



FPOR Programmable Logic Controller *control logic*

Now with optional RS485 Communications

Operation speed:
80 ns (up to 3 k steps)
580 ns (3 k and later steps)

Maximum I/O points:
128 points

Program capacity:
32 k steps

Tool port:
miniUSB

Battery-less:
F type

Panasonic

ideas for life



- Large capacity program/data memory
- Ultra-high speed processing
- USB tool port provided as standard equipment
- Multi-axis control available without expansion units
- Battery-less automatic backup of all data (F-Type)
- New RS485 models added to range

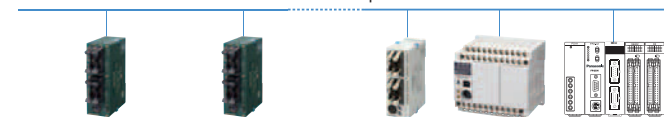
RS485 Connections

PLC link (MEWNET-WO)

RS485

Up to 16 units connectable

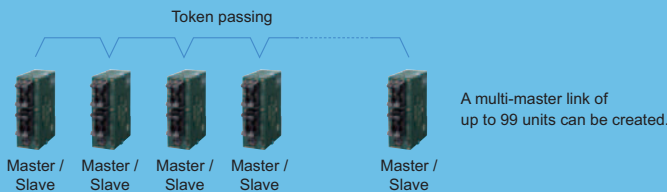
RS485 / 16 stations / 115.2 kbps / 1200 m



FPΣ, FP-X, and FP2/FP2SH can also be mixed in the network.

Modbus - Up to 99 units can be connected.

FP series units can link up to 99 units by using the Modbus function instead of MEWNET-WO. Since each FPOR unit can be either a master or a slave, a multi-master link can be created by passing a token from a user program.



Programmable Controller





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Item		C14 (Relay output type only)	C16 (Transistor output type only)	C32 (Transistor output type only)	T32 (Transistor output type only)	F32 (Transistor output type only)	
Programming method / Control method		Relay symbol / Cyclic operation					
Number of controllable I/O points	Control unit only (No expansion)	14 points (Input: 8, Output: 6)	16 point (Input: 8, Output: 8)	32 points (Input: 16, Output: 16)	32 points (Input: 16, Output: 16)		
	W/expansion 1 * Same type of control and expansion units	Max. 62 points	Max. 112 points	Max. 128 points	Max. 128 points		
	W/expansion 2 * Mix type of relay and transistor units	Max. 110 points	Max. 112 points	Max. 128 points	Max. 128 points		
Program memory		Built-in flash EEPROM (no backup battery required)					
Program capacity		16 k steps		32 k steps			
Number of instructions	Basic instructions	110 types approx.					
	High-level instructions	210 types approx.					
Operation speed	Up to 3,000 steps	Basic instructions: 0.08 µs min., Timer instructions: 2.2 µs min., High-level instructions: 0.32 µs min. (MV instruction)					
	3,001st and later steps	Basic instructions: 0.58 µs min., Timer instructions: 3.66 µs min., High-level instructions: 1.62 µs min. (MV instruction)					
Operation memory	Relay	Internal relay (R)		4,096 points			
		Timer / Counter (T /C)		1,024 points			
	Memory area	Data register (DT)		12,315 words			
		Index register (IX, IY)		32,765 words			
Master control relay (MCR)		256 points					
Number of labels (JMP and LOOP)		256 points					
Differential points		Equivalent to the program capacity					
Number of step ladder		1,000 stages					
Number of subroutines		500 subroutines					
Special Functions	High-speed counter	Single-phase 6 channels (Max. 50 kHz each) or 2-phase 3 channels (Max. 15 kHz each)					
	Pulse output	Not available	4 channels (Max. 50 kHz each) Two channels can be controlled individually.				
	PWM output	Not available	4 channels (6 Hz to 4.8 kHz)				
	Pulse catch input / interrupt input	Total 8 channels (with high speed counter)					
	Interrupt program	Input: 8 programs (6 programs for C10 only) / Periodic: 1 program / Pulse match: 4 programs					
	Periodical interrupt	In units of 0.5 ms: 0.5 ms to 1.5 sec. / In units of 10 ms: 10 ms to 30 sec					
	Constant scan	In units of 0.5 ms: 0.5 ms to 600 ms					
	RS232C port	One RS232C port is mounted on each of C10CRS, C10CRM, C14CRS, C14CRM, C16CT, C16CP, C32CT, C32CP, T32CT, T32CP, F32CT, F32CP type (3P terminal block) Transmission speed (Baud rate): 2,400 to 115,200 bps, Transmission distance: 15 m, Communication method: half duplex					
RS485 port NEW	One RS485 port is mounted on each of C10MRS, C14MRS, C16MT, C16MP, C32MT, C32MP, T32MT, T32MP, F32MT and F32MP type (3P terminal block) Transmission speed (Baud rate): 115.2 kbps (It is possible to change to 19.2 kbps by the setting.), Transmission distance: 1,200 m, Communication method: half duplex						
Maintenance	Memory Backup	Program and system register		Stored program and system register in flash EEPROM			
		Operation Memory		Stored fixed area in flash EEPROM Counter: 16 points Internal relay: 128 points Data register: 315 words		Backup of the entire area by a built-in secondary battery	Backup of the entire area by FeRAM (without the need for a battery)
	Self-diagnostic function		Watchdog timer (690 ms approx.), program syntax check				
	Real-time clock function		Not available		Available		Not available
	Other functions		Program edition during RUN, download in RUN mode (incl. comments), 8-character password setting and program upload protection				

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