PELCO

by Schneider Electric

INSTALLATION

IME Series
Network Mini Domes

Sarix® Cameras with SureVision Technology

C2269M-B (9/14)

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Important Notices

LEGAL NOTICE

SOME PELCO EQUIPMENT CONTAINS, AND THE SOFTWARE ENABLES, AUDIO/VISUAL AND RECORDING CAPABILITIES, THE IMPROPER USE OF WHICH MAY SUBJECT YOU TO CIVIL AND CRIMINAL PENALTIES. APPLICABLE LAWS REGARDING THE USE OF SUCH CAPABILITIES VARY BETWEEN JURISDICTIONS AND MAY REQUIRE, AMONG OTHER THINGS, EXPRESS WRITTEN CONSENT FROM RECORDED SUBJECTS. YOU ARE SOLELY RESPONSIBLE FOR INSURING STRICT COMPLIANCE WITH SUCH LAWS AND FOR STRICT ADHERENCE TO ANY/ALL RIGHTS OF PRIVACY AND PERSONALTY. USE OF THIS EQUIPMENT AND/OR SOFTWARE FOR ILLEGAL SURVEILLANCE OR MONITORING SHALL BE DEEMED UNAUTHORIZED USE IN VIOLATION OF THE END USER SOFTWARE AGREEMENT AND RESULT IN THE IMMEDIATE TERMINATION OF YOUR LICENSE RIGHTS THEREUNDER.

REGULATORY NOTICES

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of 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.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

KOREAN CLASS A EMC

이 기기는 업무용 (A 급) 전자파 적합기기로서 판매자 또는 사용자는 이 점을 주의하시길 바라며 , 가정 외의 지역에서 사용하는 것을 목적으로 합니다 .

VIDEO QUALITY CAUTION

FRAME RATE NOTICE REGARDING USER-SELECTED OPTIONS

Pelco systems are capable of providing high quality video for both live viewing and playback. However, the systems can be used in lower quality modes, which can degrade picture quality, to allow for a slower rate of data transfer and to reduce the amount of video data stored. The picture quality can be degraded by either lowering the resolution, reducing the picture rate, or both. A picture degraded by having a reduced resolution may result in an image that is less clear or even indiscernible. A picture degraded by reducing the picture rate has fewer frames per second, which can result in images that appear to jump or move more quickly than normal during playback. Lower frame rates may result in a key event not being recorded by the system.

Judgment as to the suitability of the products for users' purposes is solely the users' responsibility. Users shall determine the suitability of the products for their own intended application, picture rate and picture quality. In the event users intend to use the video for evidentiary purposes in a judicial proceeding or otherwise, users should consult with their attorney regarding any particular requirements for such use.

OPEN SOURCE SOFTWARE NOTICE

This product includes certain open source or other software originated from third parties that is subject to the GNU General Public License (GPL), GNU Library/Lesser General Public License (LGPL) and different and/or additional copyright licenses, disclaimers, and notices.

The exact terms of GPL, LGPL, and some other licenses are provided to you with this product. Please refer to the exact terms of the GPL and LGPL at *http://www.fsf.org (Free Software Foundation)* or *http://www.opensource.org (Open Source Initiative)* regarding your rights under said license. You may obtain a complete corresponding machine-readable copy of the source code of such software under the GPL or LGPL by sending your request to *digitalsupport@pelco.com*; the subject line should read *Source Code Request*. You will then receive an email with a link for you to download the source code.

This offer is valid for a period of three (3) years from the date of the distribution of this product by Pelco.

WARRANTY STATEMENT

For information about Pelco's product warranty and thereto related information, refer to *www.pelco.com/warranty*.

Introduction

The Sarix® IME Series IP cameras feature SureVision technology that seamlessly delivers advanced low-light performance with wide dynamic range (WDR) and anti-bloom technologies that operate simultaneously. They are part of Pelco's Enhanced (E) range of cameras, providing industry-leading image quality and performance.

The IME Series mini dome camera is easy to install, offers flexible mounting options, and uses a standard Web browser for easy remote setup and administration.

The IME Series easily connects to Pelco IP and hybrid systems such as Endura® version 2.0 (or later), Digital Sentry® version 7.3 (or later), and DX4700/DX4800 hybrid video recorders. The camera is also conformant with ONVIF Profile S for connection with third-party software. Pelco offers an application programming interface (API) and software developer's kit (SDK) for interfacing with Pelco's IP cameras.

This document describes the installation and initial setup procedures to begin operating the camera. For more information about operating your camera, refer to the operation manual specific to the product.

NOTE: For additional information about product documentation in English and other languages, go to *www.pelco.com/sarix* and navigate to the IME Series Web page.

MODELS

IMES19-1I	Indoor, 3 ~ 9 mm focal range, in-ceiling, standard definition, white
IME119-1I	Indoor, 3 ~ 9 mm focal range, in-ceiling, 1 MPx, white
IME219-1I	Indoor, 3 ~ 9 mm focal range, in-ceiling, 2 MPx, white
IME319-1I	Indoor, 3 ~ 9 mm focal range, in-ceiling, 3 MPx, white
IME319-B1I	Indoor, 3 ~ 9 mm focal range, in-ceiling, 3 MPx, black
IMES19-1S	Indoor, 3 ~ 9 mm focal range, surface mount, standard definition, white
IME119-1S	Indoor, 3 ~ 9 mm focal range, surface mount, 1 MPx, white
IME219-1S	Indoor, 3 ~ 9 mm focal range, surface mount, 2 MPx, white
IME319-1S	Indoor, 3 ~ 9 mm focal range, surface mount, 3 MPx, white
IME319-B1S	Indoor, 3 ~ 9 mm focal range, surface mount, 3 MPx, black
IMES19-1P	Indoor, 3 ~ 9 mm focal range, pendant, standard definition, white
IME119-1P	Indoor, 3 ~ 9 mm focal range, pendant, 1 MPx, white
IME219-1P	Indoor, 3 ~ 9 mm focal range, pendant, 2 MPx, white
IME319-1P	Indoor, 3 ~ 9 mm focal range, pendant, 3 MPx, white
IME319-B1P	Indoor, 3 ~ 9 mm focal range, pendant, 3 MPx, black
IMES19-1EI	Environmental, 3 ~ 9 mm focal range, in-ceiling, standard definition, light gray
IME119-1EI	Environmental, 3 ~ 9 mm focal range, in-ceiling, 1 MPx, light gray
IME219-1EI	Environmental, 3 ~ 9 mm focal range, in-ceiling, 2 MPx, light gray
IME319-1EI	Environmental, 3 ~ 9 mm focal range, in-ceiling, 3 MPx, light gray
IMES19-1ES	Environmental, 3 ~ 9 mm focal range, surface mount, standard definition, light gray
IME119-1ES	Environmental, 3 ~ 9 mm focal range, surface mount, 1 MPx, light gray
IME219-1ES	Environmental, 3 ~ 9 mm focal range, surface mount, 2 MPx, light gray
IME319-1ES	Environmental, 3 ~ 9 mm focal range, surface mount, 3 MPx, light gray
IMES19-1EP	Environmental, 3 ~ 9 mm focal range, pendant, standard definition, light gray
IME119-1EP	Environmental, 3 ~ 9 mm focal range, pendant, 1 MPx, light gray
IME219-1EP	Environmental, 3 ~ 9 mm focal range, pendant, 2 MPx, light gray
IME319-1EP	Environmental, 3 ~ 9 mm focal range, pendant, 3 MPx, light gray
IMES19-1VI	Vandal-resistant, 3 ~ 9 mm focal range, in-ceiling, standard definition, light gray
IME119-1VI	Vandal-resistant, 3 ~ 9 mm focal range, in-ceiling, 1 MPx, light gray
IME219-1VI	Vandal-resistant, 3 ~ 9 mm focal range, in-ceiling, 2 MPx, light gray
IME319-1VI	Vandal-resistant, 3 ~ 9 mm focal range, in-ceiling, 3 MPx, light gray
IMES19-1VS	Vandal-resistant, 3 ~ 9 mm focal range, surface mount, standard definition, light gray
IME119-1VS	Vandal-resistant, 3 ~ 9 mm focal range, surface mount, 1 MPx, light gray
IME219-1VS	Vandal-resistant, 3 ~ 9 mm focal range, surface mount, 2 MPx, light gray
IME319-1VS	Vandal-resistant, 3 ~ 9 mm focal range, surface mount, 3 MPx, light gray
IMES19-1VP	Vandal-resistant, 3 ~ 9 mm focal range, pendant, standard definition, light gray
IME119-1VP	Vandal-resistant, 3 ~ 9 mm focal range, pendant, 1 MPx, light gray
IME219-1VP	Vandal-resistant, 3 ~ 9 mm focal range, pendant, 2 MPx, light gray
IME319-1VP	Vandal-resistant, 3 ~ 9 mm focal range, pendant, 3 MPx, light gray
IME3122-1I	Indoor, 9 ~ 22 mm focal range, in-ceiling, 3 MPx, white
IME3122-B1I	Indoor, 9 ~ 22 mm focal range, in-ceiling, 3 MPx, black
IME3122-1S	Indoor, 9 ~ 22 mm focal range, surface mount, 3 MPx, white
IME3122-B1S	Indoor, 9 ~ 22 mm focal range, surface mount, 3 MPx, black
IME3122-1P	Indoor, 9 ~ 22 mm focal range, pendant, 3 MPx, white
IME3122-B1P	Indoor, 9 ~ 22 mm focal range, pendant, 3 MPx, black
IME3122-1EI	Environmental, 9 ~ 22 mm focal range, in-ceiling, 3 MPx, light gray
IME3122-1ES	Environmental, 9 ~ 22 mm focal range, surface mount, 3 MPx, light gray

IME3122-1EP	Environmental, 9 ~ 22 mm focal range, pendant, 3 MPx, light gray
IME3122-1VI	Vandal-resistant, 9 ~ 22 mm focal range, in-ceiling, 3 MPx, light gray
IME3122-1VS	Vandal-resistant, 9 ~ 22 mm focal range, surface mount, 3 MPx, light gray
IME3122-1VP	Vandal-resistant, 9 ~ 22 mm focal range, pendant, 3 MPx, light gray

RECOMMENDED MOUNTS

WMVE-SR	Wall mount, light gray; for use with environmental and vandal-resistant pendant mount options
WMVE-SW	Wall mount, white; for use with indoor pendant mount options
PA101	Pole adapter for use with WMVE-SR wall mount

OPTIONAL ACCESSORIES

IPCT01	Pelco IP camera tester*
ALM-1	External alarm accessory
POE20U560G	Single port PoE injector
IMELLD1-0I	Lower dome assembly, smoked, in-ceiling, white
IMELLD1-0BI	Lower dome assembly, smoked, in-ceiling, black
IMELD1-0S	Lower dome assembly, smoked, surface mount/pendant, white
IMELD1-0BS	Lower dome assembly, smoked, surface mount/pendant, black
IMELD1-0V	Lower dome (bubble only), smoked, environmental/vandal-resistant
IMELD1-1V	Lower dome (bubble only), clear, environmental/vandal-resistant

*Contact Pelco Product Support for more information about the use of the Pelco IP camera tester with cameras.

Getting Started

Before installing your device, thoroughly familiarize yourself with the information in the installation section of this manual.

NOTES:

- Pelco recommends connecting the device to a network that uses a Dynamic Host Configuration Protocol (DHCP) server to address devices.
- Do not use a network hub when configuring the network settings for the device.
- To ensure secure access, place the device behind a firewall when it is connected to a network.

IN-CEILING MODELS

SUPPLIED PARTS LIST

Qty	Description
1	Camera
1	Back box
1	Lower dome
1	Bit
1	8-pin connector for Alarm/Relay/Audio port
2	MAC address labels (extra)
1	IME Series Mini Dome IP Camera Installation manual
1	Important Safety Instructions
1	Resource disc

USER-SUPPLIED PARTS LIST

In addition to the standard tools and cables required for a video security installation, you will need to provide the following items:

Qty	Description
1	Pipe/conduit (if applicable)
1	Conduit adapters (if applicable)
1	RJ-45 connector to terminate wires
1	Cat5 (or higher) cable
1	#2 Phillips screwdriver
1	24 AWG, 8-wire multiconductor cable (if using alarm, relays, and/or line-in and line-out audio)
1	SD card, 32 GB SanDisk Extreme® PLUS microSDHC™ UHS-I

SURFACE MOUNT MODELS

SUPPLIED PARTS LIST

Qty	Description
1	Camera
1	Mounting plate
1	Surface mounting ring (for environmental and vandal-resistant models)
1	Lower dome
1	Bit
1	8-pin connector for Alarm/Relay/Audio port
2	MAC address labels (extra)
1	IME Series Mini Dome IP Camera Installation manual
1	Important Safety Instructions
1	Resource disc

USER-SUPPLIED PARTS LIST

In addition to the standard tools and cables required for a video security installation, you will need to provide the following items:

Qty	Description
1	Mounting substrate and fasteners for indoor surface mount (one of the following): • Standard single-gang electrical box and appropriate fasteners • Any substrate using 2 standard screws, size M4 or #8 hardware
1	Mounting substrate and fasteners for environmental and vandal-resistant surface mount (one of the following): • Standard 4 in. square electrical box and appropriate fasteners • Standard 2-gang electrical box and appropriate fasteners • Any substrate using 3 standard screws, size M6 or 1/4 in. hardware
1	Pipe/conduit (environmental and vandal-resistant models, if applicable)
1	Conduit adapters (environmental and vandal-resistant models, if applicable)
1	Cat5 (or higher) cable
1	RJ-45 connector
1	24 AWG, 8-wire multiconductor cable (if using alarm, relays, and/or line-in and line-out audio)
1	SD card, 32 GB SanDisk Extreme® PLUS microSDHC™ UHS-I

PENDANT MODELS

SUPPLIED PARTS LIST

Qty	Description
1	Camera
1	Pendant mount
1	Lower dome
1	Bit
1	8-pin connector for Alarm/Relay/Audio port
2	MAC address labels (extra)
1	IME Series Mini Dome IP Camera Installation manual
1	Important Safety Instructions
1	Resource disc

USER-SUPPLIED PARTS LIST

In addition to the standard tools and cables required for a video security installation, you will need to provide the following items:

Qty	Description
1	Pipe/conduit (if applicable)
1	Pipe nipple adapters (if using pipe/conduit)
1	Cat5 (or higher) cable
1	WMVE-SR (if using the wall mount for environmental and vandal-resistant pendant models)
1	WMVE-SW (if using the wall mount for indoor pendant models)
1	RJ-45 connector
1	24 AWG, 8-wire multiconductor cable (if using alarm, relays, or line-in and line-out audio)
1	SD card, 32 GB SanDisk Extreme® PLUS microSDHC™ UHS-I

Product Overview

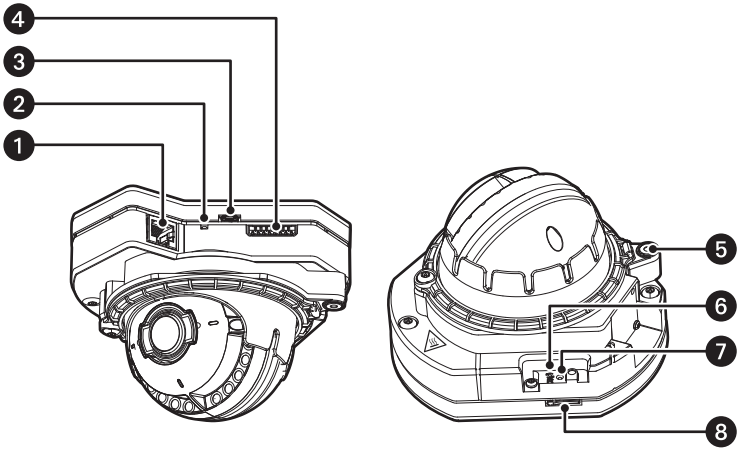


Figure 1. Camera Ports and LEDs

1. **RJ-45 Network Port:** Connects the camera to the IP network. Also supplies power to the camera (PoE), through the same connector.
2. **Ethernet Activity/Link LED:** Flashes green to indicate that data is being transmitted or received by the camera. Glows solid amber to indicate that a live network connection is established.
3. **Accessory Port:** Connects with compatible Pelco accessories.
4. **Alarm/Relay/Audio Port:** Connects to alarms, relays, and audio in/out.
5. **Microphone:** Connects to built-in microphone on indoor and vandal-resistant models.
6. **Reset Button:** Reboots the camera or restores the camera's factory default settings. This button is recessed. Using a small tool, such as a paper clip, press and release the reset button once to reboot the camera. Press and hold the reset button for 10 seconds to restore the camera to the factory default settings.
7. **Power LED:** Flashes green during the configuration sequence; glows solid green after the sequence is complete. The LED can be disabled. If this LED glows red (solid or flashing), contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international) for assistance.
8. **Micro SD Slot:** Connects to local storage. To ensure reliable local storage, it is recommended that you use a 32 GB SanDisk Extreme® PLUS microSDHC™ UHS-I card. You must use a new SD card. If the card has previously been used or reformatted, the local storage feature may not function properly.

For cable terminations, refer to *Cable Terminations* on page 26.

⚠ WARNING

HOT SURFACE! RISK OF BURN!

- Always turn off power and allow the unit to cool prior to handling.
- Always handle the unit from the plastic retaining ring. See the manual for detailed instructions.

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULT IN SERIOUS INJURY.

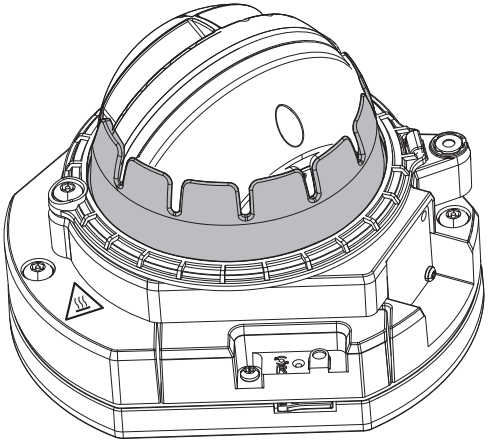


Figure 2. Plastic Retaining Ring

INSTALLING THE MOUNT

You can install the IME Series mini domes using one of the following mounting methods:

- Installation in a suspended ceiling or a fixed ceiling. Refer to *In-Ceiling: Indoor and Environmental/Vandal-Resistant*.
- Installation using a pendant mount. Refer to *Pendant: Indoor* on page 17 and *Pendant: Environmental/Vandal-Resistant* on page 18.
- Installation on a wall or a fixed ceiling. Refer to *Surface Mount: Indoor* on page 19 and *Surface Mount: Environmental/Vandal-Resistant* on page 20.

IN-CEILING: INDOOR AND ENVIRONMENTAL/VANDAL-RESISTANT

1. Locate the center point of the mounting location in the ceiling.
2. For Environmental and Vandal-Resistant models, cut a 17.15 cm (6.75 in.) hole in the ceiling. For Indoor models, cut a 15.24 cm (6.0 in.) hole in the ceiling. Using a hole saw is recommended.
3. Pull the wiring through the hole.

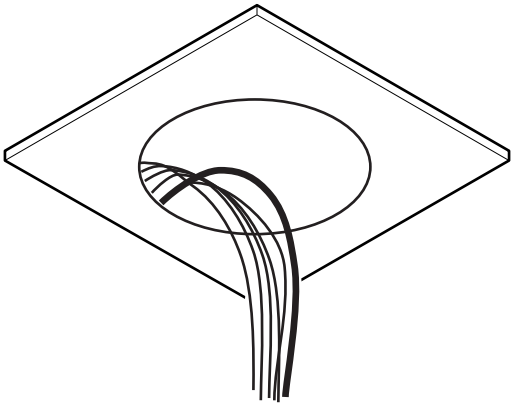


Figure 3. Cutting the Hole: In-Ceiling

4. Prepare the wire entry holes in the back box as follows:
   a. Remove either the conduit plug (side) or grommet (top) for side or top wire entry.
   b. Prepare the wire entry holes as follows:
      (1) **If using conduit (not supplied):** Replace with 25 mm or 3/4 in. conduit adapters (not supplied).
      (2) **If using the grommet (plenum rating is not required):** Put the grommet (supplied) aside for use in a later step.

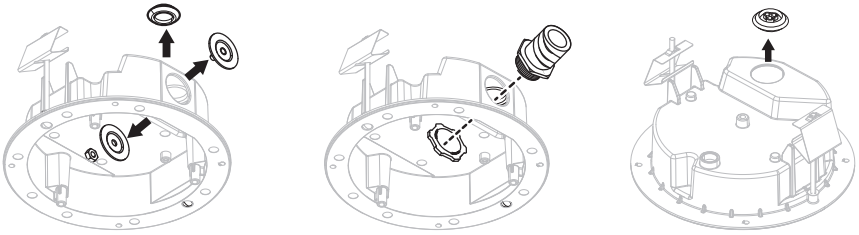


Figure 4. Preparing the Cable Entry Holes: In-Ceiling

5. Install the back box as follows:
   a. Compress the spring paddles on the back box. For Indoor models, make sure that the support wings are rotated inward.
   b. Push the back box through the hole.
   c. Replace the other entry opening with the conduit plug (supplied).
   d. Tighten the two mounting screws to secure the back box. For Indoor models, use the bit (supplied).
   e. Feed the wires as follows:
      - **If using conduit (not supplied):** Feed wires through the conduit adapter, into the back box, and attach the conduit to the adapter.
      - **If using the grommet (supplied):** Feed the wires into the back box, pass the unterminated cables through the grommet, and insert the grommet in either the side or top entry.

f. Terminate the wires with the appropriate connector (not supplied).

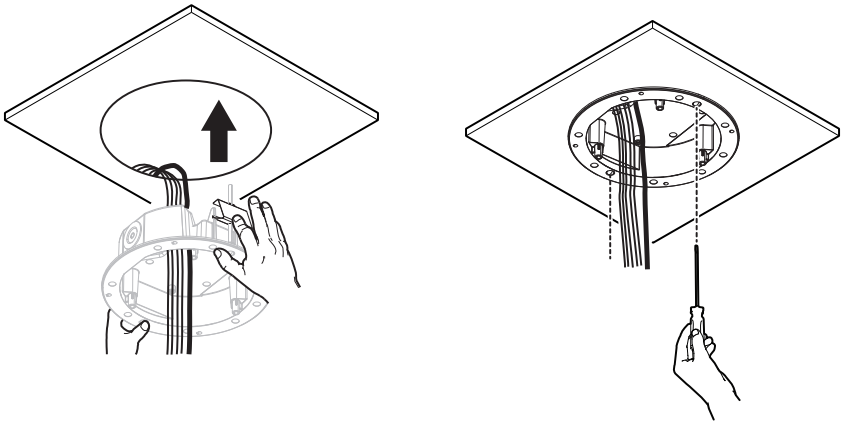


Figure 5. Installing the Back Box: In-Ceiling

PENDANT: INDOOR

1. Install the pendant mount (supplied) or the wall mount (not supplied).
   The pendant mount attaches to 25 mm or 3/4 in. pipe/conduit (not supplied) through a pipe nipple adapter (not supplied).

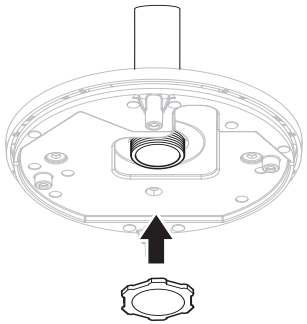


Figure 6. Installing the Pendant Mount: Indoor, Pendant

2. Pull the wiring through the opening in the pendant mount.

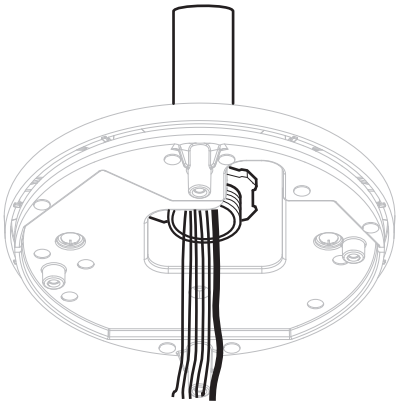


Figure 7. Pulling the Wiring: Indoor, Pendant

PENDANT: ENVIRONMENTAL/VANDAL-RESISTANT

1. Install the pendant mount to the conduit.
   The pendant mount attaches to 1-1/2 in. NPT pipe/conduit or wall mount with 1-1/2 in. NPT thread (not supplied).

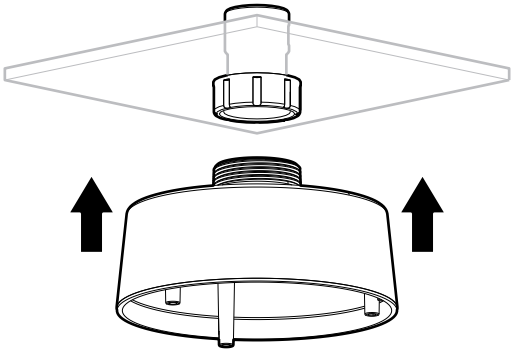


Figure 8. Installing the Pendant Mount: Environmental/Vandal-Resistant, Pendant

2. Pull the wiring through the opening.

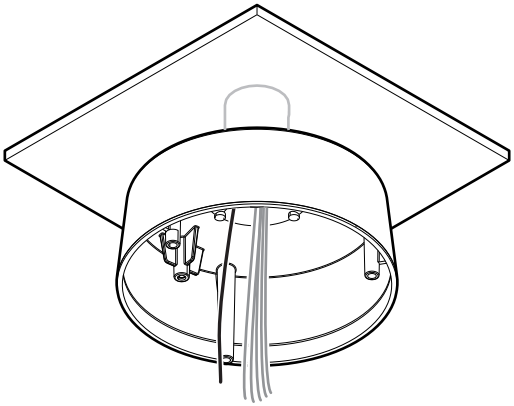


Figure 9. Pulling the Wiring: Environmental/Vandal-Resistant, Pendant

SURFACE MOUNT: INDOOR

1. Refer to *Indoor Surface Mount Template* on page 29 for a template to locate the holes to be drilled in the mounting substrate.
2. Install the mounting plate to the mounting substrate using one of the following methods:
   - Standard single-gang electrical box (not supplied)
   - Any substrate using standard screw size M4 or #8 hardware (not supplied)

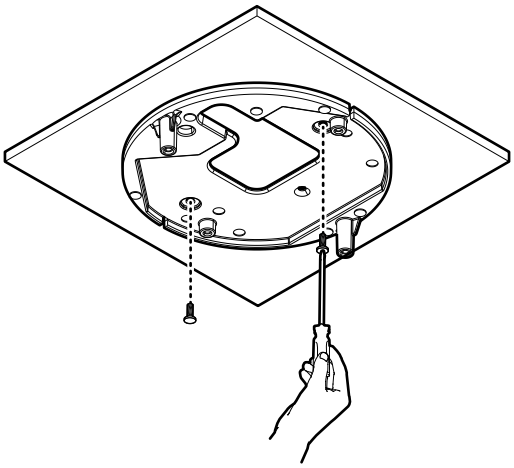


Figure 10. Fastening the Mounting Plate: Indoor, Surface Mount

3. Pull the wiring through the opening.

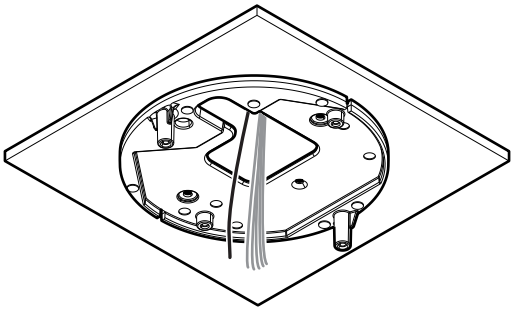


Figure 11. Pulling the Wiring: Indoor, Surface Mount

SURFACE MOUNT: ENVIRONMENTAL/VANDAL-RESISTANT

1. Refer to *Environmental/Vandal-Resistant Surface Mount Template* on page 30 for a template to locate the holes to be drilled in the mounting substrate.
2. Install the mounting plate to the mounting substrate using one of the following methods:
   - Standard 4 in. square electrical box (not supplied)
   - Standard 2-gang electrical box (not supplied)
   - Any substrate using standard screw size M6 or 1/4 in. hardware (not supplied)

     NOTE: Head height and diameter of fasteners are not to exceed 5/16 in. and 3/4 in., respectively.

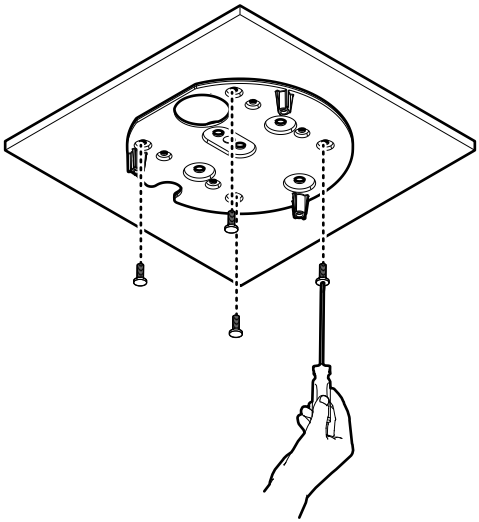
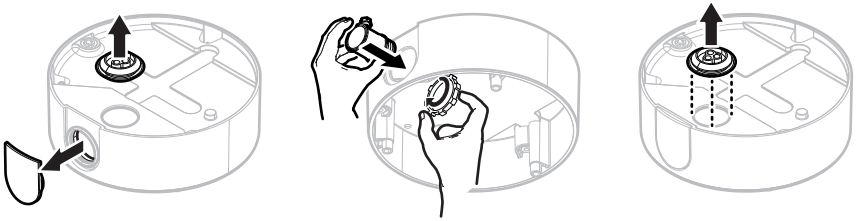


Figure 12. Fastening the Mounting Plate: Environmental/Vandal-Resistant, Surface Mount

3. Prepare the wire entry holes in the surface mounting ring as follows:
   a. Remove either the conduit plug (side) or grommet (top) for side or top wire entry.
   b. Prepare the wire entry holes as follows:
      (1) **If using conduit (not supplied):** Insert a 25 mm or 3/4 in. conduit adapter (not supplied).
      (2) **If using the grommet:** Put the grommet (supplied) aside for use in a later step.



a. b1. b2.

Figure 13. Preparing the Cable Entry Holes: Environmental/Vandal-Resistant, Surface Mount

4. Install the surface mounting ring to the mounting plate:
   a. In a counterclockwise pattern, partially tighten the three tamperproof captive fasteners using the bit (supplied).
   b. Fully tighten the fasteners in the same counterclockwise pattern to 6–9 lb-in to secure the surface mount ring to the mounting plate.

   NOTE: A hand driver, not a power driver, is recommended.

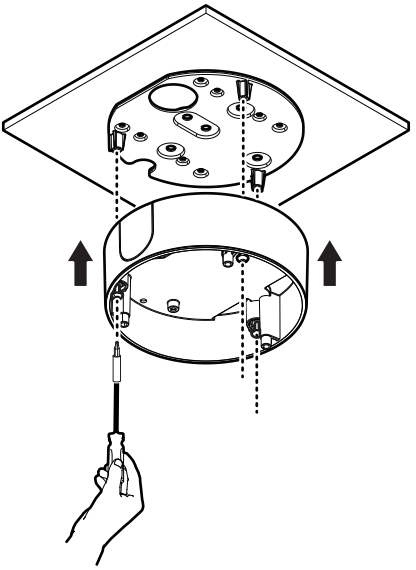


Figure 14. Installing the Surface Mounting Ring: Environmental/Vandal-Resistant, Surface Mount

5. Pull the wiring through the opening as follows:
   - **If using conduit (not supplied):** Feed the wires through the conduit adapter (not supplied) into the surface mounting ring, and attach the conduit to the adapter.
   - **If using the grommet:** Feed the wires into the surface mounting ring, pass the unterminated cables through the grommet, and insert the grommet in the top entry.

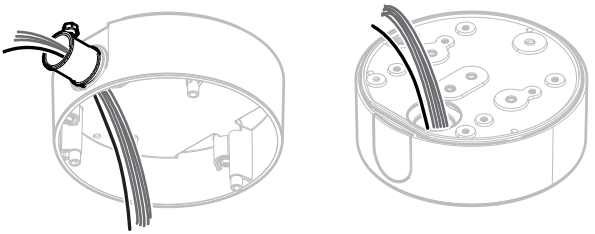


Figure 15. Pulling the Wiring: Environmental/Vandal-Resistant, Surface Mount

CONNECTING THE WIRING TO THE CAMERA

1. Connect the network cable to the RJ-45 network port on the base of the camera.
2. Connect the Micro USB cable and optional multiconductor cable as follows:
   - **If using a Pelco accessory:** Perform step 5e on page 15 with the grommet and the Micro B USB cable that is supplied with the Pelco accessory. Connect the Micro B USB cable to the accessory port on the base of the camera.

     NOTE: Remove this accessory before completing the installation.
   - **(Optional) If using alarms, relays, or audio:** Connect a 24 AWG, 8-wire multiconductor cable to the 8-pin removable connector (supplied), and then insert the connector back into the base of the camera. This cable is for alarms, relays, and audio line-in and line-out.

   NOTE: For cable terminations, refer to *Cable Terminations* on page 26.

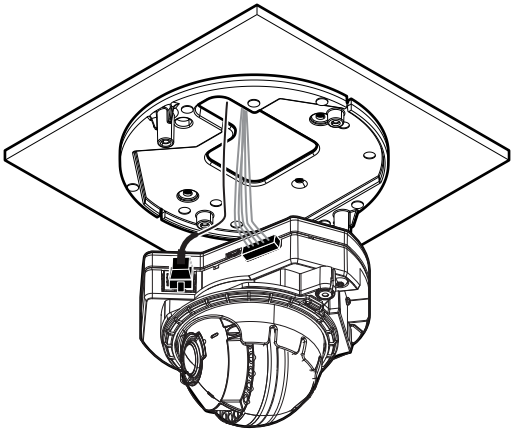


Figure 16. Connecting the Wiring (Indoor, Surface Mount Shown)

INSTALLING THE CAMERA

1. Align the camera with the mount or back box, depending on your model.
2. Tighten the two captive fasteners using the bit (supplied) until they are secure.

3. Dress the wires inside the mount or back box.

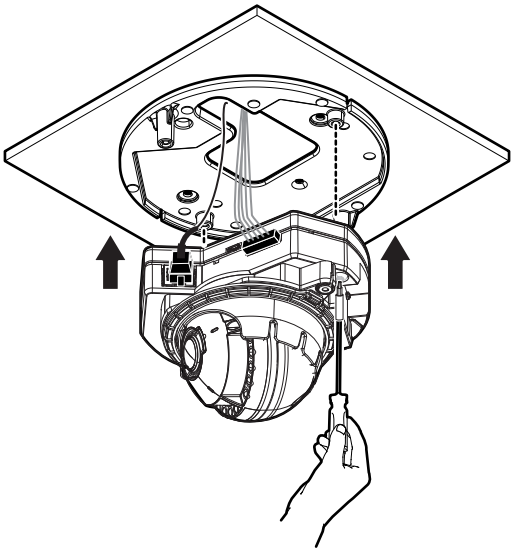


Figure 17. Installing the Camera (Indoor, Surface Mount Shown)

4. Apply power to the camera. The camera will complete a configuration sequence. The LED at the base of the camera will blink for several minutes while the camera system boots. The LED will turn off when the system boot cycle completes.

   NOTE: If the camera is not connected to a DHCP server and DHCP is enabled, the configuration sequence might take several minutes to complete.

5. View the camera image by finding the camera's IP address on a Web browser. If you do not know the camera's IP address, install the Pelco Device Utility software available at *www.pelco.com*. The utility will locate the assigned name, IP address, and MAC address of the camera.

6. Adjust the camera field of view using the Web browser. (The unit must be powered.)
   a. Loosen the locking screw with the bit (supplied).
   b. Position the camera where desired.
   c. Tighten the locking screw using the bit (supplied).
   d. Use the Web browser to adjust the focus and zoom.

NOTICE: *Risk of Wiring Damage! Do not continuously rotate the camera pan position beyond 360 degrees in a single direction. If you encounter resistance while turning, stop and rotate the camera in the opposite direction. Failure to follow these instructions can result in equipment damage.*

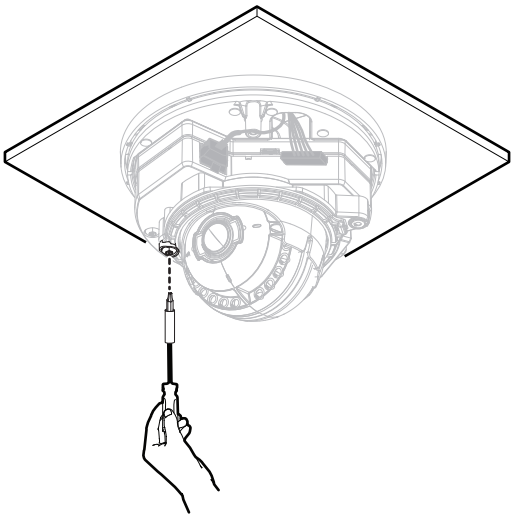


Figure 18. Adjusting the Field of View (Indoor, Surface Mount Shown)

INSTALLING THE LOWER DOME

1. Align the screw holes on the trim ring with the holes on the mount.
2. Secure the trim ring and bubble:
   - **Indoor in-ceiling models**: Rotate the trim ring to lock it in place.
   - **Environmental and vandal-resistant models:** In a counterclockwise pattern, partially tighten the tamperproof captive fasteners using the bit (supplied). Fully tighten the fasteners in the same counterclockwise pattern to 6–9 lb-in to secure the lower dome. Check to be sure there is no gap between the lower dome and the back box.

     NOTE: A hand driver, not a power driver, is recommended.
   - **All other models:** Tighten the tamperproof captive fasteners using the bit (supplied) until the trim ring and bubble are secure.

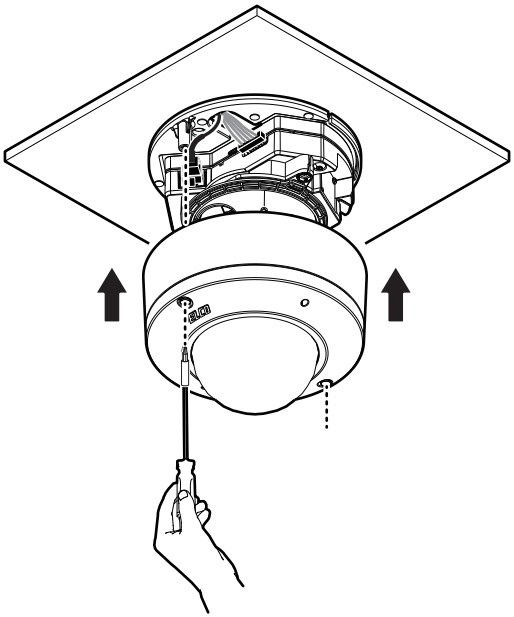


Figure 19. Installing the Lower Dome (Indoor, Surface Mount Shown)

Cable Terminations

ETHERNET WIRING REQUIREMENT FOR POE

Connect a Cat5 cable or higher (Cat5e, Cat6) cable (not supplied) to the RJ-45 network connector. The 8-pin port includes video over Ethernet, and PoE for the camera. PoE (IEEE 802.3af) injects power over the same cabling that carries the network data, eliminating the need for a separate power supply. This simplifies the installation and operation of the camera without affecting network performance.

NOTE: The camera will autosense and configure itself to use either a crossover cable or a straight cable.

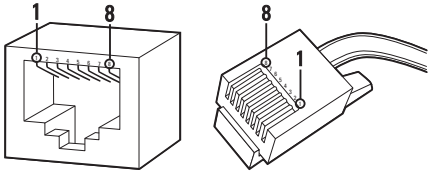


Figure 20. Cable Pin Descriptions

Table A. Ethernet with PoE Modes A and B

PoE Mode A		PoE Mode B	
Pin	**Function**	**Pin**	**Function**
1	TX+, PoE 1-2	1	TX+
2	TX–, PoE 1-2	2	TX–
3	RX+, PoE 3-4	3	RX+
4	Not used	4	PoE 1-2
5	Not used	5	PoE 1-2
6	RX–, PoE 3-4	6	RX–
7	Not used	7	PoE 3-4
8	Not used	8	PoE 3-4

ALARM/RELAY/AUDIO PORT

The 8-pin Alarm/Relay/Audio port has the following pins and pin assignments.

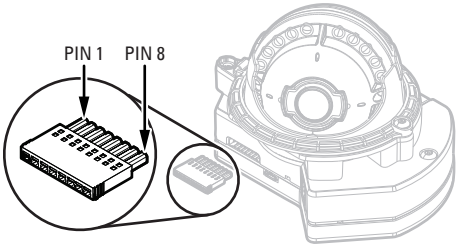


Figure 21. Alarm/Relay/Audio Port Pins

Table B. Pin Descriptions for Alarm/Relay/Audio Port

Pin	Function
1	Audio Out–
2	Audio Out+
3	Audio In–
4	Audio In+
5	Alarm Input
6	Ground
7	Relay N.O.
8	Relay Return

IP Address Settings

If the camera is connected to a Dynamic Host Configuration Protocol (DHCP) network and DHCP is set to On, the server automatically assigns an IP address to the camera. The default setting for the camera is DHCP On. To set the camera's IP address manually, set DHCP to Off.

NOTES:

- If the camera is not connected to a DHCP server but DHCP is set to On, the default IP address 192.168.0.20 on subnet mask 255.255.255.0 is automatically assigned to the camera. After the first camera is connected and assigned the default IP address, the system automatically looks for other cameras on the auto IP address system and assigns IP addresses in sequential order as required.
- For example, if three cameras are connected to a network without a DHCP server, the first camera is assigned address 192.168.0.20, the second camera is assigned address 192.168.0.21, and the third camera is assigned address 192.168.0.22.
- Contact your network administrator to avoid network conflicts before setting/changing the camera's IP address.
- If you do not know the camera's IP address, install the Pelco Device Utility software available at *www.pelco.com*. The utility will locate the assigned name, IP address, and MAC address of the camera.

Logging On to the Camera

After logging on to the camera, you can view video from the Web user interface.

1. Open the Web browser.
2. Type the camera's IP address in the browser address bar.

   NOTE: If you do not know the camera's IP address, you can locate it using the Pelco Device Utility software.
3. Click the Log In button in the navigation bar; a dialog box opens.
4. Type your user name and password.

   NOTE: If you are logging on to the camera as the administrator for the first time, the default user name and password are **admin** (all lowercase). For security purposes, be sure to change the password after you log on for the first time.
5. Click Log In.

Surface Mount Templates

INDOOR SURFACE MOUNT TEMPLATE

NOTICE: The template must be printed as actual size to match mounting holes on the indoor mounting plate. Printing the template to a scale other than 100 percent will cause a mismatch with mounting plate holes, and could result in equipment damage.

NOTE: VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

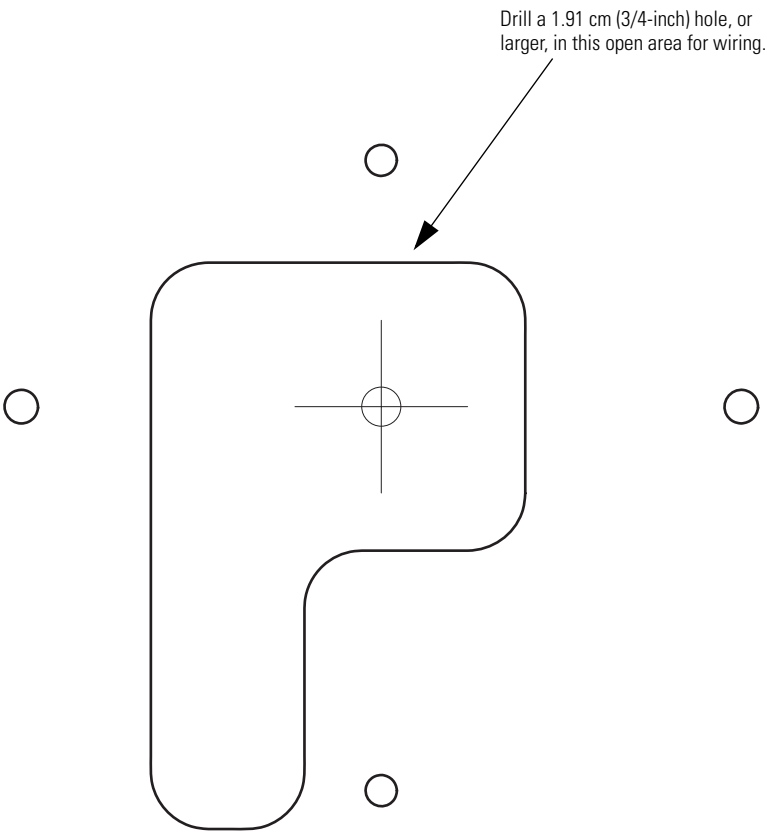


Figure 22. Template for Surface Mount: Indoor

ENVIRONMENTAL/VANDAL-RESISTANT SURFACE MOUNT TEMPLATE

NOTICE: The template must be printed as actual size to match mounting holes on the indoor mounting plate. Printing the template to a scale other than 100 percent will cause a mismatch with mounting plate holes, and could result in equipment damage.

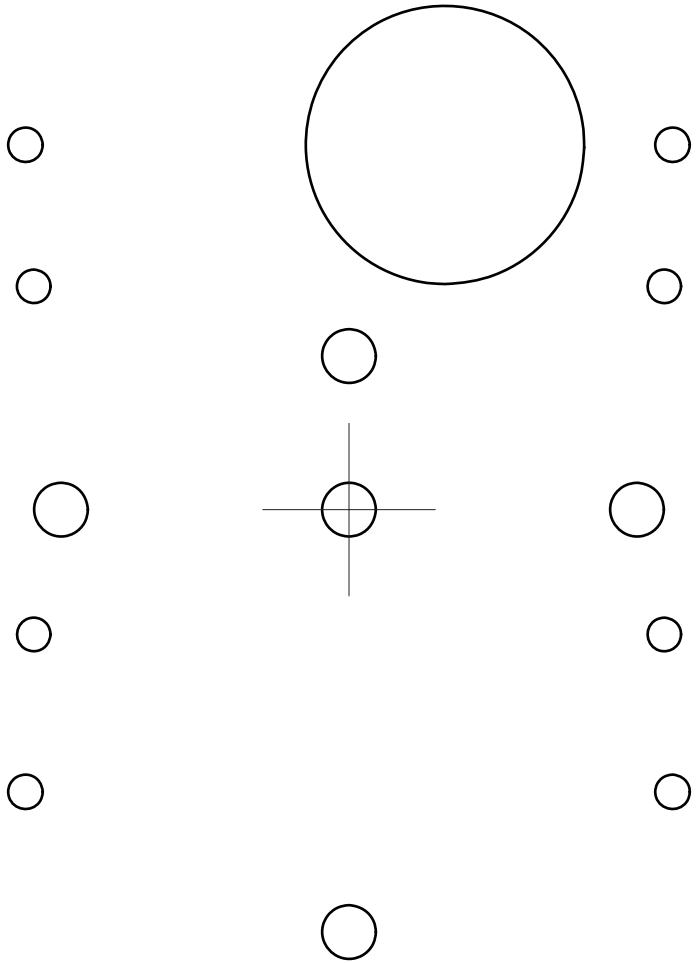


Figure 23. Template for Surface Mount: Environmental/Vandal-Resistant

Specifications

CAMERA

Imaging Device	1/3-inch
Imager Type	CMOS
Imager Readout	Progressive scan
Highest Resolution	
3 MPx	2048 x 1536
2 MPx	1920 x 1080
1 MPx	1280 x 1024
0.5 MPx	800 x 608
Signal-to-Noise Ratio	>60 dB
Electronic Shutter Range	1 ~ 1/77,000 sec
True Wide Dynamic Range	Up to 100 dB*
White Balance Range	2,000° to 10,000°K
Sensitivity 3 ~ 9 mm	f/1.2; 2,850°K; SNR >20 dB
Color (33 ms)	0.1 lux
Color (500 ms)	0.005 lux
Mono (33 ms)	0.05 lux
Mono (500 ms)	0.0013 lux
Sensitivity 9 ~ 22 mm	f/1.6; 2,850°K; SNR >20 dB
Color (33 ms)	0.4 lux
Color (500 ms)	0.009 lux
Mono (33 ms)	0.09 lux
Mono (500 ms)	0.002 lux
Day/Night Capabilities	Yes
Mechanical IR Cut Filter	Yes, (ON/OFF/AUTO selectable), with different set points on lux

*Sensor level is not inclusive of SureVision image processing.

LENS

Lens Type	Built-in; varifocal
Focal Length	f/1.2, 3 ~ 9 mm; or f/1.6, 9 ~ 22 mm
Focus	Autofocus, motorized
Zoom	Remote
Auto Iris Type	DC drive P-iris lens

Field of View in Degrees

Lens	Focal Length	Mode	Diagonal	Horizontal	Vertical
3 ~ 9 mm	Wide	4:3	105	84	63
	Tele	4:3	38	30	23
	Wide	16:9	97	84	47
	Tele	16:9	35	30	17
9 ~ 22 mm	Wide	4:3	38	30	23
	Tele	4:3	15	12	8.9
	Wide	16:9	35	30	17
	Tele	16:9	14	12	6.6

ELECTRICAL

Network Port	RJ-45 connector for 100Base-TX Auto MDI/MDI-X
Accessory Port	Micro B USB connector for Pelco accessories
Cable Type	Cat5 or better for 100Base-TX
Input Power	PoE (IEEE 802.3af, Class 3)
Power Consumption*	8.5 W nominal
Current Consumption	350 mA maximum
Local Storage	32 GB SanDisk Extreme® PLUS microSDHC™ UHS-I card
Alarm	
Unsupervised	Detects open or closed alarm state
Supervised	Detects open and short alarm state with external 1-kohm resistor
Input	3.5 VDC maximum, 3.5 mA maximum
Relay Output	±32 VDC maximum, 150 mA maximum

*Does not include optional accessories connected to accessory port.

AUDIO

Streaming	Bidirectional: full or half duplex
Input/Output	Line level/external microphone input; 600-ohm differential, 1 Vp-p max. signal level; built-in microphone (indoor and vandal-resistant models)
Compression	G.711 PCM 8 bit, 8 kHz mono at 64 kbit/s

MECHANICAL

Dome Attenuation	
Clear	f/0.0 light loss
Smoked	f/1.0 light loss
Pan/Tilt Adjustment	Manual
Pan	355°
Tilt	180°
Rotation	360°

ENVIRONMENTAL

Operating Temperature
- Indoor/Vandal-Resistant: –10° to 50°C (14° to 122°F)*
- Environmental: –40° to 50°C (–40° to 122°F)*

*Thermostatically controlled active heating and cooling elements are used to achieve operating temperature range. A blower (fan) is used to achieve operating temperatures to 50°C (122°F). Active heating elements are used to achieve operating temperatures below –10°C (14°F).

Cold Start
- Indoor/Vandal-Resistant: –10°C (14°F)
- Environmental: –20°C (–4°F)

Storage Temperature: –10° to 60°C (14° to 140°F)

Operating Humidity
- Indoor/Vandal-Resistant: 20 to 80%, RH noncondensing
- Environmental: 10 to 95%, RH condensing

Storage Humidity: 20 to 80%, RH noncondensing

Environmental/Vandal-Resistant
- Impact Resistance: K10++ (50 J) per IEC 62262
- Shock and Vibration: EN50155 Category 1, Class B; IEC 60068:2-6 and 2-27 (environmental/vandal-resistant models)

VIDEO

Video Streams: Multiple simultaneous streams with up to 2 different configurations plus service stream; the secondary stream is variable based on the setup of the primary stream

Available Resolutions: 2 configurable streams as follows:

Camera Model	Resolution				JPEG		H.264 High Profile	
	MPx	Width	Height	Aspect Ratio	IPS (Max.)	Recommended Bit Rate	IPS (Max.)	Recommended Bit Rate
3 MPx	3.0	2048	1536	4:3	7	12	30	9.2
2 MPx	1.9	1600	1200	4:3	15	12	30	5.7
1 MPx	1.2	1280	960	4:3	30	12	30	3.8
0.5 MPx	0.5	800	608	4:3	30	7.8	30	2
	0.3	640	480	4:3	30	4.9	30	1.5
	0.08	320	240	4:3	30	1.2	30	0.5
3 MPx and 2 MPx	1080p	1920	1080	16:9	15	12	30	6
1 MPx	720p	1280	720	16:9	30	12	30	2.9
0.5 MPx	0.5	800	448	16:9	30	5.7	30	1.7
	0.2	640	352	16:9	30	3.6	30	1.2
	0.06	320	176	16:9	30	0.9	30	0.4

Frame Rate: Up to 30, 25, 15, 12.5, 10, 5, 1 (depending on the coding, resolution, and stream configuration)

Video Encoding: H.264 High, Main, or Base profiles; and MJPEG

Bit Rate Control: Constrained variable bit rate (CVBR), constant bit rate (CBR), and variable bit rate (VBR) with target range

Service Stream: JPEG stream; the aspect ratio will be consistent with the independent streams

NETWORK

Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, ARP, ICMP, and 802.1x (EAP)

NOTE: IPv6 protocol supports mixed IPv4 and IPv6 installations, but not IPv6-only deployments.

Users	
Unicast	Up to 20 simultaneous users depending on the resolution settings
Multicast	Unlimited users H.264
Security Access	Password protected
Software Interface	Web browser view and setup

INTEGRATION

Pelco System Integration	Endura 2.0 (or later); Digital Sentry 7.3 (or later); DX4700/DX4800
Open API	Pelco API or ONVIF Profile S
Mobile Application	Integrated with Pelco Mobile Application

PHYSICAL

Weight	Unit
Indoor, In-Ceiling	1.2 kg (2.6 lb)
Indoor, Surface Mount	1.0 kg (2.0 lb)
Indoor, Pendant	1.0 kg (2.1 lb)
Environmental, In-Ceiling	1.4 kg (3.1 lb)
Environmental, Surface Mount	1.5 kg (3.3 lb)
Environmental, Pendant	1.3 kg (2.9 lb)
Vandal-Resistant, In-Ceiling	1.4 kg (3.1 lb)
Vandal-Resistant, Surface Mount	1.5 kg (3.3 lb)
Vandal-Resistant, Pendant	1.3 kg (2.9 lb)

REVISION HISTORY

Manual #	Date	Comments
C2269M	7/13	Original version.
C2269M-A	11/13	Updated dome and alarm pin images. Caution and introductory text added. Revised Specifications and Installation sections. New back box and trim ring for Indoor, In-Ceiling models.
C2269M-B	9/14	Added SD card requirements to support local storage. Updated MAC label quantity and template printing instructions.

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