



Programmable Controller
MELSEC-F

FX3U-64CCL
INSTALLATION MANUAL



Manual Number: JY997D29801
Revision: H
Date: September 2023

This manual describes the part names, dimensions, and specifications of the product. Before use, read this manual and manuals of relevant products fully to acquire proficiency in handling and operating the product.

Effective September 2023
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

Table with 2 columns: Symbol (Warning/Caution) and Description of hazard.

Depending on circumstances, procedures indicated by CAUTION may also cause severe injury. It is important to follow all precautions for personal safety.

Associated Manuals

Table listing associated manuals such as FX3G Series User's Manual, FX3GC Series User's Manual, etc.

Manuals for the FX3G PLC will be available in September 2008 or later.

How to obtain manuals

For product manuals or documents, contact the Mitsubishi Electric dealer from whom you purchased your product.

Compliance with EU Directive (CE Marking)

This note does not guarantee that an entire mechanical module produced in accordance with the contents of this note will comply with the following standards.

Requirement for Compliance with EMC directive

The following products have shown compliance through direct testing (of the identified standards below) and design analysis (through the creation of a technical construction file) to the European Directive for Electromagnetic Compatibility (2014/30/EU) when used as directed by the appropriate documentation.

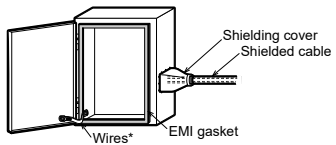
Attention

This product is designed for use in industrial applications.
Type: Programmable Controller (Open Type Equipment)
Models: MELSEC FX3U series manufactured from March 1st, 2008 FX3U-64CCL

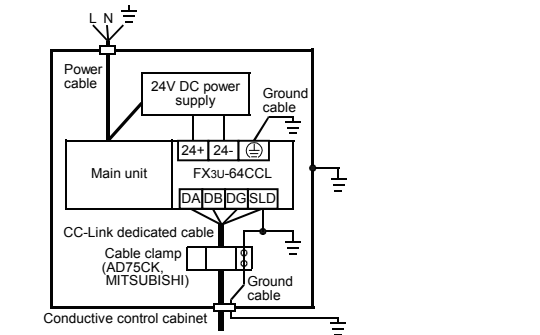
Table with 2 columns: Standard (EN61131-2:2007) and Remark (Compliance with all relevant aspects of the standard).

Caution for EU Directive

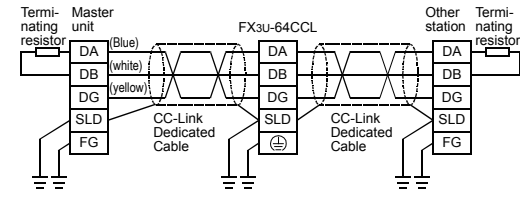
- Installation in Enclosure
Control cabinet
Configuration example inside control cabinet



- These wires are used to improve the conductivity between the door and control cabinet.

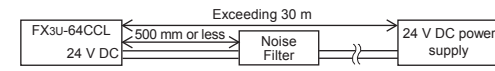


Wiring simplified diagram



Notes for compliance with EN61131-2:2007

- General notes on the use of the power supply cable.
- The FX3U-64CCL unit requires that the cable used for power supply is 30 m or less.
- When the cable used for power supply exceeds 30 m, a noise filter (Ex. TDK-Lambda MBS1205-22 or similar) should be placed on the 24 V DC power cabling as close (within 500 mm) to the FX3U-64CCL termination points as possible, refer to following figure.



Compliance with UKCA marking

The requirements for compliance with UKCA marking are the same as that with EU directive (CE marking).

1. Introduction

The CC-Link interface block FX3U-64CCL (hereinafter called 64CCL) is a special function block to connect the FX3G/FX3GC/FX3U/FX3UC/FX5U/FX5UC programmable controller to a CC-Link network.

The 64CCL works as an intelligent device station on a CC-Link network. Only one 64CCL unit can be connected to a single programmable controller main unit.

1.1 Major Features of the FX3U-64CCL

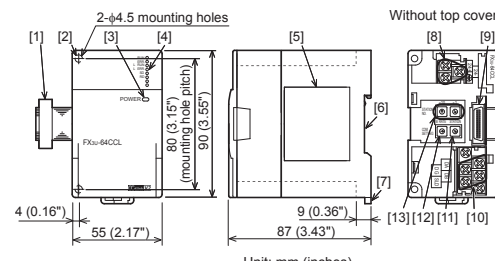
- Compatible with CC-Link Ver. 2.00 and Ver. 1.10
The 64CCL is compatible with CC-Link Ver. 2.00, and enables expanded cyclic transmission to facilitate the handling of applications requiring multiple data processing.
In addition to Ver. 2.00, Ver. 1.10 is also supported with the 64CCL.

1.2 Incorporated Items

Check to ensure the following product and items are included in the package:

Table listing included items: CC-Link interface block, Special unit/block No. label, Dust proof protection sheet, Installation Manual.

1.3 External Dimensions and Part Names



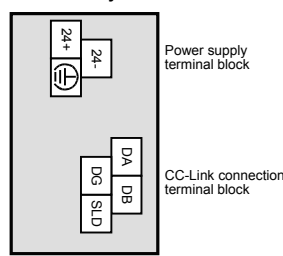
- 1) Extension cable
2) Direct mounting hole: 2 holes of φ 4.5 (0.18") (mounting screw: M4 screw)
3) POWER LED (green)
4) Status LEDs
5) Name plate
6) DIN rail mounting groove (DIN rail: DIN46277, 35mm (1.38") width)
7) DIN rail mounting hook
8) Power supply terminal block

- 9) Extension connector
10) CC-Link connection terminal block
11) Number of occupied stations and expanded cyclic setting switch
12) Transmission rate setting switch
13) Station number setting switch

1.4 Power and status LEDs

Table showing LED display, color, status, and description for POWER, RUN, ERR, L RUN, L ERR, SD, and RD LEDs.

1.5 Terminal layout



- Terminal screw and terminal block mounting screw size, and tightening torque
Power supply terminal block, CC-Link connection terminal block: M3 screw, 0.42 to 0.58 N·m
CC-Link connection terminal block mounting screw (black): M3.5 screw, 0.66 to 0.91 N·m
Do not tighten the terminal block mounting screws with a torque outside the above-mentioned range. Failure to do so may cause equipment failures or malfunctions.

CC-Link connection terminal block can be detached or attached. Make sure to cut off all phases of the power supply externally.

For details on the wiring and the types of connection cables needed to connect to the terminal blocks shown in the figure above, refer to the following manual.

→ Refer to the FX3U-64CCL User's Manual.

1.6 Switch setting

With regard to the switch setting for station number, transmission rate, hardware test, number of occupied stations and expanded cyclic transmission, the switch settings become valid after 64CCL startup.

For details on the switch setting, refer to the following manual. → Refer to the FX3U-64CCL User's Manual.

1.6.1 Station number setting

Table for station number setting with columns: Setting items, Range, Description.

1.6.2 Transmission rate setting, hardware test

Table for transmission rate setting and hardware test with columns: Setting, Description, Status.

1.6.3 Number of occupied stations, expanded cyclic setting

Table for number of occupied stations and expanded cyclic setting with columns: Setting, Number of occupied stations, Expanded cyclic setting.

2. Installation

Table with columns: Precautions (Warning) and Description.

Table with columns: Precautions (Caution) and Description.

For details on anchoring, refer to the following manual.

→ Refer to the FX3U-64CCL User's Manual.

2.1 Connection with PLC

Only one 64CCL can be connected to the right side of a PLC main unit or extension unit/block (including special function units/blocks).

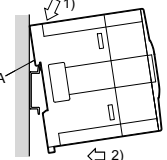
- For connection to an FX3GC/FX3UC Series PLC or FX2NC Series PLC extension block, an FX2NC-CNV-IF or FX3UC-1PS-5V is required.
For connection to FX5U/FX5UC PLC, FX5-CNV-BUS or FX5-CNV-BUSC is required.

2.2 Mounting

- The product is mounted by the following method.
- DIN rail mounting
- Direct mounting (mounting screw: M4 screw)
For further information on installation arrangements, refer to the following manuals.

2.2.1 DIN Rail Mounting

- The product can be mounted on a DIN rail (DIN46277, 35mm (1.38") width).
1) Fit the upper edge of the DIN rail mounting groove (fig. A) onto the DIN rail.
2) Press the product against the DIN rail.



2.2.2 Direct Mounting (mounting screw: M4 screw)

The product can be installed directly with screws. Refer to the External Dimensions (section 1.3) for the product's mounting hole pitch information.

3. Specification

For details on specifications, refer to the following manual. → Refer to the FX3U-64CCL User's Manual.

DESIGN PRECAUTIONS table with columns: Precautions (Warning) and Description.

DESIGN PRECAUTIONS table with columns: Precautions (Caution) and Description.

DISPOSAL PRECAUTIONS table with columns: Precautions (Caution) and Description.

TRANSPORTATION AND STORAGE PRECAUTIONS table with columns: Precautions (Caution) and Description.

3.1 Applicable PLC

Table listing applicable PLC models and their applicability.

The version number can be checked by monitoring the last three digits of D8001.

- *1 An FX2NC-CNV-IF or FX3UC-1PS-5V is necessary to connect the 64CCL with the FX3GC/FX3UC PLC.
*2 An FX5-CNV-BUS or FX5-CNV-BUSC is necessary to connect the 64CCL with the FX5U/FX5UC PLC.

3.2 General Specifications

Table with columns: Item and Specification for general specifications.

3.3 Power Supply Specification

Table with columns: Item and Specification for power supply specifications.

3.4 Performance Specification

Table with columns: Item and Specification for performance specifications.

Table with columns: Item and Specification for transmission distance, number of stations, and connection cable.

*1 When the setting of the 64CCL is the single setting, please set up the master station as a Ver.1 intelligent device station.

「电器电子产品有害物质限制使用标识要求」的表示方式

Note: This symbol mark is for China only.

含有害6物质的名称, 含有量, 含有部品
本产品中所含有的有害6物质的名称, 含有量, 含有部品如下表所示。

Table showing hazardous substances and their contents in various components.

本表格依据SJ/T 11364的规定编制。

○: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
×: 表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求。

基于中国标准法的参考规格: GB/T15969.2

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses.

- Warranty
Exclusion of loss in opportunity and secondary loss from warranty liability
(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 damages to products other than Mitsubishi products.
(4) Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

Table with columns: Item and Specification for safe use.