

# Safety modules extend Mitsubishi Electric's compact PLC

Mitsubishi Electric has enhanced the capability of its MELSEC iQ-F series PLCs with two new modules forming the basis of a compact, integrated safety system. The modules simply connect to an FX5U or FX5UC PLC CPU and reduce wiring requirements. Machine builders and systems integrators can easily and quickly implement a safety control system as no programming is necessary.

A key focus in the development of the new modules was to provide simplicity of set-up for the safety application. A rotary switch on the front of the module enables the user to select from nine types of built-in programs, eliminating the need to load or develop the required sequence programs for safety control. This significantly reduces set-up time compared with a conventional architecture. The principle of simplicity also extends to visualization. The PLC's built-in web server make it easy to monitor the status of both the standard control and safety control system.

As well as simplifying the set-up of the safety application, the new modules also reduce the man-hours required during the engineering phase of a project. The FS5-SF-MU4T5 safety module and FX5-SF-8D14 safety input expansion module connect directly to the PLC. This eliminates the additional wiring that would be required for a traditional safety controller or when constructing a system with safety relays.

Connection of the safety I/O has been simplified through the use of spring clamp terminals on the new modules.

The new modules enable safety to be integrated directly within the compact PLC – no additional communication options are required. They enable an FX5 PLC to be used to perform both general-purpose and safety control. A single main safety module can be connected to an FX5 CPU to provide 4 safety inputs and



4 safety outputs. An additional two safety input expansion modules can be connected to provide up to 20 safety inputs and 4 safety outputs.

The addition of the new safety modules to an FX5 PLC enables users to build a compact safety system that is certified to Category 4, PLe and SIL3 international safety standards.

MORE INFORMATION: [gb3a.mitsubishielectric.com](http://gb3a.mitsubishielectric.com)



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