PRECAUTIONS FOR USE

Please observe the following precautions to prevent failure to operate, malfunction, or undesirable effect.
1. Installation and storage of the product
   - Do not install in the following locations:
     - Locations where the ambient temperature exceeds the rated temperature range.
     - Locations where the ambient temperature changes (where condensation will form).
     - Locations where there are corrosive or flammable gases.
     - Locations where there is dust, salt, or iron powder.
     - Locations where the device is subject to direct vibration or shock.
     - Locations where there is strong scattered light.
     - Locations exposed to direct sunlight.
     - Locations where there is splashing of water, oil, or chemicals.
     - Locations where there is a strong electrical or magnetic field.
     - Locations close to high-voltage devices and/or power devices.
2. Cables
   - When connecting or disconnecting the camera cable or flash controller cable, be sure to turn off the controller unit.
   - Do not use the camera cable exceeding the specified length.
   - Up to three camera cables can be connected by using the extension unit FZ-VS3. Be sure to use the recommended camera cable with FZ-VS3.
   - When connecting the camera cable, tighten the cable with the fixing screw with the recommended torque (0.15 Nm). Applying excessive force to the camera connector may cause failure of the product.
   - Use the ferrite core equivalent to ZCA12035-090D (manufactured by TDK) at the controller side of the camera cable.
   - The camera cable FZ-VS3 has polarity. Be sure to connect the side with the name plate on it to the controller. Be sure to connect the side with the name plate on it to the controller.
3. Mounting
   - The camera case is connected to the 0 V line of the internal circuit. Observe the following precautions to prevent noise from entering the camera.
   - Do not ground the camera unit.
   - Be sure to use a base for installation. When mounting a base, engage it with the specified screw (M6x6) with the recommended torque (3.2 Nm).
   - When securing the camera using the mounting hole on the lens flange (front), be sure to perform installation.
4. Beam
   - The beam center may vary for each camera. Be sure to confirm the center position of the image using the monitor beam before mounting.
   - In the nature of the materials used, the beam center of this product may change for the number of pixels due to changes in ambient temperature.
5. Maintenance
   - Avoid using thinner, alcohol, benzene, acetone or kerosene to clean the product.
   - If there is large dirt or dust attached to the image element, blow them off with blower brush (for camera lens). Do not use your breath to blow the dust off.
   - When the lens is not mounted, be sure to attach the C-mount cap on the lens mount. If dirt or dust is attached to the image elements, false detection or failure may occur.
   - Be sure to attach a connector cap on unused connectors at the back of the camera. Removing the connector cap may cause a foreign material entering in the camera, causing false operation or failure.
   - Do not disconnect devices to the extension connector other than the dedicated ones (FL-TCC1 or FL-TCC3).
6. Imaging element
   - In the nature of imaging element, images may appear in images due to measurement conditions or sensitivities. This does not indicate a malfunction. Although there may be multiple faulty pixels, this does not indicate a malfunction. If these conditions affect measurement or inspection, use the CCD camera.

PRECAUTIONS FOR SAFE USE

Be sure to respect following items for safety.
1. Tighten all screws securely during installation.
2. Do not connect the Sensor to the products other than the dedicated camera cable (FZ-VS3), controller (FH), electronic flash controller (FL-TCC1 and FL-TCC3), extension unit (FZ-VS3). If the Sensor is connected to non-dedicated products and turned the power on, the devices may be damaged and be heated to a high temperature.
3. If you suspect an error or malfunction, step upon the Controller immediately, turn off the power supply, and contact your OMRON representative.
4. Do not try to disassemble, repair, or modify the product.
5. Dispose of FZ-SC components as industrial waste.

NOTICE
This product meets CIPSRC11 class A. The intended use of this product is in an industrial environment only.

OZONE-EFFICIENT PRODUCT

This product is designed and rated for ensuring safety in a normal industrial environment only. Do not use it for such purposes.

This product is not designed or rated for ensuring safety in an industrial environment only.

NOTICE
This product meets CIPSRC11 class A. The intended use of this product is in an industrial environment only.

This product is not designed or rated for ensuring safety in a normal industrial environment only. Do not use it for such purposes.

This product is designed and rated for ensuring safety in a normal industrial environment only. Do not use it for such purposes.

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**Meaning of Alert Symbols**

- **WARNING**
  - Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury, or may result in serious injury or death. Additionally there may be significant property damage.

- **Alert statements**
  - **WARNING**
    - This product is not designed or rated for ensuring safety for persons. Do not use it for such purposes.

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**Dimensions (Unit:mm)**

- **FH-SC**
  - Camera cable FZ-VS3
  - Camera cable connector
  - Name plate

- **FH-SM**
  - Camera cable FZ-VS3
  - Camera cable connector

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**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. At Buyer’s request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machinery, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer’s application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY IN LARGER QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

See also Product catalog for Warranty and Limitation of Liability.