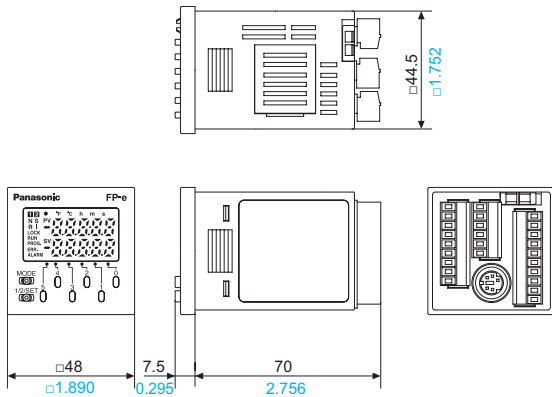


## DIMENSIONS (unit: mm in)

The CAD data in the dimensions are available for downloading from our website.

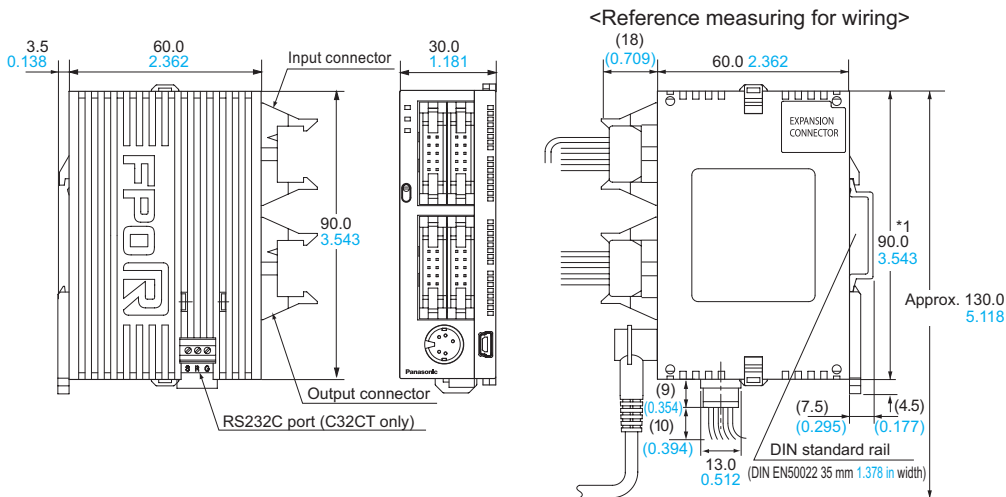
### FP-e



### FP0R

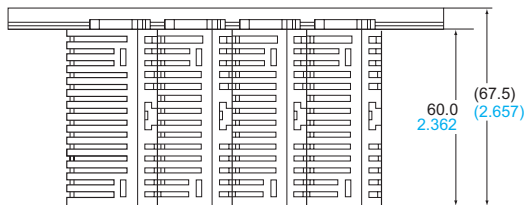
Typical part No.: AFP0RC32T

Note: DIN rail is attached on the center of the unit.

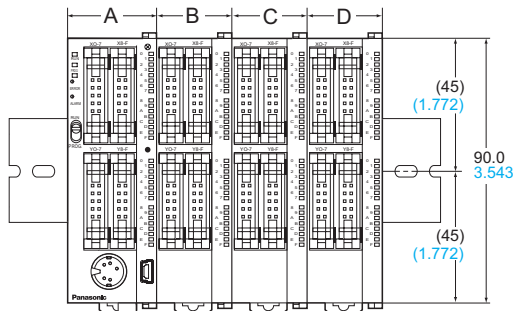


### <Dimensions During Expansions>

•Top view (with DIN rail attached)



•Front view



### A+B+C+D dimensions (mm in)

Control unit	A	A→B	A→C	A→D
	Control unit only	1 expansion unit connected	2 expansion units connected	3 expansion units connected
C10RS				
C10CRS				
C10RM				
C10CRM				
C14RS				
C14CRS	25	50	75	100
C14RM	0.984	1.969	2.953	3.937
C14CRM				
C16T				
C16CT				
C16P				
C16CP				
C32T				
C32CT				
C32P	30	55	80	105
C32CP	1.181	2.165	3.150	4.134
T32CT				
T32CP				
F32CT				
F32CP				

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASUREMENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

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HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

PLC

I/F

Terminals

FP-e

FP0R

FPΣ

FP-X

FP2SH

FPWIN

PRO

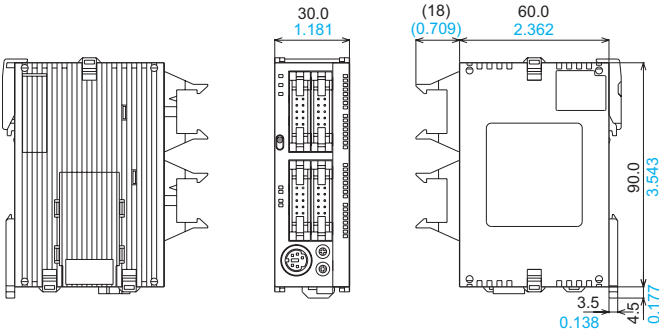
FPWIN GR

PCWAY

FP Memory Loader

## FPΣ

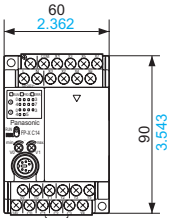
Typical part No.: AFGP2543H



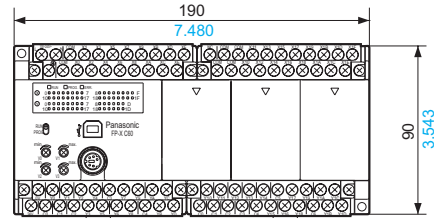
## FP-X

FP-X Control Unit

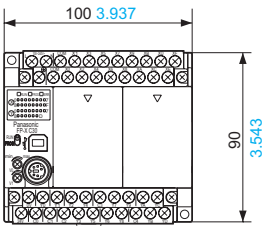
AFPX-C14\*\*



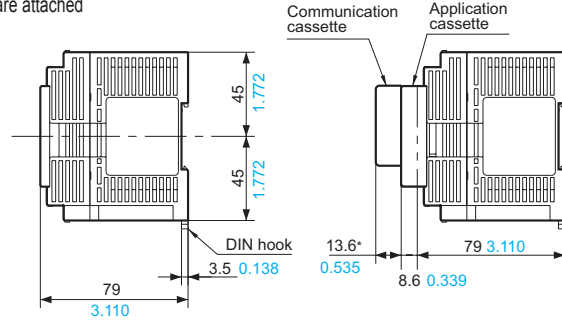
AFPX-C60\*\*



AFPX-C30\*\*



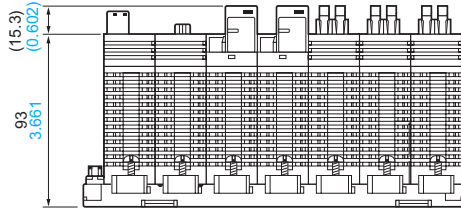
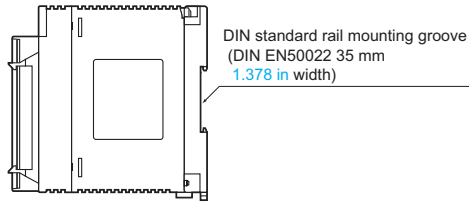
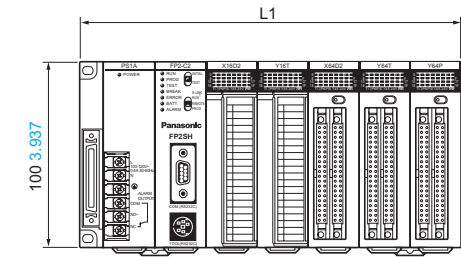
Dimensions when FP-X add-on cassettes (application and communication cassettes) are attached



\* 5 mm 0.197 in higher in case of the communication cassette AFPX-COM5 (Ethernet type).

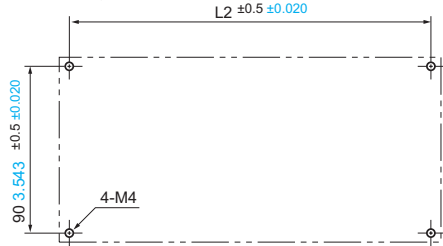
- FIBER SENSORS
- LASER SENSORS
- PHOTO-ELECTRIC SENSORS
- MICRO PHOTO-ELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS
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- PARTICULAR USE SENSORS
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- WIRE-SAVING SYSTEMS
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- FA COMPONENTS
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- FP0R
- FPΣ
- FP-X
- FP2SH
- FPWIN PRO
- FPWIN GR
- PCWAY
- FP Memory Loader

**FP2SH**



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

Mounting dimensions (Tolerance:  $\pm 1.0 \pm 0.039$ )



• Conventional backplanes

	5-module	7-module	9-module	12-module	14-module
L1 (mm in)	140 5.512	209 8.228	265 10.433	349 13.740	405 15.945
L2 (mm in)	130 5.118	199 7.835	255 10.039	339 13.346	395 15.551

• H type backplanes

	11-module (Master backplane)	10-module (Expansion backplane)
L1 (mm in)	349 13.740	349 13.740
L2 (mm in)	339 13.346	339 13.346

FIBER SENSORS

LASER SENSORS

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MICRO PHOTO-ELECTRIC SENSORS

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INDUCTIVE PROXIMITY SENSORS

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WIRE-SAVING SYSTEMS

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FA COMPONENTS

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UV CURING SYSTEMS

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I/F Terminals

FP-e

FP0R

FPΣ

FP-X

FP2SH

FPWIN PRO

FPWIN GR

PCWAY

FP Memory Loader

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## FPΣ Control Units



**AFG2543H**

C32 Control unit (NPN transistor output)

- AFPG2543H**
- AFPG2643H**
- AFPG2543HTM**
- AFPG2643HTM**

C24 Control unit (Relay output)

- AFPG2423HTM**
- AFPG2423H**

C28 Control unit (PNP transistor output)

- AFPG2653H**
- AFPG2653HTM**

Left-side expansion possible up to 4 units

## FP0R Control Units

10 points Input: 6, Relay output: 4

Terminal block type



**AFP0RC10RS**  
**AFP0RC10CRS**Ⓞ

Connector type



**AFP0RC10RM**  
**AFP0RC10CRM**Ⓞ

14 points Input: 8, Relay output: 6

Terminal block type



**AFP0RC14RS**  
**AFP0RC14CRS**Ⓞ

Connector type



**AFP0RC14RM**  
**AFP0RC14CRM**Ⓞ

Right-side expansion possible up to 3 units

## FPΣ Expansion Units

Positioning unit



**AFPG430**

64-points expansion I/O unit  
FPG-XY64D2T(AFGP3467)

Positioning unit pulse output type

- 1 axis, Transistor output **AFPG430**
- 1 axis, Line driver output **AFPG432**
- 2 axes, Transistor output **AFPG431**
- 2 axes, Line driver output **AFPG433**

Positioning unit RTEX

- 2-axis type **AFPG43610**
- 4-axis type **AFPG43620**
- 8-axis type **AFPG43630**

Data memory expansion unit

- AFPG201**
- AFPG7943**

S-LINK unit

- AFPG780**
- AFPG7930**

FMU unit

- AFPG7971**
- AFPG7972**
- AFPG7973**

### Communication blocks for FNS unit

- AFPN-AB6200**
- AFPN-AB6201**
- AFPN-AB6218**

## Communication Cassettes



**AFPG801**

- 1 ch, RS232C type **AFPG801**
- 1 ch, RS485 (insulation) type **AFPG803**
- 2 ch, RS232C type **AFPG802**
- 1 ch, RS232C/1 ch, RS485 (insulation) type **AFPG806**

## Options

### Power supply unit



Input: 100 to 240 V AC  
Output: 24 V DC 0.7 A

Part No.: **AFP0634**  
Product No.: **(FP0-PSA4)**

## FP0R Expansion Units

8 points

Input: 8

MIL connector type



**AFP03003**

Input: 4, Relay output: 4

Terminal block type



**AFP03023**

Connector type



**AFP03013**

Relay output: 8

Terminal block type



**AFP03020**

Transistor output: 8

MIL connector type



**AFP03040**

## FP0R Intelligent Units

Analog I/O unit Input: 2 ch, Output: 1 ch

Terminal block type



**AFP0480**

A/D converter unit Input: 8 ch

Terminal block type



**AFP0401**

D/A converter unit

Voltage output: 4 ch  
Terminal block type



**AFP04121**

D/A converter unit

Current output: 4 ch  
Terminal block type



**AFP04123**

Thermocouple unit

4ch  
**AFP0420**

8ch  
**AFP0421**



16 points Input: 8, Transistor output: 8

MIL connector type



**AFP0RC16T**  
**AFP0RC16P**  
**AFP0RC16CT**Ⓞ  
**AFP0RC16CP**Ⓞ

Ⓞ : with RS232C

32 points Input: 16, Transistor output: 16

MIL connector type



**AFP0RC32T**  
**AFP0RC32P**  
**AFP0RC32CT**Ⓞ  
**AFP0RC32CP**Ⓞ



**AFP0RT32CT**Ⓞ  
**AFP0RT32CP**Ⓞ

T type



**AFP0RF32CT**Ⓞ  
**AFP0RF32CP**Ⓞ

F type

16 points

Input: 16 MIL connector type    Transistor output: 16 MIL connector type    Input: 8, Transistor output: 8 MIL connector type



**AFP03303**



**AFP03340**



**AFP03343**

32 points

Input: 16, Transistor output: 16 MIL connector type

Input: 8, Relay output: 8 Terminal block type

Connector type



**AFP03323**



**AFP03313**



**AFP03543**

Link / communication units

I/O link unit

CC-Link slave unit

FP WEBSERVER 2 unit



**AFP0732**



**AFP07943**



**AFP0611**

C-NET adapter S2 type



**AFP15402**

FP-X

Control Units



Program capacity: 32 k steps,  
 Potentiometer: 2-point,  
 Equipped with a USB communication port

Relay output

DC power supply  
**AFPX-C14RD**

AC power supply  
**AFPX-C14R**

DC power supply  
**AFPX-C30RD**

AC power supply  
**AFPX-C30R**

DC power supply  
**AFPX-C60RD**

AC power supply  
**AFPX-C60R**

Transistor output

DC power supply  
**AFPX-C14TD** (NPN)  
**AFPX-C14PD** (PNP)

AC power supply  
**AFPX-C14T** (NPN)  
**AFPX-C14P** (PNP)

DC power supply  
**AFPX-C30TD** (NPN)  
**AFPX-C30PD** (PNP)

AC power supply  
**AFPX-C30T** (NPN)  
**AFPX-C30P** (PNP)

DC power supply  
**AFPX-C60TD** (NPN)  
**AFPX-C60PD** (PNP)

AC power supply  
**AFPX-C60T** (NPN)  
**AFPX-C60P** (PNP)

Expansion possible up to 3 units

Expansion FP0 Adapter



**AFPX-EFP0**

FP-X

Expansion Units



Input

DC power supply

**AFPX-E16X**  
 Input: 16, Output: -

Relay output

DC power supply

**AFPX-E14YR**  
 Input: -, Output: 14

**AFPX-E16R**  
 Input: 8, Output: 8

DC power supply

**AFPX-E30RD**  
 Input: 16, Output: 14

AC power supply

**AFPX-E30R**  
 Input: 16, Output: 14

Transistor output

DC power supply

**AFPX-E16T** (NPN)

**AFPX-E16P** (PNP)

Input: 8, Output: 8

DC power supply

**AFPX-E30TD** (NPN)

**AFPX-E30PD** (PNP)

Input: 16, Output: 14

AC power supply

**AFPX-E30T** (NPN)

**AFPX-E30P** (PNP)

Input: 16, Output: 14

FP-X

Expansion Cassettes

Application cassette	Communication cassette
<b>AFPX-IN4T3</b> I/O	<b>AFPX-COM1</b> RS232C 1 ch
<b>AFPX-IN8</b> Input	<b>AFPX-COM2</b> RS232C 2 ch
<b>AFPX-TR8</b> Output	<b>AFPX-COM3</b> 1 ch, RS485 (insulation) / 1 ch, RS422 selectable type
<b>AFPX-TR6P</b> Output	<b>AFPX-COM4</b> 1 ch, RS485 (insulation) + 1 ch, RS232C type
<b>AFPX-PLS*</b> Pulse I/O	<b>AFPX-COM5</b> 1 ch, Ethernet + 1 ch, RS232C type
<b>AFPX-AD2</b> Analog input	<b>AFPX-COM6</b> 2 ch, RS485 (insulation) type
<b>AFPX-A21</b> Analog I/O	
<b>AFPX-DA2</b> Analog output 2 ch	
<b>AFPX-TC2</b> Thermocouple input	
<b>AFPX-RTD2</b> R.T.D. input	
<b>AFPX-MRTC</b> Master memory cassette with a real-time clock	

\* Not available for using with a transistor output type control unit.

FIBER SENSORS

LASER SENSORS

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MICRO PHOTO-ELECTRIC SENSORS

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FP-e

FP0R

FPΣ

FP-X

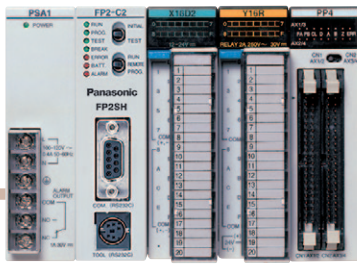
FP2SH

FPWIN PRO

FPWIN GR

PCWAY

FP Memory Loader



## Power Supply Unit



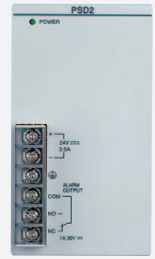
100 V AC,  
2.5 A type  
**AFP2631**



200 V AC,  
2.5 A type  
**AFP2632**



100 to 240 V AC,  
5 A type  
**AFP2633**



24 V DC,  
5 A type  
**AFP2634**

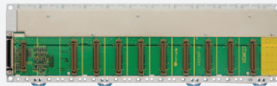
## Conventional type Backplanes

## H type Backplanes

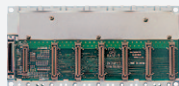
(For use with both master and expansion backplanes.  
Only the 5-module type can not be used with expansion backplane.)



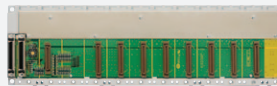
5-module type  
**AFP25005**



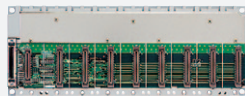
H type master backplane  
(11 modules): 8 slots  
**AFP25011MH**



7-module type  
**AFP25007**



H type expansion backplane  
(10 modules): 8 slots  
**AFP25010EH**

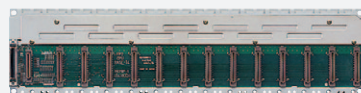


9-module type  
**AFP25009**



12-module type  
**AFP25012**

■Units that occupy two modules each  
There is a two-module type in the power supply and CPU units.



14-module type  
**AFP25014**

Type	Product No.
Power supply unit, 5 A type	FP2-PSA3
	FP2-PSD2



Expansion cable (60 cm)  
**AFP2510**



Expansion cable (2 m)  
**AFP2512**



Dummy unit  
**AFP2300**

## FP2SH

## CPU Units

**NEW**



32 k steps,  
Standard type  
**AFP2221**



60 k steps,  
Standard type  
**AFP2231**



60 k steps,  
for small PC card  
**AFP2235**



120 k steps,  
for small PC card  
**AFP2255**

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FP0R

FPΣ

FP-X

FP2SH

FPWIN PRO

FPWIN GR

PCWAY

FP Memory Loader

I/O Units

16-point DC input  
**AFP23023**  
 16-point Transistor output (NPN)  
**AFP23403**  
 16-point Transistor output (PNP)  
**AFP23503**  
 6-point Relay output  
**AFP23101**  
 16-point Relay output  
**AFP23103**

32-point DC input  
**AFP23064**  
 32-point Transistor output (NPN)  
**AFP23404**  
 32-point Transistor output (PNP)  
**AFP23504**

64-point DC input  
**AFP23067**  
 64-point Transistor output (NPN)  
**AFP23407**  
 64-point Transistor output (PNP)  
**AFP23507**

32-point input / 32-point output mixed (NPN)  
**AFP23467**  
**AFP23477**  
 32-point input / 32-point output mixed (PNP)  
**AFP23567**  
**AFP23577**

Network-related Units

VE2-LINK  
**AFP279601**

ET-LAN2  
**AFP27901**

Multi-wire link unit  
**AFP2720**

Remote I/O slave unit  
**AFP2745**

FP2 FNS unit for open network  
**AFP27971**  
**AFP27972**  
**AFP27973**

FP2 FNS unit for open network

Operation Display Panel and Computer Interface Unit

Serial Data Control Unit

FP2SH

Optional Memories

**NEW**  
 Expansion memory unit  
**AFP2208**

Small PC card (2 MB), SRAM  
**AFP2209**

IC memory card  
**AFP2806**

FP Memory Loader  
 Data clear type **AFP8670**  
 Data hold type **AFP8671**



**AFP27930**  
 \* Communication block: not included



Computer communication unit  
**AFP2462**

Serial data unit  
**AFP2460**

S-LINK  
**AFP2780**

Multi-communication Unit



Multi-communication unit  
**AFP2465**

RS232C **AFP2803**  
 RS422 **AFP2804**  
 RS485 **AFP2805**

\* The communication blocks are available separately.

Positioning Units

(2-axis) Positioning unit RTEX **AFP243610**  
 (4-axis) Positioning unit RTEX **AFP243620**  
 (8-axis) Positioning unit RTEX **AFP243630**

(2-axis) Positioning unit  
 Line drive  
 Transistor

Multifunction type	Interpolation type
<b>AFP2434</b>	<b>AFP243711</b>
<b>AFP2432</b>	<b>AFP243710</b>

(4-axis) Positioning unit  
 Line drive  
 Transistor

Multifunction type	Interpolation type
<b>AFP2435</b>	<b>AFP243721</b>
<b>AFP2433</b>	<b>AFP243720</b>

AC Servo motor MINAS series

\*Panasonic MINAS Series Servo motor

Motor Drive I/F Terminal II

1-axis type **AFP8503**  
 2-axis type **AFP8504**

Analog I/O Units

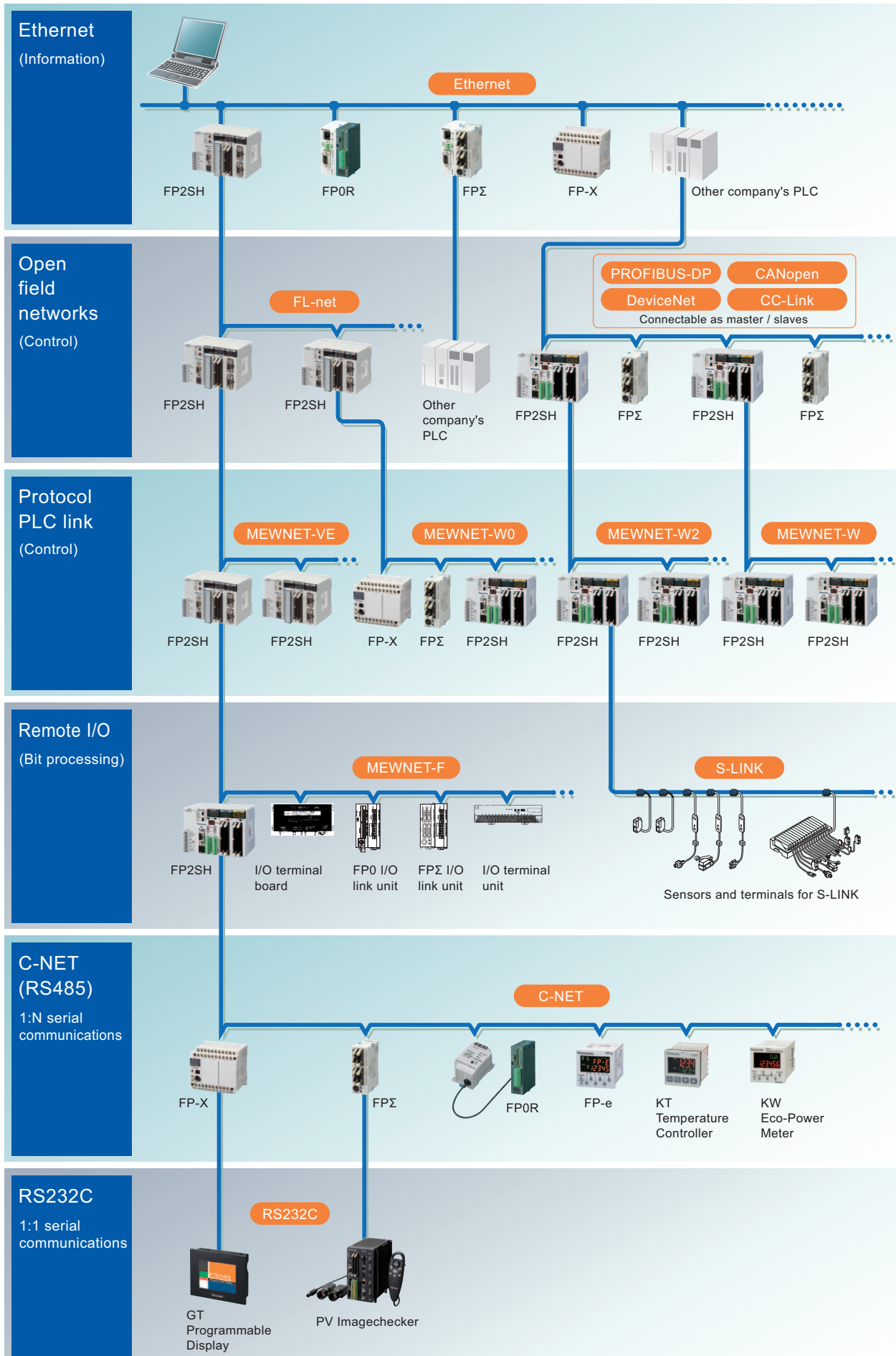
Voltage / current input unit **AFP2400L**  
 Multiple analog input unit **AFP2401**  
 R.T.D. input **AFP2402**  
 Analog output unit **AFP2410**

Pulse Input / Output Units

High-speed counter unit **AFP2441**  
**AFP2451**  
 Pulse I/O unit **AFP2442**  
**AFP2452**

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## Compatible Network Diagram



- FIBER SENSORS
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- MICRO PHOTO-ELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
- SENSOR OPTIONS
- SIMPLE WIRE-SAVING UNITS
- WIRE-SAVING SYSTEMS
- MEASUREMENT SENSORS
- STATIC CONTROL DEVICES
- ENDOSCOPE
- LASER MARKERS
- PLC / TERMINALS
- HUMAN MACHINE INTERFACES
- ENERGY CONSUMPTION VISUALIZATION COMPONENTS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS
- PLC I/F Terminals
- FP-e
- FP0R
- FPΣ
- FP-X
- FP2SH
- FPWIN PRO
- FPWIN GR
- PCWAY
- FP Memory Loader



Compatible Network Table

Network name		Applications and features	Transmission cable	Transmission speed	Transmission distance	Supported function				Compatible PLCs					
						PLC links	Master-Slave	Remote I/O systems	Computer link	FP2SH	FP-X	FPΣ	FP0R	FP-e	
Ethernet		Connection to PCs or workstations by a standard LAN, Ethernet. For data collection and operation control.	UTP cable or transceiver cable	10 Mbps / 100 Mbps	Max segment: 500 m 1640.5 ft Max. distance between nodes: 2500 m 8202.5 ft	●	●	-	-	●	●	△	△	△	
Open networks	FL-net	An open network in widespread use in Japan. For establishment of a multivendor system that includes ours and other companies' PLCs.	UTP cable or transceiver cable	10 Mbps	Max segment: 500 m 1640.5 ft Max. distance between nodes: 2500 m 8202.5 ft	●	●	-	-	●	-	-	-	-	
	CC-Link	Capable of 10 Mbps highspeed or 1200 m 3937.2 ft long distance communications. As with FLnet, a variety of contactable devices are available from many manufacturers.	CCLink dedicated cable (twisted pair cable)	10 Mbps (100 m 328.1 ft) 5 Mbps (160 m 524.96 ft) 2.5 Mbps (400 m 1312.4 ft) 625 kbps (900 m 2952.9 ft) 156 kbps (1200 m 3937.2 ft)		-	●	●	-	-	● (Slave station)*	● (Slave station)	● (Slave station)	-	
	PROFIBUS-DP	One of the world's most popular open fieldbuses 12 Mbps highspeed communications. Transmission up to 12 km 7.452 mile is possible by using a repeater	Type A cable for PROFIBUS DP (twisted pair cable)	12 Mbps	12 km 7.452 mile (when using a repeater)		-	●	●	-	-	● (Master station) (Slave station)	● (Master station) (Slave station)	-	-
	DeviceNet	Developed based on CAN, as popular as PROFIBUS. Master-slave configuration as well as peer-to-peer configuration is possible.	Dedicated 4-wire shielded cable (Thick / Thin)	500 kbps (100 m 328.1 ft) 250 kbps (250 m 820.25 ft) 125 kbps (500 m 1640.5 ft)			-	●	●	-	-	● (Master station) (Slave station)	● (Master station) (Slave station)	-	-
	CANopen	As with DeviceNet, CAN-based industrial network. Widespread, particularly in Europe 128-station multi-masterslave communications.	Twisted-pair shielded cable. Also compatible with four-wire power bus cables.	1 Mbps (25 m 82.025 ft)~ 10 kbps (500 m 1640.5 ft)			-	●	●	-	-	● (Master station) (Slave station)	● (Master station) (Slave station)	-	-
PLC links	MEWNET-VE	10-Mbps high-speed largecapacity PLC link 4 layers, 254 nodes. 8 K bit link relay, 8 K word link data.	UTP cable or transceiver cable	10 Mbps	Max segment: 500 m 1640.5 ft Max. distance between nodes: 2500 m 8202.5 ft	●	-	-	-	●	-	-	-	-	
	MEWNT-W0	PLC link capable of mixed connection of FP2SH, FP2, FPX, and FPΣ. Distributed control allows target PLCs to be selected.	Twisted-pair cable	115 kbps	1200 m 3937.2 ft	●	-	-	-	●	●	●	●	-	
	MEWNET-W2	32 stations, 1200 m 3937.2 ft max. 4 K bit link relay, 4 K word link data.	Twisted-pair cable	500 kbps (800 m 2624.8 ft) 250 kbps (1200 m 3937.2 ft)			●	-	-	-	●	-	-	-	
	MEWNET-W	16 stations, 800 m 2624.8 ft max. 1 K bit link relay, 128 word link data.	Twisted-pair cable	500 kbps	800 m 2624.8 ft		●	-	-	-	●	-	-	-	
Remote I/O systems	MEWNET-F	Wire-saving I/O control through centralized program control. Up to 32 slave stations and 2048 points can be controlled.	VCTF or twisted-pair cable	500 kbps	VCTF: 400 m 1312.4 ft Twisted-pair cable: 700 m 2296.7 ft	-	-	●	-	●	△ (I/O link)	△ (I/O link)	△ (I/O link)	-	
	S-LINK	4-wire T-branch wire-saving I/O control system. Easy to connect sensors and I/O terminals with a single motion.	Dedicated 4-wire flat cable or cabtyre cable	28.5 kbps	200 m 656.2 ft (400 m 1312.4 ft when using a booster)	-	-	●	-	●	-	●	●	-	
Serial communications	C-NET (RS485)	Capable of 1:N computer links (MEWTOCOL communications) for small-size PLCs and other RS485 devices.	VCTF or twisted-pair cable	19200 bp / 9600 bps	1200 m 3937.2 ft	-	●	-	●	●	●	●	●	●	
	CCU (RS232C)	1:1 computer links (MEWTOCOL communications) by RS232C. For communications with GT Programmable Displays, PV Imagechecker, etc.	RS232C	19200 bp / 9600 bps	15 m 49.215 ft	-	●	-	●	●	●	●	●	●	
	Modem (Phone line)	Capable of monitoring PLCs in remote locations or updating programs via the public telephone line.	RS232C and phone line	2400 kbps	To the modem: 3 to 15 m 9.843 to 49.215 ft	-	●	-	●	●	●	●	●	●	

\* When using adapter with FP0

FIBER SENSORS  
LASER SENSORS  
PHOTO-ELECTRIC SENSORS  
MICRO PHOTO-ELECTRIC SENSORS  
AREA SENSORS  
LIGHT CURTAINS  
PRESSURE / FLOW SENSORS  
INDUCTIVE PROXIMITY SENSORS  
PARTICULAR USE SENSORS  
SENSOR OPTIONS  
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HUMAN MACHINE INTERFACES  
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FA COMPONENTS  
MACHINE VISION SYSTEMS  
UV CURING SYSTEMS

PLC  
I/O Terminals

FP-e

FP0R

FPΣ

FP-X

FP2SH

FPWIN PRO

FPWIN GR

PCWAY

FP Memory Loader

## PRODUCT TYPES

### RT-3 Unit Relay (Power PhotoMOS Relay type)

Packing quantity: Carton: 1 pc.; Case: 20 pcs.



Contact arrangement	Type	Rated input voltage	RT-3 UNIT RELAY (Power PhotoMOS Relay type)	
			Product No.	Part No.
1a×4	DC only (Equipped with AQZ102)	12 V DC	RT3SP1-12V	<b>AY34001</b>
		24 V DC	RT3SP1-24V	<b>AY34002</b>
	AC/DC dual use (Equipped with AQZ204)	12 V DC	RT3SP2-12V	<b>AY35001</b>
		24 V DC	RT3SP2-24V	<b>AY35002</b>

Notes: 1) Only for use with Power PhotoMOS relays. Cannot be equipped with PA relays  
2) Please inquire other contact arrangement

### RT-3 Unit Relay (PA Relay type)

Packing quantity: Carton: 1 pc.; Case: 20 pcs.

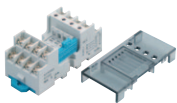


Contact arrangement	Rated input voltage	RT-3 UNIT RELAY (PA Relay type)	
		Product No.	Part No.
1a×4	12 V DC	RT3S-12V	<b>AY33001</b>
	24 V DC	RT3S-24V	<b>AY33002</b>

Notes: 1) Cannot be equipped with Power PhotoMOS standard type relays. However, equipping with voltage-sensitive type is possible.  
2) 5 V DC units are also available. Please inquire.  
3) Please inquire other contact arrangement

### 4-point Terminal

Packing quantity: Carton: 1 pc.; Case: 20 pcs.



Rated operating voltage	Part No.
12, 24 V DC	<b>AY30000</b>

### Mountable relays



PA relay    Power PhotoMOS Relay (Voltage sensitive type)

### Mountable relays

Product Name	Part No.
PA relay	<b>APA3311, APA3312</b>
Power PhotoMOS Relay (Voltage sensitive type)	<b>AQZ10□D</b> (DC only) (Note 2)
	<b>AQZ20□D</b> (AC/DC dual use) (Note 2)

Notes: 1) Never install relays into this product other than those given above. Doing so will cause malfunction, breakdown, and breakdown of the connected product.  
2) "□": 2, 5, 7, and 4. For details. Please refer to our Web site.

### RT-2 Relay Terminals

#### DIN rail mounting type

#### Pressure connector connect type

Packing quantity: Carton: 1 pc.; Case: 10 pcs.



Pressure connector connect type

I/O type	Rated voltage	Product No.	Part No.
Input device	12 V DC	RT2S-ID16-12V	<b>AY231501</b>
	24 V DC	RT2S-ID16-24V	<b>AY231502</b>
Output device	12 V DC	RT2S-OD16-12V	<b>AY232501</b>
	24 V DC	RT2S-OD16-24V	<b>AY232502</b>

#### Wire-direct connect type



Wire-direct connect type

I/O type	Rated voltage	Product No.	Part No.
Input device	12 V DC	RT2S-C-ID16-12V	<b>AY231511</b>
	24 V DC	RT2S-C-ID16-24V	<b>AY231512</b>
Output device	12 V DC	RT2S-C-OD16-12V	<b>AY232511</b>
	24 V DC	RT2S-C-OD16-24V	<b>AY232512</b>

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

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SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASUREMENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

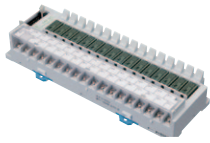
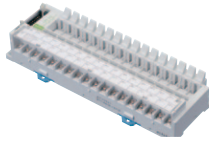
PLC

I/F Terminals

## RT-1 PC Relay Terminals / RT-1 PC Terminals

RT-1 PC Relay Terminal (PQ relays mounted)

RT-1 PC terminal

Input 16 points  
Output 16 pointsInput 16 points  
Output 16 points

## RT-1 PC relay terminals

RT-1 PC relay terminal is the PC terminal equipped with a PQ relay.

Packing quantity: Carton: 1 pc.; Case: 10 pcs.

Product name	Types of connector	Input or output	No. of I/O points	Normal operating voltage	Product No.	Part No.
RT-1 PC relay terminal S type input 16 points 12 V DC	S type	Input	16 points	12 V DC	RT1SQ-ID16-12V-S	<b>AY131501</b>
RT-1 PC relay terminal S type input 16 points 24 V DC				24 V DC	RT1SQ-ID16-24V-S	<b>AY131502</b>
RT-1 PC relay terminal S type input 8 points 12 V DC			8 points	12 V DC	RT1SQ-ID08-12V-S	<b>AY131401</b>
RT-1 PC relay terminal S type input 8 points 24 V DC				24 V DC	RT1SQ-ID08-24V-S	<b>AY131402</b>
RT-1 PC relay terminal S type output 16 points 12 V DC		Output	16 points	12 V DC	RT1SQ-OD16-12V-S	<b>AY132501</b>
RT-1 PC relay terminal S type output 16 points 24 V DC				24 V DC	RT1SQ-OD16-24V-S	<b>AY132502</b>
RT-1 PC relay terminal S type output 8 points 12 V DC			8 points	12 V DC	RT1SQ-OD08-12V-S	<b>AY132401</b>
RT-1 PC relay terminal S type output 8 points 24 V DC				24 V DC	RT1SQ-OD08-24V-S	<b>AY132402</b>
RT-1 PC relay terminal M type input 8 points 12 V DC	M type	Input	8 points	12 V DC	RT1SQ-ID08-12V-M	<b>AY131411</b>
RT-1 PC relay terminal M type input 8 points 24 V DC				24 V DC	RT1SQ-ID08-24V-M	<b>AY131412</b>
RT-1 PC relay terminal M type output 16 points 12 V DC		Output	16 points	12 V DC	RT1SQ-OD16-12V-M	<b>AY132511</b>
RT-1 PC relay terminal M type output 16 points 24 V DC				24 V DC	RT1SQ-OD16-24V-M	<b>AY132512</b>

## RT-1 PC terminal

Not equipped with a relay. Install a separately-sold relay for interface or solid state relay.

Packing quantity: Carton: 1 pc.; Case: 10 pcs.

Product name	Types of connector	Input or output	No. of I/O points	Normal operating voltage	Product No.	Part No.		
RT-1 PC terminal S type input 16 points 100 V AC	S type	Input	16 points	100/110 V AC	RT1-IA16-100V-S	<b>AY100504</b>		
RT-1 PC terminal S type input 16 points 200 V AC				200/220 V AC	RT1-IA16-200V-S	<b>AY100505</b>		
RT-1 PC terminal S type input 16 points 12 V DC				12 V DC	12 V DC	RT1-ID16-12V-S	<b>AY101501</b>	
RT-1 PC terminal S type input 16 points 24 V DC						24 V DC	RT1-ID16-24V-S	<b>AY101502</b>
RT-1 PC terminal S type input 8 points 100 V AC			8 points	100/110 V AC	RT1-IA08-100V-S	<b>AY100404</b>		
RT-1 PC terminal S type input 8 points 200 V AC					200/220 V AC	RT1-IA08-200V-S	<b>AY100405</b>	
RT-1 PC terminal S type input 8 points 12 V DC					12 V DC	RT1-ID08-12V-S	<b>AY101401</b>	
RT-1 PC terminal S type input 8 points 24 V DC						24 V DC	RT1-ID08-24V-S	<b>AY101402</b>
RT-1 PC terminal S type input 4 points 100 V AC			4 points	100/110 V AC	RT1-IA04-100V-S	<b>AY100304</b>		
RT-1 PC terminal S type input 4 points 200 V AC					200/220 V AC	RT1-IA04-200V-S	<b>AY100305</b>	
RT-1 PC terminal S type input 4 points 12 V DC					12 V DC	RT1-ID04-12V-S	<b>AY101301</b>	
RT-1 PC terminal S type input 4 points 24 V DC						24 V DC	RT1-ID04-24V-S	<b>AY101302</b>
RT-1 PC terminal S type output 16 points 12 V DC		Output	16 points	12 V DC	RT1-OD16-12V-S	<b>AY102501</b>		
RT-1 PC terminal S type output 16 points 24 V DC				24 V DC	RT1-OD16-24V-S	<b>AY102502</b>		
RT-1 PC terminal S type output 8 points 12 V DC			8 points	12 V DC	RT1-OD08-12V-S	<b>AY102401</b>		
RT-1 PC terminal S type output 8 points 24 V DC				24 V DC	RT1-OD08-24V-S	<b>AY102402</b>		
RT-1 PC terminal S type output 4 points 12 V DC			4 points	12 V DC	RT1-OD04-12V-S	<b>AY102301</b>		
RT-1 PC terminal S type output 4 points 24 V DC				24 V DC	RT1-OD04-24V-S	<b>AY102302</b>		
RT-1 PC terminal S type output 2 points 12 V DC			2 points	12 V DC	RT1-OD02-12V-S	<b>AY102201</b>		
RT-1 PC terminal S type output 2 points 24 V DC				24 V DC	RT1-OD02-24V-S	<b>AY102202</b>		
RT-1 PC terminal M type input 8 points 100 V AC			M type	Input	8 points	100/110 V AC	RT1-IA08-100V-M	<b>AY100414</b>
RT-1 PC terminal M type input 8 points 200 V AC						200/220 V AC	RT1-IA08-200V-M	<b>AY100415</b>
RT-1 PC terminal M type input 8 points 12 V DC					12 V DC	RT1-ID08-12V-M	<b>AY101411</b>	
RT-1 PC terminal M type input 8 points 24 V DC						24 V DC	RT1-ID08-24V-M	<b>AY101412</b>
RT-1 PC terminal M type output 16 points 12 V DC	Output	16 points		12 V DC	RT1-OD16-12V-M	<b>AY102511</b>		
RT-1 PC terminal M type output 16 points 24 V DC				24 V DC	RT1-OD16-24V-M	<b>AY102512</b>		

Notes: 1) S type uses a standard pitch connector. You can use an S type cable to connect it to our FP series and other company's (Mitsubishi or Omuron) Programmable Controllers. You can use an M type cable to connect it to our micro-controllers (discontinued product).

2) The cable works with both the RT-1 PC relay terminal and the RT-1 PC terminal.

FIBER  
SENSORSLASER  
SENSORSPHOTO-  
ELECTRIC  
SENSORSMICRO  
PHOTO-  
ELECTRIC  
SENSORSAREA  
SENSORSLIGHT  
CURTAINSPRESSURE /  
FLOW  
SENSORSINDUCTIVE  
PROXIMITY  
SENSORSPARTICULAR  
USE  
SENSORSSENSOR  
OPTIONSSIMPLE  
WIRE-SAVING  
UNITSWIRE-SAVING  
SYSTEMSMEASURE-  
MENT  
SENSORSSTATIC  
CONTROL  
DEVICES

ENDOSCOPE

LASER  
MARKERSPLC /  
TERMINALSHUMAN  
MACHINE  
INTERFACESENERGY  
CONSUMPTION  
VISUALIZATION  
COMPONENTSFA  
COMPONENTSMACHINE  
VISION  
SYSTEMSUV  
CURING  
SYSTEMS

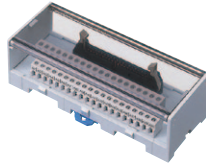
PLC

I/F  
Terminals

## CT-2 Connector Terminals



Pressure connector connect type



Wire-direct connect type

### DIN rail mounting type

Packing quantity: Carton: 1 pc.; Case: 20 pcs.

Connection method	No. of poles	Product No.	Part No.
Pressure connector connect type	20 P	CT2-20	<b>AYC1120</b>
	30 P	CT2-30	<b>AYC1130</b>
	34 P	CT2-34	<b>AYC1134</b>
	40 P	CT2-40	<b>AYC1140</b>
Wire-direct connect type	20 P	CT2-C-20	<b>AYC1220</b>
	30 P	CT2-C-30	<b>AYC1230</b>
	34 P	CT2-C-34	<b>AYC1234</b>
	40 P	CT2-C-40	<b>AYC1240</b>

### Direct mounting type

Packing quantity: Carton: 1 pc.; Case: 20 pcs.

Connection method	No. of poles	Product No.	Part No.
Pressure connector connect type	20 P	CT2-M-20	<b>AYC2120</b>
	30 P	CT2-M-30	<b>AYC2130</b>
	34 P	CT2-M-34	<b>AYC2134</b>
	40 P	CT2-M-40	<b>AYC2140</b>
Wire-direct connect type	20 P	CT2-MC-20	<b>AYC2220</b>
	30 P	CT2-MC-30	<b>AYC2230</b>
	34 P	CT2-MC-34	<b>AYC2234</b>
	40 P	CT2-MC-40	<b>AYC2240</b>

## Cables



Expansion cable with wire-pressed terminal



Expansion cable



M type 16-point, 34-contact output cable

### Connecting cable for FP series and interface terminal

Cables for relay terminals have a ground wire; those for connector terminals or expansion cables do not.

Standard packing: Carton: 1 pc.; Case: 10 pcs.

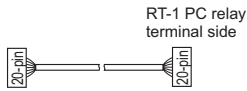
Product name	Controller side unit	No. of connector contacts of controller side	Interface terminal	Connecting cable							
				Product name and shape	Length (Part No.)						
					250 mm 9.843 in	500 mm 19.685 in	1,000 mm 39.370 in	1,500 mm 59.055 in	2,000 mm 78.740 in	3,000 mm 118.110 in	5,000 mm 196.850 in
FP0	8 points Input unit	Input side 10 P	RT-2 relay terminal RT-1 PC relay terminal	FP0 8-point input 	—	—	AY15013	AY15014	AY15015	AY15016	AY15017
	16 points Input unit	Input side 10 P × 2	RT-2 relay terminal RT-1 PC relay terminal	FP0, FPΣ 16-point input 	—	—	AY15913	AY15914	AY15915	AY15916	AY15917
	8 points Output unit	Output side 10 P	RT-2 relay terminal RT-1 PC relay terminal	FP0 8-point output 	—	—	AY15023	AY15024	AY15025	AY15026	AY15027
	16 points Output unit	Output side 10 P × 2	RT-2 relay terminal RT-1 PC relay terminal	FP0, FPΣ 16-point output 	—	—	AY15923	AY15924	AY15925	AY15926	AY15927
	16 points I/O unit	I/O side 20 P	Connector terminal	20 P 	—	AYT52202	AYT52203	AYT52204	AYT52205	AYT52206	AYT52207
	64 points I/O unit	I/O side 40 P	RT-2 relay terminal RT-1 PC relay terminal / S type	FPΣ 64 points I/O unit 32 points 16 points Terminal side Controller side 	—	—	AY15633	AY15634	AY15635	AY15636	AY15637
FP2	32 points / 64 points Input unit Output unit	32 points 40 P × 1	RT-2 relay terminal RT-1 PC relay terminal / S type	FP2 32/64 points I/O units 32 points 16 points Terminal side Controller side 	—	—	AY15633	AY15634	AY15635	AY15636	AY15637
		64 points 40 P × 2 (Note)	Connector terminal	40 P 	AYT51401	AYT51402	AYT51403	AYT51404	AYT51405	AYT51406	AYT51407

Note: Use the two cables even when using the 64 points type.

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- PLC
- I/F Terminals

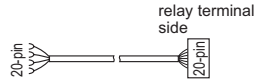
**RT-1 PC relay terminal and RT-1 PC terminal expansion cables**

Standard packing: Carton: 1 pc.; Case: 10 pcs.

Product name and shape	I/O type	Relay terminal	Length (Part No.)				
			70 mm 2.756 in	250 mm 9.843 in	500 mm 19.685 in	1,000 mm 39.370 in	2,000 mm 78.740 in
Expansion cable 	16-point Both input and output	RT-1 PC relay terminal expansion	<b>AY15840</b>	<b>AY15841</b>	<b>AY15842</b>	<b>AY15843</b>	<b>AY15845</b>

**Expansion cables with wire-pressed terminal for relay terminal**

Standard packing: Carton: 1 pc.; Case: 10 pcs.

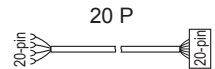
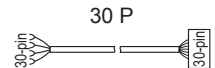
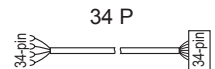
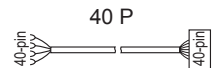
Product name and shape	I/O type	Relay terminal	Length (Part No.)				
			1,000 mm 39.370 in	1,500 mm 59.055 in	2,000 mm 78.740 in	3,000 mm 118.110 in	5,000 mm 196.850 in
Expansion cable with wire-pressed terminal 	16-point Both input and output	RT-2 relay terminal RT-1 PC relay terminal / S type	<b>AY15853</b>	<b>AY15854</b>	<b>AY15855</b>	<b>AY15856</b>	<b>AY15857</b>

Note: Inquire regarding connecting cables for the various controllers. Regarding the expansion cables with wire-pressed terminal, the triangle mark does not correspond to wire No. 1, so be sure to inquire for details

**Expansion cables with wire-pressed terminal for connector terminal**

For both CT-2 connector terminals and connector terminals

Standard packing: Carton: 1 pc.; Case: 10 pcs.

Product name and shape	I/O type	Length (Part No.)					
		500 mm 19.685 in	1,000 mm 39.370 in	1,500 mm 59.055 in	2,000 mm 78.740 in	3,000 mm 118.110 in	5,000 mm 196.850 in
Expansion cable with wire-pressed terminal	20 P 	<b>AYT58202</b>	<b>AYT58203</b>	<b>AYT58204</b>	<b>AYT58205</b>	<b>AYT58206</b>	<b>AYT58207</b>
	30 P 	<b>AYT58302</b>	<b>AYT58303</b>	<b>AYT58304</b>	<b>AYT58305</b>	<b>AYT58306</b>	<b>AYT58307</b>
	34 P 	<b>AYT58342</b>	<b>AYT58343</b>	<b>AYT58344</b>	<b>AYT58345</b>	<b>AYT58346</b>	<b>AYT58347</b>
	40 P 	<b>AYT58402</b>	<b>AYT58403</b>	<b>AYT58404</b>	<b>AYT58405</b>	<b>AYT58406</b>	<b>AYT58407</b>

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

PLC

I/F Terminals