MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

FAM-A-0051-A

Production Discontinuation of the MELSEC-F Series PROFIBUS-DP Interface Block

■Date of Issue

October 2022

■Relevant Models

FX2N-32DP-IF-D

Thank you for your continued support of Mitsubishi Electric micro programmable controllers, MELSEC-F series.
This technical bulletin informs you that production of the FX2N-32DP-IF-D will be discontinued.

1 MODEL TO BE DISCONTINUED

Product	Model
PROFIBUS-DP interface block	FX2N-32DP-IF-D

2 SCHEDULE

- Start of make-to-order production: April 1, 2023
- Order acceptance: Until September 30, 2023
- Production discontinuation: December 31, 2023

3 REASON FOR DISCONTINUATION

Some parts of the product are now obsolete, and our company will have difficulty to maintain the production system.

4 REPAIR ACCEPTANCE

Repair acceptance: Until December 31, 2030 (for seven years after the discontinuation of production)
(Note that, even during the repair acceptance period, the repair will not be supported if the parts run out of stock.)

MITSUBISHI ELECTRIC CORPORATION

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5 ALTERNATIVE MODEL AND SPECIFICATION COMPARISON

Alternative model

Model to be discontinued		Alternative model	
Product	**Model**	**Product**	**Model**
PROFIBUS-DP interface block	FX2N-32DP-IF-D	PROFIBUS-DP interface block	FX3U-32DP

One of the following CPU modules is required to use the FX3U-32DP.

- FX3G CPU module*1
- FX3GC CPU module*1
- FX3U CPU module*1
- FX3UC CPU module*1
- FX5U CPU module*2
- FX5UC CPU module*2

*1 The FX2NC-CNV-IF or FX3UC-1PS-5V is required to use this CPU module.
*2 The FX5-CNV-BUS or FX5-CNV-BUSC is required to use this CPU module.

Point

When selecting, check the relevant manuals for the specifications of the FX3U-32DP and CPU module, including the external dimensions and power supply specifications. (☞ Page 6 References)

Precautions when using an alternative model

The program must be modified to use the FX3U-32DP as an alternative model to the FX2N-32DP-IF-D. Change the relevant points according to the hardware configuration and program details. The main points to be changed are as follows.

■Setting of slave address

The PROFIBUS slave address of the FX2N-32DP-IF-D is set with the on/off setting of the DIP switch. The PROFIBUS slave address of the FX3U-32DP is set to BFM#27. Check the slave address of the FX2N-32DP-IF-D and write its address to BFM#27 using the TO (MOV) instruction of the CPU module.

■User parameters

The FX2N-32DP-IF-D writes/reads data that are received/sent from/to the PROFIBUS-DP master to/from the buffer memory area of the extension device connected to the FX2N-32DP-IF-D. To use the FX3U-32DP, change the program so that data are directly written/read to/from the buffer memory area of the extension device using the FROM/TO (MOV) instruction.

■ Special device

The FX2N-32DP-IF-D has Data registers and Special Data registers. The FX3U-32DP, however, does not have the functions for special devices. Use the FROM/TO (MOV) instruction or application instructions. For details, refer to the user's manual of the FX2N-32DP-IF.

Comparison of specifications

This section compares the differences in specifications between the FX2N-32DP-IF-D and the FX3U-32DP.

■General specifications

Item	Specifications	
	FX2N-32DP-IF-D	FX3U-32DP
Operating ambient temperature	0 to 55℃ (32 to 131℉)	The general specifications are the same as those of the CPU module to which the interface block is connected. Do not perform the tests of withstand voltage and insulation resistance. For details, refer to the manual for each CPU module. 📖 FX3G SERIES USER'S MANUAL - Hardware Edition 📖 FX3GC SERIES USER'S MANUAL - Hardware Edition 📖 FX3U SERIES USER'S MANUAL - Hardware Edition 📖 FX3UC SERIES USER'S MANUAL - Hardware Edition 📖 MELSEC iQ-F FX5S/FX5UJ/FX5U/FX5UC User's Manual (Hardware)
Storage ambient temperature	-20 to 70℃ (-4 to 158℉)	
Operating relative humidity	35 to 85%RH (No condensation)	
Storage relative humidity	35 to 90%RH (No condensation)	
Vibration resistance (Direct installing)	Half amplitude (mm): 0.075 (frequency: 10 to 57Hz) Acceleration (m/s^2): 9.8 (frequency: 57 to 150Hz) 10 times in each direction of X, Y, and Z (80 minutes in total)	
Vibration resistance (Installed on DIN rail)	Half amplitude (mm): 0.035 (frequency: 10 to 57Hz) Acceleration (m/s^2): 4.9 (frequency: 57 to 150Hz) 10 times in each direction of X, Y, and Z (80 minutes in total)	
Shock resistance	147m/s^2, Action time: 11ms, 3 times by half-sine pulse in each direction of X, Y, and Z	
Noise durability	Noise voltage: 1000Vp-p Noise width: 1μs (1ns on the rising edge), Noise frequency: 30 to 100Hz (noise simulator condition)	
Withstand voltage	1.5kVAC for one minute (Between each terminal and the ground terminal)	0.5kVAC for one minute (Between the communication terminal and the ground terminal of programmable controller)
Insulation resistance	5MΩ or higher (500VDC insulation resistance tester)	5MΩ or higher (500VDC insulation resistance tester) (Between the communication terminal and the ground terminal of programmable controller)

■Power supply specifications

Item	Specifications	
	FX2N-32DP-IF-D	FX3U-32DP
Power supply voltage	24VDC +20%, -30%	Differs depending on the CPU module to be connected. For details, refer to the manual for each CPU module. 📖 FX3G SERIES USER'S MANUAL - Hardware Edition 📖 FX3GC SERIES USER'S MANUAL - Hardware Edition 📖 FX3U SERIES USER'S MANUAL - Hardware Edition 📖 FX3UC SERIES USER'S MANUAL - Hardware Edition 📖 MELSEC iQ-F FX5S/FX5UJ/FX5U/FX5UC User's Manual (Hardware)
Allowable momentary power failure time	5ms at 24VDC Operation can be continued upon occurrence of momentary power failure for 5ms or less.	
Power supply fuse	1A <ϕ5 × 20mm (0.2 × 0.79 inches), time-lag fuse>	
Inrush current	24VDC Max. 30A < 5ms	
Power consumption	14W	
Built-in power supply of 5VDC	220mA	

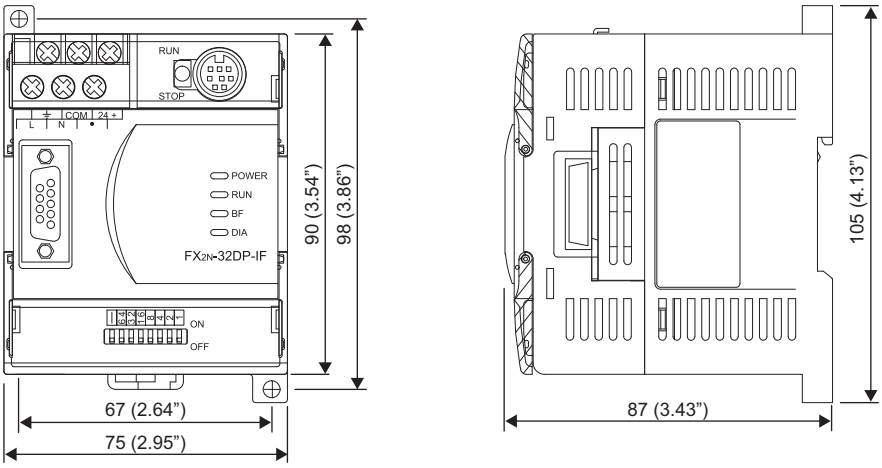
■Performance specifications

Item		Specifications	
		FX2N-32DP-IF-D	FX3U-32DP
Maximum number of control I/O points		256	Differs depending on the CPU module to be connected as follows. • FX3G/FX3GC CPU module: 120 • FX3U/FX3UC CPU module: 248 • FX5U/FX5UC CPU module: 376
Number of bytes of communication data		Maximum 200 bytes	Maximum 144 bytes
Communication type		Bus network	Bus network
Communication connector	9-pin D-SUB	Connector for the PROFIBUS-DP	Connector for the PROFIBUS-DP
Communication baud rate	9.6k, 19.2k, 45.45k, 93.75k	1,200m	1,200m
	187.5k	1,000m	1,000m
	500k	400m	400m
	1.5M	200m	200m
	3M, 6M, 12M	100m	100m

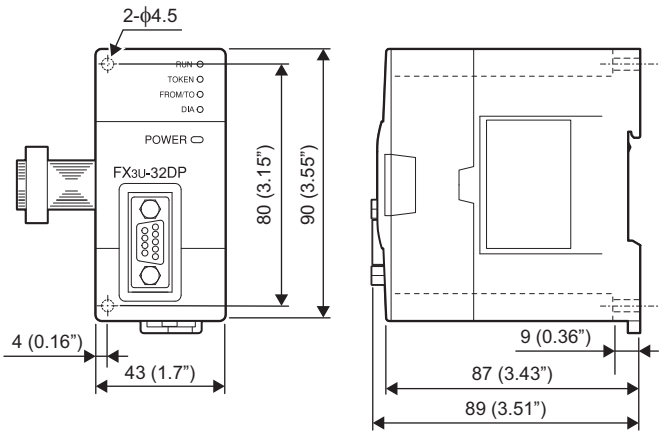
Comparison of external dimensions

The external dimensions of the discontinued model and the alternative model are shown below.

■FX2N-32DP-IF-D

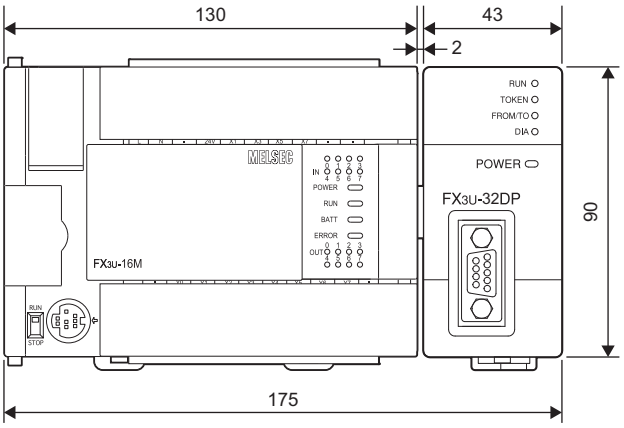


■FX3U-32DP



Ex.

The external dimensions when FX3U-32DP is connected to FX3U-16MΠ/ES.



References

References		Description
Model	**Manual name**	
PROFIBUS-DP	FX3U-32DP PROFIBUS-DP Interface Block User's Manual <JY997D25201>	Describes the details of FX3U-32DP PROFIBUS-DP interface block, including part names, external dimensions, specifications, and handling.
MELSEC-F Main unit	FX3G SERIES USER'S MANUAL - Hardware Edition <JY997D31301>	Describes the details of hardware of the FX3G series, including input/output specifications, wiring, and installation.
	FX3GC SERIES USER'S MANUAL - Hardware Edition <JY997D45401>	Describes the details of hardware of the FX3GC series, including input/output specifications, wiring, and installation.
	FX3U SERIES USER'S MANUAL - Hardware Edition <JY997D16501>	Describes the details of hardware of the FX3U series, including input/output specifications, wiring, and installation.
	FX3UC SERIES USER'S MANUAL - Hardware Edition <JY997D28701>	Describes the details of hardware of the FX3UC series, including input/output specifications, wiring, and installation.
	FX3S/FX3G/FX3GC/FX3U/FX3UC SERIES PROGRAMMING MANUAL - Basic & Applied Instructions Edition <JY997D16601>	Describes the details of sequence program for the FX3S/FX3G/FX3GC/FX3U/FX3UC series, including basic instructions, stepladder diagrams, application instructions, and available devices.
MELSEC iQ-F CPU module	MELSEC iQ-F FX5S/FX5UJ/FX5U/FX5UC User's Manual (Hardware) <SH-082452ENG>	Describes the details of hardware of the FX5S/FX5UJ/FX5U/FX5UC CPU module, including input/output specifications, wiring, and installation.
	MELSEC iQ-F FX5 Programming Manual (Program Design) <JY997D55701>	Describes the details of the FX5U/FX5UC CPU module, including specifications of ladder program and the labels.
	MELSEC iQ-F FX5 Programming Manual (Instructions, Standard Functions/Function Blocks) <JY997D55801>	Describes the specifications of instructions and functions that can be used in programs of the FX5U/FX5UC CPU module.

REVISIONS

Version	Date of Issue	Revision
A	October 2022	First edition

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