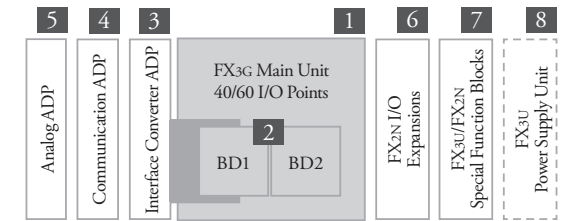
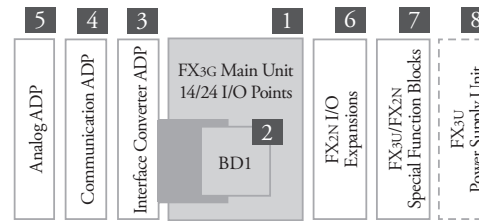


Reference Sheet

FX3G



Expansion Boards

FX3G-232-BD

Communication

FX3G-232-BD
FX3G-422-BD
FX3G-485-BD

Analog

FX3G-2AD-BD
FX3G-1DA-BD

Analog Setpoint

FX3G-8AV-BD

2

Special Adapters

FX3U-232ADP-MB

FX3U-485ADP-MB

Communication

FX3U-232ADP-MB
FX3U-485ADP-MB

FX3G-CNV-ADP

Interface Converter

FX3G-CNV-ADP

FX3U-4AD-ADP

FX3U-4AD-PT-ADP

Analog

FX3U-4AD-ADP
FX3U-4DA-ADP
FX3U-3A-ADP

Temperature

FX3U-4AD-PT-ADP
FX3U-4AD-TC-ADP
FX3U-4AD-PTW-ADP
FX3U-4AD-PNK-ADP

4 3 5

FX3G Main Units

FX3G-24MT/ES

FX3G-40MT/ES

1

FX3G Main Units 14-60 I/O

FX3G-14MR/ES	AC	D	R	FX3G-40MR/ES	AC	D	R
FX3G-14MT/ES	AC	D	T1	FX3G-40MT/ES	AC	D	T1
FX3G-14MT/ESS	AC	D	T2	FX3G-40MT/ESS	AC	D	T2
FX3G-14MR/DS	DC	D	R	FX3G-40MR/DS	DC	D	R
FX3G-14MT/DS	DC	D	T1	FX3G-40MT/DS	DC	D	T1
FX3G-14MT/DSS	DC	D	T2	FX3G-40MT/DSS	DC	D	T2
FX3G-24MR/ES	AC	D	R	FX3G-60MR/ES	AC	D	R
FX3G-24MT/ES	AC	D	T1	FX3G-60MT/ES	AC	D	T1
FX3G-24MT/ESS	AC	D	T2	FX3G-60MT/ESS	AC	D	T2
FX3G-24MR/DS	DC	D	R	FX3G-60MR/DS	DC	D	R
FX3G-24MT/DS	DC	D	T1	FX3G-60MT/DS	DC	D	T1
FX3G-24MT/DSS	DC	D	T2	FX3G-60MT/DSS	DC	D	T2

AC AC Power supply R Relay Output
 DC DC Power supply T1 Transistor(sink)
 D DC Input(sink/source) T2 Transistor(source)

Special Function Modules

I/O Extension Blocks

FX2N-48ER

Powered extension units

Input/Output Extension Units

FX2N-32ER-ES/UL
FX2N-32ET-ESS/UL
FX2N-48ER-DS
FX2N-48ER-ES/UL
FX2N-48ER-UA1/UL
FX2N-48ET-DSS
FX2N-48ET-ESS/UL

FX3U-1PSU-5V

Power Supply Unit

FX3U-1PSU-5V

FX2N-8EX

Unpowered extension Blocks

Input Extension Blocks

FX2N-8EX-ES/UL
FX2N-8EX-UA1/UL
FX2N-16EX-ES/UL

Output Extension Blocks

FX2N-8EYR-ES/UL
FX2N-8EYT-ESS/UL
FX2N-16EYR-ES/UL
FX2N-16EYT-ESS/UL
FX2N-16EYS

Input/Output Extension Blocks

FX2N-8ER-ES/UL

Special Function Blocks

FX3U-4DA

Analog	Temperature	Network
FX2N-2AD	FX2N-2LC	FX2N-16CCL-M
FX3U-4AD	FX3U-4LC	FX2N-32CCL
FX2N-2DA		FX3U-64CCL
FX3U-4DA		FX3U-ENET
FX2N-5A		FX3U-32DP
FX2N-8AD		FX2N-32CAN

6 8 7

Optional Equipment and Software

GT11

GOT

GOT1000 (GT10/GT11/GT16)

Interface Converter

FX-232AWC-H

Software

GX Developer

Accessories

FX3G-EEPROM-32L

FX3G-5DM

FX0N-65EC

Extension Cables

FX0N-30EC(30cm)
FX0N-65EC(65cm)

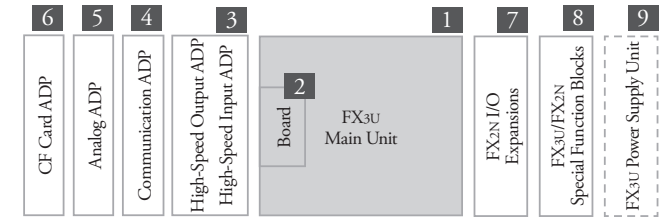
PLC Bus Connector

FX2N-CNV-BC

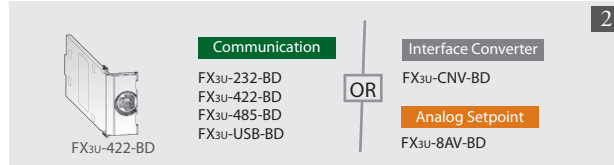
Battery

FX3U-32BL

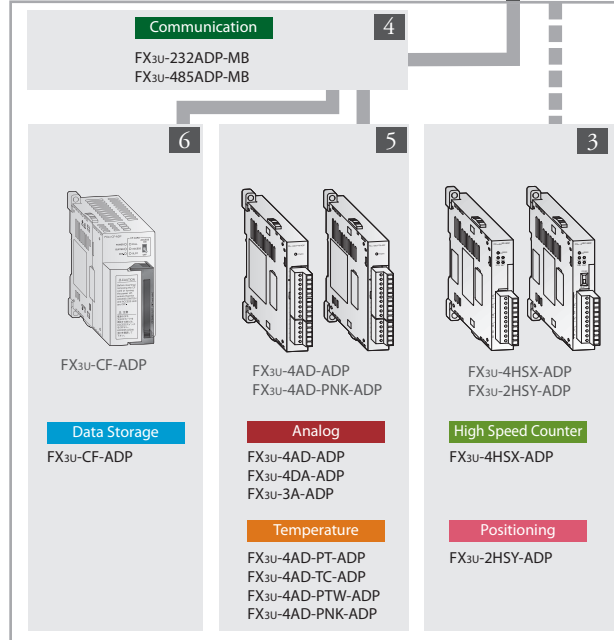
FX3U



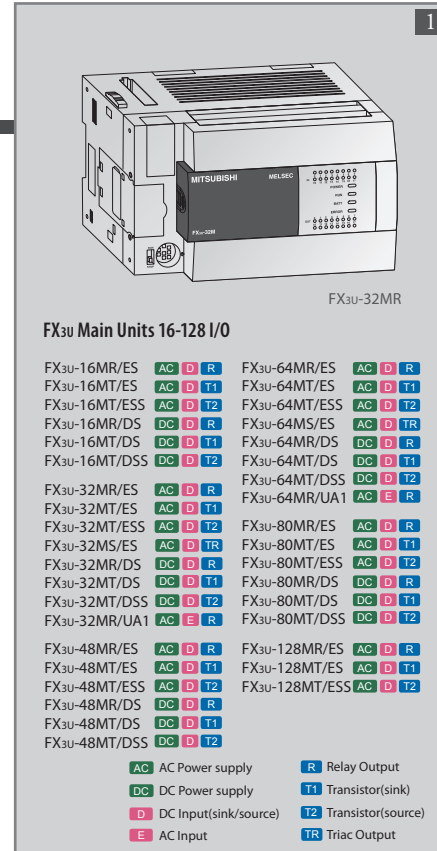
Expansion Boards



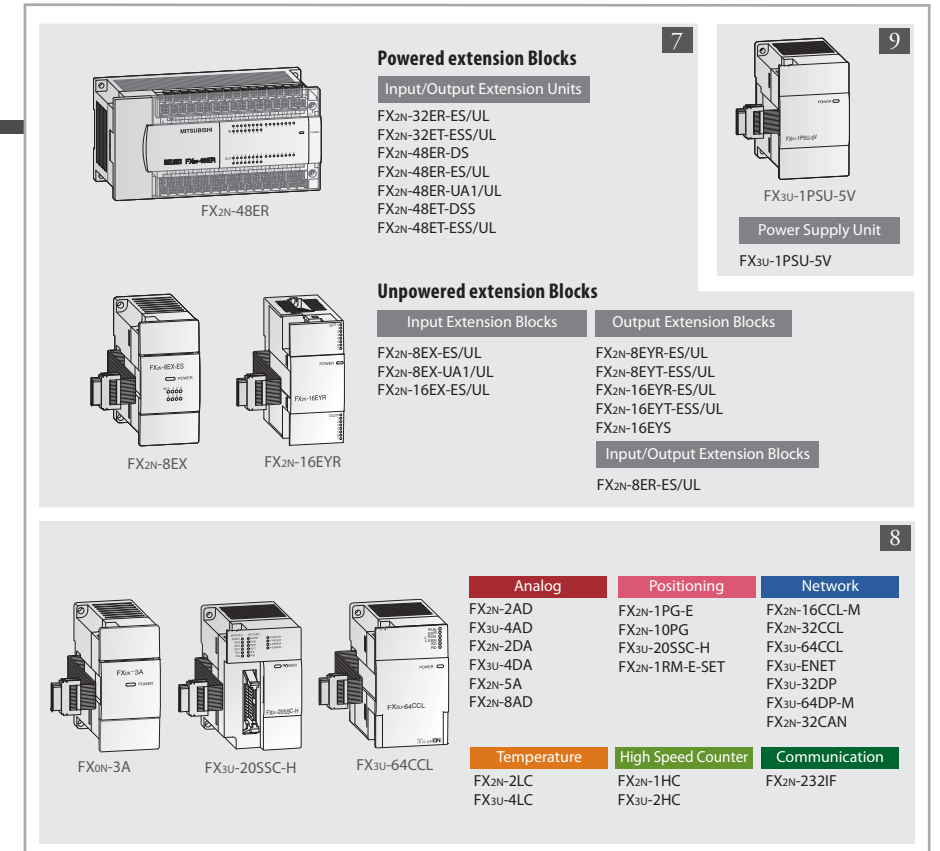
Special Adapters



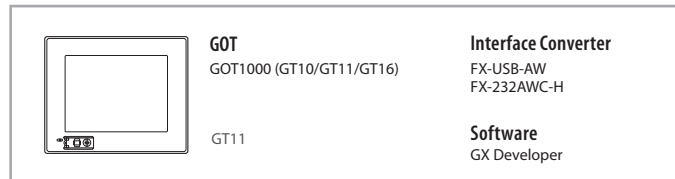
FX3U Main Units



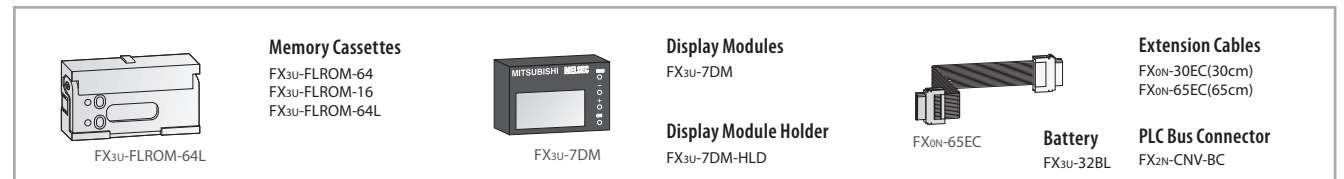
Special Function Modules

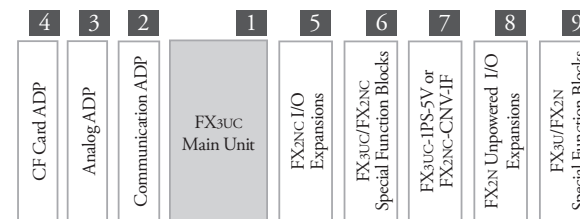


Optional Equipment and Software



Accessories





Special Adapters

Communication
FX3U-232ADP-MB
FX3U-485ADP-MB

Analog
FX3U-4AD-ADP
FX3U-4DA-ADP
FX3U-3A-ADP

Temperature
FX3U-4AD-PT-ADP
FX3U-4AD-TC-ADP
FX3U-4AD-PTW-ADP
FX3U-4AD-PNK-ADP

Data Storage
FX3U-CF-ADP

FX3UC Main Units

FX3UC-64MT/DSS

FX3UC Main Units 16-96 I/O

FX3UC-16MT/D*	DC	D1	T1
FX3UC-16MT/DSS	DC	D2	T2
FX3UC-16MR/D-T	DC	D1	R
FX3UC-16MR/D-S-T	DC	D2	R
FX3UC-32MT/D*	DC	D1	T1
FX3UC-32MT/DSS	DC	D2	T2
FX3UC-64MT/D*	DC	D1	T1
FX3UC-64MT/DSS	DC	D2	T2
FX3UC-96MT/D*	DC	D1	T1
FX3UC-96MT/DSS	DC	D2	T2

* Refer to the HARDWARE MANUAL for system configuration.

Special Function Modules*

I/O Extension Blocks

FX2NC-32EX FX2NC-16EYR-T

Input Extension Blocks
FX2NC-16EX-T-DS
FX2NC-16EX-DS
FX2NC-32EX-DS

Output Extension Blocks
FX2NC-16EYR-T-DS
FX2NC-16EYR-T-SS
FX2NC-32EYR-T-SS

Power Supply Unit
FX3UC-1PS-5V

Interface Converter
FX2NC-CN-IF

Unpowered extension Blocks

Input Extension Blocks
FX2N-8EX-ES/UL
FX2N-8EX-UA1/UL
FX2N-16EX-ES/UL

Output Extension Blocks
FX2N-8EYR-ES/UL
FX2N-8EYR-T-ES/UL
FX2N-16EYR-ES/UL
FX2N-16EYR-T-ES/UL
FX2N-16EYS

Input/Output Extension Blocks
FX2N-8EX-ES/UL
FX2N-8EYR-ES/UL
FX2N-16EYR-ES/UL

Special Function Blocks

FX3UC-4AD FX2NC-1HC

Analog
FX3UC-4AD
FX2NC-4DA

High Speed Counter
FX2NC-1HC

FX3U-4DA, FX2N-2AD, FX3U-64CCL, FX3U-20SSC-H

Analog
FX2N-2AD
FX3U-4AD
FX2N-2DA
FX3U-4DA
FX2N-5A
FX2N-8AD

Temperature
FX2N-2LC
FX3U-4LC

Network
FX2N-16CCL-M
FX2N-32CCL
FX3U-64CCL
FX3U-ENET
FX3U-32DP
FX3U-64DP-M
FX2N-32CAN

Positioning
FX2N-1PG-E
FX2N-10PG
FX3U-20SSC-H
FX2N-1RM-E-SET

High Speed Counter
FX2N-1HC
FX3U-2HC

Communication
FX2N-232IF

Optional Equipment and Software

GOT
GOT1000 (GT10/GT11/GT16)

Interface Converters
FX-USB-AW
FX-232AWC-H

Software
GX Developer

Accessories

Memory Cassettes
FX3U-FLROM-64
FX3U-FLROM-16
FX3U-FLROM-64L

I/O Cables
General I/O cable
FX-16E-500CAB-S(5m)

Connecting to Terminal Blocks
FX-16E-150CAB(1.5m)
FX-16E-300CAB(3m)
FX-16E-500CAB(5m)

Terminal Blocks
FX-16E-TB/UL
FX-16EYR-ES-TB/UL
FX-16EYS-ES-TB/UL
FX-16EYR-ESS-TB/UL
FX-32E-TB/UL

Connector Parts
FX2C-I/O-CON
FX2C-I/O-CON-S
FX2C-I/O-CON-SA

Input Switches
FX2C-16SW-C
FX2C-16SW-TB

Battery
FX3U-32BL

Extension Cables
FXon-30EC(30cm)
FXon-65EC(65cm)

PLC Bus Connector
FX2N-CN-BC

Power Supply Cables
FX2NC-100MPCB(1m)
FX2NC-100BPCB(1m)
FX2NC-10BPCB1(0.1m)

Selection Guide

Select System Item		Select Item Specification		Select an Applicable FX Model		
				Terminal-Type I/O		Connector-Type I/O
System Item	Item Specification *	<i>FX</i> 3G	<i>FX</i> 3U	<i>FX</i> 3UC		
I/O Points	Up to 128 local I/O's	✓	★	★		
	Up to 256 local I/O's		✓	✓		
	Up to 256 local and network I/O's	✓	★	★		
	Up to 384 local and network I/O's		✓	✓		
Power Supply	AC Power	✓	✓			
	DC Power	✓	✓	✓		
Input Type	100V AC		✓			
	24V DC	✓	✓	✓		
Output Type	Relay	✓	✓	✓		
	Transistor	✓	✓	✓		
	Triac		✓			
CPU Speed	Standard	✓	★	★		
	Advanced		✓	✓		
Analog I/O (Volt / Current)	Up to 8 ADP channels	✓ *1	★	★		
	Up to 16 ADP channels		✓	✓		
	Up to 64 special function block channels	✓	✓	✓		
Temperature Sensor Input	Up to 8 ADP input channels	✓ *1	★	★		
	Up to 16 ADP input channels		✓	✓		
	Up to 64 special function block input channels		✓	✓		
	Temperature control	✓	✓	✓		
Network	CC-Link (Master/Slave)		✓	✓	✓	
	CANopen		✓	✓	✓	
	Ethernet		✓	✓	✓	
	PROFIBUS-DP			✓	✓	
	Master Slave	✓	✓	✓		
Communication	N:N Network/Parallel Link		✓	✓	✓	
	Computer Link (RS-232C/RS-485)		✓	✓	✓	
	Non-Protocol Communication:	1 Channel (RS-232C/RS-485)	✓	✓	✓	
		Multi-Channel (RS-232C)	✓	✓	✓	
		Multi-Channel (RS-485)	✓	✓	✓	
	Add-on Communication Ports	RS-422	✓	✓		
		RS-485	✓	✓	✓	
		RS-232C	✓	✓	✓	
		USB		✓		
	Embedded USB		✓			
Modbus		✓	✓	✓		
Inverter Control	Analog		✓	✓	✓	
	Pulse width modulation		✓	✓	✓	
	RS-485 Communication		✓	✓	✓	
Positioning	2 100kHz Axis Built-in Positioning		✓	★	★	
	Up to 3 100kHz Axis Built-in Positioning		✓ *2	✓	✓	
	Up to 4 200kHz Axis with High-Speed Output Adapters			✓		
	Up to 8 1MHz Axis with Special Function Blocks			✓	✓	
	Up to 16 SSCNET-III Axis with Special Function Blocks			✓	✓	
	Cam switching			✓	✓	
High-Speed Counters	Up to 6 high speed counter, max 60kHz		✓	★	★	
	Up to 8 high speed counter, max 100kHz			✓	✓	
	Up to 8 high speed counter with 200kHz Adapter			✓		
	Additional Expansion using High-Speed Counter Block			✓	✓	
Data Storage	Up to 2GB of data storage			✓	✓	

* : Some items require additional expansion modules in order to function where other connection rules and requirements may apply. For more details, refer to the respective product manuals.

✓ : Contains required functionality

★ : Higher functionality or more expandability

*1 : 14 and 24 I/O points main units: max 4 channels

*2 : Only for the 40 and 60 I/O points main units

*3 : For the connection to an FX3UC main unit, the FX2NC-CNV-IF interface adapter or the FX3UC-IPS-5V power supply unit is required.

*4 : To connect to the FX3U main unit a FX3U BD board is required.
For the connection to a FX3G is the FX3G-CNV-ADP required.

Select Item Type	Select Function and Model		Check an Applicable FX Model			See more Details				
Group	Function	Product Name	FX3G	FX3U	FX3UC	Description				
I/O Extension Units	Powered Extension Units	FX2N-32ER-ES/UL	✓	✓		Input	Input Type	Output	Output Type	Power Supply
		FX2N-32ET-ESS/UL	✓	✓		16	DC	16	Relay	AC
		FX2N-48ER-DS	✓	✓		16	DC	16	Transistor	AC
		FX2N-48ER-ES/UL	✓	✓		24	DC	24	Relay	DC
		FX2N-48ER-UA1/UL	✓	✓		24	DC	24	Relay	AC
		FX2N-48ET-DSS	✓	✓		24	AC, 100V	24	Relay	AC
		FX2N-48ET-ESS/UL	✓	✓		24	DC	24	Transistor	DC
	Unpowered Extension Blocks	FX2N-8ER-ES/UL	✓	✓	✓ *3	4	DC	4	Relay	—
		FX2N-8EX-ES/UL	✓	✓	✓ *3	8	DC	—	—	—
		FX2N-8EX-UA1/UL	✓	✓	✓ *3	8	AC, 100V	—	—	—
		FX2N-8EYR-ES/UL	✓	✓	✓ *3	—	—	8	Relay	—
		FX2N-8EYT-ESS/UL	✓	✓	✓ *3	—	—	8	Transistor	—
		FX2N-16EX-ES/UL	✓	✓	✓ *3	16	DC	—	—	—
		FX2N-16EYR-ES/UL	✓	✓	✓ *3	—	—	16	Relay	—
		FX2N-16EYT-ESS/UL	✓	✓	✓ *3	—	—	16	Transistor	—
		FX2N-16EYS	✓	✓	✓ *3	—	—	16	Triac	—
		FX2NC-16EX-T-DS			✓	16	DC	—	—	—
		FX2NC-16EYR-T-DS			✓	—	—	16	Relay	—
		FX2NC-16EX-DS			✓	16	DC	—	—	—
		FX2NC-16EYT-DSS			✓	—	—	16	Transistor	—
		FX2NC-32EX-DS			✓	32	DC	—	—	—
		FX2NC-32EYT-DSS			✓	—	—	32	Transistor	—
Special Function Blocks	Analog	FX2N-2AD	✓	✓	✓ *3	Input	Input Type	Output	Output Type	Note
		FX3U-4AD	✓	✓	✓ *3	2	Volt/Current	—	—	12 bit resolution
		FX3UC-4AD			✓	4	Volt/Current	—	—	Max. 15 bit resolution
		FX2N-8AD	✓	✓	✓ *3	4	Volt/Current	—	—	Max. 15 bit resolution
		FX2N-2DA	✓	✓	✓ *3	8	Volt/Current/TC	—	—	Max. 14 bit resolution
		FX3U-4DA	✓	✓	✓ *3	—	—	2	Volt/Current	12 bit resolution
		FX2NC-4DA			✓	—	—	4	Volt/Current	15 bit resolution
		FX2N-5A	✓	✓	✓ *3	—	—	4	Volt/Current	Max. 11 bit resolution
	Temperature Control	FX2N-2LC	✓	✓	✓ *3	4	Volt/Current	1	Volt/Current	Input : Max. 14 bit Output : Max.12 bit res.
		FX3U-4LC		✓	✓ *3	2	Pt/TC	2	Digital outputs	Temperature controller
	Communication					4	Pt/TC/Volt	4	Digital outputs	Temperature controller
		FX2N-232IF		✓	✓ *3	Note				
	Network					Serial communication module, RS-232C interface				
		FX2N-16CCCL-M	✓	✓	✓ *3	Note				
		FX2N-32CCCL	✓	✓	✓ *3	CC-Link V1.10 compatible master				
		FX3U-64CCCL	✓	✓	✓ *3	CC-Link V1.00 Remote device station				
		FX3U-32DP	✓	✓	✓ *3	CC-Link V2 compatible intelligent device station				
		FX3U-64DP-M		✓	✓ *3	Profibus slave supporting DP-V1				
		FX2N-32CAN	✓	✓	✓ *3	Profibus master supporting DP-V1				
		FX3U-ENET	✓	✓	✓ *3	CAN open master or slave module				
Positioning					Ethernet communication module					
	FX2N-1PG-E		✓	✓ *3	Axis	Max. Frequency		Output Type		
	FX2N-10PG		✓	✓ *3	1	100kHz		Open collector		
	FX3U-20SSC-H		✓	✓ *3	1	1MHz		Differential line driver		
	FX2N-1RM-E-SET		✓	✓ *3	2	SSCNET-III positioning network				

Select Item Type	Select Function and Model		Check an Applicable FX Model			See more Details				
Group	Function	Product Name	FX3G	FX3U	FX3UC	Description				
Special Function Blocks	High-Speed Counters	FX2N-1HC		✓	✓ *3	Input	Max. Frequency	Output	Output Type	Note
		FX2NC-1HC			✓	1	50kHz	2	Transistor	—
		FX3U-2HC		✓	✓ *3	1	50kHz	2	Transistor	—
						2	200kHz	4	Transistor	—
Special Adapter(ADP)	Analog	FX3U-3A-ADP	✓ *4	✓ *4	✓	Input	Input Type	Output	Output Type	Note
		FX3U-4AD-ADP	✓ *4	✓ *4	✓	2	Volt/Current	1	Volt/Current	Max. 12 bit resolution
		FX3U-4DA-ADP	✓ *4	✓ *4	✓	4	Volt/Current	—	—	Max. 12 bit resolution
			✓ *4	✓ *4	✓	—	—	4	Volt/Current	12 bit resolution
	Temperature Sensor Input	FX3U-4AD-PT-ADP	✓ *4	✓ *4	✓	Input	Input Type	Output	Output Type	Note
		FX3U-4AD-PTW-ADP	✓ *4	✓ *4	✓	4	Pt100	—	—	-50°C to +250°C
		FX3U-4AD-PNK-ADP	✓ *4	✓ *4	✓	4	Pt100	—	—	-100°C to +600°C
		FX3U-4AD-PNK-ADP	✓ *4	✓ *4	✓	4	Pt1000/Ni1000	—	—	-50°C to +250°C Pt1000 -40°C to +110°C Ni1000
		FX3U-4AD-TC-ADP	✓ *4	✓ *4	✓	4	Thermocouple	—	—	-100°C to +600°C J-type -100°C to +1000°C K-type
	Communication & Modbus	FX3U-232ADP-MB	✓ *4	✓ *4	✓	Note				
		FX3U-485ADP-MB	✓ *4	✓ *4	✓	Programmable RS-232C communication unit supporting Modbus master and slave for FX3U and FX3UC Programmable RS-485 communication unit supporting Modbus master and slave for FX3U and FX3UC				
	Positioning	FX3U-2HSY-ADP		✓		Axis	Max. Frequency	Output Type		
						2	200kHz	Differential line driver		
	High-Speed Counters	FX3U-4HSX-ADP		✓		Input	Max. Frequency	Input Type		
						4	200kHz	Differential line receiver		
	Interface Adapter	FX3G-CNV-ADP	✓			FX3G ADP interface adapter				
Data Storage	FX3U-CF-ADP		✓	✓	CF card adapter for data storage					
Expansion Boards(BD)	Analog Board	FX3G-2AD-BD	✓			Input	Input Type	Output	Output Type	Note
		FX3G-1DA-BD	✓			2	Volt/Current	—	—	Max. 12 bit resolution
						—	—	1	Volt/Current	Max. 12 bit resolution
	Communication Board	FX3G-232-BD	✓			Note				
		FX3U-232-BD		✓		Programmable RS-232C communication expansion board				
		FX3G-422-BD	✓			Programmable RS-232C communication expansion board and ADP interface converter				
		FX3U-422-BD		✓		RS-422 port for programming tool and GOT connection				
		FX3G-485-BD	✓			RS-422 port for programming tool and GOT connection and ADP interface converter				
		FX3U-485-BD		✓		Programmable RS-485 communication expansion board				
		FX3U-USB-BD		✓		Programmable RS-485 communication expansion board and ADP interface converter				
	Analog Setpoint	FX3G-8AV-BD	✓			Note				
		FX3U-8AV-BD		✓		8 analog setpoint potentiometers with 8 bit resolution				
				✓		8 analog setpoint potentiometers with 8 bit resolution				
	Interface Board	FX3U-CNV-BD		✓		ADP interface converter				
Power Supply and Interface Converter	Power Supply Modules	FX3U-1PSU-5V	✓	✓		Add power to the 5V and 24V expansion buses				
		FX3UC-1PS-5V			✓	Combination of FX2N-CNV-IF and FX3U-1PSU-5V				
	Interface Block	FX2NC-CNV-IF			✓	Connect the FX3UC main units with the standard FX2N/FX3U right side units				
Options	Memory Cassettes	FX3G-EEPROM-32L	✓			EEPROM based memory cassette including loader function				
		FX3U-FLROM-16		✓	✓	Flash based memory cassette				
		FX3U-FLROM-64		✓	✓	Flash based memory cassette				
		FX3U-FLROM-64L		✓	✓	Flash based memory cassette including loader function				
	Display Unit	FX3G-5DM	✓			Display module that can be attached directly to the front face of the PLC				
		FX3U-7DM		✓		Display module that can be attached directly to the front face of the PLC				
	Batteries	FX3U-32BL	✓	✓	✓	Backup batteries to store relevant data within the FX main units				
	Extension Cables & Connectors	FX2N-CNV-BC	✓	✓	✓ *3	PLC bus extension cable for right side units				
		FX0N-30EC	✓	✓	✓ *3	30cm long PLC bus extension cable				
	FX0N-65EC	✓	✓	✓ *3	65cm long PLC bus extension cable					