

# FX3GE

## MELSEC Compact PLC

All-in-one standard  
including analog and network features



**IMPROVED COMMUNICATION**

Built-in Ethernet, USB and RS422 communication ports

**FLEXIBLE DESIGN**

2 analog input and 1 analog output channels embedded

**REMOTE CONTROL**

Data monitoring via web browser

**COST-EFFECTIVE**

Excellent price-performance ratio

# The versatile compact PLC



Flow control application in the food industry



Monitoring via web interface



Built-in Ethernet port

## The FX3GE sets new standards

The FX3GE Series is the most versatile compact PLC from Mitsubishi Electric and introduces yet another top model to the FX3 range. In addition to the powerful functions of the FX3G series, the FX3GE also boasts integral analog inputs/outputs and Ethernet connectivity. Other features include an RS422 interface and a USB programming port. The FX3GE therefore sets new class standards for compact PLCs; it provides excellent value for money, and is ideally suited for many applications. Typical fields of use include the foodstuffs industry, processing machines, packaging technology, pumps and refrigeration systems.

## More functionality

For processing analog values, the FX3GE comes as standard with two analog inputs and one analog output, each having a resolution of 12 bits (0–4000). The FX3GE also features an Ethernet port with a transmission rate of 100/10 Mbit/s. The Ethernet port is ideal for programming and monitoring and for making online modifications. It also enables the unit to be connected to graphical operating panels (HMI), such as Mitsubishi Electric's GOT Series. With this Ethernet port, the FX3GE also provides a facility for monitoring process values using a web browser. The PLC can therefore be maintained and monitored regardless of where the FX3GE is installed. Appropriate access rights can be assigned using different password levels.



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





Smooth production control required for wood cutting machines



Analog data management for injection molding machines

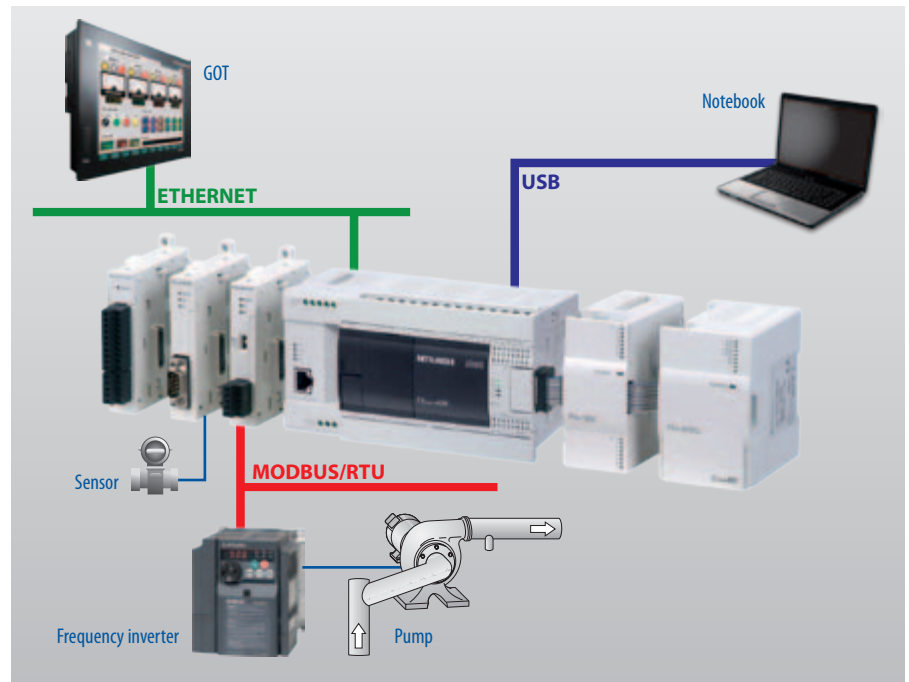


Label printing machines with network functionality

## Flexible expansion options

FX3GE base units are available with 24 or 40 inputs/outputs and can be easily expanded. The simplest way of expanding the units is by means of digital or analog expansion adapters or communications adapters which can be fitted directly to the controller. These adapters are extremely easy to fit in the base unit and provide a cost-effective means of achieving additional capacity without taking up more space.

Almost all expansion units for the FX3G, FX3U and FX2N can be used. Expansion modules can be fitted to the right of the controller, and adapter modules from the FX3U range can be connected to the left of the PLC. Analog signals and signals from temperature sensors can be measured straightforwardly and quickly with the help of these adapter modules.



Various expansion and communications options

## Extensive communications options

The FX3GE provides a number of options for communication and connection to various networks. As well as the integral Ethernet interface, the FX3GE supports standard serial communications solutions via RS422.

Furthermore, all open networks commonly used in the automation industry, such as CC-Link, CANopen or Profibus DP, can be accommodated by means of appropriate expansion options. A PC or notebook can be conveniently connected using the integral USB port, thus enabling programs to be transmitted and monitored at high speed.

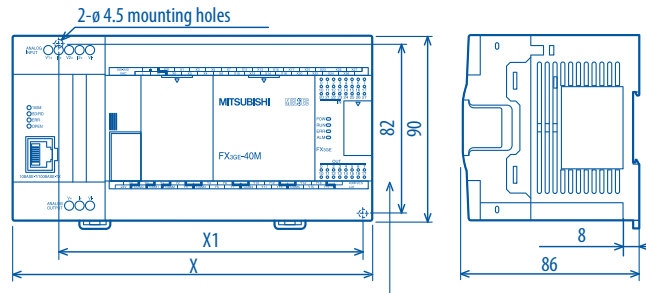
# Specifications

Specifications	FX3GE-24MR/ES	FX3GE-24MT/ESS	FX3GE-24MR/DS	FX3GE-24MT/DSS	FX3GE-40MR/ES	FX3GE-40MT/ESS	FX3GE-40MR/DS	FX3GE-40MT/DSS						
I/O points	256 total (combined local and CC-Link remote I/O)													
Address range	Max. 128 direct addressing and max. 128 remote I/O													
Power supply	100–240 V AC, 50/60 Hz		24 V DC		100–240 V AC, 50/60 Hz		24 V DC							
Program memory	32,000 steps EEPROM (internal), exchangeable EEPROM memory cassette with loader function													
Instruction Time	0.21 µs or 0.42 µs/contact instruction													
Integrated inputs	Number of inputs				2 analog/14 digital									
	Digital input type								24 V DC (±10%), sink/source selectable					
	Analog input range								Voltage input: 0 V to 10 V DC, Current input: 4 mA to 20 mA DC					
	Analog resolution								Voltage input: 2.5 mV (10 V/4000), Current input: 5 µA (16 mA/3200)					
Integrated outputs	Number of outputs				1 analog/10 digital				1 analog/16 digital					
	Switching voltage		Max. 240 V AC, Max. 30 V DC		5–30 V DC		max. 240 V AC, max. 30 V DC		5–30 V DC		max. 240 V AC, max. 30 V DC		5–30 V DC	
	Digital output type		Relay		transistor		relay		transistor		relay		transistor	
	Max. output current		per output		0.5 A		2 A		0.5 A		2 A		0.5 A	
			per group		0.8 A <sup>①</sup>		8 A <sup>①</sup>		0.8 A <sup>①</sup>		8 A <sup>①</sup>		0.8 A <sup>①</sup>	
	Analog output range								Voltage output: 0 V to 10 V DC, Current output: 4 mA to 20 mA DC					
Analog output resolution								Voltage output: 2.5 mV(10 V/4000), Current output: 4 µA(16 mA/4000)						
High-speed counters	Number of counters								21 total, with 16 1-phase (C235–C250) and five 2-phase (C251–C255)					
	Counting range								–2,147,483,648 to 2,147,483,647					
Ethernet	Data transmission speed								100 Mbps/10 Mbps					
	Communication method								Full-duplex/Half-duplex					
	Transmission method								Base band					
	Maximum segment length								100 m					
Environment	0–55 °C ambient temperature; 5–95% relative humidity													

① This limitation applies only per reference terminal for each group, 4 and 8 outputs for relays and 2 and 4 outputs for transistors. Please observe the terminal assignments for the group identification.

# Dimensions

PLC	X	X1
FX3GE-24M□	130 mm	105 mm
FX3GE-40M□	175 mm	150 mm



Mounting hole pitches

All dimensions in mm

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