

## **AXIS Q6075-SE PTZ Camera**

## **User Manual**

# AXIS Q6075-SE PTZ Camera

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# AXIS Q6075-SE PTZ Camera

## Get started

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### Get started

#### Find the device on the network

To find Axis devices on the network and assign them IP addresses in Windows®, use AXIS IP Utility or AXIS Device Manager. Both applications are free and can be downloaded from [axis.com/support](http://axis.com/support).

For more information about how to find and assign IP addresses, see the document *How to assign an IP address and access your device*.

#### Browser support

You can use the device with the following browsers:

	Chrome™	Firefox®	Edge®	Safari®
Windows®	recommended	x	x	
macOS®	recommended			x
Other operating systems	x	x		

If you need more information about recommended browsers, go to [axis.com/browser-support](http://axis.com/browser-support).

#### Access the device

1. Open a browser and enter the IP address or host name of the Axis device.  
If you do not know the IP address, use AXIS IP Utility or AXIS Device Manager to find the device on the network.
2. Enter the username and password. If you access the device for the first time, you must set the root password. See *Set a new password for the root account on page 3*.
3. The live view page opens in your browser.

#### Verify that no one has tampered with the firmware

To make sure that the device has its original Axis firmware, or to take full control of the device after a security attack:

1. Reset to factory default settings. See *Reset to factory default settings on page 22*.  
After the reset, secure boot guarantees the state of the device.
2. Configure and install the device.

#### Set a new password for the root account

##### Important

The default administrator username is **root**. If the password for root is lost, reset the device to factory default settings.

1. Type a password. Follow the instructions about secure passwords. See *Secure passwords on page 4*.
2. Retype the password to confirm the spelling.
3. Click **Create login**. The password has now been configured.

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[www.axis.com/products/online-manual/67691](http://www.axis.com/products/online-manual/67691)

### Secure passwords

#### Important

Axis devices send the initially set password in clear text over the network. To protect your device after the first login, set up a secure and encrypted HTTPS connection and then change the password.

The device password is the primary protection for your data and services. Axis devices do not impose a password policy as they may be used in various types of installations.

To protect your data we strongly recommend that you:

- Use a password with at least 8 characters, preferably created by a password generator.
- Don't expose the password.
- Change the password at a recurring interval, at least once a year.

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### Webpage overview

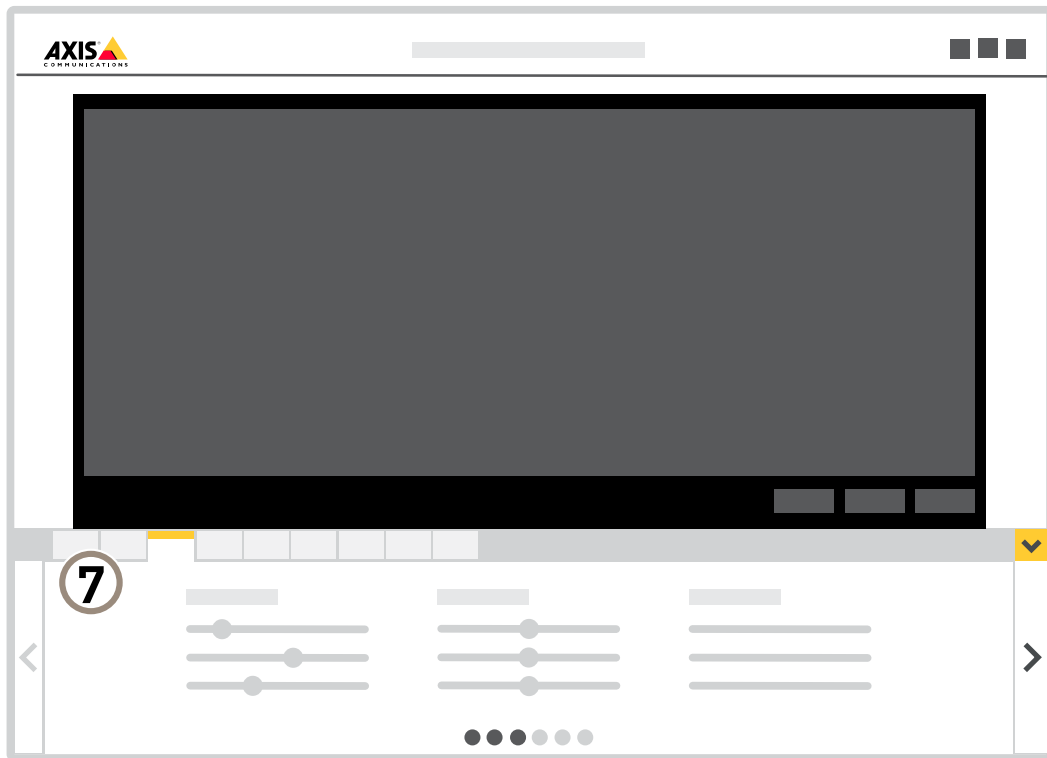


- 1 *Live view control bar*
- 2 *Live view*
- 3 *Product name*
- 4 *User information, color themes, and help*
- 5 *Video control bar*
- 6 *Settings toggle*

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7 Settings tabs

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## Additional settings

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### Additional settings

#### Adjust the image

If you want to know more about different image settings, see *Learn more on page 18*.

#### Adjust the focus faster with focus recall areas

To save the focus settings at a specific pan/tilt range, add a focus recall area. Each time the camera moves into that area it recalls the previously saved focus. It's enough to cover half of the focus recall area in the live view.

We recommend the focus recall feature in the following scenarios:

- When there is a lot of manual operation in live view, for example with a joystick.
- Where PTZ preset positions with manual focus are not efficient, for example movements where the focus setting changes continuously.
- In low-light scenarios, where the autofocus is challenged by the lighting conditions.

#### Important

- The focus recall overrides the camera's autofocus at the specific pan/tilt range.
- A preset position overrides the focus setting saved in the focus recall area.
- The maximum number of focus recall areas is 20.

#### Create a focus recall area


1. Pan, tilt, and zoom into the area where you would like to have focus.

As long as the focus recall button shows a plus , you can add a focus recall area in that position.

2. Adjust the focus.
3. Click the focus recall button.

#### Delete a focus recall area

1. Pan, tilt, and zoom into the focus recall area you want to delete.

The focus recall button toggles to minus when the camera detects a focus recall area: .

2. Click the focus recall button.

#### Benefit from IR light in low-light conditions using night mode

Your camera uses visible light to deliver color images during the day. As the available light diminishes, you can set the camera to automatically shift to night mode, in which the camera uses both visible light and near-infrared light to deliver black-and-white images. Since the camera uses more of the available light it can deliver brighter, more detailed, images.

1. Go to **Settings > Image > Day and night**, and make sure that the **IR cut filter** is set to **Auto**.
2. To determine at what light level you want the camera to shift to night mode, move the **Threshold** slider toward **Bright** or **Dark**.

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### Note

If you set the shift to night mode to occur when it's brighter, the image remains sharper as there will be less low-light noise. If you set the shift to occur when it's darker, the image colors are maintained for longer, but there will be more image blur due to low-light noise.

### Reduce noise in low-light conditions

To reduce noise in low-light conditions, you can adjust one or more of the following settings:

- Adjust the trade-off between noise and motion blur. Go to **Settings > Image > Exposure** and move the **Blur-noise trade-off** slider toward **Low noise**.
- Set the exposure mode to automatic.

### Note

A high max shutter value can result in motion blur.

- To slow down the shutter speed, set max shutter to the highest possible value.

### Note

When you reduce the max gain, the image can become darker.

- Set the max gain to a lower value.
- Open the aperture.

### Handle scenes with strong backlight

Dynamic range is the difference in light levels in an image. In some cases the difference between the darkest and the brightest areas can be significant. The result is often an image where either the dark or the bright areas are visible. Wide dynamic range (WDR) makes both dark and bright areas of the image visible.



*Image without WDR.*



*Image with WDR.*



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### Note


- WDR can cause artifacts in the image.
  - WDR may not be available for all capture modes.
1. Go to **Settings > Image > Wide dynamic range**.
  2. Turn on WDR.
  3. To set the amount of WDR, select Low, Medium or High from the **WDR level** list.
  4. If you still have problems, go to **Exposure** and adjust the **Exposure zone** to cover the area of interest.

Find out more about WDR and how to use it at [axis.com/web-articles/wdr](http://axis.com/web-articles/wdr).

### Improve license plate recognition

To better recognize the license plate of a car passing by the camera, you can apply and adjust a number of things.

One option is to use the pixel counter in your camera to set the optimal pixel resolution:

1. Go to **Settings > System > Orientation** and click .
2. Adjust the size and placement of the rectangle in the camera's live view around the area of interest, for example where the license plates of passing cars are expected to appear. You can then see the number of pixels represented by the sides of the rectangle.

### Note

You can use an object of a known size in the view as a reference to decide how much resolution is needed for recognition.

In addition, you can try to adjust the following to optimize license plate recognition:

- Shutter speed
- Gain
- Zoom

### Hide parts of the image with privacy masks

You can create one or several privacy masks to hide parts of the image.

1. Go to **Settings > Privacy mask**.
2. Click **New**.
3. Adjust the size, color, and name of the privacy mask according to your needs.



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*How to create a privacy mask*

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*How to change the appearance of the mask*

### Show an image overlay

To add an image as an overlay in the video stream:

1. Go to **Settings > Overlay**.
2. Click **Image list**.
3. Upload an image and click **Done**.
4. Click **Create overlay**.
5. Select **Image** and click **Create**.
6. Select the image from the drop-down list.
7. To position the image overlay, choose **Custom** or one of the presets.
8. Click **Create**.

### Show a text overlay in the video stream when the device detects motion

This example explains how to display the text "Motion detected" when the device detects motion:

Make sure that AXIS Video Motion Detection is running:

1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs.

Add the overlay text:

4. Go to **Settings > Overlay**.
5. Select **Create overlay** and select **Text overlay**.
6. Enter #D in the text field.
7. Choose text size and appearance.
8. To position the text overlay, choose **Custom** or one of the presets.

Create a rule:

9. Go to **System > Events > Rules** and add a rule.
10. Type a name for the rule.
11. In the list of conditions, select **AXIS Video Motion Detection**.
12. In the list of actions, select **Use overlay text**.

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13. Select a view area.
14. Type "Motion detected".
15. Set the duration.
16. Click **Save**.

### Note

If you update the overlay text it will be automatically updated on all video streams dynamically.



### Show the pan or tilt position as a text overlay

You can show the pan or tilt position as an overlay in the image.

1. Go to **Settings > Overlay** and click **Create overlay**.
2. Select **Text** and click **Create**.
3. In the text field, type #x to show the pan position.  
Type #y to show the tilt position.
4. Choose appearance, text size, and alignment.
5. The current pan and tilt positions show up in the live view image and in the recording.

### Add street names and compass direction to the image

#### Note

The street name and compass direction will be visible on all video streams and recordings.

Activate the compass ring

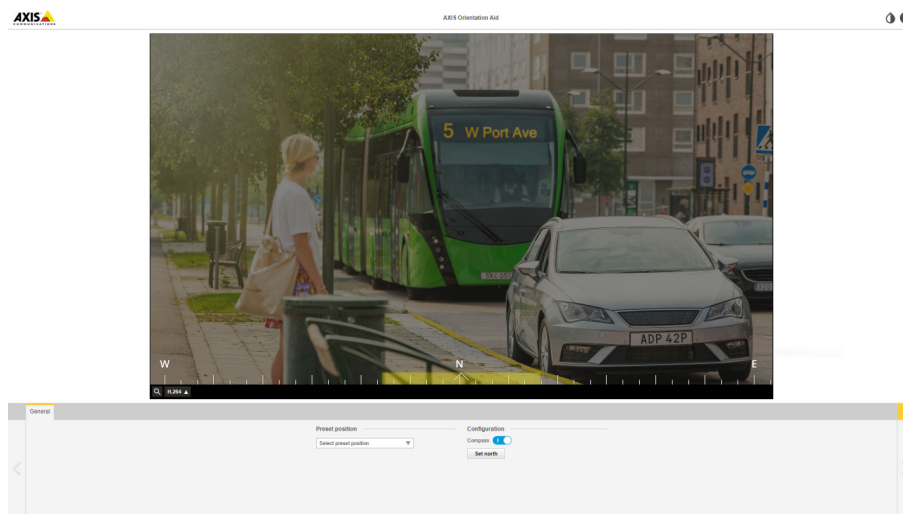
1. Go to **Settings > Apps**.
2. Select **Orientation Aid PTZ**.
3. Start the application and click **Open**.
4. Position the camera view at north with the crosshair. Click **Set north**.

Add a preset position

1. Go to **Settings > PTZ**.
2. Use the crosshair to position the view where you want to add a preset position.
3. Click the **+** to create a new preset position.

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## Additional settings



### Adjust the camera view (PTZ)


To learn more about different pan, tilt, and zoom settings, see *Pan, tilt, and zoom (PTZ)* on page 18.

### Limit the pan, tilt, and zoom movements

If there are parts of the scene that you don't want the camera to reach, you can limit the pan, tilt, and zoom movements. For example, you want to protect the privacy of residents in an apartment building, which is located close to a parking lot that you intend to monitor. To limit the movements, go to **Settings > PTZ > Limits**.

### Create a guard tour with preset positions

A guard tour displays the video stream from different preset positions either in a predetermined or random order, and for configurable periods of time.

1. Go to **Settings > PTZ > Guard tours**.
2. Click **+**.
3. To edit the guard tour's properties, click .
4. Type a name for the guard tour and specify the pause length in minutes between each tour.
5. If you want the guard tour to go to the preset positions in a random order, turn on **Shuffle**.
6. Click **Done**.
7. Click **Add** to add the preset positions that you want in your guard tour.
8. Click **Done** to exit the guard tour settings.
9. To schedule the guard tour, go to **System > Events**.

### View and record video

To learn more about settings for viewing and recording video, see *Streaming and storage* on page 19.

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### Reduce bandwidth and storage

#### Important

If you reduce the bandwidth it can result in loss of details in the picture.

1. Go to live view and select **H.264**.
2. Go to **Settings > Stream**.
3. Do one or more of the following:

#### Note

The zipstream settings are used for both H.264 and H.265.

- Turn on dynamic GOP and set a high GOP length value.
- Increase the compression.
- Turn on dynamic FPS.

#### Note

Web browsers do not support H.265 decoding. Use a video management system or application supporting H.265 decoding.

### Set up network storage

To store recordings on the network, you need to set up network storage:

1. Go to **Settings > System > Storage**.
2. Click **Setup** under **Network storage**.
3. Enter the IP address of the host server.
4. Enter the name of the shared location on the host server.
5. Move the switch if the share requires a login, and enter username and password.
6. Click **Connect**.

### Record and watch video

To record video you must first set up network storage, see *Set up network storage on page 13*, or have an SD card installed.

#### Record video

1. Go to the live view.
2. To start a recording, click **Record**. Click again to stop the recording.

#### Watch video

1. Click **Storage > Go to recordings**.
2. Select your recording in the list and it will play automatically.

### Set up rules and alerts

You can create rules to make your device perform an action when certain events occur. A rule consists of conditions and actions. The conditions can be used to trigger the actions. For example, the device can start a recording or send an email when it detects motion, or show an overlay text when it records.

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## Additional settings

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### Trigger an action

1. Go to **Settings > System > Events** to set up a rule. The rule defines when the device will perform certain actions. Rules can be setup as scheduled, recurring, or for example, triggered by motion detection.
2. Select the **Condition** that must be met to trigger the action. If you specify more than one condition for the rule, all of the conditions must be met to trigger the action.
3. Select which **Action** the device should perform when the conditions are met.

#### Note

If you make changes to an active rule, then the rule needs to be restarted for the changes to take effect.

### Record video when the camera detects motion

This example explains how to set up the camera to start recording to the SD card five seconds before it detects motion and to stop one minute after.

Make sure that AXIS Video Motion Detection is running:

1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs. If you need help, see the *user manual for AXIS Video Motion Detection 4*.

Create a rule:

1. Go to **Settings > System > Events** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, under **Application**, select **AXIS Video Motion Detection (VMD)**.
4. In the list of actions, under **Recordings**, select **Record video while the rule is active**.
5. Select an existing stream profile or create a new one.
6. Set the prebuffer time to 5 seconds.
7. Set the postbuffer time to 60 seconds.
8. In the list of storage options, select **SD card**.
9. Click **Save**.



To watch this video, go to the web version of this document.

[www.axis.com/products/online-manual/67691](http://www.axis.com/products/online-manual/67691)

### Direct the camera to a preset position when the camera detects motion

This example explains how to set up the camera to go to a preset position when it detects motion in the image.

Make sure that AXIS Video Motion Detection is running:

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## Additional settings

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1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs. If you need help, see the *user manual for AXIS Video Motion Detection 4*.

Add a preset position:

Go to **Settings > PTZ** and set where you want the camera to be directed by creating a preset position.

Create a rule:

1. Go to **Settings > System > Events > Rules** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, select a video motion detection condition under **Application**.
4. From the list of actions, select **Go to preset position**.
5. Select the preset position you want the camera to go to.
6. Click **Save**.



To watch this video, go to the web version of this document.

[www.axis.com/products/online-manual/67691](http://www.axis.com/products/online-manual/67691)

### Zoom in on a specific area automatically with gatekeeper

This example explains how to use the gatekeeper functionality to make the camera zoom in automatically on the license plate of a car that passes through a gate. When the car has passed, the camera zooms out to the home position.

Create the preset positions:

1. Go to **Settings > PTZ > Preset positions**.
2. Create the home position that includes the entrance of the gate.
3. Create the zoomed-in preset position so that it covers the area in the image where you assume that the license plate will appear.

Create a motion detection profile:

1. Go to **Settings > Apps** and open **AXIS Video Motion Detection**.
2. Create a profile that covers the entrance of the gate and then save the profile.

Create a rule:

1. Go to **Settings > System > Events** and add a rule.
2. Name the rule "Gatekeeper".
3. In the list of conditions, under **Application**, select the motion detection profile.

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## Additional settings

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4. In the list of actions, under **Preset positions**, select **Go to preset position**.
5. Select a **Video channel**.
6. Select the **Preset position**.
7. To make the camera wait a while before it returns to the home position, select **Home timeout**, and set a time.
8. Click **Save**.

### Record video when the camera detects impact

Shock detection allows the camera to detect tampering caused by vibrations or shock. Vibrations due to the environment or to an object can trigger an action depending on the shock sensitivity range, which can be set from 0 to 100. In this scenario, someone is throwing rocks at the camera after hours and you would like to get a video clip of the event.

Turn on shock detection:

1. Go to **Settings > System > Detectors**.
2. Turn on shock detection, and set a value for the shock sensitivity.

Create a rule:

1. Go to **Settings > System > Events** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, under **Device status**, select **Shock detected**.
4. Click **+** to add a second condition.
5. In the list of conditions, under **Scheduled and recurring**, select **Scheduled event**.
6. In the list of schedules, select **After hours**.
7. In the list of actions, under **Recordings**, select **Record video while the rule is active**.
8. Select a **Camera**.
9. Set the prebuffer time to 5 seconds.
10. Set the postbuffer time to 60 seconds.
11. Select where to save the recordings.
12. Click **Save**.



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## Cleaning recommendations

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### Cleaning recommendations

If the device gets grease stains or becomes heavily soiled, you can clean it with mild, solvent-free soap or detergent.

**NOTICE**

Never use harsh detergent, for example gasoline, benzene, or acetone.

1. Use a can of compressed air to remove any dust or loose dirt from the device.
2. Clean the device with a soft cloth dampened with mild detergent and lukewarm water.
3. Wipe carefully with a dry cloth.

**Note**

Avoid cleaning in direct sunlight or at elevated temperatures, as this may cause stains when the water droplets dry.

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Learn more

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Learn more

## Long-distance connections

This product supports fiber-optic cable installations through a media converter. Fiber-optic cable installations offer a number of benefits such as:

- Long-distance connection
- High speed
- Long lifetime
- Large capacity of data transmission
- Electromagnetic interference immunity

Find out more about fiber-optic cable installations on [axis.com/technologies/fiber-optics](https://axis.com/technologies/fiber-optics).

For information about how to install the media converter see the Installation Guide for this product.

## Capture modes

Capture mode defines the maximum frame rate available in the Axis product. Depending on which capture mode you select, you may not be able to use WDR.

Which capture mode to choose depends on the requirements of frame rate and resolution for the specific surveillance setup. For specifications about available capture modes, see the product's datasheet at [axis.com](https://axis.com).

## Privacy masks

A privacy mask is a user-defined area that covers a part of the monitored area. In the video stream, privacy masks appear either as blocks of solid color or with a mosaic pattern.

You'll see the privacy mask on all snapshots, recorded video, and live streams.

You can use the VAPIX® application programming interface (API) to turn off the privacy masks.

### Important

If you use multiple privacy masks it may affect the product's performance.

## Overlays

Overlays are superimposed over the video stream. They are used to provide extra information during recordings, such as a timestamp, or during product installation and configuration. You can add either text or an image.

The video streaming indicator is another type of overlay. It shows you that the live view video stream is live.

## Pan, tilt, and zoom (PTZ)

### Guard tours

A guard tour displays the video stream from different preset positions either in a predetermined or random order, and for configurable periods of time. Once started, a guard tour continues to run until stopped, even when there are no clients (web browsers) viewing the images.

# AXIS Q6075-SE PTZ Camera

## Learn more

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### Streaming and storage

#### Video compression formats

Decide which compression method to use based on your viewing requirements, and on the properties of your network. The available options are:

##### Motion JPEG

Motion JPEG, or MJPEG, is a digital video sequence that is made up of a series of individual JPEG images. These images are then displayed and updated at a rate sufficient to create a stream that shows constantly updated motion. For the viewer to perceive motion video the rate must be at least 16 image frames per second. Full motion video is perceived at 30 (NTSC) or 25 (PAL) frames per second.

The Motion JPEG stream uses considerable amounts of bandwidth, but provides excellent image quality and access to every image contained in the stream.

##### H.264 or MPEG-4 Part 10/AVC

###### Note

H.264 is a licensed technology. The Axis product includes one H.264 viewing client license. To install additional unlicensed copies of the client is prohibited. To purchase additional licenses, contact your Axis reseller.

H.264 can, without compromising image quality, reduce the size of a digital video file by more than 80% compared to the Motion JPEG format and by as much as 50% compared to the MPEG-4 standard. This means that less network bandwidth and storage space are required for a video file. Or seen another way, higher video quality can be achieved for a given bitrate.

##### H.265 or MPEG-H Part 2/HEVC

###### Note

H.265 is licensed technology. The Axis product includes one H.265 viewing client license. To install additional unlicensed copies of the client is prohibited. To purchase additional licenses, contact your Axis reseller.

#### How do Image, Stream, and Stream profile settings relate to each other?

The **Image** tab contains camera settings that affect all video streams from the product. If you change something in this tab, it immediately affects all video streams and recordings.

The **Stream** tab contains settings for video streams. You get these settings if you request a video stream from the product and don't specify for example resolution, or frame rate. When you change the settings in the **Stream** tab, it doesn't affect ongoing streams, but it will take effect when you start a new stream.

The **Stream profiles** settings override the settings from the **Stream** tab. If you request a stream with a specific stream profile, the stream contains the settings of that profile. If you request a stream without specifying a stream profile, or request a stream profile that doesn't exist in the product, the stream contains the settings from the **Stream** tab.

#### Bitrate control

With bitrate control, you can manage the bandwidth consumption of your video stream.

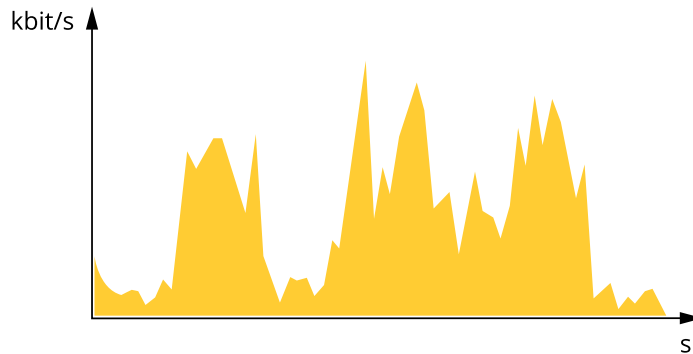
##### Variable bitrate (VBR)

With variable bitrate, the bandwidth consumption varies based on the level of activity in the scene. The more activity in the scene, the more bandwidth you need. You are guaranteed constant image quality but it requires storage margins.

# AXIS Q6075-SE PTZ Camera

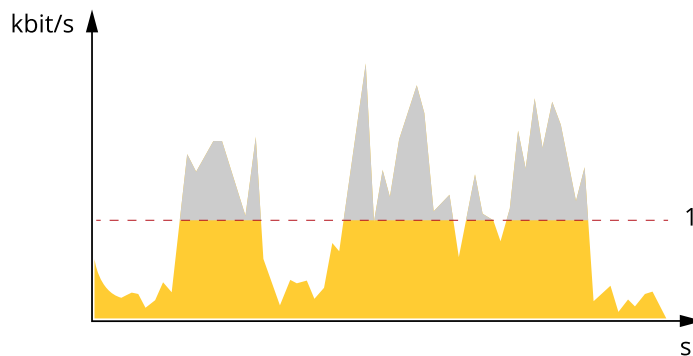
Learn more

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## Maximum bitrate (MBR)

With maximum bitrate, you can set a target bitrate to handle bitrate limitations in your system. You may see a decline in image quality or frame rate when the instantaneous bitrate is kept below the specified target bitrate. You can choose to either prioritize image quality or frame rate. We recommend that you configure the target bitrate to a higher value than the expected bitrate. This gives you a margin for additional complexity that needs to be captured.



1 Target bitrate

## Applications

AXIS Camera Application Platform (ACAP) is an open platform that enables third parties to develop analytics and other applications for Axis products. To find out more about available applications, downloads, trials and licenses, go to [axis.com/applications](https://axis.com/applications).

To find the user manuals for Axis applications, go to [axis.com](https://axis.com).

### Note

- Several applications can run at the same time but some applications might not be compatible with each other. Certain combinations of applications might require too much processing power or memory resources when run in parallel. Verify that the applications work together before deployment.

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Learn more

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To watch this video, go to the web version of this document.

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*How to download and install an application*

## Autotracking

Autotracking detects movement in the camera's field of view, for example a moving vehicle or person, and follows the moving object until it stops or disappears from the monitored area. In case there is much simultaneous movement, the camera selects the area with the most amount of motion. When there are no moving objects in the field of view, the camera returns to the home position.

### Important

- The autotracking feature is designed for areas where there is a limited amount of movement.
- If both autotracking and guard tour are enabled, we recommend you to use the PTZ control queue. In the control queue, guard tour has lower priority than autotracking, which prevents the camera from stopping autotracking to maintain or start a guard tour.
- Autotracking does not follow objects behind privacy masks or in exclude areas. You can also set maximum limits so that autotracking only triggers within a certain range in the live view.

## Security

### TPM module

The TPM (Trusted Platform Module) is a component that provides cryptographic features to protect information from unauthorized access. It is always activated and there are no settings you can change.

To learn more about TPM, go to [axis.com/press-center/media-resources/white-papers](http://axis.com/press-center/media-resources/white-papers).

# AXIS Q6075-SE PTZ Camera

## Troubleshooting

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### Troubleshooting

#### Reset to factory default settings

**Important**

Reset to factory default should be used with caution. A reset to factory default resets all settings, including the IP address, to the factory default values.

To reset the product to the factory default settings:

1. Press and hold the control button and the power button for 15–30 seconds until the status LED indicator flashes amber. See *Product overview* on page 26.
2. Release the control button but continue to hold down the power button until the status LED indicator turns green.
3. Release the power button and assemble the product.
4. The process is now complete. The product has been reset to the factory default settings. If no DHCP server is available on the network, the default IP address is 192.168.0.90.
5. Using the installation and management software tools to assign an IP address, set the password and access the video stream.

It is also possible to reset parameters to factory default through the web interface. Go to **Settings > System > Maintenance** and click **Default**.

#### Firmware options


Axis offers product firmware management according to either the active track or the long-term support (LTS) tracks. Being on the active track means continuously getting access to all the latest product features, while the LTS tracks provide a fixed platform with periodic releases focused mainly on bug fixes and security updates.

Using firmware from the active track is recommended if you want to access the newest features, or if you use Axis end-to-end system offerings. The LTS tracks are recommended if you use third-party integrations, which are not continuously validated against the latest active track. With LTS, the products can maintain cybersecurity without introducing any significant functional changes or affecting any existing integrations. For more detailed information about Axis product firmware strategy, go to [axis.com/support/firmware](https://axis.com/support/firmware).

#### Check the current firmware

Firmware is the software that determines the functionality of network devices. One of your first actions when troubleshooting a problem should be to check the current firmware version. The latest version may contain a correction that fixes your particular problem.

To check the current firmware:

1. Go to the product's webpage.
2. Click on the help menu .
3. Click **About**.

#### Upgrade the firmware

**Important**

Preconfigured and customized settings are saved when the firmware is upgraded (provided that the features are available in the new firmware) although this is not guaranteed by Axis Communications AB.

# AXIS Q6075-SE PTZ Camera

## Troubleshooting

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### Important

Make sure the cover is attached during upgrade to avoid installation failure.

### Important

Make sure the product remains connected to the power source throughout the upgrade process.

### Note

When you upgrade the product with the latest firmware in the active track, the product receives the latest functionality available. Always read the upgrade instructions and release notes available with each new release before upgrading the firmware. To find the latest firmware and the release notes, go to [axis.com/support/firmware](http://axis.com/support/firmware).

1. Download the firmware file to your computer, available free of charge at [axis.com/support/firmware](http://axis.com/support/firmware).
2. Log in to the product as an administrator.
3. Go to **Settings > System > Maintenance**. Follow the instructions on the page. When the upgrade has finished, the product restarts automatically.

AXIS Device Manager can be used for multiple upgrades. Find out more at [axis.com/products/axis-device-manager](http://axis.com/products/axis-device-manager).



To watch this video, go to the web version of this document.

[www.axis.com/products/online-manual/67691](http://www.axis.com/products/online-manual/67691)

## Technical issues, clues and solutions

If you can't find what you're looking for here, try the troubleshooting section at [axis.com/support](http://axis.com/support).

### Problems upgrading the firmware

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Firmware upgrade failure	If the firmware upgrade fails, the device reloads the previous firmware. The most common reason is that the wrong firmware file has been uploaded. Check that the name of the firmware file corresponds to your device and try again.
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### Problems setting the IP address

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The device is located on a different subnet	If the IP address intended for the device and the IP address of the computer used to access the device are located on different subnets, you cannot set the IP address. Contact your network administrator to obtain an IP address.
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The IP address is being used by another device	Disconnect the Axis device from the network. Run the ping command (in a Command/DOS window, type <code>ping</code> and the IP address of the device): <ul style="list-style-type: none"><li>• If you receive: <code>Reply from &lt;IP address&gt;: bytes=32; time=10...</code> this means that the IP address may already be in use by another device on the network. Obtain a new IP address from the network administrator and reinstall the device.</li><li>• If you receive: <code>Request timed out</code>, this means that the IP address is available for use with the Axis device. Check all cabling and reinstall the device.</li></ul>
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Possible IP address conflict with another device on the same subnet	The static IP address in the Axis device is used before the DHCP server sets a dynamic address. This means that if the same default static IP address is also used by another device, there may be problems accessing the device.
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# AXIS Q6075-SE PTZ Camera

## Troubleshooting

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### The device cannot be accessed from a browser

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Cannot log in	<p>When HTTPS is enabled, ensure that the correct protocol (HTTP or HTTPS) is used when attempting to log in. You may need to manually type <code>http</code> or <code>https</code> in the browser's address field.</p> <p>If the password for the user <code>root</code> is lost, the device must be reset to the factory default settings. See <i>Reset to factory default settings on page 22</i>.</p>
The IP address has been changed by DHCP	<p>IP addresses obtained from a DHCP server are dynamic and may change. If the IP address has been changed, use AXIS IP Utility or AXIS Device Manager to locate the device on the network. Identify the device using its model or serial number, or by the DNS name (if the name has been configured).</p> <p>If required, a static IP address can be assigned manually. For instructions, go to <a href="http://axis.com/support">axis.com/support</a>.</p>

### The device is accessible locally but not externally

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To access the device externally, we recommend using one of the following applications for Windows®:

- AXIS Companion: free of charge, ideal for small systems with basic surveillance needs.
- AXIS Camera Station: 30-day trial version free of charge, ideal for small to mid-size systems.

For instructions and download, go to [axis.com/vms](http://axis.com/vms).

### Problems with streaming

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Multicast H.264 only accessible by local clients	<p>Check if your router supports multicasting, or if the router settings between the client and the device need to be configured. The TTL (Time To Live) value may need to be increased.</p>
No multicast H.264 displayed in the client	<p>Check with your network administrator that the multicast addresses used by the Axis device are valid for your network.</p> <p>Check with your network administrator to see if there is a firewall preventing viewing.</p>
Poor rendering of H.264 images	<p>Ensure that your graphics card is using the latest driver. The latest drivers can usually be downloaded from the manufacturer's website.</p>
Color saturation is different in H.264 and Motion JPEG	<p>Modify the settings for your graphics adapter. Go to the adapter's documentation for more information.</p>
Lower frame rate than expected	<ul style="list-style-type: none"><li>• See <i>Performance considerations on page 24</i>.</li><li>• Reduce the number of applications running on the client computer.</li><li>• Limit the number of simultaneous viewers.</li><li>• Check with the network administrator that there is enough bandwidth available.</li><li>• Lower the image resolution.</li><li>• The maximum frames per second is dependent on the utility frequency (60/50 Hz) of the Axis device.</li></ul>
Can't select H.265 encoding in live view	<p>Web browsers do not support H.265 decoding. Use a video management system or application supporting H.265 decoding.</p>

## Performance considerations

When setting up your system, it is important to consider how various settings and situations affect the performance. Some factors affect the amount of bandwidth (the bitrate) required, others can affect the frame rate, and some affect both. If the load on the CPU reaches its maximum, this also affects the frame rate.

The following factors are the most important to consider:

- High image resolution or lower compression levels result in images containing more data which in turn affects the bandwidth.
- Rotating the image in the GUI will increase the product's CPU load.
- Removing or attaching the cover will restart the camera.



# AXIS Q6075-SE PTZ Camera

## Troubleshooting

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- Access by large numbers of Motion JPEG or unicast H.264 clients affects the bandwidth.
- Simultaneous viewing of different streams (resolution, compression) by different clients affects both frame rate and bandwidth.  
  
Use identical streams wherever possible to maintain a high frame rate. Stream profiles can be used to ensure that streams are identical.
- Accessing Motion JPEG and H.264 video streams simultaneously affects both frame rate and bandwidth.
- Heavy usage of event settings affects the product's CPU load which in turn affects the frame rate.
- Using HTTPS may reduce frame rate, in particular if streaming Motion JPEG.
- Heavy network utilization due to poor infrastructure affects the bandwidth.
- Viewing on poorly performing client computers lowers perceived performance and affects frame rate.
- Running multiple AXIS Camera Application Platform (ACAP) applications simultaneously may affect the frame rate and the general performance.

### Contact support

Contact support at [axis.com/support](https://axis.com/support).

# AXIS Q6075-SE PTZ Camera

## Specifications

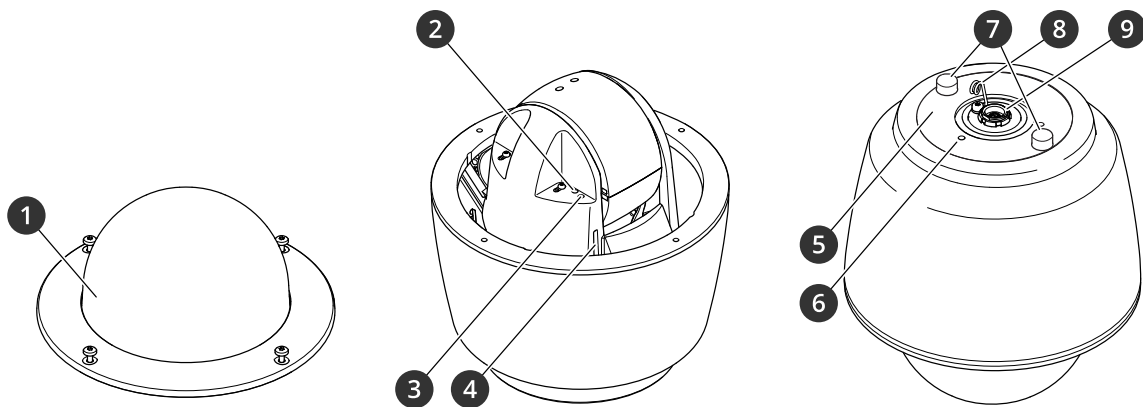
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### Specifications

#### Product overview

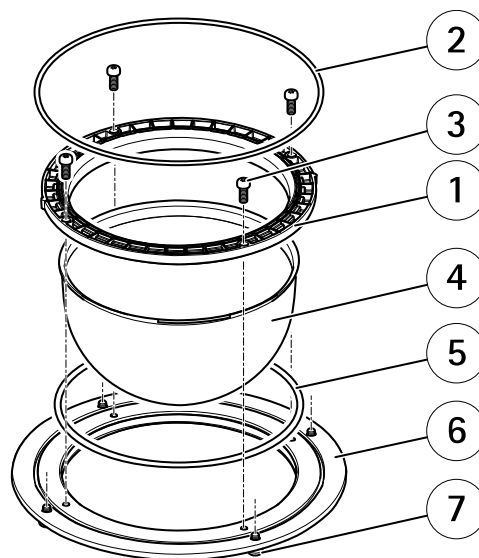
**NOTICE**

Make sure the dome is attached in operation mode, otherwise focus may be affected.



- 1 Dome
- 2 Control button
- 3 Status LED indicator
- 4 SD card slot
- 5 Part number (P/N) and serial number (S/N)
- 6 Mounting hole (3x)
- 7 Ventilation plug
- 8 Hook for safety wire
- 9 Multiconnector

#### Dome cover



- 1 Dome attachment ring

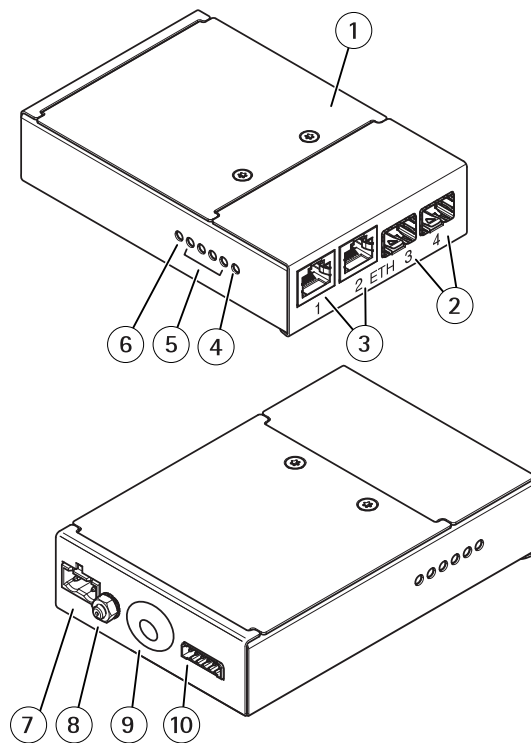
# AXIS Q6075-SE PTZ Camera

## Specifications

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- 2 O-ring
- 3 Dome bracket screw T20 (4x)
- 4 Dome
- 5 O-ring
- 6 Dome ring
- 7 Dome ring screw T25 (4x)

### AXIS T8607 Media Converter Switch - external view



- 1 Cover
- 2 Network connector SFP (2x)
- 3 Network connector RJ45 (2x)
- 4 Camera network LED indicator
- 5 Network LED indicator (4x)
- 6 Power LED indicator
- 7 Power connector (DC input)
- 8 Grounding screw
- 9 Multicable inlet
- 10 I/O terminal connector

### How to pressurize the camera (recommended)

The camera housing can be filled with Nitrogen gas to prevent condensation.

The filling process is repeated three times, releasing the pressure between fillings, to make sure that all air and humidity is purged from the housing.

#### Note

The camera housing has an pressure relief valve that limits the filling pressure to 0.5 bar (7 psi). During normal use the pressure inside the camera housing may drop below that pressure. For full protection make sure that the pressure is above 0.2 bar (3 psi) .

# AXIS Q6075-SE PTZ Camera

## Specifications

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1. Set the regulator gauge on the gas cylinder to 0.5 bar (7 psi).
2. Remove the caps from the inlet valve and the pressure relief valve.
3. Place the chuck on the inlet valve and press down to fill the camera with nitrogen.
4. When the pressure inside the camera housing reaches 0.5 bar (7 psi) the pressure relief valve will open. Place your hand over the pressure relief valve to verify that the gas is flowing out.
5. Lift the pressure relief valve to let the overpressure out of the camera unit.
6. Repeat the filling process a total of 3 times, leaving the the camera pressurized the last time.
7. Put the caps back on the inlet valve and the pressure relief valve.

### LED indicators

Status LED	Indication
Unlit	Connection and normal operation.
Green	Shows steady green for 10 seconds for normal operation after startup completed.
Amber	Steady during startup. Flashes during firmware upgrade or reset to factory default.
Amber/Red	Flashes amber/red if network connection is unavailable or lost.

### Media converter switch LED indicators

LED	Color	Indication
Power	Unlit	DC power unconnected or current protection engaged (power overload)
	Green	DC power connected.
Network (4x)	Amber	10 Mbit connection. Flashes during activity.
	Green	100/1000 Mbit connection. Flashes during activity.
Camera network (AXIS T8607 only)	Green	100 Mbit connection. Flashes during activity.

### SD card slot

#### **NOTICE**

- Risk of damage to SD card. Do not use sharp tools, metal objects, or excessive force when inserting or removing the SD card. Use your fingers to insert and remove the card.
- Risk of data loss and corrupted recordings. Do not remove the SD card while the product is running. Unmount the SD card from the product's webpage before removal.

This product supports SD/SDHC/SDXC cards.

For SD card recommendations, see [axis.com](http://axis.com).



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# AXIS Q6075-SE PTZ Camera

## Specifications

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### Buttons

#### Control button

The control button is used for:

- Resetting the product to factory default settings. See *Reset to factory default settings* on page 22.

### Connectors

#### Network connector

RJ45 Ethernet connector with Power over Ethernet Plus (PoE+).

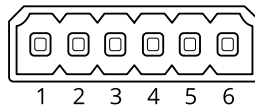
#### I/O connector

Use the I/O connector with external devices in combination with, for example, motion detection, event triggering, and alarm notifications. In addition to the 0 V DC reference point and power (DC output), the I/O connector provides the interface to:

**Digital input** – For connecting devices that can toggle between an open and closed circuit, for example PIR sensors, door/window contacts, and glass break detectors.

**Digital output** – For connecting external devices such as relays and LEDs. Connected devices can be activated by the VAPIX® Application Programming Interface, through an event or from the product's webpage.

6-pin terminal block



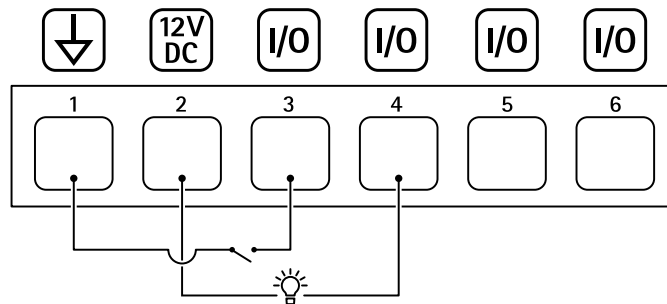
Function	Pin	Notes	Specifications
DC ground	1		0 V DC
DC output	2	Can be used to power auxiliary equipment. Note: This pin can only be used as power out.	12 V DC Max load = 50 mA
Configurable (Input or Output)	3–6	Digital input – Connect to pin 1 to activate, or leave floating (unconnected) to deactivate.	0 to max 30 V DC
		Digital output – Internally connected to pin 1 (DC ground) when active, and floating (unconnected) when inactive. If used with an inductive load, e.g., a relay, connect a diode in parallel with the load, to protect against voltage transients.	0 to max 30 V DC, open drain, 100 mA

Example

# AXIS Q6075-SE PTZ Camera

## Specifications

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- 1 DC ground
- 2 DC output 12 V, max 50 mA
- 3 I/O configured as input
- 4 I/O configured as output
- 5 Configurable I/O
- 6 Configurable I/O

### Power connector

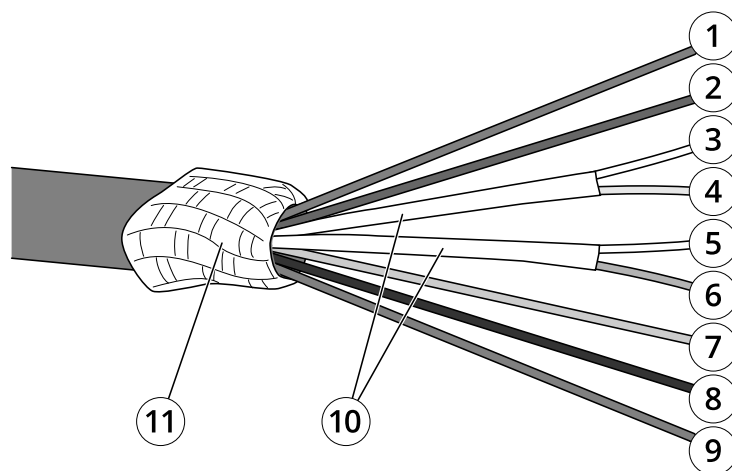
### Multiconnector

Terminal connector for connecting the supplied media converter switch, which provides the following signals:

- DC Power
- Network (Ethernet 10/100Base-T)
- Input/Output (I/O)

When connecting external equipment, the supplied multicable is required in order to maintain the product's NEMA/IP rating. For more information, see *Multicable connectors on page 30*.

### Multicable connectors



Multicable overview

- 1 Power wire (red)
- 2 Digital I/O wire (blue)
- 3 Ethernet wire (green/white)

# AXIS Q6075-SE PTZ Camera

## Specifications

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- 4 Ethernet wire (green)
- 5 Ethernet wire (orange/white)
- 6 Ethernet wire (orange)
- 7 Digital I/O wire (yellow)
- 8 Ground wire (black)
- 9 Power wire (red)
- 10 Ethernet wire foil shield (2x)
- 11 Braided shield coil

Function	Wire	Connect to	Specifications
Configurable (Input or Output)	2 – blue 7 – yellow	Digital input – I/O terminal connector	0 to max 30 V DC
		Digital output – I/O terminal connector	0 to max 30 V DC, open drain, 100 mA
RX+	3 – green/white	Ethernet – receiving	
RX-	4 – green	Ethernet – receiving	
TX+	5 – orange/white	Ethernet – transmitting	
TX-	6 – orange	Ethernet – transmitting	
0 V DC (-)	8 – black		0 V DC
DC output (24 V)	1, 9 – red	Power connector	24 V DC

