

TECHNICAL BULLETIN
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[Issue No.] HIME-T-P-0162A

[Title] Notice for expanded operating ambient temperature range

[Date of Issue] June 2016

[Relevant Models] MELSEC iQ-F series

Thank you very much for your continued support of Mitsubishi's MELSEC iQ-F Series micro PLC.

We would like to inform you of differences in the specifications for MELSEC iQ-F series. For products manufactured in June 2016 onwards, the operating ambient temperature range has been expanded from 0°C to 55°C → -20°C to 55°C.

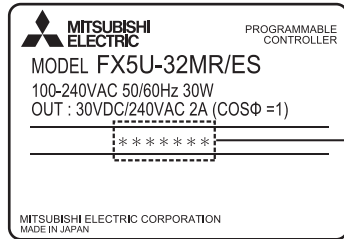
1. Applicable Models

Model (Type)	Serial number that starts to support	Model Name	Model (Type)	Serial number that starts to support	Model Name	
CPU module	166**** (June 2016)	FX5U-32MR/ES	I/O module	166**** (June 2016)	FX5-16ET/ES-H	
		FX5U-32MT/ES			FX5-16ET/ESS-H	
		FX5U-32MT/ESS			FX5-C16EX/D	
		FX5U-64MR/ES			FX5-C16EX/DS	
		FX5U-64MT/ES			FX5-C16EYT/D	
		FX5U-64MT/ESS			FX5-C16EYT/DSS	
		FX5U-80MR/ES			FX5-C32EX/D	
		FX5U-80MT/ES			FX5-C32EX/DS	
		FX5U-80MT/ESS			FX5-C32EYT/D	
		FX5U-32MR/DS			FX5-C32EYT/DSS	
		FX5U-32MT/DS			FX5-C32ET/D	
		FX5U-32MT/DSS			FX5-C32ET/DSS	
		FX5UC-32MT/D			FX5-1PSU-5V	
		FX5UC-32MT/DSS			FX5-C1PS-5V	
		FX5UC-64MT/D				
		FX5UC-64MT/DSS				
		FX5UC-96MT/D				
		FX5UC-96MT/DSS				
I/O module	166**** (June 2016)	FX5-32ER/ES	Expansion power supply module	166**** (June 2016)	FX5-232-BD	
		FX5-32ET/ES			FX5-485-BD	
		FX5-32ET/ESS			FX5-422-BD-GOT	
		FX5-32ER/DS	Expansion board		166 (June 2016) *Lot number	FX5-232ADP
		FX5-32ET/DS				FX5-485ADP
		FX5-32ET/DSS				FX5-4AD-ADP
		FX5-8EX/ES	Expansion adapter		166**** (June 2016)	FX5-4DA-ADP
		FX5-8EYR/ES				FX5-CCLIEF
		FX5-8EYT/ES				FX5-CNV-IF
		FX5-8EYT/ESS	Intelligent function module		166**** (June 2016)	FX5-CNV-IFC
		FX5-16EX/ES				FX5-CNV-IFC
		FX5-16EYR/ES	Connector conversion module		166**** (June 2016)	FX5-CNV-IF
		FX5-16EYT/ES				FX5-CNV-IFC
		FX5-16EYT/ESS	Connection conversion adapter		166 (June 2016) *Lot number	FX5-CNV-IF
		FX5-16EYT/ESS				FX5-CNV-IFC
	Extended extension cable	From the first product	FX5-30EC			
			FX5-65EC			

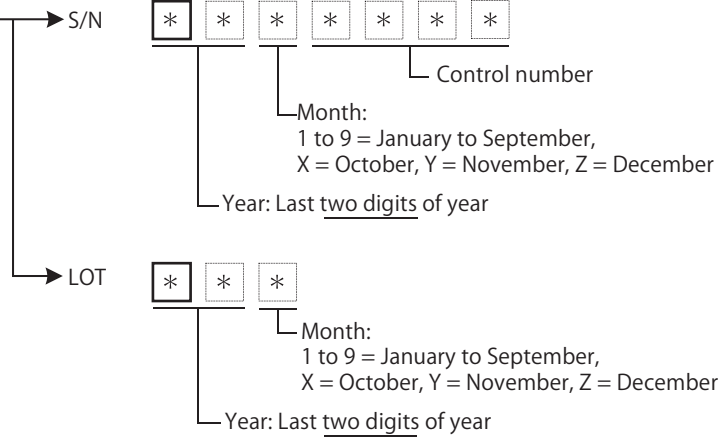
2. How to check the date of manufacture

The date of manufacture of the product can be checked from the manufacturer's serial number, "S/N" and "LOT", indicated on the nameplate of the product.*

Example nameplate



Actual product nameplate differs from the example shown above.



* For the expansion board, check the nameplate of the packaging box.

3. Precautions for operating ambient temperature

■ **Precaution when used at an operating ambient temperature below 0°C.**

- With some exceptions, the operating ambient temperature is -20 to 55°C for the FX5 PLCs manufactured in June 2016 onwards.
- The operating ambient temperature is 0 to 55°C for the FX5 PLCs manufactured before June 2016.
- When the device is used in a low-temperature environment, use care not to let the product freeze or condensation to occur.
- When used in a low-temperature environment, use in an environment with no sudden temperature changes. If there are sudden temperature changes because of opening/closing of the control panel or other reasons, condensation may occur, which may cause a fire, fault, or malfunction. Furthermore, use an air conditioner in dehumidifier mode to prevent condensation.

■ **Related devices which cannot be used at an operating ambient temperature below 0°C.**

The following devices cannot be used at an operating ambient temperature below 0°C.

Device name
FX5-40SSC-S
FX5-CNV-BUS
FX5-CNV-BUSC
Battery (FX3U-32BL)
SD memory card (NZ1MEM-2GBSD, NZ1MEM-4GBSD, L1MEM-2GBSD, L1MEM-4GBSD)
FX3 expansion module
Terminal module
Input/output cable (FX-□E-500CAB-S, FX-□E-□CAB, FX-□E-□CAB-R)

■ **About specifications when used at an operating ambient temperature below 0°C.**

For using the device at an operating ambient temperature below 0°C, specifications are different from when used at an operating ambient temperature of 0 to 55°C.

Item		When used at 0 to 55°C	When used at below 0°C	
Capacity of 24 V DC service power supply of the FX5U CPU module (AC power supply type)	FX5U-32M□/E□	Supply capacity when service power supply is used for the input circuit of the CPU module	400mA	300mA
		Supply capacity when external power supply is used for the input circuit of the CPU module	480mA	380mA
	FX5U-64M□/E□	Supply capacity when service power supply is used for the input circuit of the CPU module	600mA	300mA
		Supply capacity when external power supply is used for the input circuit of the CPU module	740mA	440mA
	FX5U-80M□/E□	Supply capacity when service power supply is used for the input circuit of the CPU module	600mA	300mA
		Supply capacity when external power supply is used for the input circuit of the CPU module	770mA	470mA
Accuracy of the built-in analog of the FX5U CPU module	Analog input	Within ±1.0% (±40 digit)	Within ±1.5% (±60 digit)	
	Analog output	Within ±1.0% (±40 digit)	Within ±1.5% (±60 digit)	
Accuracy of the analog of FX5-4AD-ADP	Analog input	Within ±0.2% (±32 digit)	Within ±0.3% (±48 digit)	

Revised History

Revision	Date	Description
A	June 2016	First edition

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