CJ-series Mixed I/O Units

CJ1W-MD

CSM_CJ1W-MD_DS_E_9_5

A Wide Range of Basic Mixed I/O Units for Different Applications and Wiring Methods

- One Mixed I/O Unit has connectors for both inputs and outputs. Use Mixed I/O Units to easily build space-saving systems.

CJ1W-MD231

CJ1W-MD261

CJ1W-MD563

Features

- Select the best interface for each application: Fujitsu connectors and MIL connectors.
- Select sinking outputs or sourcing outputs. The CJ1W-MD232 has load short-circuit protection.
- The ON and OFF response times can be set to between 0 and 32 ms in the Setup in the CPU Unit.
- Mixed I/O Units with 5-V TTL inputs are also available. *
- A wide variety of Connector-Terminal Block Conversion Units are available to allow you to easily wire external I/O devices.

* Applies to the CJ1W-MD563.

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.

Mixed I/O Units

Unit type	Product name	Specifications						Current consumption (A)		Model	Standards
		Output type	I/O points	Input voltage, Input current / Maximum switching capacity	Commons	External connection	No. of words allocated	5 V	24 V		
CJ1 Basic I/O Units	DC Input/ Transistor Output Units 	Sinking	16 inputs	24 VDC, 7 mA	16 points, 1 common	Fujitsu connector	2 words	0.13	–	**CJ1W-MD231**	UC1, N, CE
			16 outputs	250 VAC/24 VDC, 0.5 A	16 points, 1 common						
		Sinking	16 inputs	24 VDC, 7 mA	16 points, 1 common	MIL connector	2 words	0.13	–	**CJ1W-MD233**	UC1, N, CE
			16 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common						
		Sinking	32 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	4 words	0.14	–	**CJ1W-MD261**	
			32 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common						
		Sinking	32 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	4 words	0.14	–	**CJ1W-MD263**	
			32 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common						
		Sourcing	16 inputs	24 VDC, 7 mA	16 points, 1 common	MIL connector	2 words	0.13	–	**CJ1W-MD232**	UC1, N, L, CE
			16 outputs	24 VDC, 0.5 A Short-circuit protection	16 points, 1 common						
	TTL I/O Units 	–	32 inputs	5 VDC, 35 mA	16 points, 1 common	MIL connector	4 words	0.19	–	**CJ1W-MD563**	UC1, N, CE
			32 outputs	5 VDC, 35 mA	16 points, 1 common						

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 Contactor 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 Contactor 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 (32 inputs): 1 per Unit CJ1W-OD232/233 (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.

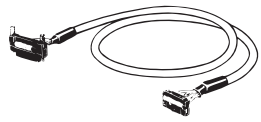
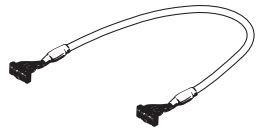
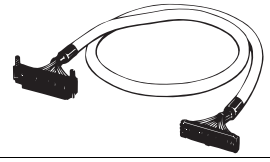
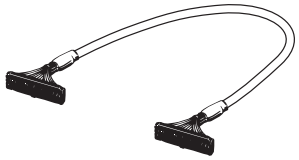
Applicable Connector-Terminal Block Conversion Units

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						
General-purpose devices, PLC	XW2R	20	Phillips screw 	M3	50	48.05	81.7	Yes	–	No	No	No	CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	**XW2R-J20GD-T**	—
		34			50	48.05	130.7						CJ1W-MD261	**XW2R-J34GD-C1**	
														XW2R-J34GD-C3	
													CJ1W-MD263	**XW2R-J34GD-C2**	
														XW2R-J34GD-C4	
													CJ1W-MD563	**XW2R-J34GD-C2**	
														XW2R-J34GD-C4	
		20	Slotted screw (rise up) 	M3 (European type)	50	48.05	81.7						CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	**XW2R-E20GD-T**	
		34			50	44.81	98.5						CJ1W-MD261	**XW2R-E34GD-C1**	
														XW2R-E34GD-C3	
													CJ1W-MD263	**XW2R-E34GD-C2**	
														XW2R-E34GD-C4	
													CJ1W-MD563	**XW2R-E34GD-C2**	
														XW2R-E34GD-C4	
		20	Push-in spring 	Clamp	50	48.05	81.7						CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	**XW2R-P20GD-T**	
		34			50	44.81	98.5						CJ1W-MD261	**XW2R-P34GD-C1**	
														XW2R-P34GD-C3	
													CJ1W-MD263	**XW2R-P34GD-C2**	
														XW2R-P34GD-C4	
													CJ1W-MD563	**XW2R-P34GD-C2**	
														XW2R-P34GD-C4	

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 lenght [m]	Model
XW2Z-□□□A 	One 24-pin Fujitsu Connector to One 20-pin MIL Connector	0.5	**XW2Z-050A**
		1	**XW2Z-100A**
		1.5	**XW2Z-150A**
		2	**XW2Z-200A**
		3	**XW2Z-300A**
		5	**XW2Z-500A**
		7	**XW2Z-700A**
		10	**XW2Z-010A**
		15	**XW2Z-015MA**
		20	**XW2Z-020MA**
XW2Z-□□□X 	One 20-pin MIL Connector to One 20-pin MIL Connector	0.5	**XW2Z-C50X**
		1	**XW2Z-100X**
		2	**XW2Z-200X**
		3	**XW2Z-300X**
		5	**XW2Z-500X**
		10	**XW2Z-010X**
XW2Z-□□□PF 	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**
XW2Z-□□□PM 	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**

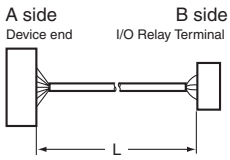
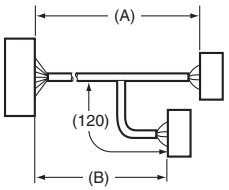
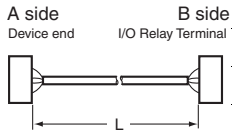
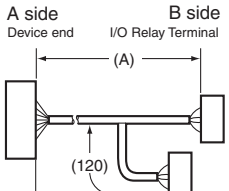
Applicable I/O Relay Terminals

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							**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	182	85	68	Yes	No	**G7TC-IA16 AC100/110**	U, C
							200/220 VAC						**G7TC-IA16 AC200/220**	
			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	102					**G7TC-OC08 DC12**	
							24 VDC						**G7TC-OC08 DC24**	
					16 (SPSTNO × 16)		12 VDC	182					**G7TC-OC16 DC12**	
							24 VDC						**G7TC-OC16 DC24**	
				PNP	16 (SPSTNO × 16)		12 VDC						**G7TC-OC16-1 DC12**	
							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 	Outputs	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**	
	Flat type G70D 		Relay outputs	NPN	8 (SPSTNO × 8)	5 A		68	93	44	Yes	Yes	**G70D-SOC08**	–
					16 (SPSTNO × 16)	3 A		156	51	39			**G70D-SOC16**	
				PNP	16 (SPSTNO × 16)	3 A							**G70D-SOC16-1**	
			MOSFET relay outputs	NPN	16 (SPSTNO × 16)	0.3 A							**G70D-FOM16**	
				PNP									**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.

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	 Straight length (without bends)	(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	 Straight length (without bends)	(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-MD231	10 Units	10 Units (Per Expansion Rack)	10 Units	10 Units (Per Expansion Backplane)	Not supported	Not supported	10 Units (Per Expansion Backplane)
CJ1W-MD232							
CJ1W-MD233							
CJ1W-MD261							
CJ1W-MD263							
CJ1W-MD563							

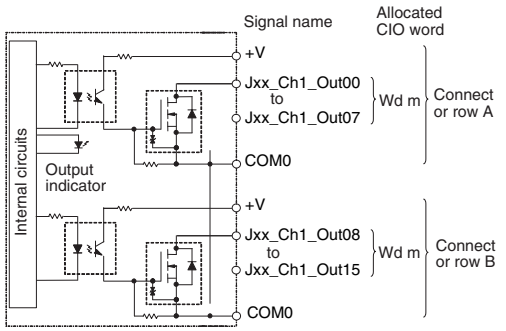
Specifications

CJ1W-MD231 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

Name	16-point DC Input/16-point Transistor Output Unit with Fujitsu Connectors (Sinking Outputs)		
Model	CJ1W-MD231		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	12 to 24 VDC	**Rated Input Voltage**	24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC	**Operating Input Voltage**	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/Unit	**Input Impedance**	3.3 kΩ
Maximum Inrush Current	4.0 A/point, 10 ms max.	**Input Current**	7 mA typical (at 24 VDC)
Leakage Current	0.1 mA max.	**ON Voltage/ON Current**	14.4 VDC min./3 mA min.
Residual Voltage	1.5 V max.	**OFF Voltage/OFF Current**	5 VDC max./1 mA max.
ON Response Time	0.1 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	0.8 ms max.		
No. of Circuits	16 (16 points/common, 1 circuit)	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Fuse	None		
External Power Supply	10.2 to 26.4 VDC, 20 mA min.	**No. of Circuits**	16 (16 points/common, 1 circuit)
		Number of Simultaneously ON Points	75% (at 24 VDC)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 130 mA max.		
Weight	90 g max.		
Accessories	None		

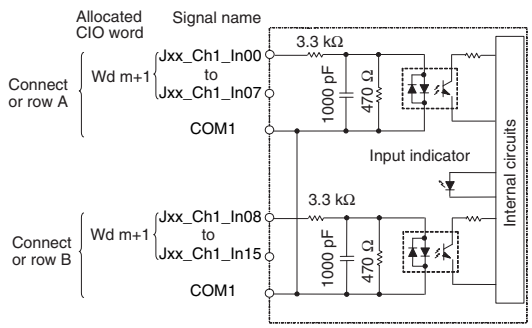
Circuit Configuration

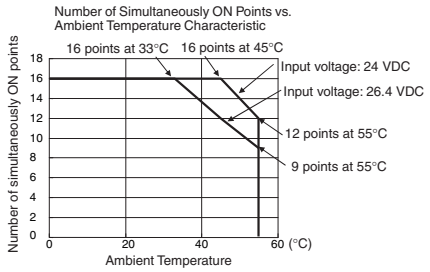
CN1 (OUT)



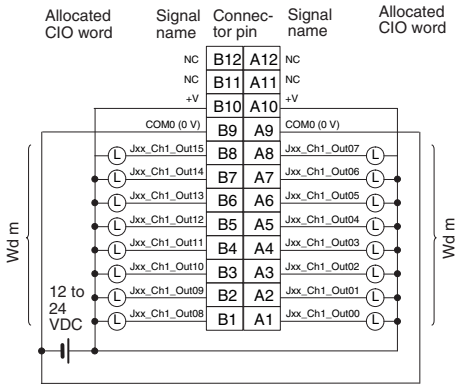
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)

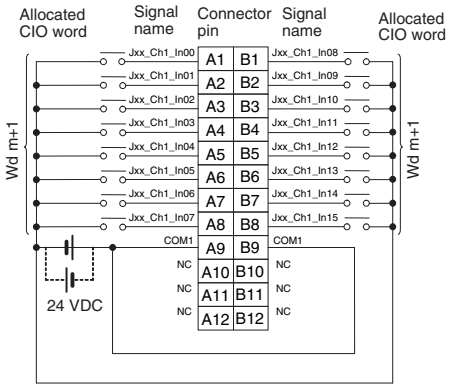




- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

<table>
<tr><th></th><th>CN1 (OUT)</th><th>CN2 (IN)</th></tr>
<tr><td>External connection and terminal-device variable diagram</td><td>


When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed.
Be sure to wire both pins A9 and B9 (COM0 (0 V)) of CN1.
Be sure to wire both pins A10 and B10 (+V) of CN1.
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.

</td><td>


When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed.
Be sure to wire both pins A9 and B9 (COM1) 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.

</td></tr>
</table>

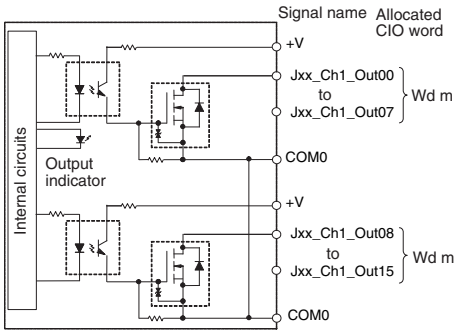
* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD233 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

Name	16-point DC Input/16-point Transistor Output Unit with MIL Connectors (Sinking Outputs)		
Model	CJ1W-MD233		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	12 to 24 VDC	**Rated Input Voltage**	24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC	**Operating Input Voltage**	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/Unit	**Input Impedance**	3.3 kΩ
Maximum Inrush Current	4.0 A/point, 10 ms max.	**Input Current**	7 mA typical (at 24 VDC)
Leakage Current	0.1 mA max.	**ON Voltage/ON Current**	14.4 VDC min./3 mA min.
Residual Voltage	1.5 V max.	**OFF Voltage/OFF Current**	5 VDC max./1 mA max.
ON Response Time	0.1 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	0.8 ms max.		
No. of Circuits	16 (16 points/common, 1 circuit)	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Fuse	None		
External Power Supply	10.2 to 26.4 VDC, 20 mA min.	**No. of Circuits**	16 (16 points/common, 1 circuit)
		Number of Simultaneously ON Points	75% (at 24 VDC)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 130 mA max.		
Weight	90 g max.		
Accessories	None		

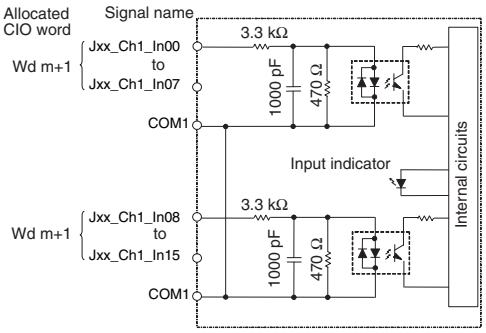
Circuit Configuration

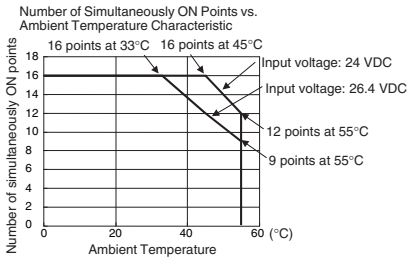
CN1 (OUT)



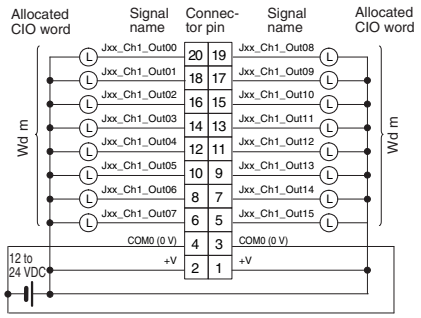
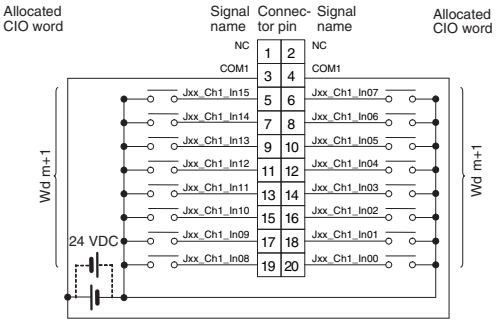
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)





- 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.

	CN1 (OUT)	CN2 (IN)
External connection and terminal-device variable diagram		
	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • Be sure to wire both terminals 3 and 4 (COM0 (0 V)) of CN1. • Be sure to wire both terminals 1 and 2 (+V) of CN1. • 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.	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • Be sure to wire both pins 3 and 4 (COM1) 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.

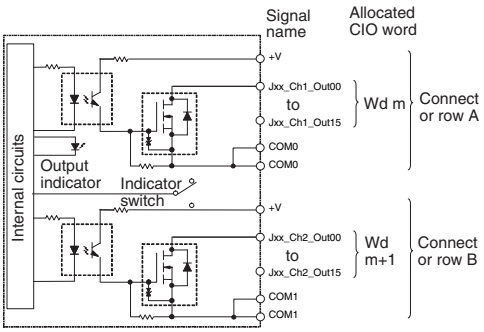
* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD261 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

Name	32-point DC Input/32-point Transistor Output Unit with Fujitsu Connectors (Sinking Outputs)		
Model	CJ1W-MD261		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	12 to 24 VDC	**Rated Input Voltage**	24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC	**Operating Input Voltage**	20.4 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 3.2 A/Unit	**Input Impedance**	5.6 kΩ
Maximum Inrush Current	3.0 A/point, 10 ms max.	**Input Current**	4.1 mA typical (at 24 VDC)
Leakage Current	0.1 mA max.	**ON Voltage/ON Current**	19.0 VDC min./3 mA min. *2
Residual Voltage	1.5 V max.	**OFF Voltage/OFF Current**	5 VDC max./1 mA max.
ON Response Time	0.5 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1
OFF Response Time	1.0 ms max.		
No. of Circuits	32 (16 points/common, 2 circuits)	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1
Fuse	None		
External Power Supply	10.2 to 26.4 VDC, 30 mA min.	**No. of Circuits**	32 (16 points/common, 2 circuits)
		Number of Simultaneously ON Points	75% (24 points) (at 24 VDC)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 140 mA max.		
Weight	110 g max.		
Accessories	None		

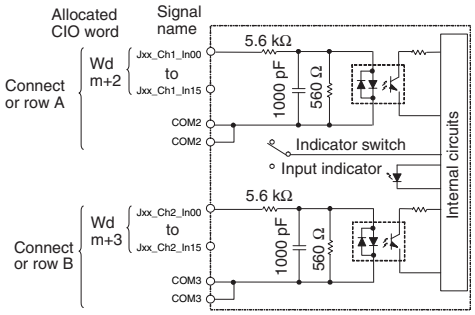
Circuit Configuration

CN1 (OUT)

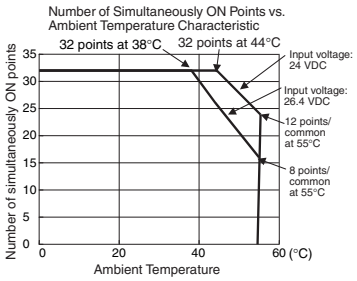


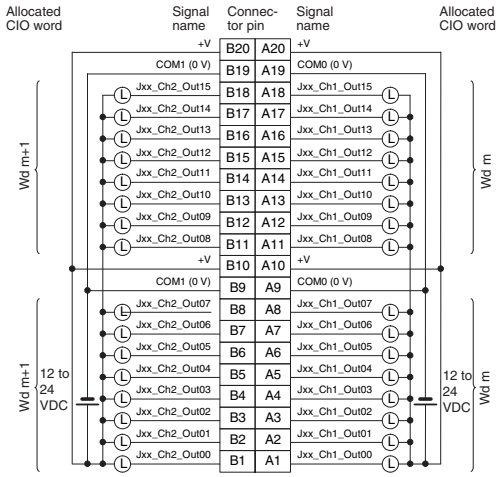
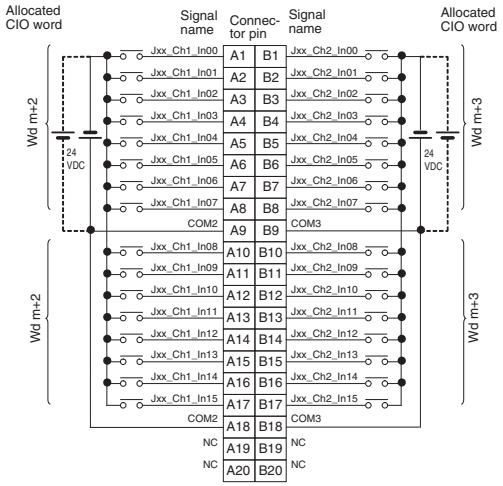
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)



- 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.



	CN1 (OUT)	CN2 (IN)
External connection and terminal-device variable diagram	 • Be sure to wire both terminals A19 and A9 (COM0 (0 V)) of CN1. • Be sure to wire both terminals B19 and B9 (COM1 (0 V)) of CN1. • Be sure to wire both terminals A20 and A10 (+V) of CN1. • Be sure to wire both terminals B20 and B10 (+V) of CN1. • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • 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.	 • 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. • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • 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 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.

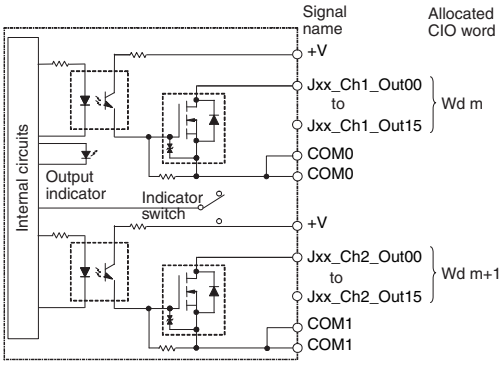
*2. Observe the following restrictions when connecting to a 2-wire sensor.
- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

CJ1W-MD263 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

Name	32-point DC Input/32-point Transistor Output Unit with MIL Connectors (Sinking Outputs)		
Model	CJ1W-MD263		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	12 to 24 VDC	**Rated Input Voltage**	24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC	**Operating Input Voltage**	20.4 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 3.2 A/Unit	**Input Impedance**	5.6 kΩ
Maximum Inrush Current	3.0 A/point, 10 ms max.	**Input Current**	4.1 mA typical (at 24 VDC)
Leakage Current	0.1 mA max.	**ON Voltage/ON Current**	19.0 VDC min./3 mA min. *2
Residual Voltage	1.5 V max.	**OFF Voltage/OFF Current**	5 VDC max./1 mA max.
ON Response Time	0.5 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1
OFF Response Time	1.0 ms max.		
No. of Circuits	32 (16 points/common, 2 circuits)	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1
Fuse	None		
External Power Supply	10.2 to 26.4 VDC, 30 mA min.	**No. of Circuits**	32 (16 points/common, 2 circuits)
		Number of Simultaneously ON Points	75% (24 points) (at 24 VDC)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 140 mA max.		
Weight	110 g max.		
Accessories	None		

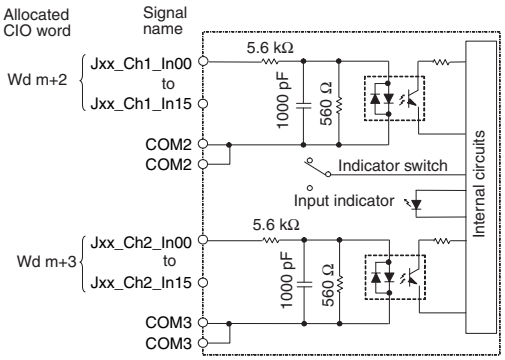
Circuit Configuration

CN1 (OUT)

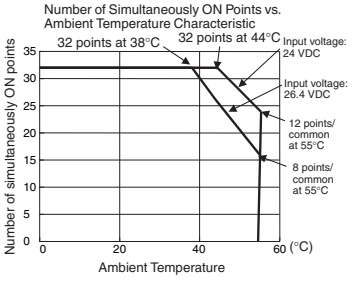


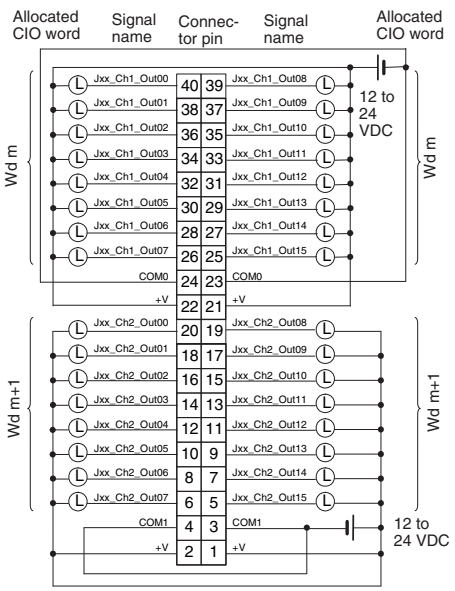
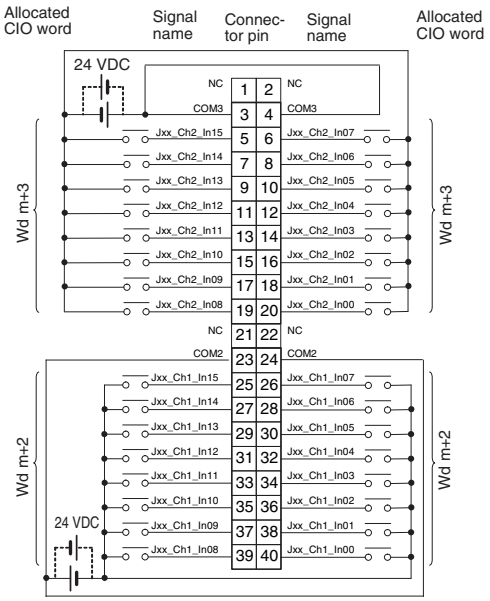
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)



- 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.



	CN1 (OUT)	CN2 (IN)
External connection and terminal-device variable diagram		
	• Be sure to wire both terminals 23 and 24 (COM0) of CN1. • Be sure to wire both terminals 3 and 4 (COM1) of CN1. • Be sure to wire both terminals 21 and 22 (+V) of CN1. • Be sure to wire both terminals 1 and 2 (+V) of CN1. • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • 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.	• 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. • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • 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 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.

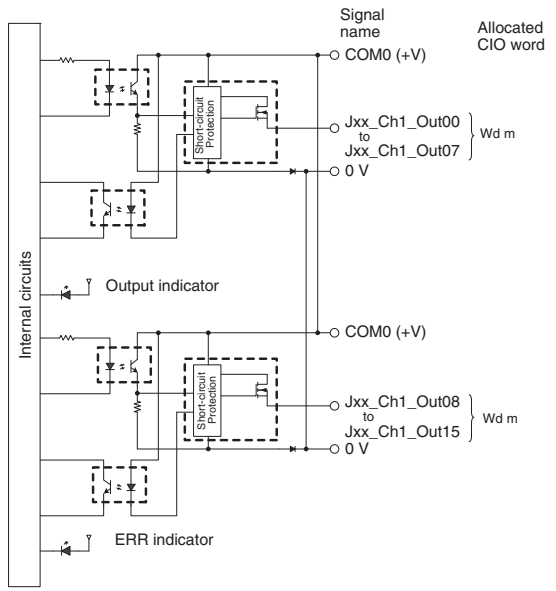
*2. Observe the following restrictions when connecting to a 2-wire sensor.
- Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
- Use a sensor with a minimum load current of 3 mA min.
- Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

CJ1W-MD232 DC Input/Transistor Output Unit (24 VDC, 16 inputs/16 Outputs)

Name	16-point DC Input/16-point Transistor Output Unit with MIL Connectors (Sourcing Outputs)		
Model	CJ1W-MD232		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	24 VDC	**Rated Input Voltage**	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC	**Operating Input Voltage**	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/Unit	**Input Impedance**	3.3 kΩ
Leakage Current	0.1 mA max.	**Input Current**	7 mA typical (at 24 VDC)
Residual Voltage	1.5 V max.	**ON Voltage/ON Current**	14.4 VDC min./3 mA min.
ON Response Time	0.5 ms max.	**OFF Voltage/OFF Current**	5 VDC max./1 mA max.
OFF Response Time	1.0 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Load Short-circuit Protection	Detection current: 0.7 to 2.5 A min. Automatic restart after error clearance.	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
No. of Circuits	16 (16 points/common, 1 circuit)	**No. of Circuits**	16 (16 points/common, 1 circuit)
External Power Supply	20.4 to 26.4 VDC, 40 mA min.	**Number of Simultaneously ON Points**	75% (at 24 VDC)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 130 mA max.		
Weight	100 g max.		
Accessories	None		

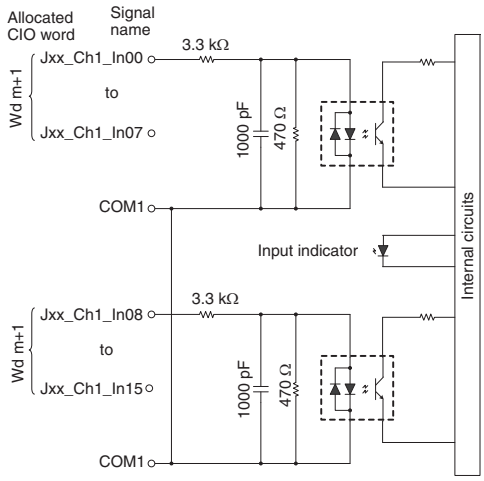
Circuit Configuration

CN1 (OUT)

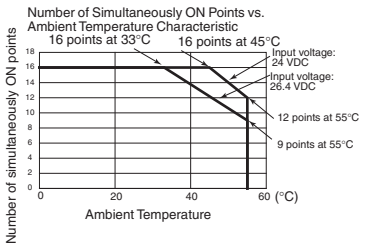


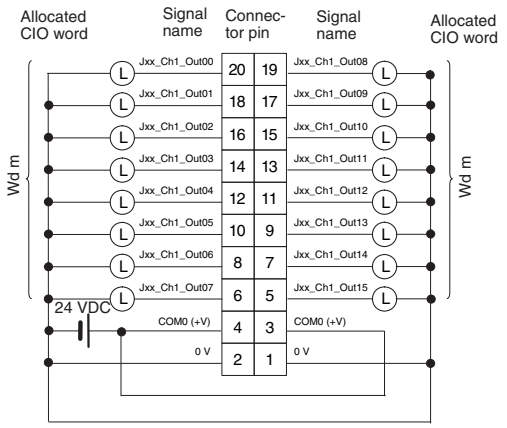
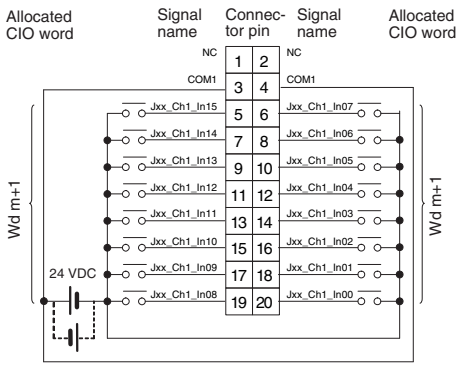
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)



- 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.



	CN1 (OUT)	CN2 (IN)
External connection and terminal-device variable diagram		
	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • Be sure to wire both terminals 3 and 4 (COM0 (+V)) of CN1. • Be sure to wire both terminals 1 and 2 (0 V) of CN1. • 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.	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if polarity is reversed. • Be sure to wire both pins 3 and 4 (COM1) 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.

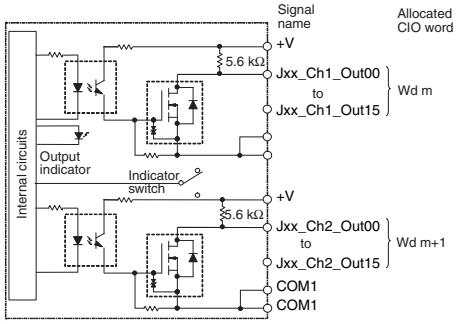
* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD563 TTL I/O Unit (32 Inputs/32 Outputs)

Name	32-point Input /32-point Output TTL I/O Unit with MIL Connectors		
Model	CJ1W-MD563		
Output section (CN1)		**Input section (CN2)**	
Rated Voltage	5 VDC±10%	**Rated Input Voltage**	5 VDC±10%
Operating Load Voltage Range	4.5 to 5.5 VDC	**Input Impedance**	1.1 kΩ
Maximum Load Current	35 mA/point, 560 mA/common, 1.12 A/Unit	**Input Current**	Approx. 3.5 mA (at 5 VDC)
Leakage Current	0.1 mA max.	**ON Voltage**	3.0 VDC min.
Residual Voltage	0.4 V max.	**OFF Voltage**	1.0 VDC max.
ON Response Time	0.2 ms max.	**ON Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	0.3 ms max.	**OFF Response Time**	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
No. of Circuits	32 points (16 points/common, 2 circuits)		
Fuse	None	**No. of Circuits**	32 points (16 points/common, 2 circuits)
External Power Supply	5 VDC±10%, 40 mA min. (1.2 mA × No. of ON points)	**Number of Simultaneously ON Points**	100% (16 points/common)
Insulation Resistance	20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)		
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		
Internal Current Consumption	5 VDC 190 mA max.		
Weight	110 g max.		
Accessories	None		

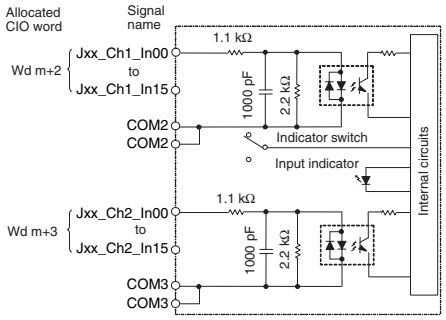
Circuit Configuration

CN1 (OUT)

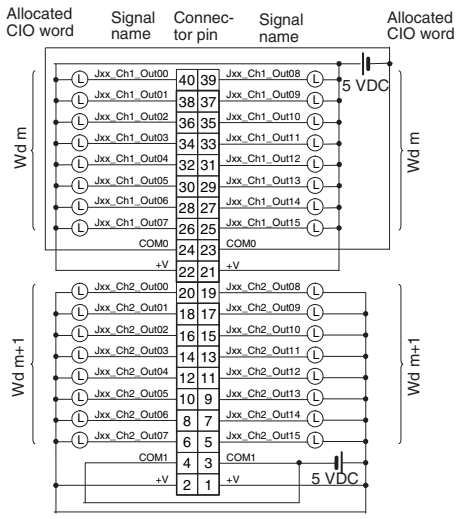
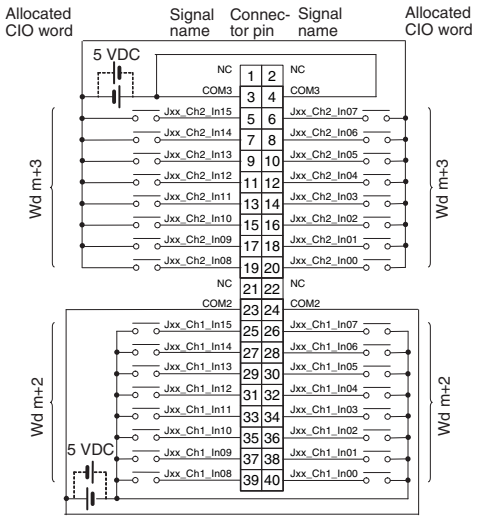


- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

CN2 (IN)



- 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.

	CN1 (OUT)	CN2 (IN)
External connection and terminal-device variable diagram		
	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed. • Be sure to wire both terminals 23 and 24 (COM0) of CN1. • Be sure to wire both terminals 3 and 4 (COM1) of CN1. • Be sure to wire both terminals 21 and 22 (+V) of CN1. • Be sure to wire both terminals 1 and 2 (+V) of CN1. • 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.	• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed. • 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.

Bit Allocations for Mixed I/O Unit

32-point Mixed I/O Unit

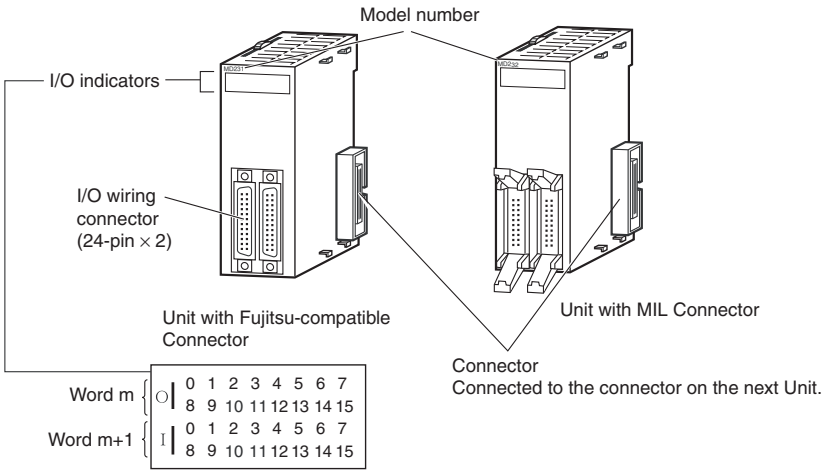
Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Output)	00	OUT0/Jxx_Ch1_Out00
	01	OUT1/Jxx_Ch1_Out01
	:	:
	14	OUT14/Jxx_Ch1_Out14
	15	OUT15/Jxx_Ch1_Out15
Wd m+1 (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15

64-point Mixed I/O Unit

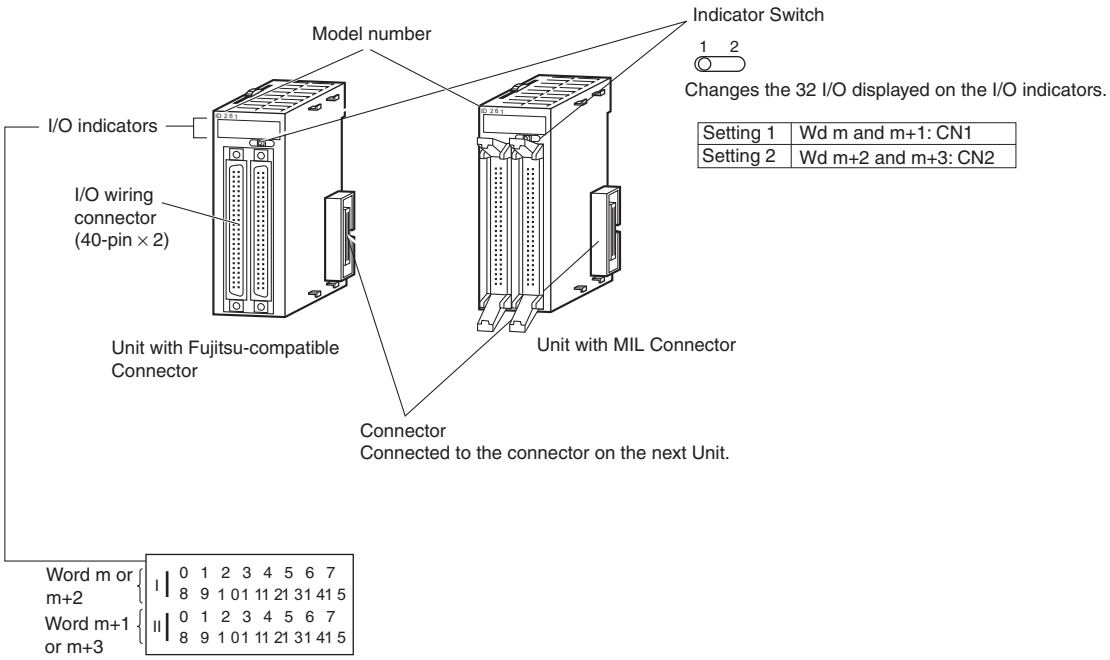
Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Output)	00	OUT0/Jxx_Ch1_Out00
	01	OUT1/Jxx_Ch1_Out01
	:	:
	14	OUT14/Jxx_Ch1_Out14
	15	OUT15/Jxx_Ch1_Out15
Wd m+1 (Output)	00	OUT0/Jxx_Ch2_Out00
	01	OUT1/Jxx_Ch2_Out01
	:	:
	14	OUT14/Jxx_Ch2_Out14
	15	OUT15/Jxx_Ch2_Out15
Wd m+2 (Input)	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15
Wd m+3 (Input)	00	IN0/Jxx_Ch2_In00
	01	IN1/Jxx_Ch2_In01
	:	:
	14	IN14/Jxx_Ch2_In14
	15	IN15/Jxx_Ch2_In15

External Interface

32-point Units (Model with 24-pin × 2 Fujitsu Connectors or with 20-pin × 2 MIL Connectors)



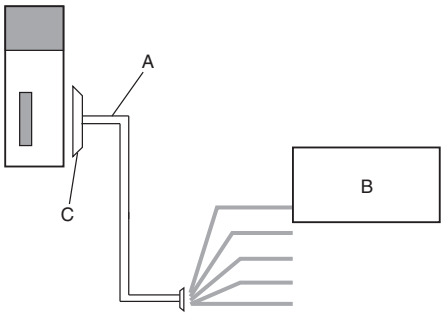
64-point Units (Models with Two 40-point Fujitsu Connectors or MIL Connector)



I/O Unit Wiring Methods

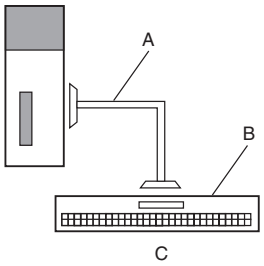
An I/O Unit can be connected to an external device by any of the following three methods.

1. User-provided Cable
An I/O Unit can be directly connected to an external device by using a connector.



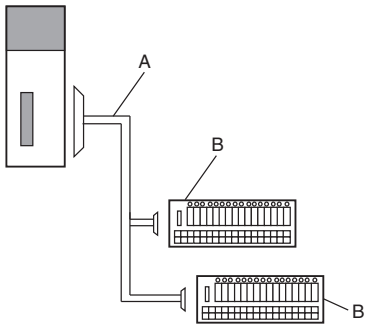
A	User-provided cable
B	External device
C	Connector

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.



A	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
B	Connector-Terminal Block Conversion Unit XW2□
C	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.



A	Connecting Cable for I/O Relay Terminals XW2Z-R
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-MD261	24-VDC Input/Transistor Output Units, 32 Inputs, 32 Outputs	40
CJ1W-MD231	24-VDC Input/Transistor Output Units, 16 Inputs, 16 Outputs	24

Applicable Cable-side Connectors

Connection	Pins	OMRON set	Fujitsu parts
Solder-type	40	C500-CE404	Socket: FCN-361J040-AU Connector cover: FCN-360C040-J2
	24	C500-CE241	Socket: FCN-361J024-AU Connector cover: FCN-360C024-J2
Crimped	40	C500-CE405	Socket: FCN-363J040 Connector cover: FCN-360C040-J2 Contacts: FCN-363J-AU
	24	C500-CE242	Socket: FCN-363J024 Connector cover: FCN-360C024-J2 Contacts: FCN-363J-AU
Pressure-welded	40	C500-CE403	FCN-367J040-AU/F
	24	C500-CE243	FCN-367J024-AU/F

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

Applicable Units

Model	Specifications	Pins
CJ1W-MD263	24-VDC Input/Transistor Output Units, 32 inputs, 32 outputs	40
CJ1W-MD563	TTL Input/TTL Output Units, 32 inputs, 32 outputs	
CJ1W-MD232	24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs	20
CJ1W-MD233	24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs	

Applicable Cable-side Connectors

Connection	Pins	OMRON set	DDK parts
Pressure-welded	40	XG4M-4030-T *1	FRC5-A040-3T0S
	20	XG4M-2030-T	FRC5-A020-3T0S
Crimped	40	XG5N-401 *2	HU-40OS2-001
	–	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.

Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 mm^2). 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)

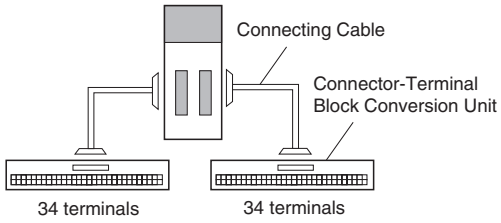
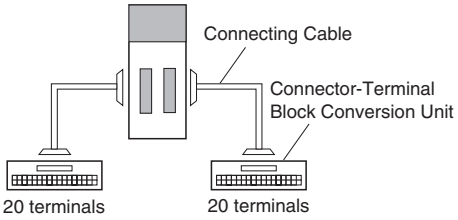
Product Name	Model
Pressure-welding Tool	XY2B-0002
Attachment	XY2B-1007

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

Pattern	Configuration
B	
C	

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-MD231	16 I/O points	2 Fujitsu connectors (1 for 16 inputs and 1 for 16 outputs)	NPN	C	XW2Z-□□□A (2 pcs)	XW2R-J20GD-T (2 Units)	Phillips screw	No
						XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	
						XW2R-P20GD-T (2 Units)	Push-in spring	
CJ1W-MD232	16 I/O points	2 MIL connectors (1 for 16 inputs and 1 for 16 outputs)	PNP	C	XW2Z-□□□X (2 pcs)	XW2R-J20GD-T (2 Units)	Phillips screw	No
						XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	
						XW2R-P20GD-T (2 Units)	Push-in spring	
CJ1W-MD233	16 I/O points	2 MIL connectors (1 for 16 inputs and 1 for 16 outputs)	NPN	C	XW2Z-□□□X (2 pcs)	XW2R-J20GD-T (2 Units)	Phillips screw	No
						XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	
						XW2R-P20GD-T (2 Units)	Push-in spring	
CJ1W-MD261	32 I/O points	2 Fujitsu connectors (1 for 32 inputs and 1 for 32 outputs)	NPN	B	XW2Z-□□□PF (1 pcs)	XW2R-J34GD-C1 (Input side of the unit)	Phillips screw	No
					XW2Z-□□□PF (1 pcs)	XW2R-J34GD-C3 (Output side of the unit)		
					XW2Z-□□□PF (1 pcs)	XW2R-E34GD-C1 (Input side of the unit)	Slotted screw (rise up)	
					XW2Z-□□□PF (1 pcs)	XW2R-E34GD-C3 (Output side of the unit)		
					XW2Z-□□□PF (1 pcs)	XW2R-P34GD-C1 (Input side of the unit)	Push-in spring	
					XW2Z-□□□PF (1 pcs)	XW2R-P34GD-C3 (Output side of the unit)		
CJ1W-MD263	32 I/O points	2 MIL connectors (1 for 32 inputs and 1 for 32 outputs)	NPN	B	XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C2 (Input side of the unit)	Phillips screw	No
					XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C4 (Output side of the unit)		
					XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C2 (Input side of the unit)	Slotted screw (rise up)	
					XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C4 (Output side of the unit)		
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C2 (Input side of the unit)	Push-in spring	
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C4 (Output side of the unit)		

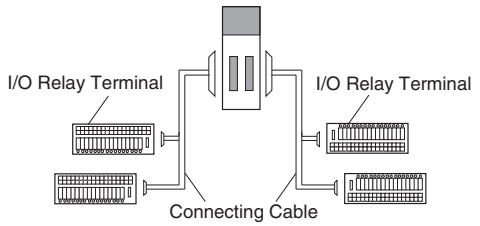
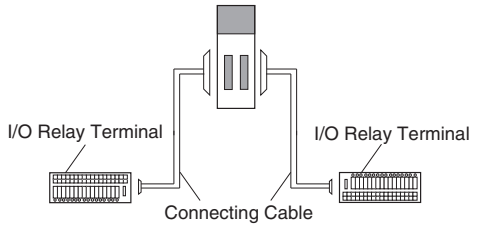
* The box □ is replaced by the cable length.

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals
CJ1W-MD563	32 I/O points	2 MIL connectors (1 for 32 inputs and 1 for 32 outputs)	–	B	XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C2 (Input side of the unit)	Phillips screw	No
					XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C4 (Output side of the unit)		
					XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C2 (Input side of the unit)	Slotted screw (rise up)	
					XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C4 (Output side of the unit)		
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C2 (Input side of the unit)	Push-in spring	
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C4 (Output side of the unit)		

* The box □ is replaced by the cable length.

3. Connecting I/O Relay Terminals

Connection Patterns for I/O Relay Terminals

Pattern	Configuration
B	
E	

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-MD231	16 inputs	1 Fujitsu connector (24 p)	NPN/PNP	E	XW2Z-R□C	1	G70V-SID16P(-1)(-C16) *2	16	1	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
	16 outputs	1 Fujitsu connector (24 p)	NPN (Sinking)		XW2Z-R□C	1	G70V-SOC16P(-C4)	16	1	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		
CJ1W-MD232	16 inputs	1 MIL connector (20 p)	NPN/PNP	E	XW2Z-RO□C	1	G70V-SID16P(-1)(-C16) *2	16	1	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
	16 outputs	1 MIL connector (20 p)	PNP (Sourcing)		XW2Z-RI□C	1	G70V-SOC16P-1(-C4)	16	1	Push-in spring
							G70A-ZOC16-4 *4	16		Screw terminal
							G70D-SOC/FOM16-1	16		
					XW2Z-RO□C	1	G7TC-OC16-1	16		
CJ1W-MD233	16 inputs	1 MIL connector (20 p)	NPN/PNP	E	XW2Z-RO□C	1	G70V-SID16P(-1)(-C16) *2	16	1	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
	16 outputs	1 MIL connector (20 p)	NPN (Sinking)		XW2Z-RO□C	1	G70V-SOC16P(-C4)	16	1	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		
CJ1W-MD261	32 inputs	1 Fujitsu connector (40 p)	NPN/PNP	B	XW2Z-RI□C-□	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
	32 outputs	1 Fujitsu connector (40 p)	NPN (Sinking)		XW2Z-RO□C-□	1	G70V-SOC16P(-C4)	16	2	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		

*1. The box □ is replaced by the cable length.
*2. Inputs can be either NPN or PNP.
*3. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.
*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately.
In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

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-MD263	32 inputs	1 MIL connector (40 p)	NPN/PNP	B	XW2Z-RO□-□-D1	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
	32 outputs	1 MIL connector (40 p)	NPN (Sinking)		XW2Z-RO□-□-D1	1	G70V-SOC16P(-C4)	16	2	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		

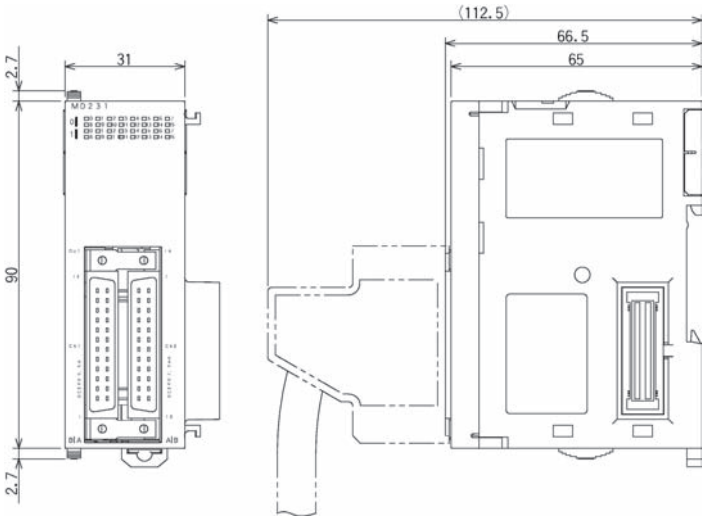
*1. The box □ is replaced by the cable length.
*2. Inputs can be either NPN or PNP.
*3. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.
*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately.
In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

Dimensions

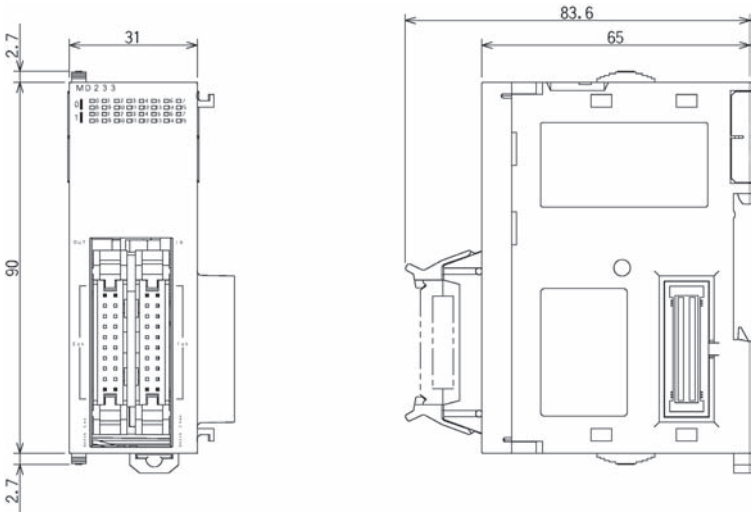
(Unit: mm)

32-point Units (Mixed I/O Units)

With Fujitsu-compatible connector (24-pin × 2)
CJ1W-MD231

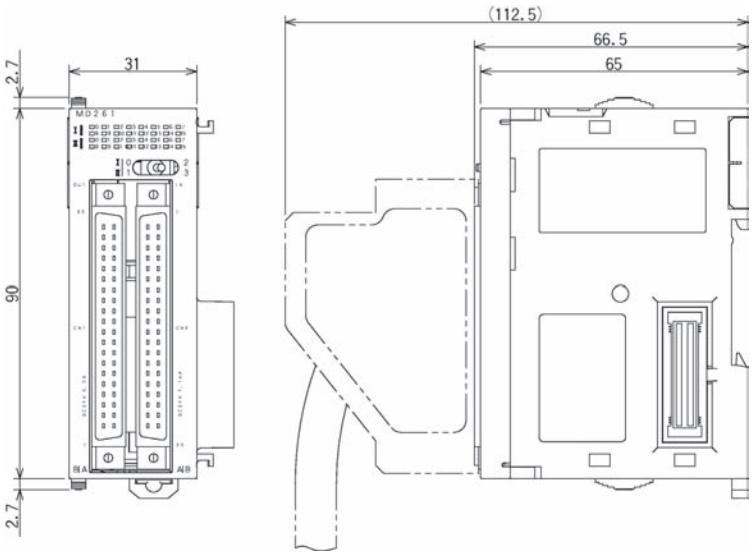


With MIL connector (20-pin × 2)
CJ1W-MD232
CJ1W-MD233

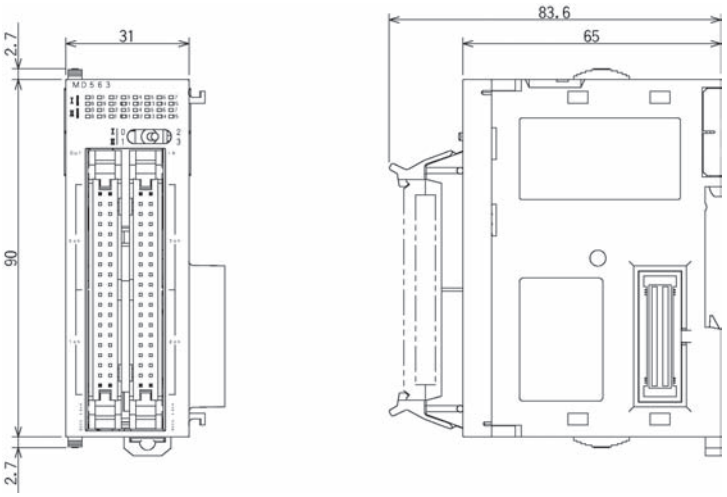


64-point Units (Mixed I/O Units)

With Fujitsu-compatible connector (40-pin × 2)
CJ1W-MD261



With MIL connector (40-pin × 2)
CJ1W-MD263
CJ1W-MD563



Related Manuals

Name	Cat. No.	Contents
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. • Features and system configuration • Introduction • Part names and functions • General specifications • Installation and wiring • Maintenance and inspection Use this manual together with the NJ-series CPU Unit Software User's Manual (Cat. No. W501).
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.
CJ-series CJ2H-CPU6□-EIP, CJ2H-CPU6□, CJ2M-CPU□□ CJ2 CPU Unit Hardware User's Manual	W472	Describes the following for CJ2 CPU Units: • Overview and features • Basic system configuration • Part nomenclature and functions • Mounting and setting procedure • Remedies for errors • Also refer to the Software User's Manual (W473).

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.

2017.7

In the interest of product improvement, specifications are subject to change without notice.

OMRON Corporation
Industrial Automation Company

http://www.ia.omron.com/