60°C ≤ Ta ≤ +70°C Gb, Ex tb IIC T135°C Db IP66/67
CSA: Ex d IIC T4 - 60°C ≤ Ta ≤ +60°C Operating temperature: -40 °C to 60 °C (-40 °F to 140 °F)
Ex d IIC T4 - 60°C ≤ Ta ≤ +70°C Gb, Ex tb IIC T135°C Db IP66/67
UL: Class I Division 1 Groups B, C, D, T4, Class II Division 1 Groups E, F, G, Class III Division 1 - 50°C ≤ Ta ≤ +70°C

Dimensions
165 x 176 x 480 mm (6 1/2 x 6 15/16 x 18 7/8 in)

Weight
14 kg (31 lb)

Included accessories
Sunshield, installation guide, Windows decoder 1-user license, AXIS Surveillance microSDXC™ Card 64 GB

Optional accessories
Ex Power Supply ATEX
Ex Wired Tank Pressurized ATEX/IECEx, Ex Power Supply UL, Ex Cable ATEX/IECEx/EAC in various lengths, wall and pole stainless steel mounts

All accessories are not available for all certifications. For more accesses, see www.axis.com

Video management software
AXIS Companion, AXIS Camera Station, Video management software from Axis’ Application Development Partners available on www.axis.com/techsup/software

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

Warranty
Axis 3-year warranty, see www.axis.com/warranty

Export control
The product contains U.S.-origin controlled technology/component, the US Export Administration Regulations (EAR) are always applicable to the product. You should comply at all times with all applicable national and international (re-) export control regulations.

a. Individual palette cannot be set per video stream
b. This product includes software developed by the OpenSSL Project for use in the OpenSSL toolkit (www.openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

Environmental responsibility:
www.axis.com/environmental-responsibility