3. Wiring

2.1 Connection to the PLC

The terminal diagram is the connection method of PLC (FX3G series). PLC is connected with the following terminal diagram and special adapters. Please refer to the respective PLC User's Manual Hardware Edition.

1) Turn off the power.

2) Disconnect the cables connected to the PLC main unit and special adapters. Check the PLC main unit and special adapters mounted on DIN rail are not connected directly or not connected correctly.

3) In case of required loose or break, etc.

4) For the expansion board and installation理事会, refer to the following manual.

5) Install the terminal adapters for the special adapters other than other special adapters. Please follow the instructions below on the installation of the terminal adapters and installation sections for the special adapters.

6) Check the special adapters are fitted.

7) Connect the cables in order to connect it to the PLC.

2.2 Wiring

TORX x6.8 mm, for the main unit and special adapters mounted on DIN rail or screwdriver to install the power supply output terminals of the PLC main unit.

2.3 Power Supply Wiring

For general specifications, refer to the respective PLC User’s Manual Hardware Edition.

4. Specifications

4.1 Applicable PLC

The input voltage must be 50% higher than the output voltage of the PLC main unit.

4.2 Power Supply Specifications

The input voltage must be 50% higher than the output voltage of the PLC main unit.

4.4 Performance Specifications

The input voltage must be 50% higher than the output voltage of the PLC main unit.
## 3.2 Power Supply Wiring

For the power supply wiring, refer to the following (industrial power source type 3).

### 3.3 Selection of platinum resistance thermometer sensors

<table>
<thead>
<tr>
<th>Type</th>
<th>Specifications</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-type</td>
<td>-50°C to +137°C</td>
<td>Sensor used for the following example.</td>
</tr>
<tr>
<td>K-type</td>
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### 4. Specifications

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## 4.4 Performance Specifications

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</table>

### 4.5 Installing the sensor

Insert the sensor at an angle of 90°. The temperature range is limited to -50°C to +137°C.

### 4.6 Precautions

- Ensure that the sensor contacting area is clean and free of dust and grease.
- Ensure that the sensor is properly inserted and not damaged.
- Ensure that the sensor is properly connected to the power supply.
FXu-AD-PT-ADP

USER'S MANUAL

1. Outline

FXu-AD-PT-ADP (henceforth called FXu-ADPT) is an analog special adapter for expanding temperature via four channels (three-wire connection) of a connected FX3U PLC to three-wire platinum resistance thermometers.

1.1. Incorporated Items

- FXu-AD-PT-ADP
- Temperature sensor; three-wire platinum resistance thermometer sensors
- Power supply: DC 5 V (0.5 A) or more
- Connection cable: L3 or L2

Important: The FXu-AD-PT-ADP is a precision instrument. During transportation, avoid impacts larger than 2 g, and be sure to use a box or container designed to absorb shocks. Failure to do so may cause fire, equipment failures or malfunctions.

2. Wiring

2.1. Outline

Terminals for the FXu-AD-PT-ADP are designed for easy connection to consecutive or parallel PLCs. Before making any connections, be sure to comply with the following precautions.

2.2. Power Supply Wiring

For the power supply wiring, refer to the following manual:

2.3. Selection of platinum resistance thermometer sensors

- Type: Platinum resistance thermometer sensors
- Connection method: Three-wire connection
- Operating range: -40°C to +150°C
- Rated power: 0.5 W

2.4. Specifications

- Power supply: DC 5 V (0.5 A) or more
- Grounding: The grounding must be performed as follows:

3. Applications

3.1. Applicable Standards

- IEC 61131-2: Programmable Controllers
- EN 50170: Safety Requirements for Use of Control Equipment

3.2. Application Examples

- Application Example 1: Temperature Control System
- Application Example 2: Process Monitoring System

4. Corrective Measures

4.1. Maintenance

- Cleaning: Use a dry cloth or soft brush to clean the product. Do not use solvents or thinners.
- Repair: Contact an authorized Mitsubishi Electric service center.

5. Caution for Environmental Protection

- This product is manufactured without lead, cadmium, or other hazardous substances.

6. Connections

- Connections can be made only after the product is turned off.
- Do not connect or disconnect the power source while the product is turned on.

7. Warning

- Use of this product will increase the risk of fire, electric shock, or equipment failures.

8. Declaration of Conformity

- This product is in compliance with the following directives:

9. Certification

- CE: This product is certified for use in the European Union.

10. Rights

- This manual confers no industrial property rights or any rights of any other kind, to the product or any of its components.

11. Trademarks

- All product names, product specifications, or product-related terms are trademarks or registered trademarks of their respective companies.

For more information, please contact Mitsubishi Electric Corporation.