It is important to follow all precautions for personal safety.

**Associated Manuals**

For product manuals or documents, contact Mitsubishi Electric. 

**Certification of UL, cUL standards**

This product has been manufactured as a general-purpose part for general industrial use. Mitsubishi Electric would like to make the following points:

- Before use, read this manual and the manuals of all relevant accessories and the product as necessary. The company and product names described in this manual are registered trademarks.
- Mitsubishi Electric recommends that shielded cables be used. PVC/other EMC products intended for shielding, however, should be used in shielded enclosures. These are intended for limited shielding of electromagnetic.
- For details, please contact Mitsubishi Electric.

**Manufacturer**

PHOENIX CONTACT GmbH & Co. KG

**Hardware Edition**

User's Manual

**FX2NC-10BPCB1 Power crossover cable (offered as an accessory for the FX3U)- Hardware Edition**

**FX3S/FX3G/FX3GC/FX3U/4AD**

**JAPANESE**

**Side A**

**Side B**

**Note:** This symbol mark is for China only.

- Please note the following when installing the product.
  - When installing the product, insert the power supply line into the extension block. This product has been manufactured as a general-purpose part for general industrial use.
  - Use of this product in areas with excessive dust, oily smoke, conductive dusts, and high humidity may result in short-circuiting or overheating of the product.
  - For safe use

**2.5 Power supply wiring**

Supply the 24 VDC power to FX3U via power supply crossover.

**3.5 Wiring of Analog Input**

For FX3U Series PLC main unit, FX3UC Series PLC main unit, and FX3UC-4AD:

**5. Wiring (Power supply and analog input)**

**4 Current input mode**

**Table 5.1 Power supply specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input voltage</strong></td>
<td>DC 24 ±100%</td>
</tr>
<tr>
<td><strong>Input current</strong></td>
<td>30mA</td>
</tr>
<tr>
<td><strong>Max. PWM duty cycle</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Max. allowable power dissipation</strong></td>
<td>1W</td>
</tr>
</tbody>
</table>

**5.2 Performance specifications**

**Table 5.2 Performance specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total accuracy</strong></td>
<td>±0.5% of Full Scale ±4mA</td>
</tr>
<tr>
<td><strong>Linearity</strong></td>
<td>±0.2% of Full Scale ±2mA</td>
</tr>
<tr>
<td><strong>Temperature coefficient</strong></td>
<td>±0.1% of Full Scale ±1mA</td>
</tr>
</tbody>
</table>

**5.3 Power supply wiring**

Supply the 24 VDC power to FX3U via power supply crossover.

**5.4 Wiring of Analog Input**

For FX3U Series PLC main unit, FX3UC Series PLC main unit, and FX3UC-4AD:

**5.5 Input characteristics**

For the FX3U, the input type of input characteristics is listed in each manual. For the details of the input signal, refer to the following:

- Voltage input mode
- Current input mode
- Soft input mode
- Current source input mode
- Voltage source input mode
- PWM input mode
- Internal memory input mode
- Auxiliary input mode
- Auxiliary output mode
- Output mode
- Analog output mode

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**3.5 Wiring of Analog Input**

For FX3U Series PLC main unit, FX3UC Series PLC main unit, and FX3UC-4AD:

**5.3 Power supply wiring**

Supply the 24 VDC power to FX3U via power supply crossover.
1. Wire and Terminal Tensioning Torque

1.1 Cable

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Wire Type</th>
<th>Max Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.36-0.64mm²</td>
<td>Stranded wire/solid wire</td>
<td>0.3 to 0.5 Nm</td>
</tr>
<tr>
<td>1.0-2.5mm²</td>
<td>Double wire</td>
<td>1.0 to 1.5 Nm</td>
</tr>
</tbody>
</table>

1.2 Terminal

<table>
<thead>
<tr>
<th>Cross Section</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.36-0.64mm²</td>
<td>0.3 to 0.5 Nm</td>
</tr>
<tr>
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<td>1.0 to 1.5 Nm</td>
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</tbody>
</table>

2. Power supply wiring

- For stranded wire and solid wire, use a purchased small-wire crimping tool (grip diameter: approximately 25mm (0.98")).
- When crimping, be sure to use the recommended crimping tool. If you use an inappropriate crimping tool, it may cause wire breakage, malfunctions, or damage to the product.

3. External Dimensions, Part Names, and Terminal Layout

4. Wiring of Analog Input

For details, refer to Chapter 3 (or CRIMPFOX 6T-F*2).

5. Wiring (Power supply and analog input)

- Do not disassemble or modify the PLC.
- Do not change the power supply unit.
- Do not use a transformer or power conditioner.
- Do not use a battery supply.
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This manual classifies the safety precautions into two categories:

1. **Note:**
   - A minimum sized screwdriver whose head is straight and flat should be used when removing and installing the cabinet cover (and front panel).
   - This product must be mounted in the cabinet by a professional, in order to comply with the EMC directive.

2. **Warning:**
   - Do not install the FX3UC-4AD in a location where it will be subject to pressure, vibration, dampness, or dust.
   - Avoid installing this product where it will be subject to high temperature or strong electromagnetic interference.
   - Ensure proper ventilation around this product to maintain internal temperature at acceptable levels.

**Certification of UL, cUL standards**:
- UL File Number: E157998
- Models: MELSEC FX3UC series

**Compliance with CE directive (CE Marking)**:
- This product is CE marked in accordance with the following directives:
  - The Low Voltage Directive (2006/95/EC)

**Application Note**:
- This FX3UC-4AD is specifically designed for use in industrial applications. It is not intended for general use.
- The FX3UC-4AD is equipped with a DC-DC converter that serves as an isolated power supply for the 4AD module.

**Wiring**:
- **1) Connection example with the power supply through crossover wiring to the FX3UC main unit**.
  - Use the product within the generic environment specifications described in the PLC main unit's manual.
  - Wire the power supply and control circuit wiring separately.

**Performance Specifications**:
- **6.1 Applicable PLC**
  - FX3U/FX3UC Series PLC

**Precautions**:
- **Installation Warnings**:
  - Before use, consult the manuals for all relevant devices.

**Accessories**:
- Please contact a certified electronic waste disposal company for the proper disposal of this product.