

# Network Communication

## Serial Communication

These communication expansion boards allow their respective FX main units to communicate with external devices and other FX main units over a variety of serial networks.

Model Number	FX2N-232IF	FX3G-232-BD	FX3U-USB-BD	FX3G-422-BD	FX3G-485-BD	FX3G-485-BD-RJ
Stocked Item	S	S	S	S	S	S
Certification	CE (EMC)					
Applicable PLCs	FX3U / FX3UC	FX3G / FX3GE / FX3S	FX3U	FX3G / FX3GE / FX3S	FX3G / FX3GE / FX3S	FX3G / FX3GE / FX3S
Interface	RS-232 with 9-pole D-SUB connector	RS-232 with 9 pole D-SUB connector	USB (Mini B)	RS-422 with 8 pole mini DIN connector	RS-485	RS-485 with RJ-45 connector
Power Supply	5VDC / 40 mA (from main unit), 24VDC / 80 mA	5VDC (from main unit)	5VDC / 15mA (from main unit), 30mA (from PC USB connectors)	5VDC (from main unit)	5VDC (from main unit)	5VDC (from main unit)
Related I/O Points	8	-	-	-	-	-
Weight (kg)	0.3	0.2	0.02	0.2	0.2	0.2
Dimensions (W x H x D) (mm)	55 x 90 x 87	35 x 51 x 17.2	19.6 x 46.1 x 53.5	35 x 51 x 14.9	35 x 51 x 29.2	35 x 51 x 29.2

## Modbus and Serial Communication Adapters

These communication special adapters support a wide range of serial communication standards including Modbus.

Model Number	FX3U-485ADP-MB	FX3U-232ADP-MB
Stocked Item	S	
Certification	UL • cUL • CE (EMC)	
Applicable PLCs	FX3U / FX3UC / FX3G / FX3GE / FX3S	
Power Supply	5VDC / 20 mA (from main unit)	5VDC / 30 mA (from main unit)
Interface	RS-485	RS-232C
Communication Speed	Max. 115.2 kbps	Max. 115.2 kbps
Communication Distance	500m	15m
Related I/O Points	0	0
Weight (kg)	0.08	0.08
Dimensions W x H x D (mm)	17.6 x 90 x 89.5	17.6 x 90 x 89.5

## Networking Modules

### Ethernet

The FX3U-ENET communication module enables 8 ports of simultaneous Ethernet communication with features such as peer-to-peer, email send/receive options, and program upload/download.

Model Number	FX3U-ENET	FX3U-ENET-ADP
Stocked Item	S	
Certification	UL • cUL • CE (EMC)	
Applicable PLCs	FX3U / FX3UC / FX3G / FX3GE	FX3U / FX3UC / FX3G / FX3S
Max. Data Transmission	1023 words x 8	1023 words x 4
Power Supply	24VDC / 240 mA	Supplied from PLC
Communication Cable	Ethernet with RJ45 connector	Ethernet with RJ45 connector
Communication Protocol	MC Protocol, TCP / IP / UDP	MC Protocol, TCP / IP / UDP
Related I/O Points	8	0
Communication With Mail Server	SMTP / POP3	-
Maximum Transfer Rate	100 Mbps / 10 Mbps	100 Mbps / 10 Mbps
Maximum Segment Length	100 m	100 m
Weight (kg)	0.3	0.1
Dimensions W x H x D (mm)	55 x 90 x 87	17.6 x 90 x 89.5

### Profibus

PROFIBUS-DP allows for the implementation of decentralized control with comprehensive data and alarm processing capabilities. Easy setup is available by using the GX Configurator-DP software package.

Model Number	FX3U-64DP-M	FX3U-32DP
Stocked Item	S	
Certification	UL • cUL • CE (EMC)	
Applicable PLCs	FX3U / FX3UC	FX3U / FX3UC / FX3G / FX3GE
Master/Slave	Master	Slave
Power Supply	Internal 24VDC / Max. 155 mA	Internal 24VDC / 145 mA
Version	V 1.0 connector	V 1.0 connector
Communication Speed	Max. 12 Mbps	Max. 12 Mbps
Maximum Distance (*1)	1,200 m	1,200 m
Maximum Number of Slaves	64 / Master	-
Communication Distance (m)	Max. 1200m (depends on communication speed)	
Communication Cable	Profibus cable with Profibus-DP connector	
Related I/O Points	8	8
Dimensions W x H x D (mm)	43 x 90 x 89	43 x 90 x 89

## CC-Link

CC-Link provides a deterministic network with communication speeds up to 10Mbps

Model Number	FX2N-32CCL	FX3U-64CCL	FX3U-16CCL-M
Stocked Item	S	S	S
Certification	CE (EMC)	UL • cUL • CE (EMC)	UL • cUL • CE (EMC)
Master/Slave	Slave	Intelligent device station (slave)	Master (V2, V1)
Applicable PLCs	FX3U / FX3UC. Cannot use with FX2N-32ASI-M AS-i interface master block	FX3U / FX3UC / FX3G / FX3GE	FX3U / FX3UC / FX3G / FX3GE
Power Supply	5VDC / 130 mA (from main unit) 24VDC / 50 mA	24VDC / 220 mA	24VDC / N/A
Version	V 1.00	V 2.00 / V 1.10	V 2.00 / V 1.10
I/O Points	8	8	8
Weight (kg)	0.3	0.3	0.4
Dimensions W x H x D (mm)	43 x 90 x 87	55 x 90 x 87	55 x 90 x 87

## DeviceNet

Allows the FX system to be a Group 2 slave station on a DeviceNet network.

Model Number	FX2N-64DNET
Stocked Item	S
Certification	UL • cUL • CE (EMC)
Applicable PLCs	FX3U / FX3UC
Master/Slave	Slave
Power Supply	5VDC / Max. 12 mA (from main unit) 24VDC / 50 mA
I/O Points	8
Weight (kg)	0.2
Dimensions W x H x D (mm)	43 x 90 x 87