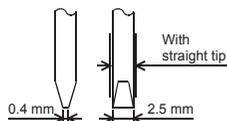


- 5) Tool
For tightening the terminal, use a commercially available small screwdriver having a straight form that is not widened toward the end as shown right.



Note:
If the diameter of screwdriver grip is too small, tightening torque may not be achieved. To achieve the appropriate tightening torque shown in the table above, use the following screwdriver or appropriate replacement (grip diameter: approximately 25 mm (0.98")).

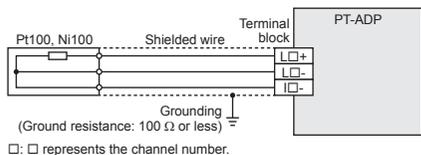
Manufacturer	Model names
Phoenix Contact GmbH & Co. KG	SZS 0.4×2.5

- 6) Terminal block fixed screw tightening torque
Tighten the screws within the range of 0.2 to 0.3 N·m.
Do not tighten terminal screws exceeding with a torque outside the abovementioned range.
Failure to do so may cause equipment failures or malfunctions.

3.2 Wiring Of Resistance Temperature Detector

→ For the terminal configuration, refer to Section 1.2

3.2.1 Example of resistance temperature detector wiring



3.2.2 Precautions on resistance temperature detector wiring

- Only 3 wire Pt100 and Ni100 resistance temperature detectors can be used.
- Separate the cable of the resistance thermometer detector from other power cables or areas easily affected by inductive noise (from commercial power, etc.).

3.3 Grounding

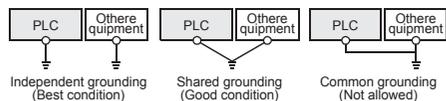
Grounding should be performed as stated below.

- The grounding resistance should be 100 Ω or less.
- Independent grounding should be performed for best results.

When independent grounding is not performed, perform "shared grounding" of the following figure.

For the details, refer to the following manual.

- MELSEC IQ-F FX5UJ User's Manual (Hardware)
- MELSEC IQ-F FX5U User's Manual (Hardware)
- MELSEC IQ-F FX5UC User's Manual (Hardware)



- The grounding wire size should be AWG 22 to 20 (0.3 to 0.5 mm²).
- The grounding point should be close to the PLC, and all grounding wire should be as short as possible.

4. Specifications

STARTUP AND MAINTENANCE PRECAUTIONS	CAUTION
<ul style="list-style-type: none"> Do not disassemble or modify the PLC. Doing so may cause fire, equipment failures, or malfunctions. For repair, contact your local Mitsubishi Electric representative. Do not drop the product or exert strong impact to it. Doing so may cause damage. 	

DISPOSAL PRECAUTIONS	CAUTION
<ul style="list-style-type: none"> Please contact a certified electronic waste disposal company for the environmentally safe recycling and disposal of your device. 	

TRANSPORTATION PRECAUTIONS	CAUTION
<ul style="list-style-type: none"> The product is a precision instrument. During transportation, avoid impacts larger than those specified in the general specifications by using dedicated packaging boxes and shock-absorbing pallets. Failure to do so may cause failures in the product. After transportation, verify operation of the product and check for damage of the mounting part, etc. 	

4.1 Applicable CPU Module

Model name	Applicability
FX5UJ CPU module	From first production
FX5U CPU module	Ver. 1.040 or later
FX5UC CPU module	Ver. 1.040 or later

4.2 General Specifications

The items other than the following are equivalent to those of the CPU module.
For general specifications, refer to the following manual.

- MELSEC IQ-F FX5UJ User's Manual (Hardware)
- MELSEC IQ-F FX5U User's Manual (Hardware)
- MELSEC IQ-F FX5UC User's Manual (Hardware)

Item	Specification	
Dielectric withstand voltage	500 V AC for one minute	Between all external terminals and ground terminal of CPU module
Insulation resistance	10 MΩ or higher by 500 V DC insulation resistance tester	

4.3 Power Supply Specifications

Item	Specification
Internal electric supply (A/D conversion circuit)	24 V DC 20 mA Internal electric supply is carried out from 24 V DC power supply of a CPU module.
Internal electric supply (Interface)	5 V DC 10 mA Internal electric supply is carried out from 5 V DC power supply of a CPU module.

4.4 Performance Specifications

Item	Specification	
	Centigrade (°C)	Fahrenheit (°F)
Number of analog input points	4 points (4 channels)	
Usable resistance temperature detector ^{*1}	Pt100 (JIS C 1604-1997, JIS C 1604-2013) Ni100 (DIN 43760 1987)	
Temperature measuring range	Pt100	-200 to +850°C -328 to +1562°F
	Ni100	-60 to +250°C -76 to +482°F
Digital output value	16-bit signed binary	
	Pt100	-2000 to +8500 -3280 to +15620
Accuracy	Ambient temperature 25±5°C	Pt100 ±0.8°C Ni100 ±0.4°C
	Ambient temperature -20 to 55°C	Pt100 ±2.4°C Ni100 ±1.2°C
Resolution	0.1°C	0.1 to 0.2°F
Conversion speed	Approx. 85 ms/channel ^{*2}	
Isolation method	Between input terminal and CPU module: Photocoupler Between input channels: Non-isolation	
Number of occupied I/O points	0 point (This number is not related to the maximum number of I/O points of the PLC.)	

*1 Only 3-wire type resistance temperature detectors can be used.

*2 For details of the conversion speed, refer to the following manual.

- MELSEC IQ-F FX5 User's Manual (Analog Control - CPU module built-in, Expansion adapter)

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

Warranty

Exclusion of loss in opportunity and secondary loss from warranty liability
Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:
(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.

For safe use

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi Electric.
- This product has been manufactured under strict quality control. However when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN