

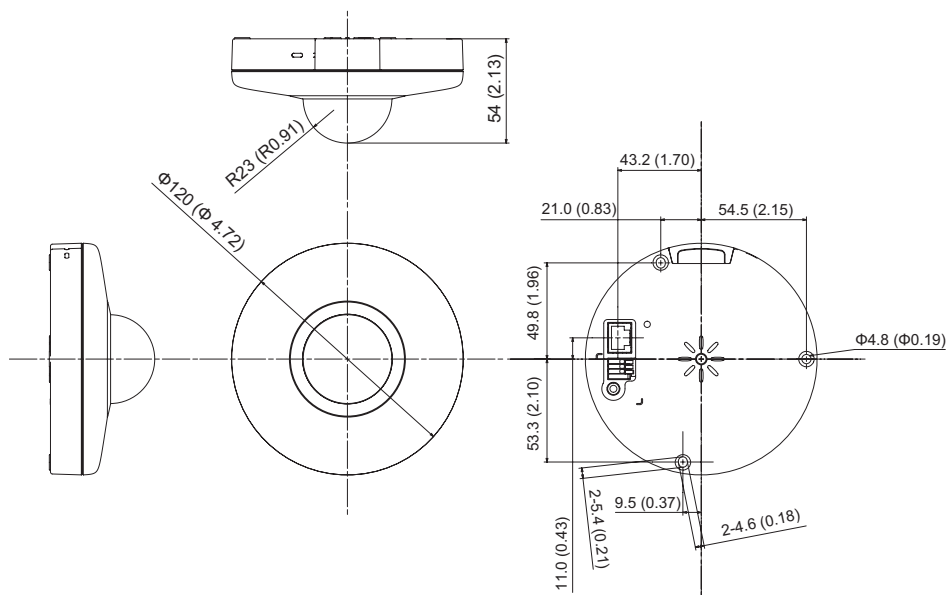
Canon

Network Camera

VB-S32D/VB-S820D

Installation Guide

EN



Unit: mm (in.)

Please be sure to read the "Safety Precautions" section for correct use.

Caution

Request a professional installer for all installation work. Never try to install the camera yourself. Doing so may result in unforeseen accidents such as dropping the camera or electric shock.

Some cameras are not available in certain countries or regions.

Introduction

Included Items

Camera	Safety Wire, Screw (M4) x 1
Template	Printed Materials

User Manuals

■ Types of User Manuals

The following describes the different camera user manuals.

Installation Guide (this document)

This describes precautions and procedures for installing the camera.

Operation Guide

This explains the camera initial settings, camera viewer operations, settings on the Settings page, and troubleshooting, etc.

Specifications

This lists the camera specifications.

■ Notes

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The contents of this document are subject to change without any prior notice.

This document has been prepared with the utmost attention to accuracy. If you have any comments, however, please contact a Canon sales representative.

Canon shall assume no liability for any outcome of using this product, notwithstanding items listed above.

■ Symbols Indicating Camera Models

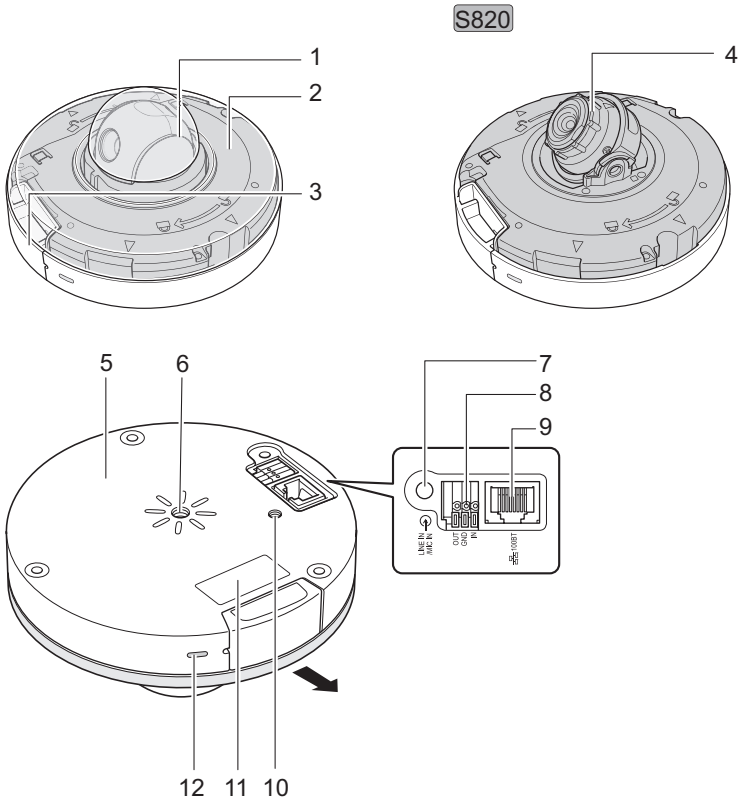
Explanations that differ depending on the camera model are indicated by the camera name and the following symbols.

S32: VB-S32D **S820**: VB-S820D

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- microSD, microSDHC, and microSDXC logos are trademarks of SD-3 C, LLC.
- All other company or product names used in this document are trademarks or registered trademarks of their respective holders.

Part Names



1. Camera head
2. Top cover
3. Memory card cover
4. Rotation dial **S820**
5. Rating label
6. Tripod mounting screw hole*¹
7. Audio input terminal
8. External device I/O terminals
9. 100 Base-TX LAN connector
10. Safety wire mounting section
11. Label*²
12. LED

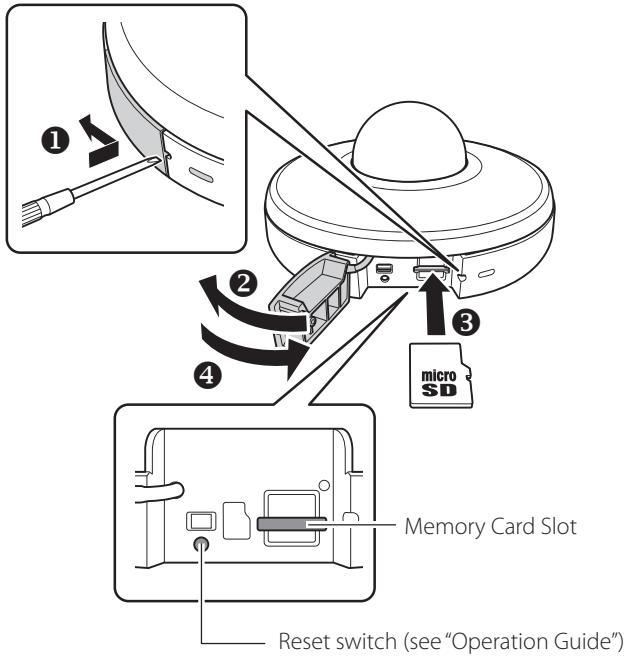
* 1: A 1/4-20 UNC tripod mounting screw less than 5.5 mm (0.22 in.) in length will fit the screw hole.

* 2: It is recommended to write down the serial number and MAC address.

Before Installing the Camera

When Using a Memory Card

Insert a memory card before installing the camera.

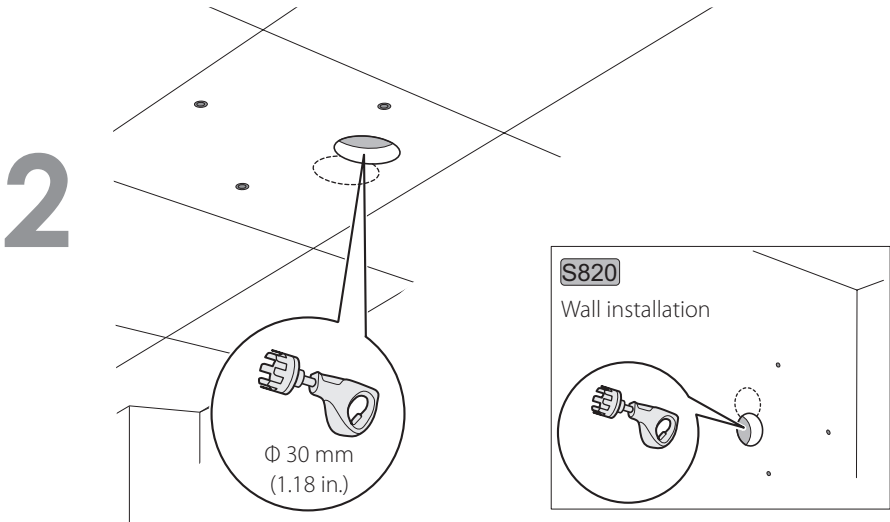
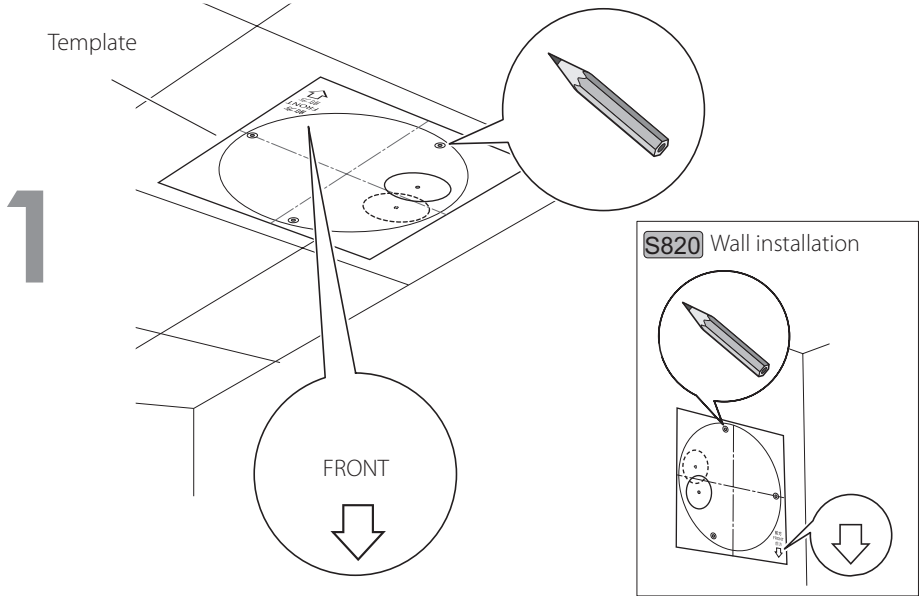


To remove the memory card, push it in all the way until the card slightly pops out and remove.

In this document, memory cards that can be used with the camera is referred to as "memory card".

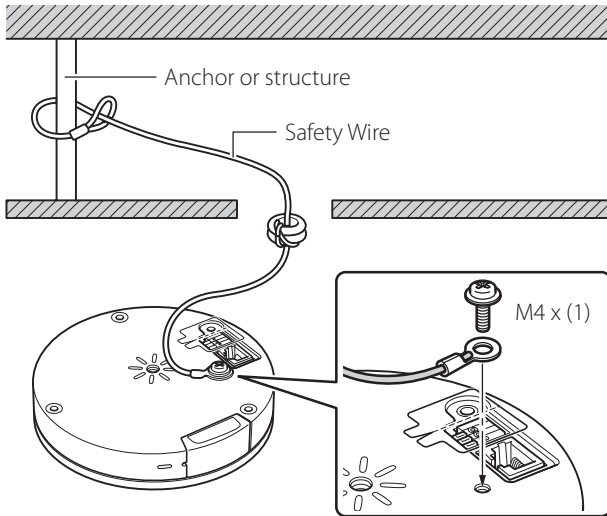


Installing the Camera



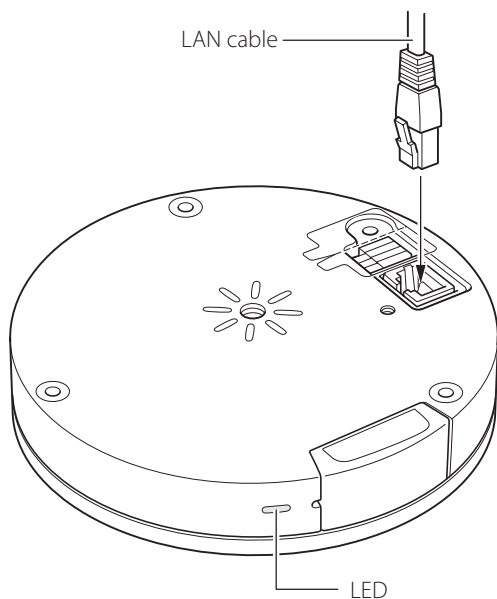
III Installing the Camera

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4 Installing the Camera

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For power supply, refer to "Power Supply" (P. 12) .

For network terminal, refer to "Interface" (P. 16)

LED

LED	Status
On	When power supply is on, restarted, or in normal use (when set to "ON"*)
Blinking	Updating the firmware, or initializing settings
Off	Lights up for a few seconds at startup, then turns off (when set to "OFF"*)

* Refer to "Operation Guide"



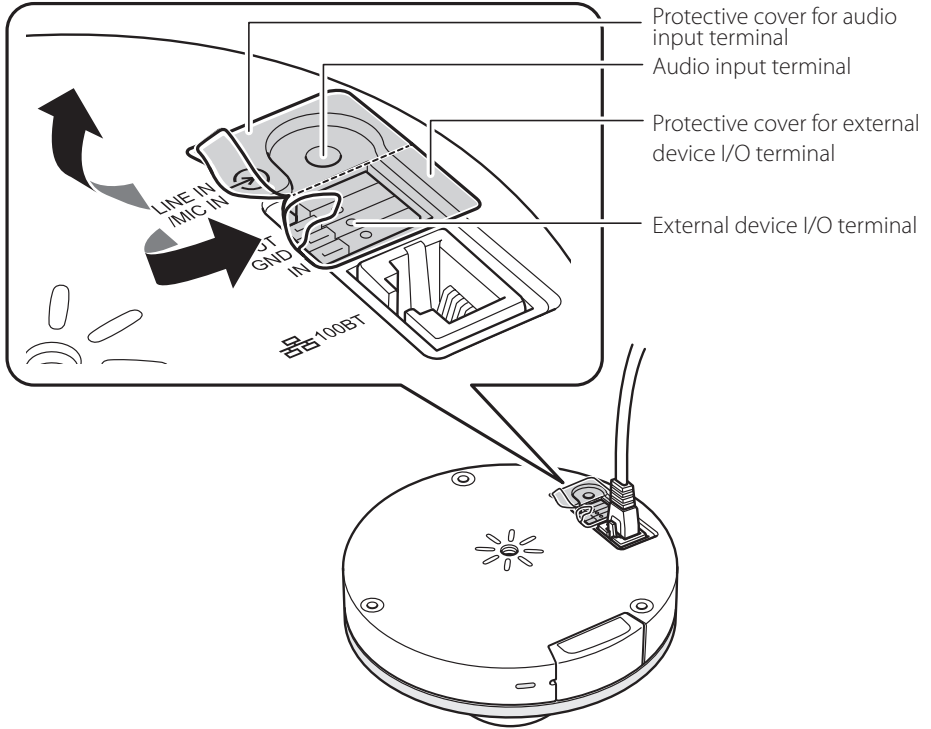
Important S32

- The camera head will move and make noise when the power is turned on.
- Do not touch the camera head.
- After the head stops moving, mount the camera.

Installing the Camera

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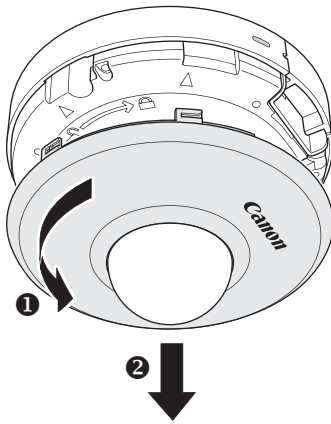
If using the External Device Terminal or Audio Terminal



Refer to "Audio Input Terminals Common for LINE IN/MIC IN" (P. 14) for details.

Installing the Camera

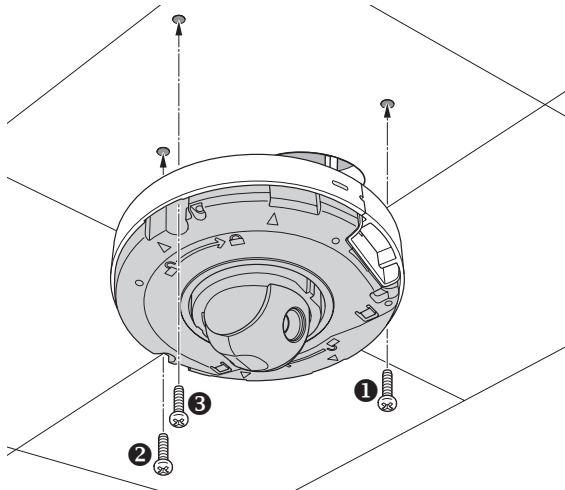
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S32



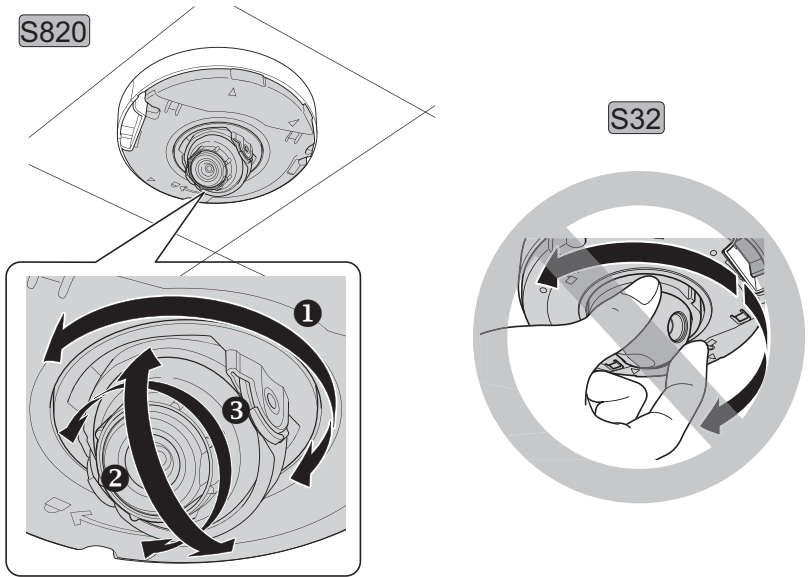
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Be sure to prepare mounting screws separately.
(Nominal diameter: M4, Head Shape: pan, x 3)

||| Installing the Camera

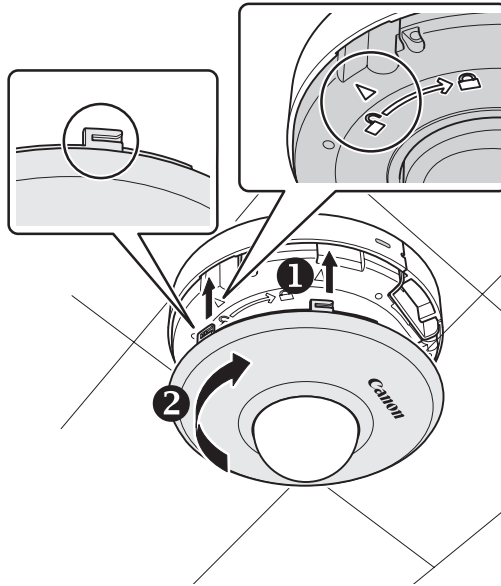
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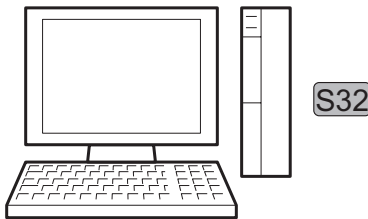
Important S820

- Ghosts may appear on the screen depending on the external light angle of incidence. Perform fine adjustment of the camera orientation.

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Adjust the camera angle on the Settings page. (Refer to “Operation Guide”)



Important S32

- Ghosts may appear on the screen depending on the external light angle of incidence. Perform fine adjustment of the camera orientation.

Connecting the Camera

Power Supply

For details, refer to “Other” > “Power Supply”(P. 17) .

For PoE powered devices, check with a Canon's sales representative.

Some PoE devices allow power limits for each port, but applying limits may interfere with performance. In this case, use without any restrictions.

Some PoE devices have total consumption power limits for ports, which can interfere with performance when multiple ports are in use. For more information, check the instruction guide of the PoE device.

External Device I/O Terminals

The External Device I/O Terminal consists of three terminals (IN, OUT, and GND). The GND terminal serves as both the external device input GND and the external device output GND.

The GND terminal is connected to the camera's interior GND.

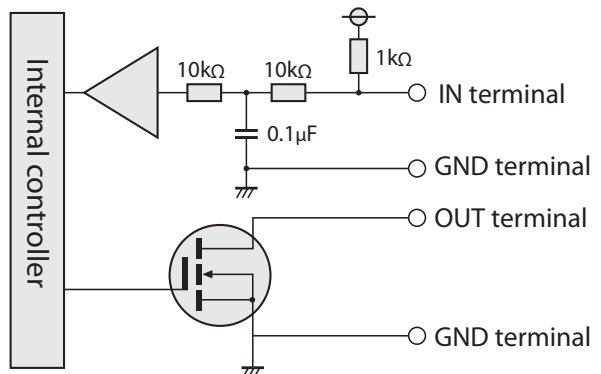
When using the external device input and output at the same time, couple the GND wire from the input cable with the GND wire from the output cable, conforming to the wire range, and connect it to the GND terminal.



Important

- Do not push the external device I/O terminal button with too much force. Doing so may cause the button to remain pushed-in.

Internal Connection Diagram



Connecting the Camera

External Device Input Terminal

The external device input terminal consists of an IN terminal and a GND terminal. Connecting wires to the IN and GND terminals and opening or closing the circuit notifies the Viewer.



Important

- When connecting sensors and switches, use those that have terminals which are isolated from internal power and GND.

External Device Output Terminals

The external device output terminal consists of an OUT terminal and a GND terminal. Controls from the viewer can be used to open and close the circuit between the two terminals. A MOSFET device is used for the output terminal.

Rating range of load connected to the external device output terminals

Rating between terminals	Maximum voltage 50 V DC
	Continuous load current at or below 100 mA
	On resistance: Below 1 Ω

Wires suitable for external device cables

Usable wire range (same for contact input and output)	Solid wire/Stranded wire AWG: No. 26 – 20 Stripped cable length should be approximately 11 mm (0.43 in.)
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Audio Input Terminals Common for LINE IN/MIC IN

Camera has a single audio input system supporting two types of microphone input: LINE IN and MIC IN. Before use, change [Audio Input Mode] on the Setting page (refer to the "Operation Guide"). LINE IN is selected by default.

- When Dynamic MIC IN is set
Input impedance: $1.5\text{ k}\Omega \pm 50\%$
- When Condenser MIC IN is set
Input impedance (microphone bias resistance): $2.2\text{ k}\Omega \pm 20\%$
Microphone power supply: plug-in power (voltage: 2.1 V)
* Supported microphones: Condenser microphones with plug-in power support
- When LINE IN is set
Input level: up to 1 Vp-p
* Use a microphone with an amplifier

Accessories

The following dedicated accessories can be purchased separately as necessary. (Some accessories are not available in certain countries or regions.)

Pendant Mounting Kit PC30-VB

Dedicated accessory used to install the camera to the end of pipe that extends from high ceilings, such as in big-box stores.

Surface Mounting Spacer SS30-VB

Dedicated accessory used to install a camera without having to drill any holes in the wall or ceiling for cables.

Junction Box Mounting Kit PS30-VB

Dedicated accessory used to install a camera using a junction box.

Plenum Mounting Kit SR30-P-VB

Dedicated accessory used to install the camera recessed into a ceiling. The part projecting out within the ceiling can be covered.

Specifications

For specifications not listed below, refer to Network Camera's "Specifications".

■ Camera

Lens	S32 3.5x optical zoom (4x digital zoom) lens with auto focus
	S820 Fixed focal length lens (4x digital zoom)
Angle of View	S32 For 16:9 aspect ratios Horizontal: 79.0° (W) – 20.9° (T) Vertical: 41.0° (W) – 11.7° (T) For 4:3 aspect ratios Horizontal: 56.1° (W) – 15.7° (T) Vertical: 41.0° (W) – 11.7° (T) S820 For 16:9 aspect ratios Horizontal: 98.2° Vertical: 62.0° For 4:3 aspect ratios Horizontal: 79.0° Vertical: 62.0°
Pan Angle Range	350°(±175°)
Tilt Angle Range	90° (ceiling-mounted position: -90° – 0°) – When the horizontal direction of the camera is 0°
Rotation Angle Range	S820 180°(±90°)

■ Interface

Network Terminal	LAN x 1 (RJ45, 100Base-TX (auto))
Audio Input Terminal (common for LINE IN & MIC IN)	Ø3.5 mm (Ø0.14 in.) mini-jack connector (monaural) (LINE IN or MIC IN)
External Device I/O	Terminal Input x 1, Output x 1
Memory Card	microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card Supported. – Class 10 recommended.

Specifications

Others

Operating Environment	Temperature: PoE: -10°C – +45°C (+14°F – +113°F) Humidity: 5% – 85% (without condensation)
Storage Environment	Temperature: -30°C – +60°C (-22°F – +140°F) Humidity: 5% – 90% (without condensation)
Power Supply	PoE: PoE power supply via LAN connector (IEEE802.3at Type1 compliant)
Power Consumption	S32 PoE: Max. approx. 6.7 W* * Class 0 power sourcing equipment (requests 15.4 W) S820 PoE: Max. approx. 4.0 W* * Class 2 power sourcing equipment (requests 7.0 W)
Weight	S32 Approx. 270 g (9.6 oz.) S820 Approx. 240 g (8.5 oz.)

Safety Precautions



Warning

Failure to follow the instructions may result in death or serious injury.

Do not install in the following places:

- Places in direct sunlight, near heat-generating objects, or locations subject to high temperatures
- Places near fire sources or flammable solvents (alcohol, thinner, fuel, etc.)
- Humid or dusty places
- Places subject to oil smoke or steam
- Places subject to sea air
- Confined or enclosed places

Failure to do so may result in fire or electric shock.

Notes on Power Supply

- Do not put heavy objects on, pull on, force bend, scratch or modify the LAN cable.

Failure to do so may result in fire or electric shock.

- If conditions such as smoke, strange sounds, heat or strange odors are discovered, immediately stop using the camera and contact a Canon's sales representative.

Continuing the use of the product may result in fire or electric shock.

- If thunder starts, stop installation or inspection etc. and do not touch the camera or the connecting cables.
- Do not disassemble or modify the camera.
- Do not damage the connecting cable.
- Do not get the camera wet.
- Do not insert foreign objects such as water or metal into the camera.
- Do not use flammable sprays near the camera.
- Do not leave the LAN cable connected when the camera is not in use for long periods.
- Do not use flammable solvents such as alcohol, thinner or benzine when cleaning the camera.

Failure to do so may result in fire or electric shock.

- This camera should not be used with medical devices or other life-support systems.
- Depending on the computer and network environment, high-precision video transmission cannot be guaranteed due to video latency or loss of video.

Canon will assume no liability for any accident or damage resulting from use of the camera under the conditions above.

||| Safety Precautions



Caution

Failure to follow the instructions may result in injury.

For installation or inspection of this camera, consult a Canon's sales representative.

- Network/power wiring should be made by a qualified service person and should conform to all local codes.
- When installing to a ceiling or wall, make sure the surface is capable of withstanding the total weight of the camera, accessories and any mounting screws etc., and sufficiently reinforce if necessary.
- Be sure to use mounting screws designed for the type of surface the camera is to be installed.
- Periodically check the parts and screws for rust and loosening, in order to prevent injuries and equipment damage due to falling items.

- Do not install in unstable places, places subject to significant vibration or impact, or places subject to salt damage or corrosive gas.
- Be sure to attach the safety wire that connects the camera to the structure when installing the camera.
- The included safety wire is for the camera. Take separate measures to prevent the mounting bracket from falling.

Failure to do so may result in the camera falling or other accidents.

- If there are metal edges, do not touch them with bare hands.
- Be careful not to get your fingers caught when installing.

Failure to do so may result in injuries.

S820

- Avoid touching for long time, a camera that has been powered.
- When removing the camera, turn off the power and allow the camera plenty of time to dissipate heat before starting work.

Failure to do so may result in low temperature burns.



Important

- Installation of a lightning arrester (a surge protection device) is recommended as a measure against failures caused by lightning strikes.
- **S32** Do not turn the camera head by hand.
- Do not install the camera on an unstable surface.
- **S32** Make sure the camera is installed $\pm 5^\circ$ or less from the horizontal position.
- After turning off the power, do not turn the power on again for at least five seconds.
- Take measures to remove static electricity before performing any procedures.
- If there is condensation, please wait to power on, until the condensation dissipates.

Disclaimer

- The user is responsible for compliance with all applicable laws and regulations governing privacy protection and publicity rights implicated by the use of this product. In some cases, camera and/or audio monitoring or recording may be restricted or prohibited by the law or regulation, the details of which differ by country and region. Before installing the product, users should consult the laws and regulations of their country and region, including state and/or local laws and regulations in such country and region, to ensure that the product is installed in a manner compliant with all applicable legal requirements. The microphone should not be used if required by local law or regulation. Do not install the product in any spaces where occupants or visitors may reasonably have an expectation of privacy, such as bedrooms, dressing rooms and rest rooms.
- The product should be installed in such a manner that it is clearly visible to all persons whose images and voices are monitored by the product. In addition, signage prominently displayed in close proximity to the product and clearly visible to all persons monitored by the product should inform such persons that the product records both their images and their conversations.
- Please be advised that Canon shall not be liable in any way in the event of a dispute between any user and any third party concerning the installation of the product or camera and/or audio monitoring or recording.

