

Requirements for Intelligent Function Modules to be UL/cUL Listed Products

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■Relevant Models

FX5-CCLGN-MS, FX5-CCL-MS, FX5-ENET, FX5-ENET/IP, FX5-OPC, FX5-DP-M, FX5-4DA, FX5-4AD, FX5-20PG-P, FX5-20PG-D, FX5-2HC/ES, FX5-8AD

Thank you for your continued support of Mitsubishi Electric micro programmable controllers, MELSEC iQ-F series. This technical bulletin describes the requirements for some intelligent function modules to be UL or cUL listed products. There is no impact on the general specifications, performance specifications, functions, and external dimensions.

1 EXTERNAL POWER SUPPLIES TO BE USED

1.1 Relevant Models

Product	Model
CC-Link IE TSN master/local module	FX5-CCLGN-MS
CC-Link system master/intelligent device module	FX5-CCL-MS
Ethernet module	FX5-ENET, FX5-ENET/IP
OPC UA module	FX5-OPC
PROFIBUS-DP master module	FX5-DP-M
Analog output module	FX5-4DA
Analog input module	FX5-4AD
Positioning module	FX5-20PG-P, FX5-20PG-D
High-speed counter module	FX5-2HC/ES
Multiple input module	FX5-8AD

1.2 Requirements

For the above relevant models to be certified as UL or cUL listed products, a limited energy circuit (LIM) power supply or safety extra-low-voltage (SELV) power supply that meets the UL 1310 Class 2 should be used for the external power supply (DC power supply) of the entire system.

2 BAR SOLDERLESS TERMINALS TO BE USED

2.1 Relevant Models

Product	Model
Ethernet module	FX5-ENET, FX5-ENET/IP
OPC UA module	FX5-OPC
Positioning module	FX5-20PG-P, FX5-20PG-D

2.2 Requirements

For the above relevant models to be certified as UL or cUL listed products, the recommended bar solderless terminals listed below should be used.

Peel the coating about 8mm from the tip of the wire, and attach a bar solderless terminal to the peeled part.

<Recommended bar solderless terminals>

Supplier (Contact information)	Insulation sleeve	Model	Applicable wire diameter	Compatible standards	Crimping tool
PHOENIX CONTACT GmbH & Co. KG (www.phoenixcontact.com)	Provided	Al 0.25-8 YE	0.25mm ²	UL/cUL Listed	CRIMPFOX6
		Al 0.34-8 TQ	0.34mm ²		
		Al 0.5-8 WH	0.5mm ²		
		Al 0.75-8 GY	0.75mm ²		
	Not provided	A 0,5-8	0.5mm ²		

REVISIONS

Version	Date of Issue	Revision
A	February 2025	First edition

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