Requirements for the FX5UC CPU Modules and I/O Modules to Comply with the UL/cUL Certification

■Date of Issue
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■Relevant Models
MELSEC iQ-F series

Thank you for your continued support of Mitsubishi Electric programmable controllers, MELSEC iQ-F series.
This technical bulletin informs you of requirements for the following models to comply with the UL or cUL certification. There is no impact on the general specifications, performance specifications, functions, and external dimensions due to the change.

1   APPLICABLE MODELS

Product	Model
FX5UC CPU module	FX5UC-32MT/D, FX5UC-32MT/DSS, FX5UC-64MT/D, FX5UC-64MT/DSS, FX5UC-96MT/D, FX5UC-96MT/DSS, FX5UC-32MR/DS-TS, FX5UC-32MT/DS-TS, FX5UC-32MT/DSS-TS
I/O module	FX5-C16EYT/D, FX5-C16EYT/DSS, FX5-C16EX/D, FX5-C16EX/DS, FX5-C32ET/D, FX5-C32ET/DSS, FX5-C32EX/D, FX5-C32EX/DS, FX5-C32EYT/D, FX5-C32EYT/DSS, FX5-C16EYR/D-TS, FX5-C32ET/DS-TS, FX5-C32ET/DSS-TS, FX5-C32EX/DS-TS, FX5-C32EYT/D-TS, FX5-C32EYT/DSS-TS

2   REQUIRED WIRES

To comply with UL/cUL certification, applicable models require copper wires with a temperature rating of 80℃ or higher.

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3   WHEN CONNECTING WITH SPRING CLAMP TERMINAL BLOCKS

To ensure that the target models comply with UL/cUL certification, the wiring must meet the conditions listed below.

Wire size

Number of connectable wires per terminal	Wire size		
	Solid wire, stranded wire	Bar terminal with an insulation sleeve	Bar terminal with no insulation sleeve
One wire	0.2 to 1.5mm^2 (AWG24 to 16)	0.34 to 0.75mm^2 (AWG22 to 18)	0.5 to 1.5mm^2 (AWG20 to 16)

Terminal processing

■**When bar solderless terminals are not used**

Strip approximately 10mm of insulation from the end of the wire, then twist the wire into a stranded wire to prevent separation before installation. If the wire strip length is too long, the conductive part extends to the front of the terminal block. This can result in an electric shock or a short-circuit between neighboring terminals. If the wire strip length is too short, there is a risk of poor contact with the spring clamp terminal block.

■**When bar solderless terminals are used**

When installing bar solderless terminals to wires, use a bar solderless terminal tool. For the wire strip length, follow the specifications of each bar solderless terminal.

The wire should be stripped to the appropriate length, in the same way as when bar solderless terminals are not used. Failure to do so can result in an electric shock, a short-circuit, or poor contact.

The following recommended bar solderless terminals should be used.

Provider (Inquiry destination)	Model	Wire size	AWG	Crimping tool
PHOENIX CONTACT GmbH & Co. KG (www.phoenixcontact.com)	AI0.34-10TQ	0.34mm^2	22	CRIMPFOX6
	AI0.5-10WH	0.5mm^2	20	
	AI0.75-10GY	0.75mm^2	18	
	A0.5-10	0.5mm^2	20	
	A0.75-10	0.75mm^2	18	
	A1-10	1.0mm^2	18	
	A1.5-10	1.5mm^2	16	

4   SCHEDULE

The new packaging boxes will be used for the products manufactured from October 2025 onwards.

Note that, depending on stock status, both the old and new packaging boxes may be distributed in the market around that time.

We appreciate your kind understanding.

REVISIONS

Version	Date of Issue	Revision
A	November 2025	First edition

TRADEMARKS

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