

## AXIS Q60-S PTZ Dome Network Cameras

Pressurized, stainless steel high-speed PTZ domes



- > Marine-grade stainless steel
- > Casing for pressurized nitrogen
- > Up to HDTV 1080p with high zoom
- > SFP slots for fiber, RJ45 connections
- > I/O for alarm in/out

AXIS Q60-S PTZ Dome Network Cameras are top-of-the-line, high-speed surveillance cameras in a pressurized, marine-grade stainless steel casing. Providing 360° coverage of wide areas and great detail when zooming in, the highly durable, outdoor-ready cameras are ideal for marine, mining, as well as oil and gas environments. They are also applicable indoors in food, medical and clean room manufacturing facilities.

Thanks to the stainless steel (SAE 316L) casing, AXIS Q60-S cameras have high resistance to corrosion and can withstand cleaning chemicals and high-pressure steam. They are designed to be filled with nitrogen to provide additional benefits such as preventing internal condensation.

The models comprise AXIS Q6042-S (Extended D1 resolution and 36x optical zoom), AXIS Q6044-S (HDTV 720p and 30x optical zoom), and AXIS Q6045-S (HDTV 1080p and 20x optical zoom). The robust cameras, with day/night functionality, can be automatically directed to 256 preset positions using guard tour.

AXIS Q6042-S and AXIS Q6044-S support electronic image stabilization, which delivers more useful video in windy or vibrating conditions. AXIS Q6044-S also supports automatic defog for clearer video in fog. All AXIS Q60-S cameras have enhanced capacity for intelligent video.

The supplied media converter switch allows AXIS Q60-S cameras to be connected in a daisy chain to the network using standard network or fiber optic cables. The media converter switch also enables the cameras to connect to external devices via input/output ports and to 12 V power.

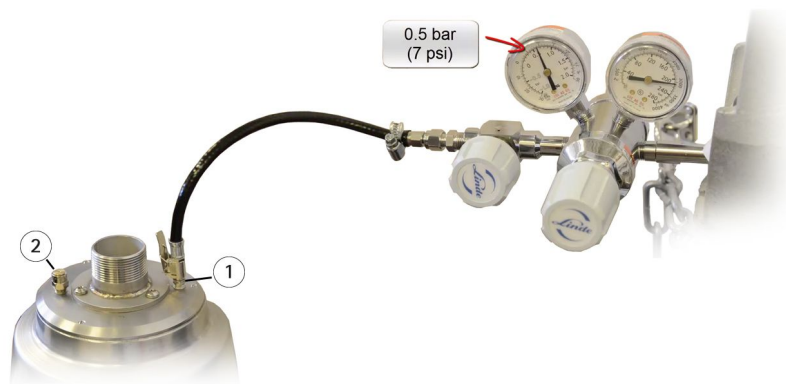
*Note: Mounting brackets are sold separately.*



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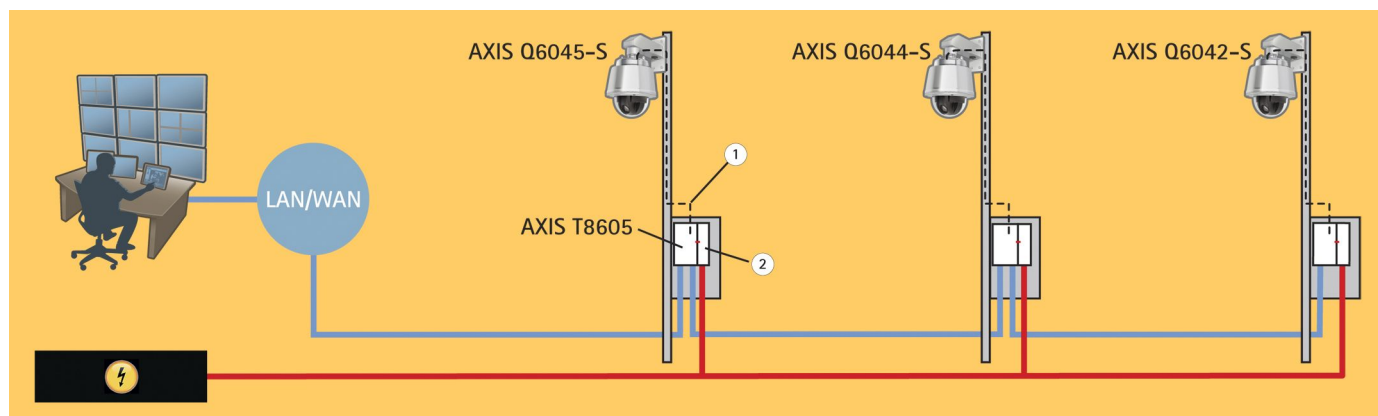
## High durability

AXIS Q60-S cameras, with marine-grade (SAE 316L or V4A) stainless steel and a nylon clear dome cover, have high resistance to the corrosive effect of sea water and cleaning chemicals. They can withstand high-pressure steam cleaning. Pressurized nitrogen, meanwhile, provides benefits such as preventing internal condensation. The cameras can operate in  $-30\text{ }^{\circ}\text{C}$  to  $50\text{ }^{\circ}\text{C}$  ( $-22\text{ }^{\circ}\text{F}$  to  $122\text{ }^{\circ}\text{F}$ ). They have MIL-STD-810G 509.5, IP6K9K, IP66, IP67 and NEMA 4X approvals, ensuring protection against salt fog, high pressure and steam jet cleaning, dust, rain, snow and ice. Support for shock detection enables the cameras to trigger an alarm if they have been hit.



AXIS Q60-S cameras are to be filled with nitrogen gas through the inlet valve [1] and the pressure should be above 0.2 bar (3 psi) for full protection from internal condensation. The pressure relief valve [2] will open when the pressure inside the camera reaches 0.5 bar (7 psi).

## System schematic



An AXIS Q60-S connects to the supplied AXIS T8605 Media Converter Switch using an IP66-rated multi-connector cable [1], which attaches to the camera with a simple click. Through the media converter switch, the multi-connector cable enables the camera to receive power (power supply [2] not included), and send and receive data to and from external alarm devices and the network. Two SFP slots and two RJ45 connectors in the media converter switch give installers the flexibility to network the

cameras cost-effectively over long distances in a daisy chain or in a ring topology for increased reliability in the event of a single point of failure. (IGMP filtering is not supported and ring topology requires a switch supporting IEEE 802.1D Spanning Tree Protocol). The RJ45 connectors can also be used for connection to complementary cameras such as a thermal camera or temporarily to a laptop to service the system locally.

# Technical Specifications - AXIS Q60-S PTZ Dome Network Cameras

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Models</b>                            | AXIS Q6042-S 50 Hz, AXIS Q6042-S 60 Hz<br>AXIS Q6044-S 50 Hz, AXIS Q6044-S 60 Hz<br>AXIS Q6045-S 50 Hz, AXIS Q6045-S 60 Hz                                                                                                                                                                                                                                                                                                                                                    |
| <b>Camera</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Image sensor</b>                      | AXIS Q6042-S: 1/4" progressive scan CCD<br>AXIS Q6044-S: 1/3" progressive scan CCD<br>AXIS Q6045-S: 1/3" progressive scan CMOS                                                                                                                                                                                                                                                                                                                                                |
| <b>Lens</b>                              | AXIS Q6042-S: f=3.3–119 mm, F1.4–4.2, autofocus<br>Horizontal angle of view: 57.2°–1.7°<br>AXIS Q6044-S: f=4.4–132 mm, F1.4–4.6, autofocus<br>Horizontal angle of view: 62.9°–2.2°<br>AXIS Q6045-S: f=4.45–89 mm, F1.6–2.9, autofocus<br>Horizontal angle of view: 62.98°–3.49°                                                                                                                                                                                               |
| <b>Day and night</b>                     | Automatically removable infrared-cut filter                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Minimum illumination</b>              | AXIS Q6042-S: Color: 0.5 lux at 30 IRE F1.4; B/W: 0.008 lux at 30 IRE F1.4<br>AXIS Q6044-S: Color: 0.2 lux at 30 IRE F1.4; B/W: 0.04 lux at 30 IRE F1.4<br>AXIS Q6045-S: Color: 0.6 lux at 30 IRE F1.6; B/W: 0.04 lux at 30 IRE F1.6                                                                                                                                                                                                                                          |
| <b>Shutter time</b>                      | AXIS Q6042-S: 1/30000 s to 1.5 s (50 Hz), 1/30000 s to 0.5 s (60 Hz)<br>AXIS Q6044-S: 1/10000 s to 1/4 s<br>AXIS Q6045-S: 1/33000 s to 1/3 s (50 Hz), 1/33000 s to 1/4 s (60 Hz)                                                                                                                                                                                                                                                                                              |
| <b>Pan/Tilt/Zoom</b>                     | E-flip, 256 preset positions, Tour recording, Guard tour, Control queue, On-screen directional indicator<br>Pan: 360° endless, 0.05°–450°/s; Tilt: 220°, 0.05°–450°/s<br>AXIS Q6042-S: 36x optical zoom and 12x digital zoom, total 432x zoom<br>AXIS Q6044-S: 30x optical zoom and 12x digital zoom, total 360x zoom<br>AXIS Q6045-S: 20x optical zoom and 12x digital zoom, total 240x zoom                                                                                 |
| <b>Video</b>                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Video compression</b>                 | H.264 Main and Baseline Profiles (MPEG-4 Part 10/AVC)<br>Motion JPEG                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Resolutions</b>                       | AXIS Q6042-S: Extended D1 736x576 to 176x144 (50 Hz), Extended D1 752x480 to 176x120 (60 Hz)<br>AXIS Q6044-S: 1280x720 (HDTV 720p) to 320x180<br>AXIS Q6045-S: 1920x1080 (HDTV 1080p) to 320x180                                                                                                                                                                                                                                                                              |
| <b>Frame rate</b>                        | H.264: Up to 25/30 fps (50/60 Hz) in all resolutions<br>Motion JPEG: Up to 25/30 fps (50/60 Hz) in all resolutions                                                                                                                                                                                                                                                                                                                                                            |
| <b>Video streaming</b>                   | Multiple, individually configurable streams in H.264 and Motion JPEG<br>Controllable frame rate and bandwidth<br>VBR/CBR H.264                                                                                                                                                                                                                                                                                                                                                |
| <b>Image settings</b>                    | Wide dynamic range (WDR), Manual shutter time, Compression, Color, Brightness, Sharpness, White balance, Exposure control, Exposure zones, Backlight compensation, Fine tuning of behavior at low light, Rotation, Text and image overlay, 32 individual 3D privacy masks, Image freeze on PTZ<br>AXIS Q6042-S: Electronic image stabilization<br>AXIS Q6044-S: Electronic image stabilization, Automatic defog<br>AXIS Q6045-S: Highlight compensation                       |
| <b>Network</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Security</b>                          | Password protection, IP address filtering, HTTPS <sup>a</sup> encryption, IEEE 802.1X <sup>a</sup> network access control, Digest authentication, User access log                                                                                                                                                                                                                                                                                                             |
| <b>Supported protocols</b>               | IPv4/v6, HTTP, HTTPS <sup>a</sup> , SSL/TLS <sup>a</sup> , QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP <sup>TM</sup> , SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH                                                                                                                                                                                                                                    |
| <b>System integration</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Application Programming Interface</b> | Open API for software integration, including VAPIX <sup>®</sup> and AXIS Camera Application Platform; specifications at <a href="http://www.axis.com">www.axis.com</a><br>AXIS Video Hosting System (AVHS) with One-Click Camera Connection.<br>ONVIF Profile S, specification at <a href="http://www.onvif.org">www.onvif.org</a>                                                                                                                                            |
| <b>Intelligent video</b>                 | Video motion detection, Autotracking, Active Gatekeeper, AXIS Camera Application Platform enabling installation of additional applications<br>AXIS Q6044-S: Automatic defog<br>AXIS Q6045-S: Basic analytics (not to be compared with third-party analytics): Object removed, Enter/exit detector, Fence detector, Object counter, Highlight compensation                                                                                                                     |
| <b>Event triggers</b>                    | Video motion detection, Shock detection, Fan, Heater, Temperature, Manual trigger, Autotracking, Moving, PTZ preset, Edge storage events, AXIS Camera Application Platform<br>AXIS Q6045-S: Enter/exit, Fence detector, Object removed                                                                                                                                                                                                                                        |
| <b>Event actions</b>                     | File upload: FTP, HTTP, network share and email<br>Notification: email, HTTP and TCP<br>PTZ preset, Guard tour, Autotracking, Day/night mode, Video recording to edge storage, Pre- and post-alarm video buffering                                                                                                                                                                                                                                                            |
| <b>Built-in installation aids</b>        | Pixel counter                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>General</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Casing</b>                            | IP6K9K-, IP66-, IP67- and NEMA 4X-rated stainless steel casing (V4A, SAE 316L/UNS S31603/EN 1.4432), nylon clear dome                                                                                                                                                                                                                                                                                                                                                         |
| <b>Memory</b>                            | 512 MB RAM, 128 MB Flash                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Power</b>                             | 60 W powered through AXIS T8605 Media Converter Switch                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Connectors</b>                        | IP66-rated multi-connector for DC power, Ethernet 10/100BASE-T, input and output, including 7 m (23 ft) cable<br>Media Converter Switch: 2xRJ45 10/100BASE-T, 2xSFP 100BASE-FX/1000BASE-X, terminal blocks with power input, power output and 2x configurable input/output                                                                                                                                                                                                    |
| <b>Edge storage</b>                      | SD/SDHC/SDXC slot supporting memory card up to 64 GB (card not included); support for recording to dedicated network-attached storage (NAS)                                                                                                                                                                                                                                                                                                                                   |
| <b>Operating conditions</b>              | -30 °C to 50 °C (-22 °F to 122 °F)<br>Humidity 10–100% RH (condensing)                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage conditions</b>                | -40 °C to 65 °C (-40 °F to 149 °F)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Approvals</b>                         | EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN 55024, EN 50121-4, IEC 62236-4, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, C-tick AS/NZS CISPR 22 Class A, KCC KN22 Class A, KN24, IEC/EN/UL 60950-1, IEC/EN/UL 60950-22, IEC/EN 60529 IP66, IP67, IP6K9K, NEMA 250 Type 4X, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78, IEC 60068-2-14, IEC 60068-2-30, IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-60, MIL-STD 810G 509.5 |
| <b>Weight</b>                            | 5.7 kg (12.6 lb)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Included accessories</b>              | AXIS T8605 Media Converter Switch, IP66-rated multi-connector cable, Installation Guide, Installation and Management Software CD, Windows decoder 1-user license                                                                                                                                                                                                                                                                                                              |
| <b>Video management software</b>         | AXIS Camera Companion (included), AXIS Camera Station and video management software from Axis' Application Development Partners (not included). For more information, see <a href="http://www.axis.com/products/video/software">www.axis.com/products/video/software</a>                                                                                                                                                                                                      |
| <b>Warranty</b>                          | Axis 3-year warranty and AXIS Extended Warranty option, see <a href="http://www.axis.com/warranty">www.axis.com/warranty</a>                                                                                                                                                                                                                                                                                                                                                  |

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

More information is available at [www.axis.com](http://www.axis.com)

### Dimensions

1. Without sunshield  
2. With sunshield (sold separately)

Technical drawings showing dimensions for two configurations:

- Configuration 1 (Without sunshield):**
  - Top width: 51 mm (2")
  - Bottom width: 154 mm (6.1")
  - Bottom depth: 224 mm (8.8")
  - Height: 89 mm (3.5")
  - Total height: 256 mm (10.1")
- Configuration 2 (With sunshield):**
  - Width: 250 mm (9.8")
  - Height: 164 mm (6.5")

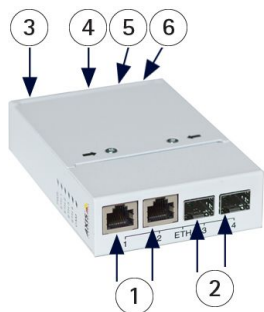
### Included accessories

- AXIS T8605
- Bracket Mount DIN Clip
- IP66-rated multi-connector cable, 7 m (23 ft)

### Optional accessories

- AXIS T91C61 Wall Mount
- AXIS T94S01D Pendant Kit
- AXIS T91C67 Pole Mount
- AXIS Q60-S Sunshield
- AXIS T8008 PS12
- AXIS T98A-VE Surveillance Cabinet
- AXIS T8310 Video Surveillance Control Board

## AXIS T8605 Media Converter Switch



|                                 |                                                                                                                                                                                                 |                             |                                                                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data rate</b>                | RJ45: 10/100 Mbps; SFP: 100/1000 Mbps                                                                                                                                                           | <b>Operating conditions</b> | -40 °C to 75 °C (-40 °F to 167 °F)                                                                                                                    |
| <b>Network cables</b>           | Shielded category 5 or higher; fiber                                                                                                                                                            | <b>Storage conditions</b>   | -40 °C to 75 °C (-40 °F to 167 °F)                                                                                                                    |
| <b>Connectors</b>               | 2x RJ45 connectors [1]<br>2x SFP slots (e.g. for SFP optical fiber modules) [2]<br>2 configurable alarm input/output ports [3]<br>Multi-connector cable [4]<br>Ground screw [5]<br>1x power [6] | <b>Approvals</b>            | <b>EMC:</b><br>EN 55022 Class A, EN 55024, VCCI, FCC Part 15 Class A with STP cabling, KCC<br><b>Safety:</b><br>IEC/EN/UL 60950-1, IEC/EN/UL 60950-22 |
| <b>Power</b>                    | 12–13 V DC, min. 60 W (power in from power supply)                                                                                                                                              | <b>Installation</b>         | Bracket Mount DIN Clip (included) for a 35 mm DIN rail                                                                                                |
| <b>Display &amp; indicators</b> | Power<br>5x Network                                                                                                                                                                             | <b>Dimensions</b>           | 150 x 100 x 30 mm (5.9" x 3.9" x 1.2")                                                                                                                |
| <b>Compliance</b>               | RoHS, REACH, WEEE, CE, EN 50022, IEC 60715, AS2756                                                                                                                                              |                             |                                                                                                                                                       |

## AXIS T8008 PS12 (Optional accessory)

|                  |                                                               |                           |                                                                                                                                                                       |                             |                                    |
|------------------|---------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------|
| <b>Power in</b>  | 90–264 V AC (operating)<br>115–230 V AC (nominal)<br>47–63 Hz | <b>Approvals</b>          | EMI Class B, EN61000 Immunity, IEC 68-2-27, IEC 68-2-6/IEC 721-3-2, UL+CSA 60950-1 2nd Edition, UL+CSA 60601-1 2nd Edition, CB Scheme 60950-1, EN 61347-1/-2-13, IP64 | <b>Operating conditions</b> | -40 °C to 75 °C (-40 °F to 167 °F) |
| <b>Power out</b> | 12.5 V DC +/-0.2 V DC, 85 W                                   | <b>Storage conditions</b> |                                                                                                                                                                       | <b>Storage conditions</b>   | -40 °C to 75 °C (-40 °F to 167 °F) |
|                  |                                                               | <b>Dimensions</b>         |                                                                                                                                                                       | <b>Dimensions</b>           | 178 x 102 x 38 mm (7" x 4" x 1.2") |