2. General specifications and Installation

2.1 General specifications

The general specifications are equivalent to the PLC main unit.

2.2 Installation

The product is installed by the following method:

1. **DIN rail mounting**

   - Ensure that there is enough space for mounting and disconnection of the module.
   - Ensure that there is enough space for the equipment or installation.

2. **Bracket installation**

   - Use a bracket to install the product securely.

3. **External wiring**

   - Use a cable to connect the product to the external circuit.
   - Ensure that there is enough space for the equipment or installation.

2.3 Wiring

- Code-end treatment and tightening torque

   - 2 mm for 2.5 mm² wire or smaller
   - 2.5 mm for 4 mm² wire or larger

2.4 Output specifications and example of external wiring

- Driver specifications

   - Type No.

- External wiring

   - External wiring (inches)
The product is mounted by the following method.

### 2.1 General specifications

**How to obtain manuals**

In any case, it is important to follow the directions for usage.

This manual classify the safety precautions into two categories:

- **Safety Precaution**
- **Operating Precaution**

**Effective August 2018**

Phillips is a registered trademark of Phillips Screw Company.

**Registration:**

[<Reference>]

- **Caution for EC Directive**
  - This product complies with EC directive, however, this document does not guarantee compliance with EC directive (CE Marking).
  - Compliance with EC directive (CE Marking)
  - UL Listed YA-1 (J.S.T. Mfg. manufacturer)
  - UL, cUL File Number: E95239
  - Listed in accordance with the following precautions.

### 3.1 Wiring

#### 3.1.1 Core wire treatment and tightening torque

For the terminals of FX2N-8EYR(-ES/UL), 10mm² wires are used. The wires each side should be treated as shown below. Failure to do so may cause electric shock, equipment failures.

- **When using a core wire with a diameter of 0.5 to 0.8 mm:**
  - Tightening torque should follow the specifications in the manual.
  - If the core wire is misused, there may be a risk of equipment damage.

### 3.2 Output specifications and example of external wiring

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output specifications</td>
<td></td>
</tr>
<tr>
<td>Number of output points</td>
<td>8 points</td>
</tr>
<tr>
<td>Load resistance</td>
<td>100V AC, 24V DC</td>
</tr>
<tr>
<td>Voltage tolerance</td>
<td>24V DC</td>
</tr>
<tr>
<td>Power ratings</td>
<td>Approx. 10W</td>
</tr>
<tr>
<td>Response</td>
<td>Approx. 10ms</td>
</tr>
<tr>
<td>Load types</td>
<td>Capacitive, inductive</td>
</tr>
<tr>
<td>Inductive load</td>
<td>24V DC</td>
</tr>
<tr>
<td>Capacitive load</td>
<td>24V DC</td>
</tr>
<tr>
<td>Output power</td>
<td>24V DC, 24V DC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Approx. 10W</td>
</tr>
<tr>
<td>Response</td>
<td>Approx. 10ms</td>
</tr>
<tr>
<td>Load types</td>
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<tr>
<td>Inductive load</td>
<td>24V DC</td>
</tr>
<tr>
<td>Capacitive load</td>
<td>24V DC</td>
</tr>
</tbody>
</table>

### 4. Terminal layouts

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Optional output terminal when power is applied to relay coil.</td>
</tr>
<tr>
<td>9</td>
<td>Input terminal 1</td>
</tr>
<tr>
<td>8</td>
<td>Input terminal 2</td>
</tr>
<tr>
<td>7</td>
<td>Input terminal 3</td>
</tr>
<tr>
<td>6</td>
<td>Input terminal 4</td>
</tr>
<tr>
<td>5</td>
<td>Input terminal 5</td>
</tr>
<tr>
<td>4</td>
<td>Input terminal 6</td>
</tr>
<tr>
<td>3</td>
<td>Input terminal 7</td>
</tr>
<tr>
<td>2</td>
<td>Input terminal 8</td>
</tr>
</tbody>
</table>

**Notes:**

- **Make sure to cut off all phases of the power supply externally before connecting or disconnecting the power supply.
- Make sure to do so in a manner that is unlikely to cause electric shock.
- **Always turn off the power supply before making any changes to the system.**

### 2.1 General specifications

This product complies with EC directive, however, this document does not guarantee compliance with EC directive (CE Marking).

**Compliance with EC directive (CE Marking)**

This product complies with EC directive, however, this document does not guarantee compliance with EC directive (CE Marking).

**Caution for EC Directive**

- **Please ensure that the product complies with EC directive (CE Marking).**
  - Failure to do so may cause electric shock, equipment failures, or short-circuit.
  - Use of the power supply should be secured to the system power supply (MAINS) to prevent power supply overload.

**Safety Precaution**

- **Caution for CE Directive**
  - Please ensure that the product complies with CE directive (CE Marking). If not, the product may fail to comply with the system power supply (MAINS) to prevent power supply overload.

**Operating Precaution**

- **Caution for CE Directive**
  - Please ensure that the product complies with CE directive (CE Marking). If not, the product may fail to comply with the system power supply (MAINS) to prevent power supply overload.

**Notes:**

- **Failure to do so may cause electric shock, equipment failures, or short-circuit.**

**Warning:**

- **Caution:**
  - Failure to do so may cause electric shock, equipment failures, or short-circuit.

**Notice:**

- **Notice:**
  - Failure to do so may cause electric shock, equipment failures, or short-circuit.
The general specifications are equivalent to the PLC main unit.

Associated Manuals

- FX2N Series HARDWARE MANUAL
- FX1N HARDWARE MANUAL
- FX1NC Series User's Manual
- 3G Series User's Manual

2.1 General specifications

The general specifications are equivalent to the PLC main unit.

2.2 Installation

The product is installed by the following method:

- Do not install the product in humid or dusty environments.
- Do not use the product in areas subject to corrosive gases.
- Do not use the product in areas subject to high temperatures or high humidity.
- Do not use the product in areas where it may come into contact with oils or chemicals.

3. Power supply/output specifications and examples of external wiring

3.1 Wiring

3.1.1 Cable end treatment and tightening torque

For the terminals for signals (excluding power supply terminals), the tightening torque depends on the product. Always use the tightening torque specified in the manual for the respective function of the terminal.

3.2 Output specifications and example of external wiring

3.2.1 Relay output specifications

For the output specifications, refer to the manual of the PLC to be connected.

4. Terminal layouts

For the terminal layouts, refer to the manual of the PLC to be connected.

Safety Precautions

- Do not use the product in humid or dusty environments.
- Do not use the product in areas subject to corrosive gases.
- Do not use the product in areas subject to high temperatures or high humidity.
- Do not use the product in areas where it may come into contact with oils or chemicals.

Notes

- For the product to be used for special purposes such as nuclear power, electric power, or semiconductor manufacturing, or in places where sparks or electrostatic discharge may cause harm, install a suppressor to prevent noise and static electricity.
- Do not mix incompatible materials or substances that may cause harm or damage to the product.