

# OMRON

## Model FZ-VSJ

CABLE EXTENSION UNIT FOR MODEL FZ□  
VISUAL INSPECTION SYSTEM

### 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:

Representative in EU Omron Europe B.V. Carl-Benz-Str.4 71154 Nufringen Germany	Manufacturer Omron Corporation, Sensing Devices & Components Div.H.Q., Application Sensors Division Shiokoji Horikawa, Shimogyo-ku, Kyoto, 600-8530 JAPAN
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#### NOTICE:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to adequate measures.

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### PRECAUTIONS ON SAFETY

#### ● 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.

#### ⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

#### ● Alert statements

#### ⚠ WARNING

To ensure safety, do not use this product for direct or indirect detection of data from human body. Do not use this product as a sensing device for the protection of the human body.



### PRECAUTIONS FOR SAFE USE

Observe the following precautions to ensure safe use of the Extension Unit.

#### 1. Installation Site

Do not install this product in locations subjected to the following conditions.

- Ambient temperature outside the rating
- Rapid temperature fluctuations (causing condensation)
- Relative humidity outside the range of 35 to 85%
- Presence of corrosive, flammable gases, dust, salt, or iron particles
- Direct vibration or shock
- Reflection of intense light (such as other laser beams, electric arc welding machines or ultraviolet rays)
- Direct sunlight or near heaters
- Water, oil, or chemical fumes or spray
- Strong magnetic or electric field
- Near high-voltage equipment or power equipment

#### 2. Handling the Extension Unit

- Tighten all screws securely during installation.
- Tighten the camera connector by a regulated torque, 0.15N·m.

#### 3. External Power Supply and Wiring

- The supply voltage must be within the rated range (DC11.5 to 13.5V).
- It is necessary to supply an external power supply by the direct current voltage product designed so as not to generate a high voltage (safety extra low voltage circuit).
- Reverse connection of the power supply is not allowed.
- Use the power supply within the rated load.
- High-voltage lines and power lines must be wired separately from this product. Wiring them together or placing them in the same duct may cause induction, resulting in malfunction or damage.
- For cables, do not use excluding the special cable. If might cause the malfunction or damage.

#### 4. Others

- Do not use unspecified camera other than those that specified in this manual with the FZ controller.
- Connection with unspecified camera cable and/or strobe controller may malfunction at the worst case.
- Do not attempt to dismantle, repair, or modify the main unit.
- If you suspect an error or malfunction, stop using the controller immediately, turn off the power supply, and consult your OMRON representative.
- Dispose of FZ-VSJ components as industrial waste.

### PRECAUTIONS FOR CORRECT USE

Observe the following precautions to prevent failure to operate, malfunctions, or undesirable effects on product performance.

#### 1. Connection and Wiring for Main Unit

- Confirm the connection of the main body before turning on controller's power supply and external power supply. There is a possibility of the breakdown or malfunction if the direction of the connection is mistaken.
- Be sure to turn off external power supply and controller before connecting or disconnecting the cables.

#### 2. External Power Supply and Wiring

- Before turning on the power after the product is connected, make sure that the power supply voltage is correct, there are no incorrect connections(e.g.load short-circuit)and the load current is appropriate. Incorrect wiring may result in breakdown of the product.

#### 3. External Power Supply Turning on

- Turn on controller's power supply after connecting an external power supply when you use an external power supply.
- There is a possibility of malfunction if turning on controller's power supply earlier than the external power supply.

#### 4. Handling the Extension Unit

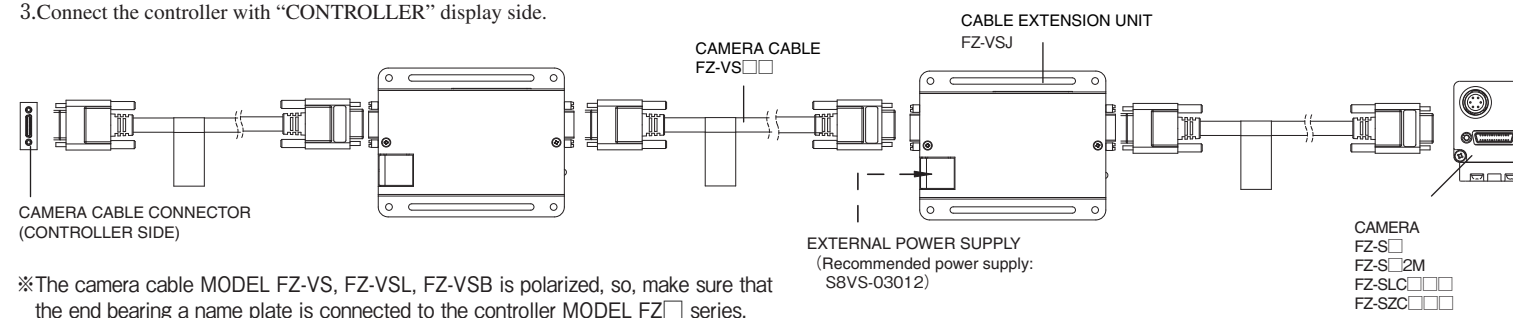
- The extension unit case is connected to the 0V line in the internalcircuits. Observe the following precautions to prevent noise interference.
- Do not ground the extension unit.
- Do not remove the base attached to the extension unit.

#### 5. Maintenance

- Do not use thinners, benzene, acetone, kerosene to clean the camera.
- Wipe off stubborn stains carefully with a piece of soft cloth that has been wetted with a quantity of alcohol.

### Connection Method

1. Cable extension unit FZ-VSJ can be connected up to two units for each camera.
2. Match the selection of the camera cable between the controller and the camera extension unit, the camera extension unit and the camera extension unit, the camera extension unit and the camera to the camera of the connection. Match the selection of the camera cable to the camera of the connection. There is no problem even if the cable with a different length and kind is selected.
3. Connect the controller with "CONTROLLER" display side.



※The camera cable MODEL FZ-VS, FZ-VSL, FZ-VSB is polarized, so, make sure that the end bearing a name plate is connected to the controller MODEL FZ□ series.

### General Specifications

Item	Model FZ-VSJ
Power consumption	1W以下 (DC12V 0.09A以下)
Input voltage range of external power supply	11.5 to 13.5 VDC
Vibration resistance	10 to 150 Hz, 0.35-mm single amplitude, 10 times each in X, Y, and Z directions for 8 min
Shock resistance	150 m/s <sup>2</sup> , three times each in six directions (up/down, left/right, forward/backward)
Ambient temperature	Operating:0 to 50°C, Storage:-25 to 60°C (with no icing or condensation)
Ambient humidity	Operating and storage:35% to 85% (with no condensation)
Ambient environment	Must be free of corrosive gas.
Degree of protection	IEC60529, IP20
Materials	Cover:Zinc-plated copper plate Case side:Zinc-plated copper plate Mounting base:ABS
Weight	Approx. 240g(Including mounting base)

### Accessory

Main unit, Instruction sheet(this sheet), Mounting screw(M3×16mm) 4 pieces

### External Power Supply Specification

1. Connect the power supply with the external power supply terminal as follows.
  - When you connect the lighting by using the strobe control unit (MLEK-C100EITS□) for camera (FZ-S□,FZ-S□2M)
  - When FZ-SLC□□□ is connected
  - When you connect the lighting with FZ-SZC□□□
2. Connect it by using crimping terminal (M3) according to the display of +/- when you connect the cable with the external power supply terminal block.
3. Turn on an external power supply before turning on the power supply to the controller when you connect an external power supply. Please turn off an external power supply after turning off controller's power supply when you end.
4. Connect an external power supply with an extension unit that is the nearest the camera when you connect the extension units of two units for each camera.

### External Power Supply Connection

Use a power supply that meets the following specifications.

Item	Specification
Power supply Voltage	Approx. 12VDC(11.5 to 13.5 VDC)
Output current	1.5 A min.
Recommended power supply	Model S8VS-03012(12VDC, 2.5A)
Recommended electric wire size	16AWG to 22AWG(max. 5m)

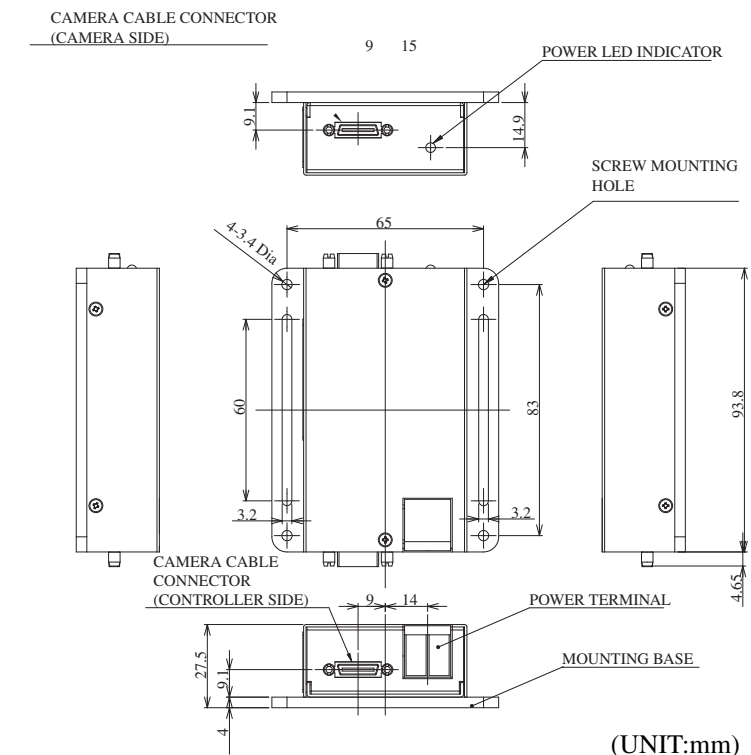
### POWER LED LAMP

POWER LED shows that the cable extension unit works. Even if the power supply is turned on to an external power supply it doesn't light.

### Installation

Fix and use the main unit.  
Fix to the screw mounting hole of mounting base with attached mounting screw (M3×16mm).

### Dimensions



### Suitability for Use

THE PRODUCTS CONTAINED IN THIS SHEET ARE NOT SAFETY RATED. THEY ARE NOT DESIGNED OR RATED FOR ENSURING SAFETY OF PERSONS, AND SHOULD NOT BE RELIED UPON AS A SAFETY COMPONENT OR PROTECTIVE DEVICE FOR SUCH PURPOSES. Please refer to separate catalogs for OMRON's safety rated products.

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application or use of the product.

Take all necessary steps to determine the suitability of the product for the systems, machines, and equipment with which it will be used. Know and observe all prohibitions of use applicable to this product.

NEVER USE THE PRODUCTS 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, AND THAT THE OMRON PRODUCT 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.

#### ■ EUROPE

OMRON EUROPE B.V. Sensor Business Unit  
Carl-Benz Str.4, D-71154 Nufringen Germany  
Phone:49-7032-811-0 Fax: 49-7032-811-199

#### ■ NORTH AMERICA

OMRON ELECTRONICS LLC  
One Commerce Drive Schaumburg,IL 60173-5302 U.S.A  
Phone:1-847-843-7900 Telephone Consultation  
1-800-55-OMRON Fax : 1-847-843-7787

#### ■ ASIA-PACIFIC

OMRON ASIA PACIFIC PTE LTD  
83 Clemenceau Avenue,#11-01 UE Square,Singapore 239920  
Phone : 65-6-835-3011 /Fax :65-6-835-2711

**OMRON Corporation**