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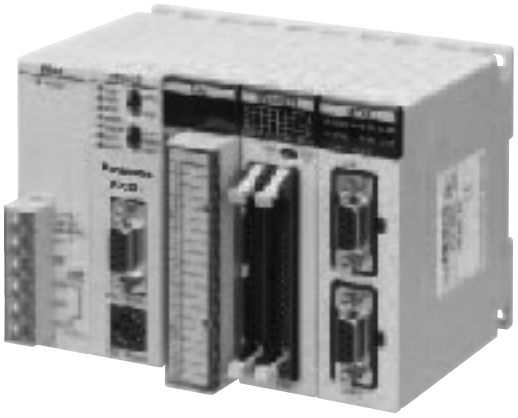
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FP2SH

Scanning time of 1 ms for 20k steps.
A high-performance model for high-speed operation.



■ Features

1. Scanning time of 1 ms for 20k steps.
With an operating speed at the top of its class, super high-speed processing is made possible. The result is a dramatically decreased tact time and high-speed device.

2. Large programming capacity of up to 120k steps.
Both the large programming capacities of 60k and 120k are available depending on the model.

3. Optional small PC card is also available.
The small PC card is available for programming backup or data memory expansion. This allows data processing of great amounts of data.

4. Built-in comment and calendar timer functions.
These functions, options with the FP2, are built right into the FP2SH.
* The I/O unit and intelligent unit are the same for the FP2 series.

■ Power supply / I/O specifications

Item	Description
Power supply	100 V to 120 V AC / 200 V to 240 V AC / 100 V to 240 V AC, 24 V DC (varies with different models)
Input	12 V to 24 V DC, 24 V DC ±common
Output	Relay 2 A to 5 A / Transistor 0.1 A to 0.5 A (varies with different models)

■ Performance specifications

Item		Description	
Number of I/O points		Up to 768 points	
Expansion		Standard	Up to 1 backplane Units: 25max. I/O points: 1,600 max. Remote I/O points: 8,192 max.
		H type	Up to 3 backplanes Units: 32 max. I/O points: 2,048 max. Remote I/O points: 8,192 max.
Operation speed		0.03 µs/step (Basic instuction)	
Built-in memory		RAM (ROM/Small PC card is optional)	
Memory capacity		Approx. 60 k steps/Approx. 120 k steps (varies with different models)	
Operation Memory	Internal relay	14,192 points	
	Timer/Counter(T/C)	3,072 points in total	
	Data register	10,240 words	
	File register	32,765 words x 3 banks	

■ Special functions

Item		Description
Analog I/O		Available by adding analog input and analog output units.
High speed counter		Available by adding high-speed counter unit. (Max. 200 kHz)
Pulse output		Positioning unit 2-axis Positioning unit 4-axis
Serial	RS232C port	Standard equipped with CPU unit. Expandable by adding C.C.U., M.C.U. and serial data unit.
	RS422 RS485	Expandable by adding M.C.U.
Interrupt input		Available by adding high-speed counter unit or pulse I/O unit.

■ Special network functions

Item	Description
Remote I/O	S-LINK, MEWNET-F
PLC Link	MEWNET-W2 (Wire) MEWNET-W0 MEWNET-VE FL-NET
Computer Link	Linkable by using tool port or COM. port on CPU unit. Also available by adding M.C.U and C.C.U.
Modem connection	Available

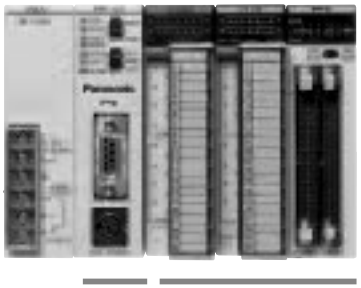
■ Other built-in functions

Item	Description
Program block-edit during RUN	Available
Constant scan	Available
Adjustable input time Itering	Not available
Clock/Calendar function	Built-in type

FP2/FP2SH system configurations and unit lineup

Unit combinations

- Each unit is counted in the number of modules occupied. Most of the units occupy one module each. Some units occupy two modules each.
- Each unit is mounted on a backplane chosen depending on the total number of modules occupied by the all units used.
  The power supply unit and CPU unit must be mounted on the CPU backplane.
- Only one backplane other than the five-module type can be added by using an expansion cable. A power supply must be mounted on the expansion backplane.
- If the backplane is of the H type, up to three backplanes can be added.
- Most of the units can be used in any combination; however, some combinations are subject to constraints due to the unit type, current consumption, and other factors besides the above requirements.
  Please contact us for details.



Power Supply Units



100 V AC,
2.5 A type
FP2-PSA1
(AFP2631)



200 V AC,
2.5 A type
FP2-PSA2
(AFP2632)



100 to 240 V AC,
5 A type
FP2-PSA3
(AFP2633)



24 V DC,
5 A type
FP2-PSD2
(AFP2634)

Backplanes

(For use with both master and expansion backplanes. Only the 5-module type can not be used with expansion backplane.)



5-module type
FP2-BP05 (AFP25005)



7-module type
FP2-BP07 (AFP25007)



9-module type
FP2-BP09 (AFP25009)



12-module type
FP2-BP12 (AFP25012)

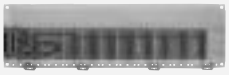


14-module type
FP2-BP14 (AFP25014)

H type Backplanes



H type master backplane
(11 modules): 8 slots
FP2-BP11MH (AFP25011MH)



H type expansion backplane
(10 modules): 8 slots
FP2-BP10EH (AFP25010EH)

■ Units that occupy two modules each

There is a two-module type in the power supply and CPU units.

Type	Model No.
Power supply unit, 5 A type	FP2-PSA3
	FP2-PSD2
CPU unit with 64 input points	FP2-C1D
CPU unit with S-LINK ports	FP2-C1SL



Expansion cable
(60cm/23.62 in.)
FP2-EC (AFP2510)



Expansion cable
(2m/78.74 in.)
FP2-EC2 (AFP2512)



Dummy unit
FP2-DM
(AFP2300)

CPU Units

FP2



Standard type
FP2-C1
(AFP2211)



With 64-point input
FP2-C1D
(AFP2212)



With S-LINK
FP2-C1SL
(AFP2214)

FP2SH



Standard type
(60k steps)
FP2-C2
(AFP2231)



For small PC card
(60k steps)
FP2-C2P
(AFP2235)



For small PC card
(120k steps)
FP2-C3P
(AFP2255)

Input and Output Units



16-point DC input
FP2-X16D2 (AFP23023)
16-point NPN transistor output
FP2-Y16T (AFP23403)
16-point PNP transistor output
FP2-Y16P (AFP23503)
6-point Relay output (5A)
FP2-Y6R (AFP23101)
16-point Relay output (2A)
FP2-Y16R (AFP23103)



32-point DC input
FP2-X32D2 (AFP23064)
32-point NPN transistor output
FP2-Y32T (AFP23404)
32-point PNP transistor output
FP2-Y32P (AFP23504)



64-point DC input
FP2-X64D2 (AFP23067)
64-point NPN transistor output
FP2-Y64T (AFP23407)
64-point PNP transistor output
FP2-Y64P (AFP23507)
32-point input/32-point NPN output mixed
FP2-XY64D2T (AFP23467)
FP2-XY64D7T (AFP23477)
32-point input/32-point PNP output mixed
FP2-XY64D2P (AFP23567)
FP2-XY64D7P (AFP23577)

Optional Memories

For FP2



FP2-EM1
FP2-EM2



FP2-EM3
FP2-EM6
FP2-EM7

Type of memory unit

Product number	Part number	Comment input function	Clock/ calendar function	With 16k expansion RAM	ROM socket
FP2-EM1	AFP2201	A	A	N/A	N/A
FP2-EM2	AFP2202	A	A	A	N/A
FP2-EM3	AFP2203	A	A	A	A
FP2-EM6	AFP2206	N/A	N/A	A	A
FP2-EM7	AFP2207	N/A	N/A	N/A	A

A: Available
N/A: Not available



F-ROM
FP2-EM4 (AFP2204)



EP-ROM
FP2-EM5 (AFP2205)

FP Memory Loader



Data clear/
Data hold type
AFP8670/
AFP8671

For FP2SH



Memory unit
with ROM socket
FP2-EM7 (AFP2207)



F-ROM
(AFP5208)



Small PC card (2MB)
F-ROM
(AIC50020)

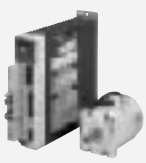


Small PC card (2MB)
SRAM
(AIC52000)



EP-ROM
(AFP5209)

Panasonic Servo MINAS AII/S Series



Motor Driver I/F Terminal II

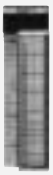


AFP8503
1-axis type



AFP8504
2-axis type

Analog Input/Output Units



Voltage/current input unit
FP2-AD8VI
(AFP2400L)



Multiple analog input unit
FP2-AD8X
(AFP2401)



Resistance thermometer device input unit
FP2-RTD
(AFP2402)



Analog output unit
FP2-DA4
(AFP2410)

Positioning Units

NEW  (2-axis)

Positioning units
RTEX
FP2-PN2AN
(AFP243610)

NEW  (4-axis)

Positioning units
RTEX
FP2-PN4AN
(AFP243620)

NEW  (8-axis)

Positioning units
RTEX
FP2-PN8AN
(AFP243630)

 (2-axis)

Positioning units
FP2-PP21 FP2-PP22
(AFP2432) (AFP2434)

 (4-axis)

Positioning units
FP2-PP41 FP2-PP42
(AFP2433) (AFP2435)

Pulse Input/ Output Units



High-speedcounter unit
FP2-HSCT FP2-HSCP
(AFP2441) (AFP2451)



Pulse I/O unit
FP2-PXYT FP2-PXYP
(AFP2442) (AFP2452)

Multi-Communication Unit



Multi-communication unit
FP2-MCU
(AFP2465)
* The communication blocks are available separately.

Serial Data Control Unit



Serial data unit
FP2-SDU
(AFP2460)

Operation Display Panel and Computer Interface unit



Computer communication unit
FP2-CCU
(AFP2462)

Link-related Units

NEW 

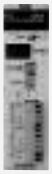
VE-LINK
FP2-VE (AFP27960)



ET-LAN
FP2-ET1 (AFP2790)



Multi-wire link unit
FP2-MW (AFP2720)



S-LINK
FP2-SL2 (AFP2780)

Specifications ①

■ CPU units

Item			FP2 CPU unit	FP2SH CPU unit		
			FP2-C1 (AFP2211) FP2-C1D (AFP2212) FP2-C1SL (AFP2214)	FP2-C2 (AFP2231)	FP2-C2P (AFP2235)	FP2-C3P (AFP2255)
Operation speed	Basic		0.35 μs or more	0.03 μs or more		
	High-level		0.93 μs or more	0.06 μs or more		
Program capacity	Built-in RAM		16 k steps	60 k steps		120 k steps
	w/expansion		32 k steps	Not available		Not available
Number of I/O points	No expansion	Conventional type	Max. 768 points	Max. 768 points		
		H type	Max. 512 points	Max. 512 points		
	w/expansion	Conventional type	Max. 1600 points	Max. 1600 points		
		H type	Max. 2048 points	Max. 2048 points		
	w/ remote I/O		Max. 2048 points	Max. 8192 points		
Operation memory	Internal relay		4048 points	14192 points		
	Data register		6000 words	10240 words		
	File register		0 to 143333 words (w/expansion 0 to 30717words)	32765 words x 3 banks		
	Link register		256 words	8448 words		
Optional memory			F-ROM/EP-ROM	F-ROM/EP-ROM	Small PC card (F-ROM/S-RAM)	
Comment memory			Optional memory unit	Available		
Clock/Calendar function			Optional memory unit	Available		

■ Power supply units

Item		FP2-PSA1 (AFP2631)	FP2-PSA2 (AFP2632)	FP2-PSA (3AFP2633)	FP2-PSD2 (AFP2634)
Input	Rated voltage	100 V - 120 V AC	200 V - 240 V	100 V - 240 V AC	24 V DC
	Current Current	0.4 A or less (at 100 V AC)	0.2 A or less (at 200 V AC)	0.7 A or less (at 100 V AC) 0.4 A or less (at 200 V AC)	2.5 A or less
	Surge current	40 A or less (55°C)		30 A or less (25°C)	10 A or less
	Rated frequency	47 Hz ~ 63 Hz			–
	Operating	85 to 132 V AC	170 to 264 V AC	85 to 264 V AC	20.4 to 31.2 V DC note)
Output	Voltage range	2.5A max.		5 A max.	
Alarm contact capacity		30 V DC 1 A			
Alarm contact operation		When the ALARM LED of CPU unit is lit			
Alarm contact type		1c contact			
Leakage current		Between input and ground terminals, 0.75 mA or less			
Breakdown voltage		1500V AC for 1 minute (between input and ground terminals)			
Insulation resistance		100 MΩ 500V DC (between input and ground terminals)			
Guaranteed lifetime		20000 hours at 55°C			
Overcurrent protection function		Built-in overcurrent protection			
Fuse		Built-in type			
Terminal screw		M3			
Module size		1 module	1 module	2 module	2 module

Note)
Allowable voltage fluctuation range after startup for the FP2-PSD2 is -35% to +30%. At startup, apply -15% to + 30% the rated voltage for 100 ms or more.

■ Input units

Item		DC input unit			I/O mixed unit (input side)	
		16-point DC input type	32-point DC input type	64-point DC input type note 1)	DC input type/Transistor output (NPN) type note 2)	DC input type/Transistor output (PNP) type note 3)
		FP2-X16D2 (AFP23023)	FP2-X32D2 (AFP23064)	FP2-X64D2 (AFP23067)	FP2-XY64D2T (AFP23467)	FP2-XY64D2P (AFP23567)
Rated input voltage		12 - 24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Rated input current		Approx. 8 mA (at 24 V DC)	Approx. 4.3 mA (at 24 V DC)	Approx. 4.3 mA (at 24 V DC)	Approx. 4.3 mA (at 24 V DC)	Approx. 4.3 mA (at 24 V DC)
Input impedance		Approx. 3 kΩ	Approx. 5.6 kΩ	Approx. 5.6 kΩ	Approx. 5.6 kΩ	Approx. 5.6 kΩ
Min. ON voltage/Min. ON current		9.6 V/4 mA	19.2 V/4 mA	19.2 V/4 mA	19.2 V/4 mA	19.2 V/4 mA
Max. OFF voltage/Max. OFF current		2.5 V/1 mA	5.0 V/1.5 mA	5.0 V/1.5 mA	5.0 V/1.5 mA	5.0 V/1.5 mA
Response time	OFF→ ON	0.2 ms or less	0.2 ms or less	0.2 ms or less	0.2 ms or less	0.2 ms or less
	ON→ OFF	0.2 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less
Input points per common		8 points/common (Either the positive or negative of the input power supply can be connected to the common terminal.)	32 points/common	32 points/common	32 points/common	32 points/common
Connection method		Terminal block (M3 screw)	One 40-pin connector	Two 40-pin connectors	Two 40-pin connectors	Two 40-pin connectors

Note: The number of ON points that can be actuated simultaneously is limited by the input voltage and the ambient temperature.
1) The specifications also apply to the input side of the CPU unit with 64 input points "FP2-C1D" (AFP2212).
2) The specifications also apply to the DC-input, transistor-output (NPN) type I/O-mixed unit with ON pulse catch input "FP2-XY64D7T" (AFP23477).
However, the response time is as follows: OFF→ ON: 0.2 ms or less (X0-X1F); ON→ OFF: 0.3 ms or less (X0-X1B), 1.0 to 5.0 ms (X1C-X1F)
3) The specifications also apply to the DC-input, transistor-output (PNP) type I/O-mixed unit with ON pulse catch input "FP2-XY64D7P" (AFP23577).
However, the response time is as follows: OFF→ ON: 0.2 ms or less (X0-X1F); ON→ OFF: 0.3 ms or less (X0-X1B), 1.0 to 5.0 ms (X1C-X1F)

■ Output units

Item		Relay output unit		Transistor output unit						I/O mixed unit (output side) note 3) and 4)	
		6-point type note 1)	16-point type	NPN open collector 16-point type note 2)	PNPopen collector 16-point type note 2)	NPN open collector	PNP open collector	NPN open collector	PNP open collector	DC input type/ Transistor output (NPN) type	DC input type/ Transistor output (PNP) type
		FP2-Y6R (AFP23101)	FP2-Y16R (AFP23103)	FP2-Y16T (AFP23403)	FP2-Y16P (AFP23503)	FP2-Y32T (AFP23404)	FP2-Y32P (AFP23504)	FP2-Y64T (AFP23407)	FP2-Y64P (AFP23507)	FP2-XY64D2T (AFP23467)	FP2-XY64D2P (AFP23567)
Rated control capacity		5A 250V AC (10A/common) 5A 30V DC (10A/common) Min. load: 100mA 10V (resistor load)	2A 250V AC (5A/common) 2A 30V DC (5A/common) Min. load: 100μA 10V (resistor load)	–	–	–	–	–	–	–	–
Rated load voltage		–	–	5-24 V DC	5-24 V DC	5-24 V DC	5-24 V DC	5-24 V DC	5-24 V DC	5-24 V DC	5-24 V DC
Max. load current		–	–	0.5 A (at 12 to 24 V DC) 0.1 A (at 5 V DC)	0.5 A (at 12 to 24 V DC) 0.1 A (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)	0.1 A (at 12 to 24 V DC) 50 mA (at 5 V DC)
Max. surge current		–	–	3A 10 ms or less	3A 10 ms or less	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A	0.3 A
OFF state leakage current		–	–	1μA or less	1μA or less	1μA or less	1μA or less	1μA or less	1μA or less	1μA or less	1μA or less
ON state maximum voltage drop		–	–	0.5 V or less	0.5 V or less	1 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)	1.5 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)	1 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)	1.5 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)	1 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)	1.5 V or less (at 6 to 26.4 V DC) 0.5 V or less (at 6 V DC or less)
Repose time	OFF→ON	10 ms or less	10 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less	0.1 ms or less
	ON→OFF	8 ms or less	8 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less	0.3 ms or less
Power supply for driving internal circuit	Voltage	24V DC±10% (21.6V to 26.4V DC)	24V DC±10% (21.6V to 26.4V DC)	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC	4.75 to 26.4V DC
	Current	70mA or less	160 mA or less	120 mA or less (at 24 V DC)	70 mA or less (at 24 V DC)	140 mA or less (at 24 V DC)	150 mA or less (at 24 V DC)	250 mA or less (at 24 V DC)	270 mA or less (at 24 V DC)	120 mA or less (at 24 V DC)	130 mA or less (at 24 V DC)
Input points per common		2 points/common	8 points/common	8 points/common	8 points/common	32 points/common	32 points/common	32 points/common	32 points/common	32 points/common	32 points/common
Connection method		Terminal block (M3 screw)	Terminal block (M3 screw)	Terminal block (M3 screw)	Terminal block (M3 screw)	One 40-pin connector	One 40-pin connector	Two 40-pin connectors	Two 40-pin connectors	Two 40-pin connectors	Two 40-pin connectors

Notes 1: The number of ON points that can be actuated simultaneously is limited by the input voltage and the ambient temperature.
2: The maximum load current is limited by the external power supply voltage.
1) The current capacity of each common terminal is 5 A max.
2) The maximum load current of the transistor output unit is limited by the external power supply voltage.
3) The specifications also apply to the DC-input, transistor-output (NPN) type I/O-mixed unit with ON pulse catch input "FP2-XY64D7T" (AFP23477).
4) The specifications also apply to the DC-input, transistor-output (PNP) type I/O-mixed unit with ON pulse catch input "FP2-XY64D7P" (AFP23577).

■ Analog I/O units

1. Analog input

Item		FP2-AD8X (AFP2401)	FP2-RTD (AFP2402)	FP2-AD8VI (AFP2400L)
Number of input points		8 channels	8 channels	8 channels
Input range (resolution)	Voltage	±10 V (1/65536)	–	±10 V (1/65536)
		1 V ± 5 V (1/13107)	–	1 V to 5 V (1/13107)
		±100 mV (1/65536)	–	–
	Current	– note1)	–	±20 mA (1/32768)
				4 mA to 20 mA (1/13107)
	Thermocouple	S: 0 to +1500°C (0.1°C)	–	–
		J: -200 to +750°C (0.1°C)		
		J: -100 to +400°C (0.1°C)		
		K: -200 to +1200°C (0.1°C)		
		K: -200 to +1000°C (0.1°C)		
		K: -200 to +600°C (0.1°C)		
		T: -200 to +350°C (0.1°C)		
		R: 0 to +1500°C (0.1°C)		
		N: -200 to +1300°C (0.1°C)		
	R.T.D	Pt 100 : -200 to +650°C (0.1°C)		
		Pt 100 : -100 to +200°C (0.1°C)		
		JPt 100 : -200 to +650°C (0.1°C)		
		JPt 100 : -100 to +200°C (0.1°C)		
		JPt1000 : -100 to +100°C (0.1°C)		
Conversion speed	Voltage	500 μs/ch (insulated), 5 ms (insulated)	–	500 μs/ch
	Current	–	–	500 μs/ch
	Thermocouple	20 ms/ch	–	–
	R.T.D	20 ms/ch	20 ms/ch	
Overall accuracy		Voltage: ±0.1% FS (25 °C) Voltage temperature coefficient: ±0.3% (0 to 55 °C)	±0.3% F.S. (0 to 55°C)	±1.0% F.S. (0 to 55°C)
Insulation method		Between the input terminal and FP2 internal circuits: Photocoupler and DC/DC converter		Between the input terminal and FP2 internal circuits: Photocoupler
		Between channels: PhotoMOS relay	–	
Digital output	Averaging	Selectable from 3 to 64 times for each channel (Moving average after cutting the maximum and minimum values)		
	Offset setting	Selectable from K -2048 to +2047 for each channel		
Broken wire sensing		Each channel (only when a thermocouple or RTD is inputted)	Each channel	–
Input range change method		Batch switching of all channels: By the range setting switch		
		Each channels: By shared memory setting		

Note 1) Current inputs can be converted into voltage inputs by attaching the supplied external resistor to the input terminal section.

2. Analog output

Item		Analog output unit FP2-DA4(AFP2410)
Number of output points		4 channels
Output range (digital input)	Voltage	±10 V (K-2048 to K+2047)
	Current	0 to 20 mA (K0 to K4095)
Resolution		1/4096
Conversion speed		500 μs/ch
Overall accuracy		±1.0% F.S. or less (0 to 55°C)
Insulation method		- Between the output terminal and FP2 internal circuits: Photocoupler - Between channels: No insulation
Analog output		Hold/Non-hold setting by shared memory setting

Specifications ②

■ ET-LAN units (AFP2790)

● Performance Specification

Item		Specifications
Communications function		- MEWTOCOL-COM: computer link function (Max. 2K B) - MEWTOCOL-DAT: data transfer (Max. 1020 words) - Transparent communication
Number of communication connections		8 connections max.
Transparent communications buffer	Transmit	Factory setting: 1k words/connection x 3
	Receive	Factory setting: 1k words/connection x 3

● Transmission Specifications for Communication Interface

Item	100BASE-TX note 1)	100BASE-T note 1)	100BASE5
Transmission speed	100M bit/s	10M bit/s	10M bit/s
Transmission method	Base band	Base band	Base band
Max. segment length	100 m note 2)	100 m note 2)	500 m
Max. distance between nodes	205 m (2 segments)	500 m (5 segments)	2500 m (5 segments)
Communication cable or connection	Category 5 UTP cable	Category 3, 4 and 5 UTP cable	Transceiver cable
Max. transceiver cable length	–	–	50 m note 3)
Max. number of nodes	–	–	100 nodes/segment
Node spacing	–	–	Integer multiples of 2.5 m

Notes: 1) Switching between 100BASE-TX and 10BASE-T is done automatically by auto negotiation function.
2) The standards cite 100 m 328.08 ft. as the maximum, but noise resistance measures such as attaching a ferrite core may be necessary in some cases, depending on the usage environment. Also, if the hub is positioned close to a control board, we recommend using it at a distance of 10 m 32.808 ft. or less.
3) The standards cite 50 m 164.04 ft. as the maximum, but noise resistance measures such as attaching a ferrite core may be necessary in some cases, depending on the usage environment. Also, if the transceiver is positioned close to a control board, we recommend using it at a distance of 5 m 16.404 ft. or less.

■ MEWNET-VE link units (AFP27960) NEW

	VE mode (PLC link)	FL-net mode
Communication interface	Ethernet 10BASE5/10BASE-T	
Communication speed	10Mbit/s	
Cycle time example	50 ms/32 units (2,048 points/2,048 words)	
Cable length	10BASE5 : 500m (2500m) 10BASE-T : 100m (500m) * The lengths in parentheses are available when a repeater is used.	
Communication protocol	MEWTOCOL	FL-net [FA link protocol (UDP/IP)]
Link communication specifications	Link relay 8,192 points/unit Link register 8,192 words/unit	
Message communication specifications	2,048 bytes max. (Compatible with MEWTOCOL)	1,024 bytes max. (Not compatible with MEWTOCOL)
Number of nodes	99 units max.	254 units max.
Other functions	Data transfer Remote programming Multilevel link communications	Interconnection with other companies' units

* For FP2SH (Cannot be used for FP2)

■ Multi-communication units (AFP2465)

Item	General-purpose serial communications		Computer link note 1) (Matsushita open protocol "MEWTOCOL" should be used.)		PLC link function
	1:1 communications	1:N communications	1:1 communications	1:N communications	
Communication block used	AFP2803 AFP2804	AFP2805	AFP2803 AFP2804	AFP2805	AFP2803 AFP2805
Interface	RS232C RS422	RS485	RS232C RS422	RS485	RS232C RS485
Communication method	Full duplex	Two-wire half duplex	Full duplex	Two-wire half duplex	Token passing (Floating master)
Synchronization	Start-stop synchronization				
Transmission line	Three-core or five-core shielded wire	Twisted-pair cable or VCTF	Three-core or five-core shielded wire	Twisted-pair cable or VCTF	Twisted-pair cable or VCTF
Transmission distance	15 m Length: 1,200 m max.	Length: 1,200 m max.	15 m Length: 1,200 m max.	Length: 1,200 m max.	1200m (RS485) 15m (RS232C)
Transmission speed (To be set in the system register)	300 to 230400bps	300 to 230400bps (19,200 bps when our C-NET adapter is connected)	300 to 230400bps	300 to 230400bps (19,200 bps when our C-NET adapter is connected)	115200bps
Transmission code	ASCII, JIS7, JIS8, and binary		ASCII, JIS7, JIS8		
Transmission format (To be set in the system register)	Data length: 7 bits/8 bits				
	Parity: 0/Invalid/Valid (Odd/Even)				
	Stop bit: 1 bit/2 bits				
	Start code: With STX / Without STX		–		
	End code: CR/CR+LF/Time setting/ETX		–		–
Number of stations	–	99 stations max. (32 stations max. when our C-NET adapter is connected)	–	99 stations max. (32 stations max. when our C-NET adapter is connected)	16 stations max.
PLC link capacity	–	–	–	–	Link relay: 1,024 points Link register: 128 words
COM1 (upper channel)	A	A	A	A	A
COM2 (lower channel)	A	A	A	A	N/A
Number of attachable units	23 units max. (including 8 units for the computer link and 2 channels for the PLC link)				
Supported versions	CPU unit (both FP2 and FP2SH): Ver. 1.4 or later, FPWIN-GR: Ver. 2.4 or later, EPWIN-PRO: Ver. 5.1 or later				

Note: 1) The protocol can be downloaded from: http://www.mew.co.jp/ac/fasys/plc

A: Available
N/A: Not available

■ Multi-wire link units

Item	FP2-MW (AFP2720)		
Mode	W mode	W2 mode	F mode
Communication method	Token bus		Polling
Transmission method	Base band		
Transmission speed	500k bit/s	500k bit/s, 250k bit/s	500k bit/s
Transmission distance	Extendable to 800 m	Extendable to 800 m 250 kbits/s: 1,200 m max. 500 kbits/s: 800 m max.	Extendable to 700 m
Number of connectable stations	32 stations max.		1 master + 32 slave stations max.
Transmission error check	CRC (cyclic redundancy check) system		
Synchronization	Start-stop synchronization		
Interface	RS485 compatible		
Transmission line	Twisted-pair cable		Twisted-pair cables or VCTF cables
RAS function	Hardware self-diagnosis function		

Note: 1) When the unit is used in W2 mode, it must be set by user programs.

■ S-LINK units

Item	S-LINK units FP2-SL2 (AFP2780)	CPU unit with S-LINK ports FP2-C1SL (AFP2214)
Number of channels	1	2
Number of I/O points	128 points max.	128 points max. × 2
	The number of input and output points for each channel can be selected by the switch in the unit body. Input: 0/32/64/96/128 points Output: 0/32/64/96/128 points	
Rated power supply voltage	+24 V DC ±10% Maximum allowable ripples (P-P): ±10% (S-LINK terminal block IN-24 V DC 1.6 A or less)	
Power consumption note 1)	[Current consumption of the S-LINK controller (incl. D-G line current consumption)] +24 V DC 1.6 A or less [Maximum allowable current supply (Supply to the S-LINK and I/O devices through the 24 V - 0 V line)] +24 V DC 5 A (Fuse: 5A or less)	
Transmission method	Bi-directional time division multiplex transmission	
Synchronization	Bit/Frame synchronization	
Transmission protocol	S-LINK protocol	
Transmission speed	28.5k bit/s	
Transmission distance note 2)	Main signal line: Extendable to 200 m (max. 400 m when a booster is used)	
FAN-OUT note 2)	320	
Connection method	T-branch multi-drop wiring or standard multi-drop wiring [+24, 0 V, D-G (with a function of D-G short-circuit protection)]	

Notes: 1) Refer to the "Power Capacity Determination" section of SUNX Limited's S-LINK Design Manual for details of the current consumption.
2) Refer to SUNX Limited's S-LINK Design Manual for the booster and FAN-OUT.

Specifications ③

■ Positioning units: RTEX (Network type) NEW

Item			2-axis type	4-axis type	8-axis type
Unit specifications	Part No.		AFP243610	AFP243620	AFP243630
	Model No.		FP2-PN2AN	FP2-PN4AN	FP2-PN8AN
	Position control function	Control method	PTP control, continuous path (CP) control		
		Interpolation control	Two/Three-axis linear interpolation, two-axis circular interpolation, three-axis helical interpolation		
		Unit of control	pulse/μm/inch/degree		
		Positioning data	600 points per axis		
		Backup	Parameters and data tables can be saved in FROM.		
		Acceleration/ deceleration method	Linear/S-curve acceleration and deceleration		
		Acceleration/ deceleration time	0 to 10,000 ms (in increments of 1 ms)		
		Positioning range	(-1073741823 to +1073741823 pulses) Increment/Absolute specification		
	Speed control function		Supported by a JOG operation (free-run operation)		
	Torque control function		Supported by a real-time torque control function		
	Home return	Search method	Home proximity (DOG) search		
		Creep rate	Can be set freely		
	Others		Pulser input operation supported		
			Auxiliary output code and auxiliary output contact		
			Dwell time		
			In-position contact		
Communication specifications	Communication speed		100Mbps		
	Cables		Commercially available LAN straight cable (Category 5e shielded cable)		
	Connection system		Ring		
	Communication cycle/ Number of connectable stations		0.5 ms, 8 axes max./system (Command cycle: 1 ms)		
	Transmission distance		Between terminals: 60 m Total: 200 m		

■ Positioning units: Multifunction type (Pulse output type)

Item		AFP2432	AFP2433	AFP2434	AFP2435
		FP2-PP21	FP2-PP41	FP2-PP22	FP2-PP42
Output type		Transistor		Line driver	
Number of axes controlled		2 axes, independent	4 axes, independent	2 axes, independent	4 axes, independent
Position command	Command units	Pulse unit (The program specifies whether Increment or Absolute is used.)			
	Max. pulse count	Signed 32 bits (–2147483648 to +2147483647 pulses)			
Speed command	Command range	1 pps to 500 kpps (can set in 1 pps.)		1 pps to 4 Mpps (can set in 1 pps.)	
Acceleration/ deceleration command	Acceleration/ deceleration	Linear acceleration/deceleration, S acceleration/deceleration (this takes the form of an "S")			
	"S" Acceleration/ deceleration	Can select from Sin curve, Secondary curve, Cycloid curve and Third curve.			
	Acceleration/ deceleration time	0 to 32767 ms (can set in 1 ms)			
Home return	Home Return speed	Speed setting possible (changes return speed and search speed)			
	Input terminals	Home input, Near home input, Over limit input (+), Over limit input (–)			
	Output terminals	Deviation counter clear output signal			
Operation mode		● E point control (Linear and S accelerations/decelerations selecting possible) ● P point control (Linear and S accelerations/decelerations selecting possible) ● Home return function (Home search) ● JOG operation function ● JOG positioning function ● Pulser input function Transfer multiplication ratio (×1, ×2, ×5, ×10, ×50, ×100, ×500, ×1000 selecting possible) ● Real-time frequency change function ● Infinity output function			
Startup time		0.02 ms or 0.005 ms possible			
Output interface	Output mode	1 pulse output (Pulse/Sign), 2 pulse output (CW/CCW)			
Feedback counter	Countable range	Signed 32-bit (–2147483648 to +2147483647 pulse)			
	Input mode	2-phase input*, Direction distinction input, Individual input (transfer multiple available for each.)			
Other functions		The flag to compare the elapsed value is built in. (The timing signal outputs at the optional position during an operation.)			
Internal current consumption (at 5 VDC)		200mA max.	350mA max.	200mA max.	350mA max.
External power supply	Voltage	21.6 V DC to 26.4 V DC			
	Current consumption	50 mA	90 mA	50 mA	90 mA

Note: Previous FP2 positioning units AFP2430 (FP2-PP2) and AFP2431 (FP2-PP4) are not compatible with the multi-function type FP2 positioning unit. Please contact us.
* 2-phase input cannot be used with multiples of one.

■ High-speed counter units and Pulse I/O units

Item			FP2 High-speed counter unit	FP2 Pulse I/O unit
Part No.			AFP2441 (NPN) AFP2451 (PNP)	AFP2442 (NPN) AFP2452 (PNP)
Part No.	Insulation method		Photocoupler insulation	
	Rated voltage		24 V DC	
	Rated current		Approx. 7.5 mA (when using 24 V DC)	
	Input impedance		Approx. 3.2 kΩ	
	Usage voltage range		20.4 V DC to 26.4 V DC	
	Min. ON voltage/Min. ON current		19.2 V /6 mA	
	Min. OFFvoltage/Min. OFFcurrent		5.0 V /1.5 mA	
	Response time note 1)	OFF→ON	1 μs or less	
		ON→OFF	2 μs or less	
	Input time constant setting		None, 4μs, 8μs, 16μs, 32μs (set in 2-input units)	
	Common method		16 points/common (+ common)	
Counter	Number of counter channels		4 channels	
	Calculation range		32-bit with sign (–2,147,483,648 to +2,147,483,647)	
	Max. calculation speed note 1)		200 kHz	
	Input modes		3 modes (direction control, individual input, phase input)	
	Max. calculation speed note 1)		2.5 μs	
	Other		8 comparison outputs, multiplier function (1, 2, 4)	
Interrupt	Number of interrupt points note 2)		None, 1/unit, 8/unit (set with mode setting switches)	
	Interrupt processing delays		160 μs max. (when using FP2 CPU unit) 50 μs max. (when using FP2SH CPU unit)	
Output specifications	Insulation method		Photocoupler insulation	
	Rated load voltage		5 - 24 V DC	
	Rated load voltage range		4.75 V DC to 26.4 V DC	
	Max. load current		0.1 A (A11 to A18, B11 to B14 pins), 0.8 A (B15 to B18 pins)	
	Leakage current when off		1 μA max.	
	Max. voltage drop when on		0.5 V max.	
	Response time	OFF→ON	1 μs max.	
		ON→OFF	1 μs or less (NPN) 5 μs or less (PNP)	
	Surge absorber		Zener diode	
	Common method		16 points/common	
	External power supply	Voltage	20.4 V DC to 26.4 V DC	
		Current (when using 24 V DC)	90 mA or less (NPN) 200 mA or less (PNP)	
Counter	Surge absorber		8 points (A11 to A18 pins)	
Pulse output	Channels		–	4CH (B11 to B18 pins)
	Max. output frequency			100 kHz
	Output modes			2 modes (direction control, individual output)
PWM output	Number of output points			4CH (B15 to B18 pins)
	Max. load current			0.8 A
	Cycle note 3)			1 Hz to 30 kHz
	Duty note 3)			0 to 100% (unit: 1%)

Notes:
1) This value is effective when the input time constant (filter) setting was set to "No setting".
2) If interrupts are used at the 1/unit setting, the interrupt from the external input terminal B1 (X8) or the interrupt program from the comparison 0 (one of among INT16 to INT23) is booted.
3) At maximum load current and resistance load. There may be distortion in the output waveform, depending on the load current and type of load.

Product types

■ CPU units (Built-in RAM)

Product name		Operation speed	Built-in RAM	Optional memory			Other		Product number	Part number
				Expansion RAM	ROM	IC memory card	Clock/calendar	Comment memory		
FP2	Standard type CPU unit	From 0.35 μs	16 k steps note 1)	Available (See below.)	Available (See below.)	Not available	Available note 2)	Available note 3)	FP2-C1	AFP2211
	CPU unit 64-point input								FP2-C1D	AFP2212
	CPU unit with S-LINK								FP2-C1SL	AFP2214
FPSH	Standard type CPU unit	From 0.03 μs	60 k steps	Not available	Available (See below.)	Not available	Available (Built-in)	Available (Built-in)	FP2-C2	AFP2231
	CPU unit with IC memory card interface		60 k steps	Not available	Available (Built-in)	Available (See below.)	Available (Built-in)	Available (Built-in)	FP2-C2P	AFP2235
	CPU unit with IC memory card interface		120 k steps	Not available	Available (Built-in)	Available (See below.)	Available (Built-in)	Available (Built-in)	FP2-C3P	AFP2255

Notes: 1) For FP2 CPU unit, the capacity can be expanded up to 32 k steps using the expansion RAM of the optional memory.
2) The expansion memory unit (optional memory) with clock/calendar function is required for FP2 CPU unit.
3) The expansion memory unit (optional memory) with comment input function is required for FP2 CPU unit.

■ Optional memories for FP2

Product name		Function				Product number	Part number
		Comment input	Clock/calendar	Expansion RAM	ROM socket		
For FP2	Expansion memory unit	Available	Available	Not available	Not available	FP2-EM1	AFP2201
		Available	Available	Available	Not available	FP2-EM2	AFP2202
		Available	Available	Available	Available	FP2-EM3	AFP2203
		Not available	Not available	Available	Available	FP2-EM6	AFP2206
		Not available	Not available	Not available	Available	FP2-EM7	AFP2207
	F-ROM	FLASH-ROM for program copy and ROM operation. Equivalent to SST-29EE010-120-4C-PH Enables writing with the programming tool when attached to the CPU unit.				FP2-EM4	AFP2204
	EP-ROM	EP-ROM for program storage and ROM operation. Equivalent to M27C1001-12F1 A commercially available ROM writer is required.				FP2-EM5	AFP2205

■ Optional memories for FP2SH

Product name		Specification	Part number
ROM for FP2SH AFP2231	Expansion memory unit	Socket for ftting ROM to the CPU unit	AFP2207
	F-ROM	FLASH-ROM for program copy and ROM operation. Equivalent to SST-29EE020-150-4C-PH Enables writing with the programming tool when attached to the CPU unit.	AFP5208
	EP-ROM	EP-ROM for program storage and ROM operation. Equivalent to M27C2001-150F1. A commercially available ROM writer is required.	AFP5209
IC memory card (Small PC card) for FP2SH CPU unit with IC memory card interface	F-ROM	Backup unnecessary. Perfect for program memory Used for readout when using data memory.	AIC50020
	SRAM	Perfect for data memory Can also be used for program backup. Battery backups.	AIC52000

Note: Please refer to "FPΣ Product Types" for FP Memory Loader.

■ Backplane

Product name		Specification	Product number	Part number
FP2 Backplane	Conventional type	5-module type (for basic)	FP2-BP05	AFP25005
		7-module type (for basic and expansion)	FP2-BP07	AFP25007
		9-module type (for basic and expansion)	FP2-BP09	AFP25009
		12-module type (for basic and expansion)	FP2-BP12	AFP25012
		14-module type (for basic and expansion)	FP2-BP14	AFP25014
	H type	8 slots (for basic)	FP2-BP11MH	AFP25011MH
		8 slots (for expansion)	FP2-BP10EH	AFP25010EH
FP2 Expansion cable		0.6 m	FP2-EC	AFP2510
		2 m	FP2-EC2	AFP2512

■ Power supply unit

Product name	Specification	Product number	Part number
FP2 Power supply unit	Input: 100 to 120 V AC, Output: 2.5 A	FP2-PSA1	AFP2631
	Input: 200 to 240 V AC, Output: 2.5 A	FP2-PSA2	AFP2632
	Input: 100 to 240 V AC, Output: 5 A	FP2-PSA3	AFP2633
	Input: 24 V AC, Output: 5 A	FP2-PSD2	AFP2634

■ I/O units

Product name	Type	Number of point	Connection method	Specification	Product number	Part number
FP2 Input unit	DC input	16 points	Terminal	12-24V DC	FP2-X16D2	AFP23023
		32 points	Connector	24V DC	FP2-X32D2	AFP23064
		64 points	Connector	24V DC	FP2-X64D2	AFP23067
FP2 Output unit	Relayoutput	6 points	Terminal	5 A, 2 points per one common	FP2-Y6R	AFP23101
		16 points	Terminal	2 A, 8 points per one common	FP2-Y16R	AFP23103
	Transistor output NPN	16 points	Terminal	0.5A (12-24V DC), 0.1A (5V DC)	FP2-Y16T	AFP23403
		32 points	Connector	0.1A (12-24V DC), 50mA (5V DC)	FP2-Y32T	AFP23404
		64 points	Connector	0.1A (12-24V DC), 50mA (5V DC)	FP2-Y64T	AFP23407
	Transistor output PNP	16 points	Terminal	0.5A (12-24V DC), 0.1A (5V DC)	FP2-Y16P	AFP23503
		32 points	Connector	0.1A (12-24V DC), 50mA (5V DC)	FP2-Y32P	AFP23504
		64 points	Connector	0.1A (12-24V DC), 50mA (5V DC)	FP2-Y64P	AFP23507
FP2 I/O mixed unit	DC input, Transistor output NPN	Input 32 points Output 32 points	Connector	Input 24 V DC Output 0.1 A (12 to 24 V DC), 50 mA (5 V DC)	FP2-XY64D2T	AFP23467
				Input 24 V DC Output 0.1 A (12 to 24 V DC), 50 mA (5 V DC) with on pulse catch input	FP2-XY64D7T	AFP23477
	DC input, Transistor output PNP	Input 32 points Output 32 points	Connector	Input 24 V DC Output 0.1 A (12 to 24 V DC), 50 mA (5 V DC)	FP2-XY64D2P	AFP23567
				Input 24 V DC Output 0.1 A (12 to 24 V DC), 50 mA (5 V DC) with on pulse catch input	FP2-XY64D7P	AFP23577

Note: Pressure welding socket is supplied. A special tool (Part number AXY52000) is needed for connection. Please purchase separately if you are using a terminal or flat cable socket.

■ Maintenance parts

Product name	Specification	Part number
Battery	For FP2, button type battery, CR2450 or equivalent	AFC8801
	For FP2SH CPU unit, battery with cable	AFP8801
Dummy unit	For blank slot	AFP2300

■ Intelligent units for remote I/O control

Product name	Specification	Controllable I/O points	Product number	Part number
FP2 Multi-wire link unit	Can connect as the remote I/O system MEWNET-F master station. Perfect for remote I/O systems using many points	Max. 2048 points per one unit	FP2-MW	AFP2720
FP2 CPU unit with S-LINK	Direct connection to SUNX Co., Ltd., S-LINK reduced-wiring system CPU unit with 128 points x 2 channels	256 points at S-LINK section	FP2-C1SL	AFP2214
FP2 S-LINK unit	Direct connection to SUNX Co., Ltd., S-LINK reduced-wiring system CPU unit with 128 points x 2 channels	128 points per one unit	FP2-SL2	AFP2780

■ Intelligent units for analog I/O

Product name		Specification	Number of I/O points	Product number	Part number
FP2 Analog input unit	FP2-AD8VI	Not insulated Voltage: 1 to 5 V, -10 to +10 V Current: 4 to 20 mA, -20 to +20 mA	Analog input: 8 channels	FP2-AD8VI	AFP2400L
	FP2-AD8X	Insulated Voltages, currents, thermocouples, resistance thermometer devices	Analog input: 8 channels	FP2-AD8X	AFP2401
	FP2-RTD	R.T.D. type: Pt 100, JPt 100, JPt 1000 type	R.T.D. input: 8ch	FP2-RTD	AFP2402
FP2 Analog output unit		Voltage range: -10 to +10 V Current range: 0 to 20 mA Resolution: 1/4096	Analog input: 4 channels	FP2-DA4	AFP2410

■ Positioning unit, High-speed counter unit and Pulse I/O unit

Product name	Specification				Product number	Part number
	Output type	Number of axes controlled	Speed command			
FP2 Positioning unit RTEX	2 axes				FP2-PN2AN	AFP243610
	4 axes				FP2-PN4AN	AFP243620
	8 axes				FP2-PN8AN	AFP243630
Control Configurator PM	Tool software for positioning unit RTEX (English)				–	AFPS66510
FP2 Positioning unit Multiifunction type note 3)	Transistor	2 axes, independent	1 pps to 500 kpps		FP2-PP21	AFP2432
		4 axes, independent			FP2-PP41	AFP2433
	Line drive	2 axes, independent	1 pps to 4 Mpps		FP2-PP22	AFP2434
		4 axes, independent			FP2-PP42	AFP2435
FP2 High-speed counter unit	8 interrupt inputs 4-channel high-speed counter 8 comparison outputs Input: 24 V DC Output: 5 to 24 V DC (0.1 A, 12 points/0.8 A, 4 points)			NPN output	FP2-HSCT	AFP2441
				PNP output	FP2-HSCP	AFP2451
FP2 Pulse I/O unit	8 interrupt inputs 4-channel high-speed counter 8 comparison outputs 4 pulse output channels 4 PWM output channels Input: 24 V DC Output: 5 to 24 V DC (0.1 A, 12 points/0.8 A, 4 points)			NPN output	FP2-PXYT	AFP2442
				PNP output	FP2-PXYP	AFP2452

Notes: 1) Pressure welding socket is supplied. A special tool (part no. AXY52000) is needed for connection. Please purchase separately if you are using a terminal or flat cable socket.
2) Please refer to "FPΣ Product Types" for Motor driver I/F terminal II.
3) Previous FP2 positioning units AFP2430 (FP2-PP2) and AFP2431 (FP2-PP4) are not compatible with the multi-function type FP2 positioning unit. Please contact us.

■ Serial communication and Link-related intelligent units

Product name	Specification	Number of channels	Product number	Part number
FP2 MEWNET VE-link unit	10 Mbps, 8,192 points/8,192 words, 99 units max. (VE mode), 254 units max. (FL-net), 2,500 m * For FP2SH (Cannot be used for FP2)	1ch	FP2-VE	AFP27960
FP2 ET-LAN unit	Ethernet-compatible unit for FP2/FP2SH To be mounted on the CPU backplane	1ch	FP2-ET1	AFP2790
Control Configurator ET	ET-LAN unit setting software (English)	–	–	AAFPS32510
FP2 Multi-wire link unit	For PLC links Compatible with MEWNET-W/MEWNET-W2	1ch	FP2-MW	AFP2720
FP2 Multi-communication unit	Up to two blocks to be attached can be selected among RS485, RS232C, and RS422 blocks. General-purpose serial communications, computer links, PLC links (MEWTNET-W0)	2ch	FP2-MCU	AFP2465
RS232C block	(For the multi-communication unit) 230 kbps, 15 m max.	1ch	FP2-CB232	AFP2803
RS422 block	(For the multi-communication unit) 230 kbps, 1,200 m max.	1ch	FP2-CB422	AFP2804
RS485 block	(For the multi-communication unit) For PLC links (MEWNET-W0): 115 kbps, 16 stations, 1,200 m	1ch	FP2-CB485	AFP2805
FP2 Computer communication unit	For 1:1 communication between a PLC and a computer RS232C x 2 ch Connection with a control panel is also possible.	2ch	FP2-CCU	AFP2462
FP2 Serial data unit	For communications with general-purpose RS232C devices The serial input/output is executed by sequence commands.	2ch	FP2-SDU	AFP2460

■ Control FPWIN GR for Windows

Product name	Type		Part number	Applicable PLC								
				FP-X	FPΣ	FP0 FP-e	FP0 10k	FP1*1	FP2	FP2SH	FP-M*1	FP3*1 FP10SH
FPWIN GR for Windows	English: Full type	CD-ROM for Windows	AFPS10520	A	A	A	A	A	A	A	A	A
	English: Small type	CD-ROM for Windows	AFPS11520	A	A	A	A	A	N/A	N/A	A	N/A
	English: Ver. up type	CD-ROM for Windows	AFPS10520R	A	A	A	A	A	A	A	A	A
	Chinese	CD-ROM for Windows	AFPS10820									
	Chinese: Ver. up type	CD-ROM for Windows	AFPS10820R									
	Korean	CD-ROM for Windows	AFPS10920									

*1 FP1, FP-M, and FP3/FP10SH have been discontinued.

A: Available, N/A: Not available

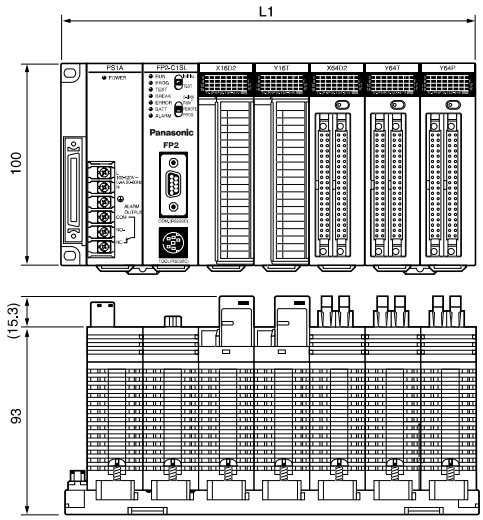
■ Control FPWIN Pro (IEC61131-3 compliant Windows version software)

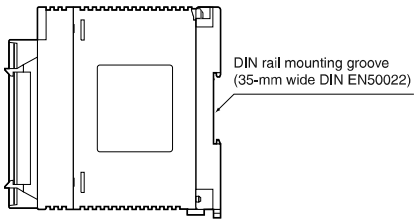
Product name	Type		Part number	Applicable PLC								
				FP-X	FPΣ	FP0 FP-e	FP0 10k	FP1*1	FP2	FP2SH	FP-M*1	FP3*1 FP10SH
FPWIN Pro for Windows	English: Full type	CD-ROM for Windows	AFPS50550	A	A	A	A	A	A	A	A	A
	English: Small type	CD-ROM for Windows	AFPS51550	A	A	A	A	A	N/A	N/A	A	N/A

*1: Ver. 5.1 or later will be supported soon.
*2: FP1, FP-M, and FP3/FP10SH have been discontinued.

A: Available, N/A: Not available

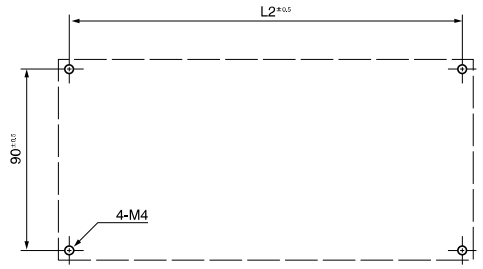
FP2/FP2SH Dimensions





* The illustration shows a conventional 7-module type backplane.

Mounting dimension (Tolerance: ± 1.0)



● Conventional backplanes

	5-module	7-module	9-module	12-module	14-module
L1 (mm)	140	209	265	349	405
L2 (mm)	130	199	255	339	395

Note: The 5-module type does not have an expansion connector.

● H type backplane

	11-module (master backplane)	10-module (expansion backplane)
L1 (mm)	349	349
L2 (mm)	339	339

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