CJ1W-OC/OA/OD

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

- These Output Units receive the results of output instructions from the CPU Unit and perform ON/OFF control for external devices.
- High-speed Output models CJ1W-OD213 and CJ1W-OD234 can help to increase system throughput.

CJ1W-OD213 **CJ1W-OD234**

Features

- High-speed output models are available, meeting versatile applications.
  ON Response Time: 15μs, OFF Response Time: 80μs
- Output Units are available with any of three output types: relay contact outputs, triac outputs, or transistor outputs.
- For transistor outputs, select from sinking outputs or sourcing outputs.
- Output Units with load short-circuit protection are also available. *1
- Select the best interface for each application: Fujitsu / OTAX connectors or MIL connectors. *2
- A wide variety of Connector-Terminal Block Conversion Units are available to allow you to easily wire external output devices.

*1. The following Units have load short-circuit protection: CJ1W-OC202, CJ1W-OD204, CJ1W-OD212, and CJ1W-OD232.
*2. Available for models with 32 outputs or 64 outputs

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.

Output Units

Unit type	Product name	Specifications					No. of words allocated	Current consumption (A)		Model	Standards
		Output type	I/O points	Maximum switching capacity	Commons	External connection		5 V	24 V		
CJ1 Basic I/O Units	Relay Contact Output Units	–	8 outputs	250 VAC/24 VDC, 2 A	Independent contacts	Removable terminal block	1 words	0.09	0.048 max.	**CJ1W-OC201**	UC1, N, L, CE
		–	16 outputs	250 VAC/24 VDC, 2 A	16 points, 1 common	Removable terminal block	1 words	0.11	0.096 max.	**CJ1W-OC211**	
	Triac Output Unit	–	8 outputs	250 VAC, 0.6 A	8 points, 1 common	Removable terminal block	1 words	0.22	–	**CJ1W-OA201**	
	Transistor Output Units	Sinking	8 outputs	12 to 24 VDC, 2 A	4 points, 1 common	Removable terminal block	1 words	0.09	–	**CJ1W-OD201**	
		Sinking	8 outputs	12 to 24 VDC, 0.5 A	8 points, 1 common	Removable terminal block	1 words	0.10	–	**CJ1W-OD203**	
		Sinking	16 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common	Removable terminal block	1 words	0.10	–	**CJ1W-OD211**	
		Sinking	16 outputs (High speed)	24 VDC, 0.5 A	16 points, 1 common	Removable terminal block	1 words	0.15	–	**CJ1W-OD213**	N, L, CE
		Sinking	32 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common	Fujitsu / OTAX connector	2 words	0.14	–	**CJ1W-OD231**	UC1, N, L, CE
		Sinking	32 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common	MIL connector	2 words	0.14	–	**CJ1W-OD233**	
		Sinking	32 outputs (High speed)	24 VDC, 0.5 A	16 points, 1 common	MIL connector	2 words	0.22	–	**CJ1W-OD234**	N, L, CE
		Sinking	64 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	Fujitsu / OTAX connector	4 words	0.17	–	**CJ1W-OD261**	UC1, N, L, CE
		Sinking	64 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	MIL connector	4 words	0.17	–	**CJ1W-OD263**	
		Sourcing	8 outputs	24 VDC, 2 A Short-circuit protection	4 points, 1 common	Removable terminal block	1 words	0.11	–	**CJ1W-OD202**	
		Sourcing	8 outputs	24 VDC, 0.5 A Short-circuit protection	8 points, 1 common	Removable terminal block	1 words	0.10	–	**CJ1W-OD204**	
		Sourcing	16 outputs	24 VDC, 0.5 A Short-circuit protection	16 points, 1 common	Removable terminal block	1 words	0.10	–	**CJ1W-OD212**	
		Sourcing	32 outputs	24 VDC, 0.5 A Short-circuit protection	16 points, 1 common	MIL connector	2 words	0.15	–	**CJ1W-OD232**	
		Sourcing	64 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	MIL connector	4 words	0.17	–	**CJ1W-OD262**	

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 / OTAX 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	Connector Connector Cover	Fujitsu FCN-361J040-AU Fujitsu FCN-360C040-J2 OTAX N360C040J2	Fujitsu / OTAX 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	Housing Contactor Connector Cover	Fujitsu FCN-363J040 OTAX N363J040 Fujitsu FCN-363J-AU OTAX N363JAU Fujitsu FCN-360C040-J2 OTAX N360C040J2		C500-CE405	
	Pressure welded	Fujitsu FCN-367J040-AU/F			C500-CE403	
24-pin Connectors	Soldered	Connector Connector Cover	Fujitsu FCN-361J024-AU Fujitsu FCN-360C024-J2 OTAX N360C024J2	Fujitsu / OTAX Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit	C500-CE241	
	Crimped	Socket Contactor Connector Cover	Fujitsu FCN-363J024 OTAX N363J024 Fujitsu FCN-363J-AU OTAX N363JAU Fujitsu FCN-360C024-J2 OTAX N360C024J2		C500-CE242	
	Pressure welded	Fujitsu FCN-367J024-AU/F OTAX N367J024AUF			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*	

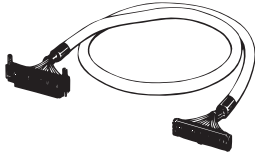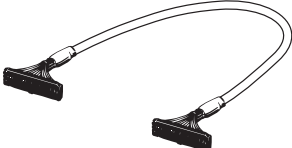* Crimp Contacts are also required. Refer to page 31 for details.

Applicable Connector-Terminal Block Conversion Units

Type	Series	Number of connector poles	Number of terminal block poles	Wiring method	Terminal type	Size			Mounting		Common terminals	I/O Units	Model*	Standards
						Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws				
PLCs	XW2K	40	36	Push-In Plus	Spring	75	39	40.8	Yes	---	No	CJ1W-OD231 CJ1W-OD261	**XW2K-40G-O32B**	---
												CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	**XW2K-40G-O32C**	
		40	68	Push-In Plus	Spring	124	39	40.8			Yes	CJ1W-OD231 CJ1W-OD261	**XW2K-40G-O32B-OUT**	
												CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	**XW2K-40G-O32C-OUT**	
	XW2R	40	34	Phillips screw	M3	130.7	50	48.05			No	CJ1W-OD231 CJ1W-OD261	**XW2R-J34GD-C3**	
												CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	**XW2R-J34GD-C4**	
		40	34	Slotted screw (rise up)	M3 (European type)	98.5	50	44.81			No	CJ1W-OD231 CJ1W-OD261	**XW2R-E34GD-C3**	
												CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	**XW2R-E34GD-C4**	

Note: For the combination of I/O Units with Connector-Terminal Block Conversion Units, refer to *2. Connecting Connector-Terminal Block Conversion Units*.
* Representative models only. For details, refer to the XW2K series Datasheet (Cat. No. G152) and XW2R Datasheet.

Connecting Cables for Connector-Terminal Block Conversion Units

Appearance	Connectors	Cable lenght [m]	Model
XW2Z-□□□B	One 40-pin FCN Connector to One 40-pin MIL Connector	0.5	**XW2Z-050B**
		1	**XW2Z-100B**
		1.5	**XW2Z-150B**
		2	**XW2Z-200B**
		3	**XW2Z-300B**
		5	**XW2Z-500B**
XW2Z-□□□K	One 40-pin MIL Connector to One 40-pin MIL Connector	0.5	**XW2Z-C50K**
		1	**XW2Z-100K**
		1.5	**XW2Z-150K**
		2	**XW2Z-200K**
		3	**XW2Z-300K**
		5	**XW2Z-500K**

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	
		Inputs — 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 *7	
High-capacity, space-saving	G70R	Outputs	Relay outputs	NPN	8 (SPSTNO × 8)	10 A	24 VDC	136	93	55	Yes	Yes	G70R-SOC08 *7	–

*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.
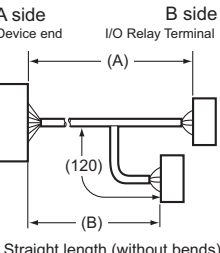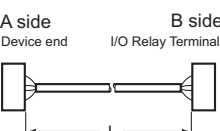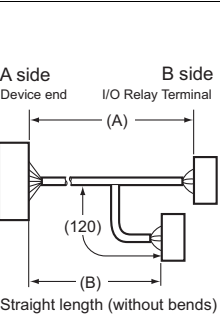*7. Product no longer available to order.
Note: 1. For the combination of Input Units with I/O Relay Terminal and Connecting Cables, refer to *3. Connecting I/O Relay Terminals*.
    2. Please refer to each Datasheet about details.
    3. When the G7TC is used with an AC rated voltage, three rated currents 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/OTAX connectors (24 pins)	Cables with Connectors (1:1) XW2Z-R□C	16 I/O points	A side Device end — B side I/O Relay Terminal — L	1,000		**XW2Z-R100C**
				1,500		**XW2Z-R150C**
				2,000		**XW2Z-R200C**
				3,000		**XW2Z-R300C**
				5,000		**XW2Z-R500C**
Fujitsu/OTAX connectors (40 pins)	Cables with Connectors (1:2) XW2Z-RI□C-□ XW2Z-RO□C-□	32 input points	A side Device end — B side I/O Relay Terminal — (A) (120) (B) 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	A side Device end — B side I/O Relay Terminal — L	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 side Device end — B side I/O Relay Terminal — (A) (120) (B) 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).
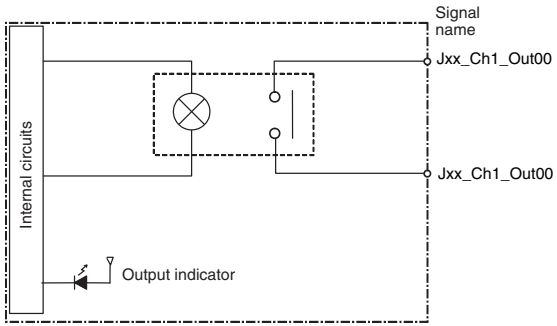
Mountable Racks

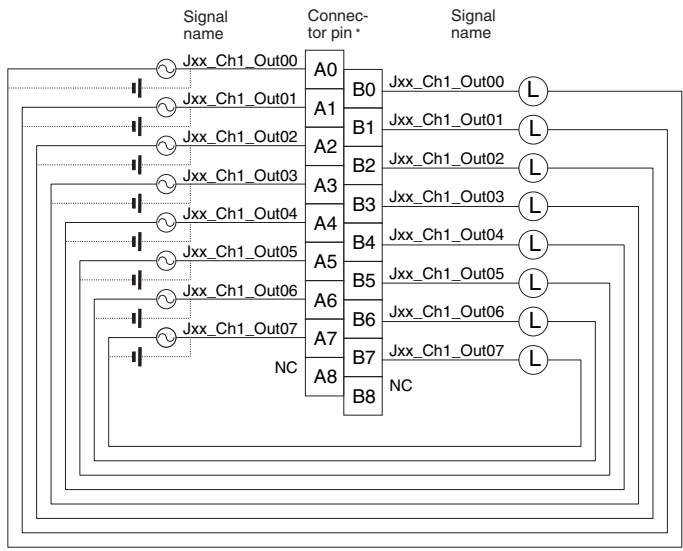| Model	NJ system		CJ system (CJ1, CJ2)		CP1H system	NSJ system*	
	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane
CJ1W-OC201	10 Units	10 Units (Per Expansion Rack)	10 Units	10 Units (Per Expansion Backplane)	Not Supported	Not Supported	10 Units (Per Expansion Backplane)
CJ1W-OC211							
CJ1W-OA201							
CJ1W-OD201							
CJ1W-OD203							
CJ1W-OD211							
CJ1W-OD213							
CJ1W-OD231							
CJ1W-OD233							
CJ1W-OD234							
CJ1W-OD261							
CJ1W-OD263							
CJ1W-OD202							
CJ1W-OD204							
CJ1W-OD212							
CJ1W-OD232							
CJ1W-OD262							

* Product no longer available to order.

Specifications

CJ1W-OC201 Contact Output Unit (Independent Relays, 8 Points)

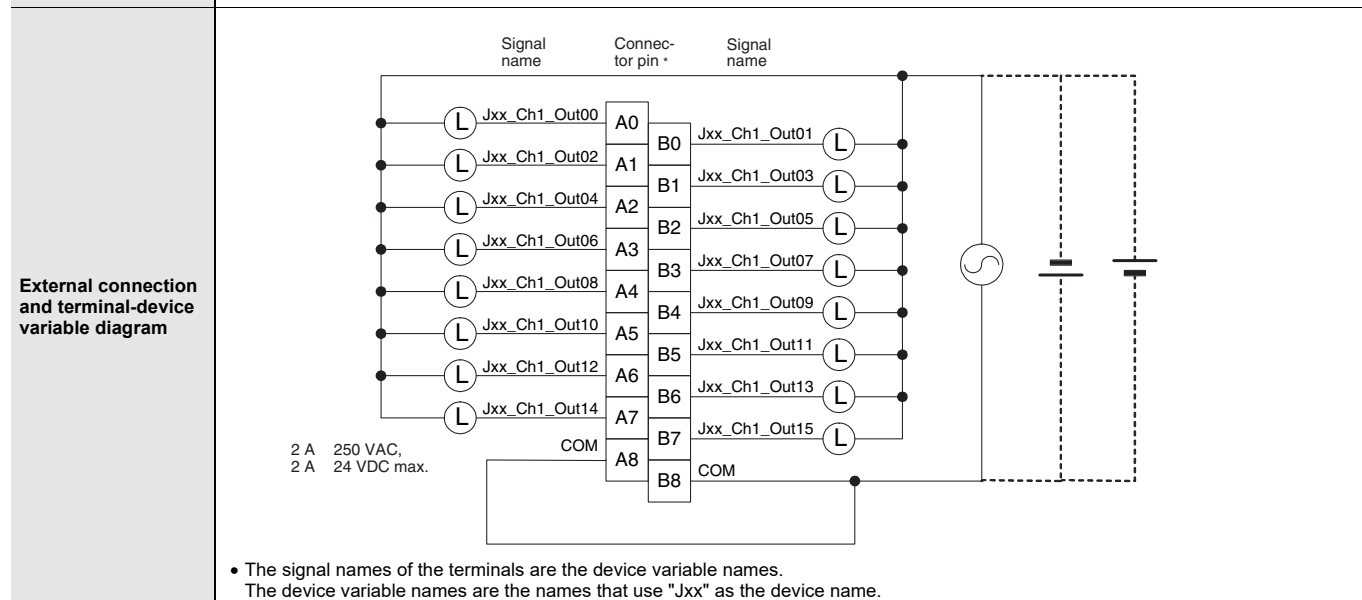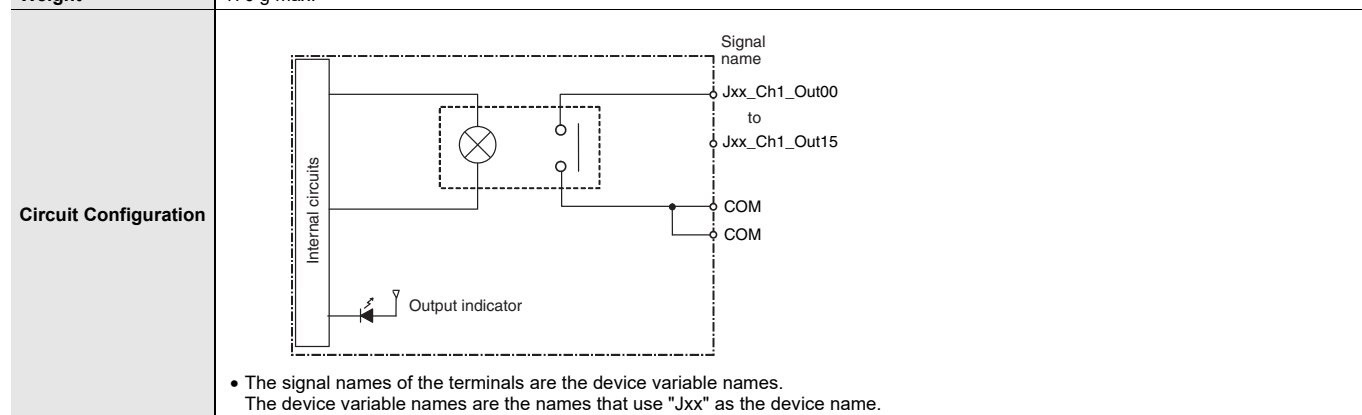| Name	8-point Contact Output Unit with Terminal Block (Independent Relays)
Model	CJ1W-OC201
Max. Switching Capacity	2 A 250 VAC (cosφ = 1), 2 A 250 VAC (cosφ = 0.4), 2 A 24 VDC (16 A/Unit)
Min. Switching Capacity	1 mA 5 VDC
Relays	NY-24W-K-IE (Fujitsu Takamizawa Components, Ltd.), Cannot be replaced.
Service Life of Relay	Electrical: 150,000 operations (24 VDC, resistive load)/100,000 operations (240 VAC, cosφ = 0.4, inductive load) Mechanical: 20,000,000 operations Service life will vary depending on the connected load.
ON Response Time	15 ms max.
OFF Response Time	15 ms max.
Number of Circuits	8 independent contacts
Insulation Resistance	20 MΩ between external terminals and the GR terminal (500 VDC)
Dielectric Strength	2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
Internal Current Consumption	90 mA 5 VDC max. 48 mA 24 VDC max. (6 mA × No. of ON points)
Weight	140 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	 • 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 supply polarity can be connected in either direction.

* 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-OC211 Contact Output Unit (16 Points)

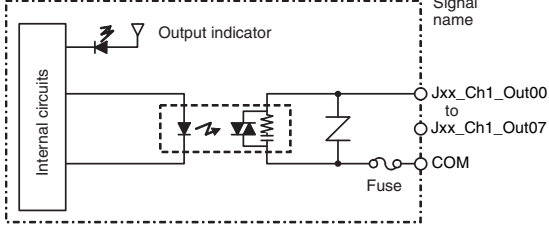| Name	16-point Contact Output Unit with Terminal Block
Model	CJ1W-OC211
Max. Switching Capacity	2 A 250 VAC (cosϕ = 1), 2 A 250 VAC (cosϕ = 0.4), 2 A 24 VDC (8 A/Unit)
Min. Switching Capacity	1 mA 5 VDC
Relays	NY-24W-K-IE (Fujitsu Takamizawa Components, Ltd.), Cannot be replaced.
Service Life of Relay	Electrical: 150,000 operations (24 VDC, resistive load)/ 100,000 operations (250 VAC, cosϕ = 0.4, inductive load) Mechanical: 20,000,000 operations Service life will vary depending on the connected load.
ON Response Time	15 ms max.
OFF Response Time	15 ms max.
Number of Circuits	16 points/common, 1 circuit
Insulation Resistance	20 MΩ between external terminals and the GR terminal (500 VDC)
Dielectric Strength	2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
Internal Current Consumption	110 mA 5 VDC max. 96 mA 24 VDC max. (6 mA $\times$ No. of ON points)
Weight	170 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	 • 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.

* 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-OA201 Triac Output Unit (8 Points)

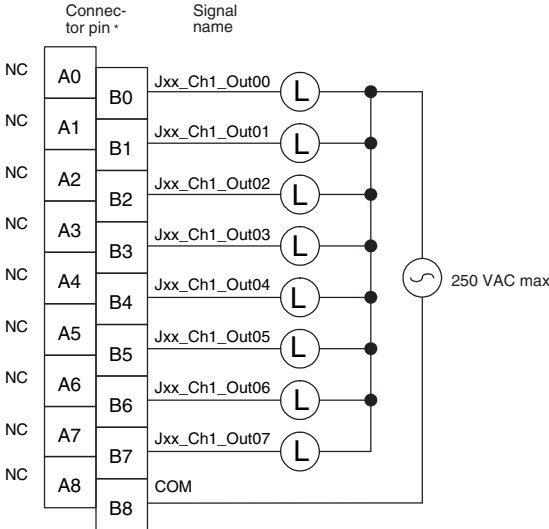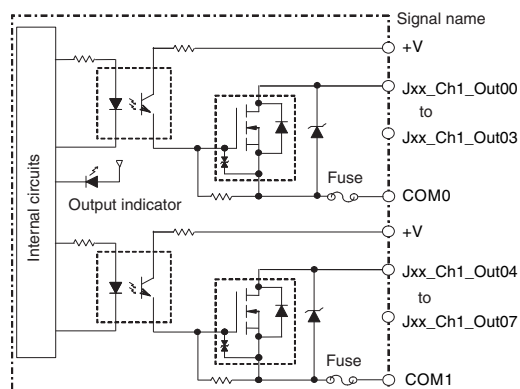| Name	8-point Triac Output Unit with Terminal Block
Model	CJ1W-OA201
Max. Switching Capacity	0.6 A 250 VAC, 50/60 Hz (2.4 A/Unit)
Max. Inrush Current	15 A (pulse width: 10 ms max.)
Min. Switching Capacity	50 mA 75 VAC
Leakage Current	1.5 mA (200 VAC) max.
Residual Voltage	1.6 VAC max.
ON Response Time	1 ms max.
OFF Response Time	1/2 of load frequency + 1 ms or less.
Number of Circuits	8 (8 points/common, 1 circuit)
Surge Protector	C.R Absorber + Surge Absorber
Fuses	5 A (1/common, 1 used) The fuse cannot be replaced by the user.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (500 VDC)
Dielectric Strength	2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.
Internal Current Consumption	220 mA max.
Weight	150 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	 • 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.

* 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.
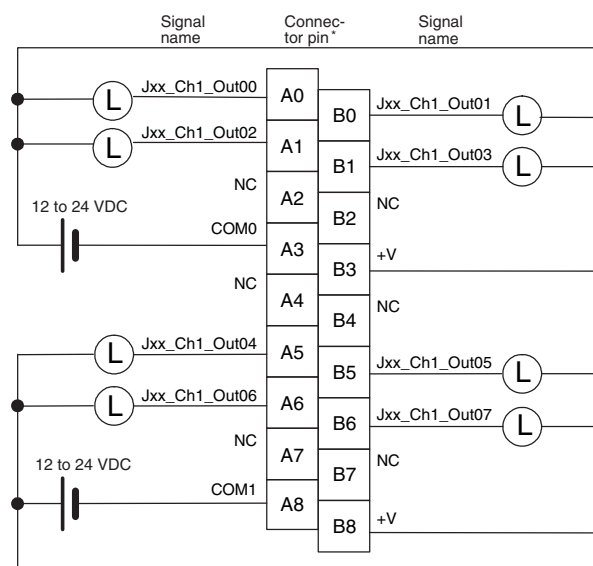
CJ1W-OD201 Transistor Output Unit (8 Points)

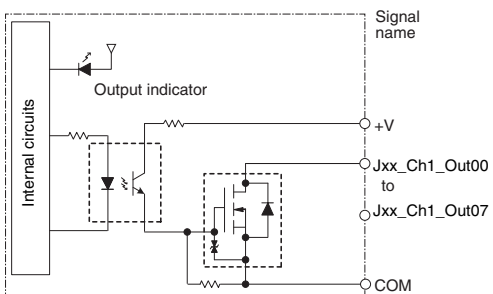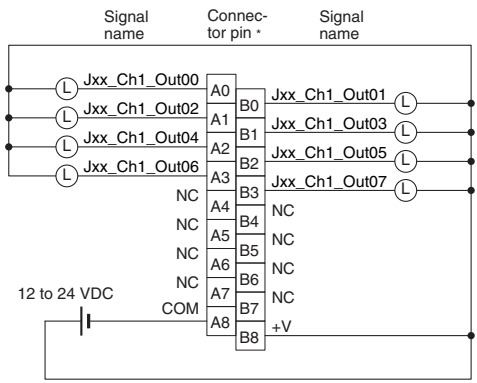| Name	8-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD201
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	2.0 A/point, 8.0 A/Unit
Maximum Inrush Current	10 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	8 (4 points/common, 2 circuits)
Internal Current Consumption	90 mA max.
Fuse	6.3 A (1/common, 2 used) The fuse cannot be replaced by the user.
External Power Supply	10.2 to 26.4 VDC, 10 mA min.
Weight	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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD203 Transistor Output Unit (8 Points)

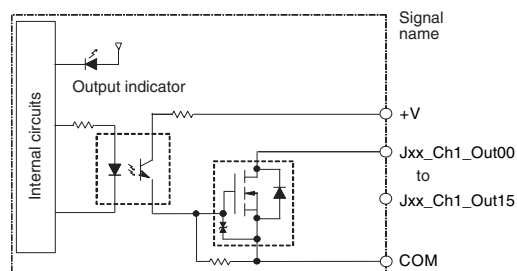| Name	8-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD203
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 4.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
OFF Response Time	0.8 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	8 (8 points/common, 1 circuit)
Internal Current Consumption	100 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 20 mA min.
Weight	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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD211 Transistor Output Unit (16 Points)

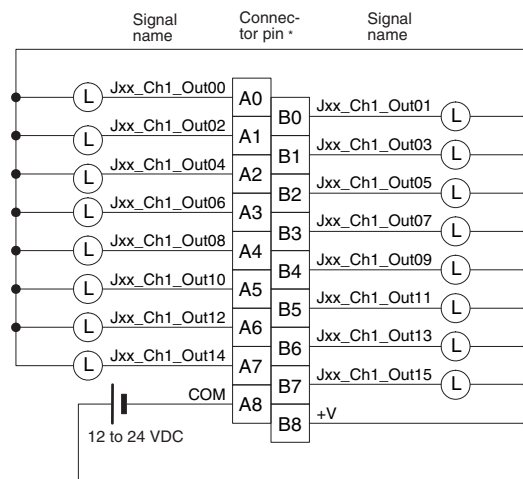| Name	16-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD211
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 5.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
OFF Response Time	0.8 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	16 (16 points/common, 1 circuit)
Internal Current Consumption	5 VDC 100 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 20 mA min.
Weight	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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD213 Transistor Output Unit (16 Points)

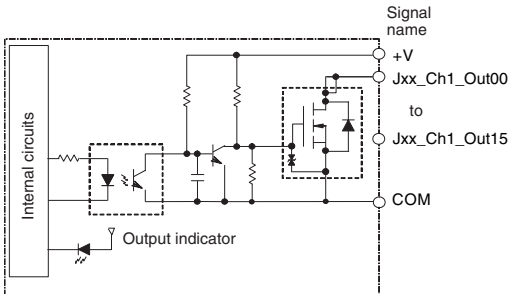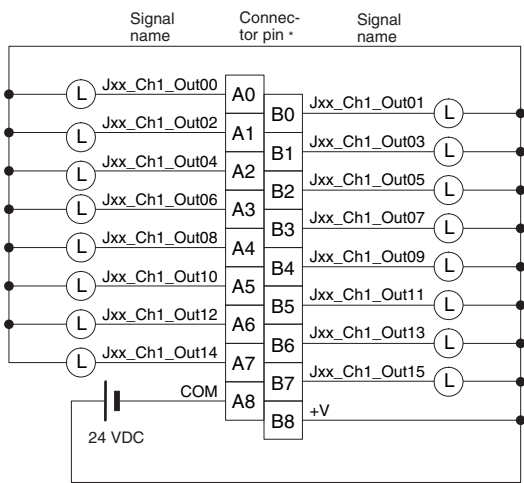| Name	16-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD213
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 5.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	15 μs max.
OFF Response Time	80 μs max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	16 (16 points/common, 1 circuit)
Internal Current Consumption	5 VDC 150 mA max.
Fuse	None
External Power Supply	20.4 to 26.4 VDC, 55 mA min.
Weight	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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD231 Transistor Output Unit (32 Points)

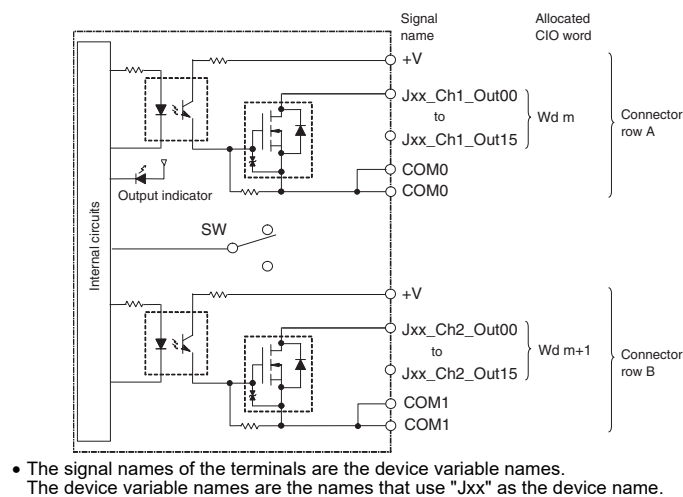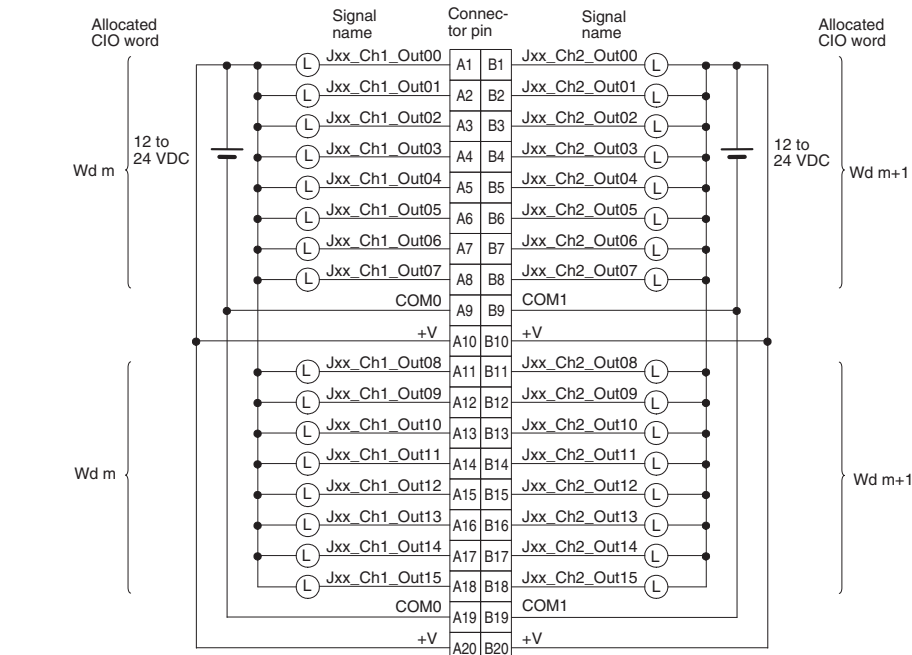| Name	32-point Transistor Output Unit with Fujitsu / OTAX Connector (Sinking Outputs)
Model	CJ1W-OD231
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/common, 4.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
OFF Response Time	0.8 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	32 (16 points/common, 2 circuits)
Internal Current Consumption	5 VDC 140 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 30 mA min.
Weight	70 g max.
Accessories	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	• 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 A9 and A19 (COM0). • Be sure to wire both terminals B9 and B19 (COM1). • Be sure to wire both terminals A10 and A20 (+V). • Be sure to wire both terminals B10 and B20 (+V). • 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.

CJ1W-OD233 Transistor Output Unit (32 Points)

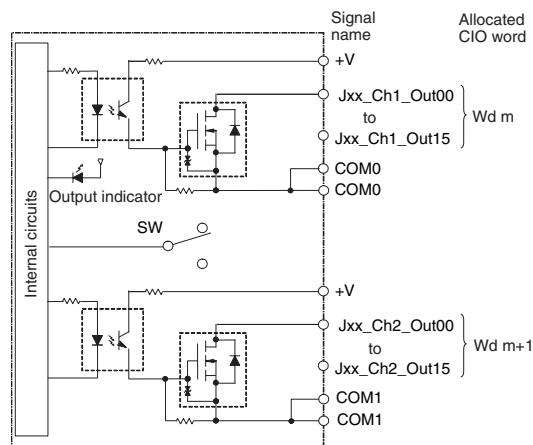| Name	32-point Transistor Output Unit with MIL Connector (Sinking Outputs)
Model	CJ1W-OD233
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2 A/common, 4 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
OFF Response Time	0.8 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	32 (16 points/common, 2 circuits)
Internal Current Consumption	140 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 30 mA min.
Weight	70 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	 • 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). • Be sure to wire both terminals 3 and 4 (COM1). • Be sure to wire both terminals 21 and 22 (+V). • Be sure to wire both terminals 1 and 2 (+V). • 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.

CJ1W-OD234 Transistor Output Unit (32 Points)

Name	32-point Transistor Output Unit with MIL Connector (Sinking Outputs)
Model	CJ1W-OD234
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2 A/common, 4 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	15 μs max.
OFF Response Time	80 μs max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	32 (16 points/common, 2 circuits)
Internal Current Consumption	220 mA max.
Fuse	None
External Power Supply	20.4 to 26.4 VDC, 110 mA min.
Weight	70 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. |
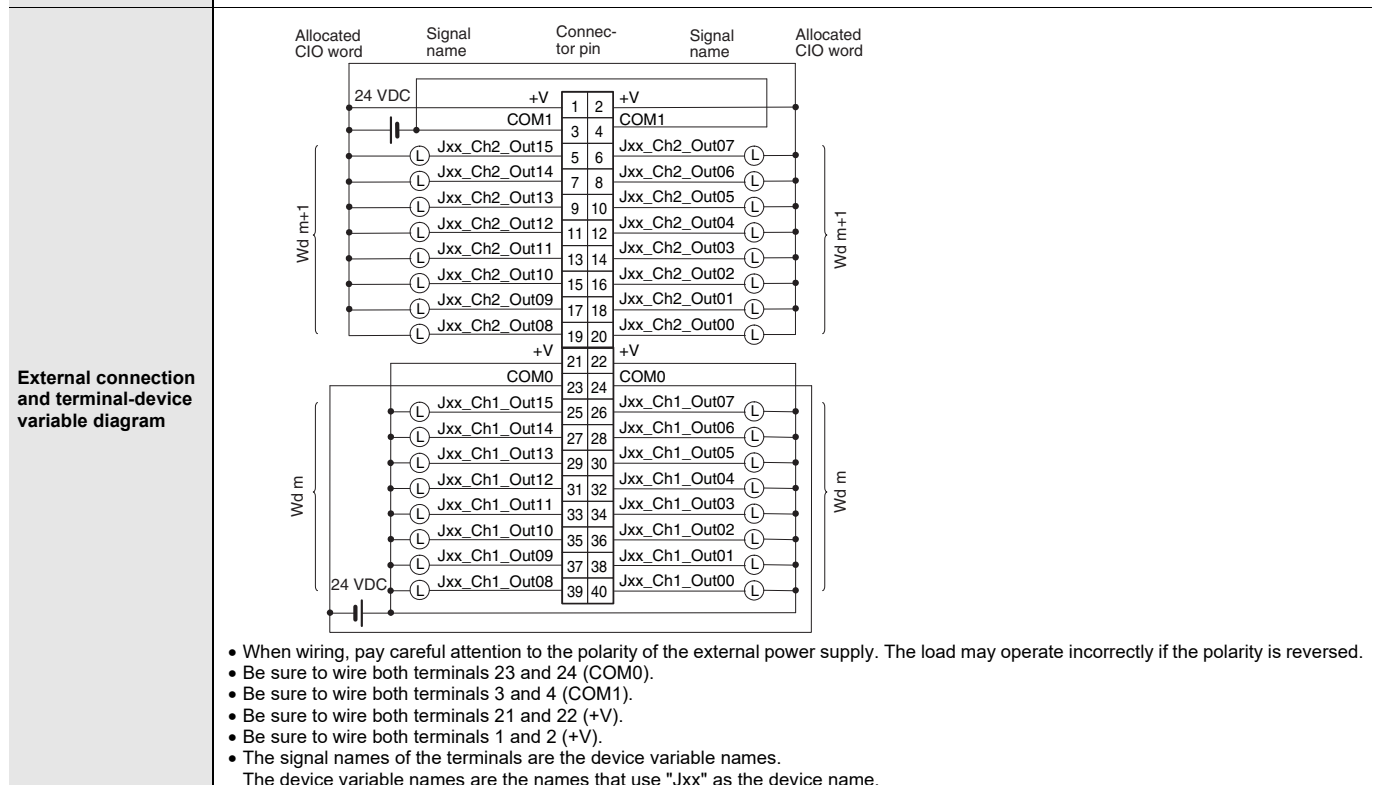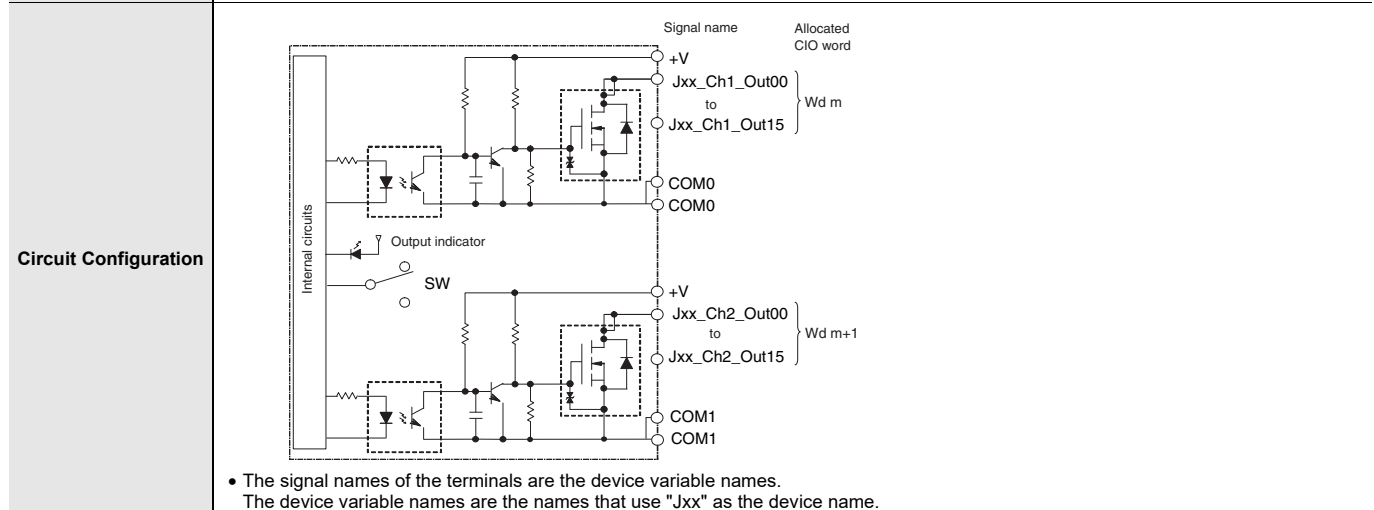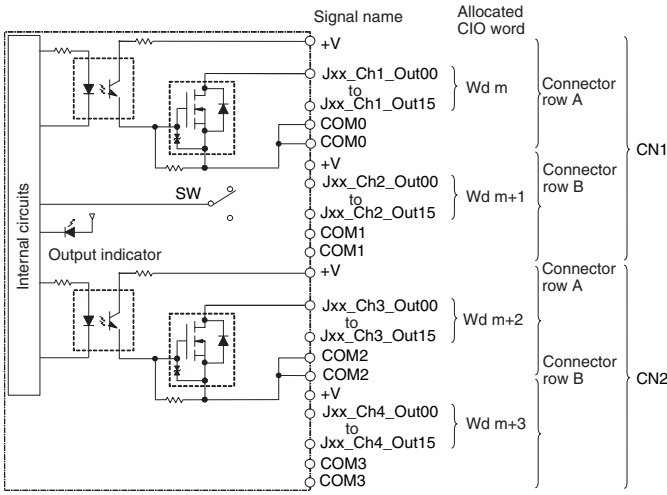| External connection and terminal-device variable diagram |
• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
• Be sure to wire both terminals 23 and 24 (COM0).
• Be sure to wire both terminals 3 and 4 (COM1).
• Be sure to wire both terminals 21 and 22 (+V).
• Be sure to wire both terminals 1 and 2 (+V).
• 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. |
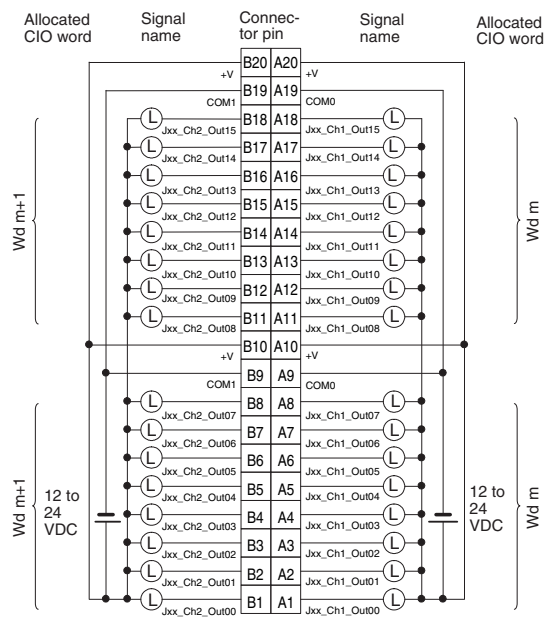
CJ1W-OD261 Transistor Output Unit (64 Points)

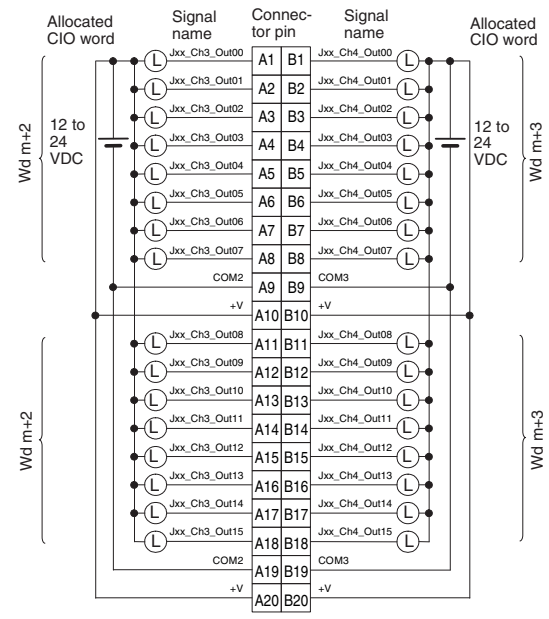| Name	64-point Transistor Output Unit with Fujitsu / OTAX Connectors (Sinking Outputs)
Model	CJ1W-OD261
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit
Maximum Inrush Current	3.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	64 (16 points/common, 4 circuits)
Internal Current Consumption	5 VDC, 170 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 50 mA min.
Weight	110 g max.
Accessories	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

Allocated CIO word	Signal name	Connector pin	Signal name	Allocated CIO word

CN1 terminal assignments:

Pin	Signal	Pin	Signal
B20	+V	A20	+V
B19	COM1	A19	COM0
B18	Jxx_Ch2_Out15	A18	Jxx_Ch1_Out15
B17	Jxx_Ch2_Out14	A17	Jxx_Ch1_Out14
B16	Jxx_Ch2_Out13	A16	Jxx_Ch1_Out13
B15	Jxx_Ch2_Out12	A15	Jxx_Ch1_Out12
B14	Jxx_Ch2_Out11	A14	Jxx_Ch1_Out11
B13	Jxx_Ch2_Out10	A13	Jxx_Ch1_Out10
B12	Jxx_Ch2_Out09	A12	Jxx_Ch1_Out09
B11	Jxx_Ch2_Out08	A11	Jxx_Ch1_Out08
B10	+V	A10	+V
B9	COM1	A9	COM0
B8	Jxx_Ch2_Out07	A8	Jxx_Ch1_Out07
B7	Jxx_Ch2_Out06	A7	Jxx_Ch1_Out06
B6	Jxx_Ch2_Out05	A6	Jxx_Ch1_Out05
B5	Jxx_Ch2_Out04	A5	Jxx_Ch1_Out04
B4	Jxx_Ch2_Out03	A4	Jxx_Ch1_Out03
B3	Jxx_Ch2_Out02	A3	Jxx_Ch1_Out02
B2	Jxx_Ch2_Out01	A2	Jxx_Ch1_Out01
B1	Jxx_Ch2_Out00	A1	Jxx_Ch1_Out00

Wd m+1 / 12 to 24 VDC (left side); Wd m / 12 to 24 VDC (right side)

- 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 A9 and A19 (COM0) of CN1.
- Be sure to wire both terminals B9 and B19 (COM1) of CN1.
- Be sure to wire both terminals A10 and A20 (+V) of CN1.
- Be sure to wire both terminals B10 and B20 (+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.
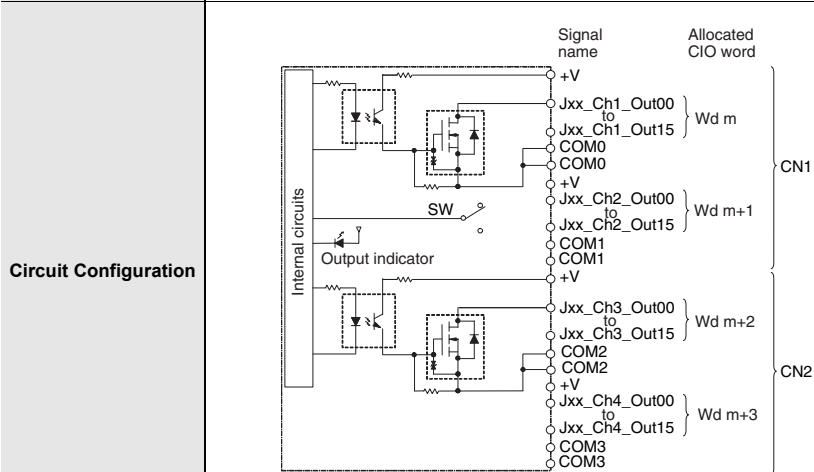
CN2

Allocated CIO word	Signal name	Connector pin	Signal name	Allocated CIO word

CN2 terminal assignments:

Pin	Signal	Pin	Signal
A1	Jxx_Ch3_Out00	B1	Jxx_Ch4_Out00
A2	Jxx_Ch3_Out01	B2	Jxx_Ch4_Out01
A3	Jxx_Ch3_Out02	B3	Jxx_Ch4_Out02
A4	Jxx_Ch3_Out03	B4	Jxx_Ch4_Out03
A5	Jxx_Ch3_Out04	B5	Jxx_Ch4_Out04
A6	Jxx_Ch3_Out05	B6	Jxx_Ch4_Out05
A7	Jxx_Ch3_Out06	B7	Jxx_Ch4_Out06
A8	Jxx_Ch3_Out07	B8	Jxx_Ch4_Out07
A9	COM2	B9	COM3
A10	+V	B10	+V
A11	Jxx_Ch3_Out08	B11	Jxx_Ch4_Out08
A12	Jxx_Ch3_Out09	B12	Jxx_Ch4_Out09
A13	Jxx_Ch3_Out10	B13	Jxx_Ch4_Out10
A14	Jxx_Ch3_Out11	B14	Jxx_Ch4_Out11
A15	Jxx_Ch3_Out12	B15	Jxx_Ch4_Out12
A16	Jxx_Ch3_Out13	B16	Jxx_Ch4_Out13
A17	Jxx_Ch3_Out14	B17	Jxx_Ch4_Out14
A18	Jxx_Ch3_Out15	B18	Jxx_Ch4_Out15
A19	COM2	B19	COM3
A20	+V	B20	+V

Wd m+2 / 12 to 24 VDC (left side); Wd m+3 / 12 to 24 VDC (right side)

- 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 A9 and A19 (COM2) of CN2.
- Be sure to wire both terminals B9 and B19 (COM3) of CN2.
- Be sure to wire both terminals A10 and A20 (+V) of CN2.
- Be sure to wire both terminals B10 and B20 (+V) of CN2.
- 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.

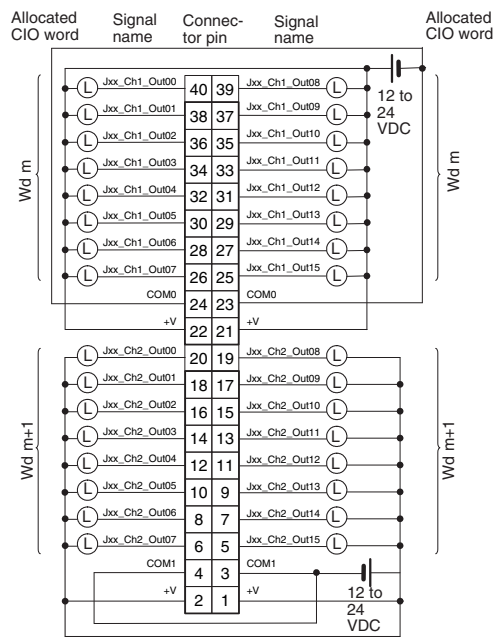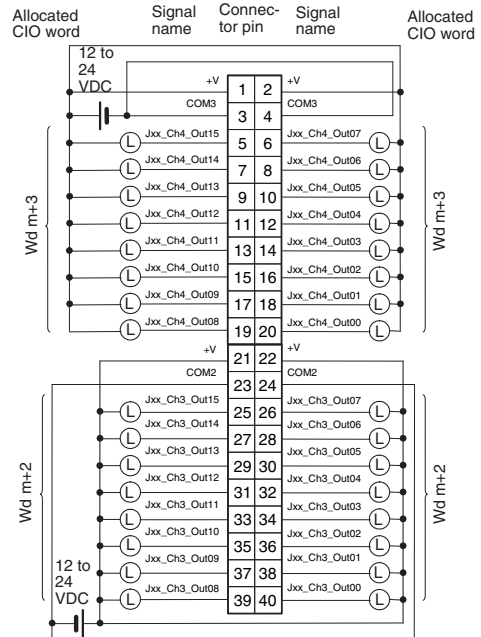# CJ1W-OD263 Transistor Output Unit (64 Points)

Name	64-point Transistor Output Unit with MIL Connectors (Sinking Outputs)
Model	CJ1W-OD263
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit
Maximum Inrush Current	3.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	64 (16 points/common, 4 circuits)
Internal Current Consumption	170 mA max.
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 50 mA min.
Weight	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

CN1

Wd m

Allocated CIO word	Signal name	Connector pin		Signal name	Allocated CIO word
	Jxx_Ch1_Out00	40	39	Jxx_Ch1_Out08	
	Jxx_Ch1_Out01	38	37	Jxx_Ch1_Out09	
	Jxx_Ch1_Out02	36	35	Jxx_Ch1_Out10	
	Jxx_Ch1_Out03	34	33	Jxx_Ch1_Out11	
	Jxx_Ch1_Out04	32	31	Jxx_Ch1_Out12	
	Jxx_Ch1_Out05	30	29	Jxx_Ch1_Out13	
	Jxx_Ch1_Out06	28	27	Jxx_Ch1_Out14	
	Jxx_Ch1_Out07	26	25	Jxx_Ch1_Out15	
	COM0	24	23	COM0	
	+V	22	21	+V	

12 to 24 VDC

Wd m+1

	Jxx_Ch2_Out00	20	19	Jxx_Ch2_Out08	
	Jxx_Ch2_Out01	18	17	Jxx_Ch2_Out09	
	Jxx_Ch2_Out02	16	15	Jxx_Ch2_Out10	
	Jxx_Ch2_Out03	14	13	Jxx_Ch2_Out11	
	Jxx_Ch2_Out04	12	11	Jxx_Ch2_Out12	
	Jxx_Ch2_Out05	10	9	Jxx_Ch2_Out13	
	Jxx_Ch2_Out06	8	7	Jxx_Ch2_Out14	
	Jxx_Ch2_Out07	6	5	Jxx_Ch2_Out15	
	COM1	4	3	COM1	
	+V	2	1	+V	

12 to 24 VDC

- 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.
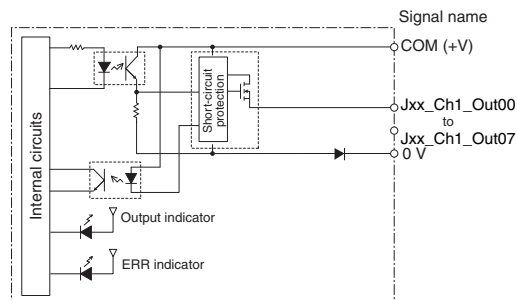
CN2

12 to 24 VDC

Wd m+3

Allocated CIO word	Signal name	Connector pin		Signal name	Allocated CIO word
	+V	1	2	+V	
	COM3	3	4	COM3	
	Jxx_Ch4_Out15	5	6	Jxx_Ch4_Out07	
	Jxx_Ch4_Out14	7	8	Jxx_Ch4_Out06	
	Jxx_Ch4_Out13	9	10	Jxx_Ch4_Out05	
	Jxx_Ch4_Out12	11	12	Jxx_Ch4_Out04	
	Jxx_Ch4_Out11	13	14	Jxx_Ch4_Out03	
	Jxx_Ch4_Out10	15	16	Jxx_Ch4_Out02	
	Jxx_Ch4_Out09	17	18	Jxx_Ch4_Out01	
	Jxx_Ch4_Out08	19	20	Jxx_Ch4_Out00	
	+V	21	22	+V	
	COM2	23	24	COM2	

Wd m+2

	Jxx_Ch3_Out15	25	26	Jxx_Ch3_Out07	
	Jxx_Ch3_Out14	27	28	Jxx_Ch3_Out06	
	Jxx_Ch3_Out13	29	30	Jxx_Ch3_Out05	
	Jxx_Ch3_Out12	31	32	Jxx_Ch3_Out04	
	Jxx_Ch3_Out11	33	34	Jxx_Ch3_Out03	
	Jxx_Ch3_Out10	35	36	Jxx_Ch3_Out02	
	Jxx_Ch3_Out09	37	38	Jxx_Ch3_Out01	
	Jxx_Ch3_Out08	39	40	Jxx_Ch3_Out00	

12 to 24 VDC

- 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 (COM2) of CN2.
- Be sure to wire both terminals 3 and 4 (COM3) of CN2.
- Be sure to wire both terminals 21 and 22 (+V) of CN2.
- Be sure to wire both terminals 1 and 2 (+V) of CN2.
- 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.

CJ1W-OD202 Transistor Output Unit (8 Points)

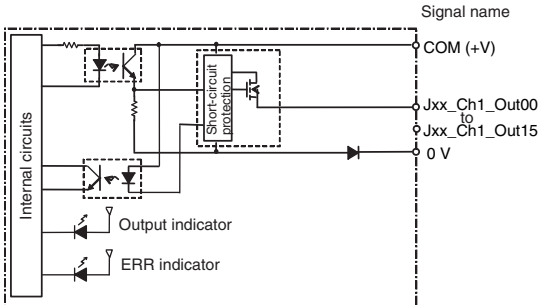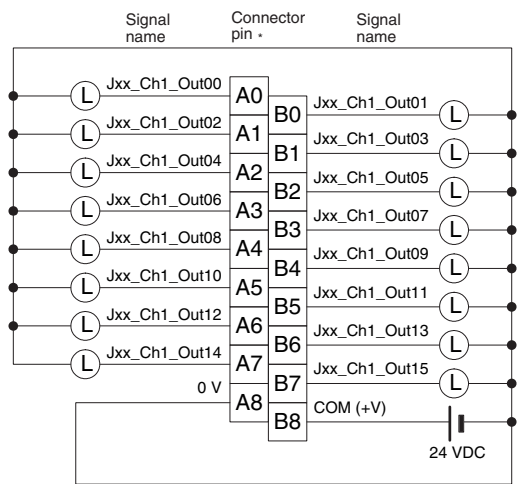| Name	8-point Transistor Output Unit with Terminal Block (Sourcing Outputs)
Model	CJ1W-OD202
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	2 A/point, 8 A/Unit
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Load Short-circuit Protection	Detection current: 6 A min. Automatic restart after error clearance.
Line Disconnection Detection	Detection current: 200 mA
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	8 (4 points/common, 2 circuits)
Internal Current Consumption	110 mA max.
Fuse	None
External Power Supply	20.4 to 26.4 VDC, 50 mA min.
Weight	120 g max.
Circuit Configuration	 • When overcurrent or line disconnection is detected, the ERR indicator will light, and the corresponding bit (two points per bit) in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE. • 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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD204 Transistor Output Unit (8 Points)

Name	8-point Transistor Output Unit with Terminal Block (Sourcing Outputs)
Model	CJ1W-OD204
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 4.0 A/Unit
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Load Short-circuit Protection	Detection current: 0.7 to 2.5 A Automatic restart after error clearance.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	8 (8 points/common, 1 circuit)
Internal Current Consumption	5 VDC, 100 mA max.
Fuse	None
External Power Supply	20.4 to 26.4 VDC, 40 mA min.
Weight	120 g max.
Circuit Configuration	 • When overcurrent is detected, the ERR indicator will light, and the corresponding bit in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE. • 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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD212 Transistor Output Unit (16 Points)

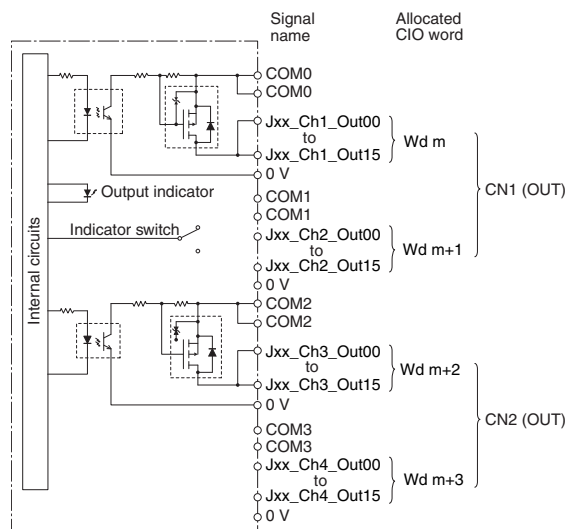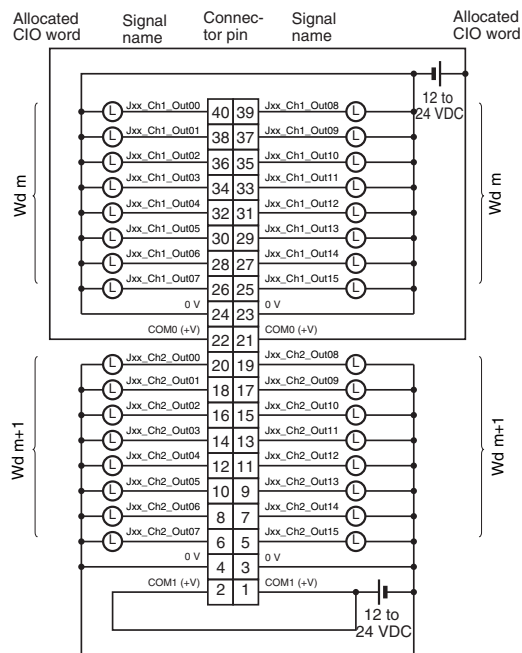|	
Name	16-point Transistor Output Unit with Terminal Block (Sourcing Outputs)
Model	CJ1W-OD212
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 5.0 A/Unit
Maximum Inrush Current	0.1 mA max.
Leakage Current	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Load Short-circuit Protection	Detection current: 0.7 to 2.5 A Automatic restart after error clearance.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	16 (16 points/common, 1 circuit)
Internal Current Consumption	5 VDC, 100 mA max.
External Power Supply	20.4 to 26.4 VDC, 40 mA min.
Weight	120 g max.
Circuit Configuration	 • When overcurrent is detected, the ERR indicator will light, and the corresponding bit in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE. • 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	 • When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the 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.

* 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-OD232 Transistor Output Unit (32 Points)

| Name	32-point Transistor Output Unit with MIL Connector (Sourcing Outputs)
Model	CJ1W-OD232
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/common, 4.0 A/Unit
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Load Short-circuit Protection	Detection current: 0.7 to 2.5 A Automatic restart after error clearance.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	32 (16 points/common, 2 circuits)
Internal Current Consumption	5 VDC 150 mA max.
External Power Supply	20.4 to 26.4 VDC, 70 mA min.
Weight	80 g max.
Accessories	None
Circuit Configuration	 • When overcurrent is detected, the ERR indicator will light, and the corresponding bit (bit allocated for each common) in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE. • 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
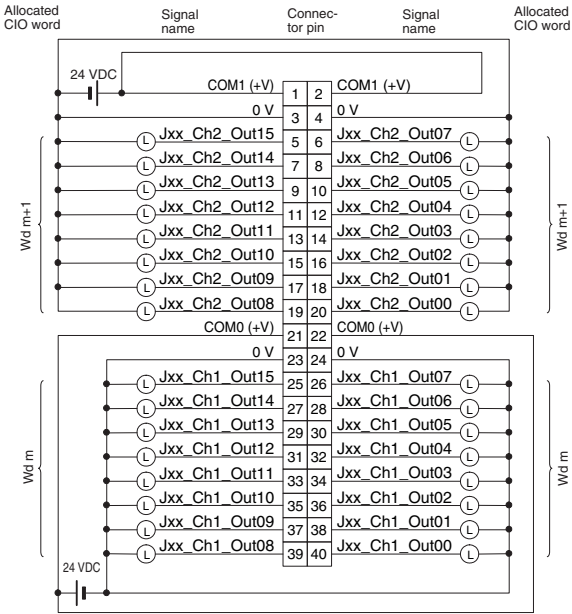
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- Be sure to wire both terminals 21 and 22 (COM0 (+V)).
- Be sure to wire both terminals 1 and 2 (COM1 (+V)).
- Be sure to wire both terminals 3 and 4 (0 V).
- Be sure to wire both terminals 23 and 24 (0 V).
- 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.

CJ1W-OD262 Transistor Output Unit (64 Points)

Name	64-point Transistor Output Unit with MIL Connectors (Sourcing Outputs)
Model	CJ1W-OD262
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit
Maximum Inrush Current	3.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response Time	1.0 ms max.
Insulation Resistance	20 MΩ between the external terminals and the GR terminal (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.
Number of Circuits	64 (16 points/common, 4 circuits)
Internal Current Consumption	170 mA max. (5 VDC)
Fuse	None
External Power Supply	10.2 to 26.4 VDC, 50 mA min.
Weight	110 g max.
Accessories	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.

	CN1	CN2

External connection and terminal-device variable diagram

CN1:

- 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 21 and 22 (COM0 (+V)) of CN1.
- Be sure to wire both terminals 1 and 2 (COM1 (+V)) of CN1.
- Be sure to wire both terminals 23 and 24 (0 V) of CN1.
- Be sure to wire both terminals 3 and 4 (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.

CN2:
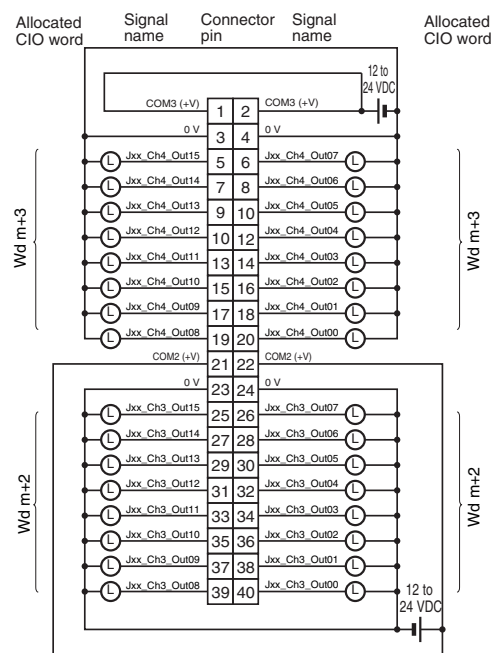
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- Be sure to wire both terminals 21 and 22 (COM2 (+V)) of CN2.
- Be sure to wire both terminals 1 and 2 (COM3 (+V)) of CN2.
- Be sure to wire both terminals 23 and 24 (0 V) of CN2.
- Be sure to wire both terminals 3 and 4 (0 V) of CN2.
- 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.

Bit Allocations for Output Unit

8-point Output Unit

Allocated CIO word		Signal name (CJ/NJ)
CIO	Bit	
Wd m (Output)	00	OUT0/Jxx_Ch1_Out00
	01	OUT1/Jxx_Ch1_Out01
	:	:
	06	OUT6/Jxx_Ch1_Out06
	07	OUT7/Jxx_Ch1_Out07
	08	–
	09	–
	:	:
	14	–
	15	–

16-point Output 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

32-point Output 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

64-point Output 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 (Output)	00	OUT0/Jxx_Ch3_Out00
	01	OUT1/Jxx_Ch3_Out01
	:	:
	14	OUT14/Jxx_Ch3_Out14
	15	OUT15/Jxx_Ch3_Out15
Wd m+3 (Output)	00	OUT0/Jxx_Ch4_Out00
	01	OUT1/Jxx_Ch4_Out01
	:	:
	14	OUT14/Jxx_Ch4_Out14
	15	OUT15/Jxx_Ch4_Out15

External Interface

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

Model number label

I/O indicators

OD211
0 1 2 3 4 5 6 7
8 9 10 11 12 13 14 15

Connector
Connect to the connector on the next Unit.

Terminal block for I/O wiring, 18P × 1

	ERR
0 1 2 3 4 5 6 7	
8 9 10 11 12 13 14 15	
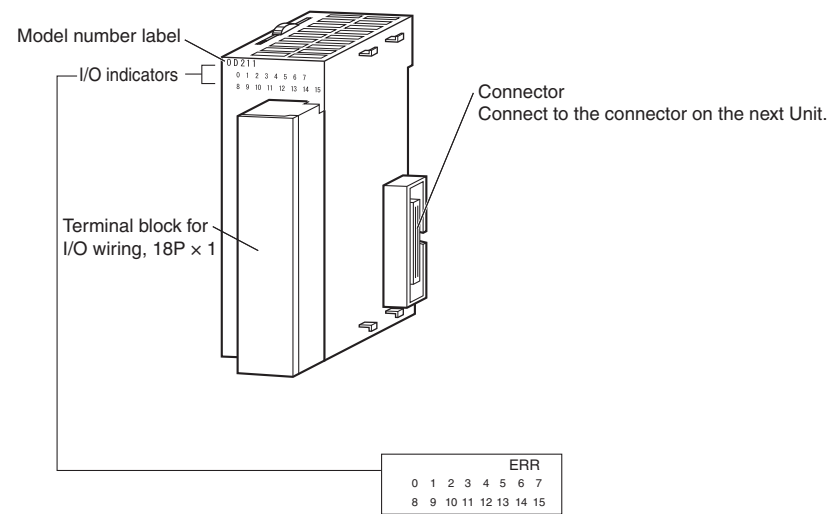
Note: The CJ1W-OD202, CJ1W-OD204, and CJ1W-OD212 also have an ERR indicator for the load short-circuit alarm.

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

Model number

I/O indicators

I/O wiring connector (40-pin × 1)

Indicator Switch

1 2

Changes the 16 I/O displayed on the I/O indicators.

	Fujitsu / OTAX connector	MIL connector
Setting 1	Wd m (Row A on connector)	Bottom of connector
Setting 2	Wd m+1 (Row B on connector)	Top of connector

Unit with Fujitsu / OTAX-compatible Connector

Unit with MIL Connector

Connector
Connected to the connector on the next Unit.

Word m or m+1

	ERR
0 1 2 3	
4 5 6 7	
8 9 10 11	
12 13 14 15	

Note: Only the CJ1W-OD232 has an ERR indicator for the load short-circuit alarm.

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

Model number

Indicator Switch

1　2

Changes the 32 I/O displayed on the I/O indicators.

| Setting 1 | Wd m and m+1: CN1 |
| Setting 2 | Wd m+2 and m+3: CN2 |

I/O indicators

I/O wiring connector (40-pin × 2)

Unit with Fujitsu / OTAX-compatible Connector

Unit with MIL Connector

Connector
Connected to the connector on the next Unit.

Word m or m+2 — I — 0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15

Word m+1 or m+3 — II — 0 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14 15
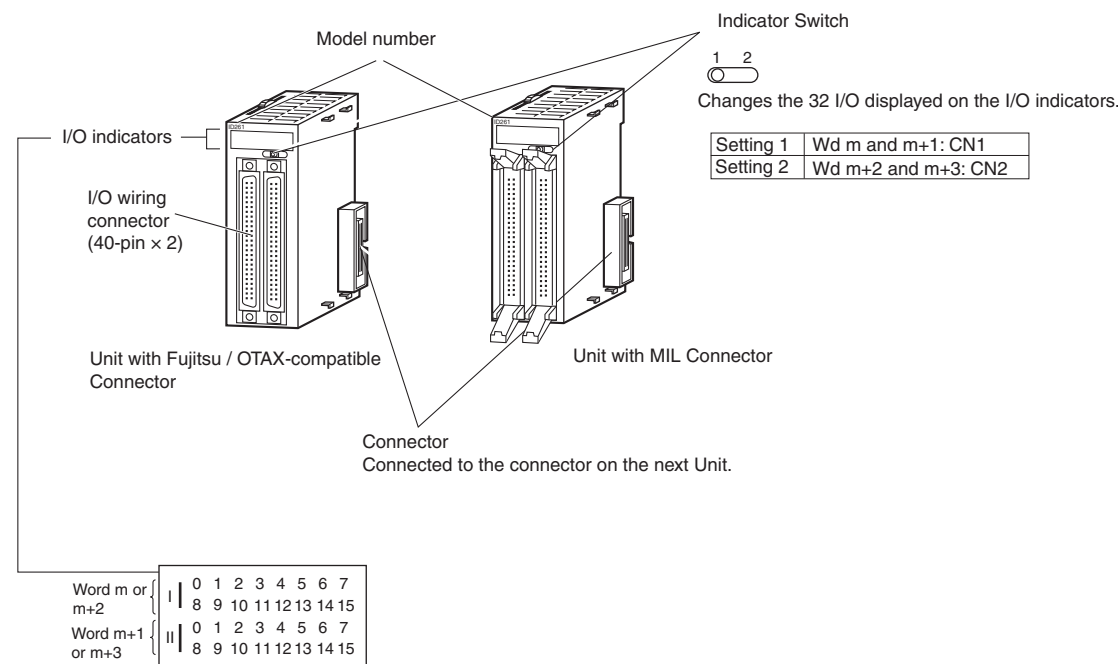
Wiring Basic I/O Units with Terminal Blocks

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^2)

Crimp terminals

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

6.2 mm max.

6.2 mm max.

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
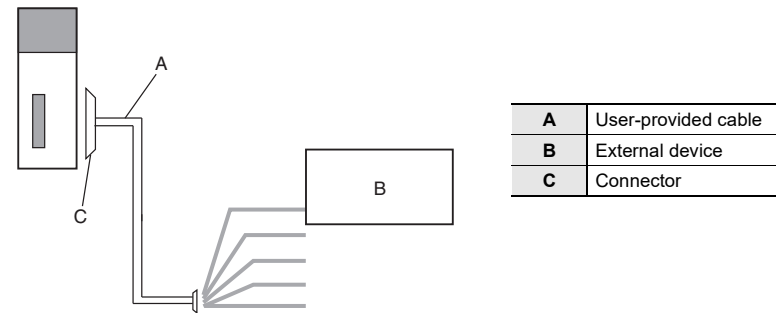
2. Connector-Terminal Block Conversion Unit
Use a Connecting Cable to connect to a Connector-Terminal Block Conversion Unit.
Converting the I/O Unit connector to a screw terminal block or push-in terminal block makes it easy to connect external devices.

A	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
B	Connector-Terminal Block Conversion Unit XW2☐
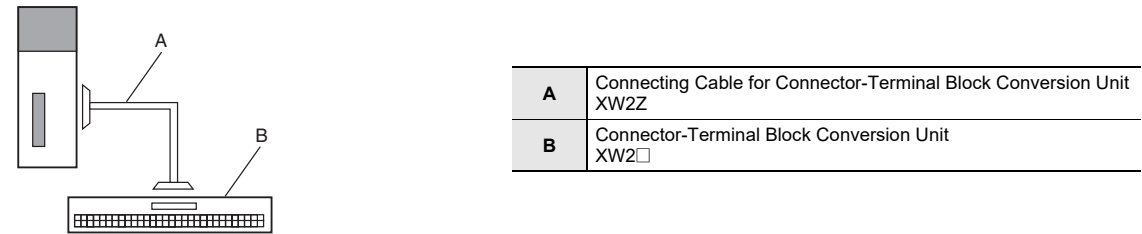
3. I/O Relay Terminal
Use a Connecting Cable to connect to an I/O Relay Terminal.
The I/O specifications can be converted to relay outputs and AC inputs by connecting the I/O Relay Terminal to an I/O Unit.

A	Connecting Cable for I/O Relay Terminals XW2Z-R
B	I/O Relay Terminals G70V, G7TC Relay Terminals G70D I/O Terminal Socket G70A Or, conversion to relay outputs and AC inputs.
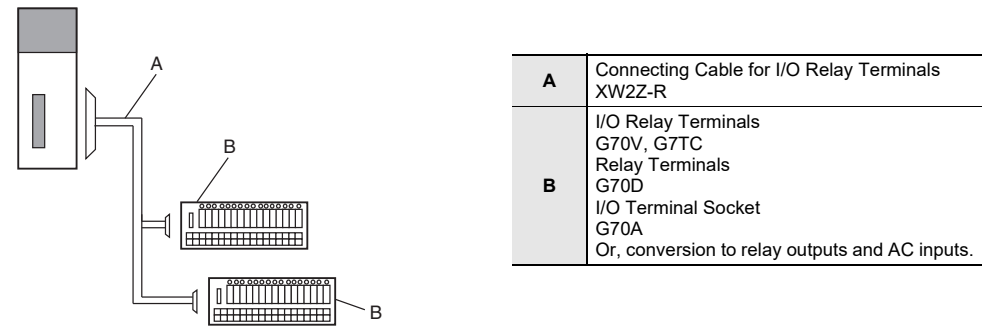
1. Using User-made Cables with Connector

Available Connectors

Use the following connectors when assembling a connector and cable.

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

Model	Specifications	Pins
CJ1W-OD231	Transistor Output Unit with Sinking Outputs, 32 outputs	40
CJ1W-OD261	Transistor Output Unit with Sinking Outputs, 64 outputs	

Applicable Cable-side Connectors

Connection	Pins	OMRON set	Fujitsu / OTAX parts	
Solder-type	40	C500-CE404	Socket: Connector cover:	Fujitsu FCN-361J040-AU Fujitsu FCN-360C040-J2 OTAX N360C040J2
Crimped	40	C500-CE405	Socket: Connector cover: Contacts:	Fujitsu FCN-363J040 OTAX N363J040 Fujitsu FCN-360C040-J2 OTAX N360C040J2 Fujitsu FCN-363J-AU OTAX N363JAU
Pressure-welded	40	C500-CE403	Fujitsu FCN-367J040-AU/F	

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

Model	Specifications	Pins
CJ1W-OD232	Transistor Output Unit with sourcing outputs, 32 outputs	40
CJ1W-OD262	Transistor Output Unit with sourcing outputs, 64 outputs	
CJ1W-OD233 CJ1W-OD234	Transistor Output Unit with sinking outputs, 32 outputs	
CJ1W-OD263	Transistor Output Unit with sinking outputs, 64 outputs	

Applicable Cable-side Connectors

Connection	Pins	OMRON set	DDK parts
Pressure-welded	40	XG4M-4030-T *1	FRC5-A040-3T0S
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 / OTAX 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
A	Connecting Cable Connector-Terminal Block Conversion Unit
B	Connecting Cable Connector-Terminal Block Conversion Unit
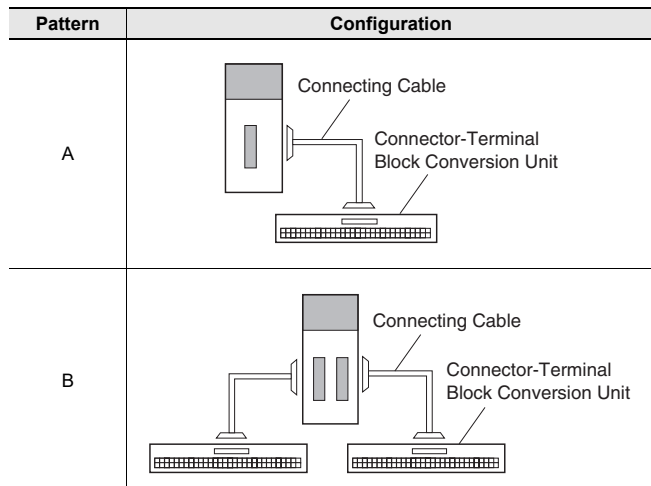
Combination of I/O Units with Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals
CJ1W-OD231	32 outputs	1 Fujitsu / OTAX connector	NPN	A	XW2Z-□□□B	XW2K-40G-O32B	Push-In Plus	No
						XW2K-40G-O32B-OUT	Push-In Plus	Yes
						XW2R-J34GD-C3	Phillips screw	No
						XW2R-E34GD-C3	Slotted screw (rise up)	No
CJ1W-OD232	32 outputs	1 MIL connector	PNP	A	XW2Z-□□□K	XW2K-40G-O32C	Push-In Plus	No
						XW2K-40G-O32C-OUT	Push-In Plus	Yes
						XW2R-J34GD-C4	Phillips screw	No
						XW2R-E34GD-C4	Slotted screw (rise up)	No
CJ1W-OD233	32 outputs	1 MIL connector	NPN	A	XW2Z-□□□K	XW2K-40G-O32C	Push-In Plus	No
						XW2K-40G-O32C-OUT	Push-In Plus	Yes
						XW2R-J34GD-C4	Phillips screw	No
						XW2R-E34GD-C4	Slotted screw (rise up)	No
CJ1W-OD234	32 outputs	1 MIL connector	NPN	A	XW2Z-□□□K	XW2K-40G-O32C	Push-In Plus	No
						XW2K-40G-O32C-OUT	Push-In Plus	Yes
						XW2R-J34GD-C4	Phillips screw	No
						XW2R-E34GD-C4	Slotted screw (rise up)	No
CJ1W-OD261	64 outputs	2 Fujitsu / OTAX connectors	NPN	B	XW2Z-□□□B (2 pcs)	XW2K-40G-O32B (2 pcs)	Push-In Plus	No
						XW2K-40G-O32B-OUT (2 pcs)	Push-In Plus	No
						XW2R-J34GD-C3 (2 pcs)	Phillips screw	Yes
						XW2R-E34GD-C3 (2 pcs)	Slotted screw (rise up)	No
CJ1W-OD262	64 outputs	2 MIL connectors	PNP	B	XW2Z-□□□K (2 pcs)	XW2K-40G-O32C (2 pcs)	Push-In Plus	No
						XW2K-40G-O32C-OUT (2 pcs)	Push-In Plus	No
						XW2R-J34GD-C4 (2 pcs)	Phillips screw	Yes
						XW2R-E34GD-C4 (2 pcs)	Slotted screw (rise up)	No
CJ1W-OD263	64 outputs	2 MIL connectors	NPN	B	XW2Z-□□□K (2 pcs)	XW2K-40G-O32C (2 pcs)	Push-In Plus	No
						XW2K-40G-O32C-OUT (2 pcs)	Push-In Plus	Yes
						XW2R-J34GD-C4 (2 pcs)	Phillips screw	No
						XW2R-E34GD-C4 (2 pcs)	Slotted screw (rise up)	No

* The box □ is replaced by the cable length.
Note: For details, refer to the XW2K series Datasheet (Cat. No. G152) and XW2R Datasheet.

3. Connecting I/O Relay Terminals

Connection Patterns for I/O Relay Terminals

Pattern	Configuration
A	
B	
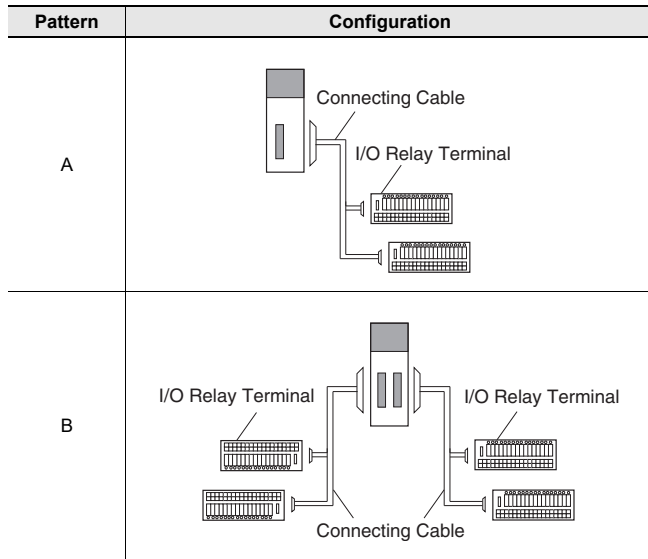
Combination of I/O Units with I/O Relay Terminals and Connecting Cables

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-OD231	32 outputs	1 Fujitsu / OTAX connector (40 p)	Sinking (NPN)	A	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 *2	16		
CJ1W-OD232	32 outputs	1 MIL connector (40 p)	Sourcing (PNP)	A	XW2Z-RO☐-☐-D1	1	G70A-ZOC16-4 *2	16	2	Screw terminal
							G70D-SOC/FOM16-1	16		
					XW2Z-RI☐-☐-D1	1	G7TC-OC16-1	16		
CJ1W-OD233	32 outputs	1 MIL connector (40 p)	Sinking (NPN)	A	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 *2	16		
CJ1W-OD234	32 outputs	1 MIL connector (40 p)	Sinking (NPN)	A	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 *2	16		
CJ1W-OD261	64 outputs	2 Fujitsu / OTAX connectors (40 p)	Sinking (NPN)	B	XW2Z-RO☐C-☐	2	G70V-SOC16P(-C4)	16	4	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *2	16		
CJ1W-OD262	64 outputs	2 MIL connectors (40 p)	Sourcing (PNP)	B	XW2Z-RO☐-☐-D1	2	G70V-SOC16P-1(-C4)	16	4	Push-in spring
							G70A-ZOC16-4 *2	16		Screw terminal
							G70D-SOC/FOM16-1	16		
					XW2Z-RI☐-☐-D1	2	G7TC-OC16-1	16		
CJ1W-OD263	64 outputs	2 MIL connectors (40 p)	Sinking (NPN)	B	XW2Z-RO☐-☐-D1	2	G70V-SOC16P(-C4)	16	4	Push-in spring
							G7TC-OC16	16		Screw terminal
							G70D-SOC/FOM16	16		
							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *2	16		

*1. The box ☐ is replaced by the cable length.
*2. 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)

8-point/16-point Units (18-point Terminal Blocks)
CJ1W-OC201/ OC211/ OA201/ OD201 / OD202/ OD203/ OD204/ OD211/ OD213 / OD212
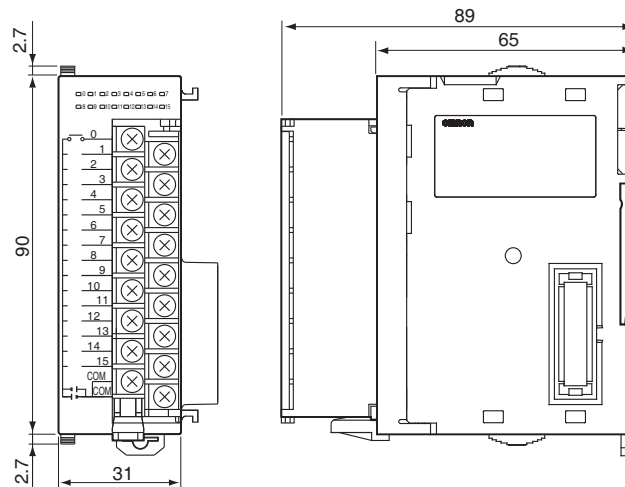
32-point Unit (Output Units)
With Fujitsu / OTAX-Compatible Connector (40-pin × 1)
CJ1W-OD231
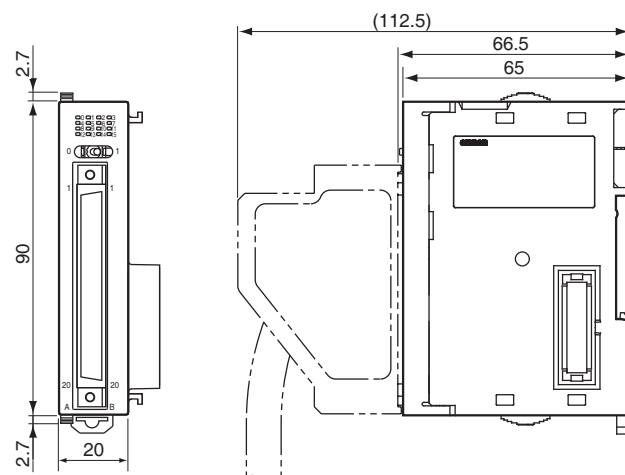
With MIL Connector (40-pin × 1)
CJ1W-OD232 / OD233 / OD234
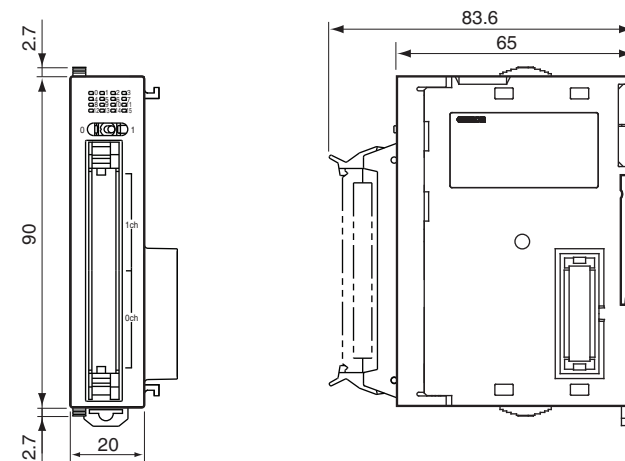
64-point Units (Output Units)

With Fujitsu / OTAX-Compatible Connector (40-pin × 2)
CJ1W-OD261
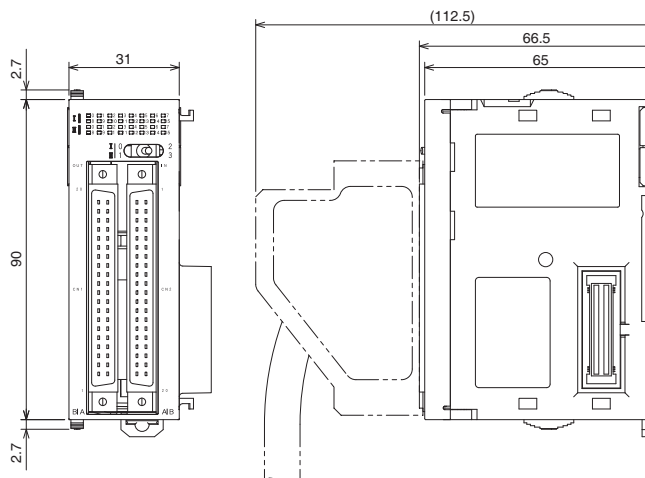
With MIL Connector (40-pin × 2)
CJ1W-OD262 / OD263
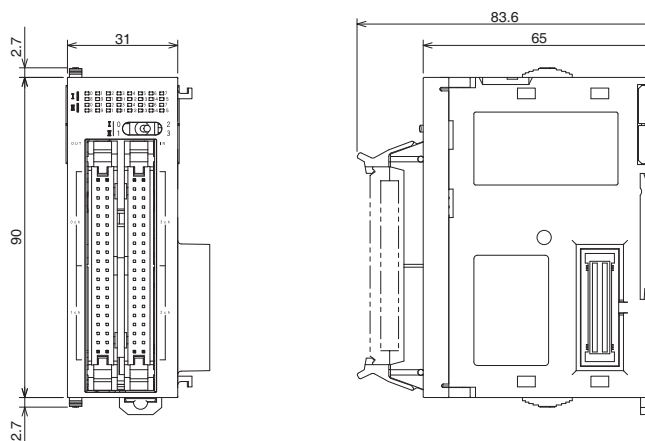
Related Manuals

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: • 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).
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. • 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).

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