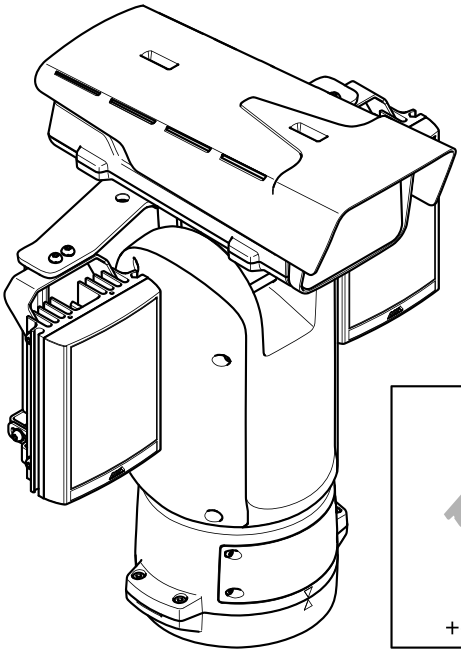
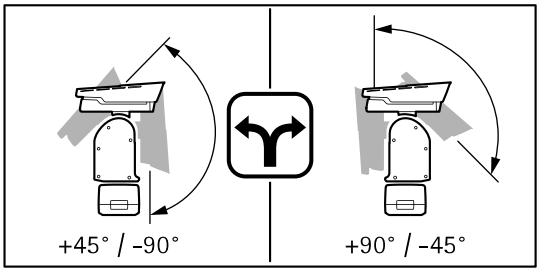
AXIS Q8685-LE PTZ Network Camera

ENGLISH





Installation Guide

Table of Contents

Read this first

Read through this Installation Guide carefully before installing the product. Keep the Installation Guide for future reference.

Legal considerations

This product includes the following licences:

- one (1) H.264 decoder license

To purchase further licenses, contact your reseller.

Liability

Every care has been taken in the preparation of this document. Please inform your local Axis office of any inaccuracies or omissions. Axis Communications AB cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Axis Communications AB makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Axis Communications AB shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

Intellectual property rights

Axis AB has intellectual property rights relating to technology embodied in the product described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at *axis.com/patent* and one or more additional patents or pending patent applications in the US and other countries.

This product contains licensed third-party software. See the menu item "About" in the product's user interface for more information.

This product contains source code copyright Apple Computer, Inc., under the terms of Apple Public Source License 2.0 (see *opensource.apple.com/apsl*). The source code is available from *developer.apple.com/bonjour/*

Equipment modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

Trademark acknowledgements

AXIS COMMUNICATIONS, AXIS and VAPIX are registered trademarks or trademark applications of Axis AB in various jurisdictions. All other company names and products are trademarks or registered trademarks of their respective companies.

Apple, Apache, Bonjour, Ethernet, Internet Explorer, Linux, Microsoft, Mozilla, Real, SMPTE, QuickTime, UNIX, Windows, and WWW are registered trademarks of the respective holders. Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates. The UPnP Word Mark and UPnP Logo are trademarks of Open Connectivity Foundation, Inc. in the United States or other countries.

SD, SDHC, and SDXC Logos are trademarks of SD-3C LLC. SD, SDHC and SDXC are trademarks or registered trademarks of SD-3C, LLC in the United States, other countries or both.

Regulatory information

Europe

CE

This product complies with the applicable CE marking directives and harmonized standards:

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU. See *Electromagnetic compatibility (EMC) on page 3*.
- Low Voltage Directive (LVD) 2014/35/EU. See *Safety on page 4*.
- Restrictions of Hazardous Substances (RoHS) Directive 2011/65/EU. See *Disposal and recycling on page 4*.

A copy of the original declaration of conformity may be obtained from Axis Communications AB. See *Contact information on page 4*.

Electromagnetic compatibility (EMC)

This equipment has been designed and tested to fulfill applicable standards for:

- Radio frequency emission when installed according to the instructions and used in its intended environment.
- Immunity to electrical and electromagnetic phenomena when installed according to the instructions and used in its intended environment.

USA

This equipment has been tested using an unshielded network cable (UTP) and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. This equipment has also been tested using a shielded network cable (STP) and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

This digital apparatus complies with CAN ICES-3 (Class A). The product shall be connected using a shielded network cable (STP) that is properly grounded. Cet appareil numérique est conforme à la norme CAN NMB-3 (classe A). Le produit doit être connecté à l'aide d'un câble réseau blindé (STP) qui est correctement mis à la terre.

Europe

This digital equipment fulfills the requirements for RF emission according to the Class A limit of EN 55032. The product shall be connected using a shielded network cable (STP) that is properly grounded. Notice! This is a Class A product. In a domestic environment this product may cause RF interference, in which case the user may be required to take adequate measures.

Australia/New Zealand

This digital equipment fulfills the requirements for RF emission according to the Class A limit of AS/NZS CISPR 32. The product shall be connected using a shielded network cable (STP) that is properly grounded. Notice! This is a Class A product. In a domestic environment this product may cause RF interference, in which case the user may be required to take adequate measures.

Japan

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害 を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 本製品は、シールドネットワークケーブル(STP)を使用して接続してください。また適切に接地してください。

Korea

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다. 적절히 접지된 STP (shielded twisted pair) 케이블을 사용하여 제품을 연결 하십시오.

Safety

This product complies with IEC/EN/UL 60950-1, safety of audio/video and IT equipment and IEC/EN/UL 60950-22, Safety of Information Technology Equipment. The product shall be grounded using both the protective earth wire in the power cable and the grounding braid. Make sure both ends of the protective earth wire and the grounding braid are in contact with their respective grounding surfaces.

The power supply used with this product shall fulfill the requirements for Safety Extra Low Voltage (SELV) according to clause 2.2 of IEC/UL 60950-1 or CEC/NEC Class 2 source of supply as defined in the Canadian Electrical Code, CSA C22.1 and National Electrical Code, ANSI/NFPA 70.

Photobiological safety

This product fulfills the requirements for photobiological safety according to IEC/EN 62471 (risk group 2).

Disposal and recycling

When this product has reached the end of its useful life, dispose of it according to local laws and regulations. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. In accordance with local legislation, penalties may be applicable for incorrect disposal of this waste.

Europe

This symbol means that the product shall not be disposed of together with household or commercial waste. Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) is applicable in the European Union member states. To prevent potential harm to human health and the environment, the product must be disposed of in an approved and environmentally safe recycling process. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. Businesses should contact the product supplier for information about how to dispose of this product correctly.

This product complies with the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

China

This product complies with the requirements of SJ/T 11364-2014, Marking for the restriction of hazardous substances in electrical and electronic products.

有毒有害物质或元素						
部件名称	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr-(VI))	多溴联苯 (PB-B)	多溴二苯醚 (PB-DE)
电气实装部分	X	0	0	0	0	0

0: 表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572标准规定的限量要求。

Contact information
Axis Communications AB
Emdalavägen 14
223 69 Lund
Sweden

Tel: +46 46 272 18 00
Fax: +46 46 13 61 30

axis.com

Warranty information

For information about Axis' product warranty and thereto related information, go to *axis.com/warranty*

Support

Should you require any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and software updates
- find answers to resolved problems in the FAQ database, search by product, category, or phrase
- report problems to Axis support staff by logging in to your private support area
- chat with Axis support staff
- visit Axis Support at *axis.com/support*

Learn more!

Visit Axis learning center *axis.com/academy* for useful trainings, webinars, tutorials and guides.

Safety information

Hazard levels

⚠DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates a situation which, if not avoided, could result in damage to property.

Other message levels

Important

Indicates significant information which is essential for the product to function correctly.

Note

Indicates useful information which helps in getting the most out of the product.

Safety instructions

⚠DANGER

Risk of electric shock. All cables shall be de-energized before installing or performing maintenance on the product.

⚠WARNING

The Axis product shall be installed by a trained professional, and in compliance with local laws and regulations.

⚠WARNING

IR emitted from this product. Do not stare at operating lamp.

⚠CAUTION


Risk of injury. Moving parts. Keep your body parts away from the product when in operation. Disconnect from power supply before installing or performing maintenance on the product.

⚠CAUTION


Risk of injury. Hot surface. Do not touch the product when in operation. Disconnect from power supply and allow the surfaces to cool before performing maintenance on the product.

NOTICE

- The Axis product shall be used in compliance with local laws and regulations.
- Store the Axis product in a dry and ventilated environment.
- Avoid exposing the Axis product to shocks or heavy pressure.
- Do not install the product on unstable poles, brackets, surfaces or walls.
- Use only applicable tools when installing the Axis product. Using excessive force with power tools could cause damage to the product.
- Do not use chemicals, caustic agents, or aerosol cleaners.
- Use a clean cloth dampened with pure water for cleaning.
- Use only accessories that comply with the technical specification of your product. These can be provided by Axis or a third party. Axis recommends using Axis power source equipment compatible with your product.
- Use only spare parts provided by or recommended by Axis.
- Do not attempt to repair the product yourself. Contact Axis support or your Axis reseller for service matters.
- Do not point the camera lens toward the sun or other high-intensity radiation sources because this could cause damage to the camera.
- Use a yellow/green colored grounding cable of at least 0,5 mm^2 or 20 AWG.

Transportation

NOTICE

- When transporting the Axis product, use the original packaging or equivalent to prevent damage to the product.

Battery

The Axis product uses a 3.0 V BR2032 lithium battery as the power supply for its internal real-time clock (RTC). Under normal conditions this battery will last for a minimum of five years.

Low battery power affects the operation of the RTC, causing it to reset at every power-up. When the battery needs replacing, a log message will appear in the product's server report. For more information about the server report, see the product´s web page or contact Axis support.

Lithium coin cell 3.0 V batteries contain 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME), CAS no. 110-71-4.

⚠WARNING

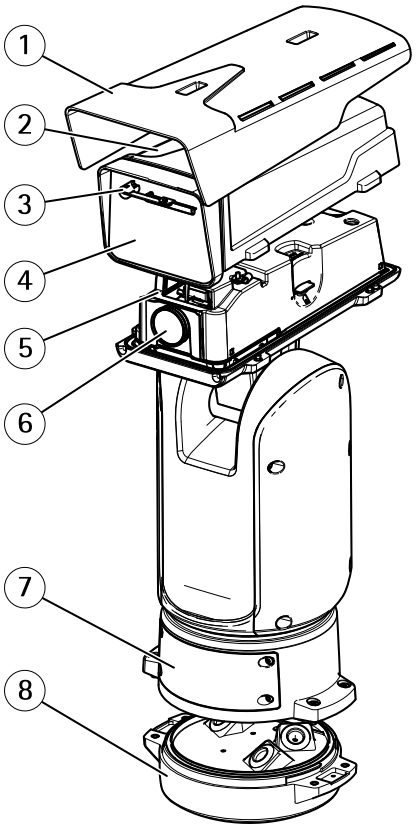
- Risk of explosion if the battery is incorrectly replaced.
- The battery should be replaced with an identical battery only.
- Used batteries should be disposed of according to local regulations or the battery manufacturer's instructions.

Package contents

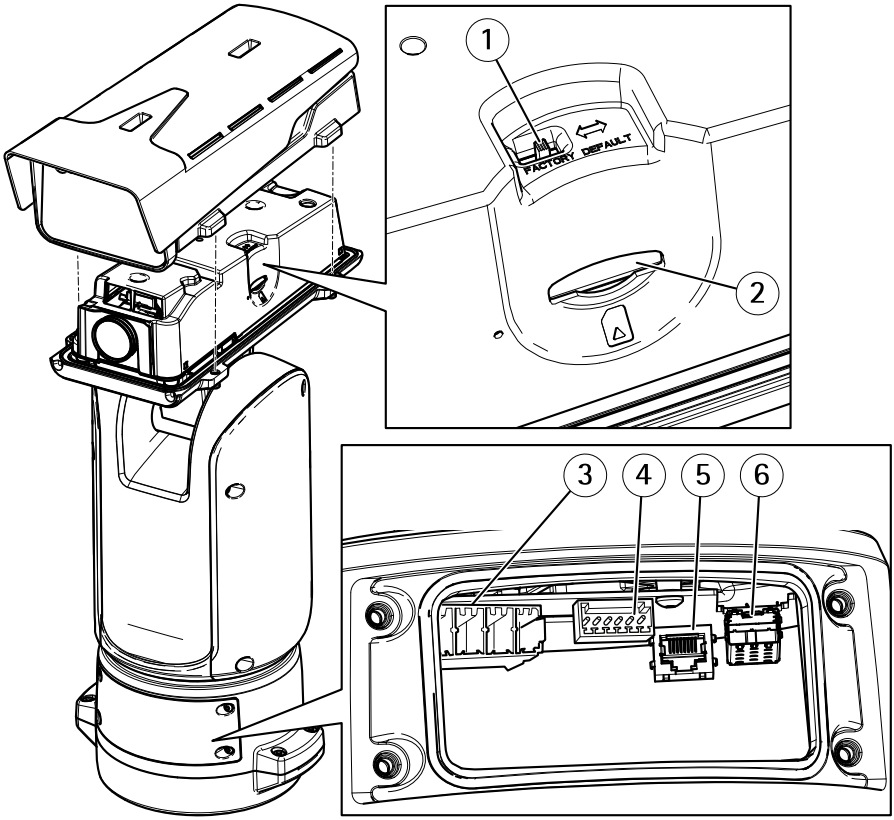
- AXIS Q8685-LE PTZ Network Camera
- AXIS PT IR Illuminator Kit C
- Power connector
- I/O connector
- Torx® bit T20 and T30
- Printed materials
    - Installation Guide (this document)
    - Extra serial number label (2x)
    - AVHS Authentication key

Hardware overview

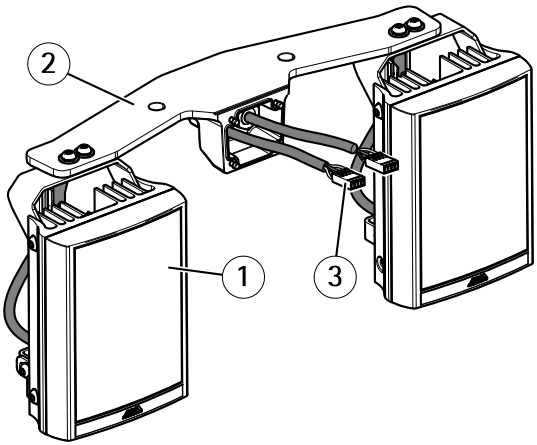
For specifications of the hardware components, see *Specifications on page 43*.



1 *Sunshield*
2 *Top cover*
3 *Wiper*
4 *Front window*
5 *Inner cover*
6 *Lens*
7 *Lid*
8 *Base unit*



1 *Factory default switch*
2 *SD memory card slot*
3 *Input power connector*
4 *I/O connector*
5 *RJ45 connector*
6 *SFP slot for SFP module (SFP module not included)*

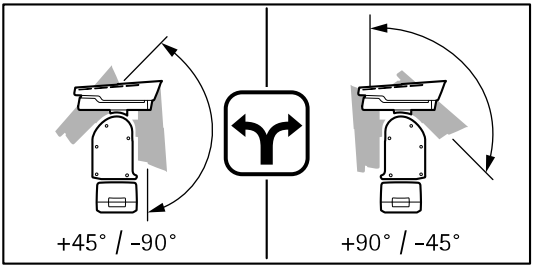


1 *Illuminator (x2)*
2 *Illuminator bracket*
3 *Illuminator connector (x2)*

How to install the product

Main installation tasks

1. *Mount the base unit on page 14*
2. *Route the cables on page 16*
3. *Install the network link on page 22*
4. *Connect the cables on page 23*
5. Install the illuminator kit. Follow one of two installations:
   - *Install the illuminator kit (default installation) on page 24*
   - *Inverted installation on page 30*, followed by *Install the illuminator kit (inverted installation) on page 33*
6. *How to access the product on page 38*
7. *Set inverted configuration on page 39*
8. *Enable the illuminator kit on page 39*
9. *Install an SD card (optional) on page 39*



⚠DANGER

Risk of electric shock. All cables shall be de-energized before installing the product.

⚠CAUTION

The electrical connections and conduit installations shall be made by a certified electrician and in compliance with local regulations.

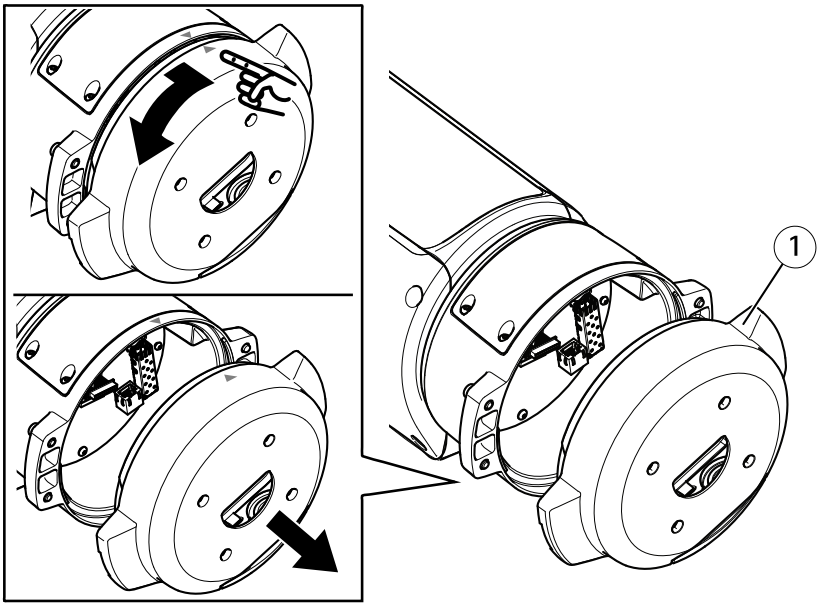
⚠CAUTION

Risk of injury. Moving parts. Keep your body parts away from the product when in operation. Disconnect from power supply before installing or performing maintenance on the product.

⚠CAUTION

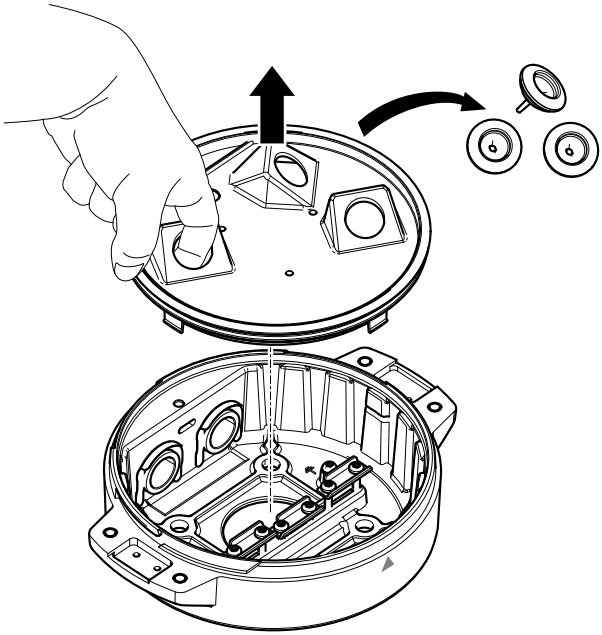
Risk of injury. Hot surface. Do not touch the product when in operation. Disconnect from power supply and allow the surfaces to cool before performing maintenance on the product.

Mount the base unit



1 Base unit

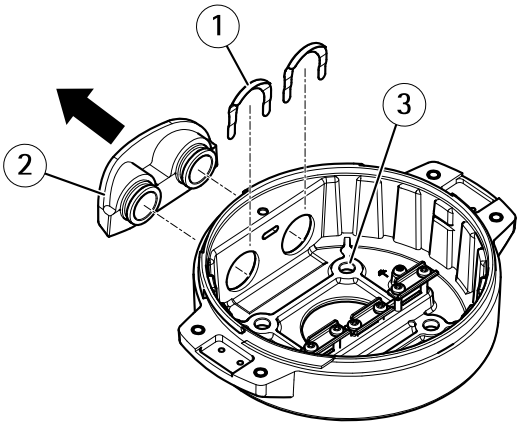
1. Remove the four base unit screws (T30).
2. Simultaneously pull and turn the base unit counterclockwise until the arrows on the base unit and the rest of the unit are aligned.
3. Remove the base unit.



NOTICE

Do not use sharp tools when removing the transparent base unit cover.

4. Remove the transparent base unit cover.



1 Conduit cover clip
2 Conduit cover
3 Screw hole (x4)

5. For conduit installations only: remove the two conduit cover clips followed by the conduit cover.
6. Attach the base unit to the mounting surface using the appropriate fasteners in the four screw holes.

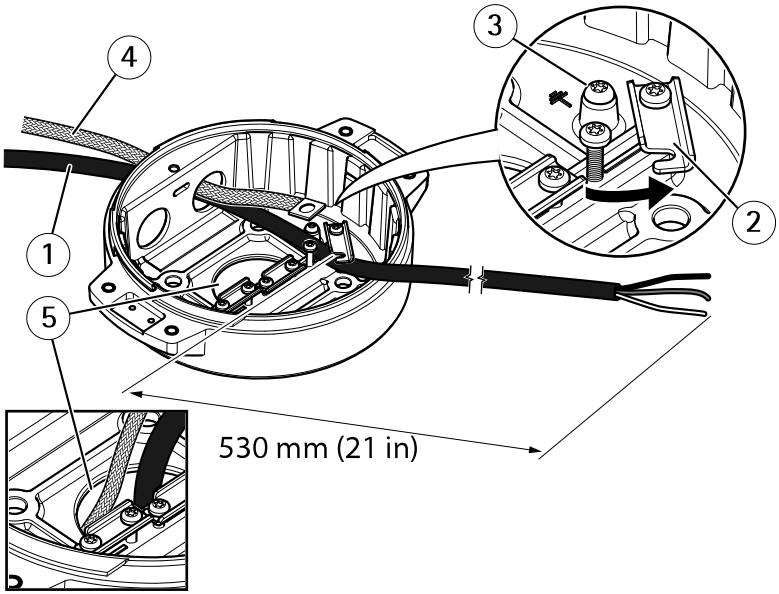
Route the cables

⚠WARNING

Risk of electric shock. The product shall be grounded using both the protective earth wire in the power cable and the grounding braid. Make sure both ends of the protective earth wire and the grounding braid are in contact with their respective grounding surfaces.

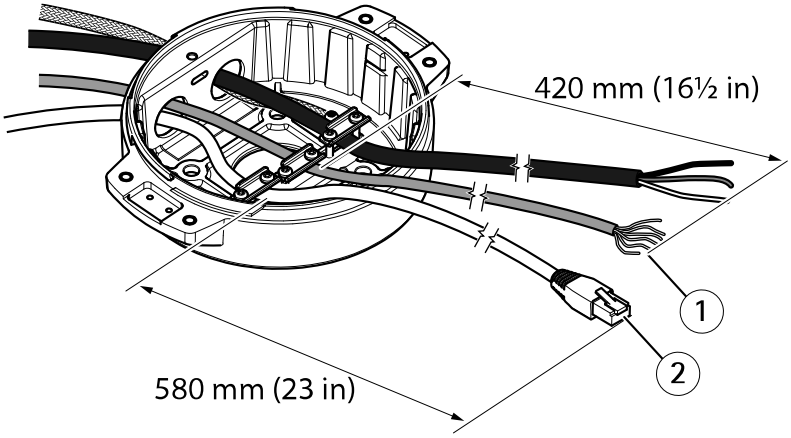
Important

Use only cables that comply with the specified cable area. For more information, see *Cable thickness on page 47*.



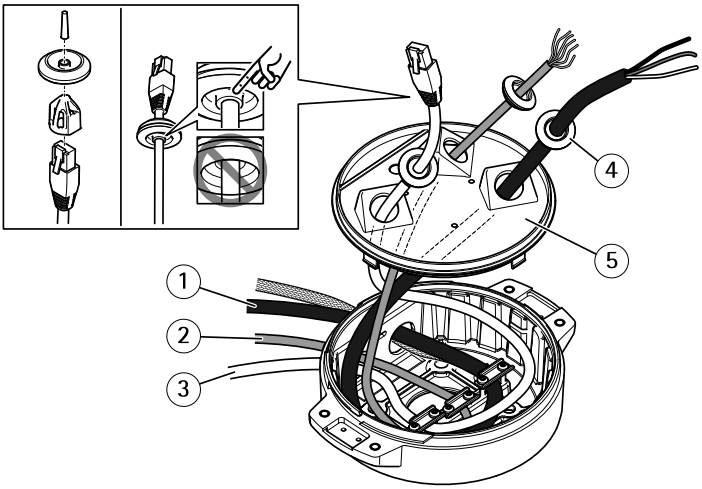
1 Power cable (not included)
2 Strain relief
3 Grounding screw
4 Grounding braid (not included)
5 Bottom cable hole

1. Install the optional conduit adapters (not included).
2. Connect the grounding braid to the grounding screw.
3. Insert the power cable, I/O cable and network cable through the hole in the base unit as shown in the illustration above. Alternatively insert them through the bottom cable hole.
4. Insert the power cable through the strain relief with a distance of 530 mm (21 in) from the strain relief to the end of the cable.



1 I/O cable (optional, not included)
2 Network cable (not included)

5. Insert the I/O cable (optional) through the strain relief with a distance of 420 mm (16½ in) from the strain relief to the end of the cable.
6. Insert the network cable (optical fiber cable and/or RJ45 cable) through the strain relief with a distance of 580 mm (23 in) from the strain relief to the end of the connector. For more information on different network connectivity options, see *Install the network link on page 22*.
7. Close and tighten the three strain reliefs.



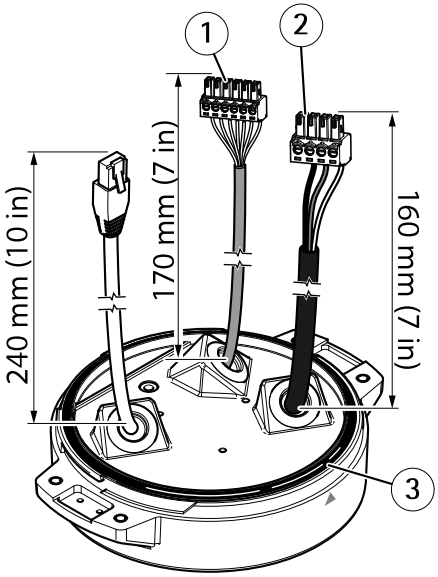
1 *Power cable (not included)*
2 *I/O cable (optional, not included)*
3 *Network cable (not included)*
4 *Cable gasket*
5 *Transparent base unit cover*

8. Fit cable gaskets on the cables. See *Cable thickness on page 47*.
9. Insert the power, I/O and network cables including the cable gaskets through the holes in the transparent base unit cover and arrange the cables as shown in the illustration above.

NOTICE

If you use both an optical fibre cable and an RJ45 cable for network connectivity, route the optical fibre cable through the same cable gasket as the I/O cable. Apply a sealant between the cables and the cable gasket to prevent leakage. For more information on different network connectivity options, see *Install the network link on page 22*.

10. Replace the transparent base unit cover on the base unit and fit the cable gaskets inside the holes.



1 I/O connector
2 Power connector
3 O-ring

NOTICE

Make sure the protective earth wire is about 10 mm (3/8 in) longer than the other two wires (in the power cable), so that it will not be disconnected accidentally if pulled.

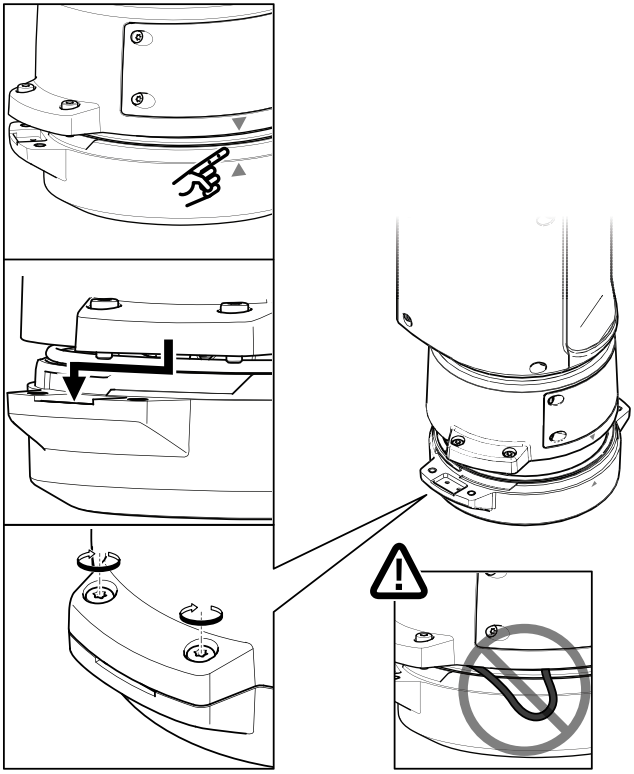
Note

We recommend that you strip approximately 90 mm (3½ in) of the power cable jacket and 70 mm (2¾ in) of the I/O cable jacket for ease of installation.

11. Install the power and I/O connectors, see *Connectors on page 43*.
12. Adjust the network, I/O and power cables so that the distance from the cable gasket to the end of the connector is 240 mm (10 in), 170 mm (7 in), and 160 mm (7 in) respectively.

NOTICE

Make sure that the O-ring is fitted correctly around the transparent base unit cover.

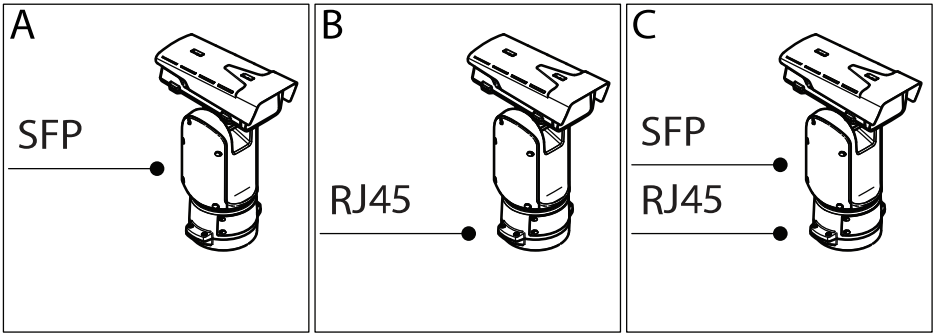


13. Replace the positioning unit on the base unit making sure that the arrows on the two units are aligned.
14. Turn the positioning unit clockwise back to its original position and tighten the four base unit screws (torque 3.0 Nm).

NOTICE

Make sure that the cables do not get pinched when mounting the two units.

Install the network link



You have different options for installing the network link:

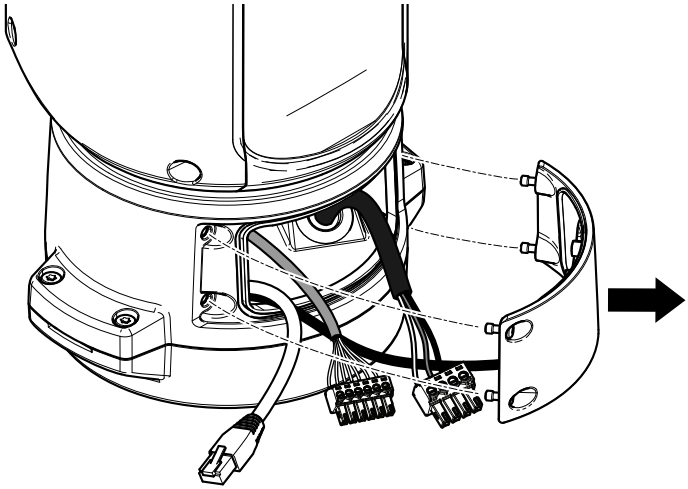
- A: via an optical fiber or RJ45 cable connected to the SFP module (with a respective connector) in the SFP slot.
- B: via an RJ45 cable connected to the fixed RJ45 connector.
- C: via both of the above, in which case connection via the SFP module functions as the primary network link and connection via the fixed RJ45 connector as the fail-over link.

For more information on network connector locations, see *Connectors on page 43*.

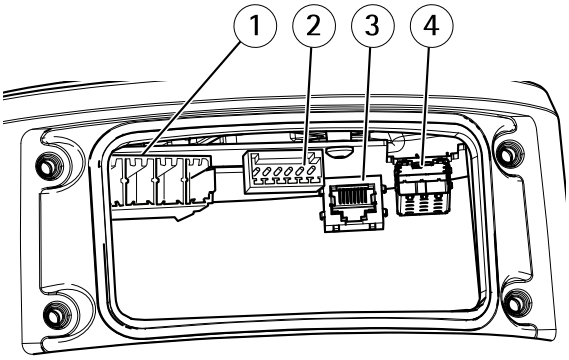
Note

- SFP module is not included. For more information on available SFP modules, see *www.axis.com*
- Establishing a network link only via the optical fiber cable using the respective SFP module works as a stand-alone solution for long range cabling installations.

Connect the cables



1. Loosen the four lid screws (T20) and remove the lid.



1 Input power connector
2 I/O connector
3 RJ45 connector
4 SFP slot for SFP module (SFP module not included)

2. Connect the network (optical fibre and/or RJ45), I/O and power cables. For more information on different network connectivity options, see *Install the network link on page 22*.

3. Replace the lid and tighten the four lid screws (torque 3.0 Nm).
4. Apply power to the product.

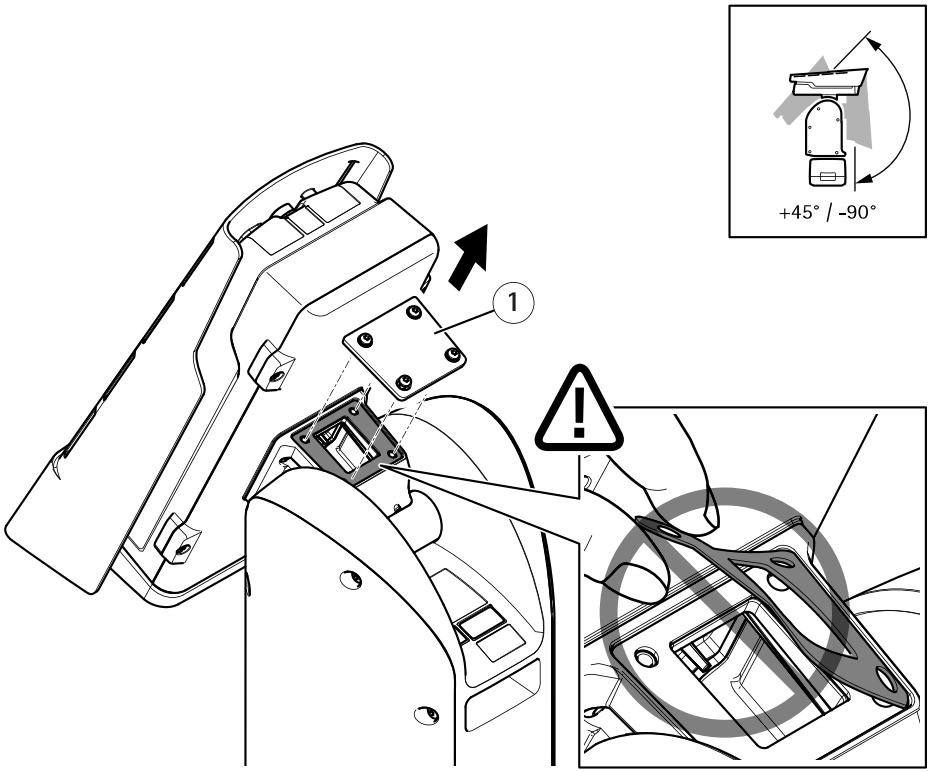
Install the illuminator kit (default installation)

⚠WARNING

- Risk of electric shock. Make sure the power supply is disconnected.
- Emission of infrared light (risk group 2) from the illuminators can be harmful for eyes. Pay attention to the provided indications. To reduce the risk of eye damage, avoid eye exposure, and use appropriate shielding or eye protection at distances of less than 1.5 m (4.9 ft).

⚠CAUTION

During normal operation, the surface of the illuminator can reach high temperatures. Do not allow direct contact and position the appliance where it is inaccessible to unauthorized personnel. Before touching, switch off the illuminator and allow to cool for a minimum period of 10 minutes.

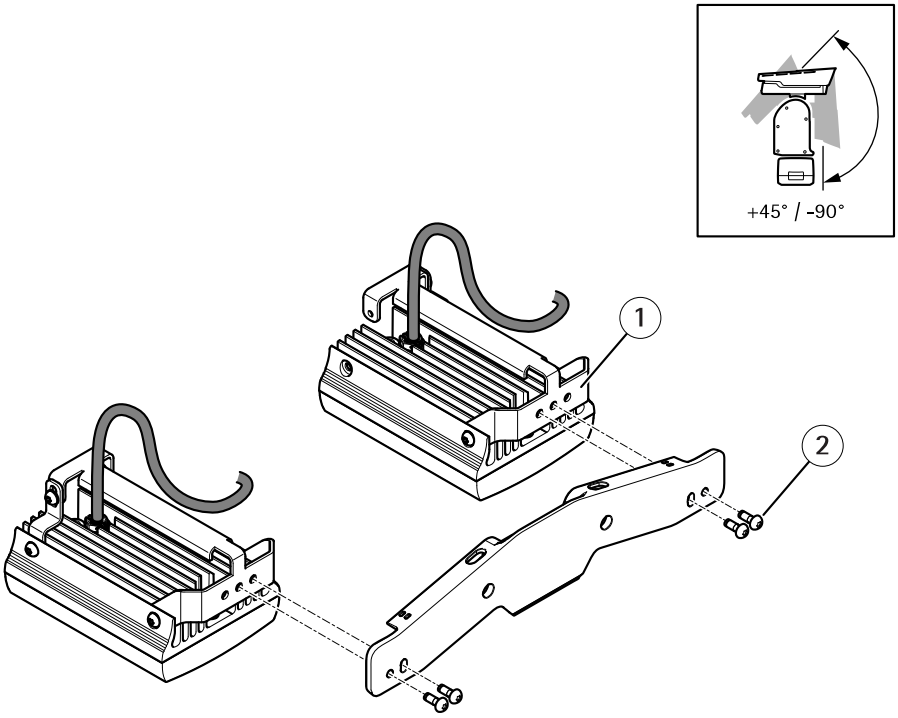


1 Cover

1. Remove the four cover screws (T20) and remove the cover.

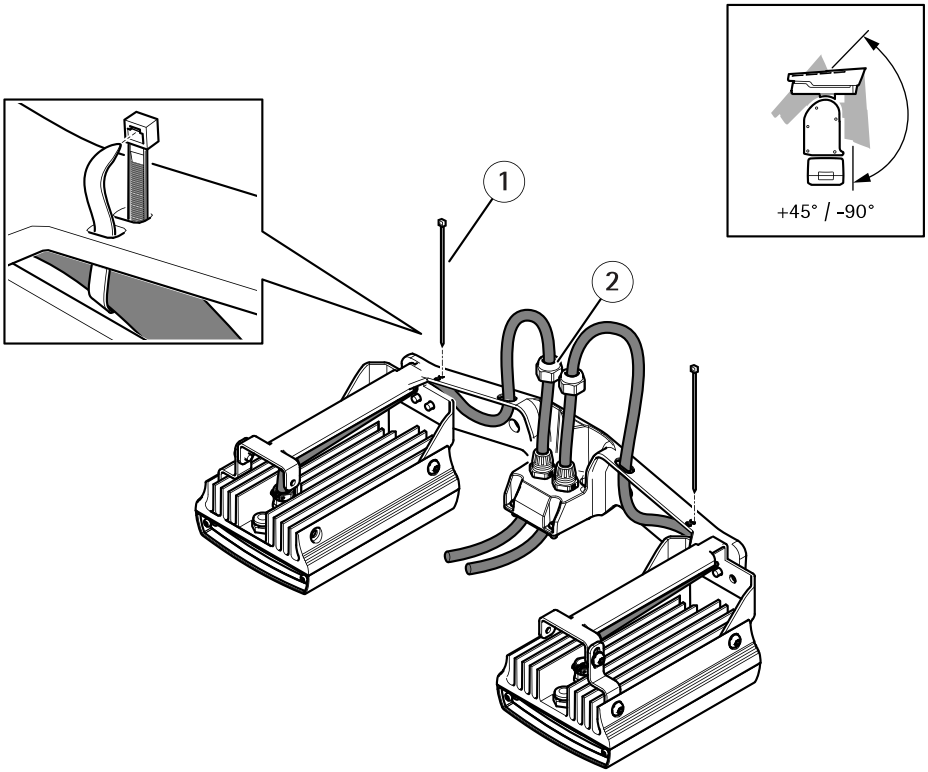
Important

Make sure that the gasket under the cover remains in place.



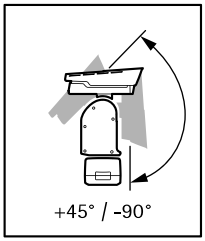
1 Illuminator (x2)
2 Screw (M6, x4)

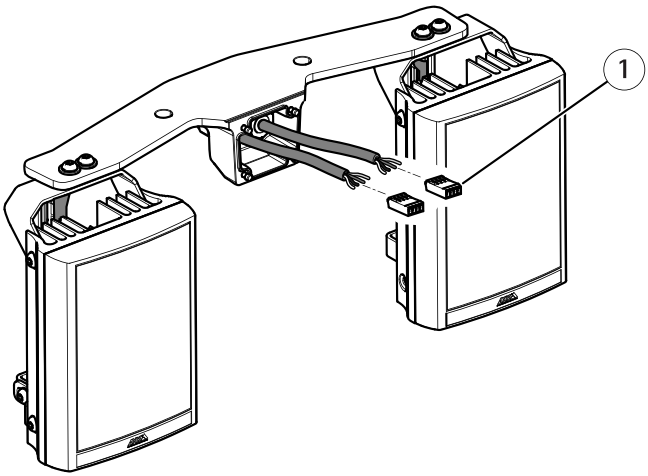
2. Attach the illuminators to the illuminator bracket using the four screws.



1 Cable tie (x2)
2 Cap nut (x2)

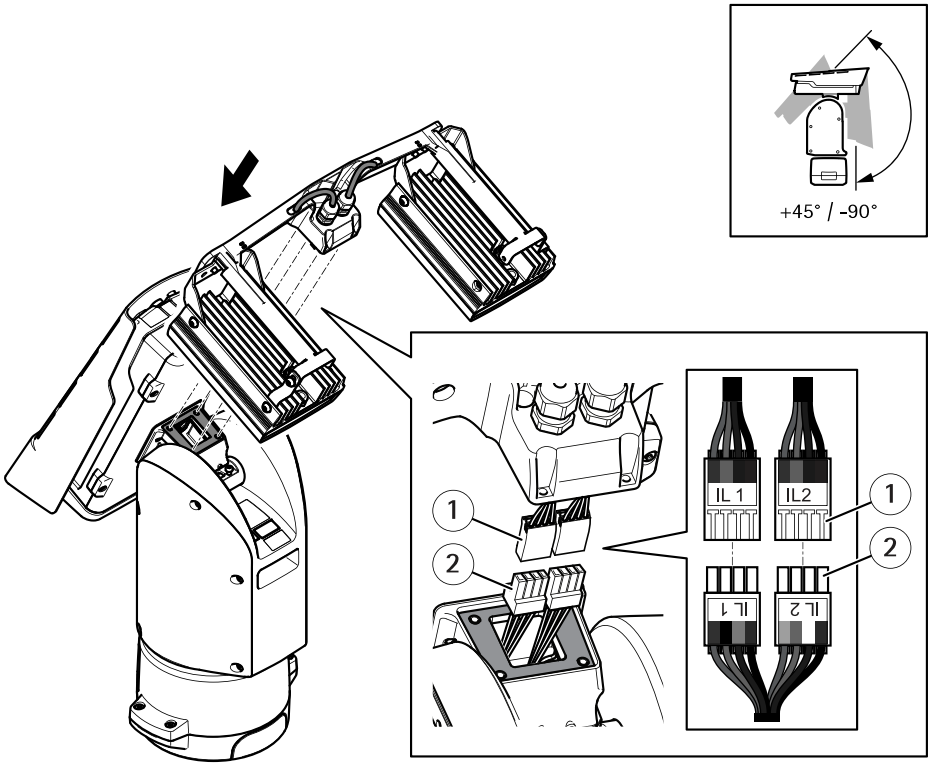
3. Route the cables as shown in the illustration above and tighten the cap nuts (torque 1.5 Nm).
4. Strap the cables to the illuminator bracket using cable ties.





1 Illuminator connector (x2)

5. Install the connectors. See *Connectors on page 43*.



1 *Connector from the illuminator (x2)*
2 *Connector from the positioning unit (x2)*

6. Connect the cables. See *Connectors on page 43*.
7. Attach the illuminator bracket to the positioning unit using the four screws (T20, torque 3.0 Nm).

Note

For more information on operating the illuminators, see the illuminator LED manual (check model on product label) and the User Manual of your compatible Axis product at *www.axis.com*

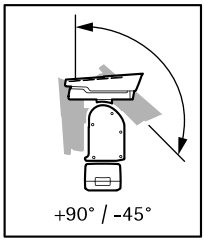
Inverted installation

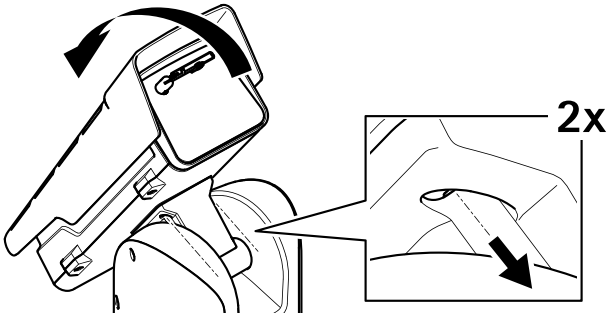
Note

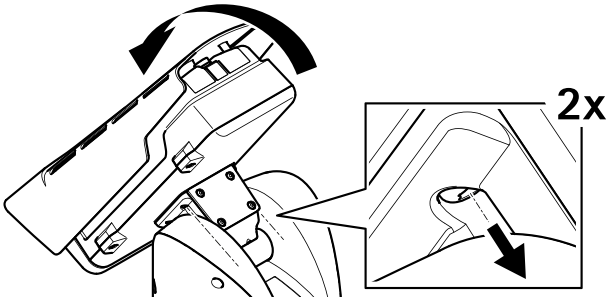
Follow this installation to set the camera housing in an inverted configuration, if tilting directly upwards is preferred.

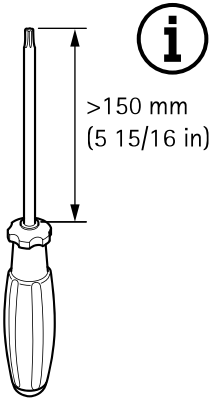
⚠CAUTION

This installation requires two persons.







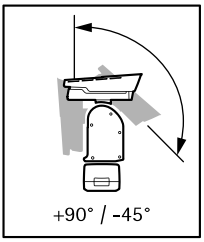


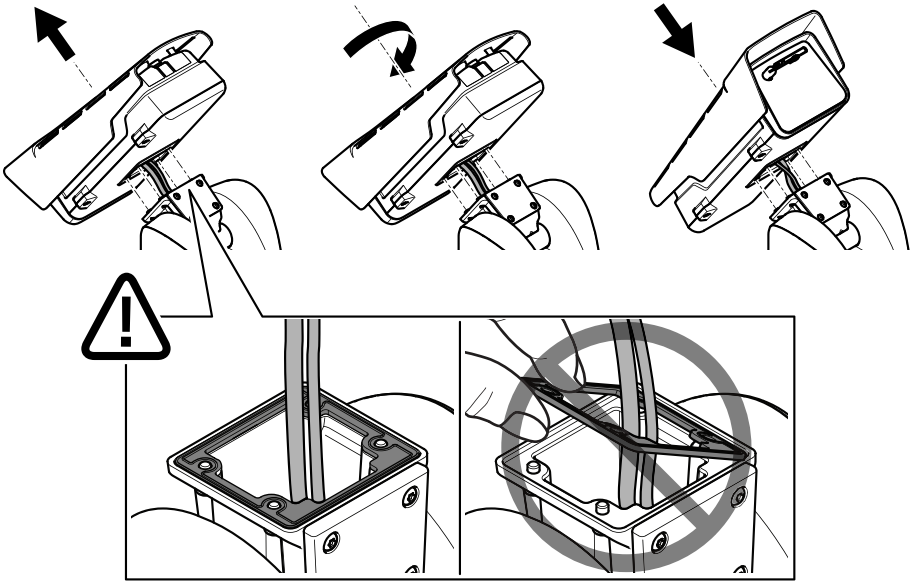
1. Tilt the bottom cover backward to its end position and loosen the two front captive screws of the positioning unit (T20).

2. Tilt the bottom cover forward to its end position and loosen the two rear captive screws of the positioning unit (T20).

NOTICE

To reach the positioning unit screws, use a screwdriver with a long enough blade (see picture above).

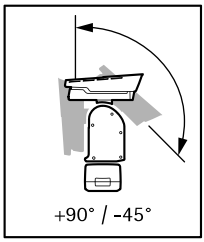


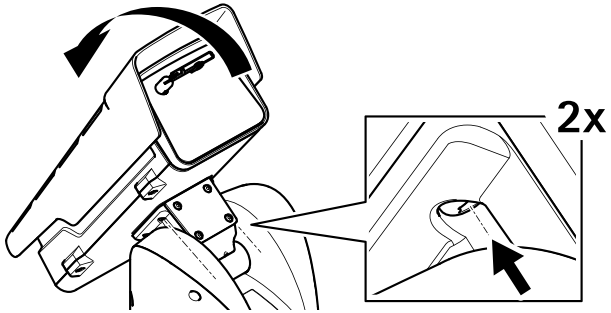


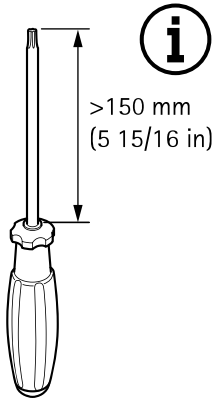
3. Lift up the camera unit, turn it, and fit it on the positioning unit in an inverted position.

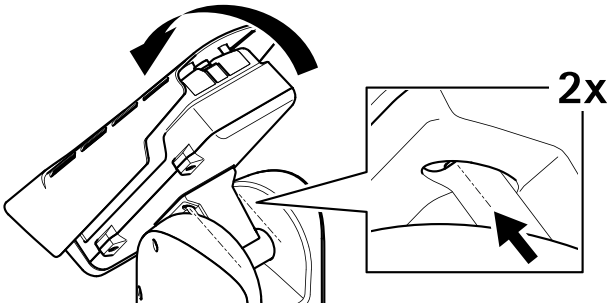
Important

Make sure that the gasket under the camera unit remains in place.









4. Tilt the bottom cover backward to its end position and tighten the two front screws of the positioning unit (T20, torque 3.0 Nm).
5. Tilt the bottom cover forward to its end position and tighten the two rear screws of the positioning unit (T20, torque 3.0 Nm).

NOTICE

To reach the positioning unit screws, use a screwdriver with a long enough blade (see picture above).

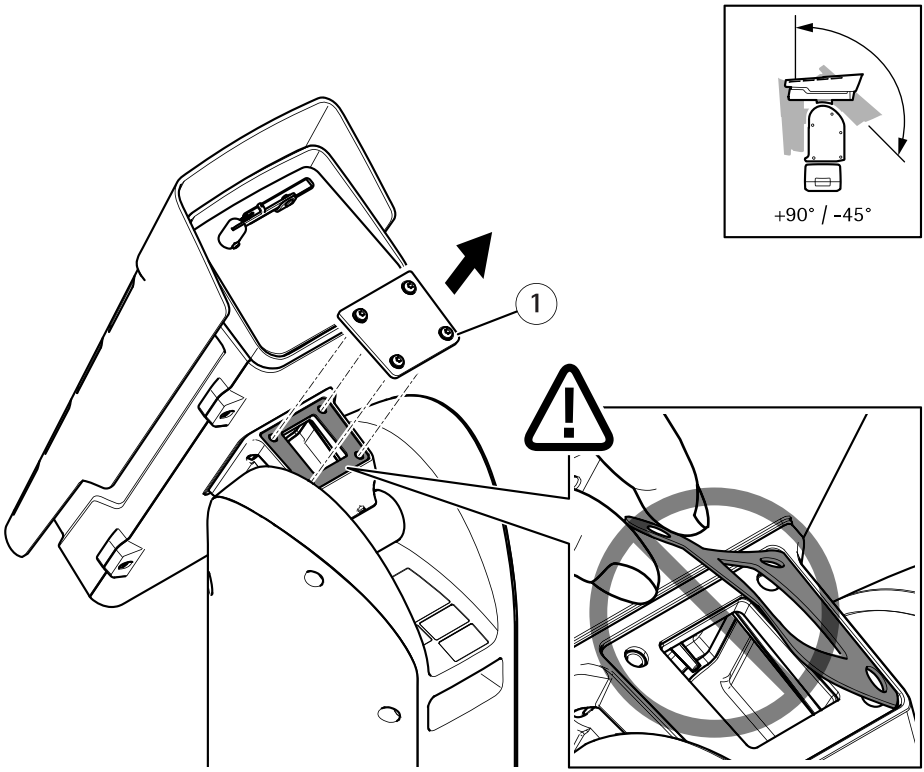
Install the illuminator kit (inverted installation)

⚠WARNING

- Risk of electric shock. Make sure the power supply is disconnected.
- Emission of infrared light (risk group 2) from the illuminators can be harmful for eyes. Pay attention to the provided indications. To reduce the risk of eye damage, avoid eye exposure, and use appropriate shielding or eye protection at distances of less than 1.5 m (4.9 ft).

⚠CAUTION

During normal operation, the surface of the illuminator can reach high temperatures. Do not allow direct contact and position the appliance where it is inaccessible to unauthorized personnel. Before touching, switch off the illuminator and allow to cool for a minimum period of 10 minutes.

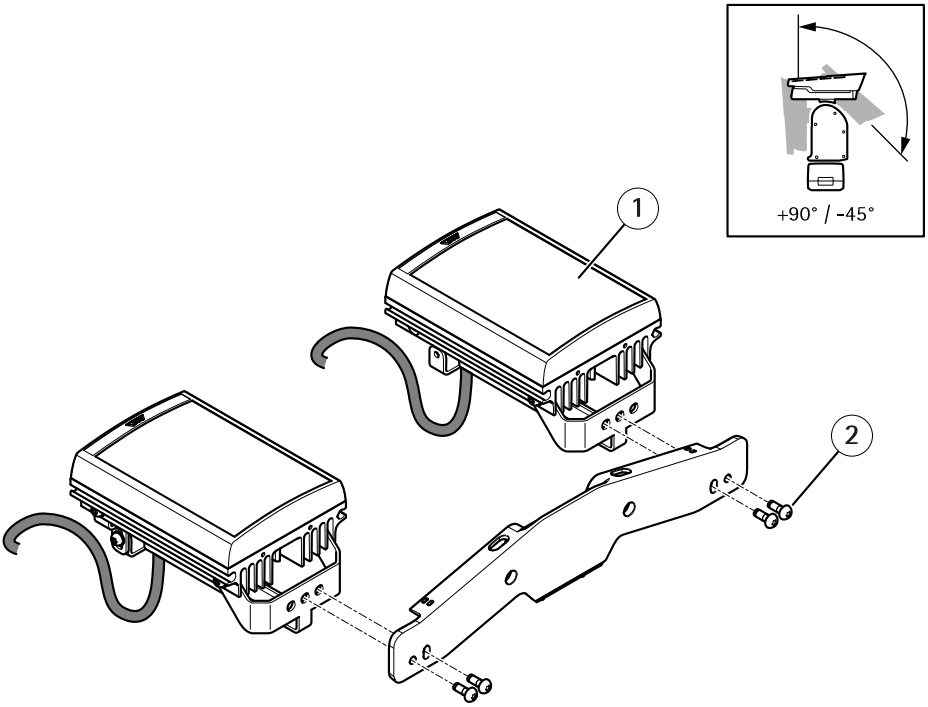


1 Cover

1. Loosen the four captive screws (T20) on the cover, and remove the cover.

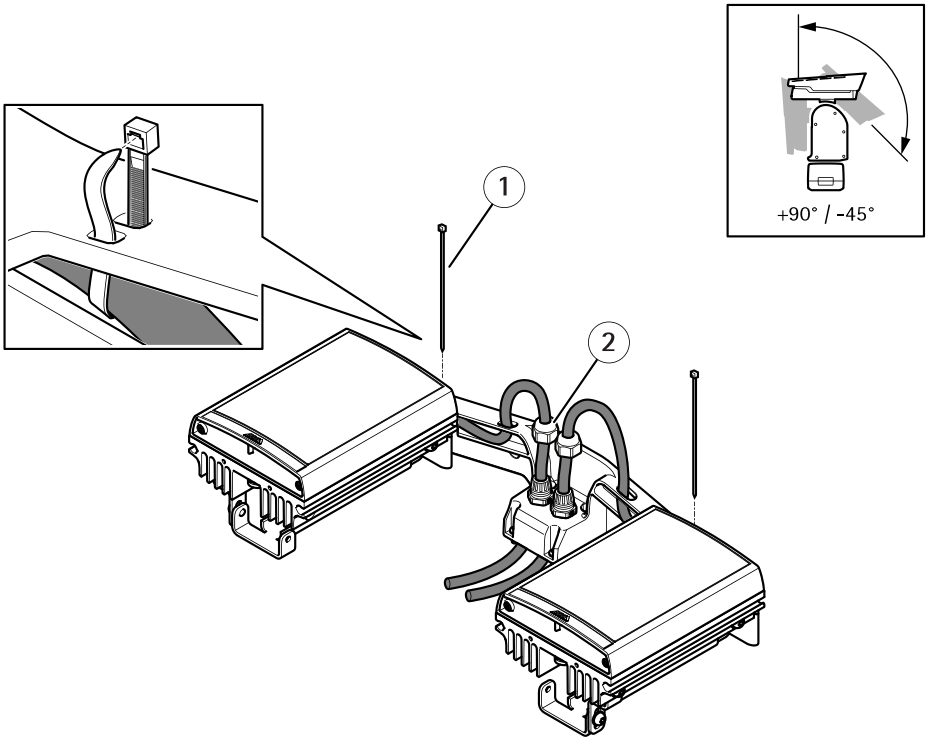
Important

Make sure that the gasket under the cover remains in place.



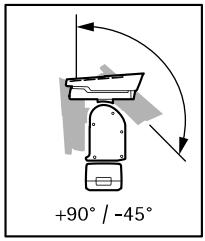
1 Illuminator (x2)
2 Screw (M6, x4)

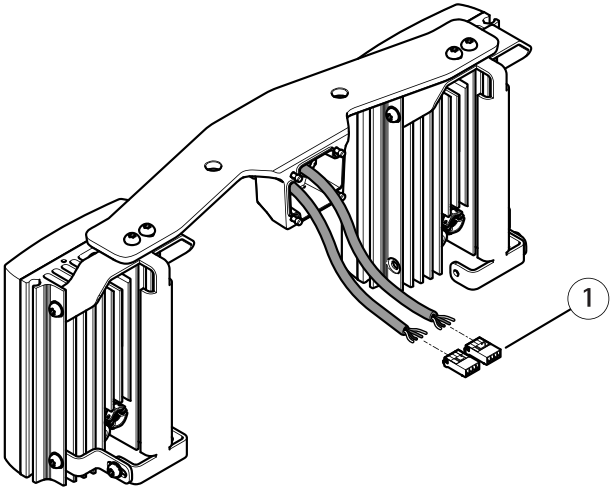
2. Attach the illuminators to the illuminator bracket using the four screws and washers.



1 Cable tie (x2)
2 Cap nut (x2)

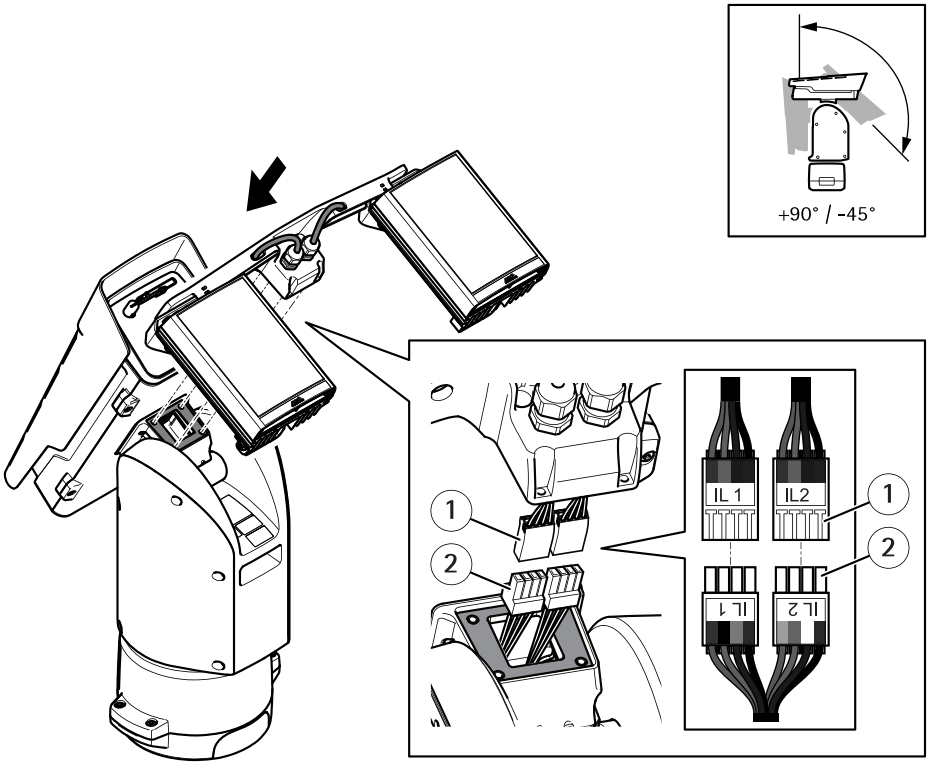
3. Route the cables as shown in the illustration above and tighten the cap nuts (torque 1.5 Nm).
4. Strap the cables to the illuminator bracket using cable ties.





1 Illuminator connector (x2)

5. Install the connectors. See *Connectors on page 43*.



1 Connector from the illuminator (x2)
2 Connector from the positioning unit (x2)

6. Connect the cables. See *Connectors on page 43*.
7. Attach the illuminator bracket to the positioning unit using the four screws (T20, torque 3.0 Nm).

How to access the product

AXIS IP Utility and AXIS Camera Management are recommended methods for finding Axis products on the network and assigning them IP addresses in Windows®. Both applications are free and can be downloaded from *axis.com/support*

The product can be used with most operating systems and browsers. We recommend the following browsers:

- Internet Explorer® with Windows®
- Safari® with OS X®
- Chrome™ or Firefox® with other operating systems.

For more information about using the product, see the User Manual available at *axis.com*

Set inverted configuration

Note

This task is only accurate for the inverted configuration.

Important

Upgrade the camera to firmware 6.55.1.3 (or later if available)

1. Go to the product's webpage.
2. Go to **Setup > System Options > Maintenance** and click **Default**.
3. Wait for camera to reset.
4. Go to the product's webpage
5. Go to **Setup > PTZ > Advance > Device > Extended Driver Specific Settings for Video Source 1**
6. Go to **Camera housing configuration** and select **Inverted**.
7. Click **save**.

Enable the illuminator kit

1. Go to the product´s webpage.
2. Go to **Setup > PTZ > Advanced > Device > Extended Driver Specific Settings for Video Source 1**

Note

Select **IR** if an infrared illuminator has been mounted and select **White** if a white light illuminator has been mounted.

   - Go to **Illuminator type IL1** and select IR or White
   - Go to **Illuminator type IL2** and select IR or White

3. Click **Save**.

Install an SD card (optional)

A standard or high capacity SD card (not included) can be used to store recordings locally in the product. See *Specifications on page 43* before installing the SD card.

1. Disconnect power from the product.
2. Remove the four top cover screws and remove the top cover.
3. Insert an SD card into the SD card slot, see *Hardware overview on page 10* .
4. Replace the top cover and tighten the screws (torque 3.0 Nm).
5. Re-connect power to the product.

Reset to factory default settings

⚠CAUTION


Risk of injury. Moving parts. Keep your body parts away from the product when in operation. Disconnect from power supply before installing or performing maintenance on the product.

⚠CAUTION


Risk of injury. Hot surface. Do not touch the product when in operation. Disconnect from power supply and allow the surfaces to cool before performing maintenance on the product.

Important

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

Note

The installation and management software tools are available from the support pages on *www.axis.com/support/downloads*

To reset the product to the factory default settings:

1. Disconnect power from the product.
2. Remove the four top cover screws and remove the top cover.
3. Change the position of the Factory default switch, see *Hardware overview on page 10*.
4. Replace the top cover and tighten the screws (torque 3.0 Nm).
5. Re-connect power to the product.

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

Further information

- For the latest version of this document, see *axis.com*
- The user manual is available at *axis.com*
- To check if there is updated firmware available for your device, see *axis.com/support*
- For useful online trainings and webinars, see *axis.com/academy*

Optional accessories

For a complete list of available accessories for this product, go to the product's page on axis.com and select Software & Accessories.

Warranty information

For information about Axis' product warranty and thereto related information, go to *axis.com/warranty*

Specifications

To find the latest version of the product's datasheet, go to the product page on *axis.com* and locate **Support & Documentation**.

SD card slot

CAUTION

Risk of injury. Moving parts. Keep your body parts away from the product when in operation. Disconnect from power supply before installing or performing maintenance on the product.

CAUTION

Risk of injury. Hot surface. Do not touch the product when in operation. Disconnect from power supply and allow the surfaces to cool before performing maintenance on the product.

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*

Connectors

Network connector

RJ45 Ethernet connector.

SFP connector.

NOTICE

The product shall be connected using a shielded network cable (STP) or an optical fiber cable. All cables connecting the product to the network shall be intended for their specific use. Make sure that the network devices are installed in accordance with the manufacturer's instructions. For information about regulatory requirements, see *Electromagnetic compatibility (EMC) on page 3*.

I/O connector

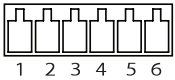
Use the I/O connector with external devices in combination with, for example, motion detection, event triggering, and alarm notifications. In addition to the 0 V DC reference point and power (DC output), the I/O connector provides the interface to:

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 or from the product's webpage.

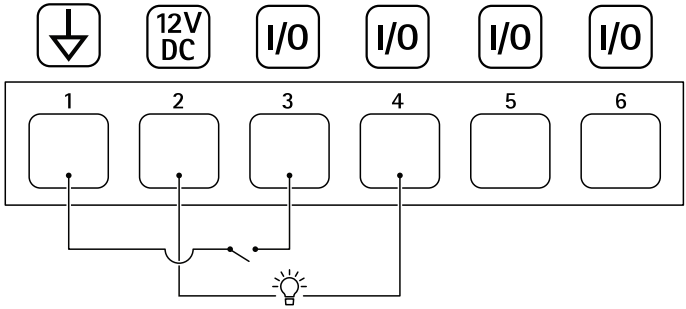
A digital light sensor – For receiving a value of the ambient light intensity from an external light sensor. This is used to control the product's day and night functionality.

6-pin configurable 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 – Connect to pin 1 to activate, or leave floating (unconnected) to deactivate. 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



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*

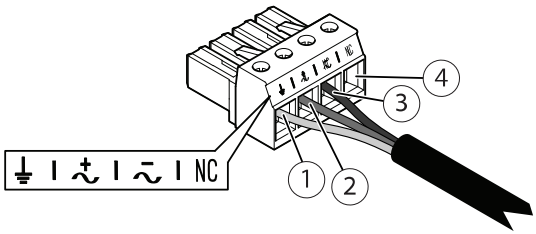
Power connector

4-pin terminal block for power input.

24 V AC/DC power connector

NOTICE

This section is valid for products powered by 24 V AC and 24 V DC only.



This table is only valid for the 24 V AC and the 24 V DC power connectors.

Position	24 V AC	24 V DC
1	Protective earth	Protective earth
2	24 V AC Phase	+ 24 V

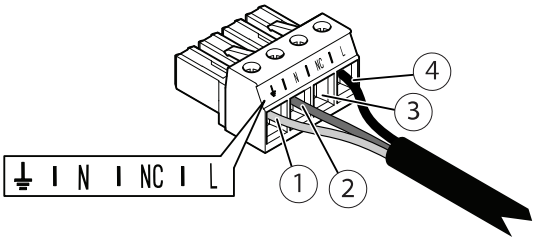
This table is only valid for the 24 V AC and the 24 V DC power connectors. (Continued)

Position	24 V AC	24 V DC
3	24 V AC Neutral	0 V
4	Not connected	Not connected

240 V AC power connector

NOTICE

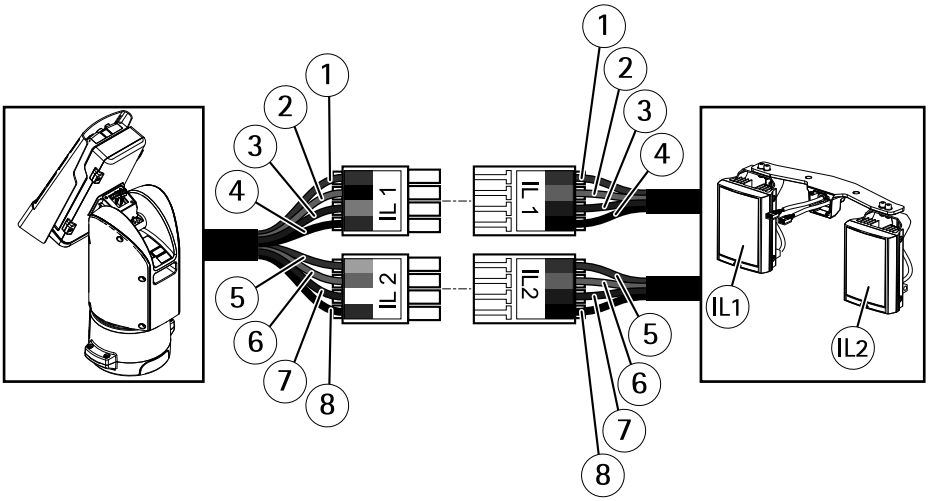
This section is valid for products powered by 100–240 V AC only.



This table is only valid for the 240 V AC power connector.

Position	100–240 V AC
1	Protective earth
2	240 V AC Neutral
3	Not connected
4	240 V AC Phase

Illuminator connectors



	Position	Cable color (positioning unit)	Cable color (illuminators)	Description
IL1	1	Red	Red	+24V IL
	2	Black	Orange	IL1 +VE
	3	Gray	Purple	IL1 -VE
	4	Blue	Black	GND
IL2	5	Yellow	Red	+24V IL
	6	Orange	Orange	IL2 +VE
	7	White	Purple	IL2 -VE
	8	Green	Black	GND

Cables

Cable thickness

The cable diameter, when using cable gaskets provided with the product, should be in the range of 5 to 11 mm (0.2 to 0.4 in).

NOTICE

- Use cables that keep within the specified cable area
- Select cables in compliance with your local regulations
- Make sure all cable holes are properly sealed
- Use cable gaskets or cable glands that match both the cable hole and the cable area

For information about accessories, such as cable gaskets and cable glands that allow for other cable areas, see *www.axis.com*

Operating conditions

This Axis product is intended for indoor and outdoor use.

Temperature	Humidity
Normal: -50 °C to 55 °C (-58 °F to 131 °F) Maximum (intermittent): 65 °C (149 °F) Cold start: -40 °C to 55 °C (-40 °F to 131 °F)	10–100% RH (non-condensing)

Power consumption

Typical consumption	Max consumption
Without illumination: 16 W With illumination: 64 W	Without illumination: 204 W With illumination: 300 W

Important

When using the 22 m (72 ft) AXIS Cable 24 V DC/24–240 V AC, a power supply capable of delivering 400 W is required to compensate for the power loss in the cable.

NOTICE

The typical power consumption values are based on the following:

- Any losses in the power cable disregarded
- No positioning active
- No wiper motor active
- Temperature at 25 °C / 77 °F (all heaters off)
- One H.264 stream at maximum resolution
- MJPEG stream recorded to SD card
- IR lamps on 50% of the time (with illumination)

Installation Guide
AXIS Q8685-LE PTZ Network Camera

Ver. M5.10
Date: May 2018
Part No. 1869079