Programmable Controller
FP-X

* Refer to our website for details of product.

RoHS compliance

*1 Conforming to Low Voltage Directive, EMC Directive

Related Information ■ General terms and conditions..... F-3

panasonic.net/id/pidsx/global

USB port for easy connection to a PC Also compatible with Ethernet

Features

- **Abundant program capacity 32 k steps**
- **Independent comment memory**

  All of 100,000 I/O comments, 5,000 lines of block comments, and 5,000 lines of remark comments are saved in **FP-X** together with programs.
- **High-speed RISC processor**

  Equipped with a RISC processor, achieving high-speed processing with a scan time of less than 2 ms for 5,000 steps.
- **Add-on cassettes can expand the functionality, maintaining the space-saving size**

  Up to three add-on cassettes can be attached to the control unit, which increases the functionality without expanding installation space. The 17 types of add-on cassettes, including the communication and analog types, cover a wide variety of applications.
- **Multi-axis controlling by the built-in pulse output**

  The transistor output type controller has a built-in pulse output that allows multi-axis control of the servo and stepping motors.

SPECIFICATIONS

Item			Descriptions		
			C14	**C30**	**C60**
Number of controllable I/O points	Control unit	Relay output type	DC input: 8, relay output: 6	DC input: 16, relay output: 14	DC input: 32, relay output: 28
		Transistor output type	DC input: 8, transistor output: 6	DC input: 16, transistor output: 14	DC input: 32, transistor output: 28
	Max. I/O points when expanded		254 points (328 points max. when using add-on cassettes and **FP0R** expansion units)	270 points (352 points max. when using add-on cassettes and **FP0R** expansion units)	300 points (382 points max. when using add-on cassettes and **FP0R** expansion units)
Programming method / Control method			Relay symbol / Cyclic operation		
Program memory			Built-in flash ROM (no backup battery required)		
Program capacity			16 k steps	32 k steps	32 k steps
Number of instructions	Basic instructions		89		
	High-level instructions		226		
Operation speed			Basic instruction: 0.32 μs~/step		
I/O refresh + base time			0.2 ms [When using **FP0R** expansion units: 1 ms + (1.5 × Number of expansion units) ms]		
Operation memory	Relay	External inputs (X)	1,760 points (The actual usable number of points is restricted by the hardware.)		
		External outputs (Y)	1,760 points (The actual usable number of points is restricted by the hardware.)		
		Internal relay (X)	4,096 points (R0 to R255F)		
		Special internal relay (R)	192 points		
		Timer / counter (T/C)	1,024 points: timer capable of counting (1 ms, 10 ms, 100 ms, 1 sec.) × 32,767, Counter capable of counting 1 to 32,767		
		Link relay (L)	2,048 points		
	Memory area	Data register	12,285 words (DT0 to DT12284)	32,765 words (DT0 to DT32764)	
		Special data register (DT)	374 words		
		Link register (LD)	256 words		
		Index register (I)	14 words		
High-speed counter (Note 1)			Built-in (Transistor output): single-phase 8 ch (50 kHz × 4 ch + 10 kHz × 4 ch) Built-in (Relay output): single-phase 8 ch (10 kHz × 8 ch) Pulse I/O cassette: single-phase 2 ch (80 kHz × 2 ch)		
Pulse output (Note 2) / PWM output			Built-in (Transistor output): 100 kHz × 2 ch + 20 kHz × 2 ch Pulse I/O cassette: One unit (one axis) 100 kHz, or two units (two axes) 80 kHz		
Time measurement			10 μs ring counter		
Potentiometer			2 points (K0 to K1000)	2 points (K0 to K1000)	4 points (K0 to K1000)
Constant scan			Available		
Clock / calendar			When **AFPX-MRTC** is attached: Year (last two digits), month, day, hours (24-hour display), minutes, seconds, day of week. Operates only when a battery is installed.		
Flash ROM backup	Backup by P13 commands		Data register (32,765 words)		
	Auto-backup at power failure		Counter 16 points (1008 to 1023), Internal relay 128 points (R2480 to R255F), Data register 55 words (**C30** / **C60** = 32710 to 32764, **C14** = 12230 to 12284)		
Battery backup			The memory allocated in the storage area by the system register (only when a battery is installed)		

Notes: 1) Specification at the rated input voltage of 24 V DC, +25 °C +77 °F. Frequency may be lower due to the voltage and temperature.
2) Max. frequency may vary by the method of operation. Please refer to the manual for details.