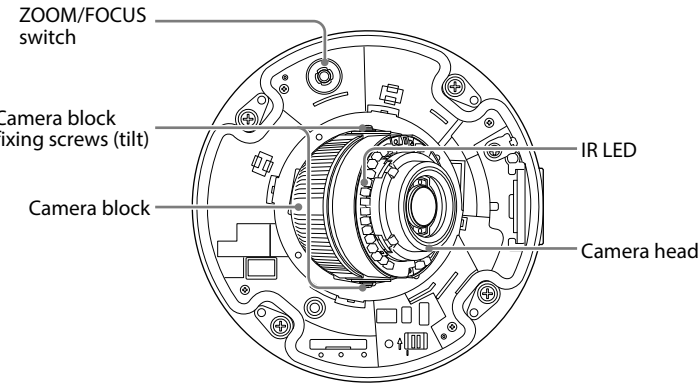
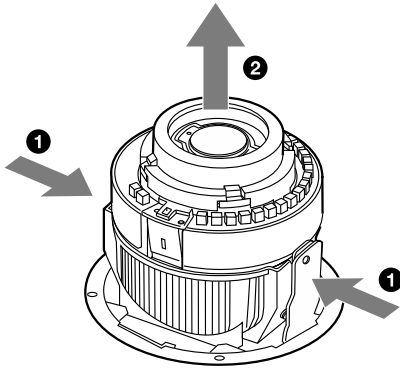


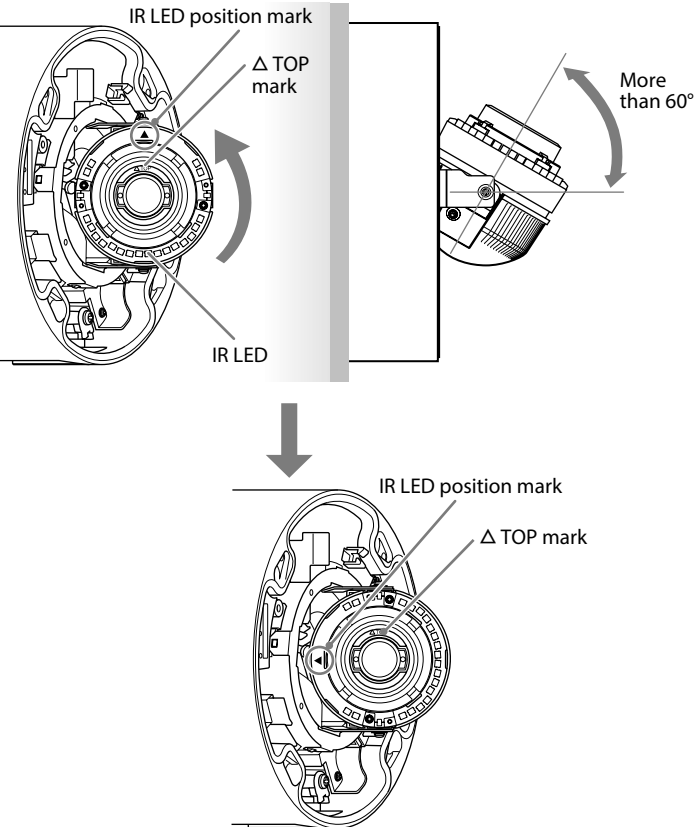
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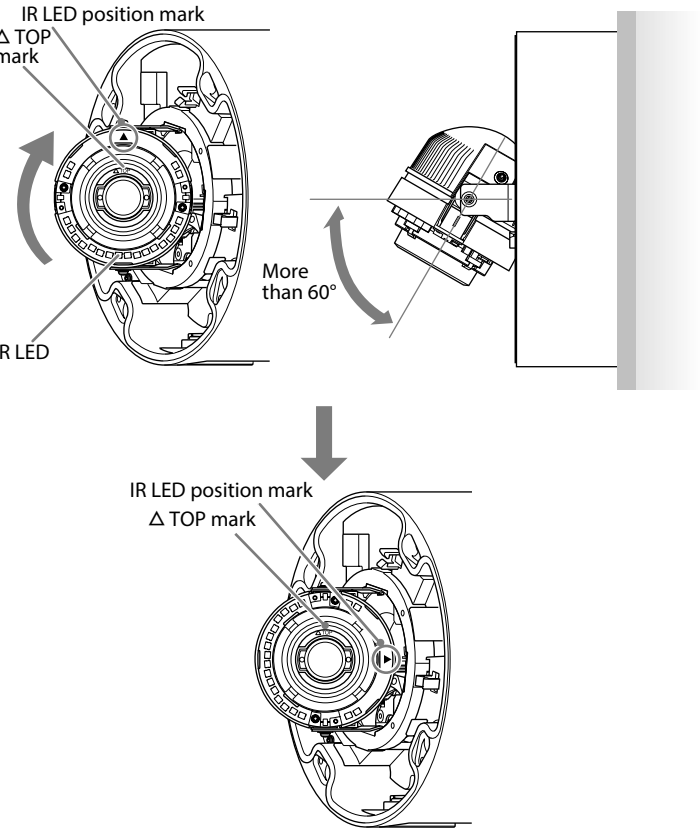
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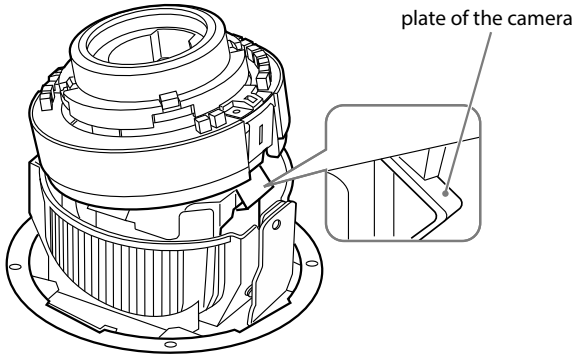
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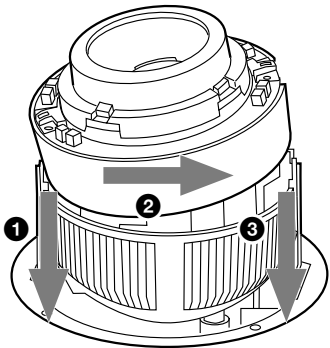
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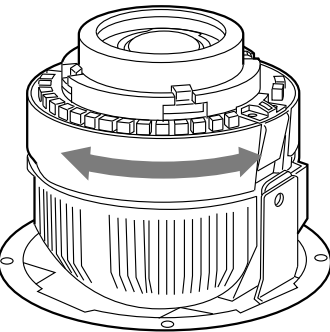
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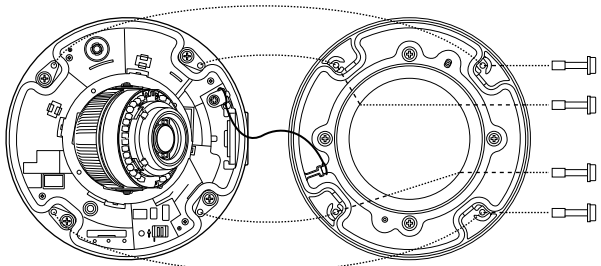
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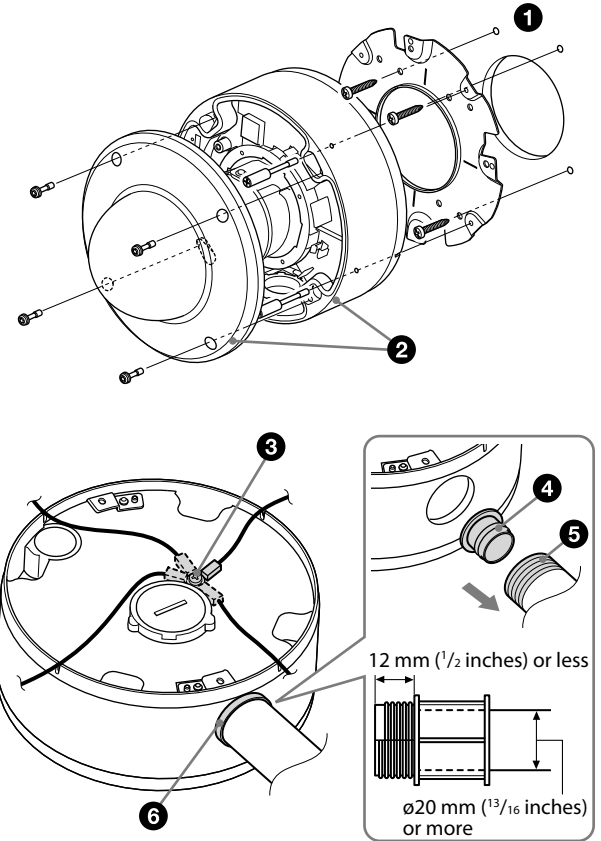
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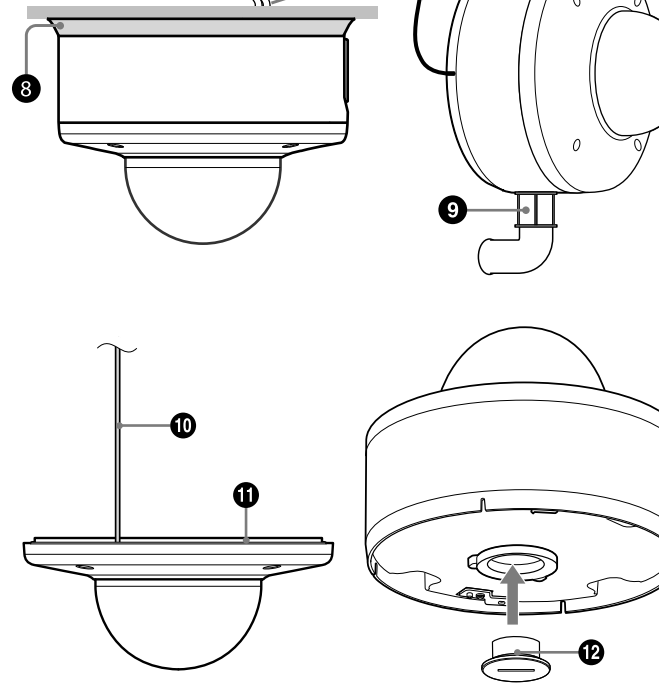
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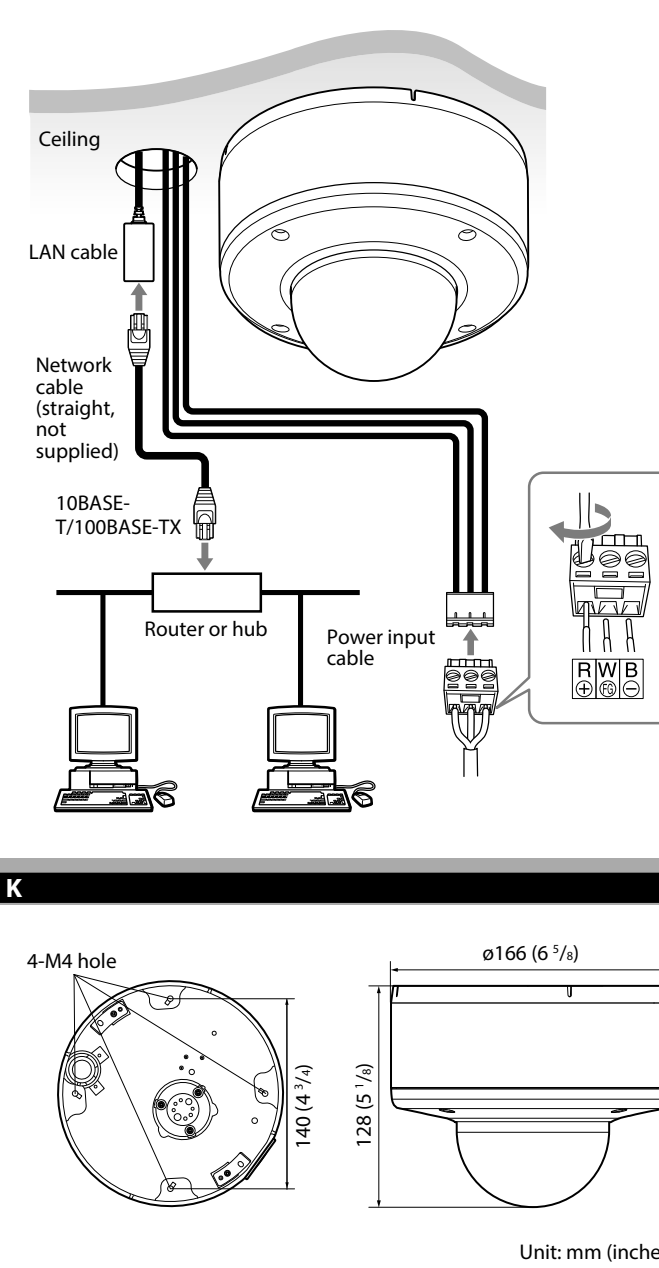
I



J



K



Adjusting the position of IR LED

G

You can adjust all tilt and rotation positions. There is no screw for rotation and Base(PAN) position. Turn the camera head to rotate the camera. You can invert the image by using the setting menu. 1 Loosen the camera block fixing screws. Loosen the two camera block fixing screws (tilt). 2 Adjust the camera to turn the lens in the desired direction. 3 If the camera is installed on the wall and the tilt angle is more than 60°, adjust the position of the IR LED depending on the following installation conditions (②-(1), ②-(2)). If the IR LED is blocked when the lens is pointed downwards, rotate the camera head 180°, then select the invert the image function from the setting menu to adjust the top and bottom position of the image. For other cases, use the camera in the factory default setting. ① Holding both sides of Base(PAN) (arrow ①), hold the black metal part on the camera head and pull up (arrow ②) to remove the camera head. (G-1)

Note

If the harness is removed from the connector, connect it to the connector, again. ② Turn the camera head clockwise or counterclockwise (90°) to adjust the position of the IR LED. The adjustment position will depend on the following installation conditions.

- (1) When the camera is pointing to your left (when you are facing in front of the camera) (G-2) Turn the camera head counterclockwise (90°) to move the I mark to "2" on the plate of the camera.
- (2) When the camera is pointing to your right (when you are facing in front of the camera) (G-3) Turn the camera head clockwise (90°) to move the I mark to "3" on the plate of the camera.
- ③ Holding Base(PAN), insert the camera head to the camera block. Before inserting the camera head, check if the clutches (two positions) on the camera head are outside of the plates of the camera. (G-4) (1) Slide one side of the camera head downwards (arrow ①), (G-5) (2) Pushing the camera head to the opposite direction (arrow ②), slide it downwards (arrow ③) and insert into the camera block. (G-5) (3) Tighten the two camera block fixing screws to fix the camera. Check if the camera head and camera block can be rotated smoothly clockwise and counterclockwise. (G-6)

Note

- The I mark is positioned to "1" on the plate of the camera at the factory. 4 Slide the ZOOM/FOCUS switch to W/T to adjust the angle of view. 5 Hold down ZOOM/FOCUS switch for a moment to adjust the focus automatically. 6 Repeat step 1 to 5 until the coverage and the focus are determined.

Notes

- If you do not follow the steps above to adjust the direction of the IR LED, IR LED working distance or the image quality may be affected due to the IR LED being blocked.
- When you insert the camera head to the camera block, be careful not to shut the harness between the clutch on the camera head and the plate on the camera.
- After you insert the camera head into the camera block, check if the clutches on the camera head (two positions) are inserted properly in the concave portion of the camera block.
- When you adjust the camera head angle without loosening camera block fixing screw, an internal part may be damaged.
- If you cannot achieve satisfactory focus by holding down the ZOOM/FOCUS switch due to the shooting environment, slide the ZOOM/FOCUS switch level to N/F to focus manually.
- Do not turn off this unit as soon as the focus is adjusted. Turn off after five minutes have passed since the focus was adjusted.
- Poor focus may also be caused by the dome case assembly. Readjust the focus using the system menu.
- For details, refer to the User's Guide of the equipment.
- When the dome casing is attached it may be visible in the monitor depending on zoom and rotation. Also, distortion might be observed in images shot outside the specified optical area.
- Do not turn the camera block fixing screws (tilt) more than 0.5 to 1 turn, as they may become loose and fall out.

Attaching the Dome Casing

H

Fix the dome casing and the camera unit. Align four screw holes on the dome casing with those on the camera unit, and tighten four screws with the supplied wrench to secure the dome casing.

Note

Make sure the safety cord does not get caught between the dome casing and camera unit. Rotate the cord and adjust the position of the cord.

Important precautions

I

- Despite the fact that this unit is rated IP66, this section includes important precautions to prevent any malfunction caused by condensation and/or water ingress. Read the precautions below thoroughly before installing the unit.
- Make sure that the cables and/or connectors of the unit that join to the ones of the installation surface are waterproofed, before you install the unit. Otherwise, there may be a risk of water entering the unit through these cables.
 - Install the bracket and the camera on an even ceiling or wall, etc. (II-1)
 - Install the camera properly, using the supplied screws, while referring to the Installation Manual. (II-2)
 - When feeding the wire rope through one of the wiring slits, fix the wire rope with the supplied screw to the hole on the bottom of the unit according to which wiring slit is used. (II-3)
 - Use the supplied cable holder (for conduit) or seal the inside of the pipe to prevent moisture (condensation) entering the pipe. (II-4)
 - Use a pipe/joint of 3/4 inches-14 NPT or M27 (2.0 mm (1/2 inches)-pitched) with a thread length of 12 mm or less, and an internal diameter is at least ø20 mm. Any threaded parts should be waterproofed with a sealant material. (II-5)
 - When connecting flanged pipe to the side conduit hole, seal all around the flange to prevent water entering. Otherwise water enters the unit through the gap between the flange and unit. (II-6)
 - The bottom of this unit is designed to be waterproof. However, in case b) or c) in the Preparations section, when connecting the cable to this unit, install this unit in a waterproof enclosure or on a waterproof ceiling to prevent water ingress. Alternatively, seal the bottom hole. (II-7) Cover the joint between the ceiling and the unit with a sealant material to prevent water ingress. (II-8)

Install the camera on a wall lengthwise.

- Position the side conduit hole downward to prevent water ingress from cables. (II-9)
- In an environment of high temperature and exposed to direct sunlight, install a SNCA-WP602 Weather protector (not supplied). The Weather protector can also protect against rain and snow.

Notes on assembly

- Make sure the safety cord does not get caught between the dome casing and camera unit. (II-10)
- Before attaching the dome casing to the camera unit, make sure the waterproof rubber gasket is clean and fits in the groove of the joint surface properly. (II-11)
- Before attaching the conduit hole cover to the bottom hole, make sure the waterproof rubber gasket is clean and fits in the groove properly. (II-12)

Connection

Connecting to the Network

J

Connect the LAN port of the camera to a router or hub in the network using a commercially available network cable (not supplied).

Connecting the Power Source

- There are three ways to supply the power source to this camera, as follows.
- 12 V DC
 - 24 V AC
 - Power supply equipment pursuant to IEEE802.3af/at (PoE/PoE+ system)
- *PoE means Power over Ethernet.

Notes

- Do not turn off the camera immediately after turning it on. Wait for at least five minutes before turning off the camera.
- Do not connect the power input cable if power is supplied by a PoE system.
- When power is supplied by IEEE802.3af (PoE) equipment, do not set the HEATER (EN/EN) switch to EN.

Connecting to 12 V DC or 24 V AC source

- Connect the power input cable of the camera to a 12 V DC or 24 V AC source.
- Use a 12 V DC or 24 V AC source isolated from 100 to 240 V AC. Each usable voltage range is as follows. (Assured range of the voltage the camera is receiving (receiving-end voltage))
 - 12 V DC: 10.8 V to 13.2 V
 - 24 V AC: 19.2 V to 28.8 V
 - In the USA, The product shall be powered by a UL Listed Class 2 Power Supply Only.
 - In Canada, The product shall be powered by a CSA certified Class 2 Power Supply Only

- Use UL cable (VW-1 style 10368) for these connections.

Recommended cable

When the receiving-end voltage of the camera is 12 V DC:			
CABLE(AWG)	#14	#16	#18
Max. length(m)	24	15	9

When the receiving-end voltage of the camera is 24 V AC:			
CABLE(AWG)	#20	#22	#24
Max. length(m)	100	63	39

Connecting to the power supply equipment pursuant to IEEE802.3af/at

The power supply equipment pursuant to IEEE802.3af/at supplies the power through a commercially available network cable. For details, refer to the Instruction Manual of the equipment.

Note

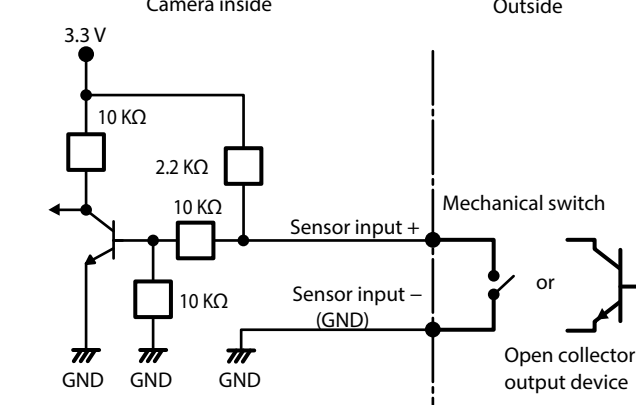
If you connect the camera to power supply equipment pursuant to IEEE802.3at, the equipment may limit the power supply and the camera may stop operating. For details, refer to the instruction manual of the power supply equipment.

Connecting the I/O Cable

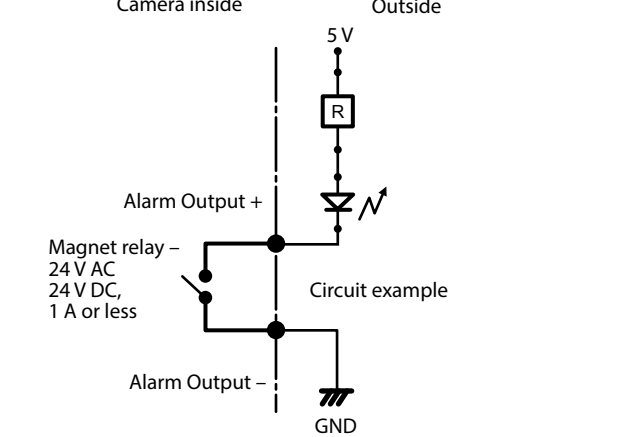
Connect the wires of the I/O cable as follows:

Wiring diagram for sensor input

Mechanical switch/open collector output device



Wiring diagram for alarm output



Specifications

Compression	
Video compression format	JPEG/H.264
Audio compression format	G.711/G.726/AAC
Maximum frame rate	60 fps
Camera	
IR LED	20 pcs
IR working distance	30 m (50 IRE)
Signal system	NTSC color system/PAL color system (switchable)
Image device	SNC-VM602R 1/3type CMOS (Exmor) Effective picture elements: Approx. 1,370,000 SNC-VM632R 1/2.9type CMOS (Exmor) Effective picture elements: Approx. 2,140,000 Internal synchronization SNC-VM602R: 600 TV lines (analog video) SNC-VM632R: 700 TV lines (monitor display ratio 4:3)
Video S/N	More than 50 dB (Auto gain control maximum rate 0 dB)
Minimum illumination	F1.2/View-DR Off/VE* Off/Auto gain control maximum rate MAX/50 IRE (IP)/30 fps SNC-VM602R Color: 0.05 lx Black & White: 0 lx (IR ON) SNC-VM632R Color: 0.10 lx Black & White: 0 lx (IR ON)
* VE stands for Visibility Enhancer.	
Lens	
Focal length	3.0 mm to 9.0 mm
Maximum relative aperture	F1.2 ~ F2.1
View angle	SNC-VM602R: 1280 × 1024 (aspect ratio 5:4) Vertical: 73.1° to 25.5° Horizontal: 92.9° to 31.8° SNC-VM632R: 1920 × 1080 (aspect ratio 16:9) Vertical: 56.9° to 20.1° Horizontal: 105.3° to 35.6°
Minimum object distance	300 mm
Interface	
LAN port (PoE/PoE+)	10BASE-T/100BASE-TX, auto negotiation (RJ-45)
I/O port	Sensor input: × 2, make contact, break contact Alarm output: × 2 (maximum 24 V AC/DC, 1A) (mechanical relay outputs electrically isolated from the camera)
SD memory card slot	VIDEO OUT: BNC, 1.0 Vp-p, 75 ohms, unbalanced, sync negative
Video output	Minijack (monaural)
Microphone input*	Plug-in-power supported (rated voltage: 2.5 V DC) Recommended load impedance: 2.2 kΩ Minijack (monaural)
Line input*	* The microphone input and the line input are switchable with operating menu.
Line output	Minijack (monaural), Maximum output level: 1 Vrms
Others	
Power supply	12 V DC ± 10% 24 V AC ± 20%, 50 Hz/60 Hz IEEE802.3at compliant (PoE/PoE+ system)
Power consumption	Max. 22W (AC 24 V/DC 12 V, heater enable) Max. 18W (IEEE802.3at (PoE+), heater enable) Max. 12.8W (IEEE802.3af/at (PoE/PoE+), heater disabled)
Operating temperature	Start temperature: -30°C to +60°C (-22°F to +140°F) (IR OFF, heater enable) -30°C to +50°C (-22°F to +122°F) (IR ON, heater enable) 0°C to 60°C (32°F to 140°F) (IR OFF, heater disable) 0°C to 50°C (32°F to 122°F) (IR ON, heater disable) Working temperature: -40°C to +60°C (-40°F to +140°F) (IR OFF, heater enable) -40°C to +50°C (-40°F to +122°F) (IR ON, heater enable) -10°C to +60°C (14°F to 140°F) (IR OFF, heater disable) -10°C to +50°C (14°F to 122°F) (IR ON, heater disable) -20°C to +60°C (-4°F to +140°F)
Storage temperature	20% to 90%
Operating humidity	20% to 95%
Storage humidity	
Dimensions (diameter/height)	166 mm × 128 mm (6 5/8 inches × 5 1/8 inches), not including the projecting parts Approx. 1,730 g (3 lb 13 oz), not including the bracket
Mass	CD-ROM (supplied programs) (1), Bracket (1), Template (1), Wire rope (1), LAN cable holder (1), Camera unit mounting screws (4), Screw ④ M4 × 8 (2), Wrench (1), Installation Manual (this document) (1 set), Safety Regulations (1 set), Cable holder (for conduit) (1)
Supplied accessories	

Optional accessory

In-ceiling bracket VTF-ICB45*
* Use the fixture position ① on the bracket.
Weather protector SNCA-WP602

Design and specifications are subject to change without notice.

Recommendation of Periodic Inspections

In case using this device over an extended period of time, please have it inspected periodically for safe use. It may appear flawless, but the components may have deteriorated over time, which may cause a malfunction or accident. For details, please consult the store of purchase or an authorized Sony dealer.