

OMRON

Model FHV7H- - -

Model FHV7X- - -

Smart Camera

INSTRUCTION SHEET

Thank you for selecting OMRON product. This sheet primarily describes precautions required in installing and operating the product.

Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convenience, keep the sheet at your disposal.

TRACEABILITY INFORMATION: Importer in EU: OMRON Europe B.V., Wegalaan 67-69, NL-2132 JD Hoofddorp, The Netherlands

Manufacturer: OMRON Corporation, Shiohji Horikawa, Shimogyo-ku, Kyoto. 600-8530 JAPAN

The following notice applies only to products that carry the CE mark:



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Safety Precautions

Meaning of signal words

Table with 2 columns: Signal word (WARNING, CAUTION) and Description of the hazard.

Meanings of Alert Symbols

Table with 2 columns: Alert symbol and its meaning (General Prohibition, General Caution, Electrical Hazard, LED light, High Temperature Caution).

Alert statements in this Manual

Table with 2 columns: Alert symbol (WARNING, CAUTION) and the corresponding alert statement.

Table with 2 columns: Alert symbol (CAUTION) and the corresponding caution statement.

PRECAUTIONS FOR SAFE USE

Please observe the following precautions for safe use of the products. 1. Installation Environment - Do not use the product in areas where flammable or explosive gases are present.

3. Mounting - When doing the following, be sure to turn OFF the power of the smart camera main unit or connected peripheral devices. -Cable connection and wiring -Connector mounting/removal -Lighting module mounting/removal -Lens module mounting/removal -Tighten the mounting screws...

PRECAUTIONS FOR CORRECT USE

In order to prevent the product from becoming inoperable or malfunction, and to prevent other adverse effects to the performance or equipment, please observe the following.

- 1. An installation location that meets the following conditions. -A location where the ambient temperature and relative humidity exceed the rated range. -A location where the temperature does not vary sharply (condensation occurs).

- 2. Power supply, connection, and wiring -If the power supply line has surge, connect a surge absorber according to the operational environment to use the product.

- If contacting a terminal or a signal cable inside the connector, use a wrist strap to take antistatic measures to prevent leakage due to static electricity. -Attach the cable straight with the terminal correctly aligned. Forcibly attaching the cable may bend the terminal, resulting in failure or communication error.

- 3. Maintenance -Turn OFF the power and confirm safety before starting maintenance. -Remove dirt on the lens using the special cloth for lens or an air brush. -If a large dust attaches to the image sensor, use the blower brush (for the camera lens) to blow it off. Do not blow it off with your exhaled air.

- 4. Optical axis -The optical axis may vary product by product. When mounting this module, be sure to confirm the center position of the video on the monitor. The optical axis of this product may vary over a couple of pixels due to the variation of ambient temperature because of the material characteristics.

- 5. Image sensor -For this product, a line may appear depending on the measurement condition or sensitivity because of the specification of the image sensor. However, this is not a fault or failure of the product. In addition, although there may be multiple defective pixels, this is not a fault or failure of the product.

- 6. Communication with upper equipment -Implement communication with upper equipment after confirming that this product has been started up. In addition, when this product is being started up, unstable signals may be issued by the upper interface. So, if operating this product initially, take action such as clearing the receiving buffer of the equipment used.

- 7. Warm-up -Turn ON the power and wait for 60 minutes or more before conducting precise inspection. The correct focus may not be achieved or may fluctuate right after power-on.

- 8. Camera installation -In an environment exposed to high humidity and sharp temperature fluctuation, the inside of the lighting cover may become cloudy in rare cases. If cloudy, remove the lighting cover and wipe off the inside with a soft cloth.

Part Names and Functions

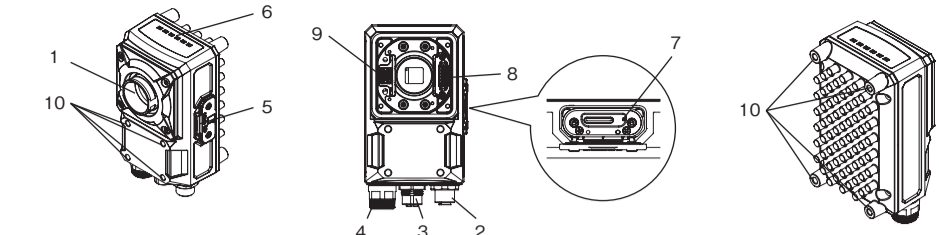


Table with 3 columns: No., Name, Function. Lists parts 1-10 and their functions.

Input circuit

Table with 3 columns: Item, Specifications, STEP. Details input voltage, current, and delay.

*1 ON voltage/ON current - A voltage value or current value that turn the input from OFF to ON.

Impotent - Chattering countermeasure. The smart camera has a chattering prevention function but incorrect input due to chattering cannot be prevented when chattering of 100 μs or longer occurs.

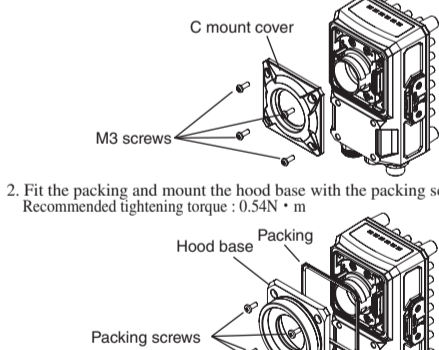
Output circuit

Table with 3 columns: Item, Specifications, and diagrams showing NPN and PNP circuit connections.

*1 When using the READY/BUSY/OR/ERROR signal, connect the COMOUT terminal. *2 When using the STGOUT/SHTOUT signal, connect the COMOUT and COMIN terminals.

How to Mount Water-proof Hood

1. Remove the C mount cover.



Package Contents

The following is packaged together with this product. Please confirm these items.

- Smart camera only -Smart camera main unit x 1 -Connector cap for Ethernet cable (attached to the main unit) x 1 -Connector cap for external lighting (attached to the main unit) x 1

- Smart camera with integrated lens module -Smart camera main unit x 1 -Connector cap for Ethernet cable (attached to the main unit) x 1 -Cover for FHV-LEM-□ (with attached to the main unit) x 1

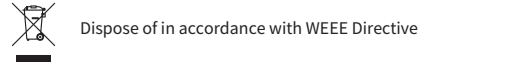
- Smart camera with integrated lens and lighting module -Smart camera main unit x 1 -Connector cap for Ethernet cable (attached to the main unit) x 1 -Connector cap for external lighting (attached to the main unit) x 1

Relevant Manuals

Table with 3 columns: No., Model, Manual name. Lists the Z408 FHV7-□□□□ Setup Manual.

Regulation of KC marking

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

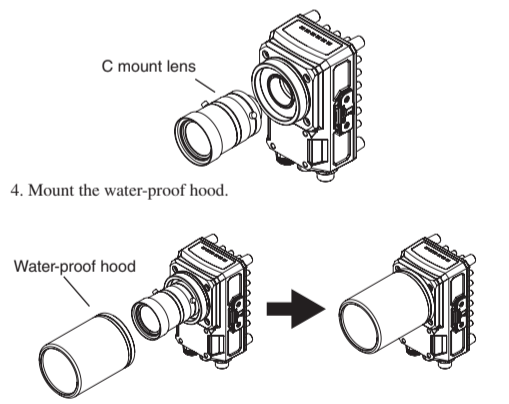


I/O Cable (FHV-VD) Wiring colors

Table with 3 columns: Signal name, Color, Stripe. Lists signal names like DC24V, 0V, COMIN, etc. and their corresponding colors.

* A = Available, N/A = Not available

3. Mount the C mount lens, focus on an image and secure it.



Suitability for Use

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS.

Table with 2 columns: OMRON Corporation (Kyoto, JAPAN) and Industrial Automation Company (Kyoto, JAPAN). Includes contact info and regional headquarters for Europe, Americas, and China.