

## Installation

### WARNING

- If you attach the camera in the height such as the wall or the ceiling, etc., entrust the installation to an experienced contractor or installer.
- If you install the camera at a height, ensure that the installation location and its material are strong enough to withstand a weight of 15 kg (33 lb 1 oz) or more, and then install the camera securely. If they are not strong enough, the camera may fall and cause serious injury. If the ceiling is not strong enough, the camera may fall and cause serious injury.
- To prevent the camera from falling, make sure to attach the supplied wire rope.
- If you attach the camera to a high location, check periodically, at least once a year, to ensure that the connection has not loosened. If conditions warrant, make this periodic check more frequently.

### Deciding the Installation Location of the Camera

After deciding the direction in which the camera will shoot, make the required hole (ø40 mm (1 23/64 inches)) for the connecting cables using the supplied template. Then decide the four mounting hole positions to install the camera stand.

### Mounting screws

The camera stand is provided with four ø4.5 mm (7/64 inch) mounting holes. Install the camera stand on a ceiling or wall with screws through four mounting holes: The required mounting screws differ depending on the installation location and its material. (Mounting screws are not supplied.)

- Steel wall or ceiling:** Use M4 bolts and nuts.
- Wooden wall or ceiling:** Use M4 tapping screws. The panel thickness must be 15 mm (5/8 inch) or more.
- Concrete wall:** Use anchors, bolts and plugs suitable for concrete walls.
- Junction box:** Use screws to match the holes on the junction box.

### WARNING

The required mounting screws differ depending on the installation location and its material. If you do not secure the camera with the appropriate mounting screws, the camera may fall off.

### Installing the Camera

- Pass all the signal cables through the hole for the cables made at the installing surface.
- Fix the supplied wire rope to the camera unit and the ceiling or wall.
  - Fix the wire rope with the supplied Screw ⊕ M4 × 8 to the hole for the wire rope on the camera stand.
  - Fix the wire rope to the ceiling or wall.
- Install the camera on the ceiling or wall
  - Insert the four screws to the screw holes on the camera stand, and then tighten the screws to attach the camera.
  - When installing the camera on the wall, be sure the **TOP** mark on the camera stand is at top.
  - Refer to "Mounting screws" for screw to be used.

### Note

If you install the camera unit in an inverted position (on a ceiling, for example), take adequate waterproofing measures to prevent water seepage into the upper side of the stand.

### Adjusting the Camera Direction and Coverage

- Loosen the camera head fixing screw with the supplied wrench.
- Adjust the camera to turn the lens in the desired direction.
- Tighten the camera head fixing screw with the supplied wrench to fix the camera.
- Loosen the retaining screw with the supplied wrench to open the control panel cover.
  - The zoom indicator is displayed on the monitor.
- Adjust the zoom by the Zoom buttons.
- Press the Easy Focus button to automatically adjust the focus.
- Close the control panel cover and Tighten the retaining screw with the supplied wrench.
- Repeat steps 1 to 5 until the coverage and the focus are determined.

### Notes

- When you adjust the camera head angle without loosening camera head fixing screw, an internal part may be damaged.
- If the camera head is too heavy to be adjusted, loosen the camera head fixing screw until it moves freely.
- If you cannot achieve satisfactory focus with the Easy Focus button due to the shooting environment, use the Focus buttons to focus manually. The focus indicator is displayed on the monitor.

## Connection

### Connecting to the Network

Connect the LAN cable of the camera to a router or hub in the network using the network cable (straight, not supplied).

### To connect to a computer

Connect the LAN cable of the camera to the network connector of a computer using the network cable (cross, 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 (PoE) system

\*PoE means Power over Ethernet.

### Note

If the power is supplied from the power input cable and LAN cable at the same time, the power from the LAN cable has priority over the other.

### 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 ranges are as follows.
    - 12 V DC: 10.8 V to 13.2 V
    - 24 V AC: 21.6 V to 26.4 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**

DC 12 V:

CABLE(AWG)	#24	#22	#20
Max. length(m)	3	5	8

AC 24 V:

CABLE(AWG)	#24	#22	#20
Max. length(m)	12	21	30

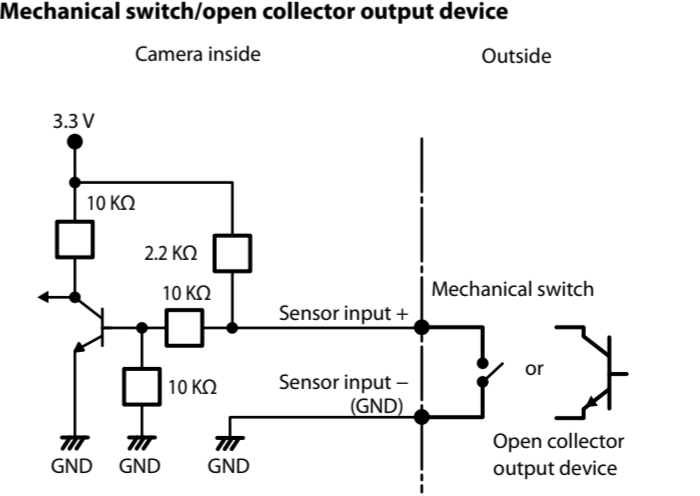
### Connecting to the power supply equipment pursuant to IEEE802.3af

The power supply equipment pursuant to IEEE802.3af supplies the power through the LAN cable. For details, refer to the Instruction Manual of the equipment.

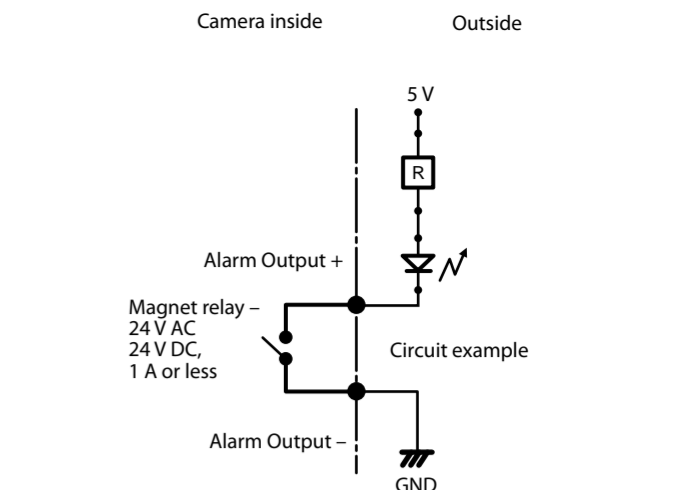
### Connecting the I/O Cable

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

### Wiring diagram for sensor input



## Wiring diagram for alarm output



## Specifications

Compression	JPEG/MPEG4/H.264 G.711/G.726 (40, 32, 24, 16 kbps) SNC-CH180: H.264: 30 fps (1280 × 720) SNC-CH280: H.264: 30 fps (1920 × 1080)
<b>Camera</b>	
IR LED	27 pcs
IR working distance	SNC-CH180: 30 m (50 IRE) SNC-CH280: 30 m (50 IRE)
Signal system	NTSC color system/PAL color system (switchable)
Image device	SNC-CH180: 1/3 type CMOS (Exmor) Effective picture elements: Approx. 1,390,000 SNC-CH280: 1/2.8 type CMOS (Exmor) Effective picture elements: Approx. 3,270,000
Synchronization	Internal synchronization
Horizontal resolution	600 TV lines (analog video)
Video S/N	More than 50 dB (AGC 0 dB)
Minimum illumination	SNC-CH180: F1.2/View-DR Off/VE Off/AGC High/XDNR Middle/ 50 IRE (IP) Color 0.22 lx Black & White 0 lx (IR On) SNC-CH280: F1.2/View-DR Off/VE Off/AGC High/XDNR Middle/ 50 IRE (IP) Color 0.40 lx Black & White 0 lx (IR On)
<b>Lens</b>	
Focal length	3.1 mm to 8.9 mm
Maximum relative aperture	F1.2 ~ F2.1
View angle	SNC-CH180: Vertical: 67.4° to 25.0° (1280 × 1024) Horizontal: 85.4° to 31.2° SNC-CH280: Vertical: 65.2° to 24.2° (1920 × 1440) Horizontal: 88.5° to 32.3°
Minimum object distance	300 mm
<b>Interface</b>	
LAN port	10BASE-T/100BASE-TX, auto negotiation (RJ-45)
I/O port	Sensor input : × 1, make contact, break contact Alarm output : × 2, 24 V AC/DC, 1 A (mechanical relay outputs electrically isolated from the camera)
Video output	VIDEO OUT: BNC, 1.0 Vp-p, 75 ohms, unbalanced, sync negative
Microphone input*	Plug-in-power supported (rated voltage: 2.5 V DC) Recommended load impedance: 2.2 kΩ Minijack (monaural)
Line input*	Minijack (monaural)
Line output	Minijack (monaural), Maximum output level: 1 Vrms
<b>Others</b>	
Power supply	12 V DC ± 10% 24 V AC ± 10%, 50 Hz/60 Hz IEEE802.3af compliant (PoE system)
Power consumption	SNC-CH180: 30 W max. SNC-CH280: 33 W max.
Operating temperature (AC 24 V and DC 12 V)	Start temperature: -20°C to +50°C (-4°F to +122°F) Working temperature: -30°C to +50°C (-22°F to +122°F)
Operating temperature (IEEE802.3af (PoE SYSTEM))	Start temperature: 0°C to 50°C (32°F to 122°F) Working temperature: -10°C to +50°C (14°F to 122°F)
Heater operation	Supported only by 24V AC, 12V DC, (24V AC+PoE) or (12V DC+PoE) (IEEE802.3af (PoE SYSTEM) : supply only to Camera operation)
CF card operation	Supported only by 24V AC, 12V DC, (24V AC+PoE) or (12V DC+PoE) (IEEE802.3af (PoE SYSTEM) : supply only to Camera operation)
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Operating humidity	20% to 80% (Non-condensing)
Storage humidity	20% to 95%
Dimensions (camera body)	ø93 mm × 186 mm (3 3/8 inches × 7 3/8 inches) not including the projecting parts
Mass	Approx. 1.9 kg (4 lb 3.0 oz)
Supplied accessories	CD-ROM (User's Guides, and supplied programs) (1), Template (1), Wire rope (1), Screw ⊕ M4 × 8 (1), Wrench (1), Installation Manual (this document) (1 set)

### Optional accessories

- Wireless Card SNCA-CFWS\*
- \* SNCA-CFWS is not available in some countries and areas. For details, contact your authorized Sony dealer.

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.