

MELSEC iQ-F Series FX5S CPU module

A simple, easy to use, compact module

Easily deploy small-scale IoT

Remotely monitor the on-site status

> Remote monitoring and data utilization

- Monitor equipment operation status remotely.
- Collect data automatically via file transfer function.

Hassle-free debugging

> Efficient debugging reduces work time

- A wide range of data can be collected easily.
- When an error occurs, the abnormal operation and affected program area can be quickly identified.

Enhanced compatibility with servos

Easy connection using CC-Link IE Field Network Basic

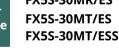
- Reduce programming effort by using standard Function Blocks.
- Simple built-in positioning functions enable low-cost servo control.

Product lineup



CPU module lineup









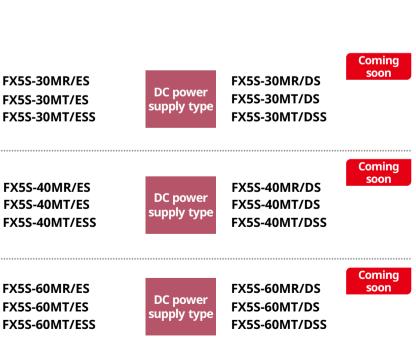




FX5S-60MR/ES AC power FX5S-60MT/ES supply type FX5S-60MT/ESS

Easy to use single module control solution

The MELSEC iQ-F series delivers exceptional value, featuring high basic performance and simplified model selection. It integrates user-friendliness and convenience into a single unit equipped with an Ethernet port to facilitate IoT connectivity.





Remotely monitor the on-site status

Easy maintenance anytime, anywhere

Features

Remotely monitor equipment status and operation

> Web server function

- No programming required. Quickly diagnose issues by connecting to the equipment's PLC.
- Easy access from a smartphone or a tablet.

Collect logs in a batch from a remote location

FTP server function/FTP client function

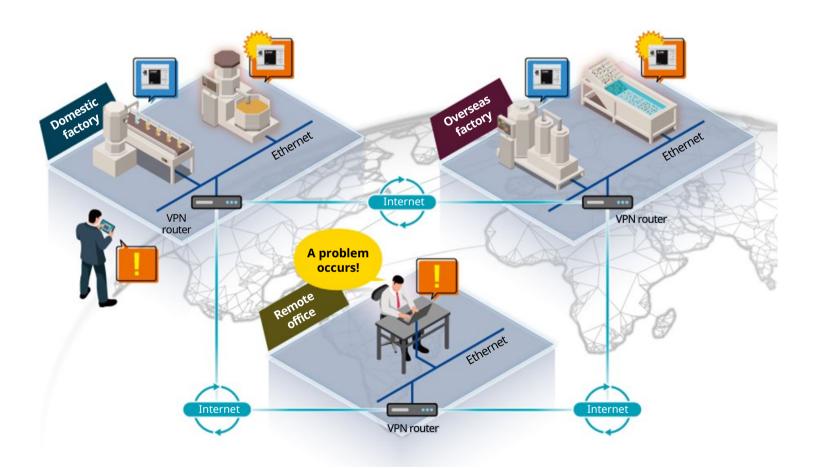
- FTP client function allows a remote user to easily retrieve data from the PLC on-demand.
- FTP server function enables logging files and data to be periodically sent by the PLC to a PC/FTP client.

Collect data from existing equipment without having to make extensive configuration changes

Simple CPU communication functions

- Communication can be implemented by simple parameter settings.
- Programless connection to Mitsubishi Electric and various
 other brand#1 PLCs
 #1 Check manual for applicable models

Conceptual diagram





Hassle-free debugging

Easily visualize equipment operation and status on a computer

Features

Reduce time for error analysis

Camera recording package + Real-time monitor function

- When linked to lineside cameras, their images can be used to support the analysis of the conditions at the time the error occurred.
- Equipment operation can be visualized by using collected data to create graphical waveforms of operations.

Quick identification of affected program parts.

> Data flow analysis function

- Quickly find the program location that is causing the problem.
- Graphical representation of the program operation helps the "cause and effect" relationship to be quickly identified.

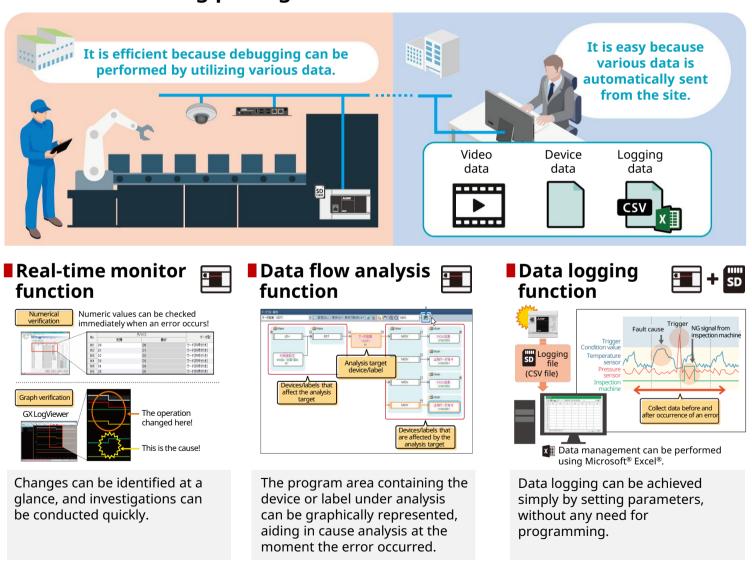
Collect only essential equipment logs to save time.

> Data logging function

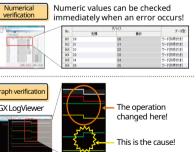
- Data can be collected without needing to write a program. Manage CSV output data with Microsoft[®] Excel[®].
- By reviewing the collected data just before and just after the problem occurred, the time taken to identify the root cause can be reduced.

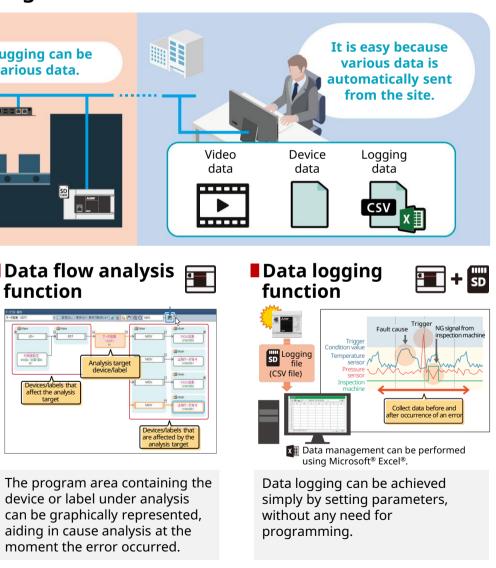
Conceptual diagram

Camera recording package











Enhanced compatibility with servos

Simple, low-cost connection with servos

Features

For simple, low-cost configurations

> Utilization of CC-Link IE Field Network Basic

- Up to eight devices can be connected to one CPU unit.
- Fast and easy connection by using Ethernet cables.

Reduce programming effort right from the start

> PLCopen[®] -compatible FBs support program creation

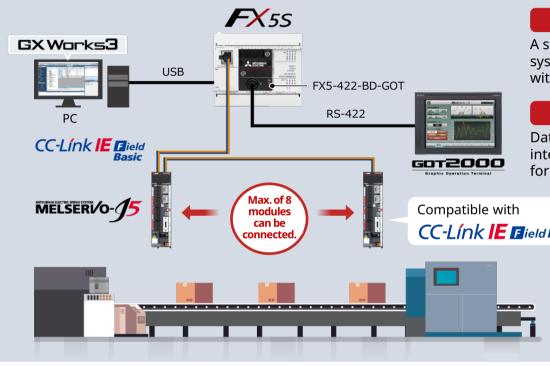
- Preprepared FBs can be easily selected and used.
- Unified I/O variables make it easy to reuse FBs in other programs.

Positioning control made easy

> Built-in positioning functions

- The built-in positioning function can control pulse outputs for up to 4-axis without any additional expansion to the PLC.
- Interpolation functions can be utilized with interruptive stop operation and variable speed operation.

Conceptual diagram





^{*}The bult-in counters support four (4) channels of 100 kHz and four (4) channels of 10 kHz , i.e. a total of eight (8) channels.

Low cost

A simple and low-cost drive system can be constructed without an Ethernet hub.



Cyclic transmission

Data exchange at regular intervals can be performed for accurate control.



Example of box-packing machine using the positioning function built into the FX5S CPU module

100 kHz

