



Programmable Controller  
MELSEC iQ-F

Side A JAPANESE  
Side B ENGLISH  
Side C CHINESE

MELSEC iQ-F FX5-CNV-BC

Hardware Manual



Manual Number	JY997D65401
Revision	D
Date	October 2019

This manual describes the dimensions and installation of the product. Before use, read this manual and manuals of relevant products fully to acquire proficiency in handling and operating the product. Make sure to learn all the product information, safety information, and precautions.

And, store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.

Registration:

The company names, system names and product names mentioned in this manual are either registered trademarks or trademarks of their respective companies. In some cases, trademark symbols such as "™" or "®" are not specified in this manual.

Effective October 2019

Specifications are subject to change without notice.

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Safety Precautions (Read these precautions before use.)

This manual classifies the safety precautions into two categories:

**WARNING** and **CAUTION**

<b>WARNING</b>	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
<b>CAUTION</b>	Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Depending on the circumstances, procedures indicated by **CAUTION** may also cause severe injury.

It is important to follow all precautions for personal safety.

**STARTUP AND MAINTENANCE PRECAUTIONS** **CAUTION**

- Do not disassemble or modify the PLC. Doing so may cause fire, equipment failures, or malfunctions. For repair, contact your local Mitsubishi Electric representative.
- Do not drop the product or exert strong impact to it. Doing so may cause damage.

**DISPOSAL PRECAUTIONS** **CAUTION**

- Please contact a certified electronic waste disposal company for the environmentally safe recycling and disposal of your device.

**TRANSPORTATION PRECAUTIONS** **CAUTION**

- The product is a precision instrument. During transportation, avoid impacts larger than those specified in the general specifications by using dedicated packaging boxes and shock-absorbing palletes. Failure to do so may cause failures in the product. After transportation, verify operation of the product and check for damage of the mounting part, etc.

Associated Manuals

Manual name	Manual No.	Description
MELSEC iQ-F FX5-30EC, FX5-65EC Hardware Manual	JY997D65501	Explains extended extension cable.
MELSEC iQ-F FX5UJ User's Manual (Hardware)	SH-082206ENG	Explains FX5UJ CPU module specification details for I/O, wiring, installation, and maintenance.
MELSEC iQ-F FX5U User's Manual (Hardware)	JY997D55301	Explains FX5U CPU module specification details for I/O, wiring, installation, and maintenance.
MELSEC iQ-F FX5UC User's Manual (Hardware)	JY997D61401	Explains FX5UC CPU module specification details for I/O, wiring, installation, and maintenance.

How to obtain manuals

For the necessary product manuals or documents, consult with your local Mitsubishi Electric representative.

Applicable standards

FX5-CNV-BC comply with the EC Directive (EMC Directive). Further information can be found in the following manual.

- MELSEC iQ-F FX5UJ User's Manual (Hardware)
- MELSEC iQ-F FX5U User's Manual (Hardware)
- MELSEC iQ-F FX5UC User's Manual (Hardware)

Regarding the standards that relate to the CPU module, please refer to either the product catalog or consult with your local Mitsubishi Electric representative.

Attention

This product is designed for use in industrial applications.

1. Outline

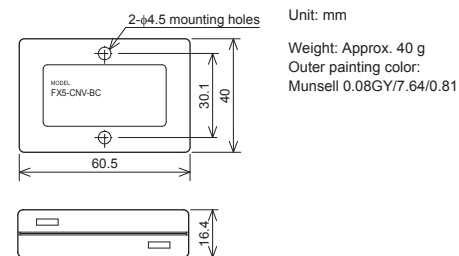
The FX5-CNV-BC is an adapter to convert the connector of an extended extension cable used between modules of extension cable type. The FX5-CNV-BC is connected and used between the extended extension cable, and module of extension cable type.

1.1 Incorporated Items

Check that the following product and items are included in the package:

Product	FX5-CNV-BC connector conversion adapter
Included items	Hardware Manual (This manual)

1.2 External Dimensions



2. Installation

**INSTALLATION PRECAUTIONS** **WARNING**

- Make sure to cut off all phases of the power supply externally before attempting installation or wiring work. Failure to do so may cause electric shock or damage to the product.
- Use the product within the generic environment specifications described in the User's Manual (Hardware) of the CPU module used. Never use the product in areas with excessive dust, oily smoke, conductive dusts, corrosive gas (salt air, Cl<sub>2</sub>, H<sub>2</sub>S, SO<sub>2</sub> or NO<sub>2</sub>), flammable gas, vibration or impacts, or expose it to high temperature, condensation, or rain and wind. If the product is used in such conditions, electric shock, fire, malfunctions, deterioration or damage may occur.

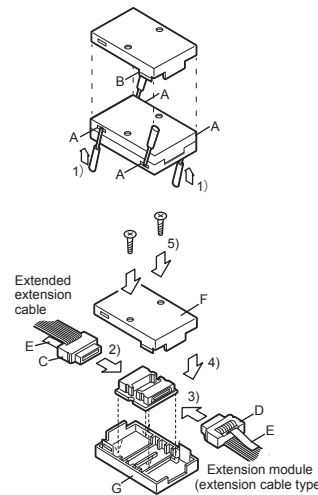
**INSTALLATION PRECAUTIONS** **CAUTION**

- Do not touch the conductive parts of the product directly. Doing so may cause device failures or malfunctions.
- When drilling screw holes or wiring, make sure that cutting and wiring debris do not enter the ventilation slits of the PLC. Failure to do so may cause fire, equipment failures or malfunctions.
- Work carefully when using a screwdriver such as installation of the product. Failure to do so may cause damage to the product or accidents.
- Connect the extension cables, extended extension cable, peripheral device cables, input/output cables and battery connecting cable securely to their designated connectors. Loose connections may cause malfunctions.
- Turn off the power to the PLC before attaching or detaching the following devices. Failure to do so may cause equipment failures or malfunctions.
  - Peripheral devices, expansion board, expansion adapter, and connector conversion adapter
  - Extension modules, bus conversion module, and connector conversion module

Turn off the power of the PLC, and mount the FX5-CNV-BC using the following procedure.

Procedure

- Separate the case of FX5-CNV-BC into two pairs as shown right figure. To separate the case, use a precision flathead screwdriver. Slightly insert the tip of the screwdriver into part A shown in the right figure, and the hook (B in the right figure) will come off (4 places).
- Connect the extended extension cable on the upstream side (C in the right figure).
- Connect the extension cable on the downstream side (D in the right figure).
- Pull the tab (E in the right figure) outside, fit the upper cover (F in the right figure) and the lower cover (G in the right figure), and press down the upper cover until it is hooked.
- Mount the case using M4 screws.

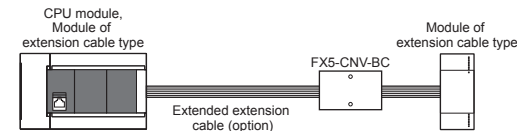


Caution

- The extended extension cable has an orientation. Pay attention to the direction of the connector for the FX5-CNV-BC and the top and bottom of the extended extension cable. If the cable is inverted, the case cannot be closed.
- When using the FX5-CNV-BC a half twist will appear in the cable.
- Wire the extended extension cable with a distance of not less than 50 mm from the output wiring of the PLC and noise sources including other power supplies.

3. System Configuration

Only one FX5-CNV-BC can be used in a system.



For further details on system configuration, refer to the following manual.

- MELSEC iQ-F FX5UJ User's Manual (Hardware)
- MELSEC iQ-F FX5U User's Manual (Hardware)
- MELSEC iQ-F FX5UC User's Manual (Hardware)

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

Warranty

Exclusion of loss in opportunity and secondary loss from warranty liability  
Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:  
(1) Damages caused by any cause found not to be the responsibility of Mitsubishi.  
(2) Loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products.  
(3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for products other than Mitsubishi products.  
(4) Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

**For safe use**

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi Electric.
- This product has been manufactured under strict quality control. However when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.