1. Outline

---

**FX3U-485ADP** communication special adapter (hereafter called 485ADP) is a special adapter for FX3U communication with a terminal block expansion type. The 485ADP is an optional signal reception-use of RS-485 serial data communication between the PLC and a device or system. It is important to follow all precautions for personal safety. This manual classifies the safety precautions into two categories: Safety Precaution and IMPORTANT. Failure to do so may cause fire, equipment failures or malfunctions.

### 1.1 Communication Function

---

**Communication Type**

- **Data Communication**: Reception and sending of data in a specified format

**Function**

- **Parallel line**: Data exchange between two PLCs or between PLC and peripheral equipment

**Connector type**

- **Computer Link**: Data exchange between PLC and peripheral equipment

**Connections**

- **Connection precautions**: Wiring precautions and terminal resistor selector switch precautions

### 1.2 Incorporated Items

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- **Label**: Applied for indication of link station number
- **Open cover**: Used to connect parallel link or computer link
- **Socket**: Used to connect to FX3G-485ADP-CN5-15
d

### 1.3 External Dimensions and Parts Names

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![485ADP Schematic](image)

- **Special adapter connector**: Used for connecting to FX3U-485ADP
- **Special adapter socket**: Used for connecting to PLC main unit

### 1.4 Terminal Configuration

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#### 1.4.1 Wiring Precautions

- **Wiring precautions**: Wiring precautions and terminal resistor selector switch precautions

#### 1.4.2 Connection Precautions

- **Connection precautions**: Connection precautions and/or special adapter connection

### 1.5 Terminal Resistor Selector Switch

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**Features**

- **Pull-up switch**: Pull-up switch for terminal resistor selection

**Components and Function**

- **LED display**: LED display for terminal resistor selection

**Operation**

- **Series Switch (330 Ω)**: Series switch for terminal resistor selection

### 1.6 Operation of Terminal Resistor Selector Switch

---

**Components**

- **Time delay switch (330 Ω)**: Time delay switch for terminal resistor selection

**Function**

- **Time delay switch (330 Ω)**: Time delay switch for terminal resistor selection

### 1.7 Setting and Operation of Terminal Resistor Selector Switch

---

**Settings**

- **Setting terminal resistor**: Setting terminal resistor

**Operation**

- **Terminal resistor selector**: Terminal resistor selector

### 2. Channel Allocation

---

Up to two communication ports can be added to the main unit. For safe use, refer to the section on safe use for each channel. The following explains the precautions for the communication port.

**FX3U Series PLC**

**Communication ports can be automatically added.**

**FX3G Series PLC**

**Communication ports can be automatically added.**

### 3. Installation

---

**Installation Precautions**

- **WARNING**: Use the product while observing the environmental specifications described in the installation manual. Do not use the product in areas with excessive heat, humidity, vibration, dust, metal powder, or condensation. Incorrect installation may lead to product failure or malfunction. Make sure the product is installed in a stable environment. Use any device or cable that may cause damage such as electric shocks, fire, or malfunctions.

### 4. Wiring

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**Wiring Precautions**

- **Wire**: Use a wire with the correct thickness and length for the product.

### 5. General Specifications

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**Specifications**

- **Operating environment**: Operating environment

**Packaging**

- **Packaging material**: Packaging material

**Storage and transportation**

- **Packaging material**: Packaging material

### 6. Additional Information

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**Additional Information**

- **Not used when connecting to FX3GC/FX3UC Series PLC.**

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For additional information, refer to the respective PLC User's manual or Programming Manual. For safe use, refer to the section on safe use for each channel. The following explains the precautions for the communication port.

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**fxl3g-485adp** (D, DS, DDS) Series PLC

Communication ports are automatically added. The communication special adapter can be used for all main units and special units.

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**Fx3u-485adp** (D, DS, DDS) Series PLC

Communication ports are automatically added. The communication special adapter can be used for all main units and special units.

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For safe use, refer to the section on safe use for each channel. The following explains the precautions for the communication port.

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**FX3G Series PLC**

**Communication ports can be automatically added.**

**FX3U Series PLC**

**Communication ports can be automatically added.**

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For safe use, refer to the section on safe use for each channel. The following explains the precautions for the communication port.
1. Outline

The FX3U-485ADP communication special adapter (henceforth called FX3U-485ADP) is a special adapter for FX Series communications with a terminal block (disassembled type). The FX3U-485ADP is used to install terminal signal interface equipment of RS-485 serial data communication between the PLC and other devices.

1.1 Communication Function

<table>
<thead>
<tr>
<th>Communication Type</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS-485</td>
<td>Data transmission in a non-foreign PLC PLF.</td>
</tr>
<tr>
<td>Parallel I/O</td>
<td>Data transmission through the PLC and controller (data transmission using a twisted pair connection).</td>
</tr>
<tr>
<td>Terminal block</td>
<td>Data transmission between the PLC and controller (data transmission using a twisted pair connection).</td>
</tr>
</tbody>
</table>

1.2 Incorporated Information

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

- FX Series Hardware Manual

1.3 External Dimensions and Part Names

Special adapter is removed

![Special Adapter Diagram]

Weight: Approx. 80 g (0.18 lbs)

2. Connection to the PLC

This section describes the connection method to the PLC (FX3U Series PLC is used for the following examples). For installations refer to other PLCs refer to the respective PLC’s manual for hardware manuals.

2.1. Preparation

- Turn off the power.
- Disconnect all the cables connected to the PLC main unit and special adapter, and remove the main unit and special adapter mounted on DB9C or resource directly from the PLC.

2.2. Connection

- Insert each special adapter connector, and then insert the connectors into the PLC main unit and special adapter.
- Connect the special adapter connector to the PLC main unit and special adapter. (fig. C)
- Slide the top売 the special adapter and fix it to the main unit by using the provided set screws.

2.3. Wiring

Connect the high-speed I/O special adapters before connecting other special connectors and accessories when connecting the special adapter with a twist pair cable (Fig. 1). Connect the PLC main unit and special adapter with a twisted pair cable to the left side of the special adapter.

2.4. Wiring Precautions

- Be sure to use the wiring diagrams included in this manual.
- Be careful not to connect the twisted pair cable in the wrong direction.
- Be careful not to connect the twisted pair cable to the wrong side of the PLC main unit.

3. Specifications

5.2 General Specifications

- Power supply: 24 Vac power (supply input)
- Interface: RS-485 (Baud rate: 9600 bps, 11,000 bps, 38,400 bps, 57,600 bps)
- Communication distance: Up to 1600 ft (500 m)
- Communication rate: 9600 bps (max)
- Power consumption: 1.35 W (max)

4. Wiring

For wiring details, refer to the following manual:


5. Power Supply Specifications

- Power supply: 24 Vac power (supply input)
- Interface: RS-485 (Baud rate: 9600 bps, 11,000 bps, 38,400 bps, 57,600 bps)
- Communication distance: Up to 1600 ft (500 m)
- Communication rate: 9600 bps (max)
- Power consumption: 1.35 W (max)

6. Dimensions

- Width: 45.0 (1.8")
- Height: 14.0 (0.55")
- Depth: 37.0 (1.45")
- Hole: M3, 2.0 (0.08")
- Weight: Approx. 80 g (0.18 lbs)
**Function**

Applicability

RS-485

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**Communication port channels are automatically allocated. The communication from who you purchased your product.**

The FX3u-485ADP is used in the following example.

- FX3U Series PLC Ver. 1.00 or later (from first production)
- FX3UC Series PLC Ver. 1.00 or later (from first production)
- FX3G Series PLC Ver. 1.00 or later (from first production)

1. Outline

The FX3U-485ADP communication special adapter (herein called 485ADP) is a special adapter for 485 communication with a terminal block (disposable type). The 485ADP is used to install a special interface (RS-485) serial data communication between the PLC and an RS-485 device.

1.1 Communication Function

Communication type

- 485 ADP


- FX Series User’s Manual - System Description Edition

- FX Series User’s Manual - Basic Application Edition


1.2 Incorporated Items

- Terminal resistor: 110Ω (ch1) 330Ω (ch2)

- Communication port number: 0

- Communication port function: N:N network, Parallel Link

- Communication speed: 300/600/1200/2400/4800/9600/19200/38400bps

- Communication type: Computer Link, Non-Protocol Communication

1.3 External Dimensions and Part Names

- Terminal block: 35mm DIN rail

- Pin: 14-pin, 40-pin type

- Terminal connector: 4-pin to 14-pin, 14-pin to 40-pin

- Terminal block: 35mm DIN rail

- Pin: 30-pin, 50-pin type

- Terminal connector: 4-pin to 14-pin, 14-pin to 40-pin

1.4 Terminal Configuration

The terminal configuration of the FX3U-485ADP is shown below.

1.5 Terminal Resistor Selector Switch

A terminal resistor may be required depending on the communication type. Refer to the following manual for the terminal resistor setting.

1.6 Operation of Terminal Resistor Selector Switch

Use the tip of a hexagon, tip of a mechanical pencil, thumb nail, or the like to turn the switch (which is inside in the shell) clockwise to 0 or 1 to set the resistor value.

2. Channel Allocation

Up to two communication ports can be added to the main unit.

3. Installation

For installation details, refer to the respective PLC’s user’s manual.

**INSTALLATION PRECAUTIONS**

- The installation method differs according to the installation environment, wiring method, or product layout.

- For details, refer to the respective PLC’s user’s manual.

- For further details, refer to the respective PLC’s user’s manual.

- For installation details, refer to the respective PLC’s user’s manual.

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- For installation details, refer to the respective PLC’s user’s manual.

- For installation details, refer to the respective PLC’s user’s manual.

4. Wiring

For wiring details, refer to the following manual:


**PRECAUTIONS**

- Do not use the product in any locations where there are high levels of noise or vibration.

- Do not use the product in locations where there is a risk of water ingress.

- Do not use the product in locations where the ambient temperature is outside the range specified for use.

- Do not use the product in locations where there is a risk of mechanical shock.

5. Specifications

5.1 Applicable PLC

- FX Series PLC

- Terminals:

- 1.0 terminal (ch1)

- 1.1 terminal (ch2)

5.2 General Specifications

- Power supply specifications:

- DC 24V ±10%

- Terminal block:

- 0.625 mm²

- Cable size:

- 0.5 mm²

5.3 Power Supply Specifications

- Power supply:

- 12V DC power source

5.4 Performance Specifications

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

- Communication type:

- RS-485

- Communication speed:

- 300/600/1200/2400/4800/9600/19200/38400 bps

- Communication protocol:

- Computer Link, Non-Protocol Communication

**For safety use**

- This product has been manufactured as a general-purpose product for general industrial use, and has been designed and manufactured to be incorporated into various equipment and installations.

- This product can be used for special purposes such as nuclear power, electric power, transportation, or passenger transportation equipment, etc.

- This product has been manufactured under strict quality control. However, when using the product in various applications, check the product specifications, user’s manual, and installation instructions before use.

- For further details, refer to the respective PLC’s user’s manual.