



Are you not troubled by these kinds of things?

Isn't there a good method for that?

Space in the control panel is narrow...

It takes time for wiring...

I want to prevent screwing failures during wiring...

It takes time to recover from the trouble...



- DC DC power supply
- D2 DC input (sink/source)
- T1 Transistor output (sink)
- T2 Transistor output (source)

New Spring clamp terminal block type in MELSEC iQ-F series solves troubles of the manufacturing site.

CPU module 32 points

- FX5UC-32MT/DS-TS DC D2 T1
- FX5UC-32MT/DSS-TS DC D2 T2

I/O module*1 32 points

Input module	Output module	I/O module
FX5-C32EX/DS-TS	FX5-C32EYT/D-TS	FX5-C32ET/DS-TS
	FX5-C32EYT/DSS-TS	FX5-C32ET/DSS-TS

*1: When connecting to FX5U CPU module, FX5-CNV-IF is required.

Compact size!

By adopting narrow pitch two lines type terminal blocks, 48.1 mm in width for CPU modules and 20.1 mm in width for I/O modules are realized.

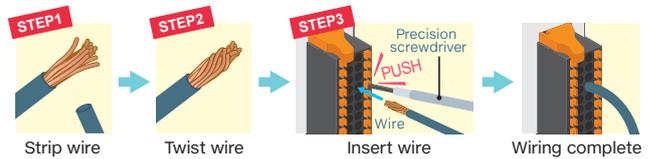


Anyone having trouble with wiring due to narrow space of devices must see this!

In comparison with FX5U CPU module, the width is about **one-third**.

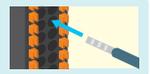
Wiring is completed easily in three steps!

No crimp connectors and crimp tools are needed. Wiring can be performed by preparing cables, and wiring man-hours can be reduced.



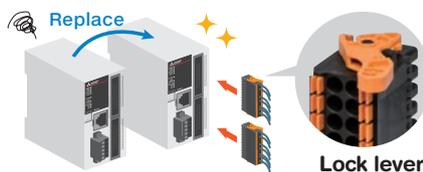
Additionally!

With ferrule, simply inserting by push in method is needed. Wiring is performed easily.



Contribute to a quick recovery in case of a failure of the module!

The module can be replaced while keeping the wiring connected. Since re-wiring like before is not required, the recovery time can be reduced.

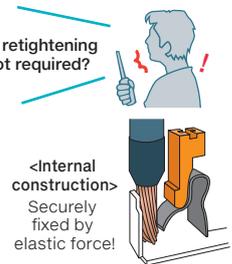


Easily removable with a lock lever! No tools are needed.

Maintainability and safety are improved!

- Since there is no loosening of screws by vibration, retightening maintenance is not required even in long-time use.
- Reduce human error such as screwing failures.
- High safety with no exposure to conductor part of wiring

Is retightening not required?



Spring clamp terminal block can prevent loosening of screws by vibration with the power of springs!

<Internal construction> Securely fixed by elastic force!

MELSEC iQ-F series introduction of questions example! - Output wiring -

Frequent inquiries received at our tech support call center

No. 1 Q Do output terminals have built-in protection circuits?

A Output terminals don't have built-in protection circuits. Provide a protection fuse for safety since there is a risk of burning of a PC board when a load connected to an output terminal is short-circuited.

No. 2 Q How long is the lifetime of relay output?

A It depends on the kind and capacity of load to be connected. When turning on and off for one second each repeatedly while connected to inductive load, the approximate lifetime of the relay*1 is three million times for 20 VA, one million times for 35 VA, and two hundred thousand times for 80 VA. (Based on our product test)

No. 3 Q Is it possible to connect loads which have mutually different power supply voltages to the same common?

A The loads which have mutually different power supply voltages cannot be connected to the same common. But, each of the loads can be connected to each common separately.

*1: It may remarkably decrease depending on the using situation. For details, refer to the manuals. (July 2017 survey)



For use of spring clamp terminal block

For wiring to spring clamp terminal block, twist wire and ferrule are used.

When using a mark tube for wiring, it is recommended to use pleated type and ellipse type. They can prevent a mark tube from falling off.

A list of spring clamp terminal block mounted products

Model	Specifications
FX5UC-32MT/DS-TS	CPU module
FX5UC-32MT/DSS-TS	
FX5-C32EX/DS-TS	Input module
FX5-C32EYT/D-TS	Output module
FX5-C32EYT/DSS-TS	
FX5-C32ET/DS-TS	Input/output module
FX5-C32ET/DSS-TS	Input/output module
FX5-8AD	Multiple input module
FX5-4LC	Temperature control module
FX5-ASL-M	AnyWireASLINK system master module

Crimp terminal, tool (PHOENIX CONTACT GmbH & Co. KG*1 *2)

Crimp terminal (Ferrule)*3

• Ferrule with insulation sleeve • Ferrule without insulation sleeve

AI 0.25-10 YE
AI 0.34-10 TQ
AI 0.5-10 WH
AI 0.75-10 GY



A 1.0-10
A 1.5-10



Crimp tool

Adopts the above crimp terminals.



CRIMPFOX 6

A list of cables which can wire to spring clamp terminal block

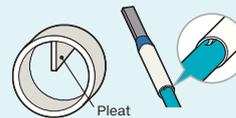
Adopting wires	Kind of terminals		
	Single wire	Twist wire	Ferrule
Cross section (mm ²)			
0.25	○	○	AI 0.25-10 YE
0.34	○	○	AI 0.34-10 TQ
0.5	○	○	AI 0.5-10 WH
0.75	○	○	AI 0.75-10 GY
1	○	○	A 1.0-10 (With no insulation sleeve)
1.5	○	○	A 1.5-10 (With no insulation sleeve)

PHOENIX CONTACT GmbH & Co. KG*1*2

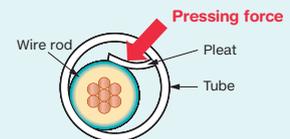
Mark tube

Pleated type

"Pleat" in the tube firmly holds the internal cable and prevents it from falling off.

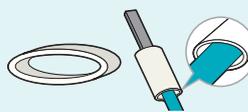


A figure of cross-section shape

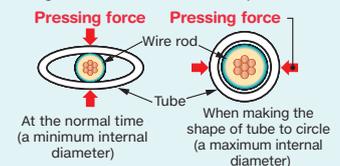


Ellipse type

Return force which makes the shape of tube to ellipse is strong, and a thin wire rod with a diameter of 2 mm or less are held firmly.



A figure of cross-section shape



*1: For a guarantee of the reference products, they are not the target of guarantee for the products of Mitsubishi Electric.

*2: If a product other than the reference products is used, the wire ferrule cannot be pulled out. Sufficiently confirm that the wire ferrule can be pulled out before use.

*3: Recommended crimp terminal differs depending on spring clamp terminal block mounted product. For details, refer to the manual for each product.

MITSUBISHI ELECTRIC CORPORATION

Please contact your nearest Mitsubishi Electric representative for more information.

Safety Warning

To ensure proper use of the products in this document, please be sure to read the instruction manual prior to use.

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