

## A Wide Range of Basic Input Units for High Speed Input and Different Applications

- Receive ON/OFF signals from external devices into the PLC System to update I/O memory in the CPU Unit.
- New high-speed input models CJ1W-ID212 and CJ1W-ID233 are now available. These units can help to increase system throughput.



CJ1W-ID212



CJ1W-ID233

## Features

- High-speed input models are available, meeting versatile applications.  
ON Response Time: 15 $\mu$ s, OFF Response Time: 90 $\mu$ s
- Use 24-VDC, 100-VAC, and 200-VAC models to connect to devices with different types of outputs.
- The 24-VDC models can be connected to devices with either NPN or PNP outputs. There is no need to select the polarity. \*1
- A digital filter in the Unit can be set from 0 to 32 ms to reduce the influence of external noise.
- Either a Fujitsu or MIL connector interface can be used. \*2
- Several models of Terminal Block Conversion Units are available, making it easy to connect to external devices.

\*1. The same polarity is used for the same common.




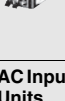
\*2. For models with 32 or 64 inputs.

## Ordering Information

### International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

### Input Units

Unit type	Product name	Specifications					Current consumption (A)		Model	Standards
		I/O points	Input voltage and current	Commons	External connection	No. of words allocated	5 V	24 V		
CJ1 Basic I/O Units	<b>DC Input Units</b> 	8 inputs	12 to 24 VDC, 10 mA	Independent contacts	Removable terminal block	1 word	0.09	–	<b>CJ1W-ID201</b>	UC1, N, L, CE
		16 inputs	24 VDC, 7 mA	16 points, 1 common	Removable terminal block	1 word	0.08	–	<b>CJ1W-ID211</b>	
		16 inputs (High speed)	24 VDC, 7 mA	16 points, 1 common	Removable terminal block	1 word	0.13	–	<b>CJ1W-ID212</b>	N, L, CE
		32 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	2 words	0.09	–	<b>CJ1W-ID231</b>	UC1, N, L, CE
		32 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.09	–	<b>CJ1W-ID232</b>	
		32 inputs (High speed)	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.20	–	<b>CJ1W-ID233</b>	N, L, CE
		64 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	4 words	0.09	–	<b>CJ1W-ID261</b>	UC1, N, L, CE
		64 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	4 words	0.09	–	<b>CJ1W-ID262</b>	
	<b>AC Input Units</b> 	8 inputs	200 to 24 VAC, 10 mA (200 V, 50 Hz)	8 points, 1 common	Removable Terminal Block	1 words	0.08	–	<b>CJ1W-IA201</b>	UC1, N, L, CE
16 inputs		100 to 120 VAC, 7 mA (100 V, 50 Hz)	16 points, 1 common	Removable Terminal Block	1 words	0.09	–	<b>CJ1W-IA111</b>		

### Accessories

Connectors are not included for models with connectors. Either use one of the applicable connector listed below or use an applicable Connector-Terminal Block Conversion Unit or I/O Relay Terminal. For details on wiring methods, refer to *External Interface*.

**Applicable Connectors**

Fujitsu Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units




Name	Connection	Remarks	Applicable Units	Model	Standards
40-pin Connectors	Soldered	FCN-361J040-AU Connector FCN-360C040-J2 Connector Cover	Fujitsu Connectors: CJ1W-ID231 (32 inputs): 1 per Unit CJ1W-ID261 (64 inputs): 2 per Unit CJ1W-OD231 (32 outputs): 1 per Unit CJ1W-OD261 (64 outputs): 2 per Unit CJ1W-MD261 (32 inputs, 32 outputs): 2 per Unit	C500-CE404	-
	Crimped	FCN-363J040 Housing FCN-363J-AU Contact FCN-360C040-J2 Connector Cover		C500-CE405	
	Pressure welded	FCN-367J040-AU/F		C500-CE403	
24-pin Connectors	Soldered	FCN-361J024-AU Connector FCN-360C024-J2 Connector Cover	Fujitsu Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit	C500-CE241	-
	Crimped	FCN-363J024 Socket FCN-363J-AU Contact FCN-360C024-J2 Connector Cover		C500-CE242	
	Pressure welded	FCN-367J024-AU/F		C500-CE243	

**MIL Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units**

Name	Connection	Remarks	Applicable Units	Model	Standards
40-pin Connectors	Pressure welded	FRC5-AO40-3TOS	MIL Connectors: CJ1W-ID232/233 (32 inputs): 1 per Unit CJ1W-OD232/233/234 (32 outputs): 1 per Unit CJ1W-ID262 (64 inputs): 2 per Unit CJ1W-OD262/263 (64 outputs): 2 per Unit CJ1W-MD263/563 (32 inputs, 32 outputs): 2 per Unit	XG4M-4030-T	-
	Crimped	-		XG5N-401*	
20-pin Connectors	Pressure welded	FRC5-AO20-3TOS	MIL Connectors: CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit	XG4M-2030-T	-
	Crimped	-		XG5N-201*	

\* Crimp Contacts are also required. Refer to page 20 for details.

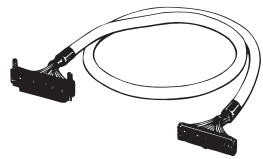
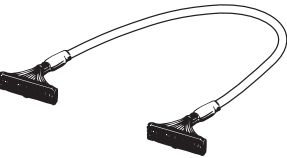
**Applicable Connector-Terminal Block Conversion Units**

Type	Series	Number of poles	Wiring method	Terminal type	Size			Mounting		Common terminals	Bleeder resistance	Indicators	I/O Units	Model *	Standards
					Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws						
PLCs	XW2R	34	Phillips screw 	M3	50	48.05	130.7	Yes	No	No	No	No	CJ1W-ID231 CJ1W-ID261	XW2R-J34GD-C1	-
			Slotted screw (rise up) 	M3 (European type)	50	44.81	98.5						CJ1W-ID232 CJ1W-ID233 CJ1W-ID262	XW2R-J34GD-C2	
													CJ1W-ID231 CJ1W-ID261	XW2R-E34GD-C1	
			Push-in spring 	Clamp	50	44.81	98.5						CJ1W-ID232 CJ1W-ID233 CJ1W-ID262	XW2R-E34GD-C2	
													CJ1W-ID231 CJ1W-ID261	XW2R-P34GD-C1	
			CJ1W-ID232 CJ1W-ID233 CJ1W-ID262	XW2R-P34GD-C2											






**Note:** For the combination of Input Units with Connector-Terminal Block Conversion Units, refer to 2. Connecting Connector-Terminal Block Conversion Units.

\* Representative models only. For details, refer to the XW2R series catalog (Cat. No. G077).

**Connecting Cables for Connector-Terminal Block Conversion Units**

Appearance	Connectors	Cable length [m]	Model
	One 40-pin Fujitsu Connector to One 40-pin MIL Connector	0.5	XW2Z-050PF
		1	XW2Z-100PF
		1.5	XW2Z-150PF
		2	XW2Z-200PF
		3	XW2Z-300PF
		5	XW2Z-500PF
	One 40-pin MIL Connector to One 40-pin MIL Connector	0.5	XW2Z-050PM
		1	XW2Z-100PM
		1.5	XW2Z-150PM
		2	XW2Z-200PM
		3	XW2Z-300PM
		5	XW2Z-500PM

## Applicable I/O Relay Terminals

Type	Series	Specifications					Size (horizontal mounting)			Mounting		Model	Standards												
		Classification		Polarity	Number of points	Rated ON current at contacts	Rated voltage	Horizontal (mm)	Vertical (mm)	Height (mm)	DIN Track			Screws											
Push-In Plus terminal block	G70V 	Inputs	DC inputs	NPN	16 (SPSTNO × 16)	50 mA	24 VDC	143	90	56	Yes	Yes	G70V-SID16P *4	UC, CE (TÜV certified)											
				PNP									G70V-SID16P-1 *4												
				NPN									G70V-SID16P-C16 *5												
				PNP									G70V-SID16P-1-C16 *5												
		Outputs	Relay outputs	NPN	16 (SPDT × 16)	6 A/point, 10 A/common	24 VDC	143	90	56	Yes	Yes	G70V-SOC16P *4												
				PNP									G70V-SOC16P-1 *4												
				NPN									G70V-SOC16P-C4 *6												
				PNP									G70V-SOC16P-1-C4 *6												
Standard	G7TC 	Inputs	AC inputs	NPN	16 (SPSTNO × 16)	1A	100/(110) VAC 200/(220) VAC	182	85	68	Yes	No	G7TC-IA16 AC100/110	U, C											
													DC inputs		12 VDC	G7TC-ID16 DC12									
															24 VDC	G7TC-ID16 DC24									
			100/110 VDC												G7TC-ID16 DC100/110										
			Outputs										Relay outputs		NPN	8 (SPSTNO × 8)	5A	12 VDC	182	102	85	68	Yes	No	G7TC-OC08 DC12
																16 (SPSTNO × 16)		24 VDC							G7TC-OC08 DC24
		16 (SPSTNO × 16)		24 VDC	G7TC-OC16 DC12																				
		PNP		16 (SPSTNO × 16)	12 VDC	G7TC-OC16 DC24																			
				16 (SPSTNO × 16)	24 VDC	G7TC-OC16-1 DC12																			
				16 (SPSTNO × 16)	24 VDC	G7TC-OC16-1 DC24																			
		High-capacity socket	G70A *1 (Socket only) 	Inputs	Relay inputs	NPN/PNP	16 (SPDT × 16 possible with G2R Relays)	100 mA	110 VDC max., 240 VAC max. *2	234	75	64	Yes		No	G70A-ZOC16-5	U, C, CE (VDE certified)								
																Outputs		Relay outputs	NPN	10 A (Terminal block allowable)	24 VDC	G70A-ZOC16-3			
PNP	G70A-ZOC16-4																								
Space-saving	Vertical type G70D-V 			Relay outputs	NPN	16 (SPSTNO × 16)		5 A or 3 A *3	24 VDC					135		46		81	Yes	Yes	G70D-VSOC16	U, C, CE (VDE certified)			
																					MOSFET relay outputs		0.3 A	G70D-VFOM16	
		Outputs	Relay outputs	NPN			8 (SPSTNO × 8)			5 A	24 VDC	156	51		39		Yes						Yes	G70D-SOC08	
							PNP			16 (SPSTNO × 16)											3 A			G70D-SOC16	
	MOSFET relay outputs			NPN	16 (SPSTNO × 16)	3 A		G70D-SOC16-1																	
					PNP	16 (SPSTNO × 16)	0.3 A	G70D-FOM16																	
						G70D-FOM16-1																			
	High-capacity, space-saving	G70R 	Outputs	Relay outputs	NPN	8 (SPSTNO × 8)	10 A	24 VDC	136	93	55	Yes	Yes	G70R-SOC08	-										

\*1. G70A is a I/O terminal socket product. Relay is not provided with the socket. Be sure to order a relay, timer separately.

\*2. Each relay to be mounted must incorporate a coil that has proper specifications within the maximum rated voltage range.

\*3. Eight or fewer points ON: 5 A, Nine or more points ON: 3 A.

\*4. Internal common at terminal block: No internal connections

\*5. Internal common at terminal block: Internal IO common 16 points internally connected

\*6. Internal common at terminal block: Every 4 points internally connected at terminal block middle row.

**Note:** 1. For the combination of Input Units with I/O Relay Terminal and Connecting Cables, refer to 3. *Connecting I/O Relay Terminals.*

2. Please refer to each Datasheet about details.

3. When the G7TC is used with an AC rated voltage, three rated currents can be used. If a coil voltage of 110 or 220 VAC is used, 50 Hz cannot be used.

Cables for I/O Relay Terminals

Type	Name	I/O Classification	Appearance	Cable length L (mm)	Models
Fujitsu connectors (24 pins)	Cables with Connectors (1:1) XW2Z-R□C	16 I/O points		1,000	XW2Z-R100C
				1,500	XW2Z-R150C
				2,000	XW2Z-R200C
				3,000	XW2Z-R300C
				5,000	XW2Z-R500C
Fujitsu connectors (40 pins)	Cables with Connectors (1:2) XW2Z-RI□C-□ XW2Z-RO□C-□	32 input points		(A) 1,000 (B) 750	XW2Z-RI100C-75
				(A) 1,500 (B) 1,250	XW2Z-RI150C-125
				(A) 2,000 (B) 1,750	XW2Z-RI200C-175
				(A) 3,000 (B) 2,750	XW2Z-RI300C-275
				(A) 5,000 (B) 4,750	XW2Z-RI500C-475
		32 output points		(A) 1,000 (B) 750	XW2Z-RO100C-75
				(A) 1,500 (B) 1,250	XW2Z-RO150C-125
				(A) 2,000 (B) 1,750	XW2Z-RO200C-175
				(A) 3,000 (B) 2,750	XW2Z-RO300C-275
				(A) 5,000 (B) 4,750	XW2Z-RO500C-475
MIL connectors (20 pins)	Cables with Connectors (1:1) XW2Z-RI□C XW2Z-RO□C	16 I/O points		250	XW2Z-RI25C
				500	XW2Z-RI50C
				250	XW2Z-RO25C
				500	XW2Z-RO50C
MIL connectors (40 pins)	Cables with Connectors (1:2) XW2Z-RO□-□-D1, XW2Z-RI□-□-D1	32 I/O points		(A) 500 (B) 250	XW2Z-RO50-25-D1
				(A) 750 (B) 500	XW2Z-RO75-50-D1
				(A) 1,000 (B) 750	XW2Z-RO100-75-D1
				(A) 1,500 (B) 1,250	XW2Z-RO150-125-D1
				(A) 2,000 (B) 1,750	XW2Z-RO200-175-D1
				(A) 3,000 (B) 2,750	XW2Z-RO300-275-D1
				(A) 5,000 (B) 4,750	XW2Z-RO500-475-D1
				(A) 500 (B) 250	XW2Z-RI50-25-D1
				(A) 750 (B) 500	XW2Z-RI75-50-D1
				(A) 1,000 (B) 750	XW2Z-RI100-75-D1
				(A) 1,500 (B) 1,250	XW2Z-RI150-125-D1
				(A) 2,000 (B) 1,750	XW2Z-RI200-175-D1
				(A) 3,000 (B) 2,750	XW2Z-RI300-275-D1
				(A) 5,000 (B) 4,750	XW2Z-RI500-475-D1

Note: Refer to the Datasheet for the XW2Z-R Cables for I/O Relay Terminals (Cat. No. G126).

Mountable Racks

Model	NJ system		CJ system (CJ1, CJ2)		CP1H system	NSJ system	
	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane
CJ1W-ID201	10 Units	10 Units (per Expansion Rack)	10 Units	10 Units (per Expansion Backplane)	Not supported	Not supported	10 Units (per Expansion Backplane)
CJ1W-ID211							
CJ1W-ID212							
CJ1W-ID231							
CJ1W-ID232							
CJ1W-ID233							
CJ1W-ID261							
CJ1W-ID262							
CJ1W-IA201							
CJ1W-IA111							

# Specifications

## CJ1W-ID201 DC Input Unit (12 to 24-VDC, 8 Points)

<b>Name</b>	8-point DC Input Unit with Terminal Block
<b>Model</b>	CJ1W-ID201
<b>Rated Input Voltage</b>	12 to 24 VDC
<b>Rated Input Voltage Range</b>	10.2 to 26.4 VDC
<b>Input Impedance</b>	2.4 kΩ
<b>Input Current</b>	10 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	8.8 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	3 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>Number of Circuits</b>	8 independent circuits
<b>Number of Simultaneously ON Points</b>	100% simultaneously ON
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	80 mA max.
<b>Weight</b>	110 g max.

**Circuit Configuration**

- The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

- Polarity of the input power supply can be connected in either direction.
- The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

\*1. The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response time are set to 0 ms due to internal element delays.

\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

**Note:** Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

## CJ1W-ID211 DC Input Unit (24 VDC, 16 Points)

<b>Name</b>	16-point DC Input Unit with Terminal Block
<b>Model</b>	CJ1W-ID211
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	3.3 kΩ
<b>Input Current</b>	7 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	14.4 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>Number of Circuits</b>	16 (16 points/common, 1 circuit)
<b>Number of Simultaneously ON Points</b>	100% simultaneously ON (at 24 VDC) (Refer to the following illustration.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	80 mA max.
<b>Weight</b>	110 g max.

**Circuit Configuration**

• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

• Polarity of the input power supply can be connected in either direction.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

\*1. The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response time are set to 0 ms due to internal element delays.

\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

## CJ1W-ID212 DC Input Unit (24 VDC, 16 Points)

<b>Name</b>	16-point DC Input Unit with Terminal Block
<b>Model</b>	CJ1W-ID212
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	3.3 kΩ
<b>Input Current</b>	7 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	14.4 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
<b>Number of Circuits</b>	16 (16 points/common, 1 circuit)
<b>Number of Simultaneously ON Points</b>	100% simultaneously ON (at 24 VDC) (Refer to the following illustration.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	130 mA max.
<b>Weight</b>	110 g max.

**Circuit Configuration**

• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

• Polarity of the input power supply can be connected in either direction.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

\*1. The ON response time will be 15 μs maximum and OFF response time will be 90 μs maximum even if the response time are set to 0 ms due to internal element delays.

\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.



## CJ1W-ID231 DC Input Unit (24 VDC, 32 Points)

<b>Name</b>	32-point DC Input Unit with Fujitsu Connector
<b>Model</b>	CJ1W-ID231
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	5.6 kΩ
<b>Input Current</b>	4.1 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	19.0 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>Number of Circuits</b>	32 (16 points/common, 2 circuits)
<b>Number of Simultaneously ON Points</b>	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	90 mA max.
<b>Weight</b>	70 g max.
<b>Accessories</b>	None

**Circuit Configuration**

• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

• The input power polarity can be connected in either direction.  
• Be sure to wire both pins A9 and A18 (COM0), and set the same polarity for both pins.  
• Be sure to wire both pins B9 and B18 (COM1), and set the same polarity for both pins.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

\* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

## CJ1W-ID232 DC Input Unit (24 VDC, 32 Points)

<b>Name</b>	32-point DC Input Unit with MIL Connector
<b>Model</b>	CJ1W-ID232
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	5.6 kΩ
<b>Input Current</b>	4.1 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	19.0 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>Number of Circuits</b>	32 (16 points/common, 2 circuits)
<b>Number of Simultaneously ON Points</b>	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	90 mA max.
<b>Weight</b>	70 g max.
<b>Accessories</b>	None

**Circuit Configuration**

The graph shows the relationship between ambient temperature and the number of simultaneously ON points. At 40°C, 32 points are available. At 48°C, 32 points are available. At 55°C, the number of points drops to 12 points/common. At 55°C, it further drops to 10 points/common.

- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

- The input power polarity can be connected in either direction.
- Be sure to wire both pins 23 and 24 (COM0), and set the same polarity for both pins.
- Be sure to wire both pins 3 and 4 (COM1), and set the same polarity for both pins.
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

\* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

## CJ1W-ID233 DC Input Unit (24 VDC, 32 Points)

<b>Name</b>	32-point DC Input Unit with MIL Connector
<b>Model</b>	CJ1W-ID233
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	5.6 kΩ
<b>Input Current</b>	4.1 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	19.0 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>Number of Circuits</b>	32 (16 points/common, 2 circuits)
<b>Number of Simultaneously ON Points</b>	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	200 mA max.
<b>Weight</b>	70 g max.
<b>Accessories</b>	None

**Circuit Configuration**

• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

• The input power polarity can be connected in either direction.  
• Be sure to wire both pins 23 and 24 (COM0), and set the same polarity for both pins.  
• Be sure to wire both pins 3 and 4 (COM1), and set the same polarity for both pins.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

\* The ON response time will be 15 μs maximum and OFF response time will be 90 μs maximum even if the response times are set to 0 ms due to internal element delays.

**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

## CJ1W-ID261 DC Input Unit (24 VDC, 64 Points)

<b>Name</b>	64-point DC Input Unit with Fujitsu Connector
<b>Model</b>	CJ1W-ID261
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	5.6 kΩ
<b>Input Current</b>	4.1 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	19.0 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>Number of Circuits</b>	64 (16 points/common, 4 circuits)
<b>Number of Simultaneously ON Points</b>	50% (16 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustrations.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	90 mA max.
<b>Weight</b>	110 g max.
<b>Accessories</b>	None

**Circuit Configuration**

• The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

**External connection and terminal-device variable diagram**

**CN1**

**CN2**

• The input power polarity can be connected in either direction.  
 • Be sure to wire both pins A9 and A18 (COM0) of CN1, and set the same polarity for both pins.  
 • Be sure to wire both pins B9 and B18 (COM1) of CN1, and set the same polarity for both pins.  
 • The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

• The input power polarity can be connected in either direction.  
 • Be sure to wire both pins A9 and A18 (COM2) of CN2, and set the same polarity for both pins.  
 • Be sure to wire both pins B9 and B18 (COM3) of CN2, and set the same polarity for both pins.  
 • The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

\* The ON response time will be 120 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

## CJ1W-ID262 DC Input Unit (24 VDC, 64 Points)

<b>Name</b>	64-point DC Input Unit with MIL Connector
<b>Model</b>	CJ1W-ID262
<b>Rated Input Voltage</b>	24 VDC
<b>Rated Input Voltage Range</b>	20.4 to 26.4 VDC
<b>Input Impedance</b>	5.6 kΩ
<b>Input Current</b>	4.1 mA typical (at 24 VDC)
<b>ON Voltage/ON Current</b>	19.0 VDC min./3 mA min.
<b>OFF Voltage/OFF Current</b>	5 VDC max./1 mA max.
<b>ON Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>OFF Response Time</b>	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
<b>Number of Circuits</b>	64 (16 points/common, 4 circuits)
<b>Number of Simultaneously ON Points</b>	50% (8 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustrations.)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (100 VDC)
<b>Dielectric Strength</b>	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	90 mA max.
<b>Weight</b>	110 g max.
<b>Accessories</b>	None

**Circuit Configuration**

• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**Number of Simultaneously ON Points vs. Ambient Temperature Characteristic**

**External connection and terminal-device variable diagram**

**CN1**

Allocated CIO word	Signal name	Connector pin	Signal name	Allocated CIO word
Wd m	Jxx_Ch1_In00	40	Jxx_Ch1_In08	Wd m
	Jxx_Ch1_In01	38	Jxx_Ch1_In09	
	Jxx_Ch1_In02	36	Jxx_Ch1_In10	
	Jxx_Ch1_In03	34	Jxx_Ch1_In11	
	Jxx_Ch1_In04	32	Jxx_Ch1_In12	
	Jxx_Ch1_In05	30	Jxx_Ch1_In13	
	Jxx_Ch1_In06	28	Jxx_Ch1_In14	
	Jxx_Ch1_In07	26	Jxx_Ch1_In15	
	COM0	24	COM0	
	NC	22	NC	
	Jxx_Ch2_In00	20	Jxx_Ch2_In08	Wd m+1
	Jxx_Ch2_In01	18	Jxx_Ch2_In09	
	Jxx_Ch2_In02	16	Jxx_Ch2_In10	
	Jxx_Ch2_In03	14	Jxx_Ch2_In11	
	Jxx_Ch2_In04	12	Jxx_Ch2_In12	
	Jxx_Ch2_In05	10	Jxx_Ch2_In13	
	Jxx_Ch2_In06	8	Jxx_Ch2_In14	
	Jxx_Ch2_In07	6	Jxx_Ch2_In15	
	COM1	4	COM1	
	NC	2	NC	

• The input power polarity can be connected in either direction.  
• Be sure to wire both pins 23 and 24 (COM0) of CN1, and set the same polarity for both pins.  
• Be sure to wire both pins 3 and 4 (COM1) of CN1, and set the same polarity for both pins.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

**CN2**

Allocated CIO word	Signal name	Connector pin	Signal name	Allocated CIO word
Wd m+3	Jxx_Ch4_In15	5	Jxx_Ch4_In07	Wd m+3
	Jxx_Ch4_In14	6	Jxx_Ch4_In06	
	Jxx_Ch4_In13	7	Jxx_Ch4_In05	
	Jxx_Ch4_In12	9	Jxx_Ch4_In04	
	Jxx_Ch4_In11	11	Jxx_Ch4_In03	
	Jxx_Ch4_In10	13	Jxx_Ch4_In02	
	Jxx_Ch4_In09	15	Jxx_Ch4_In01	
	Jxx_Ch4_In08	17	Jxx_Ch4_In00	
	COM2	19	COM2	
	NC	21	NC	
	Jxx_Ch3_In15	25	Jxx_Ch3_In07	Wd m+2
	Jxx_Ch3_In14	27	Jxx_Ch3_In06	
	Jxx_Ch3_In13	29	Jxx_Ch3_In05	
	Jxx_Ch3_In12	31	Jxx_Ch3_In04	
	Jxx_Ch3_In11	33	Jxx_Ch3_In03	
	Jxx_Ch3_In10	35	Jxx_Ch3_In02	
	Jxx_Ch3_In09	37	Jxx_Ch3_In01	
	Jxx_Ch3_In08	39	Jxx_Ch3_In00	
	COM3	23	COM3	
	NC	21	NC	
	Jxx_Ch3_In15	25	Jxx_Ch3_In07	Wd m+2
	Jxx_Ch3_In14	27	Jxx_Ch3_In06	
	Jxx_Ch3_In13	29	Jxx_Ch3_In05	
	Jxx_Ch3_In12	31	Jxx_Ch3_In04	
	Jxx_Ch3_In11	33	Jxx_Ch3_In03	
	Jxx_Ch3_In10	35	Jxx_Ch3_In02	
	Jxx_Ch3_In09	37	Jxx_Ch3_In01	
	Jxx_Ch3_In08	39	Jxx_Ch3_In00	

• The input power polarity can be connected in either direction.  
• Be sure to wire both pins 23 and 24 (COM2) of CN2, and set the same polarity for both pins.  
• Be sure to wire both pins 3 and 4 (COM3) of CN2, and set the same polarity for both pins.  
• The signal names of the terminals are the device variable names.  
The device variable names are the names that use "Jxx" as the device name.

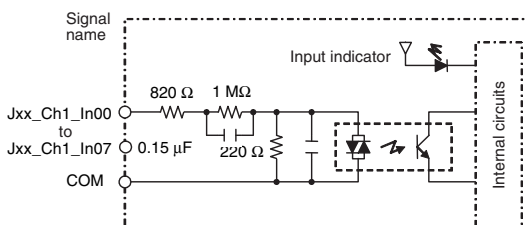
\* The ON response time will be 120 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

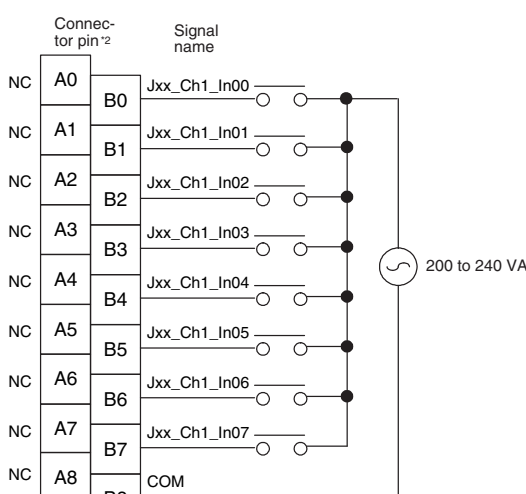
**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

## CJ1W-IA201 AC Input Unit (200 VAC, 8 Points)

<b>Name</b>	8-point AC Input Unit with Terminal Block
<b>Model</b>	CJ1W-IA201
<b>Rated Input Voltage</b>	200 to 240 VAC 50/60 Hz
<b>Rated Input Voltage Range</b>	170 to 264 VAC
<b>Input Impedance</b>	21 k $\Omega$ (50 Hz), 18 k $\Omega$ (60 Hz)
<b>Input Current</b>	9 mA typical (at 200 VAC, 50 Hz), 11 mA typical (at 200 VAC, 60 Hz)
<b>ON Voltage/ON Current</b>	120 VAC min./4 mA min.
<b>OFF Voltage/OFF Current</b>	40 VAC max./2 mA max.
<b>ON Response Time</b>	18.0 ms max. (default setting: 8 ms) *1
<b>OFF Response Time</b>	48.0 ms max. (default setting: 8 ms) *1
<b>Number of Circuits</b>	8 (8 points/common, 1 circuit)
<b>Number of Simultaneously ON Points</b>	100% (8 points/common) simultaneously ON
<b>Insulation Resistance</b>	20 M $\Omega$ min. between external terminals and the GR terminal (500 VDC)
<b>Dielectric Strength</b>	2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	80 mA max.
<b>Weight</b>	130 g max.
<b>Accessories</b>	None

<b>Circuit Configuration</b>	 <ul style="list-style-type: none"> <li>The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.</li> </ul>
------------------------------	---

<b>External connection and terminal-device variable diagram</b>	 <ul style="list-style-type: none"> <li>The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.</li> </ul>
---	--

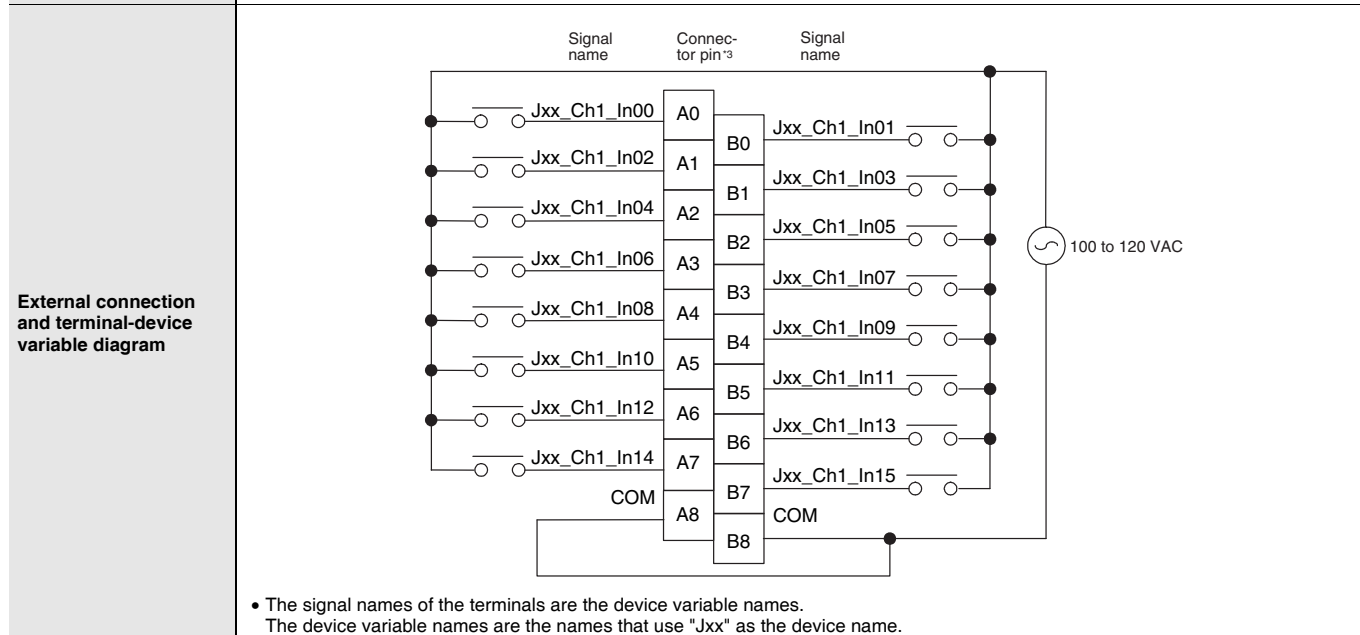
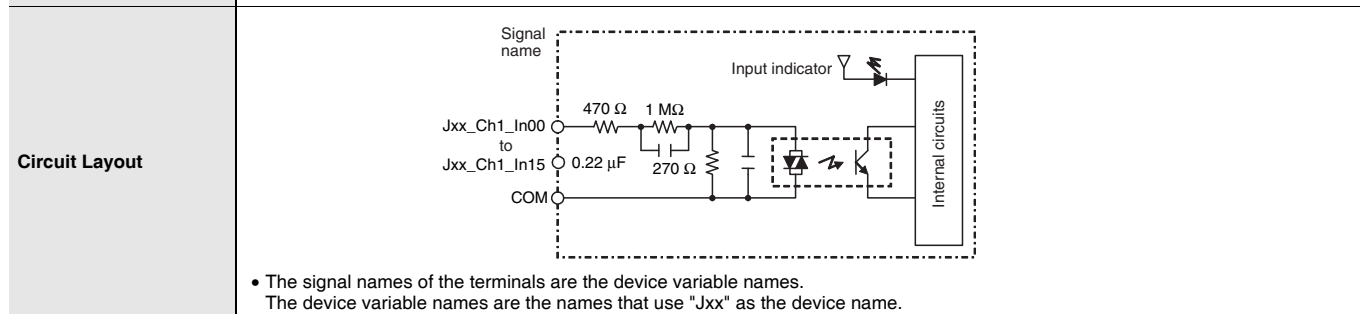
\*1. Can be set to 0 ms, 0.5 ms, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, or 32ms in the settings. When the response times have been set to 0 ms, the ON response time will be 10 ms maximum and the OFF response time will be 55 ms maximum due to internal element delays.

\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

**Note:** Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

### CJ1W-IA111 AC Input Unit (100 VAC, 16 points)

<b>Name</b>	16-point AC Input Unit with Terminal Block
<b>Model</b>	CJ1W-IA111
<b>Rated input voltage</b>	100 to 120 VAC 50/60 Hz *2
<b>Rated Input Voltage Range</b>	85 to 132 VAC
<b>Input Impedance</b>	14.5 kΩ (50 Hz), 12 kΩ (60 Hz)
<b>Input Current</b>	7 mA typical (at 100 VAC, 50 Hz), 8 mA typical (at 100 VAC, 60 Hz)
<b>ON Voltage/ON Current</b>	70 VAC min./4 mA min
<b>OFF Voltage/OFF Current</b>	20 VAC max./2 mA max
<b>ON Response Time</b>	18 ms max. (default setting: 8 ms) *1
<b>OFF Response Time</b>	48 ms max. (default setting: 8 ms) *1
<b>Number of Circuits</b>	16 (16 points/common, 1 circuit)
<b>Number of Inputs ON Simultaneously</b>	100% simultaneously ON (16 points/common)
<b>Insulation Resistance</b>	20 MΩ min. between external terminals and the GR terminal (500 VDC)
<b>Dielectric Strength</b>	2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
<b>Internal Current Consumption</b>	90 mA max.
<b>Weight</b>	130 g max.
<b>Accessories</b>	None



\*1. Can be set to 0 ms, 0.5 ms, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, or 32ms in the settings. When the response times have been set to 0 ms, the ON response time will be 10 ms maximum and the OFF response time will be 55 ms maximum due to internal element delays.

\*2. Use an input voltage of 90 VAC or higher when connecting 2-wire sensors.

\*3. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

## Bit Allocations for Input Unit

### 8-point Input Unit

Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	06	IN6/Jxx_Ch1_In06
	07	IN7/Jxx_Ch1_In07
	08	—
	09	—
	:	:
	14	—
	15	—

### 32-point Input Unit

Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15
Wd m+1 (Input)	00	IN0/Jxx_Ch2_In00
	01	IN1/Jxx_Ch2_In01
	:	:
	14	IN14/Jxx_Ch2_In14
	15	IN15/Jxx_Ch2_In15

### 16-point Input Unit

Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15

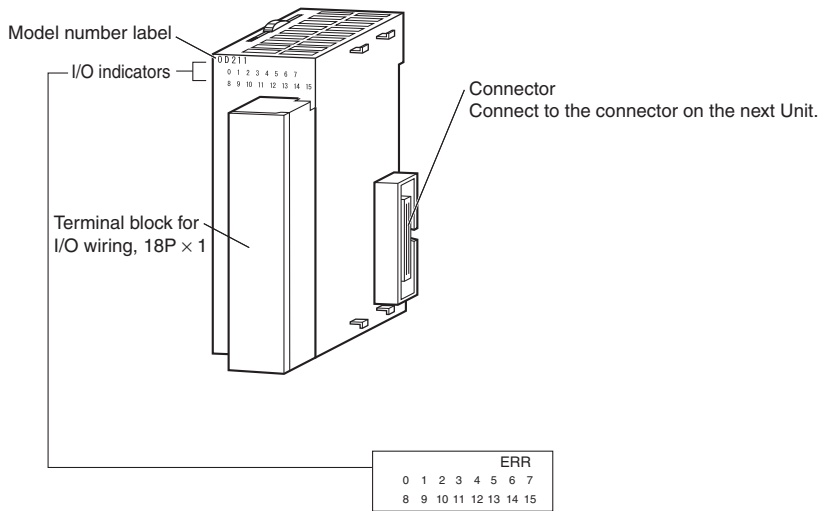
### 64-point Input Unit

Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15
Wd m+1 (Input)	00	IN0/Jxx_Ch2_In00
	01	IN1/Jxx_Ch2_In01
	:	:
	14	IN14/Jxx_Ch2_In14
	15	IN15/Jxx_Ch2_In15
Wd m+2 (Input)	00	IN0/Jxx_Ch3_In00
	01	IN1/Jxx_Ch3_In01
	:	:
	14	IN14/Jxx_Ch3_In14
	15	IN15/Jxx_Ch3_In15
Wd m+3 (Input)	00	IN0/Jxx_Ch4_In00
	01	IN1/Jxx_Ch4_In01
	:	:
	14	IN14/Jxx_Ch4_In14
	15	IN15/Jxx_Ch4_In15

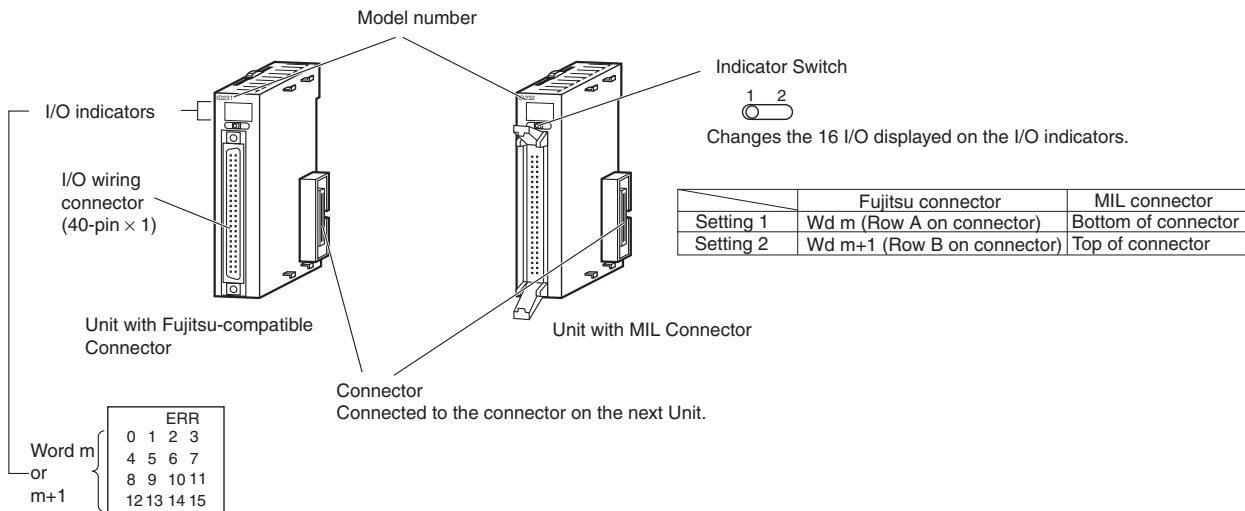


## External Interface

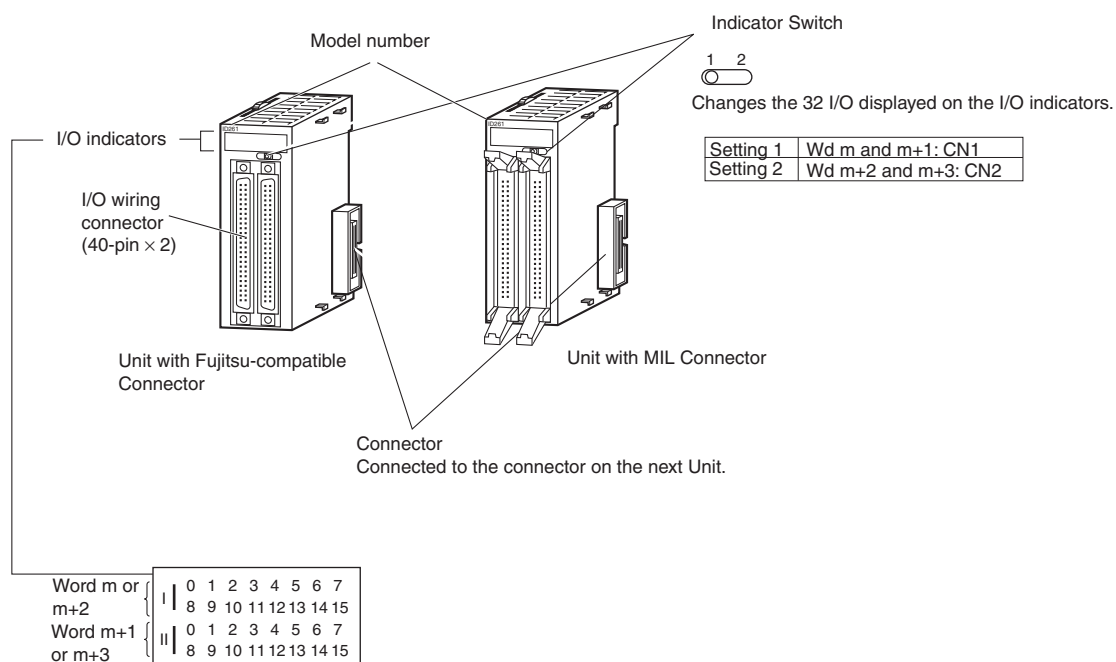
### 8-point/16-point Units (18-point Terminal Blocks)



### 32-point Units (Models with 40-point Fujitsu Connector or MIL Connector)



## 64-point Units (Models with Two 40-point Fujitsu Connectors or MIL Connector)



## Wiring Basic I/O Units with Terminal Blocks

### Electric Wires

The following wire gauges are recommended.

Terminal Block Connector	Wire Size
18-terminal	AWG 22 to 18 (0.32 to 0.82 mm <sup>2</sup> )

### Crimp terminals

Use crimp terminals (M3) having the dimensions shown below.

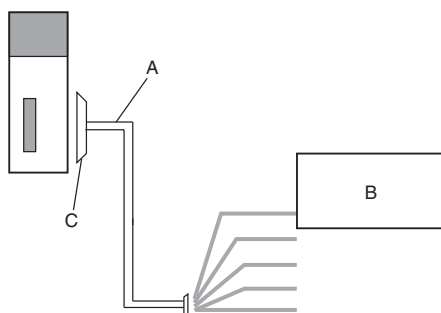


## I/O Unit Wiring Methods

An I/O Unit can be connected to an external device by any of the following three methods.

### 1. User-provided Cable

An I/O Unit can be directly connected to an external device by using a connector.

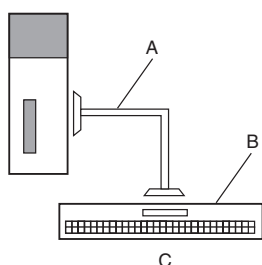


<b>A</b>	User-provided cable
<b>B</b>	External device
<b>C</b>	Connector

### 2. Connector-Terminal Block Conversion Unit

Use a Connecting Cable to connect to a Connector-Terminal Block Conversion Unit.

Converting the I/O Unit connector to a screw terminal block or push-in terminal block makes it easy to connect external devices.

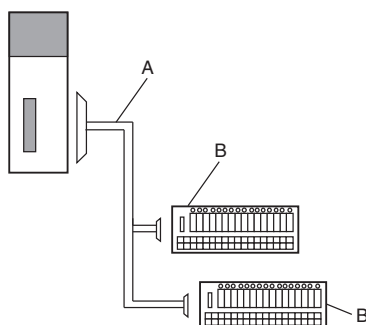


<b>A</b>	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
<b>B</b>	Connector-Terminal Block Conversion Unit XW2R
<b>C</b>	Conversion to a screw terminal block

### 3. I/O Relay Terminal

Use a Connecting Cable to connect to an I/O Relay Terminal.

The I/O specifications can be converted to relay outputs and AC inputs by connecting the I/O Relay Terminal to an I/O Unit.



<b>A</b>	Connecting Cable for I/O Relay Terminals XW2Z-R
<b>B</b>	I/O Relay Terminals G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket G70A Or, conversion to relay outputs and AC inputs.

# 1. Using User-made Cables with Connector

## Available Connectors

Use the following connectors when assembling a connector and cable.

### 32- and 64-point Basic I/O Units with Fujitsu-compatible Connectors

#### Applicable Units

Model	Specifications	Pins
CJ1W-ID231	Input Unit, 24 VDC, 32 inputs	40
CJ1W-ID261	Input Unit, 24 VDC, 64 inputs	

#### Applicable Cable-side Connectors

Connection	Pins	OMRON set	Fujitsu parts
Solder-type	40	C500-CE404	Socket: FCN-361J040-AU Connector cover: FCN-360C040-J2
Crimped	40	C500-CE405	Socket: FCN-363J040 Connector cover: FCN-360C040-J2 Contacts: FCN-363J-AU
Pressure-welded	40	C500-CE403	FCN-367J040-AU/F

### 32- and 64-point Basic I/O Units with MIL Connectors

#### Applicable Units

Model	Specifications	Pins
CJ1W-ID232 CJ1W-ID233	Input Unit, 24 VDC, 32 inputs	40
CJ1W-ID262	Input Unit, 24 VDC, 64 inputs	

#### Applicable Cable-side Connectors

Connection	Pins	OMRON set	DDK parts
Pressure-welded	40	XG4M-4030-T *1	FRC5-A040-3T0S
	40	XG5N-401 *2	HU-40OS2-001
Crimped	—	Crimp Contacts for XG5N *3 XG5W-0232 (loose contacts: 100 pieces) XG5W-0232-R (reel contacts: 10,000 pieces)	HU-111S

\*1. Socket and Stain Relief set.

\*2. Crimp Contacts (XG5W-0232) are sold separately.

\*3. Applicable wire size is AWG 28 to 24. For applicable conductor construction and more information, visit the OMRON website at [www.ia.omron.com](http://www.ia.omron.com).

## Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 mm<sup>2</sup>). Use cable with external wire diameters of 1.61 mm max.

## Crimping Tools

The following models are recommended for crimping tools and pressure-welding tools for Fujitsu connectors.

#### Tools for Crimped Connectors (Fujitsu Component)

Product Name	Model
Hand Crimping Tool	FCN-363T-T005/H
Contact Withdrawal Tool	FCN-360T-T001/H

#### Tools for Pressure-welded Connectors (Fujitsu Component)

Product Name	Model
Hand Press	FCN-707T-T101/H
Cable Cutter	FCN-707T-T001/H
Locator Plate	FCN-367T-T012/H

The following models are recommended for tools for OMRON MIL connectors.

#### Tools for Pressure-welded Connectors (OMRON)

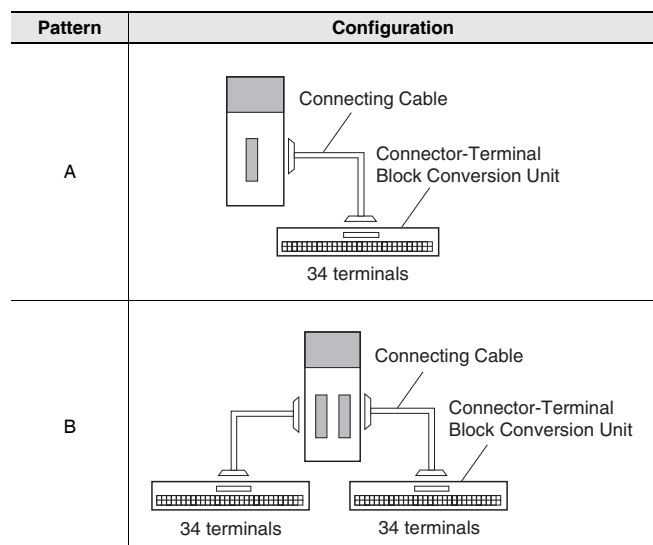
Product Name	Model
Pressure-welding Tool	XY2B-0002
Attachment	XY2B-1007

#### Tools for Crimped Connectors (OMRON)

Product Name	Model
Manual Crimping Tool	XY2B-7007

## 2. Connecting Connector-Terminal Block Conversion Units

### Connection Patterns for Connector-Terminal Block Conversion Units



### Combination of I/O Units with Connector-Terminal Block Conversion Units

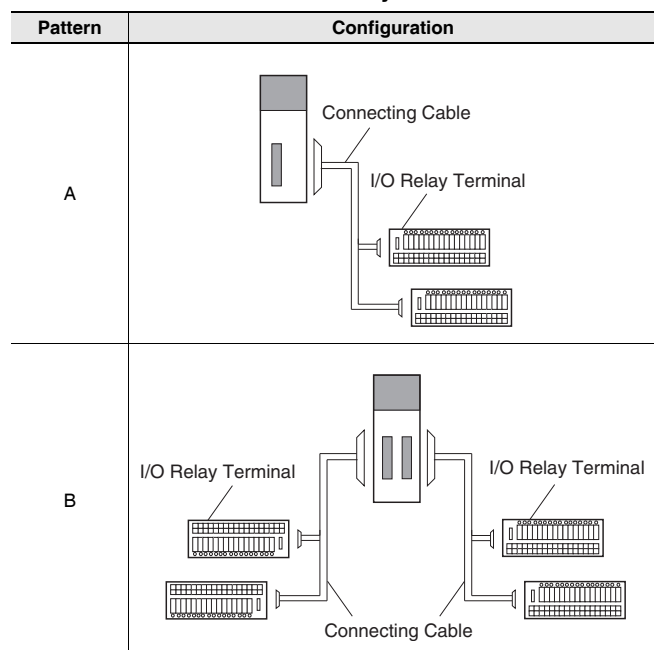
Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals
CJ1W-ID231	32 inputs	1 Fujitsu connector	NPN/PNP	A	XW2Z-□□□PF	XW2R-J34GD-C1	Phillips screw	No
						XW2R-E34GD-C1	Slotted screw (rise up)	
						XW2R-P34GD-C1	Push-in spring	
CJ1W-ID232	32 inputs	1 MIL connector	NPN/PNP	A	XW2Z-□□□PM	XW2R-J34GD-C2	Phillips screw	No
						XW2R-E34GD-C2	Slotted screw (rise up)	
						XW2R-P34GD-C2	Push-in spring	
CJ1W-ID233	32 inputs	1 MIL connector	NPN/PNP	A	XW2Z-□□□PM	XW2R-J34GD-C2	Phillips screw	No
						XW2R-E34GD-C2	Slotted screw (rise up)	
						XW2R-P34GD-C2	Push-in spring	
CJ1W-ID261	64 inputs	2 Fujitsu connectors	NPN/PNP	B	XW2Z-□□□PF (2 pcs)	XW2R-J34GD-C1 (2 Units)	Phillips screw	No
						XW2R-E34GD-C1 (2 Units)	Slotted screw (rise up)	
						XW2R-P34GD-C1 (2 Units)	Push-in spring	
CJ1W-ID262	64 inputs	2 MIL connectors	NPN/PNP	B	XW2Z-□□□PM (2 pcs)	XW2R-J34GD-C2 (2 Units)	Phillips screw	No
						XW2R-E34GD-C2 (2 Units)	Slotted screw (rise up)	
						XW2R-P34GD-C2 (2 Units)	Push-in spring	

\* The box □ is replaced by the cable length.

**Note:** For details, refer to the XW2R series catalog (Cat. No. G077).

### 3. Connecting I/O Relay Terminals

#### Connection Patterns for I/O Relay Terminals



#### Combination of I/O Units with I/O Relay Terminals and Connecting Cables

I/O Units				Connection pattern	Connecting Cables		I/O Relay Terminals			
Model	I/O capacity	External connectors	Polarity		Model *1	Quantity required	Model	I/O points	Quantity required	Wiring method
CJ1W-ID231	32 inputs	1 Fujitsu connector (40 p)	Sinking/Sourcing (NPN/PNP)	A	XW2Z-RI□C-□	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
							G70A-ZIM16-5 *3	16		
CJ1W-ID232	32 inputs	1 MIL connector (40 p)	Sinking/Sourcing (NPN/PNP)	A	XW2Z-RO□-□-D1	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
							G70A-ZIM16-5	16		
CJ1W-ID233	32 inputs	1 MIL connector (40 p)	Sinking/Sourcing (NPN/PNP)	A	XW2Z-RO□-□-D1	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
							G70A-ZIM16-5*3	16		
CJ1W-ID261	64 inputs	2 Fujitsu connectors (40 p)	Sinking/Sourcing (NPN/PNP)	B	XW2Z-RI□C-□	2	G70V-SID16P(-1)(-C16) *2	16	4	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
							G70A-ZIM16-5 *3	16		
CJ1W-ID262	64 inputs	2 MIL connectors (40 p)	Sinking/Sourcing (NPN/PNP)	B	XW2Z-RO□-□-D1	2	G70V-SID16P(-1)(-C16) *2	16	4	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
							G70A-ZIM16-5 *3	16		

\*1. The box □ is replaced by the cable length.

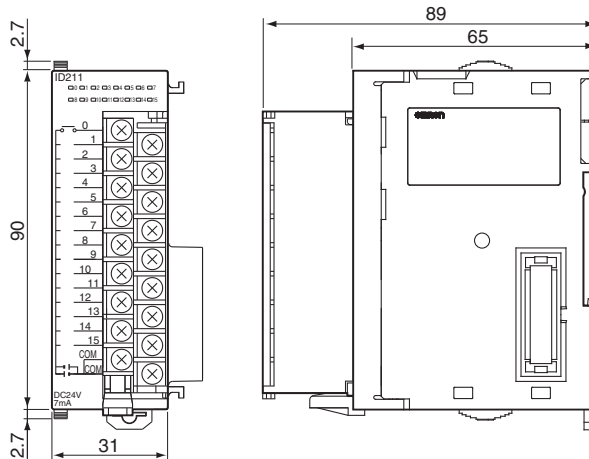
\*2. Either NPN inputs or PNP inputs can be used.

\*3. G70A-ZIM16-5 is a I/O terminal socket products. Relay is not provided with the socket. Be sure to order a relay, timer separately. (with G2R Relays mounted: SPDT × 16)

## Dimensions

### 8-point/16-point Units (18-point Terminal Blocks)

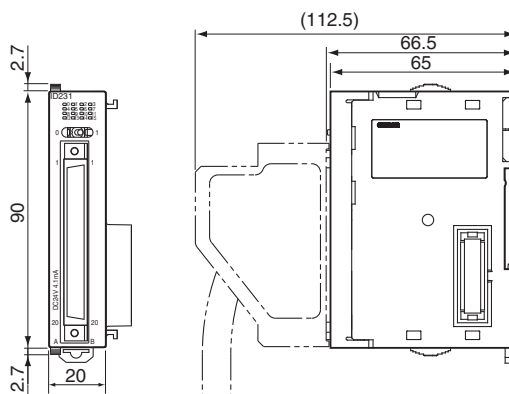
- CJ1W-ID201
- CJ1W-ID211
- CJ1W-ID212
- CJ1W-IA201
- CJ1W-IA111



### 32-point Units (Input Units)

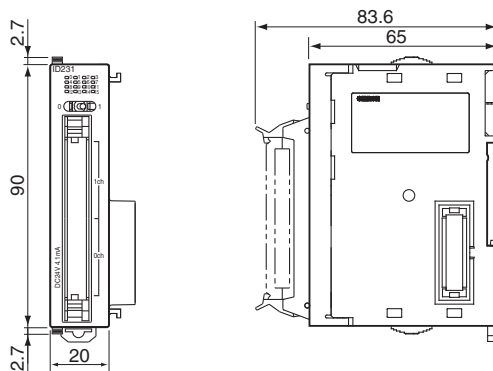
With Fujitsu-compatible Connector (40-pin × 1)

- CJ1W-ID231



With MIL Connector (40-pin × 1)

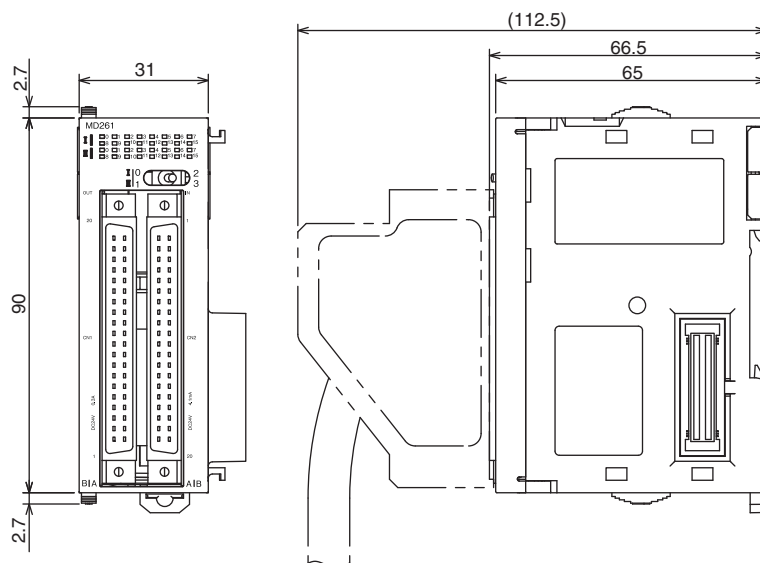
- CJ1W-ID232
- CJ1W-ID233



## 64-point Units (Input Units)

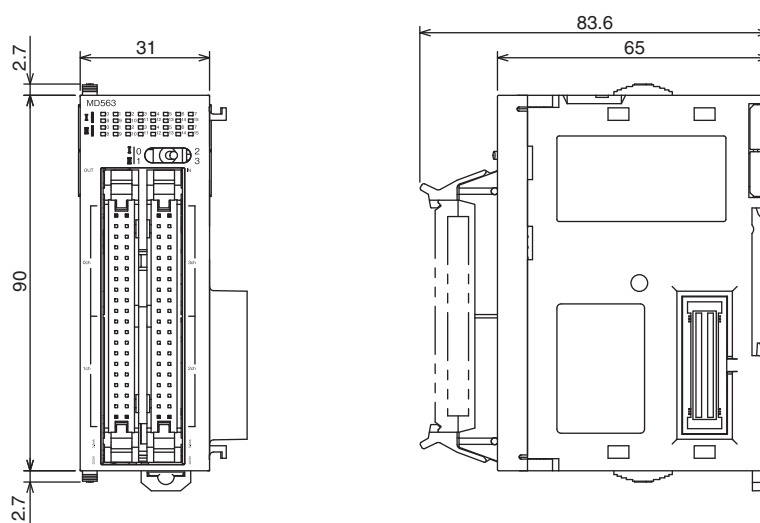
With Fujitsu-compatible Connector (40-pin × 2)

CJ1W-ID261



With MIL Connector (40-pin × 2)

CJ1W-ID262



## Related Manuals

Name	Cat. No.	Contents
CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□ CJ2M-CPU□□	W472	Describes the following for CJ2 CPU Units: <ul style="list-style-type: none"> <li>• Overview and features</li> <li>• Basic system configuration</li> <li>• Part nomenclature and functions</li> <li>• Mounting and setting procedure</li> <li>• Remedies for errors</li> <li>• Also refer to the <i>Software User's Manual</i> (W473).</li> </ul>
SYSMAC CJ Series CJ1H-CPU□□H-R, CJ1G/H-CPU□□H, CJ1G-CPU□□P, CJ1G-CPU□□, CJ1M-CPU□□ Programmable Controllers Operation Manual	W393	Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.
NJ-series CPU Unit Hardware User's Manual NJ501-□□□□	W500	An introduction to the entire NJ-series system is provided along with the following information on a Controller built with an NJ501 CPU Unit. <ul style="list-style-type: none"> <li>• Features and system configuration</li> <li>• Introduction</li> <li>• Part names and functions</li> <li>• General specifications</li> <li>• Installation and wiring</li> <li>• Maintenance and inspection</li> </ul> Use this manual together with the <i>NJ-series CPU Unit Software User's Manual</i> (Cat. No. W501).



## Terms and Conditions Agreement

### Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

### Warranties.

(a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.

(b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See <http://www.omron.com/global/> or contact your Omron representative for published information.

### Limitation on Liability: Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

### Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

### Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

### Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

### Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

### Errors and Omissions.

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.