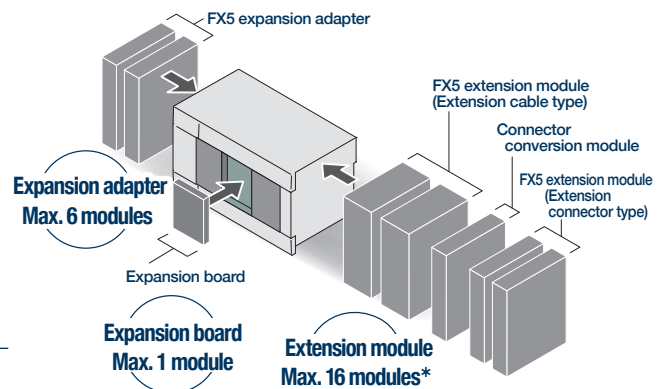


System Configuration

FX5U

Flagship model equipped with advanced built-in functions and diverse expandability

FX5U is equipped with analog functions, communication and high-speed I/O, and can easily be expanded with expansion boards and adapters. The high-speed system bus communication brings out the maximum performance of extension devices equipped with intelligent functions.



*: Up to 12 modules can be used by directly connecting a CPU module. Up to 16 modules can be connected by connecting a powered I/O module or an extension power supply module. Extension power supply modules and connector conversion modules are not included in the number of connected modules.

FX5 expansion adapter

Max. 2 modules

Communication

FX5-232ADP For RS-232C communication
FX5-485ADP For RS-485 communication

Max. 4 modules

Analog

FX5-4AD-ADP For analog input
FX5-4DA-ADP For analog output
FX5-4AD-PT-ADP For resistance temperature detector input
FX5-4AD-TC-ADP*5 For thermocouple input

FX5 expansion board

Max. 1 module

Communication

FX5-232-BD For RS-232C communication
FX5-485-BD For RS-485 communication
FX5-422-BD-GOT For RS-422 communication (For GOT connection)

Peripheral device

HMI

GOT2000, GOT1000

FX5U CPU module

FX5U-32MR/ES
FX5U-32MT/ES
FX5U-32MT/ESS
FX5U-32MR/DS
FX5U-32MT/DS
FX5U-32MT/DSS

Input: 16 points/Output: 16 points

FX5U-64MR/ES
FX5U-64MT/ES
FX5U-64MT/ESS
FX5U-64MR/DS
FX5U-64MT/DS
FX5U-64MT/DSS

Input: 32 points/Output: 32 points

FX5U-80MR/ES
FX5U-80MT/ES
FX5U-80MT/ESS
FX5U-80MR/DS
FX5U-80MT/DS
FX5U-80MT/DSS

Input: 40 points/Output: 40 points

Option

Terminal module

FX-16E-TB FX-16E-TB/UL
FX-32E-TB FX-32E-TB/UL
FX-16EYR-TB FX-16EYR-ES-TB/UL
FX-16EYS-TB FX-16EYS-ES-TB/UL
FX-16EYT-TB **FX-16EYT-ES-TB/UL**
FX-16EYT-ESS-TB/UL

I/O cable

● General-purpose input/output cable
FX-16E-500CAB-S (5 m, 20-pin single wire)
● For terminal module
FX-16E-□CAB (20-pin on both ends)
□: 150 (1.5 m) / 300 (3 m) / 500 (5 m)
● For terminal module
FX-16E-□CAB-R (20-pin on both ends)
□: 150 (1.5 m) / 300 (3 m) / 500 (5 m)

Extended extension cable

● Extended extension cable
FX5-30EC*2
FX5-65EC*2

● Connector conversion adapter
FX5-CNV-BC

Power supply cable

● Power supply cable
FX2NC-100BPCB (1 m)
● Power crossover cable
FX2NC-10BPCB1 (0.1 m)

SD memory card

NZ1MEM-2GBSD (2 GB)
NZ1MEM-4GBSD (4 GB)
NZ1MEM-8GBSD (8 GB)
NZ1MEM-16GBSD (16 GB)

Engineering tool

GX Works3

Battery

FX3U-32BL

Connector for external device

● Soldering type (straight out)*7
A6CON1 (40-pin)
● Crimping type (straight out)*7
A6CON2 (40-pin)
● Soldering type (straight/diagonal out)*7
A6CON4 (40-pin)

Connector for self-making I/O cable
● For flat cable
FX2C-I/O-CON (0.1 mm², 20-pin)
● Connector for single wire
FX2C-I/O-CON-S (0.3 mm², 20-pin)
FX2C-I/O-CON-SA (0.5 mm², 20-pin)
FX-I/O-CON2-S (0.3 mm², 40-pin)*8
FX-I/O-CON2-SA (0.5 mm², 40-pin)*8

AC AC power supply
DC DC power supply
D2 DC input (sink/source)
T1 Transistor output (sink)
T2 Transistor output (source)
R Relay output

Connector connection Cable connection
★: New product Models whose production will be terminated at the end of March 2021

Outline specifications

Item		Outline specifications
Power supply	Rated voltage	AC power supply type: 100 to 240 V AC, 50/60 Hz DC power supply type: 24 V DC
	Power consumption*1	AC power supply type: 30 W (32M), 40 W (64M), 45 W (80M) DC power supply type: 30 W (32M), 40 W (64M), 45 W (80M)
	Rush current	AC power supply type: 32M: max. 25 A for 5 ms or less/100 V AC, max. 50 A for 5 ms or less/200 V AC 64M/80M: max. 30 A for 5 ms or less/100 V AC, max. 60 A for 5 ms or less/200 V AC DC power supply type: 32M: max. 50 A for 0.5 ms or less/24 V DC 64M/80M: max. 65 A for 2.0 ms or less/24 V DC
	5 V DC internal power supply capacity	AC power supply type: 900 mA (32M), 1100 mA (64M/80M) DC power supply type: 900 mA (775 mA*) (32M), 1100 mA (975 mA*) (64M/80M)
	24 V DC service power supply capacity	AC power supply type: 400 mA [300 mA*] (32M), 600 mA [300 mA*] (64M/80M) When an external power supply is used for the input circuit of the CPU module: 480 mA [380 mA*] (32M), 740 mA [440 mA*] (64M), 770 mA [470 mA*] (80M)
	24 V DC internal power supply capacity	DC power supply type: 480 mA (360 mA*) (32M), 740 mA (530 mA*) (64M), 770 mA (560 mA*) (80M)
Input/output	Input specifications	5.3 mA/24 V DC (X20 and later: 4.0 mA/24 V DC)
	Output specifications	Relay output type: 2 A/1 point, 8 A or less/4 points common, 8 A or less/8 points common, 30 V DC or less, 240 V AC or less (250 V AC or less in case of noncompliance with CE, UL/cUL Standards) Transistor output type: 0.5 A/1 point, 0.8 A or less/4 points common, 1.6 A or less/8 points common, 5-30 V DC
	Input/output extension	Extension devices for FX5 can be connected: when adding an extension connector type, the connector conversion module (FX5-CNV-IF) is required.
Built-in communication port		Ethernet (100BASE-TX/10BASE-T), RS-485 1 ch each
Built-in memory card slot		1 slot for SD memory card
Built-in analog input/output		Input 2 ch, output 1 ch

*1: The values show the state where the service power of 24 V DC is consumed to the maximum level in case that its configuration has the max. number of connections provided to CPU module. (Including the current in the input circuit)

*2: The values in the parentheses () indicate the power supply capacity to be resulted when the power supply voltage falls in the range from 16.8 to 19.2 V DC.

*3: The values in the brackets [] will result when the ambient temperature is less than 0°C during operations.

Please choose the I/O type of CPU module or I/O module suited for your equipment.
Refer to the page below for the details of I/O type of each product.

FX5 extension module (Extension cable type)

I/O module	Intelligent function module	Safety extension module*10
  	  	 
Powered I/O module FX5-32ER/ES*3 FX5-32ET/ES*3 FX5-32ET/ESS*3 FX5-32ER/DS*4 FX5-32ET/DS*4 FX5-32ET/DSS*4	Input module FX5-8EX/ES FX5-16EX/ES FX5-16ET/ES FX5-16ET/ESS Output module FX5-8EYR/ES FX5-8EYT/ES FX5-8EYT/ESS FX5-16EYR/ES FX5-16EYT/ES FX5-16EYT/ESS High-speed pulse input/output module FX5-16ET/ES-H FX5-16ET/ESS-H	Safety main module ★FX5-SF-MU4T5 Safety input expansion module ★FX5-SF-8DI4
	Temperature control FX5-4LC Positioning FX5-20PG-P FX5-20PG-D Simple motion FX5-40SSC-S FX5-80SSC-S  Communication/network ★FX5-CCLGN-MS CC-Link IETSN FX5-ENET CC-Link IE Basic FX5-CCLIEF CC-Link IE field FX5-ASL-M AnyWireASLINK FX5-ENET/IP FX5-CCL-MS CC-Link V2 FX5-DP-M	Extension power supply module FX5-1PSU-5V*1*3

FX5 extension module (Extension cable type)

Connector conversion module



FX5-CNV-IF

FX5 extension module (Extension connector type)

Extension power supply module



FX5-C1PS-5V*1*4

Bus conversion module

Bus conversion module



FX5-CNV-BUSC

FX3 extension module*11

Intelligent function module

Analog	Temperature control
FX3U-4AD For input	FX3U-4LC
FX3U-4DA For output	Temperature control
Positioning	High speed counter
FX3U-1PG For pulse output	FX3U-2HC
	For high-speed input
Communication/Network	
FX3U-64CCL	CC-Link slave
FX3U-16CCL-M	CC-Link master
FX3U-128ASL-M	AnyWireASLINK master
FX3U-32DP	PROFIBUS-DP slave

Extension power supply module



FX3U-1PSU-5V*1*3

*1: When adding the extension module, it is necessary to connect it to the front stage of extension module in case of a shortage of internal power supply in CPU module.

*2: Attach when connecting an extension cable type module to a distant location or when making two-tier connections. The connector conversion adapter (FX5-CNV-BC) is required when connected with an input/output module (extension cable type), high-speed pulse input/output module, or an intelligent function module. When using also the bus conversion module in the same system, connect the FX5 extension power supply module or the powered I/O module right after the extended extension cable.

*3: Can be connected only to the AC power type system.

*4: Can be connected only to the DC power type system.

*5: There are restrictions on the number of extension devices and the connection order of FX5-4AD-TC-ADP. For details, refer to the manual.

*6: Spring clamp terminal block type.

*7: For FX5-20PG-P and FX5-20PG-D.

*8: For FX3U-2HC.

*9: FX2NC-100BPCB is required separately when adding to FX5U CPU module.

*10: When the FX5 safety extension modules are connected, extension modules cannot be connected on the subsequent stage (the right side).

*11: For the module requiring parameter in FX3 extension module, parameter settings by program are necessary. When connecting the FX3 extension module, the bus speed for FX3 applies for access.