

**MITSUBISHI  
ELECTRIC**

Programmable Logic Controllers

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

*Changes for the Better*



**Explore the Possibilities!  
FX Modbus**



Adapters  
FX3U-232ADP-MB  
FX3U-485ADP-MB  
FX3U Main Unit  
Special Function Blocks



New

Modbus Products

Mitsubishi Electric Corporation Himeji Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001(standards for quality assurance management systems)



**Empowering  
Industries**

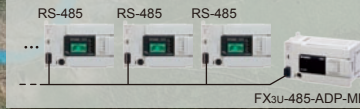


# Modbus Serial Communication Adapter

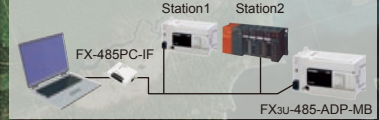
Enabling the FX3U PLC to be a Master or Slave on to your Modbus network!  
Also supports all previous serial communication functions including N:N Networking, Computer Link, Inverter communication, RS and RS2 instructions, etc.

\*For detailed information on all other supported serial communication functions, refer to the FX Series User's Manual - Data Communication Edition

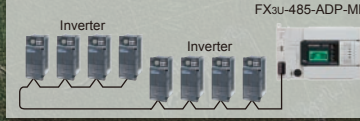
## N:N Networking



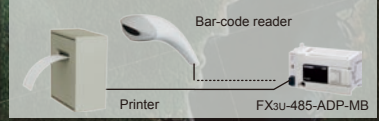
## Computer Link



## Inverter communication

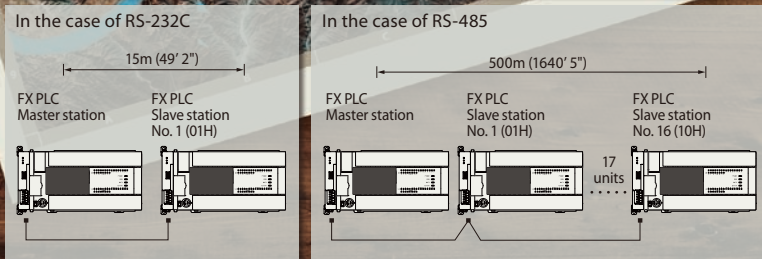
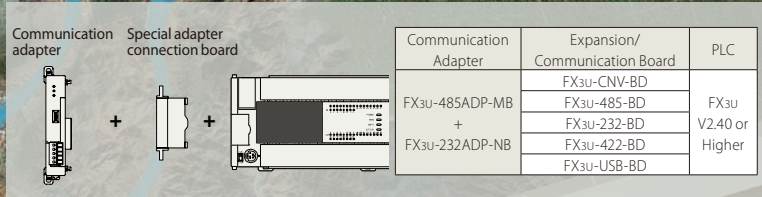


## RS and RS2 instructions



## Modbus Specifications

### System Configuration



Note: Modbus Slave Nodes do not need to be numbered in any specific order

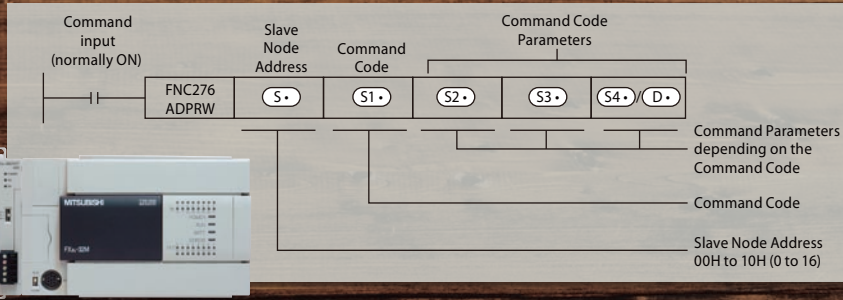
### Communication Specifications

Item	Specifications	
	FX3U-232ADP-MB	FX3U-485ADP-MB
Channels per PLC	1 Channel	
Transmission Specifications	Communication Interface	RS-232C / RS-485
	Transmission Speed	300, 600, 1200, 2400, 4800, 9600, or 19200 bps
	Data Length	7-bit or 8-bit
	Stop Bit	1-bit or 2-bit
Master Function	Transmission Distance	Up to 15m (49'2") / Up to 500m (1640'5")
	Communication Protocol	RTU or ASCII
	Number of Slaves	1 Slave / 16 Slaves
	Number of Functions	14 (+14 Diagnostic functions)
Slave Function	Number of Simultaneously Executable Instructions	1 Instruction
	Maximum Write Data	123 words or 1968 coils
	Maximum Read Data	125 words or 2000 coils
	Number of Functions	14 (+14 Diagnostic functions)
Special Adapter	Number of Simultaneous Acceptable Request Messages	1 Request Message
	Station Number	1 to 247
External Dimensions	External Dimensions	90 (H) x 17.6 (W) x 74 (D) [mm]
	Weight	80g

## Modbus Communication Setup

Modbus serial communication parameters and communication execution are setup easily within the ladder program using GX Developer. The FX3U Modbus Master uses a new dedicated command, ADPRW, to communicate with Modbus Slaves on the network.

\*Master Function requires GX Developer Version 8.45X or Higher



Command List	
Read Coils	Return Bus Communication Error Count
Read Discrete Inputs	Return Bus Exception Error Count
Read Holding Registers	Return Slave Message Count
Read Input Registers	Return Slave No Response Count
Write Single Coil	Return Slave NAK Count
Write Single Register	Return Slave Busy Count
Read Exception Status	Return Bus Character Overrun Count
Return Query Data	Get Comm. Event Counter
Restart Communication Option	Get Comm. Event Log
Return Diagnostic Register	Write Multiple Coils
Change ASCII Input Delimiter	Write Multiple Registers
Force Listen Only Mode	Report Slave ID
Clear Counters and Diagnostic Register	Mask Write Register
Return Bus Message Count	Read/Write Multiple Registers

### ⚠ Safety Warning

To ensure proper use of the products listed in this catalog, please be sure to read the instruction manual prior to use.

**MITSUBISHI ELECTRIC CORPORATION**

HEAD OFFICE: TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN